

Paul Goldstein
Joseph Straus
Editors

Peter Ganea, Tanuja Garde, Ashley Isaacson Woolley
Associate Editors



MPI Studies on Intellectual Property, Competition and Tax Law

9

Intellectual Property in Asia

Law, Economics, History and Politics

 Springer

Max Planck Institute for Intellectual Property,
Competition and Tax Law



MPI Studies on Intellectual Property,
Competition and Tax Law

Volume 9

Edited by

Josef Drexl
Reto M. Hilty
Wolfgang Schön
Joseph Straus

Paul Goldstein • Joseph Straus

(Editors)

Peter Ganeva • Tanuja V. Garde

Ashley Isaacson Woolley

(Associate Editors)

Intellectual Property in Asia

Law, Economics, History and Politics



Springer

Professor Paul Goldstein
Stanford Law School
Stanford
CA 94305
USA
paulgold@stanford.edu

Professor Joseph Straus
Max Planck Institute for Intellectual
Property, Competition and Tax Law
Marshallplatz 1
80539 Munich
Germany
joseph.straus@ip.mpg.de

ISBN 978-3-540-89701-9 e-ISBN 978-3-540-89702-6

DOI 10.1007/978-3-540-89702-6

Library of Congress Control Number: 2008943237

© 2009 Springer-Verlag Berlin Heidelberg

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilm or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer-Verlag. Violations are liable for prosecution under the German Copyright Law.

The use of general descriptive names, registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Cover design: WMX Design GmbH, Heidelberg

Printed on acid-free paper

9 8 7 6 5 4 3 2 1

Springer.com

Introduction

Intellectual property rights foster innovation. But if, as it surely does, “intellectual property” means not just intellectual property *rules*—the law of patents, copyrights, trademarks, designs, trade secrets, and unfair competition—but also intellectual property *institutions*—the courts, police, regulatory agencies, and collecting societies that administer these rules—what are the respective roles of intellectual property rules and institutions in fostering creativity? And, to what extent do forces outside intellectual property rules and institutions—economics, culture, politics, history—also contribute to innovation? Is it possible that these other factors so overwhelm the impact of intellectual property regimes that it is futile to expect adjustments in intellectual property rules and institutions to alter patterns of innovation and, ultimately, economic development?

It was to address these questions in the most dynamic region of the world today, Asia, that we invited leading country experts to contribute studies that not only summarize the current condition of intellectual property regimes in countries ranging in economic size from Cambodia to Japan, and in population from Laos to China, but that also describe the historical sources of these laws and institutions; the realities of intellectual property enforcement in the marketplace; and the political, economic, educational, and scientific infrastructures that sustain and direct investment in innovative activity.

A. The Region

Although the study of a single economy can shed useful light on the impact of intellectual property rules and institutions on innovation and economic growth, comparative study of several economies can produce even more valuable insights. Why, for example, did Singapore’s science and technology infrastructures catapult that nation onto the list of countries with the highest GDP per capita worldwide, while the infrastructures of Malaysia—which, like Singapore, was carved out of the British Straits Settlements half a century ago—did not? Regional studies can also shed light on the impact of geographic proximity. Will the inflow of pirated goods from an economically more-developed country into a less-developed neighbor that lacks even the industrial facilities to produce pirated goods (for example, from Thailand into Laos) stunt the second country’s prospects for developing its own innovation infrastructures?

Asia has experienced impressive growth since the 1960s, with the exception of a period in the late 1990s. Developing Asian countries in particular have seen impressive growth rates. For instance, Cambodia’s economy grew at 13% in 2005 and 10% in 2006, while China’s economy has consistently grown at about 10% for the last two decades.¹ Japan is a positive outlier on almost every economic indicator:

¹ Data available from the World Bank, WORLD DEVELOPMENT INDICATORS, <http://www.worldbank.org>.

in terms of GNI and GNI per capita, Japan broke away from the pack in the 1960s and has far outstripped its Asian neighbors ever since. The country has also maintained strong net outflow of FDI since the 1970s. China is also an outlier, although its story is more mixed. While China's GNI has skyrocketed since the 1990s, its GNI per capita remains low. Asia as a whole has seen an increase in exports, including a rising share of high-tech products. While only three Asian economies—Japan, Taiwan, and South Korea—were on the list of Top Ten High-Tech Exporters in 1986, seven Asian economies—Japan, China, South Korea, Hong Kong, Taiwan, Singapore, and Malaysia—dominated the list in 2005.² Many Asian countries have also experienced notable increases in FDI; the headline-maker is Singapore, for which FDI now accounts for nearly 20% of GDP. China has also seen a tremendous increase in FDI, though as a share of GDP, FDI has actually decreased there.

B. Factors Affecting Investment in Innovation

One fact stands apart from all others in the country studies of national efforts to promote innovation. For whatever reason, and regardless of the specific forms that it takes, the central engine of innovation employed in all of these countries is private property rights. The economically more developed countries, such as Japan and the Asian “Tigers,” rely on the full panoply of intellectual property rights to organize investment in innovation—patents for invention, design patents, and utility models; copyright; trademark; and unfair competition—accompanied by vigorous enforcement and sophisticated administration. Less-developed countries rely on generally less robust versions of these mechanisms, and in some cases effectively sidestep patents for inventions altogether. And, as the less-developed countries evolve economically, so, too, do the rigor and sophistication of their intellectual property regimes. But the striking fact that characterizes every phase of the evolutionary continuum is that all of the countries studied—large and small, economically more and less advanced—turn to the institution of private property rights to organize investment in—and competitive access to—innovation within their borders.

So pervasive is the reliance on private property regimes that it is possible to map a country's relative advancement along the continuum of economic development by tracing the contours of its intellectual property institutions at any point in its history. In its economically most primitive stage, a country will possess neither the industrial facilities required to copy goods in commercial quantities nor the intellectual property institutions to bar unauthorized copying; even in the age of TRIPS and other trade-based international obligations, IP laws and institutions may exist on the books, but enjoy little or no practical effect in the marketplace. To take one example, although intellectual property laws have been in place in Cambodia since 2001, neither enforcement activities nor imitative industries have so far materially evolved there.

At the next stage of development, a country will possess the industrial facilities for imitative activity, but still lack effective enforcement mechanisms to shut down

² Global Insight, Inc., <http://www.globalinsight.com>.

unauthorized copying. Several countries studied in this volume—Malaysia, one of the world’s largest exporters of pirated software, is one—are at this stage. At the next stage, a country will more effectively enforce intellectual property laws that require relatively low levels of research and development investment—copyright, design, utility models, and trademark. This shift has occurred in Thailand, for example, where most IP litigation involves copyright and trademark infringement and patent cases are still relatively rare. At the most advanced stage, a country will adopt a robust system of patents for inventions, including an expert examining corps to review patent applications; Japan is an example of a country at this most advanced stage.

These stages are not always discrete, nor do they exactly track economic progress. Further, causality is not always clear, and the question inevitably persists of the relative extent to which intellectual property rights promote economic progress, and the extent to which economic progress spurs demand for intellectual property rights.

The experience of several of the Asian countries studied reveals an important economic nuance in this progression. In some countries, like Japan and South Korea, domestic-owned patents have always outnumbered foreign-owned patents. But often, at the time a system of rights (particularly a full-fledged system of patents for invention) is adopted, nationals of countries more economically advanced than the adopting country will make greater use of the system than will nationals of the adopting country, producing a net outflow of revenues from the adopting country. Usually, however, this difference will shrink within as few as ten years (as in the case of Taiwan) as use of the system by local nationals approaches that by foreign nationals. This transitional period roughly marks a country’s “tipping point” at which the national economy is thought to benefit more from rigorously calibrated and enforced intellectual property norms than norms that are more conducive to piracy. In Taiwan, for example, domestic patent propensity has increased dramatically since 1998, when the ratio of domestic invention patents to foreign invention patents was about 1:3; by 2007, it was 4:5.

Statistics on domestic versus foreign use of IP systems yield even more information about the state of a country’s economy when it is remembered that the term “patent” is sometimes used in this context to encompass three different kinds of intellectual property: patents for invention, utility models, and designs. Separating out the three kinds of patents, important trends emerge. The number of domestic utility model applications in these countries is almost always much higher than foreign utility model applications, while invention patents—which are more technologically intensive—tend to be dominated by foreigners. Thus, while the total number of domestic “patents” outnumbers foreign-owned patents in a country like Taiwan, foreign applications have always dominated invention patents (though that lead is shrinking), while domestic applications dominate the other two.

The rate at which a country progresses from one stage of the evolutionary continuum to the next will be the product of a variety of forces—history, culture, levels of education, and geographic advantage. However, one factor stands out as an index of a country’s ability to move from one stage to the next: political will.

Japan's relatively rapid progress toward innovation leadership was the product in no small part of intensely organized national efforts to catch up with the West, first, in the mid-nineteenth century and, later, following World War II. More recently, and in some ways more notably, the rapid industrialization around intellectual goods in Singapore and South Korea reveals the results of a concerted exertion of national will.

Although the country studies in this volume reveal that property rules are a *necessary* condition to the adoption of a thriving environment for innovation (including institutions capable of supporting investment in innovation), property rights are not—at least at the higher levels of innovation—a *sufficient* condition. Cultural, social, political, educational, and scientific factors also play important roles. For example, countries that have successfully developed highly innovative economies—Japan, South Korea, and Taiwan are examples—have, however gradually, moved from the historically dominant Confucian philosophy that treats individual morality rather than legal enforcement as the central norm for governance, subordinating the self to the community and preferring peaceful private settlement of disagreements over the disruption of social harmony caused by civil litigation. Increasingly, these countries are shifting toward acceptance of the rule of law, individual innovation, and litigation as a means of dispute resolution. On the other hand, some aspects of traditional Asian cultures aid in the development of IP-intensive economies. The traditional emphasis on education in many Asian countries—China, Japan, Singapore—has undoubtedly contributed to technologically intensive economies that can only exist with a highly educated population. Also, countries which have achieved political stability—China, Japan, Singapore, and Vietnam are examples—seem to have an advantage in long-term planning and in attracting foreign investment.

None of these factors alone determines economic behavior. Singapore and Vietnam both have stable governments, yet their economies have little in common. Also, there is an inevitable hen-egg problem in analyzing the role of these factors in an innovative economy. The high number of students at Taiwanese universities who concentrate in science and engineering would certainly seem to contribute to innovative industries. Yet, the fact that a strong innovation industry with good employment opportunities already exists in Taiwan may entice more students there to choose science and engineering careers. The exact way in which these factors interact to influence the development of innovative industries in particular countries is unique and complex in each case. Yet, if the country studies in this volume tell any story, it is that these factors are important, and that they do interact in the ongoing evolution of Asia as an innovation-intensive region in the world economy.

C. Acknowledgments

This volume, a collaborative venture of the ongoing research program of the Munich Intellectual Property Law Center and the Law, Science and Technology Program at Stanford Law School, owes a substantial debt to several individuals, companies, and foundations for supporting work at the two institutions, as well as at

two conferences, one at Stanford in October 2006, the second in Shanghai in October 2007.

For the work centered at Stanford, the volume owes a special debt to the Microsoft Corporation for its generous support of the Rule of Law Program at Stanford Law School which funded not only a widely-attended conference at Stanford on 21-22 October 2006, but also the work of Ashley Isaacson Woolley in editing the individual country studies and knitting them into a coherent whole, and Lynne Anderson in assisting with production of the manuscript. Without the commitment to the concept of the Rule of Law, and the unstinting support at Microsoft of Bradford L. Smith, Senior Vice President, General Counsel and Corporate Secretary; Nancy J. Anderson, Corporate Vice President and Deputy General Counsel; and Geoffrey Manne, University Academic Relations Manager for Law and Economics, this volume would not have been possible. Work on the volume was also supported by the Ewing Marion Kauffman Foundation, and we are deeply grateful to Robert Litan, Vice President of Research and Policy at the Kauffman Foundation, for his support; however the contents of the volume are solely the responsibility of the editors and authors. We are also grateful to F. Scott Kieff and the Project on Communalizing Innovation at Stanford University's Hoover Institution for their interest in these studies and their wide dissemination.

We also wish to thank Professor Tian Lipu, Director General, State Intellectual Property Office of the People's Republic of China; Professor Shan Xiaoguang and Professor Liu Xiaohai, Intellectual Property Institute of Tongji University, Shanghai; Professor Chen Zhixing, Director General, Shanghai Intellectual Property Administration and his team, especially Mr. Hong Yongqing for offering the contributors to this volume the opportunity to present their research findings within the framework of the 5th Shanghai International IP Forum, in Shanghai in October 2007. Without the financial and organizational support of the State Intellectual Property Office of the People's Republic of China and the Shanghai Intellectual Property Administration, as well as the IP Institute of the Tongji University, it would not have been possible to present the results of this project to such an eminent and skillful audience. We are also deeply indebted to the other contributors, speakers and moderators at the 5th Shanghai International IP Forum, in particular also to Dr. Jürgen Schade, the President of the German Patent and Trademark Office. Last but not least, we extend our thanks to the World Intellectual Property Organization and the World Trade Organization, which agreed to co-sponsor the Shanghai event, and to the World Trade Organization, the World Intellectual Property Organization, the United States Trade Representative, and the European Union Commission for dispatching to the earlier workshop at Stanford high-ranking experts whose suggestions and comments on the country reports contributed significantly to the quality of the entire project.

September 2008

Paul Goldstein
Joseph Straus

Table of Contents

Introduction	V
<i>Paul Goldstein</i>	
<i>Joseph Straus</i>	
List of Contributors	XIII
Treaties and Abbreviated Terms	XVII
Cambodia	1
<i>Peter Ganea</i>	
China	17
<i>Peter Ganea</i>	
<i>JIN Haijun</i>	
India	55
<i>Tanuja Garde</i>	
Indonesia	87
<i>Christoph Antons</i>	
Japan	129
<i>Peter Ganea</i>	
<i>Sadao Nagaoka</i>	
Laos	155
<i>Peter Ganea</i>	
Malaysia	167
<i>Christoph Antons</i>	
The Philippines	199
<i>Ferdinand M. Negre</i>	
<i>Jonathan Q. Perez</i>	
Singapore	233
<i>Ng-Loy Wee Loon</i>	
South Korea	259
<i>Ji-Hyun Park</i>	

Taiwan	281
<i>Paul C. B. Liu</i>	
Thailand	303
<i>Julia Sorg</i>	
Vietnam	331
<i>Viet D. Phan</i>	

List of Contributors

Christoph Antons is Professor of Comparative Law and Director of the Centre for Comparative Law and Development Studies in Asia and the Pacific at the University of Wollongong. He is a QEII Fellow of the Australian Research Council (ARC), Chief Investigator in the ARC Centre of Excellence for Creative Industries and Innovation, Adjunct Research Fellow at the Max Planck Institute for Intellectual Property, Competition and Tax Law in Munich, and Honorary Senior Fellow in the Faculty of Law at the University of Melbourne. He has published several books on law in Asia with an emphasis on intellectual property; most recently, he co-edited *Globalisation and Resistance: Law Reform in Asia Since the Crisis* (Hart 2007).

Peter Ganea is head of the Asia Department of the Max Planck Institute for Intellectual Property, Competition and Tax Law in Munich. He is also a faculty member at the Munich Intellectual Property Law Center law school, where from 2006-2007, he served as the program director. In 2005, he was a visiting professor at the Institute of Innovation Research at the Hitotsubashi University, Tokyo. His main areas of research are the economic foundations of intellectual property and the socioeconomic infrastructures of IP protection in Asia. He graduated from the University of Munich in Japanese and Chinese studies, and Economics.

Tanuja Garde is a Director for Intellectual Property Rights and Innovation at the Office of the United States Trade Representative (USTR) in Washington, D.C. She was a Herchel Smith Research Fellow at the Queen Mary Intellectual Property Research Institute in London, where she taught international and comparative patent law, and headed the U.S. Department at the Max Planck Institute in Munich. She has also taught at the Munich Intellectual Property Law Center and the University of Alicante. She is a member of the State Bar of California and has been admitted to practice before the United States Patent and Trademark Office. She has published widely on international and comparative patent law.

JIN Haijun is Associate Professor of Law and Vice Director of the Intellectual Property Teaching and Research Center at Renmin University of China. He has been a visiting scholar at Harvard Law School and the Max Planck Institute in Munich. His research specializes in IP systems and social structures and economic analysis of IP law. He is the author of *Intellectual Property Rights of Private Right* (Renmin University 2004) and the translator of *The Economic Structure of Intellectual Property Law* (Peking University 2005). He has a law degree from Southwest University of Politics and Law, an LL.M. in civil and commercial law from Renmin University, and a Ph.D. in civil and IP law also from Renmin University.

Paul C. B. Liu is Director of the Graduate Institute of Intellectual Property and the Center for Technology Policy and Law at the National Chengchi University in

Taiwan. He is on the Presidential Science Advisory Council and holds prominent positions in many technology-related associations in Taiwan. He has pioneered many recent science and technology policy developments in Taiwan and China; he was an original architect of Taiwan's Basic Science and Technology Law and author of the first Chinese textbook on computer information law. He has a Bachelor of Laws from the National Taiwan University and a Bachelor of Science in mathematics, an LL.M., and a Ph.D. in law from the University of Washington in Seattle.

Sadao Nagaoka is a Professor at the Institute of Innovation Research at Hitotsubashi University. He is also a Research Counselor at the Research Institute of Economy Trade and Industry of Japan. He has both a Ph.D. in economics and an M.S. in Management from the Massachusetts Institute of Technology (MIT) and a B.E. in Engineering from the University of Tokyo. His fields of specialization are innovation and industrial organization, and he publishes widely in international journals.

Ferdinand M. Negre teaches at the School of Law of Ateneo de Manila University. He is a founding partner of Bengzon Negre Untalan, the only exclusively IP law firm in the Philippines. He is a prominent figure in many IP-related organizations in the Philippines, and has worked at the Bureau of Patents, Trademarks and Technology Transfer (now the Intellectual Property Office) and the Bureau of Trade Regulation and Consumer Protection. He has a degree from the Ateneo de Manila School of Law and a Master of Intellectual Property from Franklin Pierce Law Center in New Hampshire. He did post-graduate studies at the Munich Intellectual Property Law Center and the Queen Mary Intellectual Property Research Institute in London.

Ng-Loy Wee Loon is the Director of the LL.M (Intellectual Property and Technology) program at the Faculty of Law, National University of Singapore, and a member of the Board of Governors of the Singapore IP Academy. She has also served on the Singapore Government Parliamentary Committee (for Law and Home Affairs), as well as on the Board of Directors of the Intellectual Property Office of Singapore. She is the author of the book *Law of Intellectual Property of Singapore* (Sweet & Maxwell 2008) and has also published widely in international journals.

Jonathan Q. Perez is a Senior Associate at Bengzon Negre Untalan, the only exclusively IP law firm in the Philippines. He is a Trustee of the Intellectual Property Professors and Researchers Organization of the Philippines. He obtained his law degree from the Arellano Law School and his Bachelor of Arts in Political Science from the University of the Philippines. He also has a good grasp of the ins and outs of the legislative system, having had a six-year stint as a political affairs officer at the House of Representatives of the Republic of the Philippines while taking up his legal studies.

Ji-Hyun Park is an attorney at Morrison & Foerster LLP. Her practice focuses on international and domestic business transactions involving intellectual property, as well as counseling on Internet-related matters, drafting various IP-related agreements, conducting IP due diligence, and researching various IP issues. She worked for two years in the WIPO Arbitration and Mediation Center in Geneva. She also held a research position at Stanford Law School, where she obtained her LL.M in Law, Science, and Technology. She earned her law degree from Yonsei University in Seoul, where she also obtained her Masters in Property Law.

Viet D. Phan is an attorney at Tran H.N. & Associates in Hanoi and Associate Lecturer of the Judicial Academy in Hanoi. He has also served as a Visiting Researcher at the Max Planck Institute for Intellectual Property, Competition and Tax Law in Munich, the Institute of Intellectual Property in Tokyo, and as a practicing attorney at law in Berlin. He has researched and published extensively about IP law and TRIPS in Vietnam, and in developing countries generally. He received a law degree from the Humboldt University of Berlin, where he wrote his thesis on regional security in Southeast Asia with respect to ASEAN and its ZOPFAN project.

Julia Sorg is a German attorney at law with a focus on intellectual property in M&A transactions. She has working experience in Asia in an international law firm and in the European Union Chamber of Commerce in China. She has worked as a research assistant at the Asia Department of the Max Planck Institute in Munich for several years. She has also been a tutor to the Masters faculty of the Munich Intellectual Property Law Center. She wrote her Ph.D. dissertation on the economic impact of TRIPS on the People's Republic of China and Thailand and she is the author of several articles about IP protection in Asia.

Treaties and Abbreviated Terms

AFTA	Asian Free Trade Area
ASEAN	Association of Southeast Asian Nations
APEC	Asia-Pacific Economic Cooperation
Berne Convention	Berne Convention for the Protection of Literary and Artistic Works
Budapest Treaty	Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure
GATT	General Agreement on Tariffs and Trade
Geneva Convention	Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms
PCT	Patent Cooperation Treaty
TRIPS or TRIPS Agreement	WTO Agreement on Trade-Related Aspects of Intellectual Property
IMF	International Monetary Fund
Madrid Agreement	Madrid Agreement Concerning the International Registration of Marks
Madrid Protocol	Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks
Paris Convention	Paris Convention for the Protection of Industrial Property
Rome Convention	International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations
OECD	Organisation for Economic Co-operation and Development
UCC	Universal Copyright Convention
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UPOV	International Union for the Protection of New Varieties of Plants
UPOV Convention	International Convention for the Protection of New Varieties of Plants
USPTO	United States Patent and Trademark Office
USTR	United States Trade Representative
Washington Treaty	Treaty on Intellectual Property in Respect of Integrated Circuits
WCT	WIPO Copyright Treaty
WPPT	WIPO Performances and Phonograms Treaty

WIPO
WTO

World Intellectual Property Organization
World Trade Organization

Cambodia¹

Peter Ganea

1. Legal Infrastructure	1
1.1. IP History and International Obligations	1
1.2. Current IP Laws	2
1.2.1. Patents, Utility Models, and Designs	2
1.2.2. Trademarks, Trade Names, and Unfair Competition	3
1.2.3. Copyright	5
1.3. IP Enforcement	7
1.3.1. Administrative Infrastructure	7
1.3.2. Judicial Infrastructure	9
1.3.3. Enforcement Reality and Legal Culture	9
2. Political Infrastructure	11
3. Economic Infrastructure	12
4. Educational and Scientific Infrastructure	13
Conclusion	14

1. Legal Infrastructure

1.1. IP History and International Obligations

Cambodia does not have a long IP history. IP legislation began in December 2001, with the enactment of the Royal Decree on Trade Marks, Trade Names and Acts of Unfair Competition (supplemented by Sub-Decree No. 46 on the Implementation of the Law concerning Marks, Trade Names and Acts of Unfair Competition of July 2006). In the following years, the legal framework was completed by the Law on Patents, Utility Model Certificates and Industrial Designs (November 2002; supplemented in May 2007 by a Declaration on granting procedures of patents and utility model certificates), the Law on Copyright and Related Rights (January 2003), and a special Regulation on the Protection of Moral Rights Violation (July 2005).

Cambodia's integration in the international IP convention framework also started relatively late, with accession to WIPO in April 1995. In September 1998, Cambodia committed itself to international industrial property protection by acceding to the Paris Convention. Interestingly, the Law on Patents, Utility Model Certificates and Designs dedicates a whole Chapter IV to "International Applications under the PCT", even though Cambodia is not yet a member to that treaty. A milestone in Cambodia's integration in worldwide intellectual property was gaining

¹ Information about Cambodia is hard to obtain. This paper is primarily based on interviews with various authorities (Economic Police, CamControl, Intellectual Property Department, Ministry of Culture and Fine Arts, Ministry of Justice), judges, and lawyers in the course of a fact-finding mission to the Kingdom of Cambodia from June 29 to July 2, 2006. The mission was conducted under the auspices of the EC-ASEAN Intellectual Property Rights Cooperation Programme (ECAP II) implemented by the European Patent Office, but this article reflects solely the opinion of the author.

membership in the WTO in October 2004, by which the country took on the obligation to implement not only adequate laws, but also the enforcement provisions of the TRIPS Agreement. Cambodia is not yet a member of any of the relevant copyright conventions, but the Ministry of Commerce is strongly committed to implementing the standards of the WIPO treaties of 1996. The present Cambodian copyright regime is largely shaped according to the Continental European copyright tradition. *Inter alia*, it respects the moral rights of authors and clearly distinguishes between creative works and interpretative or entrepreneurial endeavor of neighboring right owners.

Today, copyright and trademark infringement is rampant in Cambodia, but the international trade community has not yet complained. This is likely due to the small size of the Cambodian market. According to the statements of Cambodian officials, trademark infringement mainly occurs in the form of circulating fake products of foreign origin, as opposed to actual manufacture of infringing products. The same is said of copyright infringement in the form of music and video piracy, but this excuse rings a bit hollow, as many of the infringing CDs incorporate Cambodian music.² Patent infringement is not yet an issue, as Cambodian industries generally lack the knowledge necessary for comprehending and imitating complicated technical solutions. In sum, the industrial base is so weak that there is neither a domestic interest in IP protection nor a noteworthy capability to infringe foreign IP rights.

1.2. Current IP Laws

1.2.1. Patents, Utility Models, and Designs

The Patent, Utility Model and Industrial Design Act (the “Patent Act”) of January 22, 2003³ follows a popular legislation model in East and Southeast Asia, by combining protection for inventions, minor inventions, and designs under one law. Patents are protected for a period of twenty years from the application date, and the prerequisites are worldwide novelty, non-obviousness, and industrial applicability. Utility models, which can relate not only to products but also to processes, are protected if they possess worldwide novelty and industrial applicability. This lower level of prerequisites is reflected by a shorter protection term of only seven years. In addition to the common exclusions to patentability for discoveries, scientific theories, mathematical methods, business methods, and methods for medical treatment, Cambodia also excludes pharmaceuticals, biotechnological inventions, and plant varieties. The exclusion of pharmaceutical and biotechnological inventions will last until January 1, 2016, in accordance with the WTO Doha Declaration, postponing

² The International Intellectual Property Alliance (IIPA, which is in fact an organization composed of U.S. copyright industries) alleges that Cambodia hosts at least one infringing optical disk factory. See <http://www.iipa.com/rbc/2006/2006SPEC301CAMBODIA.pdf>.

³ An English translation can be found on the website of the EC-ASEAN Intellectual Property Rights Cooperation Programme (ECAP), which is implemented by the European Patent Office. See http://www.ecap-project.org/asean_ip_legislation_international_treaties/cambodia.html.

implementation of relevant TRIPS standards. This exclusion allows the state-owned Cambodian Pharmaceutical Enterprise to continue production of generics without fear of foreign complaints. The Patent Act provides for criminal sanctions, including a maximum penalty for repeated offences of 40 million riels (approx. US\$10,000) and up to ten years of imprisonment.

The administration of patents, including the examination of patent applications, is done by The Ministry for Industry, Mines and Energy. Despite this allocation of competency, the Patent Act cannot be applied in practice, because no examination procedure has yet been established. Once an application system is established, the examiners will still be highly dependent on search reports from abroad. This need for foreign assistance has already been anticipated by Section 31 of the Patent Act, which states that the applicant shall furnish all documents related to foreign search and examinations conducted abroad, at the request of the patent registrar.

Industrial design protection requires worldwide novelty, and the product of industrial manufacture or handicraft must have a “special appearance” and appeal to the eye. The protection of designs for replacement parts, however, is neither regulated nor explicitly excluded from protection. The term of protection is five years from the application date and can be renewed twice, for a total of fifteen years.

Invalidity challenges to patents, utility models, and designs are decided in the courts, instead of by an administrative body. It is highly doubtful, however, that the present generation of judges can deal with technically complicated invalidation cases, as they have only a basic understanding of the law generally, and very little knowledge of intellectual property.⁴

1.2.2. Trademarks, Trade Names, and Unfair Competition

The Trademark, Trade Names and Unfair Competition Act (the “Trademark Act”) of February 7, 2002⁵ and the Sub-Decree Implementing the Law on Marks, Trade Names and Acts of Unfair Competition of 2003 regulate in detail what subject matter can be registered as a trademark. Visible and three-dimensional marks that distinguish a product’s source are protected, for instance. Non-distinctive marks may be protected if they have been in use for long periods of time and enjoy good reputations within Cambodia. Collective marks and well-known marks also receive protection. Unregistered well-known marks receive protection as long as the infringing goods and the claimant’s goods are in the same category. Registered well-known marks receive additional protection against dilution, which protects against an infringer attaching the mark to non-similar goods. Non-registerable are,

⁴ The dramatic lack of legal knowledge, especially knowledge in the field of IP, is evidenced by the first (and so far only) “patent court case” mentioned by a group of judges in interviews. It turned out that this case, which occurred about five years ago, had nothing to do with patents. The plaintiff, Mobitel, was at the time the only telecommunications provider in Cambodia. It successfully used its “patent” in prepaid card technology against a competing provider. For some obscure reasons, the competent court enforced this “patent,” even though it had never been filed and would have been non-patentable due to lack of worldwide novelty.

⁵ English translation available at http://www.ecap-project.org/asean_ip_legislation_international_treaties/cambodia.html.

inter alia, signs contrary to the public morals, and signs which may mislead the public or trade circles, especially with regard to the geographical origin of the product. Additionally, marks must be used within five years from registration, otherwise they will be cancelled. In practice, the majority of trademark disputes are about such cancellation requests.

In addition to providing the prerequisites for protection, the Trademark Act in Section 19 obliges the licensor to a trademark licensing contract to control the quality of the products produced by the licensee. If such quality control is not carried out, the contract will be regarded as invalid. This provision resembles the stipulations on quality maintenance in the Chinese Trademark Act,⁶ but the sanctions in Cambodia against negligent quality control are not as harsh as in China, where the mark may be nullified and the licensor may face an administrative fine.

It is very common for domestic holders of licenses to distribute foreign brand products to file trademark-related complaints to stop the import and distribution of the same (genuine) products by others. These exclusive distribution contracts must be approved by the Ministry of Commerce, but upon approval, the license agreement turns into a sort of a positive right to prohibit any third party from distributing or importing the same product first circulated abroad. This practice seems to be backed by Section 11 of the Trademark Act, which stipulates that “the rights conferred by the registration of a mark shall not extend to acts in respect of articles which have been put on the market in the Kingdom of Cambodia by the registered owner or with his consent.” This means that the trademark right exhausts only upon first legal circulation within Cambodia, but not upon first sale in other countries. (The Patent Act in Section 44 No. (i), however, applies the principle of international exhaustion, stipulating that the patent right shall not extend to “acts in respect of articles which have been put on the market in the Kingdom of Cambodia *or outside* the Kingdom of Cambodia.”) A reasonable justification for the special exemption of trademarks from the exhaustion doctrine does not exist.⁷

Unfair competition law is codified and lists the following three forms of unfair business conduct: to cause confusion with regard to the products or services of a competitor, to denigrate the competitor, and to make misleading statements with regard to their own products or services. That the list is non-exhaustive indicates that the unfair competition provisions cover any kind of untrue and misleading statements in the course of competition.

Adequate remedies are provided for trademark infringement and unfair competition. A number of provisions are dedicated to provisional measures designed to prevent infringement and to preserve evidence at the request of the applicant. In order to obtain provisional relief, the applicant must furnish proof that infringement

⁶ See Peter Ganea & Jin Haijun, *China*, in this book.

⁷ In light of the economic importance of the different IP rights, it would be more justified to exempt patent rights instead of trademark rights from the exhaustion rule. See Peter Ganea, *Exhaustion of IP Rights: Reflections from Economic Theory* (Inst. of Innovation Res., Working Paper), available at <http://www.iir.hit-u.ac.jp/file/WP06-02Ganea.pdf>.

is ongoing or imminent, or that without provisional measures, evidence may be irretrievably lost. A security deposit is also required, which will be later used to compensate the alleged party if the claimant's request turns out to be unfounded.

Further rules relate to border measures. The provisions not only entitle the Customs authorities to proceed against cross-border infringements at the request of the infringed party, but also allow Customs to "suspend the clearance of goods in respect of which it has acquired *prima facie* evidence that importation of counterfeit trademark good is taking place or is imminent."⁸ In practice, however, Customs officers do not act *ex officio*. As with a request for provisional relief, a request for customs action must include a deposit to the Customs office for the purpose of compensating the alleged importer or exporter if the request turns out to be unfounded. After goods have been seized by Customs agents, the claimant must initiate further court or administrative proceedings within ten days from detention or the goods will be released.

In addition to civil relief, the Cambodian trademark laws provide for criminal sanctions. The criminal provisions for trademark infringement are as stringent as those in patent infringement, with a penalty of up to US\$10,000 and imprisonment of up to ten years. In a case of infringing enterprises, the principal manager will bear criminal liability, unless he can prove that he had no knowledge about the infringing activities.

As a practical matter, foreign claimants without permanent residence or a principal place of business in Cambodia are required to engage a domestic lawyer in order to obtain relief for infringement.

1.2.3. Copyright

The Copyright and Related Rights Act of March 5, 2003 (the "Copyright Act")⁹ is rooted in the Continental European author's right tradition. It regulates the moral rights of authors, including the right of paternity (to be named as the author), the right of integrity (to prohibit acts which are prejudicial to the author's honour and reputation), and the right of publication (to decide when to first publish the work). In compliance with the French dualistic copyright doctrine, moral rights are perpetually protected, whereas the economic right to exploit the work is protected for fifty years after the author's death. Moreover, the Copyright Act distinguishes between copyright for the actual author of a creative work and neighbouring rights for interpreting performers and for commercial work exploiters like phonogram producers.

According to the definition in Section 2(a), a protected work must express thoughts or sentiments in a creative way and fall within the literary, scientific, artistic, or musical domain. The catalogue of protected works in Section 7 includes, *inter alia*, computer programs and the accompanying documentation, architectural works, scientific maps, and audiovisual (cinematographic) works. As the list is

⁸ Sec. 43.

⁹ Available at http://www.ecap-project.org/asean_ip_legislation_international_treaties/cambodia.html.

exhaustive, it can be assumed that creative subject matter which does not come within any of the listed categories is unprotected.

The protected exploitation rights in Section 21 of the Copyright Act are the rights of translation; adaptation (including the right to modify and to simplify the work); rental and public lending (applying only to phonograms, computer programs, database works, and sheet music); distribution by way of sale or rental of as-yet uncirculated exemplars; reproduction; public performance; public display; and broadcast and “other means of communication to the public.” The grant of a distribution right (including rental) in not yet circulated work exemplars can only mean that the distribution right exhausts upon first sale. Only phonograms, computer programs, database works, and sheet music are exempted from this first sale, as the right owner has the right to control the rental of already sold exemplars. It remains unclear, however, how a rental right in not yet circulated exemplars of other kinds of works can ever be exercised. According to the definition in Section 2, “other means of communication to the public” covers transmission at a time chosen by the recipient (online transmission) and serves as a catch-all clause to cover unforeseeable modes of exploitation.

The exploitation rights are subject to a number of limitations, including the freedom to make copies for private purposes and to perform the work before family or friends. However, certain uses of works which would otherwise be covered by the limitations are still prohibited if they conflict with the normal exploitation of the work or otherwise unreasonably prejudice the legitimate interests of the right owner.

The copyright contract rules are quite author-friendly. Licensing and transfer contracts only apply to those rights which are explicitly stipulated in the contract. In addition, contracts are required to clarify the kind and scope of the transferred rights, such as geographical limits, objective, and duration of the contract.

Certain provisions of the neighbouring rights are unclear. For example, phonogram producers enjoy an unnecessary right to record their phonogram. Broadcasting organizations enjoy a “first lease right,” which may be best interpreted as a right to rent recordings of the broadcast. Additionally, video producers are provided with a neighbouring right which allows them to prohibit any “exchange” of their phonogram, which is probably meant as a right to distribute the phonogram.

The Copyright Act includes provisions covering the circumvention of technical measures. The circulation of devices for the circumvention of technical protection measures, the modification or suppression of digital rights information, and the circulation of work exemplars which incorporate such manipulated information are illegal. However, the law remains silent on the intangible Internet transmission of circumvention programs.

The remedies for copyright infringement include injunctions, damages, and limited provisional measures. An injunction can be obtained for ongoing or imminent infringement. Damages can be obtained as compensation for harm and moral injury, and the calculation of these damages, as in other areas of intellectual property, is determined by general civil law. Provisional measures are limited in that

they can be obtained only for the preservation of evidence, and the plaintiff must make a security deposit to compensate the defendant in case of an unfounded request.¹⁰

The enforcement section also contains special provisions on Customs actions, but delegates their detailed regulation to the Trademark Act (see above). Unlike the corresponding Trademark Act provisions, the Copyright Act only mentions Customs actions at the request of the right owner, so it seems that Customs authorities are not obliged to act *ex officio*. Additionally, the right owner must provide proof that he has filed a petition for provisional court measures and deposited the necessary security (both regulated in Section 59; see above) within ten days after Customs detention, or the goods will be released.

With regard to criminal sanctions, Section 64 defines all unauthorized production, reproduction, performance, and communication to the public as punishable acts. The maximum penalty for copyright violation is two years imprisonment for repeated piracy reproduction and a fine up to 50 million riels, which is more than US\$13,000.

1.3. IP Enforcement

1.3.1. Administrative Infrastructure

In Cambodia, an infringed party seeking administrative help may choose between three organizations: the Economic Police, CamControl, and Customs in the case of cross-border infringements.

1.3.1.1. Economic Police

Most infringement claimants resort to the Economic Police, which is a department under the Ministry for the Interior. The Economic Police are competent to deal with all kinds of economic crimes, including illegal deforestation and overfishing. Since intellectual property makes up only a small part of the daily work of the police officers, they possess little experience in IP matters. Therefore, in an IP case brought before an Economic Police unit, the officers first request that the Intellectual Property Department of the Ministry of Commerce (see below) investigate whether the claimed right is valid and establish infringement. For this, the claimant is advised to furnish substantial proof that his right is valid and protected under the law of Cambodia and other proof, such as samples of the allegedly infringing products. Alternatively, a complaint may be filed with the Intellectual Property Department, but after establishing infringement, the department will forward the case to the Economic Police to conduct on-site investigation.

After infringement has been established, the Economic Police will visit the infringer, in most cases the owner of a small shop, and try to convince him that such sale is not legal and that he would face criminal sanctions if sale continues. Many cases end at this stage if the infringer shows remorse and furnishes a

¹⁰ Sec. 59.

written statement that he will refrain from further sale. Those exceptional cases deemed to be of criminal relevance are forwarded to the public prosecutor. In spite of the fact that they form a special police force, the Economic Police refuses to act *ex officio*, admitting that it is often difficult to establish infringement with the naked eye.

Regarding compensation for economic loss, the claimant has the choice between administrative reconciliation before the Intellectual Property Department and court litigation. In light of the immaturity of the court system, legal practitioners strongly recommend the former.

1.3.1.2. *CamControl*

Another, rather insignificant enforcement authority is CamControl, a subdivision of the Ministry of Commerce. The major task of CamControl is consumer protection. It has authority to inspect goods and to halt their further circulation if they turn out to deceive consumers or threaten the public health. CamControl mainly acts when the Consumer Protection Act is breached, but it may also proceed on grounds of the IP laws, at present usually the Trademark Act. However, in cases of IP infringements, CamControl refuses to act *ex officio*.

1.3.1.3. *Customs*

Customs is the competent authority in cases of cross-border infringements. As already mentioned, Section 43 of the Trademark Act clearly entitles Customs officers to inspect and to halt the import or export of infringing products *ex officio* if there is *prima facie* evidence of infringement. In practice, however, the officers refuse to act at their own discretion because of their lack of IP knowledge and the shortage of personnel; the few personnel they have are already preoccupied with rampant smuggling.

Only where products under one of the mentioned “exclusive distribution licenses” are imported by third parties will Customs officers see themselves in the position to detain such products at their own discretion. For this, the Ministry of Commerce provides all Customs stations with a list of products under an “exclusive distribution license.”

A request for Customs proceedings must be accompanied by evidence about the expected port of entry, quantity, and proof of validity of rights. Complaints about cross-border infringement may also be filed with the Ministry of Commerce, which will then establish infringement and forward the case to the Customs office for further proceedings.

1.3.1.4. *The Intellectual Property Department*

The Intellectual Property Department under the Ministry of Commerce was founded in 1997 and is competent to reconcile all IP matters. This is true even though its superior authority, the Ministry of Commerce, is competent to administer only trademarks. The Intellectual Property Department’s competence is grounded in an inter-ministerial commission composed of the Ministry of Commerce, the

Ministry for Industry, Mines and Energy (in charge of patents, utility models, and designs), and the Ministry for Culture and Fine Arts (in charge of copyright). So far, however, it has only dealt with trademark infringements.

If the disputing parties agree on reconciliation, the Intellectual Property Department will invite them to furnish evidence of infringement. In the absence of procedural rules, the Department enjoys a great deal of freedom to urge settlement. One example is the *Mitsubishi* case, in which the complainant, a Japanese manufacturer of motorbikes, finally retreated from its claims and allowed the defendant, a distributor of fake bikes, to liquidate all the bikes it had in stock. The Intellectual Property Department promised to ensure that the liquidated bikes would not bear representations of the plaintiff's trademark. Courts regard such reconciliation as binding and refuse to move forward with such cases. If reconciliation fails, the infringed party is free to initiate a lawsuit.

1.3.2. Judicial Infrastructure

Courts do not play a major role in IP enforcement. Cambodian lawyers strongly recommend that infringed parties seek relief before one of the mentioned authorities and refrain from court action.

The Cambodian court structure is composed of provincial/municipal courts, the Appeal Court, and the Supreme Court as the last instance. Plans to restructure the court system include providing provincial/municipal courts with specialized chambers for criminal, administrative, civil, and commercial matters. Originally, the Ministry of Commerce came up with the idea of an isolated Commercial Court, but in light of the general lack of educated legal personnel, the Ministry of Justice prevailed with its idea of a chamber system. The reason for confining the chamber system to the provincial/municipal courts is that decision-making as to the facts is made by the provincial courts, and decisions as to the correct application of the law are left to the Appeals Court and the Supreme Court. The new commercial chambers should be competent to deal with IP matters. In complicated commercial trials, the panel should be composed of a presiding judge with legal background and two non-legal associate judges with expert knowledge.

1.3.3. Enforcement Reality and Legal Culture

In spite of a comprehensive set of laws on the books, the existing provisions are hardly applicable in practice because Cambodia lacks a stable and reliable enforcement infrastructure. For example, the law mentions the courts as the main addressees for complaints about IP infringements, but the vast majority of cases are not dealt with by the courts but by the various administrations (Economic Police, CamControl, Customs, and Ministry of Commerce). So far, only fifteen to twenty cases have been brought before the courts, whereas the Intellectual Property Department's arbitration body under the Ministry of Commerce has dealt with hundreds of cases, mainly in the field of trademark protection. The Economic Police and CamControl are entitled to inspect infringing shops and conduct raids, but this is not even mentioned in the laws. As clear rules on how to proceed in

cases of IP infringement are absent, decisions are often made arbitrarily.¹¹ In cases of the sale of infringing products, administrators prefer a persuasive approach, by explaining to the shop owner why it is not good to deal with counterfeit products or by urging the right owner to agree to a settlement and to refrain from filing claims. Therefore, while the substantive law is somewhat clear, the procedure for enforcement and possibility of remedy through civil or criminal court action are illusory.

The low relevance of the courts and judges has to do with the past decades of political instability and the present primacy of politics over law. After decades of instability,¹² Cambodia lacks a legal history. The violent and chaotic situation during and after the Vietnam War largely extinguished the rudimentary rule of law which had been introduced during the French protectorate (1863-1945).¹³ Today, the Cambodian judicial system is still in its infancy. The Bar was established in 1995, and none of the first thirty lawyers admitted had a legal background; the only requirement was higher education.¹⁴ Professional education of judges and lawyers only started in 2002. Since then, a bachelor's degree in law is a prerequisite for the Bar Exam or Judge's Exam.¹⁵

The lack of expertise in the courtroom favours arbitrariness and unpredictability. As a result, the judiciary is characterized as incompetent and controlled by politically and economically powerful players.¹⁶ Both the administrative agencies and the courts are susceptible to bribery and political influence. The high number of criminal charges brought against dissidents and critical journalists and editors is evidence that law is a political instrument of public control and that judges subordinate themselves to politics.¹⁷

¹¹ In an interview, Economic Police officials admitted that in case of an infringement complaint, the "power" of the involved parties would be decisive for turning the complaint down or accepting it. In one case, the exclusive domestic distributor of Alain Delon beer complained against the import of such (genuine) beer from China by a foreign embassy staff member. The case was not processed because both parties were deemed equally powerful. In another case, the sole distributor of Canon copy machines in Cambodia complained about unauthorized import and distribution of second-hand copy machines by the defendant. Here, the sole distributor was deemed powerful enough that the Economic Police forwarded its complaint to the public prosecutor. The competent court, however, rejected the complaint, stating that the exclusive distribution license would only ban others from concurring sale of new products, not of secondhand products.

¹² See "Political Infrastructure," *infra*.

¹³ M.B. HOOKER, A CONCISE LEGAL HISTORY OF SOUTH-EAST ASIA 166 *et seq.* (Oxford University Press 1978).

¹⁴ UNITED NATIONS ONLINE NETWORK IN PUBLIC ADMINISTRATION AND FINANCE (UNPAN), CAMBODIA—LEGAL AND JUDICIAL REFORM PROJECT (2001), available at <http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN004695.pdf>.

¹⁵ The preparatory courses also contain some basic lessons on IP.

¹⁶ See Human Rights Watch, Human Rights Overview: Cambodia (2006), <http://hrw.org/english/docs/2006/01/18/cambod12269.htm>.

¹⁷ See "Political Infrastructure," *infra*.

It is unclear in how far religious and cultural custom compensates for the lack of legality in the Western sense of the word. Direct dispute resolution between parties is said to be preferred over resorting to public authorities, as enforcement administrations tend to urge parties to settle their disputes. However, reluctance to resort to authorities may also have to do with the fact that stable authorities were not available during past decades, and society is still adjusting to the idea of stable government.

There are signs of hope that the legal situation will improve. Cambodia is striving to further integrate into world trade and to create an investment-friendly environment. *Inter alia*, there are concrete plans to open the Bar to foreign law firms, which would then be allowed to represent clients within the country.¹⁸ Such openness may not only contribute to a favourable investment environment, but in the long term it may also generate learning effects and familiarize domestic legal personnel with international standards of litigation practice.

The recent enactment of a comprehensive Civil Procedures Code on July 6, 2006 also gives rise to hope.¹⁹ It is too early to tell whether the new code is actually applied in court, or whether it is just another law for the books. At least a clear framework of procedural provisions may highlight the gap between the laws and their enforcement, enhancing the pressure on judges to justify their decisions.

2. Political Infrastructure

Cambodia's recent history is characterized by war and violent internal power struggles. The conflicts began prior to 1975 when the country was heavily involved in the Vietnam War, despite its official neutrality. At that time, both the United States and Vietnam sought to influence Cambodia. After the retreat of the United States in 1975, communism found its way into Cambodia. The Khmer Rouge forces under Pol Pot established a cruel regime with a Maoist imprint. Their objective was to reach the final stage of communism by a continuous purification of society. In a first stage, those who did not fit the ideal of the uneducated peasant were killed. Exact figures do not exist, but between 1975 and 1979, up to two million people were killed or died of extreme poverty. In 1979, a Vietnamese intervention stopped the killings and the Khmer Rouge fled into the jungle, where they continued their considerable military power until the mid-1990s. As a response to the massacres, a joint tribunal composed of U.N. and Cambodian members has been striving for justice since July of 2006.²⁰

¹⁸ Chris Bisogni, *New Frontiers for Lawyers in Southeast Asia*, ASIALAW, May 2008, at 23, available at <http://www.asialaw.com>.

¹⁹ An unofficial English translation prepared by the Japan International Cooperation Agency (JICA) is available at http://www.icclc.or.jp/english/equip_cambodia/pdf/e1.pdf.

²⁰ Literature on the search for a legal solution to the crimes of the past is abundant. A good overview is given by Padraic J. Glaspy, *Justice Delayed? Recent Developments at the Extraordinary Chambers in the Courts of Cambodia*, 21 HARV. HUM. RTS. J. 143 (2008).

After having freed the country of the Pol Pot regime in 1979, the Vietnamese occupied Cambodia for a decade. The United States and Thailand, however, helped the remaining Khmer Rouge survive in the jungle as a buffer against the Vietnamese. After the withdrawal of the last Vietnamese troops in 1989, Cambodia attempted to establish a civil and democratic society with the assistance of the U.N. and other international organizations. However, the Khmer Rouge, the latent instability, and the willingness of the new political players to enforce their claims with armed violence, thwarted these efforts for nearly another decade. Political power blocs lasted until 1997, which saw the last fights between the current Prime Minister's Cambodian People's Party (CPP) and the royalist *Front Uni National pour un Cambodge Indépendant, Neutre, Pacifique* (FUNCINPEC).

Presently, there is political stability, but corruption and lack of transparency still plague the country. Whether the present political stability results from a maturation of the political players or rather from a lucky constellation of political power blocs is hard to assess. Foreign observers still criticize the political decision-making as non-transparent and based on personal networks rather than on institutions and institutionalized procedures.²¹ Examples of corruption include officials and politicians accused of so-called "land grabbing" (i.e., depriving peasants of their land and selling it to investors). Severe restrictions to the freedom of expression—critical journalists face imprisonment or fines for criminal "disinformation"—allow hardly any public control of politicians.²² In 2007, Cambodia was ranked 26 of 32 on Transparency International's corruption perception index for the Asia-Pacific region.²³

3. Economic Infrastructure

Cambodia is one of the least developed countries in Asia. Its main exports are natural products such as timber and rubber, and labour-intensive processed goods including garments and wooden furniture.²⁴ The mainly agrarian economy has recently received a small boost from tourism, as Cambodia's historical sites and natural beauty attract many foreigners. In 2004, the number of foreign visitors exceeded one million for the first time. However, the economy still stagnates with an average annual per capita income of US\$2,727.²⁵

²¹ MICHAEL FLINT, ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), EVALUATION OF DFID COUNTRY PROGRAMMES, COUNTRY STUDY: CAMBODIA 1997-2003, EV 654 (July 2004), at 3, available at <http://www.oecd.org/dataoecd/61/14/36498989.pdf>.

²² See the Report of Yash Ghai, Special Representative of the Secretary-General for Human Rights in Cambodia, available at <http://daccessdds.un.org/doc/UNDOC/GEN/G07/105/37/PDF/G0710537.pdf?OpenElement>.

²³ See TRANSPARENCY INTERNATIONAL, 2007 CORRUPTION PERCEPTIONS INDEX REGIONAL HIGHLIGHTS: ASIA PACIFIC REGION, <http://www.transparency.org/content/download/23975/358245>.

²⁴ Statistics about Cambodia's foreign trade are available at <http://www.aseansec.org>.

²⁵ According to UNDP statistics of 2005, available at <http://hdrstats.undp.org/countries/>.

The agrarian sector continues to occupy the biggest part of Cambodia's economy, absorbing 75% of Cambodia's labour force. Manufacturing is also rather labour intensive; the garment industry employs about 350,000 laborers. In 2007, garments accounted for about 70% of Cambodia's exports. The rapid growth of the garment industry can be partly traced back to a Bilateral Textile Agreement with the United States, which guaranteed Cambodia fixed import quotas.²⁶

Sophisticated manufacturing plays a negligible role, as reflected in the statistics on IP rights. Between 1996 and 2007, the Intellectual Property Department granted only thirteen patents and twenty-six design rights, whereas the number of trademarks registered over the same period was 17,496 (about 70% belonging to foreign right owners).

The net inflow of foreign direct investment (FDI) amounted to impressive 6% in 2005; by comparison, China's net inflow was only 3.5%. The main source of FDI is China,²⁷ followed by Korea, Japan, Singapore, Malaysia, and Vietnam.²⁸ Malaysia has become an important source of FDI mainly due to geographic proximity.²⁹ The majority of these countries are emerging markets where labour-intensive manufacturing suffers under increasing labour costs. Even though further data on the content of FDI is not available, it can be assumed that Cambodia is mainly a target for labour-intensive investment, which is normally not accompanied by transfer of technology and other valuable assets.

The economic potential of Cambodia should not be underestimated. Whereas the legal infrastructure is still underdeveloped, the country has managed to build a fairly adequate physical infrastructure, with three international airports and ten Special Economic Zones where investors enjoy tax holidays and other privileges.³⁰ The average economic growth has remained stable at 10% over the past years, in spite of a number of crises in Southeast Asia, and if this trend continues, Cambodia may soon follow its neighbour Vietnam in terms of rapid industrialization. Then the number of "IP-relevant" industries (i.e., industries with the capability to infringe) may increase, but so will potential recipients of IP licenses from abroad.

4. Educational and Scientific Infrastructure

Since 1991, the country has managed to significantly increase school enrollment and reduce illiteracy. In 2006, 90% of children were enrolled in primary school education, up from 72% in 1991. Only about 31% of students are enrolled in secondary education, however, while the average in Asia is 69%. But this is still a significant increase from past years; in 1999, the secondary enrollment rate was

²⁶ Cambodia, in CENTRAL INTELLIGENCE AGENCY, THE WORLD FACTBOOK, available at <https://www.cia.gov/library/publications/the-world-factbook/index.html>.

²⁷ UNCTAD, WORLD INVESTMENT REPORT 2007, 45, available at http://www.unctad.org/en/docs/wir2007p1_en.pdf.

²⁸ See Bisogni, *supra* note 18.

²⁹ WORLD INVESTMENT REPORT 2007, *supra* note 27, at 21.

³⁰ See Bisogni, *supra* note 18.

only 15%. Higher education still plays a minor role: in 2006, only 4-5% of Cambodians of college age attended a university.³¹

The infrastructure for research and development (R&D) is rather underdeveloped. According to somewhat outdated UNESCO statistics, only seventeen Cambodians per million worked as researchers in 2002.³² Among them, only eighty-five individuals worked in the private sector, as compared to 249 researchers in government and fifty in higher education. A considerable part of the available brainpower was absorbed by private non-profit institutions, which employed 110 researchers. It can be assumed that the majority of these are foreign and international NGOs. The total gross expenditure on R&D in Cambodia was extremely low in 2002, at just 0.05% of GDP.³³

In sum, corporate R&D is nonexistent in Cambodia, and patents and other intellectual property rights as a means of transacting and allocating immaterial assets do not play a role in industrial policy. This may change, however, if Cambodia's economy continues its rapid growth.

Conclusion

Like many developing countries in Asia, Cambodia quickly adopted international legal standards on paper, but has not been able to provide the necessary infrastructure, resources, and manpower for their application. But Cambodia is a less problematic country than its more advanced neighbours, Vietnam and China. The prevalent form of infringement in Cambodia is distribution and sale of trademark and copyright infringing goods, not industrial production of them. Future improvements to the defective enforcement mechanisms should begin with the existing, mainly administrative infrastructure. The majority of IP infringement results from the inflow of infringing goods from outside Cambodia, which means that Customs could play a crucial role in future enforcement. To stop the inflow of infringing products, Customs could be obligated to inspect and detain infringing products *ex officio*, and its agents could be provided with basic training in how to detect infringing representations of trademarks or pirated CDs and DVDs with the naked eye.

Cambodia's economy is growing, and there is good reason to assume that the country will soon have an industrial base capable of manufacturing fakes and imitations. Then the country will no longer be a mere hub for infringing commodities produced elsewhere, but a producer and an exporter of infringing products. Or, further in the future, we may see the same change in the perception of intellectual property observed in other emerging economies: the original disinterest in intellectual property due to an agrarian economy with low relatedness to intellectual property will give way to an increased relevance of intellectual property due to increased

³¹ Statistics available at <http://stats.uis.unesco.org>.

³² *Id.*

³³ *Id.*

opportunities to infringe, increased capability to attract foreign investment, and finally domestic demand for improved protection. Such development will depend on whether the country manages to maintain political stability, and whether the present institutional deficiencies, above all the omnipresent “rule of man” ideology, can be abolished. Capital- and technology-intensive, and therefore IP-sensitive, investment will hardly take place in an environment which is characterized by unreliable political and legal institutions.

China

Peter Ganea, JIN Haijun

1. Legal Infrastructure	17
1.1. IP History	17
1.2. International IP Obligations	18
1.3. Current IP Laws	19
1.3.1. Patents, Utility Models, and Designs	19
1.3.2. Copyright	23
1.3.3. Trademark	25
1.3.4. Unfair Competition	27
1.4. IP Lawmaking	28
1.5. IP Enforcement	29
1.5.1. Judicial Infrastructure	29
1.5.2. Administrative Infrastructure	31
1.5.3. Enforcement Reality	31
2. Other Infrastructures	34
2.1. Cultural Infrastructure	34
2.1.1. History of the Legal Culture	34
2.1.2. Current Legal Culture	36
2.2. Political Infrastructure	38
2.3. Economic Infrastructure	40
2.3.1. Innovation Incentives	40
2.3.2. Foreign Investment	43
2.4. Educational Infrastructure	45
2.5. Scientific Infrastructure	47
2.5.1. Research and Development	47
2.5.2. Public/Private Innovation and Commercialization of IP	50
Conclusion	51

1. Legal Infrastructure

1.1. IP History

Prior to 1978, China had little to no IP law on the books. Rudimentary IP concepts had been present, however, in ancient texts as far back as the tenth to the thirteenth centuries. Examples of these concepts include the grant of exclusive printing and publishing rights, which is similar to European printing privileges, and an exclusive right to use certain salt distilling or iron smelting technology. A real privilege system was never developed, though, as the grant of such exclusive exploitation rights depended on the goodwill of the local authorities.¹

China's first encounter with the Western concept of intellectual property did not occur until the turn of the nineteenth century and was anything but heartening. Unlike neighbouring Japan, where the first IP rules were voluntarily introduced,² China became a pseudo-colony of Western powers (and of Japan) and never had the chance to try national IP rights and evaluate their effect on development. Instead, it

¹ PETER GANEA & THOMAS PATTLOCH, *INTELLECTUAL PROPERTY LAW IN CHINA 1 et seq.*, 205 *et seq.* (Kluwer 2005).

was forced to sign a number of bilateral commercial treaties that contained clauses on the protection of foreign copyrights and trademarks.³ Still, some people recognized that a legal instrument that had contributed to the wealth of the Western powers would not be a bad choice for China. The last acting Emperor of China fostered the idea of patent protection. In 1898, he enacted a set of patent-like rules, the Regulations on Rewards for the Promotion of Technology. These reform plans were thwarted by an antiquated court administration under the powerful empress dowager Cixi.⁴ The chaotic Republican era that followed the fall of the Empire also created a difficult environment for the adoption of novel legal measures. This difficulty was further aggravated by Mao Zedong, who denounced property of all kinds. In the early years of Communist rule, after 1949, the government attempted to establish author's remuneration systems and a dual system of inventor's certificates for patent property, but the systems were hardly applied in practice.⁵ During the Cultural Revolution, these systems became utterly meaningless.

In the course of the Third Plenary Session of the Eleventh Central Committee in 1978, a new, reform-oriented leadership under Deng Xiaoping renounced the Maoist class struggle and put economic development and social stability on the top of its agenda. One focus of the economic reform was foreign investment. Foreigners would not risk ventures in China without at least a minimum of legal protection. Beginning in the early 1980s, China enacted basic IP laws, namely the Trademark Act, the Patent Act (including protection of utility models and designs), the Copyright Act, and the Unfair Competition Act. IP legislation was accompanied by the accession to the relevant multilateral treaties on IP protection.

The establishment of a stable legal environment represented an enormous challenge for China, because at the dawn of the opening and reform policy, China lacked not only IP protection laws but legal institutions themselves.⁶ Furthermore, China had to adhere to international protection standards based on one-sided negotiations.

1.2. International IP Obligations

China's integration in the IP conventions started soon after the launch of the opening and reform era in the course of the famous Third Plenary Session of the Eleventh Central Committee of the Communist Party of 1978. In two bilateral

² In the 1890s, Japan was urged by European powers and by the United States to become a member of the then-existing multilateral conventions on IP protection (the Paris Convention and the Berne Convention), but during the preceding two decades, the country had the opportunity to experience IP rights within a purely domestic context.

³ Historical details in WILLIAM P. ALFORD, *TO STEAL A BOOK IS AN ELEGANT OFFENSE: INTELLECTUAL PROPERTY LAW IN CHINESE CIVILIZATION* 34 *et seq.* (Stanford University Press 1995).

⁴ GANEA & PATTLOCH, *supra* note 1, at 2.

⁵ For the period between 1950 and 1963, only four patent grants and six inventor certificates were recorded. See Guo Shoukang, *Patents*, in *INTERNATIONAL ENCYCLOPEDIA OF LAWS: INTELLECTUAL PROPERTY* 60 *et seq.* (Hendrik Vanhees ed., Supp. 1 1997).

⁶ STANLEY LUBMAN, *BIRD IN A CAGE: LEGAL REFORM IN CHINA AFTER MAO* (Stanford University Press 1999).

agreements with the United States, one on High Energy Physics concluded in January 1979 and one trade agreement of July 7, 1979, China committed itself to protect U.S. works on a bilateral basis and to join the UCC.⁷

Despite this early concentration on copyright matters in international negotiations, it was not until the early 1990s that China actually joined the Berne Convention and the UCC. China adhered to the Paris Act of the Berne Convention on July 10, 1992 (in force since October 15, 1992). On July 30, 1992, China joined the UCC and on January 5, 1993, it adhered to the Geneva Convention (in force since April 30, 1993), in order to appease demands from the United States, which was increasingly concerned about record piracy. The integration of the People's Republic in the world copyright community was complete with China's accession to the WIPO treaties, the WCT and the WCCT, on March 9, 2007 (in force since June 9, 2007). China is not a member to the Rome Convention, but membership in the WTO, WCT, and WCCT obliges countries to grant international protection to performers, phonograms producers, and broadcasting organizations. The Provisions on the Implementation of International Copyright Provisions of September 25, 1992⁸ provide a higher protection standard for foreigners in cases in which national provisions fall behind the international minimum protection standards. However, since the protection level was generally enhanced in the course of overhaul of IP legislation in 2000 and 2001, these provisions have become basically unnecessary.

Integration into the industrial property convention system proceeded much more quickly than copyright integration. Upon joining WIPO on March 3, 1980 (in force since June 3, 1980), the People's Republic adhered to the Paris Convention on December 19, 1984 (in force since March 19, 1985), to the Madrid Agreement on July 4, 1989 (in force since October 4, 1989), to the Madrid Protocol on September 1, 1995 (in force since December 1, 1995), and to the PCT on October 1, 1993 (in force since January 1, 1994). Since April 23, 1999, China has also adhered to the 1978 Act of the International Convention for the Protection of New Varieties of Plants.

Finally, China's accession to the WTO on December 17, 2001 and its commitment to enforce intellectual property in practice can be regarded as a milestone of China's integration into the IP convention framework.

1.3. Current IP Laws

1.3.1. Patents, Utility Models, and Designs

Prior to the reform decision of 1978, China provided for a rudimentary system of inventor certificates and exclusive patent rights. These rights were hardly applied in practice and completely lost their meaning during the Cultural Revolution. The debates around the introduction of a Patent Act after 1978 were quite controversial. The thought of granting "property" in an immaterial idea seemed peculiar to many traditionalists, and the fact that capitalistic Western governments demanded such

⁷ GANEA & PATTLOCH, *supra* note 1, at 208.

⁸ ST. COUNCIL GAZ. 1992, 988.

protection raised some opposition, as it was feared that protection of foreign intellectual property would deprive domestic enterprises of their chance to adopt foreign technology. Alternatively, the leadership recognized that without at least a minimum of legal security, foreign investors would refrain from exporting their technology to China. This was shown in the first half of the 1980s, as foreign enterprises were especially reluctant to risk a venture in China. Businesses that were willing and ready to export their technology to China would only do so at the cost of prohibitively high licensing fees.⁹

On March 12, 1984, the first substantial Patent Act of the People's Republic of China was finally enacted.¹⁰ It formed a modern body of law that followed the mainstream of world patent legislation in adhering to the first-to-file doctrine and protecting innovations that, apart from being novel, non-obvious, and industrially applicable, also had to be "technical" (to achieve a physically perceivable effect).¹¹ It also contained a number of particularities; for example, it protected three kinds of subject matter, namely "inventions," which corresponds to what is internationally termed "patent," utility models, and designs. "Patents" are granted in these three categories of protected subject matter, so the term "patent" (*zhuanli*) must be understood to mean a certificate. This particularity has prevailed until today. "Inventions" are examined as to substance, whereas utility model and design applications are only examined as to whether the formal requirements are met. As in many other developing countries, China's first Patent Act excluded a number of products deemed essential, namely pharmaceuticals, chemical products, foods, and beverages. In a 1992 amendment, such concerns were jettisoned, and product protection for these products became possible.

The introduction of utility model protection was preceded by a heated debate. Some commentators expressed their concern that protecting such minor inventions would mainly serve the interests of the industries of neighbouring Japan, which at that time were rather strong in incremental innovation. Others pointed to the good experiences in Japan and Germany, where cheap and quickly available utility model protection for smaller inventions was said to have significantly fostered innovative activity in small- and medium-scale enterprises.¹² The latter prevailed, and a reward system for smaller inventions became a fixture in the Chinese industrial landscape. This landscape was characterized by huge state-owned enterprises with low innovation potential and a rising number of non-agricultural "township and village enterprises" (TVEs) outside the state plan. Largely as suppliers of agricultural machinery

⁹ Henry R. Zheng, *The Patent System of the People's Republic of China*, 21 U.S.F. L. REV. 345, 351 *et seq.* (1987).

¹⁰ ST. COUNCIL GAZ. 2000 No. 30, at 9, *translated in* CHINA PATENTS & TRADEMARKS 2000 No. 4, at 83.

¹¹ The technicality principle is set forth in the Patent Examination Guidelines with special regard to computer software, in subsuming software "as such," i.e., mere programs which do not generate a physically perceivable effect, under the non-patentable "rules and methods for mental activities" in Section 25 of the Patent Act.

¹² Guo Shoukang, *Drafting and Promulgation of the Chinese Patent Act*, 16 INT'L REV. INTELL. PROP. & COMPETITION L. [hereinafter IIC] 267 (1985).

and equipment, the TVEs' task was to enhance the quality of existing products and techniques rather than to accomplish breakthrough inventions in large and well-equipped laboratories.

Today, nearly all utility model applications are filed by Chinese; only 1,369 of 159,997 applications filed in 2006 were from foreign applicants. As utility models remain unexamined as to substance, this figure does not reveal much about domestic innovation potential. In fact, the high number of bogus applications prompted the legislature to introduce a so-called "utility model search report" on novelty and inventiveness into the Patent Act in the 2000 amendment. The right owner may request such a report voluntarily with the Patent Re-Examination Board, in order to test the validity of his right. Moreover, if a dispute arises, the People's Court may require him to furnish such report.¹³ A quasi-legislative Supreme People's Court Interpretation with respect to the handling of patent disputes obliges the People's Courts to request such a report before accepting a utility model case.¹⁴

The introduction of design protection was required by the Paris Convention, to which China was about to become a member.¹⁵ With regard to the protection prerequisites, the legislature has opted for the patent approach requiring objective novelty, meaning that a design is required to be new and distinct from existing designs.

The mechanisms for obtaining patent protection function quite well. In spite of double-digit annual increases in applications for the three kinds of patents, the State Intellectual Property Office (SIPO) has managed to keep the backlog of pending applications under control over the last couple of years.¹⁶ The average duration of six years from application to grant must be seen in relation to annual increases in applications between 34% from 2004 to 2005¹⁷ and 20% from 2005 to 2006.¹⁸

The patent attorney system also seems to be comparably well-developed. As a prerequisite for participation in the country-wide Patent Agent Qualification Exam, applicants must have a technical qualification at college or equivalent level and at least two years of practical work experience in the legal or a technical field. The exam is rigorous; in 2004, 500 of 4,700 candidates, or 11%, passed the exam.

Patent law firms are regulated under the Patent Agencies Provisions enacted by the State Council on March 4, 1991, which contains certain requirements with regard to capital, equipment, and staff. Foreigners, much like Chinese citizens applying for a foreign patent, must seek the legal assistance of special agencies

¹³ GANEA & PATTLOCH, *supra* note 1, at 57 *et seq.*

¹⁴ *Several Provisions of the Supreme People's Court on Issues Relating to the Application of Law to Adjudication of Patent Disputes*, SUP. PEOPLE'S CT. GAZ. 2001 No. 4, at 139 (June 19, 2001).

¹⁵ Guo, *supra* note 12.

¹⁶ STATE INTELLECTUAL PROPERTY OFFICE (SIPO), WHITE PAPER ON THE INTELLECTUAL PROPERTY RIGHTS PROTECTION IN CHINA 2004, available at <http://www.sipo.gov.cn> (click on "Annual Reports").

¹⁷ In 2005, China had the highest increase rate worldwide. See Joseph Straus, *Is There a Global Warming of Patents?* J. WORLD INTELL. PROP. (forthcoming 2008).

¹⁸ *Commissioner's Message*, in SIPO, ANNUAL REPORT 2006, available at <http://www.sipo.gov.cn>.

which are entitled to handle foreign-related patent matters. Foreign business associations want to see the obligation to resort to designated agencies abolished, as many businesses which operate in China today employ qualified in-house agents. Chinese who want to file a domestic patent are free to rely on the assistance of an agency or to file the application by themselves. In practice, about 60% of domestic applicants seek the assistance of one of the approximately 500 patent agencies in China.¹⁹

Since January 1, 1994, China has been a member of the PCT. The provisions regarding application and examination procedures have been largely harmonized with the PCT since the Patent Office started receiving an increased number of applications (1,592 in 2004), and about 30% of the invention applications were international applications entering the national phase.²⁰

The grant of three types of rights under one law renders the statistical evaluation of the causation between the availability of patent protection and innovation difficult. For example, the year 2006 showed an impressive 573,178 patent applications, an increase of 20.3% over the previous year. Of these, 210,490 were for substantially examined invention patents. About 45% of all other applications accounted for utility models, 50% for design applications. Among the invention applications, 122,318 were filed by domestic applicants, 88,172 by foreign applicants (most of them from Japan, the United States, and Germany). SIPO proudly points to the trend of the last two years in which the number of domestic invention patent applications for the first time exceeded that of foreign applications. These figures, however, must be interpreted in light of the fact that applications filed by Sino-foreign joint ventures and other foreign direct investment (FDI) in China count towards “domestic applications,” and that of the 57,786 invention patent grants in 2006, 32,709 patents were granted to foreigners, as compared to 25,077 granted to domestic applicants. However, while the number of foreign invention applications has only doubled between 1998 and 2006, the number of domestic applications has quadrupled in the meantime, so that in the near future the number of invention patent grants to Chinese nationals will possibly catch up with the number of grants to foreign applicants.

There are flaws remaining in the present Patent Act even after two revisions. Some provisions which affect foreign applicants, e.g., the obligation to resort to designated patent agencies even if the respective enterprise already employs a qualified Chinese in-house agent, or the obligation to file a domestic application for an invention made in China before being allowed to file abroad, are likely to be abolished in the course of the coming Patent Act amendment. However, there are also signs of a stricter, less generous future treatment of right owners, notably foreign right owners. So far, for instance, the People’s Courts have applied the doctrine of equivalents (which is expressly mentioned as a mode of claim interpretation in an SPC interpretation of 2001) to patent infringement cases and showed itself to be

¹⁹ GANEA & PATTLOCH, *supra* note 1, at 61 *et seq.*

²⁰ For more details, see GANEA & PATTLOCH, *supra* note 1, at 39 *et seq.*

generous to right holders with respect to the patentability requirements.²¹ It remains unclear, however, whether such generosity will continue under the coming Patent Act, as the public perception of patents turns negative. Exercise of patents is increasingly criticized as “abuse.”²² Also problematic are plans to facilitate compulsory licensing, to introduce a strict obligation to indicate the origin of genetic resources, and to introduce an experimental use exemption without a system of supplementary protection certificates.

1.3.2. Copyright

China’s historical records reveal some evidence of rudimentary copyright protection as far back as the Song-Dynasty (960-1279), in which there were reports of occasional grants of exclusive printing rights. The function of these rights was similar to that of the privileges granted by local rulers and administrations in Europe from the seventeenth to the nineteenth centuries, which entitled the original publisher of printed matter to exclusively reproduce and distribute it. In China, however, such investment protection was not developed into a “privilege” system with subsequent conversion into a system vesting copyright in the creator.

The Copyright Act of the Great Qing Dynasty (Da Qing Zhuzuoquan Lü) of 1910 was the result of both foreign demands and complaints from the emerging domestic publishing industry responding to rampant print piracy. It embodied a mixture of Anglo-American and Continental European copyright theories, in that it only protected registered works but simultaneously regulated the moral rights of attribution and integrity. With some modifications, it outlasted the fall of the Empire (1911), until the new Communist government of 1949 abolished it, together with the whole previous legal system. In the early phase of the People’s Republic, there still existed some respect for authors, however. The Decision on the Improvement and Development of Publication Activities of 1951 by the General Publication Office explicitly vested copyright in the authors, not in their employing entities. Moreover, it prohibited plagiarism, unauthorized reproduction, and moral rights infringement in the form of unauthorized work alteration. In 1958, the Ministry of Culture enacted Preliminary Provisions on Manuscript Remuneration for Literary Books and Books on Social Sciences, which regulated an author’s remuneration when it was based solely on the volume of the work—the number of its pages—but not its actual success in the market (measurable by sales revenue). During the

²¹ E.g., by overruling Patent Re-Examination Board (PRB) decisions to reject applications due to insufficient disclosure. Contrary to the much stricter interpretation of the PRB, the Supreme People’s Court (SPC) held that an invention shall be regarded as sufficiently disclosed if the description in its entirety reveals the nature of the invention. See the SPC’s decision of September 29, 2005 (“corrosion prevention”), German translation in GRUR INT. 2007, 448 (comment by Peter Ganea). The famous “Viagra” decision of November 1, 2007, pointed in the same direction, in that it rejected an appeal of a number of Chinese generics producers against the lower court’s decision to uphold the patent for the Viagra pharmaceutical.

²² See Thomas Pattloch, *Abuse of IPR Is the Exception and Not the Rule*, 21 CHINA IP 30-35 (Dec. 2007) (raising concerns about the future application of Article 55 of the Antimonopoly Act of 2007, which addresses anticompetitive IP exercise).

following two decades, a radicalized political environment rendered the remuneration rules factually meaningless.²³

After 1978, copyright protection was put on the agenda again. However, even though the Chinese promised to protect foreign works in two Sino-U.S. trade agreements of 1979, concerns that such protection would be mainly in the interest of foreigners blocked the enactment of a Copyright Act for more than a decade. The General Principles of Civil Law of April 12, 1986, a kind of civil code which is still in force,²⁴ formed the first foundation for court proceedings against copyright infringements. Section 94, General Principles, explicitly entitles the author to be named in context with his work, to issue and to publish his work and to be remunerated for its exploitation. Section 118 contains further provisions on civil remedies for IP infringements, including cessation, elimination of effects, and compensation.

On September 7, 1990, a first comprehensive Copyright Act was finally enacted. It basically follows the Continental European author's right tradition in that it protects the author's moral right to be indicated as author, to make the unpublished work public, and to preserve the work's integrity. The moral rights catalogue further contains a unique "right to amend the work," which can be understood as a right of the author to make corrections if he is no longer satisfied with the content of his work.²⁵ Moreover, the Copyright Act contains a non-exhaustive list of exploitation rights and therefore a general right to exploit the work. In 2001, provisions on the unauthorized making available of protected contents for Internet access were added to the Copyright Act, but even before this amendment, the non-exhaustiveness of the rights catalogue has proven helpful to halt the unauthorized uploading of protected content on Internet servers.²⁶

In accordance with the Continental European tradition, the Copyright Act regulates the neighbouring rights of performers, phonogram producers, broadcasters, and, as a unique feature, publishers. The "rights related to copyright" section, however, is a mix of genuine neighbouring rights and specific contractual rules that regulate the relationship between authors and neighbouring right owners such as between the different neighbouring right owners themselves. In spite of much criticism,²⁷ this quite confusing melange of provisions was not abolished in the course of the 2001 amendments.²⁸

The Copyright Act also lists computer programs as a category of protected works but delegates the detailed regulation of their protection to the State Council, which, on June 4, 1991, enacted the Regulations on the Protection of Computer

²³ For more details on copyright history, see GANEA & PATTLÖCH, *supra* note 1, at 207 *et seq.*

²⁴ ST. COUNCIL GAZ. 1986, 371.

²⁵ GANEA & PATTLÖCH, *supra* note 1, at 237 *et seq.*

²⁶ See, e.g., the decision of the Beijing Intermediate People's Court No. 1 of Dec. 17, 1999, which clarifies the infringing character of the act of making available a literary work on the site of a host provider. SUP. PEOPLE'S CT. GAZ. 2000 No. 1, at 28, *German translation in GRUR INT.* 2000, 1088 (comment by Peter Ganea).

²⁷ See, e.g., Xu Chao, *Guanyu xiugai xianxing zhuzuoquanfa de chubu xiangfa—zhi wu* [First Thoughts on an Amendment to the Present Copyright Act], ZHUZUOQUAN 1995 No. 3, at 29.

²⁸ GANEA & PATTLÖCH, *supra* note 1, at 213.

Software.²⁹ The separate regulation has some particular provisions. For example, the provision that only a registered software copyright could be enforced in a court or administrative proceedings implied that computer programs were regarded as a special kind of protected subject matter of a lower protection level than “normal” copyright protected works. However, in the course of the recent amendments to the Copyright Act in 2001, software protection was largely harmonized with the protection of other kinds of works.³⁰

A particularity that highlighted China’s desire to appease foreign demands was the Provisions on the Implementation of International Copyright Conventions enacted by the State Council on September 25, 1992.³¹ The provisions granted favoured treatment to foreigners in cases where the protection level of the Copyright Act was lower than the standards of the Berne Convention, the UCC, and the Geneva Convention, to which China subsequently acceded between 1992 and 1993.³²

The overhaul of the Copyright Act on October 27, 2001 not only abolished a number of inconsistencies that rendered its practical application unnecessarily difficult,³³ but also made it fit for the information age and harmonized it with the WIPO treaties of 1996 and the TRIPS Agreement. Due to the enhanced protection level with regard to protected works and rights conferred, the above-mentioned provisions which discriminated against Chinese copyright owners have become almost meaningless, even though they are still in force.

Copyright enforcement remains problematic. In April 2007, the United States filed a complaint against China before the WTO which bemoans insufficient protection of certain U.S. works. The U.S. complaint and possible implications for China and other emerging markets will be treated below.

1.3.3. Trademark

The Trademark Act of August 23, 1982³⁴ formed the first real trademark regulation, as it protected marks as exclusive intangible property. The preceding Provisions on the Examination of Trademarks of April 10, 1963 instead formed a socialist instrument of commodity circulation control by obliging producers to attach indications of quality on their products. After 1982, producers could freely decide whether they wanted to mark their products and register their marks with the Trademark Office. Only producers of pharmaceuticals and tobacco, commodities which require certain

²⁹ ST. COUNCIL GAZ. 3/2002, 14, *translated in* CHINA PATENTS & TRADEMARKS 2002 No. 2, at 67.

³⁰ For more details, see GANEA & PATTLACH, *supra* note 1, at 216 *et seq.*

³¹ ST. COUNCIL GAZ. 1992, 988, *translated in* CHINA PATENTS & TRADEMARKS 1993 No. 1, at 98.

³² E.g., with regard to the protection of foreign compilations of mere unoriginal data, whereas compilations made by Chinese had to incorporate works to be protected.

³³ E.g., the ambiguity of copyright contract rules with regard to the transferability of copyright. The exploitation rights are now fully transferable.

³⁴ ST. COUNCIL GAZ. 33/2001, at 21 (amended version), *translated in* CHINA PATENTS & TRADEMARKS 2002 No. 1, at 69.

traceability of origin in order to protect the consumer's health, are still required to use registered marks.

One important particularity of the Trademark Act of 1982 is that it is not confined to generating economic incentives to maintain and enhance the quality, but it also obliges the trademark owner to keep to the quality promise of the mark. In case of negligent quality control, the mark may be cancelled and its owner may face correction orders issued by the local administration of industry and commerce or even administrative fines. Additionally, the Act requires that assignment and license contracts must contain clauses which oblige the assignee/licensee to maintain the quality, and in case of license contracts, the licensor is obliged to inspect whether the licensee maintains quality standards. This obligation may have serious consequences for the trademark owner. According to an Opinion issued by the Supreme People's Court, the licensor can be held jointly liable for health- or life-endangering quality deficiencies caused by the licensee, just because he is indicated as originator of the deficient product.³⁵

Apart from such particularities, the present Trademark Act forms a modern body of law that complies with international standards. Since its adaptation to comply with TRIPS, the Act protects not only registered trademarks but also unregistered well-known marks, provided that original and infringing goods belong to the same category. Registered well-known marks enjoy the widest protection, which includes protection against dilution by their attachment to dissimilar products. The recognition of such well-known marks is regulated by new Provisions for Recognition and Protection of Well-known Trademarks adopted by the State Administration for Industry and Commerce (SAIC) on April 17, 2003.³⁶ Moreover, the scope of registrable subject matter was extended to include collective and certification marks, three-dimensional marks, figures, and combinations of colors. The Trademark Act contains a clear provision on the non-registerability of marks that correspond to a geographical indication. With respect to trademark opposition and invalidation, the amendment of 2001 directed that all decisions of the Trademark Review and Adjudication Board (TRAB) are open to judicial review. Before that, TRAB decisions were final and could not be reviewed by courts.

In the area of trademark administration, the present backlog in trademark examination and registration causes huge problems. Applicants have to wait up to four years until registration, due to a chronically undermanned Trademark Office. In order to remedy the situation, future plans to revise the Trademark Act include, *inter alia*, a limitation of the examination to examining the absolute grounds for refusal.

³⁵ GANEA & PATTLACH, *supra* note 1, at 84 *et seq.* According to a Supreme People's Court decision of July 28, 2002, the fact that the General Motors trademark was attached to a car with a defective axle which caused the death of the plaintiff's family members served as evidence that GM functioned as a "producer" of that car, even though it was in fact produced under a license in Brazil.

³⁶ For a detailed explanation of the new rules and the remaining ambiguities, see Katrin Blasek, *The Protection of Well-Known Trademarks Following China's Accession to the WTO*, 36 IIC 279 (2005).

With respect to the actual use of trademarks in business practice, experts complain that the value of trademarks, as economic assets possibly worth billions of yuan, is still widely unknown among Chinese managers.³⁷

1.3.4. Unfair Competition

The establishment of the main pillars of IP protection was completed by the enactment of the Unfair Competition Prevention Act (UCA) of September 2, 1993.³⁸ It contains provisions against unfair business conduct and rules against competition constraints caused by public utilities, administrations, and/or local governments. It should be noted that this double function of the UCA does not result from ignorance towards the different functions of unfair competition and antitrust law. The legislature was well aware of the differences between these concepts. Almost simultaneously with the enactment of the UCA, the government established a working group to prepare a comprehensive antitrust law. Only for the time being, those antitrust provisions which were urgently needed, especially those on competition constraints by state or semi-state institution, were preliminarily domiciled within the UCA.³⁹ A separate Anti-Monopoly Act has been enacted on August 30, 2007. It entered into force on August 1, 2008 and rendered a number of UCA provisions, e.g. the one in Sec.7 or the one on the abuse of administrative power, or competition restricting agreements in the course of a tender (Sec.15) obsolete.

With regard to unfair competition, the UCA contains provisions:

- against counterfeiting, which partly overlap with the Trademark Act provisions, and also protect the labelling, packaging, and trade dress of a commodity;
- against so-called bribery, e.g., by the grant of secret kickbacks off the accounting books;
- against misleading advertisement, which partly overlap with the provision contained in the Advertisement Act;
- on the protection of trade secrets;
- against sale below cost, a provision which is not only important from an antitrust perspective but also helps to counter unfair acts of eliminating certain competitors by price dumping;

³⁷ See, e.g., Xiao Feng, *Zhongyao chanye haiwai shangbiao baohu mianlian tiaozhan* [Traditional Chinese Medicine Producers Face Challenges in Protecting Their Trademarks Abroad], ZHONGGUO ZHISHI CHANQUAN BAO [CHINA INTELL. PROP. NEWS], July 8, 2005, at 3 (especially regarding insufficient registration of trademarks for traditional Chinese medicine abroad); see also *Zhongguo qiye de zhishi chanquan zhi tong* [The Sufferings of Chinese Enterprises in the Context of IP], ZHONGGUO ZHISHI CHANQUAN BAO [CHINA INTELL. PROP. NEWS], Dec. 21, 2005, at 3 (bemoaning the fact that many Chinese enterprises which would have a chance to market their products abroad do not make use of the international registration system under the Madrid Agreement, to which the country became a member on October 4, 1989, just because their managers are not aware of this option).

³⁸ ST. COUNCIL GAZ. 1993, 938, translated in CHINA PATENTS & TRADEMARKS 1993 No. 4, at 89.

³⁹ QIAO RONGDE, DAS RECHT DES UNLAUTEREN WETTBEWERBS IN CHINA IM VERGLEICH ZU DEUTSCHLAND [UNFAIR COMPETITION LAW IN CHINA AS COMPARED TO GERMANY] 25 (Heymans 2000).

- against improper gifts and lotteries; and
- against defamation, which remain ambiguous with regard to the permissibility of comparative advertisement.

Section 2(1) UCA contains a provision requiring that the principles of voluntariness, equality, fairness, honesty, and credibility be respected in the course of market transactions. The courts understand this provision as a general, catch-all clause, which covers all kinds of unfair acts not explicitly addressed by the UCA. In its decision of July 17, 1998, the Higher People’s Court of the City of Beijing decided that the unauthorized submission of business data entrusted by a competitor for other purposes constituted not only a contractual breach, but also an offence against the principles set forth in Section 2(1) UCA.⁴⁰ Moreover, in its binding Interpretations Concerning Several Questions of the Application of Law to Civil Procedures Related to Internet Domain Names of June 26, 2001,⁴¹ the Supreme People’s Court stated that in cases of unfair domain name registration, an act not subsumable under the specific acts of unfair competition enumerated in the UCA, Section 2(1) of the UCA may be applied. Nevertheless, Chinese academia had reservations about interpreting Section 2(1) as a general clause.

A new UCA is under preparation, which is expected to contain a general clause that will specify stricter sanctions against unfair practices and a prohibition of the very popular pyramid sales.⁴² A future task of unfair competition legislation should be the disentanglement of the multiplicity of laws and rules that currently leads to unnecessary ambiguities and confusion, and the consolidation of rules belonging to the domain of unfair competition.⁴³ This applies especially to the protection of trade secrets. Under the present UCA, only trade secret misappropriation by “competitors” seems to be unlawful, so that, e.g., employees cannot be held liable for trade secret infringement. Further rules on protection of secret information can be found in the Criminal Law and in special administrative rules.

1.4. IP Lawmaking

At the dawn of the reform and openness policy, the Communist Party withdrew from central guidance of the economy and confined itself to the formulation of general guidelines, leaving their implementation to decentralized decision-making. Laws begin as drafts in the relevant state authority and then are submitted to the National People’s Congress. There, drafts may be reviewed by representatives of ministries and other state organizations before becoming law. In spite of the fact that the legislative process is driven mainly by the Communist Party, as independent interest groups are absent, prospective laws are sometimes heavily disputed among

⁴⁰ Summarized in SHAO JIANDONG, JINGZHENGFA JIAOCHENG [COMPETITION LAW COURSE] 41 *et seq.* (2003).

⁴¹ SUP. PEOPLE’S CT. GAZ. 2001 No. 4, at 133.

⁴² Peter Ganea & Wang Xiaoye, *China*, in WETTBEWERBSRECHT [COMPETITION LAW] 854, 863 (Friedrich L. Ekey et al. eds., 2d ed. 2005).

⁴³ Unfair competition, *inter alia*, is addressed by the Consumer Protection Act of 1993, the Advertisement Act of 1994, and the Product Quality Act of 2000.

the diverse state organizations and ministries. These organizations often seek their own political influence, but also represent important economic interests. This process is still lacking transparency, despite recent improvement, as a real public review of publicized drafts is not yet available.⁴⁴

China has had a long tradition of administrative guidance, and as a result the first IP laws are quite short and contain rather general and widely interpretable provisions. Their detailed interpretation is partly left to the State Council, which supervises the various administrations and ministries. The State Council enacts implementation provisions that are applied by the various competent IP administrations. Additionally, the Supreme People's Court is competent to enact quasi-legislative legal interpretations, e.g., the Several Provisions on Issues Relating to the Application of Law to the Adjudication of Patent Disputes.⁴⁵ The various ministries and agencies (like SIPO) under the State Council are also competent to enact further administrative regulations, guidelines, and methods, often focusing on specific problems of IP protection. Moreover, local departments enact their own rules, which are only effective within the respective locality. It is self-evident that this tangled mass of legal rules and administrative provisions on various hierarchical levels causes inconsistencies and confusion.

1.5. IP Enforcement

At the local level, the legal and administrative rules are enforced by the People's Courts, the Patent Administration Authorities under SIPO, the Copyright Administrations under the National Copyright Administration (NCA), and the Administrations for Industry and Commerce under the State Administration for Industry and Commerce (SAIC).

1.5.1. Judicial Infrastructure

China's court hierarchy is composed of Basic People's Courts on the county and city level, followed by the Intermediate People's Courts on municipal district and prefecture level, and Higher People's Courts on the provincial level. The highest judicial authority is the Supreme People's Court, which also has some legislative authority.

Many People's Courts have been equipped with specialized IP chambers, but the expertise accumulated in such chambers varies regionally. Most IP cases are brought before the People's Courts in Beijing and Shanghai, which are said to have accumulated the most IP experience. The Beijing Intermediate People's Court No.1 has first-instance jurisdiction in cases regarding the review of Patent Office decisions. Apart from deciding cases, the Higher People's Courts in Beijing and Shanghai are involved in the compilation of case collections and publication activities. The Beijing Higher People's Court also issued some detailed interpretation

⁴⁴ Zong He, *Encourage Public Views of Laws*, LEGAL DAILY, Aug. 18, 2005, available in English at http://www.chinadaily.com.cn/english/doc/2005-08/18/content_470113.htm.

⁴⁵ SUP. PEOPLE'S CT. GAZ. 2001 No. 4, at 130.

rules (so-called “opinions”) on how to deal with Certain Aspects of Establishing Patent Infringement. These rules,⁴⁶ however, can only serve as reference material. Only the Supreme People’s Court is allowed to issue binding interpretation provisions and some of its recent decisions contradict the “opinions.”⁴⁷

The 2000-2002 amendments to the Patent Act, Trademark Act, and Copyright Act entailed a number of clarifications in order to improve enforcement. *Inter alia*, the laws now provide clear rules on how to determine damages, namely according to the plaintiff’s loss, according to the infringer’s revenue, or according to license analogy if determination by the first two methods is not feasible. The new damage assessment rules are a result of foreign complaints about insufficient damages. With regard to the amount of damages, some recent decisions give rise to hope,⁴⁸ but a stable trend towards adequate damages is not yet visible.⁴⁹ Another newly introduced instrument of enforcement is the preliminary injunction. The Supreme People’s Court has promulgated various interpretation provisions of further advice to help the lower courts interpret the new rules.⁵⁰

A set of new administrative and judicial rules accompanied the basic IP laws and included substantial improvements. A very important judicial interpretation, which resulted from U.S. demands in the course of the fifteenth annual meeting of the Sino-U.S. Joint Commission on Commerce and Trade in April 2004, is the Supreme People’s Court’s and the Supreme People’s Procuratorate’s Interpretations Regarding the Concrete Application of Law in Handling Criminal Intellectual Property Cases of November 11, 2004. *Inter alia*, these interpretations clarify and lessen the thresholds for criminal prosecution, include contributory infringement in the scope of criminally prosecutable acts, and widen the grounds of the “for profit” requirement to constitute a prosecutable act (e.g., revenue from advertisement in case of making protected contents available on the Internet). The USTR welcomed the new rules but simultaneously argued that they are still an insufficient deterrent against piracy and counterfeiting.⁵¹

⁴⁶ CHINA PATENTS & TRADEMARKS 2002 No. 3, at 78.

⁴⁷ See, e.g., the decision of the Supreme People’s Court of August 22, 2005, which clearly denies the so-called “superfluous definition” principle, according to which infringement can be established even if the defendant’s solution lacks an element of the patented invention, provided that this element is in fact not necessary to accomplish the inventive aim, *see* GRUR INT. 2006, 164 (transl. and comment by Peter Ganea). In contrast, the above-mentioned opinions of the Beijing Higher People’s Court acknowledge the superfluous definition principle.

⁴⁸ GANEA & PATTLACH, *supra* note 1, at 312 *et seq.*

⁴⁹ Unpublished decision of the Beijing Intermediate People’s Court No. 2. *See infra* note 62.

⁵⁰ The IP-related interpretations can be found in GANEA & PATTLACH, *supra* note 1, app.

⁵¹ In its Out-of-Cycle Review on China of April 29, 2005 and in the 2006 Special 301 Report, the USTR still states a number of deficiencies. These include the categorical exclusion of a variety of infringements from criminal liability (e.g., making protected contents available on the Internet for non-profit purposes) and the fact that, to test whether an infringement is “severe,” the calculation of sales revenue is made on grounds of the price of the infringing product instead of the legal version. *See* USTR, OUT-OF-CYCLE REVIEW RESULTS, available at http://www.ustr.gov/assets/Document_Library/Reports_Publications/2005/2005_Special_301/asset_upload_file835_7647.pdf.

1.5.2. Administrative Infrastructure

The fact that the judicial framework is still under construction necessitates a particular “dual enforcement” by courts and administration. The court system is continually criticized, despite recent reforms, for its costly and lengthy procedures, unpredictable decisions, and insufficient remedies, especially in the area of damages.⁵² Administrative proceedings are said to be less costly and quicker, but produce results no better than court proceedings. In the course of the IP amendment wave between 2000 and 2001, the quasi-judicial competences of the administrations were considerably curtailed. *Inter alia*, local administrations are no longer competent to determine damages, which are regarded as a matter of private interest between the disputing parties. They are only allowed to order cessation from infringement and to impose administrative fines against infringers who have distorted the market order. The specialized administrations may, however, hear damage matters upon the explicit request of the parties, and then the administration will act as a mediator. A party which is dissatisfied with such a mediation result, however, is free to institute civil proceedings before a court. This is a positive change, as before the amendments, when the administrations were still competent to determine damages, administrative damage assessment could only be reviewed in an administrative court procedure.⁵³ It remains the task of the People’s Courts to determine the damages for the directly injured party in a civil procedure. Less positive, however, is that right owners who request administrative action are normally banned from participating in further proceedings, as administrative proceedings are regarded as a public, and no longer a private, matter.⁵⁴

With regard to border enforcement, the new Provisions on Customs Protection of Intellectual Property Rights of December 2, 2003 include a number of clarifications regarding procedural matters and facilitations for the right owner, such as clear provisions on the assurance to be deposited in case of a detention at the request of the right owner, and the abolition of registration as prerequisite for customs protection.⁵⁵

1.5.3. Enforcement Reality

Present Chinese IP enforcement mirrors the experience in other developing countries that were urged to adhere to unfamiliar legal standards, namely that modern

⁵² Examples of court decisions that rather deter right owners from pursuing their rights are given by Li Hua, *Major Problems of IPR Protection in China: A View of Civil Procedure*, 8 EUR. INTELL. PROP. REV. 285 (2005). In one case, evidence that the plaintiff collected by test purchases of pirated software was not admitted because the court regarded the test purchases as unfair entrapment.

⁵³ For more about the dual enforcement, see GANEA & PATTOLOCH, *supra* note 1, at xiv, 289 *et seq.*

⁵⁴ Benoit Misonne & Paul Ranjard, *Study 12: Exploring China’s IP Environment*, in COMMISSION OF THE EUROPEAN COMMUNITIES, *STUDY ON THE FUTURE OPPORTUNITIES AND CHALLENGES OF EU-CHINA INVESTMENT RELATIONS* (2007), available at http://trade.ec.europa.eu/doclib/docs/2007/february/tradoc_133314.pdf.

⁵⁵ For details, see Yu Xiang, *The New Regulations Regarding Customs Protection of Intellectual Property Rights of the People’s Republic of China*, 36 IIC 835 (2005).

laws transplanted from the West exist only on the books but are of little practical relevance. In China, the gap between law on the books and actual enforcement is the problem, not so much the remaining shortcomings of the present legislation. U.S. software and entertainment industries and European business associations bemoan a strong reluctance of the enforcement authorities to apply and to enforce the laws. Within two decades, China has developed an industrial and technological base sophisticated enough to enable not only the rather primitive form of copying, namely trademark and copyright piracy, but also the imitation and re-engineering of products which incorporate protected ideas. Legal development is far behind this advanced state of economic and technological development.

In the 1990s, rampant copyright piracy had already harmed the entertainment and software-based U.S. economic sectors to an extent that prompted the USTR to threaten China with severe trade sanctions. Twice, in 1992 and 1995, both countries found themselves at the verge of a trade war over intellectual property, and both times, mutual trade sanctions were averted literally at the last minute, on the day before the USTR would have imposed measures under Section 301 of the U.S. Trade Act. Each dispute ended with a Memorandum of Understanding (MOU), in which the Chinese promised to improve IP protection by closing piracy factories, establishing IP task forces with quasi-police competences, and improving the quality of court and administrative enforcement. Each time, however, U.S. hopes for an improved IP enforcement system turned out to be illusionary. The Chinese efforts at best resulted in short-term campaigns, including spectacular mass destruction of copyright and trademark-infringing items, but after a while, new pirate factories emerged.⁵⁶

The United States continued to focus on China. The USTR Out-of-Cycle Review on intellectual property in China released on April 29, 2005,⁵⁷ for instance, accused China of not adhering to its promise made in the course of the JCCT Meeting in April 2004, namely to make serious efforts to curb country-wide piracy and to comply with the TRIPS provisions on practical enforcement. The 2006 Special 301 Report continued to list China at first place on the Priority Watch List and speaks of some progress which is by far not sufficient.⁵⁸

⁵⁶ Whereas the first MOU of January 17, 1992 was still characterized by some trust in the ability of the Chinese to enforce their laws in that it merely obliged China to accede to Berne Convention and to the Phonograms Convention, the second MOU of February 26, 1995 already addressed the improvement of actual enforcement, in that it obliged China to close a number of identified piracy factories, to establish IP task forces throughout the country, to grant national treatment to U.S. right owners in terms of civil litigation costs, etc. In the following years, the United States learned that the promised concrete measures were confined to short-term campaigns. Therefore, a third round of trade disputes was concluded by an Agreement of June 17, 1996, in the run-up to which China closed newly established piracy factories and thousands of illegal movie presentation rooms.

⁵⁷ See OUT-OF-CYCLE REVIEW RESULTS, *supra* note 52.

⁵⁸ See *Priority Watch List*, in USTR, 2006 SPECIAL 301 REPORT, available at http://www.ustr.gov/Document_Library/Reports_Publications/2006/2006_Special_301_Review/Section_Index.html.

In 2007, the conflict culminated in two WTO complaints of the United States against China, mainly because of copyright piracy. One of the complaints is only indirectly related to copyright infringement, in that it accuses China of restricting market access to U.S. copyright-intensive industries. The absence of legal U.S. material due to such restrictions would form an additional incentive to meet consumer demand with infringing copies.⁵⁹ The other complaint directly addresses the problem of copyright and trademark infringement and accuses China of neglecting its international commitment of ensuring effective enforcement. In detail, it lists too-high thresholds for criminal enforcement, the freedom of Customs authorities to put seized infringing products back to market circulation upon removal of the infringing label, non-protection of foreign works as long as they are under censorship review, and a legal wording that can be understood as qualifying infringing “reproduction and distribution” as one criminal act, so that infringers who only reproduce but not also distribute would not have to fear criminal liability.⁶⁰

It should be noted that these complaints cover only a small part of the accusations raised elsewhere, e.g., in the USTR Watch Lists, which, *inter alia*, bemoan local protectionism and regional quality differences in enforcement, reluctance of administrations to transfer cases to the courts for further criminal prosecution, opaque court procedures, etc. The accusations finally brought before the WTO are basically limited to shortcomings that could be remedied by amendments to the laws and regulations. A plausible reason for the reluctance of the United States to also address the “behavioural” rather than legal shortcomings may be that such accusations could be easily countered by the Chinese, e.g., with reference to Article 41(5) of TRIPS. The provision is widely interpreted as releasing members from the obligation to devote more resources to IP enforcement than to law enforcement in other areas.⁶¹

With regard to copyright infringements, the USTR alleges China’s infringement level (i.e., the share of pirated subject matter in all books, data carriers, etc. stemming from China) to be 85-95%. And indeed, within China, infringing end products can be purchased at every corner. Consumers know of the infringement in the case of faked luxury goods, but often do not know in the case of products bearing

⁵⁹ USTR, *WTO Case Challenging Market Access Restrictions in China on Products of Copyright-Intensive Industries* (fact sheet) (Apr. 9, 2007), available at http://www.ustr.gov/assets/Document_Library/Fact_Sheets/2007/asset_upload_file971_11063.pdf.

⁶⁰ USTR, *WTO Case Challenging Weaknesses in China’s Legal Regime for Protection and Enforcement of Copyrights and Trademarks* (fact sheet) (Apr. 9, 2007), available at http://www.ustr.gov/assets/Document_Library/Fact_Sheets/2007/asset_upload_file908_11061.pdf. It seems, however, that this ambiguity has been resolved by additional interpretation provisions to the Supreme People’s Court’s and the Supreme People’s Procurator’s Interpretation of Several Issues of Concrete Application of Laws in Handling Criminal Cases of Infringing Intellectual Property issued on April 5, 2007. They clarify, *inter alia*, that the term “reproduction and distribution” should not be read as one infringing act but that it means that either reproduction or distribution can be separately prosecuted.

⁶¹ See Peter K. Yu, *Wrong Time, Wrong Venue—The United States Shouldn’t Take Complaints About Chinese IP Enforcement to the WTO*, 9 IP L. & BUS. 20 (2005) (warning the United States that a complaint before the WTO could be countered with this provision).

infringing trademarks of high-tech enterprises or misleadingly labelled pharmaceuticals. Infringers have little incentive to change, as they can count on the enforcement authorities' sympathy. In a suit jointly filed by the luxury trademark companies LVMH, Chanel, Burberry, Prada, and Gucci against the operator of Beijing's Xiushui silk market, a famous tourist spot where masses of fake luxury goods are openly sold, the Beijing Intermediate People's Court No. 2 determined a damage of 100,000 yuan (about US\$12,000), to be distributed in equal shares among the plaintiffs.⁶² Infringing products are not only sold in China but shipped to all corners of the world. According to the figures in the 2006 Special 301 Report, the total value of infringing products from China, including not only harmless fashion goods but also pharmaceuticals, car parts, and industrial equipment seized by U.S. Customs in 2005 amounted to US\$63.9 million.

2. Other Infrastructures

Why has China not yet managed to substantially improve its IP protection, in spite of so many foreign complaints? Some commentators refer to an indigenous affinity of the Chinese towards copying, which stems from the high regard in which the imitation of styles of old masters on the fields of poetry or calligraphy was held over millennia.⁶³ This explanation appears questionable, as the arduous imitation of old styles can hardly be equated with the industrial reproduction of CDs. There must be better explanations for the present problems. In the following, we will highlight those socio-economic factors that have a positive or negative impact on the emergence of an IP consciousness in dynamic respects. We will look at the general attitude towards law, the political environment in which IP laws are enacted and enforced, and the industrial environment in which IP rights are exercised. Finally, we will investigate the capability of the educational and scientific environment to generate the engineers and scientists so crucial to the future of intellectual property in China.

2.1. Cultural Infrastructure

2.1.1. History of the Legal Culture

China is widely known as the origin of Confucianism, a state philosophy that emerged in the sixth century B.C., which prefers good conduct on grounds of personal virtue over adherence to publicly announced legal rules. Over two

⁶² Reported in Johnny Erling, *Milde Strafe für Produktfälscher: Pekinger Gericht gewährt Prada, Gucci & Co. minimale Entschädigungen*, DIE WELT, Dec. 24, 2005, available at <http://www.welt.de/data/2005/12/24/822549.html>. Unfortunately, the original wording of the decision is not available. Section 56 of the Trademark Act contains clear stipulations on how to assess damage, namely according to the infringer's benefits or according to the plaintiff's losses. If the damage is not assessable by one of these methods, the court may also establish a statutory damage up to RMB 500,000. It seems that the court has applied the last method. The Special 301 Report complains that the Xiushui Silk Market has not been closed down.

⁶³ See, e.g., ALFORD, *supra* note 3, at 25 *et seq.*

millennia, Confucianism has been the prevailing intellectual justification for the several imperial dynasties.

Such state theory, however, was not the ground upon which the Chinese Empire was founded in the third century B.C. The country was instead unified and elevated to an Empire on grounds of so-called “legalism,” a theory which subjected the people to clearly announced and strictly enforced rules. It was in the period of the Warring States (403-221 B.C.) when a certain Han Fei (280-223 B.C.), a noble of the state of Han, claimed open legal rules which should be applicable to all members of society without distinction. Only indiscriminate adherence to the same rules by each peasant, noble, soldier, and official could secure incorruptibility. The thought was that a state comprised of incorruptible individuals would become wealthy and sooner or later strong enough to supersede its neighbours. Han Fei regarded men as selfish and evil, and the best method of keeping them under control would be the fear of legal sanctions. His ideal of a community was that of an out-and-out organized state which subjected its citizens to publicly announced, effectively enforced rules.⁶⁴ The concept of “rule of law” was therefore not alien to Chinese history, even though it was limited to the regulation of the relationship between the ruler and its subjects and remained silent on civil transactions.

The rulers of the neighbouring state of Qin became aware of legalism as a possible instrument of nation-building. According to ancient reports, Han Fei was sent to Qin as a diplomat, where he died under obscure circumstances. His theory prevailed, however, and in the following years, the Qin state translated his ideas into policy. Qin managed to subdue the other Warring States and its king became the first emperor of China. Within a short time, the Empire was rebuilt similar to an ant colony, in that it was firmly organized in the interior and capable of defending itself against the barbarians from the outside. Laws were enacted and publicly announced. Sanctions for offences against the law were severe and the cruelty of law was not least among factors that led to upheavals after the Emperor’s death and threw the country into chaos and civil war again.⁶⁵

The dynasties that followed the short Qin Dynasty (221-208 B.C.) renounced the legalistic theory. After a while, Confucianism, the antipode to Han Fei’s legalism, re-emerged as the prevailing state philosophy. Confucius, a philosophical teacher who in the sixth century B.C. offered his services to the various kings and nobles of the Warring States, preferred virtue of man over rule of law. Like legalism, his teachings followed an egalitarian ideal, in that both rulers and the ruled had to adhere to a common concept, which, however, was not law but personal virtue.⁶⁶

⁶⁴ James R. Landers, *The Political Thought of Han Fei*, 15 (1972) (unpublished Ph.D. dissertation, Indiana University).

⁶⁵ HERBERT FRANKE & ROLF TRAUZETTEL, *DAS CHINESISCHE KAISERREICH [THE CHINESE EMPIRE]* 77 (Fischer 1968).

⁶⁶ In the chapter “Wudu” (Five Vermin) of the collection of his writings, Han Fei illustrated the difference between his teachings and Confucianism by the anecdote of a deserting soldier who justifies his act with concerns that if he were killed on the battlefield, nobody would be there to take care of his aged father. Whereas Confucius would approve such filial piety, legalistic theory would punish such non-loyalty to the state.

According to the meritocratic ideal of good officialdom, only those who proved in country-wide exams that they had internalized virtue by studying Confucius's thoughts should be appointed to administrative posts, irrespective of status and birth. Good administrative conduct should be secured by personal virtue adopted through studying the classics. Laws and rules played a minor role. They were refuted as having a bad educational effect because they clarified to which extent an individual could pursue his selfish interests without having to fear sanctions.⁶⁷ In absence of laws, rights and obligations depended on personal relationships rather than on legal entitlement.⁶⁸ Therefore, over millennia, the Chinese familiarized themselves with establishing or joining coalitions on a highly informal, personalized basis in order to enhance their transaction security and to achieve their economic goals.

After the fall of the Empire, China was not able to establish a legal system that was compatible with Western standards. Here China was unlike its East Asian neighbours, which also originally adhered to similar traditions. Japan, for example, after 1868, overthrew the caste order of Samurai knights, peasants, and townspeople, and made serious efforts to adopt foreign legal concepts in order to become as rich and powerful as the Western powers.⁶⁹ Post-imperial China after 1911, however, was paralyzed by internal power struggles. From a legal viewpoint, the Communist order that followed after 1949 can be regarded as a return to Confucian traditions, as both Communism and Confucianism hold laws in low regard and suspect those who claim legal rights as favouring their private interest over that of the community. The Cultural Revolution destroyed even the rudiments of a legal culture as the stability and predictability of legal rules were regarded as obstacles to perpetual class struggle.

2.1.2. Current Legal Culture

When China opened up, there existed nothing which could have served as the basis for the establishment of legality. Today, after thirty years of reform, legal training at the university level is still under construction. In 2001 (newer data could not be obtained), less than one fifth of China's judges had a complete legal education.⁷⁰ Ignorance of law goes hand in hand with obsequiousness towards political

⁶⁷ See ALFORD, *supra* note 3, at 20 (citing a statement of Confucius in the famous *Lunyu* (Analects), according to which those who are regulated by laws avoid wrong-doing to escape sanctions, not due to a sense of honour or shame).

⁶⁸ See Gert Kaminski & Oskar Weggel, *Das Recht und die Massen: Recht und Rechtspflege in China [The Law and the Masses: Law and Judicature in China]*, in 10 BERICHTE DES ÖSTERREICHISCHEN CHINA-FORSCHUNGSINSTITUTS [REPORTS OF THE AUSTRIAN CHINA SCIENCES INSTITUTE] 4 (1977).

⁶⁹ IP especially was perceived as a tool of strengthening the nation. See Christopher Heath, *Japan, in INTELLECTUAL PROPERTY LAW IN ASIA 173, 175 et seq.* (Christopher Heath ed., Kluwer 2003); see also Peter Ganea & Sadao Nagaoka, *Japan*, in this book.

⁷⁰ According to Eric W. Orts, *The Rule of Law in China*, 34 VAND. J. TRANSNAT'L L. 43, 65 (Jan. 2001), this means that the vast majority of judges have no university degree in law. At least 80% of the judges, however, have at least some legal knowledge, obtained in a two-year course at the college-level. Moreover, in 2001, only 150,000 lawyers were available to 1.3 billion Chinese.

demands. Today, if a non-local accuses a local company of IP infringement, it is very likely that the judge will consult both the local party and government representatives, who often have a strong interest in protecting local infringers. During court procedures, trial court judges often consult the judges of the next higher court, in order to ensure in advance that their judgement will not be criticized as erroneous in the next instance. They conduct *ex officio* investigation, hedge their bets, and finally arrive at decisions which incorporate more than a mere determination of who is right and who is wrong in the light of the legal provisions.⁷¹ Under such circumstances, court proceedings hardly result in fair remedies for plaintiffs' losses.

The underdeveloped legal culture affects all aspects of law, not only IP protection. Intellectual property is one of the most complicated legal areas, which even in developed nations hardly belongs to the standard repertoire of the average lawyer. The ideal solution would be a general and comprehensive reorientation towards legality, but at the present stage of transformation this would probably ask too much of the political establishment. Even though legal reforms at the dawn of the 1980s were motivated by the drive for stability and prosperity after decades of chaos and insecurity, politics still has primacy over the law,⁷² and the party and government are certainly not willing to leave the wheel to an independent judiciary that would be competent to contest their political legitimacy.⁷³ The political dominance over law also affects enforcement of rather non-political patents, copyrights, or trademarks. Local judges cannot simply order the closure of a factory or impose ruinous fines on a local infringer, as the loss of jobs for locals and inevitably would cause public outcry. It must be kept in mind that China is still far from a civil society, which was the background from which Europe and the United States acknowledged intellectual property as a private right. The examples of culturally similar neighbours Japan, South Korea, and Taiwan, which have managed to develop to more or less mature civil societies, give some hope. But China, unlike many of its neighbours, which adopted Western legal concepts mainly under U.S. command, was neither occupied nor otherwise under foreign influence during the decades after the Second World War. Furthermore, China's sheer size and the low controllability of its heterogeneous population aggravate the lasting implementation of legality.

⁷¹ GANEA & PATTLACH, *supra* note 1, at 294 *et seq.*

⁷² Orts, *supra* note 70; *see also* Scott J. Palmer, *An Identity Crisis: Regime Legitimacy and the Politics of Intellectual Property Rights in China*, 8 IND. J. GLOBAL LEGAL STUD. 449, 471 *et seq.* (2001). Palmer refers to the *Kellogg's* case of 1995, in which the Higher People's Court in the second instance established infringement of the Kellogg's trademark, thereby overturning the previous decision which released the defendant of any liability for infringement, obviously on grounds of regional protectionism. The second-instance decision, however, is also alleged to have merely reacted to political demands, apparently due to concerns that a decision in favour of the infringer would have too openly contravened the MOU just concluded with the United States.

⁷³ *See also* LUBMAN, *supra* note 6, at 131.

2.2. Political Infrastructure

As noted above, the traditional concept of “rule of man” is still prevalent in China, and the law is perceived as an instrument of enforcing political goals. Since the Chinese government tolerates or even tacitly encourages IP infringement, are the IP rules then only smoke and mirrors?

It seems that this question cannot be simply answered with an unequivocal “yes” or “no.” Doubts about the Chinese government’s eagerness to protect intellectual property are likely substantiated, but lack of political will to protect foreigners cannot be the only reason for the insufficiencies, especially if we consider that the vast majority of right owners who actually resort to the courts and to the administrations are Chinese.⁷⁴ The government is certainly interested in absorbing foreign technology at the lowest possible cost. In addition, industrial-scale IP infringement generates jobs. These jobs would naturally be lost in the case of stricter protection, and the remaining legal industries would not be able to absorb all released workers.⁷⁵ This can explain the government’s alleged reluctance to improve enforcement, especially against labor-intensive trademark and copyright piracy.

Furthermore, China’s IP laws result from commitments made in order to become an accepted member of the world trade community rather than from recognition that IP laws would foster innovation and economic development in the domestic context. The main motivation for the introduction of IP rules in the 1980s was without a doubt the appeasement of foreign demands, as at the dawn of IP legislation, no noteworthy innovative domestic industries existed that would have claimed such protection. In addition to the pressure of foreign demands, the government also realized that without IP protection, the desired technology-intensive, IP-sensitive investment would stay away.⁷⁶

Ideally, the absorption of foreign technology should proceed *within* a system of legal rules and not in form of wild and uncontrolled misappropriation. This is evidenced by a set of technology transfer rules introduced in the mid-1980s. The rules controlled and channelled technology imports by an examination and approval system under the Ministry of Foreign Trade and Economic Cooperation (MOFTEC, since renamed the Ministry of Commerce, or MOFCOM) and quite openly favoured Chinese parties in technology contracts. In addition, the old Foreign Trade Act contained a number of technology import provisions that restricted the subject matter of contracts, for example, by prohibiting clauses on competition restriction or grant-back clauses and by fostering technology diffusion. Licensees enjoyed the

⁷⁴ See Misonne & Ranjard, *supra* note 55.

⁷⁵ See Keith E. Maskus, *Intellectual Property Challenges for Developing Countries: An Economic Perspective*, 2001 U. ILL. L. REV. 457, 467 *et seq* (2001).

⁷⁶ According to Keith E. Maskus, *The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer*, 9 DUKE J. COMP. & INT’L L. 109, 132 (1998), firms with technologies and products that are easy to copy are especially sensitive to the ability of the potential host countries to protect IP.

freedom to use the technology without any restriction and were legally absolved of any secrecy obligations after the termination of the contract. Moreover, the rules were rather strict in obliging the licensor to guarantee the efficiency and workability of his technology. The Patent Act also contained far-reaching rules on compulsory licensing, which, however, were rarely applied in practice.⁷⁷

What are the reasons for the remaining lack of reliability of both immediate business partners and the state authorities? First, it must be kept in mind that “state” in China cannot be clearly separated from business. Apart from the central government in Beijing, which is the first addressee for foreign complaints, the “state” comprises a huge number of independent authorities on different levels and in different localities with substantial economic decision-making autonomy and independent economic interests. This explains the above mentioned localism, i.e., protection of local enterprises by local authorities against claims and complaints from outside their sphere of responsibility. Even the USTR acknowledges that it is not sufficient to complain to the central authorities, but that the localities must also be addressed. The 2006 Special 301 Report addresses four “hot spots” of piracy and counterfeiting, namely Beijing City and the provinces of Guangdong, Fujian, and Zhejiang.⁷⁸

Local protectionism may appear to be contrary to China’s last three decades of relative stability. China’s leadership may appear as a monolithic entity that represents the whole nation’s interest; however, this is not the reality. In fact, the central decision-makers have not yet managed to establish a stable and transparent framework of checks and balances. Apart from the superficial hierarchical order, there exists a bargaining cross-relationship between the central government, central authorities, their local subordinate authorities and the local People’s Governments. The foundation for this loss of central control over the region was established at the dawn of the opening and reform policy. At that time, in order to enhance efficiency, the government strengthened the subsidiary principle and released not only industries but also local People’s Governments at the province and prefecture levels into far-reaching independence. Under the so-called “financial responsibility system,” introduced at the end of the 1980s, the raising of tax income was largely entrusted to the local governments.⁷⁹ The revenue gained, *inter alia*, from

⁷⁷ The course of harmonizing China’s legal system with internationally acceptable standards considerably curtailed not only compulsory licensing but also bureaucratic interference in the course of technology contract examination, such as the far-reaching freedom to exploit the subject matter of the contract after its termination. See Thomas Pattloch, *Technology Transfer in the People’s Republic of China*, 35 IIC 151 (2004).

⁷⁸ USTR, 2006 SPECIAL 301 REPORT, available at http://www.ustr.gov/Document_Library/Reports_Publications/2006/2006_Special_301_Review/Section_Index.html.

⁷⁹ Carsten Herrmann-Pillath, *China: Paradoxe Transformation oder Modell?* [*China: Paradoxe Transformation or Model?*], 3 BERICHT DES BUNDESINSTITUTS FÜR OSTWISSENSCHAFTLICHE UND INTERNATIONALE STUDIEN [REPORTS OF THE FEDERAL INSTITUTE FOR EASTERN AND INTERNATIONAL STUDIES] 29 *et seq.* (1993).

corporate taxes created a huge incentive to protect locals against claims from outside.⁸⁰

The cellular political and economic structure of the country currently widens the gap between the long-term planning of China's government and the short-sighted focus of local leaders on immediate profits. Lacking the power to fully implement its policy on the grassroots level, the central government instead plays the role of a symbolizer, determining the main course of policy, but leaving its implementation to the local players. It should be noted that the government is highly concerned about local protectionism, as it results in both the unfair treatment of non-local IP owners and severely obstructs domestic economic development by hampering inter-regional trade and regional specialization.⁸¹

2.3. Economic Infrastructure

2.3.1. Innovation Incentives

At the dawn of the reforms in 1978, the Chinese suffered under severe poverty because of decades of disastrous social experiments.⁸² The economic reforms after 1978 laid the foundation for the unprecedented economic boom that followed by introducing market economic elements into an otherwise unchanged socialist economic environment. One of the first measures was the partial release of the agriculture sector from the state plan. Peasants were allowed to freely dispose of their crop in excess of a fixed quota. In the years that followed, China's rural population impressively demonstrated the value of this entrepreneurial decision-making. From 1978, when the agricultural reforms started, to 1984, the opportunity to maximize profits effectuated an increase of more than 61% in agricultural production.⁸³

Later on, in the mid-1980s, this method of incentive-building by partly releasing the productive forces into economic decision-making freedom was applied to the industrial sector, in the form of the so-called "managerial responsibility system." It allowed factory managers to allocate their resources in the most profitable manner

⁸⁰ Chong-En Bai et al., *Local Protectionism and Regional Specialization: Evidence from China's Industries* (William Davidson Inst., Working Paper No. 565, May 2003), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=404100.

⁸¹ See, e.g., the State Council's Decision on the Adjustment and Unification of the Market Economy Order of April 27, 2001, available at <http://www.law.com.cn> (search item "Guowuyuan guanyu zhengdun he guifan shichang jingji" ["State Council on Adjustment and Unification of Market Economy Order"]), in which the crackdown of local protectionism is termed to be one of the most urgent tasks to be accomplished in the near future. On April 4, 2001, the State Council enacted the Provisions on Prohibiting Regional Blockage in the Course of Market Economy Activities. ST. COUNCIL GAZ. 2001 No. 19, at 3.

⁸² Especially the Great Leap Forward (1958-1960), an immense misallocation of resources to push forward industrialization, and the Cultural Revolution, a violent renunciation of the past that destroyed a huge part of China's cultural heritage. The Cultural Revolution was officially terminated in 1969, but its protagonists remained in power until the death of Mao Zedong in 1976, so many historians claim it really ended in 1976.

⁸³ HAL R. VARIAN, *INTERMEDIATE ECONOMICS* 657 *et seq.* (Norton, 5th ed. 1999).

and declared them responsible for their own profits and losses, under an only partially adapted economic system of a planned economy. A sudden shift towards market economy would have challenged the authority of party and government. The managerial responsibility system, however, could not completely free state-owned enterprises (SOEs) from political intervention. Local administrative and political decision-makers continued to interfere in their businesses. Today, private economic activity has replaced the state-owned sector as driving force behind industrialization and economic development.

State intervention and the continuing existence of huge, inefficient SOEs continue to strangle the emergence of an innovative private industry. SOEs, which have so far resisted governmental efforts to enhance their competitiveness,⁸⁴ still have easier access to bank loans than promising but risky private undertakings.⁸⁵ China's authorities are well aware of the problem, as evidenced by the State Council's Opinions on Supporting and Guiding the Development of the Private Economy of February 25, 2005, which condemns discrimination against private domestic undertakings in terms of access to bank loans, trading rights, land use rights, and access to hitherto state-monopolized sectors. China's state-governed banks are under high pressure to reform. In the course of the overheated economic development, the banks accumulated an estimated total of 40% of non-performing loans until 1995. A collapse could only be averted by huge state interventions. Now, most of the non-performing loans are said to be eliminated, but in order to avoid the re-emergence of a similar situation, the government recently decided to allow the banks going public to be taken over by foreign institutions. Powerful players like Bank of America and the Royal Bank of Scotland reacted in the desired manner and invested huge amounts.⁸⁶

Institutional reforms did not stop at the banking system. In another attempt to reform the SOEs, on November 8, 2002, the State Economy and Trade Commission (which is responsible for long-term economic planning), the Ministry of Finance, the State Administration for Industry and Trade (SAIC), and State Administration of Foreign Exchange jointly issued the Tentative Provisions on Using Foreign

⁸⁴ SOEs are said to have little interest in enhancing their competitiveness in terms of innovation and quality, but rather confine themselves to short-term profit maximization within the limits set by the existing equipment. See Wang Liwei, *The Current Economic and Legal Problems Behind China's Patent Law*, 12 TEMP. INT'L & COMP. L.J. 11 *et seq.* (1998).

⁸⁵ See Susan Munro, Bingna Guo & Sean Y.S. Tai, *Broadening the Horizons of China's Domestic Private Sector*, CHINA L. & PRAC., July/Aug. 2005, at 26; see also Anne Stevenson-Yang & Ken DeWoskin, *China Destroys the IP Paradigm*, FAR EASTERN ECON. REV., Mar. 2005, at 9 (observing a special reluctance of Chinese banks to assist in innovative projects with unpredictable outcomes).

⁸⁶ Jonathan Anderson, *The Great Chinese Bank Sale*, FAR EASTERN ECON. REV., Sept. 2005, at 7; see also Dongwook Lee, *The Hidden Bombs Are Ready to Tick: China's Banking Market for Foreign Investors after the WTO Accession*, 35 HONG KONG L.J. 205 (2005) (pointing to the risks of engagement in China's banking sector, consisting in a hardly measurable volume of remaining non-performing loans and continuing state intervention).

Investment to Reorganise State-Owned Enterprises,⁸⁷ which promotes the mergers with and acquisitions of China's SOEs by foreign multinationals.⁸⁸

So far, however, the state still forms the greatest obstacle to the emergence of an innovative industry in private hands. As mentioned above, the "state" in China cannot be separated from the private sector but rather forms a network of political and economic interests.⁸⁹ The extent to which this melange of private and public still dominates economic transactions is also evident in the local context. The career chances of local officials strongly depend on the realization of outstanding but short-term "achievements," especially in the construction sector. Since such achievements normally exceed their budgets, the officials seek resources from local firms, and thereby often rely on long-lasting personal relationships. In exchange, local companies enjoy administrative protection against competition from outside. Especially innovative players are in danger of being usurped by state authorities who, for instance, pressure them to license their technology to SOEs under state protection.⁹⁰ Local companies are unable to resist such strong administrative power.⁹¹ Apparently, the government did not sufficiently consider the danger that could arise from giving the local political leaders relative independence, namely that they would sooner or later become the real "entrepreneurs" within their locality.

As China's transformation is still ongoing, there is reason to hope that private and public will be better separated in the near future. At present, however, within an ever-changing environment of unclear statuses, roles, and competences, personal relationships remain the only firm anchor. From the explanations above we have learned that the Chinese, during millennia of cultural autarky, have developed their own modes of coexistence and conflict resolution which are based on personal

⁸⁷ The provisions can be found in Chinese at <http://www.law.com.cn> (search item "Liyong waizi" ["Using foreign investment"]).

⁸⁸ In order to prevent multinational players from accumulating former state capital to an extent that would allow them to dominate the Chinese market, the former Ministry of Foreign Trade and Economic Cooperation (MOFTEC, now merged into the Ministry of Commerce, MOFCOM), the Ministry of Commerce, the State Tax Administration, the SAIC, and the State Administration of Foreign Exchange issued another set of rules, the Provisional Rules for Mergers with and Acquisitions of Domestic Enterprises by Foreign Investors, on March 7, 2003. ST. COUNCIL GAZ. 2003 No. 13, at 41. Accordingly, Sino-foreign M&A that exceed certain dimensions must be reported to the MOFCOM for approval. For more details, see GANEA & PATTLOCH, *supra* note 1, at 355 *et seq.*

⁸⁹ The problems arising when former state organizations smoothly transform to private players, and for a while play the role of both regulators and profit-seekers, become visible in, for example, an amendment to the Patent Act Implementing Rules of 2001. Rule 78 of this amendment now better defines the notion of what constitutes a local Patent Administration Authority, namely an authority that is actually engaged in patent administration and is factually capable of administrative patent work. The amendment became necessary because many of the Patent Administration Authorities, which the old Implementing Rules simply defined as local administrations set up by the State Council or the local People's Governments, had morphed into commercial business associations or even enterprises.

⁹⁰ Stevenson-Yang & DeWoskin, *supra* note 85.

⁹¹ Zhou Xueguang, *Inverted Soft Budget Constraints: Extra-budgetary Resource Seeking in Local Governments*, 26 SOC. SCI. CHINA No. 2, at 22 (2005).

networks rather than on adherence to rules. Foreigners entering the Chinese market face an impenetrable brushwork of personal relationships instead of clear rules and transparent structures. It goes without saying that such an environment forms a huge investment disincentive, especially for technologically capable industries which are in special need of reliable partners and impartial institutions in case their partners turn out to be unreliable. Whereas some completely refrain from investing within such a latently insecure environment, others have found ways to cut their losses, by splitting up their production processes so as to prevent one Chinese partner from obtaining all the necessary technology, or by entrusting only outdated technology to the Chinese, while keeping their most advanced know-how secret.⁹²

2.3.2. Foreign Investment

In 1979, the first four of the Special Economic Zones (SEZs) were established along China's southern coast. Within these zones, foreigners could bring in production capital, machinery, and know-how, and set up factories in cooperation with Chinese partners. In return, the Chinese offered cheap land use rights, cheap labour, preferential tax treatment, and reduced bureaucracy. To avoid interference with the smoothly transforming economy in the inland regions, the zones were strictly separated from the rest of the country. Products of competitive quality which were manufactured within the zones were prohibited from import to China, in order to protect the not-yet privatized inland economy against too harsh competition, as the diffusion of Western management techniques and competitive production styles into the inland was intended to be a gradual process.⁹³ In the 1980s and 90s, the SEZs were subsequently extended so that they now form a belt along the southern coast. The last big project was the development of the Pudong investment area in Shanghai, which started in 1990.

The SEZs are a peculiarity of China, as they are different from the so-called Export Processing Zones in other developing countries, where foreign investors on the textile or assembling sector make use of their host countries' cheap labour for export production. Export Processing Zones would have been a suitable alternative for China with its abundant labour resources, but they were refuted as "exploitation of labour" and therefore as incompatible with socialism.⁹⁴ However, the local decision-makers opted for labour-intensive manufacture plants and for huge construction projects that promised immediate profits, contrary to the central objective of inviting high-tech investment. The result was that the SEZ soon turned out to be similar to the Export Processing Zones, which had been explicitly refuted as non-

⁹² Dennis Fernandez & Veronica Weinstein, *Recent Developments in China's IP Laws in Relation to TRIPS*, CHINA L. & PRAC., June 2005, at 29.

⁹³ GEORGE T. CRANE, *THE POLITICAL ECONOMY OF CHINA'S SPECIAL ECONOMIC ZONES 8 et seq.* (Sharpe 1990).

⁹⁴ On the difference between Export Processing Zones and China's Special Economic Zones, see Hu Youwen, *GUANGDONGSHENG JINGJI DILI [ECONOMIC GEOGRAPHY OF GUANGDONG PROVINCE] 502 et seq.* (Xinhua 1985).

conforming to socialist ideals.⁹⁵ As a result, in the second half of the 1980s, many conservative party cadres voted for a termination of the SEZ experiment, pointing to rampant corruption and arguing that the zones were a threat to the smooth transformation of the economy because of the uncontrolled inflow of products intended for export.⁹⁶ In the end, however, the reformers prevailed. The conglomeration of textile and assembling factories along the preferential investment areas along the southern coast, however, indicates that cheap wages and low labour security standards remain the main motive for investment in China.

Even today, the economic reforms have not entailed a substantial shift towards sophisticated production styles. Since 2003, China has been the world's number one absorber of FDI, with a volume of more than US\$50 billion, and about half of China's exports originate from such FDI. FDI in the manufacturing sector occupies about 70% of the value of all FDI. Between 2003 and 2005, the total value of this share increased from US\$36.9 billion to \$42.5 billion.⁹⁷ Sophisticated end products (e.g., electronic devices) occupy the greatest share of China's exports. Between 2004 and 2005, the value of exports in goods classified as "electrical and mechanical" rose from US\$323.3 billion to \$426.7 billion, and the value of goods classified as "high- and new-tech products" rose from US\$165.5 billion to \$218.2 billion.⁹⁸ However, the present average value of manufacturing/assembling for export accounts for a mere 15-25% of output value.⁹⁹ China seems to be predominantly regarded as a base for the labour-intensive assembly of high-tech components to end products. The high total value of China's exports can therefore be explained by its assessment on grounds of the end product value.¹⁰⁰ Foreign investment in R&D, scientific research, and technical services plays a minor role (US\$110 million in 2003).¹⁰¹

In spite of the failure of the goal of establishing a technologically capable industry within a very short period, FDI was an important part of the unprecedented economic boom that held average annual growth rates at 9.5% during the last two decades.¹⁰² As China's domestic industrial landscape is still dominated by the state

⁹⁵ On the developments within the SEZs, see Richard Pomfret, *Growth and Transition: Why Has China's Economic Performance Been So Different?* 25 J. COMP. ECON. 422 (1997); Y.Y. Yueh, *Foreign Investment and Economic Change in China*, 131 CHINA Q. 637 *et seq.* (1992).

⁹⁶ CRANE, *supra* note 93, at 108 *et seq.*

⁹⁷ Figures from 2003 are available in the STATISTICAL YEARBOOK OF CHINA 2004, at 1011. Figures from 2005 are available in the STATISTICAL YEARBOOK OF CHINA 2006, Ch. 18-17. The growth in FDI cannot keep pace with the growth in export of manufactured goods, which indicates that competitiveness of domestic industries in the manufacturing sector is on the rise.

⁹⁸ National Bureau of Statistics, CHINA STATISTICAL YEARBOOK 2006, Ch. 18-9 (CD-ROM version).

⁹⁹ This, however, remarkably exceeds the average value added of 10% in the 1990s. Stevenson-Yang & DeWoskin, *supra* note 85.

¹⁰⁰ Michael J. Enright, *Rethinking China's Competitiveness*, FAR EASTERN ECON. REV., Oct. 2005, at 16.

¹⁰¹ YEARBOOK OF CHINA'S ECONOMY 2004, at 1011.

¹⁰² OECD, *Summary of the Economic Survey on China, 2005* (policy brief) (Sept. 2005), available at <http://www.oecd.org/dataoecd/10/25/35294862.pdf>.

sector, FDI accounts for a huge part of the private economic activity. The private sector produces more than half of the GDP and three quarters of China's exports, but only 15% of this production is generated by domestic private firms (2003).¹⁰³ Nevertheless, the output of domestic private firms has quintupled between 1998 and 2003, whereas the increase of FDI output was only threefold.¹⁰⁴ Despite this growth, the private enterprises still remain small in scale; of the approximately three million private enterprises, only 39,081 of them employed more than 100 employees.¹⁰⁵ The scale may be small, but the increase in the number of domestic private enterprises which are classified as "innovative" is even more impressive than the recent increase in private activity as a whole. From 2002 to 2003 (newer figures were not available) alone, the share of innovative enterprises among those classified as domestic and private has grown from 2.1% to 5.5%.¹⁰⁶

2.4. Educational Infrastructure

It has been mentioned that the Confucian state philosophy entailed a rather negligent attitude towards law which can be regarded as one of the main causes for the present lack of IP enforcement. On the other hand, the Confucian emphasis on character formation through education entailed an unequalled education ideal. The reason that the Chinese empire at the dawn of the twentieth century lagged far behind the West in terms of science and technology was that education—in spite of meritocratic ideals—was factually only available to elites and included mainly internalizing classical virtues, not because of a generally ignorant attitude towards learning. The basic readiness to learn held by wide parts of the population is much more pronounced than in other developing economies. Japan is a good example of how this readiness to learn can be re-oriented towards a "useful" purpose. Japan, which originally adhered to a slightly adapted Confucian state theory, in 1868 abolished the inefficient and backwards-oriented Samurai bureaucracy, gave way to the people's thirst for knowledge, and managed to transform from a feudal society to an industrialized nation within only a lifespan.¹⁰⁷

In China, the education policy after 1949 strove to make education available to a broad population. The Cultural Revolution thwarted these efforts, as its protagonists preferred illiterate labourers and peasants over intellectuals. Even the decades of political radicalism, however, could not destroy the positive attitude towards education. After 1978, the reform-oriented leaders strove to make primary and secondary education widely available. In 1986, a Law on Compulsory Education was enacted.

In spite of the enactment of a Law on Compulsory Education in 1986, compulsory education is not yet available in all parts of the country, especially in the poor and rural west. Additionally, the quality of primary and secondary education varies

¹⁰³ Munro et al., *supra* note 85.

¹⁰⁴ OECD, *Summary of the Economic Survey on China, 2005*, *supra* note 102.

¹⁰⁵ YEARBOOK OF CHINA'S ECONOMY 2004, 837 *et seq.*

¹⁰⁶ Munro et al., *supra* note 85.

¹⁰⁷ See Peter Ganea & Sadao Nagaoka, *Japan*, in this book.

from region to region. Country-wide illiteracy, however, has been significantly reduced, from 80% in 1949 to less than 10% in 2003, with a negligible youth illiteracy rate of 1.1 percent.¹⁰⁸ This is not only the result of governmental efforts but also of the wide demand for education. Chinese parents push their children hard to pass the entrance examinations for the best schools and foster their academic careers.¹⁰⁹

If we take a closer look at the curricula, we find that special emphasis is placed on those disciplines which are most likely to generate future innovators and creators, namely mathematics, physics, and chemistry. “You can go everywhere in the world with ease if only you have learned mathematics, physics, and chemistry” has become a popular saying since 1977, when the College Admission Test was re-launched after ten years of absence during the Cultural Revolution. About one or two years before taking the College Admission Tests, the students at secondary education institutions and their parents have to decide upon either a scientific or humanistic academic career, and the available figures show that mathematics and scientific careers dominate. In 2004, for example, 50% of the 4.47 million students enrolled at undergraduate and junior colleges opted for science, engineering, agriculture, or medicine; 32% opted for humanities, economics, or law; and 18% opted for management.¹¹⁰ In addition, about 75% of the 4.56 million students in the 11,570 vocational schools, an alternative to secondary education, opt for training in the fields of engineering and technology, such as information technologies, manufacturing, and civil and hydraulic engineering.¹¹¹

Almost all top universities in China pursue an especially aggressive policy of attracting the most successful students; for example, those who have won the International Mathematics Olympiad (IMO), the International Physics Olympiad (IPO), or the International Chemistry Olympiad (ICO) can choose between China’s top universities without even having to pass the admissions test, and they are provided with the best scholarships. The winners of the various national and even provincial championships enjoy similar advantages. The whole award system aims at enrolling those who are one-sidedly gifted in mathematics and sciences and would have diffi-

¹⁰⁸ UNDP, HUMAN DEVELOPMENT REPORT, available at <http://hdr.undp.org/statistics/data>.

¹⁰⁹ See OECD, *Thematic Review of the First Years of Tertiary Education: Country Note: People’s Republic of China, 7 et seq.*, available at [http://www.oecd.org/olis/2001doc.nsf/LinkTo/NT0000091A/\\$FILE/JT00118299.pdf](http://www.oecd.org/olis/2001doc.nsf/LinkTo/NT0000091A/$FILE/JT00118299.pdf) (characterizing the fact that families would rather invest their savings in their children’s education than simply pass them to the next generation as a distinctive Chinese cultural feature). According to a survey, Chinese households spend nearly one third of their income on children’s education. See Zhang Ling, *Hai zi de Xiao Shubao li Zhuang zhe Jiali de Yitao Fangzi*, CHINA YOUTH DAILY, Sept. 11, 2006, http://zqb.cyol.com/content/2006-09/11/content_1506131.htm (discussing the considerable investment Chinese households make in education); see also Jim Yardley, *Chinese Are Left To Ask Why Schools Crumbled in Quake*, N.Y. TIMES, May 25, 2008 (“Nothing is more central to the social contract in China than schools. Parents sacrifice and ‘eat bitter’ so their children can get educations that lead to better lives. In turn, children care for their parents in old age. As in Manhattan, affluent Chinese fight to gain entrance to top schools from kindergarten onward.”).

¹¹⁰ National Bureau of Statistics, CHINA STATISTICAL YEARBOOK 2005, 697.

¹¹¹ *Id.* at 698.

culty passing the Admission Test due to their weakness in other subjects. Stress of competition is high, however; even at the primary school level, many parents let their child (not “children,” due to China’s One Child Policy) join additional training programs for IMO.

Tertiary education is booming in China. The goal of an enrollment rate of 15% of secondary school graduates, which the Ministry of Education in 2000 envisaged at the earliest for 2004,¹¹² had already been exceeded by 2002. Again, a significant part of the students tends towards technical subjects.¹¹³ The readiness of families to pay for the education of their children is accompanied by relatively generous public funding as compared to the financing of other public sectors.¹¹⁴ The availability of tertiary education, however, varies heavily from region to region. Universities in western parts of China are under much greater financial constraints than in the relatively wealthy coastal areas. In addition, the quality of primary and lower secondary education in the west lags behind, so undergraduates from the rather poor areas have a low chance of being enrolled at a good university.

In spite of the remaining regional imbalance in quality of and access to education, the education sector can be regarded as one of the most developed public sectors in China. This results from the fact that all players, including the central government and its ministries, local decision-makers, and the general population, hold education in high regard.

In sum, China’s good human resource base is a positive infrastructural factor that bears the potential to accelerate the absorption of know-how from abroad¹¹⁵ and shorten the period in which domestic interest in IP protection superposes scepticism towards intellectual property as a legal instrument to protect foreigners.

2.5. Scientific Infrastructure

2.5.1. Research and Development

Considering that the dynamic private sector is still dominated by foreign investment, foreign enterprises should be the main seekers of educated Chinese. Unfortunately, though, cheap wages remain the main motive for investment. According to a survey in 2000, foreign investors in China are basically interested in a good physical infrastructure, access to the domestic market, preferential tax treatment, and low wages.¹¹⁶ This finding, even though somewhat outdated, still fits the prevalent form of FDI, which is of a vertical nature, in that it remains under complete control

¹¹² *Thematic Review of the First Years of Tertiary Education, Country Note: People’s Republic of China*, *supra* note 109, at 7.

¹¹³ OECD, *Summary of the Economic Survey on China, 2005*, *supra* note 102.

¹¹⁴ *Thematic Review of the First Years of Tertiary Education, Country Note: People’s Republic of China*, *supra* note 109, at 15 *et seq.* In comparison with other countries, however, public funding is still low, due to a generally low level of government revenues.

¹¹⁵ E.J. Borensztein et al., *How Does Foreign Direct Investment Affect Economic Growth?* 45 J. INT’L ECON. 115 (1998).

¹¹⁶ Leonard K. Cheng & Yum K. Kwan, *What Are the Determinants of the Location of Foreign Direct Investment? The Chinese Experience*, 51 J. INT’L ECON. 379 (2000).

of the foreign investor, and largely consists of labour-intensive assembly.¹¹⁷ Sophisticated production and research and development (R&D) are located elsewhere.

The following five branches are officially classified as high-tech industries: (1) medical and pharmaceutical products manufacturing, (2) aircraft and spacecraft manufacturing, (3) electronic and telecommunications equipment, (4) computer and office equipment manufacturing, and (5) manufacturing medical equipment and measurement devices. The total value of the gross industrial output of these industries has been 2,055.61 billion yuan (US\$256.95 billion) in 2003, as compared to only 409.77 billion yuan (US\$51.22 billion) in 1995.¹¹⁸ In other words, the total value of the gross industrial output of products classified as high tech has increased by 400% within eight years. Electronic devices, computers, and office equipment have most significantly contributed to this increase (700% from 1995 to 2003).¹¹⁹ From 1986 to 1994, the highly labour-intensive textile industry contributed the biggest share to gross industrial output value (9.54 to 9.67%), and the period from 1995 to 2001 was the era of the chemical products, oil, and gas mining industry (6.1 to 8.7%). Since 2002, the computer and other related industries accounted for the biggest share in gross domestic output value (7.6% to 8.3% from 2002 to 2003). Even though the heavy and chemical industries are still rapidly growing, the computer and hardware industry has most significantly contributed to economic growth since 2002.¹²⁰

This high level of production still does not say much about the Chinese R&D potential, as we have learned that the Chinese input in computer and other hardware manufacturing is mainly standardized and labour-intensive. In 2004, the overall R&D expenditure was 29.2 billion yuan (about US\$4.2 billion). In recent years, R&D expenditures showed a remarkable increase, from 0.23% of the GDP in 1995 to 1.58% of the GDP in 2004. The computer and office equipment sector's 16.4 billion yuan R&D expenditure in 2004¹²¹ accounted for 56% of the total R&D expenditure in the five industries classified as high-tech. In addition, the 74,092 researchers employed in the computer industry correspond to 65.2% of the engineers and specialists in all five high-tech industries.¹²² In other words, the R&D intensity in the other high-tech industries is much lower than in the computer and hardware industry.

¹¹⁷ The vast majority of foreign direct investment in 2003, namely US\$33 billion, went into Wholly Owned Foreign Enterprises (WOFE), over which foreign mother companies maintain complete control, followed by joint ventures, i.e., enterprises founded on grounds of a Sino-foreign enterprise cooperation (US\$15.3 billion). The most unpopular form of engagement in China seems to be direct cooperation agreements, with an investment volume of only US\$3.8 billion in 2003. YEARBOOK OF CHINA'S ECONOMY 2004, at 1013.

¹¹⁸ National Bureau of Statistics et al., CHINA STATISTICS YEARBOOK ON HIGH TECHNOLOGY INDUSTRY 5 (2004).

¹¹⁹ *Id.*

¹²⁰ Development Research Center of the State Council, REPORT FOR CHINESE INDUSTRIAL DEVELOPMENT 2005, at 9, 10 (Huaxia Press 2005).

¹²¹ CHINA STATISTICAL YEARBOOK 2005, *supra* note 110, at 714, 719.

¹²² *Id.* at 719.

All in all, considering that 1.15 million Chinese employees are qualified as R&D personnel,¹²³ the percentage of researchers and developers employed by the high-tech industries is relatively small, only about 10%.¹²⁴ Most of the remaining 90% are presumably employed by public research institutes and universities, which, as will be further outlined below, still dominate R&D activity in China, but find it difficult to transform their R&D results into marketable products and solutions.

China's new 15-year National Plan for Short- and Long-term Development of Science and Technology (2006-2020), released by the State Council in February 2006,¹²⁵ focuses on four major basic research programs: protein science, quantum physics, nanotechnology, and developmental and reproductive science. Sixteen mechanical and IT engineering programs include aircraft engineering, moon exploration, next-generation broadband, transgenic plant breeding, and drug development.¹²⁶ The plan envisages an increase in total R&D expenditure from 196.6 billion yuan (about US\$27 billion) in 2004 to 360 billion yuan (about US\$51 billion) in 2010 and 900 billion yuan (about US\$128 billion) in 2020. The plan also foresees a higher growth rate in R&D expenditures than in total GDP, because the GDP proportion of R&D expenditures is forecasted to be 2% in 2010 and 2.5% in 2020. Expenditures for basic research are expected to increase even faster, from 6% of the total R&D expenditure in 2004 to 15% in 2020.¹²⁷

The hopeful signs of an emerging innovation culture in China, however, remain sporadic, and the ambitious state plans still await actual implementation. At the present stage, technological development is still highly dependent on absorption of know-how from abroad, and foreign firms are more interested in the abundance of cheap labour than in the educated workforce. India, a similarly huge country, is more permeable to such R&D inflow, especially in the information technology field. There technology is directly licensed to Indian partners, apparently because investors do not fear the loss of their intangible property disclosed in a technology license. China instead remains an attractive target for FDI in manufacturing and assembly. Both countries provide a good educational base, but the Indian example shows that legal security and transparency, both factors expressively lauded by

¹²³ *Id.* at 714.

¹²⁴ A recent survey among China's SMEs of various industries, including the electronic appliances, chemical, and light industry, reveals that low R&D levels and lack of sophisticated personnel are the main causes of the insufficient competitiveness of many domestic SMEs. Lin Hanchuan & Guan Hongxi, *Comparative Study on the Evaluation of the Competitiveness of SMEs in Different Industries in China*, SOC. SCI. CHINA, Spring 2006, at 69.

¹²⁵ Together with the *Accompanying Policies for Implementing the National Plan for Short- and Long-term Development of Science and Technology*, ST. COUNCIL GAZ. 2006 No. 9, at 7 *et seq.*

¹²⁶ Hao Xin & Gong Yidong, *China Bets Big on Big Science*, SCIENCE, Mar. 17, 2006, at 1548-49.

¹²⁷ *Id.* For more details of the National Plan for Short- and Long-term Development of Science and Technology (2006-2020), see *Spending on R&D Gets Boost*, CHINA DAILY, Feb. 10, 2006, available at <http://english.sohu.com/20060210/n227752377.shtml>.

multinationals engaged in India, form key factors of aligning human capital and technology-intensive foreign engagement.¹²⁸

2.5.2. Public/Private Innovation and Commercialization of IP

More than half of domestic R&D is still conducted in the public sector, due to the above-mentioned over-presence of the state and the budgetary constraints that obstruct innovation in private enterprises.¹²⁹ Traditional locations for R&D are national research institutes, but increasingly, universities and colleges understand themselves not only as teaching institutions but as locations for basic and applied research. The number of patent applications by universities and colleges showed a sharp increase between 2002 and 2004, from 7.4% to 11.7% of the total of domestic service applications. In contrast, the percentage of applications filed by domestic public and semi-public research institutes, the traditional source of public innovation, remained basically unchanged (about 6-7%).¹³⁰

In spite of their increased patent activity, many universities have not yet found a mode of exploiting the results of their innovative research in a profitable manner. Teaching institutions and industry are still widely perceived as different cups of tea, with the effect that the diffusion of innovation from university laboratories to industry is relatively low.¹³¹ Another problem is that universities tend to commercialize their research results by spin-offs instead of licensing their technology directly to the industry. Apart from the problem that daily operation of the enterprise uses up resources for teaching and scientific research,¹³² promising inventions often

¹²⁸ Paul Laudicina & Jonathan M. White, *India and China: Asia's FDI Markets*, FAR EASTERN ECON. REV., Oct. 2005, at 25; Hugo Restall, *India's Coming Eclipse of China*, FAR EASTERN ECON. REV., Mar. 2006, at 12. At first glance, these positive findings with regard to India contradict the UNDP statistics, available at <http://hdr.undp.org/statistics/data/countries.cfm>, stating that in China, 633 per million people were employed in R&D, while in India only 120 per million people were employed in R&D (the world average was 1,146). One explanation for this gap may be different research infrastructures—a huge part of domestic R&D in China is conducted within the state sector, but we will learn below that a relatively small part of it is transformed to marketable solutions. In India, on the other hand, the part of innovative activity targeted at business solutions, especially the software sector, is comparably significant. Also the relatively high share of high-tech exports (27%) from China indicated by the UNDP statistics does not say much about R&D activity, because the majority of such high-tech products like home electronics are only manufactured/assembled, but not developed, in China. Japan's exports, for example, contain "only" 24% high-tech, but this certainly does not mean that Japan lags behind China in terms of sophisticated production and innovative activity. The much lower share of 5% of technology-induced exports from India, on the other hand, rather points to a concentration of domestic R&D on soft content and therefore on software and business solutions which are only limitedly exportable in material form.

¹²⁹ *Summary of the Economic Survey on China, 2005*, *supra* note 102.

¹³⁰ The annual reports from 1999 to 2004 are available on the official website of SIPO, <http://www.sipo.org.cn>.

¹³¹ OECD, *Thematic Review of the First Years of Tertiary Education: Country Note: People's Republic of China*, *supra* note 109, at 25.

¹³² *Id.*

peter out in bureaucratic channels, because universities lack the entrepreneurial experience for commercialization.¹³³

In sum, China presently utilizes its comparative advantage of cheap labour in an economically reasonable manner. It also provides for a potential human capital base which could accelerate technology absorption. A good part of this human capital lies idle, primarily because those players who would be able to offer sophisticated jobs, namely foreign investors, do not make sufficient use of it.

Conclusion

Will China's increasing integration in the world economic order have a disciplining effect on IP enforcement? Before becoming a WTO member in 2001, China acceded to the relevant IP conventions, but the adaptation of the legal system to international requirements was basically confined to the law in the books. In this regard, the TRIPS Agreement poses a new challenge, as it requires member states to enforce their IP laws. China has been a WTO member for seven years and has certainly profited from reduced trade barriers, especially as an exporter of manufactured, non-agricultural goods, which, with the exemption of textiles, are not subject to significant subsidies and other trade obstacles imposed by the group of developed countries.¹³⁴ Just as in other developing countries, however, the TRIPS regime is under increasing criticism in China. Many Chinese commentators, for instance, refer to the unduly high license fees that Chinese manufacturers of DVD devices must pay to a coalition of multinationals which have pooled the essential patents for this technology. In a popular action, a group of Chinese law professors challenged the validity of a patent owned by Philips which belonged to such a patent pool—the so-called DVD3C pool (“3C” standing for the three companies Philips, Pioneer, and Sony). In 2006, Philips gave in and withdrew its patent.¹³⁵

China's particular historical and political role can be expected to further aggravate the adoption of international standards. First, unlike its economically successful neighbours which absorbed foreign, mainly U.S., values during decades of military and economic dependence, China has undergone a long period of autarky and isolation which alienated it to worldwide legal developments. Second, a giant like China meets other economic powers like the United States or the European Union on a fairly equal level. The Chinese government is well aware of the fact that unilateral trade sanctions or attempts to isolate China within the world trade community, in order to enforce better IP protection, will have painful conse-

¹³³ Stevenson-Yang & DeWoskin, *supra* note 85.

¹³⁴ On the necessity of discussing TRIPS as part of the entire WTO system which generated net advantages for emerging markets like China by facilitating the worldwide trade in commodities produced under FDI, see Joseph Straus, *TRIPs, TRIPs-plus oder TRIPs-minus: Zur Zukunft des internationalen Schutzes des Geistigen Eigentums*, in PERSPEKTIVEN DES GEISTIGEN EIGENTUMS UND WETTBEWERBSRECHTS 197 *et seq.* (Ansgar Ohly et al. eds., 2005).

¹³⁵ Zhan Yin & Zhu Xuezhong, *Intellectual Property Right Abuses in the Patent Licensing of Technology Standards from Developed Countries to Developing Countries: A Study of Some Typical Cases from China*, 10 J. WORLD INTELL. PROP. 187 (2007).

quences for both the U.S. and E.U. economies, leading them to exhaust all possibilities of peaceful settlements.¹³⁶ Moreover, the huge Chinese market, with hundreds of millions of customers, continues to attract foreign investment even with the gaps in IP protection. Many foreigners, especially those who invest in state-guided infrastructure projects, e.g., in the energy sector, even reveal their technology for free just to be present in the world's most dynamic market.¹³⁷

On the other hand, we have seen that even if insufficient protection of intellectual property may not significantly affect the quantity of foreign investment, it certainly affects its quality. In spite of the ambitious goal to establish a culture of "indigenous innovation,"¹³⁸ China is still in need of technology imports, and even though the country cannot be neglected as an investment target, investors still enjoy significant room to manoeuvre to determine the extent to which they want to disclose their know-how to Chinese partners. Therefore, if there is anything that can motivate the Chinese to devote more resources to IP protection, it is not so much reference to international obligations, unilateral "China bashing," or WTO proceedings, but rather the domestic recognition that without such protection, high-tech investment would stay away and China would deprive itself of development chances.

More successful strategies of guided industrialization with the help of foreign know how and/or capital have been observed in the now-developed Japan and later on in the so-called "Asian Tigers," Korea and Taiwan. All of them look back on a similar intellectual history, but in the course of their development, especially the latter two¹³⁹ have shown the often-observed shift from scepticism towards intellectual property as a means to safeguard foreign interests, to an increased domestic need for intellectual property as result of enhanced industrialization levels.¹⁴⁰ China does not so easily subject itself to this transition. So far, industrialization and integration into the world economic order have not entailed a significant enhancement of the IP protection level. In large part, this results from the observed infrastructural problems, namely a persisting anti-legal tradition, a political superstructure that favours regionalism and obstructs the implementation of central guidelines on the grassroots level, and an ongoing transformation which blurs the line between

¹³⁶ U.S. industries do not unanimously approve trade sanctions against China. With regard to the mutual threats to impose such sanctions that preceded the 1996 Sino-U.S. Agreement, for example, Boeing showed concern that China might henceforth order planes from Airbus, to reward the European Union for its conciliatoriness in the course of the international IP dispute. See Henry J. Wheare, *Intellectual Property: China's Unrewarded Efforts?* CHINA L. & PRAC., June 1996, at 38.

¹³⁷ *Die Hightech-Offensive*, in DER SPIEGEL 2006 No. 1, at 64.

¹³⁸ See Interview with Tian Lipu, Commissioner, SIPO, in CHINA INTELL. PROP. NEWS, Dec. 28, 2005, at 3 ("Congfen faqi zhuanli zhidu zai tigao zizhu chuangxin nengli he luoshi kexue fazhan guanzhong de zhongyao zuoyong." ["Comprehensively enfold the important role of the patent system in enhancing the indigenous innovation ability and in realizing the technological development objectives."])

¹³⁹ Japan has been a special case. See Peter Ganea & Sadao Nagaoka, *Japan*, in this book.

¹⁴⁰ This shift has been observed by Maskus, *supra* note 75, at 133.

private and public, in that administrators seek commercial profits and business operators respond to political demands.

A change of this socio-economic and political superstructure would require a huge effort that would have to go far beyond the narrow scope of intellectual property, including the rise of a self-conscious judiciary capable of resisting political demands and a withdrawal of the state from private economic activity. The present predominance of personal relations over legal rules and the lack of demarcation between private and public are deeply rooted in China's identity and history, and will therefore hardly be abolished for the sole purpose of improving the IP regime. Such improvement will rather be a side-effect of institutional and legal reforms on a much broader scale. Here, some recent developments give rise to hope. For instance, the government has recognized the necessity of measures against regional protectionism, not only because it obstructs IP protection but because it severely affects the national economy with respect to the free flow of commodities and regional specialization within China. Corresponding reforms, especially those focusing on a better separation between private and public, will hopefully have a positive effect on IP protection.

Another factor that will improve the IP regime is the formation of a domestic IP consciousness, especially among emerging domestic IP industries. The Chinese software industry, for example, suffers as much under piracy as foreign multinational firms. Even representatives of U.S. computer and software giants state that a strong and competitive Chinese software industry would be the best copy protection for foreign firms.¹⁴¹ There is good reason to assume that domestic complaints against insufficient protection will be taken more seriously by the government, judiciary, and other enforcement authorities than foreign demands, and that a strong and capable domestic IP industry will sooner or later silence the argument that intellectual property is only in the interest of foreigners. One sign of an enhanced legal consciousness is that those who want to make free use of IP-protected subject matter have started to take the legal route by filing invalidation requests instead of simply infringing the IP rights in question.¹⁴²

However, as the overall improvement of IP protection cannot be an independent process but must be part of broad institutional reforms, it can be assumed that China will not so soon get rid of its reputation as the world's largest piracy factory. The implementation of a stable and effective IP system will continue to be a long

¹⁴¹ Interview with Craig Barrett, Chairman of the Board, Intel Corp., in DER SPIEGEL 2006 No. 15, at 86 ("Alle wollen mitspielen." ["Everyone wants to take part in the game."]) (citing Bill Gates, co-founder of Microsoft Corporation).

¹⁴² Peter Yu noted this in regard to the famous "Viagra" case, in which the Beijing Higher People's Court finally rejected the request of a group of generics producers to invalidate Pfizer's patent for non-conformity with the full disclosure requirement. See Peter K. Yu, *From Pirates to Partners (Episode II): Protecting Intellectual Property in Post-WTO China*, 55 AM. U. L. REV. 901 (2006), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=578585#PaperDownload.

process with many setbacks. Even though China shares many similarities with its now-developed neighbours, it will need a much more generous time frame for developing a stable and applicable IP infrastructure, just as a huge dragon needs more time than a nimble tiger to set its limbs in motion.

India

*Tanuja Garde*¹

1. Legal Infrastructure	55
1.1. IP History	55
1.2. IP Laws	57
1.2.1. Patents	57
1.2.2. Copyright	70
1.2.3. Trademark	73
1.2.4. Designs	76
1.2.5. Geographical Indications	76
1.3. International IP Obligations	78
1.4. IP Lawmaking	76
1.5. IP Enforcement	79
2. Political and Economic Infrastructure	81
3. Educational, Social, and Physical Infrastructures	82
4. Scientific Infrastructure	84
Conclusion	84

1. Legal Infrastructure

1.1. IP History

August 15, 1947, was a critical juncture for India, not only marking its status as a free nation, having gained independence from Britain, but also affording an opportunity for India to undertake a new economic path. The spirit and optimism of independence was captured by the first Prime Minister of a free India, Jawaharlal Nehru:

At the stroke of the midnight hour, when the world sleeps, India will awake to life and freedom. A moment comes, which comes but rarely in history, when we step out from the old to the new, when an age ends, and when the soul of a nation, long suppressed, finds utterance. It is fitting that at this solemn moment we take the pledge of dedication to the service of India and her people and to the still larger cause of humanity.

While optimism resonated in the speech, the reality was far different. At the time of independence, more than half of the gross domestic product depended on agriculture. The industrial sector at that time was small, only contributing to a quarter of India's income. Further, agricultural productivity was low and the population was rising, and agrarian reform was critical to India's success. Nevertheless, although land reform was a priority, there was a recognition that it must be accompanied by increased industrialization in order for India to become player in the world economy.

¹ The views expressed in this chapter are solely those of the author and are not to be attributed in any manner to the United States Trade Representative or the United States Government.

At that time, a group of eight Indian industrialists conferred to develop what became known as the “Bombay Plan.” Central planning and coordination was necessary, as the public had been disillusioned politically and economically ever since the Bengal famine of 1943. The merits of the plan were not in its details, but rather that it identified a way to move forward.² The plan for economic development supported state control over sectors of community concern, such as energy, infrastructure, and transportation.³ The underlying basis for this policy, i.e., state control over sectors that affect the community at large, manifested itself in the Directives on State Policy in the Indian Constitution, which stated that “the ownership and control of the material resources of the community are so distributed as best to subserve the common good.”⁴ Underlying the Bombay plan were two assumptions: first, the coming into existence of a National Government at the center which will be vested with full freedom in economic matters, and second, the maintenance of the economic unity of India.⁵

As India developed its industrial policy, the focus was to encourage the domestic industries, reflecting the sentiment that the British Raj had intentionally discouraged Indian industrial growth through distortions of tariff and trade rules to favor British firms. Consequently, when India considered which economic model to employ, capitalism was equated with a form of colonialism.⁶ The concern with industrialization was the fear that wealth and power would be concentrated in only a few. As Gandhi noted, “It is machinery ... that has impoverished India.”⁷

India looked to the models of the former Soviet Union, attributing the latter’s power and success to its socialist agenda, and Japan, attributing Japan’s rapid transformation from an agrarian society to a largely industrialized society to the role of the government in keeping out foreign competition. Yet, whether a socialist development model is an accurate measure for understanding the Indian economy is questionable. As noted by Galbraith in 1958:

Even the most intransigent Indian capitalist may observe on occasion that he is a really a socialist at heart. This reiterated reference to socialism is extremely important for an understanding of the Indian economy—or to speak more precisely, it contributes

² See P.S. LOKANATHAN, *INDIA’S POSTWAR RECONSTRUCTION AND ITS INTERNATIONAL ASPECTS*, reprinted in part in *Development Programs in China and India*, 18 PAC. AFF. 84-93 (Mar. 1945).

³ See J. Cohen, *Economic Development in India*, 68 POL. SCI. Q. 376-95 (Sept. 1953). The Bombay Plan was never realized. Instead, the First Five Year Plan took a middle path between the Bombay Plan and the countering Gandhian Plan, which focused on agricultural rather than industrial development. See *id.* at 379-80.

⁴ CONST. INDIA, Part IV, Art. 39(b).

⁵ LOKANATHAN, *supra* note 2.

⁶ John Kenneth Galbraith, *Rival Economic Theories in India*, FOREIGN AFFAIRS, Bol. 36, No. 4, at 591 (1958) (“[U]ntil recent times a good deal of capitalist enterprise in India was an extension of the arm of imperial power—indeed, in part its confessed *raison d’être*. As a result, free enterprise in Asia bears the added stigmata of colonialism, and this is a formidable burden.”).

⁷ See Deepak Kumar, *Reconstructing India: Disunity in the Science and Technology for Development Discourse, 1900-1947*, 15 OSIRIS 241-47 (2d series, 2000).

greatly to the failure to understand it. ...⁸ [T]he Indian commitment to the semantics of socialism is at least as deep as ours to the semantics of free enterprise ...⁹

A key player in the industrialization of India was Prasanta Chandra Mahalanobis, who was in charge of drafting the Second Five Year Plan, colloquially termed the Mahalanobis Model of Planning. This model proposed a nationalist approach to industrialization, arguing for self-reliance over foreign manufactured goods.¹⁰

1.2. IP Laws

1.2.1. Patents

1.2.1.1. History of Patent Law

The current system of patent law in India has its roots in the patent system established by the British in the 1800s. Constitutionally, the right to grant the patent was in the Crown; however, there was great debate in the mid-1800s regarding whether a patent granted in England extended to India. The debate resulted in the enactment of the Act of 1856, which provided patent-like rights termed “exclusive privileges,” which were granted to inventors for a period of fourteen years in India. Procedurally, however, this Act had no effect as it was not sanctioned by the Queen and arguably the Indian Legislative Council was not competent to pass the Act. Accordingly, in 1857 the Act of 1856 was repealed (Act IX of 1857) and in 1859, Act XV of 1859 was properly passed.

The Act of 1859 provided that the exclusive privilege to make, use, and sell the invention in India for fourteen years could be obtained when an inventor, after being granted leave by the Governor General, filed a specification describing the invention. The specification had to describe the nature of the invention and the means by which it was to be used, and no exclusive privilege would be granted in the absence of such disclosure or if the invention lacked utility, was not new, was not filed by the inventor, or if a fraudulent statement was made to obtain the privilege.¹¹ Novelty was regarded as anything not known in India or the United Kingdom of Great Britain and Ireland prior to filing the request for leave to file the specification.¹² The Act provided several grace periods. First, there was a six-month grace period for a public use of the invention by someone other than the inventor as well as a one-year grace period for public use by the inventor or by his instruction.¹³ There was also a twelve-month “grace period” for applying for leave if the invention was first patented in the United Kingdom in that it would not affect novelty if the invention was not known or used in India prior to the filing of the patent application in the

⁸ See Galbraith, *supra* note 6, at 588.

⁹ See *id.* at 590-91.

¹⁰ For a detailed discussion of the development of industrial policy after independence, see RAMACHANDRA GUHA, *INDIA AFTER GANDHI: THE HISTORY OF THE WORLD'S LARGEST DEMOCRACY* (HarperCollins 2007).

¹¹ See Act XV of 1859, Sec. XV.

¹² See *id.* at Sec. XIX.

¹³ See *id.*

United Kingdom.¹⁴ Finally, the Act provided for prior user rights¹⁵ and gave the Governor General the authority to revoke the privileges if considered mischievous to the State or prejudicial to the public.¹⁶

The Act was amended again in 1872 to include protection for designs¹⁷ and in 1883 to provide an exception to novelty for displaying at an international exhibition, possibly in response to the International Exhibition held in Calcutta, India in 1883.¹⁸ Essentially, this Act gave a six-month grace period for filing for leave to file a specification from the time of displaying the invention at the International Exhibition in Calcutta in 1883-84 as well as any other exhibitions “to be held in India which the Governor-General-in-Council may on the application of any persons desirous of holding the Exhibition by notification in the *Gazette of India*, declare to be, in the judgment of the Governor-General-in-Council, calculated to promote Indian art or industry and to prove beneficial to the mercantile, agricultural, or industrial classes of Her Majesty’s subjects in India.”¹⁹

These three Acts—the Acts of 1859, 1872, and 1883—were all superseded by Act V of 1888 entitled the Inventions and Designs Act, 1888. This later Act effectively consolidated the previous Acts and amended various provisions, including the procedure for the application for and grant of an exclusive privilege. This Act required that the specification contain not only a description of the nature of the invention and the means by which it is to be performed, as the earlier Acts required, but also appeared to include a best mode and enablement requirement.²⁰

Five years before the 1888 Act, laws were passed amending the British patent code. Nevertheless, when India passed the 1888 Act, it based the amendments on the English Patent Law of 1852. This is because India felt that the “time was not yet ripe in [India] for introducing the English practice in its entirety as the volume of patent work was then small.”²¹ However, by 1910, it was believed that the procedure for obtaining a patent should be in line with that of the British patent system, as provided in the Patents and Designs Act, 1907 and only provisions that were necessary to meet the “special conditions of India”²² were kept. Act II of 1911 was then passed accordingly and amended several times in subsequent years. For the most part the amendments related to reciprocity issues between India and other countries,²³ and were

¹⁴ See Act XV of 1859, Sec. XX.

¹⁵ See *id.* at Sec. XXI.

¹⁶ See *id.* at Sec. XVI.

¹⁷ See Act XIII of 1872.

¹⁸ Act XVI of 1883, An Act for the Protection of Inventions Exhibition in the Exhibitions of India.

¹⁹ *Id.*

²⁰ *Id.* at Sec. 9(3).

²¹ See Objects and Reasons of the Bill Culminating in Act II of 1911, Statement of B. Robinson, Mar. 21, 1910.

²² *Id.*

²³ See Objects and Reasons of the Bill culminating in Act XXIX of 1920, GAZETTE OF INDIA (stating that the main object of Act XXIX of 1920 was to “bring India into the inter-imperial arrangement for the provisional protection of inventions and designs within the Empire”). See also Act XXIX of 1920 cl. 78A (providing for “reciprocal arrangements with the United Kingdom and other parts of His Majesty’s dominions”).

intended to follow later amendments to the British patent laws.²⁴ Included were the right of the patentee to be the proprietor and a term extension from fourteen years to sixteen years.²⁵ This Act continued until the enactment of the Patents Act, 1970.

In 1948, soon after independence, due to general agreement that the patent system in place was not enough to ensure effective patent rights to promote industrial development, the Government appointed a Patents Enquiry Committee to review the situation. In 1950, the Committee submitted its report, known as the Justice Bakshi Tek Chand Report, 1950. The report suggested the issuance of compulsory licenses as a means to address abuses of the system, similar to that suggested by the Swan Committee in the United Kingdom.²⁶ In 1953, a Patents Bill was introduced in the lower house, the Lok Sabha, incorporating some recommendations of the report and following the 1949 U.K. Patents Act; however, it lapsed when the Lok Sabha was dissolved. In 1957, the government appointed Shri Justice N. Rajagopala Ayyangar to review the Indian patent laws.²⁷ This resulted in a report in 1959 which identified the purposes of the patent system, namely encouragement of technological advancement, which would result in an increased emphasis on technical education and a greater number of research institutes.

Nevertheless, the report emphasized that these purposes would not be achieved when applying a patent system to an underdeveloped country. Quoting the Interim Report, the Ayyangar Report noted:

[T]he Indian Patent system has failed in its main purpose, namely, to stimulate invention among Indians and to encourage the development and exploitation of new inventions for industrial purposes in the country so as to secure the benefits thereof to the largest section of the public.²⁸

The report also illustrated the disproportionate ratio of patents granted to domestic and foreign proprietors, with the ratio favoring the latter.²⁹ It was shown that the number of patent applications filed from 1949-1958 was 143% greater than the

²⁴ See Objects and Reasons of the Bill culminating in Act VII of 1930 ("The amendments which it is desired to make are drawn from several sources. A few of them are taken from the British Act of 1907 (on which the present Indian Act is based) and were omitted from the Indian Act as they were not considered necessary in the conditions then existing in India. A considerable number are based on the provisions of the British Patents and Designs Act of 1919 which represented a fairly general revision of the 1907 Act in the light of the experience gained from its working.")

²⁵ See Act VII of 1930 cl. 2 and cl. 9 (amending Sec. 14 of the 1911 Act).

²⁶ In 1944, the Board of Trade of the United Kingdom appointed a Departmental Committee to consider what, if any, changes were necessary to the Patents and Designs Act. The Committee was chaired by Sir Kenneth R. Swan. Its final report, submitted in 1947, suggested changes that were implemented in the U.K. Patents Act, 1949.

²⁷ See Santanu Mukherjee, *The Journey of Indian Patent Law Towards TRIPS Compliance*, 2 INT'L REV. INTELL. PROP. & COMPETITION L. (IIC) 2004, at 125 (stating that the government commissioned the report due in part to the high death rate, low life expectancy, and the extremely high prices of drugs).

²⁸ See N. RAJAGOPALA AYYANGAR, REPORT ON THE REVISION OF THE PATENT LAW (Government of India 1959).

²⁹ See *id.*, app.A, at 302.

number of applications filed from 1930-1939, but the number of patent applications filed by Indians remained proportionally the same. Moreover, 91% of patents in force as of January 1, 1958 were owned solely by foreigners.³⁰ Taking a seemingly protectionist stance, namely by identifying the “evils” of allowing patents to foreigners, the report recommended that the patent system be improved by:

- (1) defining with precision inventions which should be patentable and by rendering unpatentable certain inventions, the grant of patents to which will retard research or industrial progress or be detrimental to national health or well-being;
- (2) expanding the scope of “anticipation” so as to comprehend not merely what is known or published in this country, but also [that] which is known or published outside India;
- (3) providing remedies for the evils which India, in common with other countries, experiences from foreign owned patents which are not worked in the country, but which are held either to block the industries of the country or to secure a monopoly of importation;
- (4) providing special provisions as regards the licensing of patents for inventions relating to food and medicine; [and]
- (5) providing remedies for other forms of abuse resorted to by patentees, to secure a more extended monopoly or a monopoly for a longer duration than what the statute grants.³¹

The report included an extensive discussion on patents for chemical products. Specifically, it recommended that claims for chemical substances not be patented, following the contemporary German system of permitting only process claims. Ayyangar reasoned that the chemical industry would suffer if product claims were allowed, as only the inventor would be permitted to develop improved processes for manufacture of the chemical product. However, arguably protectionist sentiments played a role, as according to the figures, the percent of patent applications relating to drugs and pharmaceuticals by foreigners only increased from 92% in 1947 to 95% in 1957. The Swan Committee’s recommendation for such limitation in the U.K. patent law provided further support. The Ayyangar report also recommended broadening the requirements for anticipation, including removing the geographic limitation of publication in India, as well as providing for compulsory working and licensing of the invention.

The Patents Act, 1970 followed these suggestions by recognizing both process and product patents, with the latter not being available for inventions relating to

³⁰ While 8% of the patents that were in force on January 1, 1958, were owned by Indians, the remainder were shared by Indians and foreigners. *Id.* at 306. It has also been maintained that during the time when the 1911 Act was in force, indigenous companies were prohibited from manufacturing new drugs, as the patent rights were owned by foreign companies and the exclusionary period of sixteen years could be extended by another ten years if the patentee did not receive sufficient remuneration from the working of the patent during the original term. *See* N. Lalitha, *India’s Pharmaceutical Industry in the WTO Regime: A SWOT Analysis* (Gujarat Inst. of Dev. Res., Working Paper No. 131, Mar. 2002).

³¹ AYYANGAR REPORT, *supra* note 28.

food, medicine, or drugs or substances produced by chemical processes.³² In addition, it broadened the area of search for novelty to include worldwide publication and provided for compulsory licenses, and revocation of the patent if the invention was not used.³³ Furthermore, a patent claiming the method or process of manufacturing a substance for use as a food, medicine, or drug received a shorter term of seven years from the date of filing or five years from the date of grant; for other inventions, the term was reduced to fourteen years.³⁴

During the first decade following the enactment of the Patents Act, 1970, there was a significant decrease in the number of foreign applications, but the number of applications by Indians remained virtually the same. For example, in 1970, the number of patent applications filed by Indians was 1,116 (21.7%) whereas the proportion of applications filed by foreigners resident abroad was 3,864 (75.1%).³⁵ However, in 1978-79, the number of applications filed by Indians was 1,124 (38.3%) whereas by foreigners it was 1,795 (61.2%).³⁶ Indeed, the total number of applications dropped by nearly half.³⁷ Even more interesting is that in 1970, the number of patents in force that were owned by Indians was 2,568 (9%) as compared to 25,753 (91%) by foreigners; in 1978-79, the number owned by Indians was 2,469 (15%) as compared to 13,966 (85%) by foreigners. Again, the decrease in percentage of foreign ownership is illustrated, as the number of patents owned by Indians remains relatively constant.³⁸

Six years later, the trend reversed slightly in that the number of applications from Indians in 1984-85 was 1,001 (30%) and the number of applications from foreigners resident abroad was 2,316 (70%).³⁹ Another six years later, domestic filing again increased proportionally, with 1,293 (36.4%) applications filed by Indians and only 2,259 (63.6%) applications filed by foreigners.⁴⁰ The relatively stagnant level of applications filed between 1972 and 1992 saw a marked change

³² Patents Act, 1970, Sec. 5 ("In the case of inventions (a) claiming substances intended for use, or capable of being used, as food or as medicine or drug, or (b) relating to substances prepared or produced by chemical processes (including alloys, optical glass, semi-conductors and inter-metallic compounds) no patent shall be granted in respect of claim for the substances themselves, but claims for the methods or processes of manufacture shall be patentable.")

³³ See Patents Act, 1970, Sec. 88-90.

³⁴ See *id.* at Sec. 53.

³⁵ See Patents Seventh Annual Report of the Controller General of Patents, Designs and Trade Marks Under Section 155 of the Patents Act, 1970 (39 of 1970), app.B, at 20 (1978-1979). The remaining approximately 3.2% of applications stemmed from foreigners resident in India. See *id.*

³⁶ See *id.*

³⁷ The number of applications filed in 1978-1979 was 2,932, as compared to 5,142 in 1970 (representing a decrease of about 43%).

³⁸ See Patents Seventh Annual Report of the Controller General of Patents, Designs and Trade Marks Under Section 155 of the Patents Act, 1970 (39 of 1970), app.C, at 21 (1978-1979).

³⁹ See Patents Thirteenth Annual Report of the Controller General of Patents, Designs and Trade Marks Under Section 155 of the Patents Act, 1970 (39 of 1970), app.D, at 27 (1984-1985).

⁴⁰ See Patents Twentieth Annual Report of the Controller General of Patents, Designs and Trade Marks Under Section 155 of the Patents Act, 1970 (39 of 1970), app.D, at 25 (1991-1992).

with a peak of applications filed in 1997,⁴¹ likely due to India's accession to GATT-TRIPS, which mandated implementation of the mailbox procedure for patent applications directed towards pharmaceuticals.⁴²

1.2.1.2. Current Patent Law

The implementation of the TRIPS Agreement redefined the context for protection of intellectual property and in some ways reduced national sovereignty over patent laws. Reaching international agreement on the scope and protection of patents, in particular, was very difficult. Though India was an early signatory member of GATT, during subsequent negotiation rounds, there was a sense that GATT favored the developed, rather than developing, countries. In 1958, a committee reviewed the functioning of GATT and concluded in its final report, known as the Haberler Report, that developing countries faced an unbalanced system, which led to the establishment of the United Nations Conference on Trade and Development (UNCTAD).⁴³ As a result, Article 36 in Part IV of GATT was implemented, recognizing that a country's stage of development should be a factor when determining its treatment under the Agreement. With respect to patents, Article 20(d) of GATT allowed contracting parties to adopt and enforce measures "necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating to ... the protection of patents, trade marks, copyrights and the prevention of deceptive practices." Its application can be seen in the case of *United States—Imports of Certain Automotive Spring Assemblies*, which held that GATT contracting parties could take measures to protect patents, even if such measures do not conform to their obligations under GATT.⁴⁴

It soon became apparent that IP issues were critical to a global trading regime and could no longer benefit from sovereign immunity.⁴⁵ This led to the Uruguay

⁴¹ See Prabuddha Ganguli, *Patents and Patent Information in 1979 and 2004: A Perspective from India*, 26 WORLD PATENT INFO. 61-62 (2004). In 1999, there was sharp decline in the number of applications, likely resulting from India's accession to the Patent Cooperation Treaty (PCT) with inventors preferring to file directly via the PCT and designating India as one of several national phase countries.

⁴² However, it should be noted that the production of bulk drugs increased at a rate of between about 15-20% each year from 1991 through 2001. See 39th IDMA Annual Publication 2001, IDMA Bulletin XXXII (2001), World Bank Technical Paper No. 392.

⁴³ Jamshed A. Siddiqui, *GATT: The Indian Paradigm*, in GATT ACCORD AND INDIA: A CRITICAL ANALYSIS OF RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS AND THEIR IMPLICATIONS FOR INDIA (K.R. Gupta ed., 1994).

⁴⁴ L/5333 (May 26, 1983), see BISD 30S/107. Moreover, in the case of *United States—Section 337 of the Tariff Act of 1930*, it was suggested that national patent law cannot be challenged under GATT. L/6439 (Nov. 7, 1989), see BISD 36S/345. See also DANIEL GERVAIS, *THE TRIPS AGREEMENT: DRAFTING HISTORY AND ANALYSIS* (2d ed. 2003) for a detailed discussion on the drafting history of the GATT-TRIPS Agreement.

⁴⁵ It has also been argued that the recession affecting the developed countries in the early 1980s played a large role in the proposals for a structural change to the trading regime. See Siddiqui, *supra* note 43, at 4 (arguing that the "recession-hit developed countries substituted domestic structural adjustment with multilateral means").

Round trade negotiations, which commenced in 1986. Negotiations during this round included specific attention to IP rights.⁴⁶ The 1990 Ministerial meeting in Brussels also failed to reach a consensus, mainly due to disagreements between the developed countries. However, even prior to the meeting, it was clear that not only were there North-North differences but also North-South differences, especially with respect to compulsory licensing of patents. Indeed, a group of developing countries, including India, argued for compulsory licensing of patents and exceptions to patentability.⁴⁷ In addition, the developing countries supported a requirement that the patentee be required to work the patent in the country.⁴⁸

Hence it was made apparent that compromises were going to be difficult to reach and negotiations would be arduous. A 500-page draft was submitted in 1991, entitled the Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations (the “Dunkel Draft”), which detailed the areas where agreement had been reached and proposed compromises on the outstanding issues. Specifically, and with respect to patents, this draft proposed that the duration of patents be twenty years from filing and required patents for all fields of inventions, with a possible exception for plants and animals. After an agreement was reached between the United States and the European Community in 1992 on provisions dealing with agricultural subsidies, the “Blair House” accord was signed, which set the stage for the execution of the Uruguay Agreement, which was finalized in Geneva on December 15, 1993. India was strongly opposed to the text, despite the allowance of a transition period. In addition, several domestic industries submitted

⁴⁶ Various proposals were submitted to the Preparatory Committee, with the United States and Japan arguing for extensive protection of IP rights rather than a limitation to trademarks. See GERVAIS, *supra* note 44 (citing Prep.Com(86)SR/3 (Apr. 11, 1986)). Brazil and Argentina opposed such exhaustive protective measures. See *id.* (citing Prep.Com(86)W/49 (July 29, 1986)). Switzerland and Columbia attempted to provide a compromise text to serve as a basis for negotiations. The text provided by Switzerland and Columbia read as follows:

In order to reduce the distortions and impediments to international trade, and taking into account the need to promote the effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade, the negotiations shall aim to clarify GATT provisions and elaborate as appropriate new rules and disciplines. Negotiations shall aim to develop a multilateral framework of principles, rules and disciplines dealing with international trade in counterfeit goods, taking into account work already undertaken in GATT.

See id. (citing Document MIN.DEC 7-8 (Sept. 20, 1986)). Nevertheless, there was a failure to reach a consensus and negotiations were not completed by the expected date, so it was planned that negotiations would be completed by the end of 1990.

⁴⁷ *See* GERVAIS, *supra* note 44, at 20-21 (citing documents MTN.GNG/NG11/25 and MTN.GNG/NG11/27) (“As regards Part II, Section 5, patents, ... reaffirmed the vital importance to developing countries of the possibility of exclusion of certain products and processes from patentability on grounds of public interest, health or nutrition as provided in Article 28.”).

⁴⁸ *Id.* (“Article 30 on conditions and obligations of patent owners, should ... clearly specify that working the patented invention in the country of grant was one of the obligations of the patentee. Such working was an essential element upon which the patent system was based, and was part of the balance between the interests of patent owners and those of the country undertaking to protect inventions.”).

a declaration noting their concern over the impact of the TRIPS Agreement on industry, science, and technology worldwide and denounced obligations to impose a patent regime on sovereign nations.⁴⁹

The declaration argued that “there is no connection between intellectual property and trade,” and accordingly, that GATT was an inappropriate forum through which IP rights should be negotiated. Interestingly, the position of India did not attract more developing countries, in large part because others had already made substantial steps towards international integration.⁵⁰ Many developing countries at this time had realized that a liberal world trading order was necessary for their domestic reforms to bear fruit.⁵¹

Despite the opposition, in 1995, India became a member of the World Trade Organization (WTO), obliging it to comply with the provisions of GATT-TRIPS. As a developing country, India was given five years to amend its patent laws to be consistent with the TRIPS Agreement, and was given an additional five years to provide patent protection for pharmaceutical products. However, India had to provide a means to allow the filing of applications for pharmaceutical products. Unfortunately, the Indian legislature was unable to amend its laws to make them TRIPS compliant, despite efforts by the government, which introduced legislation to this effect. Consequently, on July 2, 1996, the United States requested consultations with India under the WTO Dispute Settlement process. The United States maintained, *inter alia*, that India did not provide any means for filing applications directed to pharmaceutical products during the transition period under Article 70.8, and that India did not provide for exclusive marketing rights as required under Article 70(9) of the TRIPS Agreement.

India argued that it in fact had a means in place to ensure that applications would benefit from the date of receipt and would be set aside for examination after the

⁴⁹ The statement was issued to support the declaration, and noted that it is essential for developing countries in particular that:

(a) the supremacy of national laws of patent protection be maintained in particular for adopting measures necessary to protect public health and nutrition and to promote public interest in sector of vital importance to their socio-economic and technological development; (b) in their national laws on patent protection, the developing economies must balance rights granted to outside technology owners with adequate obligations on them. Only then will they obtain much needed technology under fair terms and conditions in conformity with their public interest requirements.

See International Conference on Patent Regime Proposed in the Uruguay Round, Working Group on Patent Laws, *New Delhi Statement Towards and International Conference on Patent Rights & Obligations* (Sept. 2, 3 and 4, 1993).

⁵⁰ See *India in the GATT and the WTO*, in INST. INT’L ECON., REINTEGRATING INDIA WITH THE WORLD ECONOMY 79, available at http://www.iie.com/publications/chapters_preview/98/3iie2806.pdf.

⁵¹ Despite India’s accession to GATT-TRIPS and its automatic approval of FDI up to 100% in the pharmaceutical sector opening the sector to foreign competition, as of 2001, FDI did not increase substantially. See Lalitha, *supra* note 30. According to Lalitha, the lack of the expected increase in FDI in response to the decontrolling of drugs, opening the market to competition, and the availability of mailbox applications for pharmaceutical product patents could have been due to the worldwide recession at that time.

January 1, 2005 deadline. Indeed, on December 31, 1994, in accordance with its TRIPS obligations, the President of India promulgated the Patents (Amendment) Ordinance, 1994 to provide for the handling and filing of applications directed towards pharmaceutical and agricultural chemical products as well as ensuring that exclusive marketing rights were available. Pursuant to Indian law, the Ordinance lapsed subsequent to the reassembly of Parliament; however, Parliament failed to pass a bill incorporating the provisions of the Ordinance prior to its dissolution.⁵²

The United States had an interest in ensuring that the mechanisms required under the TRIPS Agreement were in place at the time of the Ordinance; specifically, U.S. companies had filed 27% of the applications directed towards pharmaceutical and agricultural chemical products, with 24% being filed after the expiration of the Ordinance. India argued that it had in place a means to hold patent applications directed to these products and that there was no obligation in the TRIPS Agreement that such measures had to be made through legislative rather than administrative practices.⁵³ However, the United States contended that the TRIPS Council was not notified about this practice, a requirement under the Agreement, and thus applications filed subsequent to the expiration of the Ordinance would not benefit from legal protection under the TRIPS Agreement. Alternatively, the United States argued that even if such practice would meet the requirement of Article 70.8, it lacked transparency as required under Article 63 of the Agreement.

In addition, the United States maintained that India failed to meet its TRIPS obligations by not having a formal system in place to grant exclusive marketing rights (EMRs), as required under Article 70.9 of the Agreement⁵⁴ and it was obligated to have such system in place from January 1, 1995, the date India signed the Agreement. India did not dispute that it was subject to Article 70.9 obligations as of January 1, 1995; instead the issue became one of timing, i.e., when India was required to have the legal authority to implement Article 70.9 provisions and what the scope was of the term “exclusive marketing rights.” India claimed that as it took a substantial amount of time not only first to obtain a patent on a pharmaceutical or agricultural chemical product but also it required time to obtain marketing approval for such products. The argument was that since no request for an EMR had been received, it followed that India had not denied granting an EMR to any product entitled to such right under Article 70.9. In contrast, the United States maintained that that India had

⁵² See WTO PANEL REPORT, INDIA—PATENT PROTECTION FOR PHARMACEUTICAL AND AGRICULTURAL CHEMICAL PRODUCTS, No. 97-3496 (Sept. 5, 1997).

⁵³ India maintained that through notices given to the patent offices, it was an administrative practice to store the applications directed to pharmaceutical and agricultural chemical products until it was ready for examination in 2005.

⁵⁴ According to Article 70.9, exclusive marketing rights must be granted by India for a pharmaceutical or agricultural chemical product for which a patent application has been filed only if the product meets the following conditions: (a) a patent application has been filed with respect to that product in another member of the WTO after January 1, 1995; (b) the other WTO member has granted the patent; (c) the other member has approved the marketing of the product; and (d) India has approved the marketing of the product. Further, an exclusive marketing right need only be granted for a maximum period of five years.

an immediate obligation to implement Article 70.9 and as India had no such procedure in place, it was not complying with its obligations under the Agreement. Moreover, the United States stated that no request for an EMR had been received because rights holders would not have such a right to seek one under Indian law.⁵⁵

The WTO panel ruled against India in part because India failed to provide a system for filing pharmaceutical and agricultural product patent applications. This was a requirement if the transition period was employed in order to allow for examination of these applications after the expiration of the transition period. In addition, India did not provide for exclusive marketing rights during the transition period, another TRIPS requirement. These systems were required to be in place as of January 1, 1995, even though for some countries, such as India, product patent protection for pharmaceutical and agricultural chemical products was not required to be available until January 1, 2005. Further, as the central object and purpose of Article 70.8 is to preserve novelty and priority rights, there must be a sound legal basis for the filings that protects the legitimate expectations of other WTO members. The Panel found that the mailbox system lacked the legal security necessary to serve the purpose of Article 70.8, and further, that India's lack of notification to the TRIPS Council failed to comply with the transparency obligations under Article 63.

Moreover, in order to comply with Article 70.9, India was obligated to amend its laws no later than April 19, 1999 to provide for EMRs.⁵⁶ The Patents (Amendment) Act, 1999 followed this ruling, allowing for mailbox applications for product patents and introduced the concept of exclusive marketing rights for five years for pharmaceutical and agricultural products, where a claim for such product was already patented in a Convention country.⁵⁷ Not surprisingly, EMRs

⁵⁵ The European Community, as a third party to the complaint, also presented arguments supporting the United States, asserting that with the expiration of the Ordinance, filings did not enjoy the legal status they are allowed under Articles 70.8 and 70.9, and asked that India be obligated to bring its domestic law in conformity with its obligations under the TRIPS Agreement.

⁵⁶ See WTO PANEL REPORT, INDIA, *supra* note 52.

⁵⁷ See Patents (Amendment) Act, 1999, Sec. 24B:

(1) Where a claim for patent covered under sub-section (2) of section 5 has been made and the applicant has—

(a) where an invention has been made whether in India or in a country other than India and before filing such a claim, filed an application for the same invention claiming identical article or substance in a convention country on or after the 1st day of January, 1995 and the patent and the approval to sell or distribute the article or substance on the basis of appropriate tests conducted on or after the 1st day of January, 1995, in that country has been granted on or after the date of making a claim for patent covered under sub-section (2) of section 5; or

(b) where an invention has been made in India and before filing such a claim, made a claim for patent on or after the 1st day of January, 1995 for method or process of manufacture for that invention relating to identical article or substance and has been granted in India the patent therefore on or after the date of making a claim for patent covered under sub-section (2) of section 5, and has received the approval to sell or distribute the article or substance from the authority specified in this behalf from the Central Government,

then, he shall have the exclusive right by himself, his agents or licensees to sell or distribute in India the article or the substance on and from the date of approval granted by the Controller in this behalf till a period of five years or till the date of grant of patent or the date of rejection of application for the grant of patent, whichever is earlier.

were not readily granted and indeed the first EMR granted became the subject of dispute.⁵⁸

However, India still needed to amend its patent laws to meet the transitional provisions under the TRIPS Agreement and in 2002 and 2005, the Act underwent more amendments to comply. These amendments represent the current state of the patent law. The 2005 amendments, which in particular provide for patenting of pharmaceutical products by deleting Section 5 of the Act,⁵⁹ were subject to much domestic opposition. This was largely due to pressure from leftist party members and a strong generic manufacturing industry.⁶⁰ While the populist debate focused on access to medicines, there were significant underlying economic concerns, namely concerns over the effect the patent amendments would have on domestic generic

⁵⁸ Specifically, there was concern with the EMR granted to Novartis for its anti-cancer drug Gleevac. Novartis filed a patent application in 1998 and applied for an EMR pending the grant of its patent and received the EMR in 2003. Interestingly, the Comptroller General who granted the EMR to Novartis was subsequently fired. See K.G. Narendranath, *Patents Controller Fired over EMR to Novartis*, ECON. TIMES, available at <http://economictimes.indiatimes.com/cms.dll/%3E/articleshow/842919.cms>. Novartis then brought actions against some generic manufacturers in the Bombay and Madras High Courts, which issued conflicting decisions, the latter upholding the EMR. While an appeal was pending, the Chennai Patent Office rejected the patent application primarily based on Section 3(d) of the Patent Act, stating that the invention was only a new polymorphic form of a known compound and thus the properties did not differ significantly with regard to efficacy. Novartis challenged the ruling of the Chennai Patent Office, arguing that Section 3(d) is not valid under the Constitution and is not TRIPS compliant. The Madras High Court ruled that the question of TRIPS compliance falls within the jurisdiction of the WTO. The issue of whether the invention is patentable under Section 3(d) is pending at the Intellectual Property Appellate Board (IPAB). The IPAB was made functional to hear patent cases a few weeks prior to the decision of the Madras High Court.

⁵⁹ The Patents (Amendment) Act, 2005 deleted the following provision (which incorporates the 1999 and 2002 amendments):

5. Inventions where only methods or processes of manufacture patentable

(1) In the case of inventions

a. claiming substances intended for use, or capable of being used, as food or as medicine or drug, or

b. relating to substances prepared or produced by chemical processes (including alloys, optical glass, semi-conductors and inter-metallic compounds), no patent shall be granted in respect of claims for the substances themselves, but claims for the methods or processes of manufacture shall be patentable.

(2) Notwithstanding anything contained in sub-section (1), a claim for patent of an invention for a substance itself intended for use, or capable of being used, as medicine or drug, except the medicine or drug specified under sub-clause (v) of clause (1) of sub-section (1) of section 2, may be made and shall be dealt, without prejudice to the other provisions of this Act, in the manner provided in Chapter IVA.]

Explanation—For purposes of this section, “chemical processes” includes biochemical, biotechnological and microbiological processes.

⁶⁰ At that time, the support of the Communist party was critical to the survival of the ruling coalition. See Rajesh Mahapatra, *India Struggles with Patent Reform*, FINANCIAL TIMES, Dec. 26, 2004 (noting that the Communist party insisted on parliamentary debate on the issue, quoting Nilopat Basu, a Communist politician, as saying, “If there is an ordinance that fails to address our concerns, the government will be in trouble”).

manufacturers, particularly with respect to job losses.⁶¹ Proponents of the amendments maintained that the changes would spur innovation and attract investment.

Whether the patent law as amended complies with the TRIPS Agreement is the subject of some argument. On its face, several provisions of the law may appear to comply, but when considering the law as a whole, there it is unclear whether the Act undermines the intent of the TRIPS Agreement. The Patents (Amendment) Acts of 2002 and 2005 broadened the classes of inventions that are not patentable. For example, the 2002 amendment excluded from patentability plants and animals and, interestingly, also banned patents on traditional knowledge.⁶² The 2005 amendments appear to subject incremental innovation with respect to pharmaceutical chemicals to a higher standard⁶³ Moreover, for the thousands of mailbox applications in the pipeline, the amendments limit the remuneration for patents granted on these applications to a reasonable royalty from companies which have made a significant investment and produced and marketed the product prior to January 1, 2005, and continue to market the product on the date of grant of the patent. In addition, no infringement proceedings can be brought against the prior user.⁶⁴ Finally, the amendments also provide for a statutory research exemption similar to that found in the United States. However, while the 2002 amendment included a broad Bolar-type provision, the 2005 amendment broadened it to include parallel importation.⁶⁵ Inter-

⁶¹ *See id.*

⁶² The Patents (Amendment) Act, 2002 amends Section 3 of the Patents Act, 1970 (incorporating the 1999 amendments) to exclude from patentability:

(j) plants and animals in whole or in any part thereof other than microorganisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals;

(k) a mathematical or business method, or computer program *per se* or algorithms;

(l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television products;

(m) a mere scheme or rule or method of performing a mental act or method of playing game;

(n) a presentation of information;

(o) topography of integrated circuits;

(p) an invention which, in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components.

⁶³ *See* Patents (Amendment) Act, 2005, Sec. 3(d). An explanatory note to the provision defining the patentability of new uses provides that “salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy.”

⁶⁴ *See* Patents (Amendment) Act, 2005, Sec. 10(c).

⁶⁵ The 2002 Amendment provided a new Section 107 stating that:

(a) any act of making, constructing, using or selling a patented invention solely for uses reasonably relating to the development and submission of information required under any law for the time being in force, in India, or in a country other than India, that regulates the manufacture, construction, use or sale of any product; (b) importation of patented products by any person from a person who is duly authorised by the patentee to sell or distribute the product; shall not be considered as an infringement of patent rights.

The 2005 Amendment broadened the scope of this exemption by including the word “importing” and eliminating the requirement that the patentee must be the one who authorized the production, sale, or distribution of the product.

estingly, the Bolar type exemption mimics to a large extent the U.S. exemption codified in 35 U.S.C. 271(e)(1), but at the same time broadens the scope to include any country's laws. Whether this exemption falls within the limits of Article 30 of the TRIPS Agreement is questionable.

An Expert Committee was also formed to address (1) whether India would still be deemed to comply with TRIPS if it limited the grant of patents for pharmaceutical substances to new chemical entities or to new medical entities involving one or more inventive steps; and (2) whether it would be TRIPS-compatible to exclude micro-organisms from patenting. The Committee found that limiting the grant of patents to new chemical entities and excluding micro-organisms from patent protection would not comply with the TRIPS Agreement. The report also discussed Section 3(d), noting that incremental innovation must be encouraged and guidelines to ensure the appropriate application of Section 3(d) should be developed. As the report was withdrawn for technical reasons, it is unclear if the substance of the report will be considered.

India also promulgated new rules in 2006 relating to the pre-grant opposition process. The rules provide that the grant of a patent cannot occur prior to the expiry of six months from the publication of the application. During that time, it appears that unlimited numbers of oppositions can be filed, thereby endlessly delaying the grant of the patent. While there have been some reports of unreasonable delays as a result of this provision, with the patent term beginning on the date of filing, the potential for abuse is great.

Another pharmaceutical-related area of interest is India's response to TRIPS Article 39.3, namely data protection for pharmaceutical and agricultural chemicals. The implementation of this provision is under consideration, including, e.g., the duration of protection and the terms. It is unclear whether India will provide a non-reliance provision like those found in several OECD countries or whether it will limit the protection to non-disclosure. Multi-national pharmaceutical companies support a non-reliance provision, i.e., that third parties, and in India's case, typically generic companies, not be able to rely on the data submitted by innovative companies for a set period of time. India's large generic industry is naturally opposed to this provision.

A report by the Department of Chemicals and Petrochemicals discussed India's approach to implementing data protection. The policy agenda of promoting domestic industries is prominent in this report. Here, the report suggests granting five years of protection against reliance by others for traditional medicines, with the explicit intent to promote the Indian domestic traditional medicines market. For innovative agricultural chemicals, the protection suggested is three years, with numerous "safeguards": though India has made significant progress in moving towards an industrialized economy, its agricultural sector continues to play a prominent role in trade-related decisions. For the research-based pharmaceutical industry, there is a suggestion that a transition period of undefined term before any data protection is granted be put in place.

Another area of the patent law amendments that drew attention, albeit less attention than pharmaceuticals, were the provisions that related to the patentability

of computer software. Initially, the 2002 amendments stated that computer programs were unpatentable *per se*. Subsequent to the 2002 amendments, the Patents (Amendment) Ordinance, 2004 alleviated the constraints of the 2002 amendments by deeming unpatentable computer programs *per se* other than its technical application to industry or a combination with hardware.⁶⁶ However, this exception to the *per se* rule was not included in the 2005 amendments.⁶⁷ Moreover, the definition of “inventive step” was modified to add an addition step of “economic significance” or technical advancement in addition to nonobviousness. Noteworthy is the absence of resistance from the software sector of India to the 2005 amendments as it applies to computer programming, particularly considering the domestic growth in that industry; nevertheless, that may be changing as the sector becomes more organized.

In terms of ownership, India has made some strides in domestic innovation. For example, foreign ownership of domestic inventions decreased from 67% (1991-92) to 43% (1999-2000). Similarly, there was a decrease in the percentage of patents with foreign co-inventors, specifically from 45% (1991-92) to 35% (1999-2000). This provides some indication of the level of internationalization of scientific and technological activities. Moreover, patent filings from India have increased. According to a WIPO Report on Worldwide patent activity, India was ranked twelfth for the number of patent applications filed in 2004.⁶⁸ In 2006, India filed 1,923 applications in the United States, which was about a 31% increase over the number of applications filed in 2005, and about a 48% increase over the number of applications filed in 2004.⁶⁹

1.2.2. Copyright

1.2.2.1. History of Copyright Law

Copyright law was imported into the Indian laws during British colonial rule, and therefore resembled the British copyright regime. The Literary Copyright Act, 1842 extended the scope of the British copyright to “the United Kingdom of Great Britain and Ireland, the islands of Jersey and Guernsey, all part of the East and West Indies, and all colonies, settlements and possessions of the Crown which are now or hereafter may be acquired.”⁷⁰ Act XX of 1847,⁷¹ amended by Act XXV of 1867, regu-

⁶⁶ Patents Amendment Ordinance, 2004 (emphasis added).

⁶⁷ See Patents (Amendment) Act, 2005, Sec. 2(f) (“Inventive step” means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.”).

⁶⁸ The United States ranked second, behind Japan. The number of patent applications filed increased from 884,400 in 1985 to 1,599,000 in 2004. See WIPO PATENT REPORT: STATISTICS ON WORLDWIDE PATENT ACTIVITY (2006).

⁶⁹ See WIPO PATENT REPORT: STATISTICS ON WORLDWIDE PATENT ACTIVITY (2008).

⁷⁰ Literary Copyright Act, 1842 cl. 45.

⁷¹ Act. XX of 1847, An Act for the Encouragement of Learning in the Territories Subject to the Government of the East India Company. This Act was domestic in character, in contrast to imperial law, such as the Literary Copyright Act, 1842.

lated printing presses and newspapers and provided for the registration of books printed in British India. There was some tension between Great Britain and India in improving copyright protection, possibly due to the requirement that India obtain British authorization prior to a change in the copyright laws, a requirement not shared by other colonies.⁷² Thus, India's improvement of its copyright laws was subject to the politics and delays of any corresponding improvement in British law.⁷³ Later, Britain's accession to the Berne Convention pulled India into the international copyright regime.⁷⁴

Post-colonial India saw the passage of the Copyright Act, 1957. The 1957 Act followed several of the Berne commitments but also provided greater protection for authors, particularly in the areas of moral rights and certain exceptions to copyright infringement. India, as a developing country, recognized education as a tool for advancement, and strict copyright regimes were seen as impeding that goal. Fee payment seemed contradictory to the notion of knowledge access, particularly with respect to science and technology, and to date, the 1957 Act provides an extensive list of noninfringing uses, with "fair dealing" repeatedly mentioned. Fair dealing with literary works, e.g., for the purposes of private use, including research, is not an infringement; nor is, e.g., the publication of short passages in a collection, mainly composed of non-copyrighted matter, when it is intended, in good faith, for the use of educational institutions.⁷⁵ Moreover, the reproduction of literary works, e.g., by a teacher in the course of instruction, as part of an examination, or in answers to questions, are acceptable, non-infringing uses of copyright works.⁷⁶ Indeed, it appears from the scope and nature of the exceptions, that India intended the concept of "fair use" to encompass, very broadly, use for educational purposes.

The 1957 Act underwent substantial amendments in 1983, 1984, 1992, 1994, and 1999. These amendments served in part to update the laws in view of increased digital technology while at the same time narrowed the scope of moral

⁷² For example, South Australia and New South Wales, subject only to the requirement that they may adopt laws so long as they are not inconsistent with British law, codified their own copyright legislation. For further discussion on the influence of British colonial rule on Indian copyright law, see Lionel Bently, *Copyright, Translations, and Relations Between Britain and India in the Nineteenth and Early Twentieth Centuries*, 82 CHI.-KENT L. REV. 1181 (2007).

⁷³ Further colonial legislation includes the Imperial Act, 1911, responding to developments in the Berne Convention with respect to translations.

⁷⁴ The United Kingdom implemented the Berne Convention through the International Copyright Act, 1886 which applied to all British possessions. Later, independent India chose to remain a member country of the Berne Convention.

⁷⁵ The scope to which this exception can be applied is unclear. As pointed out by Dr. Mira Sundara Rajan, the allowance of "short passages" is vague in determining its application to short works. See *Digital Learning in India: Problems and Prospects*, http://cyber.law.harvard.edu/home/dl_india.

⁷⁶ See Copyright Act, 1957, Sec. 57.

rights.⁷⁷ The amendments also increased the term of protection for published artistic, literary, dramatic, and musical works from fifty years to sixty years from the year following the death of the author.⁷⁸ In view of India's growing software industry, the amendments in 1999 encouraged greater collaboration among software developers by, e.g., allowing "the doing of any act necessary to obtain information essential for operating interoperability of an independently created computer programme with other programmes ..."⁷⁹ To some extent, it can be argued that India's law foreshadowed current discussions on interoperability and access to protected works.

1.2.2.2. *Current Copyright Law*

Recently, India has proposed several amendments to its copyright laws, in part to include protection for digital rights management information. It appears at first glance that India intends these amendments to implement the WIPO Internet Treaties.⁸⁰ For example, it has been proposed that the definition of "communication to the public" be broadened to include performances and include the making available right.⁸¹ Moreover, the amendments include a new definition for rights management

⁷⁷ The Copyright Act, 1957 deemed any change to a work to be an infringement of the author's rights: "(1) Author's special rights. Independently of the author's copyright, and even after the assignment either wholly or partially of the said copyright, the author of a work shall have the right to claim the authorship of the work as well as the right to restrain, or claim damages in respect of, (a) any distortion, mutilation or other modification of the said work; or (b) any other action in relation to the said work which would be prejudicial to his honour or reputation." In 1984, Act 38 amended Article 57 to be more in line with Berne Convention Article 6bis: "(1) Independently of the author's copyright and even after the assignment either wholly or partially of the said copyright, the author of the work shall have the right ... (b) to restrain or claim damages in respect of any distortion, mutilation, modification or other act in relation to the said work which is done before the expiration of the term of copyright if such distortion, mutilation, modification or other act would be prejudicial to his honour or reputation." Recently, in *Amar Nath Sehgal v. Union of India*, the Court found the Government of India liable for violating an Indian's sculptor's moral rights and ordered over US\$11,000 in damages. The Court noted that the "plaintiff has a right to be compensated for loss of reputation, honour and mental injury due to the offending acts of the defendants."

⁷⁸ See Act 13 of 1992. The term of protection for anonymous and pseudonymous works was similarly amended.

⁷⁹ See Sec. 52(1) ("The following acts shall not constitute an infringement of copyright, namely: (ab) the doing of any act necessary to obtain information essential for operating inter-operability of an independently created computer programme with other programmes by a lawful possessor of a computer programme provided that such information is not otherwise readily available.")

⁸⁰ The WIPO Internet Treaties collectively refer to the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT). India has not ratified either treaty.

⁸¹ See Proposed Amendment 2(ff) (stating that "'communication to the public' means making any work or performance available for being seen or heard or otherwise enjoyed by the public directly or by any means of display or diffusion otherwise than by issuing physical copies of it, whether simultaneously or at places and times chosen individually, regardless of whether any member of the public actually sees, hears or otherwise enjoys the work or performance so made available").

information⁸² and provide for technical protection measures. The proposed amendments also provide for criminal penalties for circumvention of an effective technological measure and altering, e.g., rights management information.

Not surprisingly, there is some opposition to increased protection from the education sector. That India's Copyright Office is located within the Department of Secondary and Higher Education implies some influence from the education sector on copyright protection. In this regard, there may be a perception that copyrights in works useful in the educational sector are a type of "community right" rather than an economic or trade-based right.

At least for the entertainment industries, these amendments may not go far enough to capture the spirit of the WIPO Internet Treaties, e.g., they do not prohibit the sale and distribution of circumvention devices. Nevertheless, it should be noted that India has taken a positive step towards implementing a stronger copyright regime, particularly in the absence of any apparent obligation to provide such protection. In order to understand this somewhat unprecedented step by India, it is necessary to recognize the balance India attempts to achieve with foreign direct investment in the entertainment industries and its domestic beneficiaries of copyright, primarily its musical, film, and, more recently, software industries.

1.2.3. Trademark

While some form of proprietary protection for marks in India dates back several millennia, India's statutory trademark law dates back to 1860.⁸³ The definition of trademarks was provided in the penal code in India and was later adopted in the Indian Merchandise Marks Act, 1889. India implemented a new trademark law in 1940, but due to its colonial history, India's trademark law was heavily influenced by the trademark laws of the United Kingdom.⁸⁴ Later, the Trade and Merchandise Marks Act, 1958 was the governing trademark law of post-independence India, and cases illustrate how foreign owned trademarks were not immune from India's protectionist policies. For example, in *R.J. Reynolds Tobacco Co. v. Indian Tobacco Co.*,⁸⁵ the defendant moved to remove the trademark from the register on the grounds of non-use. The plaintiff argued that India had in place a ban on the import of cigarettes since 1957 (predating the filing date of the application of 1975), that was still in effect at the time of the action. The Delhi High Court denied an injunction against the defendant's sale of cigarettes that infringed plaintiff's "NOW"

⁸² Section 2(xa) defines "Rights Management Information" to include the title or other information identifying the work or performance as well as identification information of the author or performer.

⁸³ See WILLIAM H. BROWNE, A TREATISE ON THE LAW OF TRADEMARKS 1-14 (1885). Browne traces the use of proprietary and trade marks back several millennia to China, India, Persia, Egypt, Rome, and Greece, among others.

⁸⁴ The Trade Marks Act, 1940 was substantially similar to the U.K. Trade Marks Act, 1938.

⁸⁵ 1987 (1) ARBLR 156 (Delhi).

trademark.⁸⁶ The Trade and Merchandise Marks Act, 1958 was repealed and replaced by the new Trade Marks Act, 1999 in response to until India's accession to the WTO.

The purpose of the Trade Marks Act, 1999 was to conform to obligations under the TRIPS Agreement. As such, one of the primary changes was the broadening of the definition of trademark. Previously, a trademark was only available to protect goods or commodities. The new law extends trademark protection to marks used in connection with services.⁸⁷ Perhaps, however, the most notable change is the additional rights the owner of a well-known mark enjoys under the new law. Specifically, not only can opposition to the registration of a mark be filed on the grounds that the mark is similar or identical to a previously registered mark if the classification of goods in both marks is similar or identical, but also the law provides an anti-dilution provision in that the trademark owner is also protected against those who use the well-known mark for different goods or services than are covered by the mark but in a manner that "takes unfair advantage of or is detrimental to, the distinctive character or repute" of the mark.⁸⁸ *JVC Indus. Corp. v. Victor Co. of Japan Ltd.*

⁸⁶ *But cf.* Express Bottlers Serv. Pvt. v. Pepsico Inc., MANU/WB/0158/1988 (Calcutta). In this case, the court disagreed that "use" requires sales to the general public. Here, Pepsico sold its product to foreign embassies, missions, and diplomats but, due to import restrictions on the ingredients, did not sell the product to the general public. The defendant's petition to remove the mark due to non-use was unsuccessful.

⁸⁷ Section 2 of the new law defines a trademark as a "mark capable of being represented graphically and which is capable of distinguishing the goods or services of one person from those of others." Further, 'service' means 'any description which is available to potential users and includes the provision of services in connection with business of any industrial or commercial matters such as banking, communication, education, financing, insurance, chit funds, real estate, transport, storage, material treatment, processing, supply of electrical or other energy, boarding, lodging, entertainment, amusement, construction, repair, conveying of news or information and advertising.'"

⁸⁸ Section 11(2) states that a trademark which "(a) is identical with or similar to an earlier trade mark, and (b) is to be registered for goods or services which are not similar to those for which the earlier trade mark is registered in the name of a different proprietor shall not be registered if or to the extent the earlier trade mark is a well-known trade mark in India and use of the later mark without due cause would take unfair advantage of or be detrimental to the distinctive character or repute of the earlier trade mark." Section 11 further states the following factors that should be taken into account when determining whether a mark is a well-known mark:

(i) the knowledge or recognition of that trade mark in the relevant section of the public including knowledge in India obtained as a result of promotion of the trade mark;

(ii) the duration, extent and geographical area of any use of that trade mark;

(iii) the duration, extent and geographical area of any promotion of the trade mark, including advertising or publicity and presentation, at fairs or exhibition of the goods or services to which the trade mark applies;

(iv) the duration and geographical area of any registration of or any publication for registration of that trade mark under this Act to the extent they reflect the use or recognition of the trade mark;

(v) the record of successful enforcement of the rights in that trade mark, in particular, the extent to which the trade mark has been recognised as a well-known trade mark by any court on Registrar under that record.

& *Anr.*⁸⁹ highlights this change in the law. In *JVC*, the issue was whether the defendant's use of the "JVC" mark in connection with similar goods but in a different classification from that of the appellants, was sufficient to successfully oppose the appellants registration of "JVC." Specifically, the appellants had applied for "JVC" in connection with battery chargers and similar electric devices, and the defendants filed an opposition. The Board sided with the defendants in finding that the goods in both the appellant's application and the defendant's marks were similar. That the defendants had widely used the mark in India supported the Board's finding.

The amendment as it relates to well-known marks also supports previous courts' reasoning in transborder reputation/passing off cases.⁹⁰ For example, in *N.R. Dongre v. Whirlpool Corp.*,⁹¹ the Delhi High Court considered whether the reputation of the "WHIRLPOOL" trademark extended across the border into India and whether an action for passing off could be maintained in view of transborder reputation. The Delhi High Court found that Whirlpool could rely on a transborder reputation in a passing off action because it enjoyed an international reputation and its advertisements were in circulation in the upper and middle classes of India.⁹² The Supreme Court affirmed the ruling.⁹³ Similarly, in *Kamal Trading Co. v. Gillette UK Ltd.*,⁹⁴ the Bombay High Court found that in view of globalization in advertisements, information, and travel, there is no need for actual use in a jurisdiction before the right holder can take action against improper use of the mark.

Other changes seen in the Trade Marks Act, 1999 are that trademarks now include design marks, i.e., the shape of goods, their packaging, and their combination of colors, and the term of protection was increased from seven to ten years. Finally, the new law provides for an Intellectual Property Appellate Board, the purpose being to reduce the caseload of the High Courts, and provides for a minimum of six months and maximum of three years incarceration and a fine of 50,000 rupees to 3 lakh for serious offenses. Moreover, recent cases suggest that

⁸⁹ 2005 (31) PTC 315 (IPAB).

⁹⁰ Section 11(9) provides that:

The Registrar shall not require as a condition, for determining whether a trade mark is a well-known trade mark, the any of the following, namely:

- (i) that the trade mark has been used in India,
- (ii) that the trade mark has been registered,
- (iii) that the application for registration of the trade mark has been filed in India,
- (iv) that the trade mark (a) is well known in; or (b) has been registered in; or (c) in respect of which an application for registration has been filed in, any jurisdiction other than India; or
- (v) that the trade mark is well known to the public at large in India.

⁹¹ AIR 1995 Del 300.

⁹² *Id.* (holding that "the knowledge and awareness of a trade mark in respect of the goods of a trader is not necessarily restricted only to the people of the country where such goods are freely available but the knowledge & awareness of the same reaches even the shores, of those countries where the goods have not been marketed").

⁹³ See *N.R. Dongre v. Whirlpool Corp.*, 1996 VIAD (SC) 710.

⁹⁴ 1988 (8) PTC 1 (Bom).

the courts are amenable to providing for punitive damages in trademark infringement actions.⁹⁵

1.2.4. Designs

Protection for industrial designs in India was available in the early twentieth century with the Design Act, 1911. This Act provided for protection to the visual appearance of the article for a period of five years.

Upon implementing the TRIPS Agreement, India passed the Designs Act, 2000, broadening the scope of available protection and extending the term of protection. The Designs Act, 2000 defines “design” as the features of shape, configuration, pattern, ornament, or composition of lines or colors applied to any article whether in two-dimensional or three-dimensional (or both) forms.⁹⁶ The design must be original and novel, where novelty is judged under an absolute novelty standard.⁹⁷ The design is protected for ten years with a possible five-year extension and may also claim priority rights under the Paris Convention. Interestingly, however, while the basis for design protection is similar to other international systems (e.g., novelty, originality, etc.), the design right itself appears to take the form of copyright protection. Under the Designs Act, 2000, the term of protection for the design extends not to the “design,” which would suggest a separate intellectual property right, but rather to the “copyright in the design.”⁹⁸ However, it is clear that designs are treated differently than copyrights, and are arguably less valuable, as the penalties for infringement of a design are capped at 50,000 rupees for a design,⁹⁹ while for copyrights, the minimum is 50,000 rupees and the maximum is 2 lakh.¹⁰⁰

1.2.5. Geographical Indications

Interestingly for a country with a vast amount of resources with regional names that enjoy worldwide recognition, including Basmati rice, Alphonso mangoes, and Darjeeling tea, India did not have separate legislation protecting geographical indications until 1999, with the passage of the Geographical Indications of Goods (Registration and Protection Act). Prior to this, geographical indications benefited

⁹⁵ *See, e.g.*, *Time Inc. v. Lokesh Srivastava & Anr.*, 2005 (30) PTC 3 (Del) (reasoning that justice requires remedies to apply not only to the parties to the lawsuit but also those who, though not joined in the action, suffer on account of the infringement); *Hero Honda Motors Ltd. v. Shree Assuramji Scooters*, 2006 (32) PTC 117 (Del); *Aktiebolaget Volvo & Ors. v. V.N. Prasad & Anr.*, 2006 (32) PTC 327(Del) (granting a permanent injunction and damages against the defendant, who operated an Indian Volvo tourist bus using the trademark Volwo (changed from Volvo upon notice of infringement) on the buses).

⁹⁶ *See* Designs Act, 2000.

⁹⁷ *See* Designs Act, 2000, Sec. 4.

⁹⁸ *See* Designs Act, 2000, Sec. 11 (“When a design is registered, the registered proprietor of the design shall, subject to the provisions of this Act, have copyright protection in the design during ten years from the date of registration.”)

⁹⁹ *See* Designs Act, 2000, Sec. 22. The minimum damages for infringement of a design is 25,000 rupees.

¹⁰⁰ *See* Copyright Act, 1957, Sec. 63(b).

from a sort of piecemeal protection under the trademark¹⁰¹ and consumer protection laws. However, pursuant to India joining the WTO and signing on to the TRIPS Agreement, India passed this legislation.¹⁰² The government also created a central registry where right holders register their geographical indications.

There have been several cases which highlight the understanding and awareness of the judiciary about the importance of geographical indications, even though the issues were discussed under the laws of passing off. For example, in *Mohan Meakin Breweries v. Scotch Whisky Ass'n*,¹⁰³ the court found that a whiskey product of India described as “malted whiskey” and sold under a label of “Highland Chief” infringed the Scotch Whisky Association’s geographical indication right in Scotch Whisky, because the Highlands of Scotland is an area well known for its production of whiskey. Though Dyer Meakin Breweries conceded that “Scotch Whisky” could only be applied to beer distilled in Scotland, it argued that the label identifying it as a product of India provided sufficient differentiation. The court disagreed, and found that Dyer Meakin Breweries’ use of “Highland Chief” was a false trade description under the Indian Trade and Merchandise Marks Act, 1958.¹⁰⁴ Another case, *Scotch Whisky Ass’n. & Anor. v. Parvara Sahakar Shakar Karkahana*¹⁰⁵ involved passing off of an Indian whiskey product sold under the marks “Drum Beater” and “Gold Tycoon,” which depicted a Scottish drummer on its label with a description “Blended with Scotch.” The argument focused on whether “Blended with Scotch” could describe only a blend of whiskeys wherein all were Scotch whiskey or whether it was equally applicable to a blend wherein only one whiskey was a Scotch whiskey, as in this case. The court held that using the term “with” is not sufficient, as most consumers would believe they are buying blended Scotch whiskey.

More recently, the Delhi High Court ruled in favor of the Scotch Whisky Association again, finding that an Indian whiskey labeled “Red Scot” violated the Association’s geographical indication under the new law and that “Scot” or “Scotch” identifies whiskey produced in Scotland.¹⁰⁶ Thus, Indian manufacturers cannot use it to market Indian-produced whiskey. The court also awarded damages of 500,000 rupees to the Association.¹⁰⁷

¹⁰¹ Specifically, the protection afforded to what are now termed geographical indications was based on certification marks and the laws of passing off.

¹⁰² It is important to note that India had already experienced what it considered the “piracy” of its geographical indications when a Texas-based company patented “Basmati Rice Lines and Grains” in the United States. Though a patent matter, the issue of indigenous knowledge lent itself to a comparison with geographical indications. For a detailed discussion of geographical indications, see LATHA R. NAIR AND RAJENDRA KUMAR, *GEOGRAPHICAL INDICATIONS: A SEARCH FOR IDENTITY* (Lexis-Nexis Butterworths 2005).

¹⁰³ AIR 1979 Del 125.

¹⁰⁴ Importantly, this case predated the codification of the Geographical Indications Act.

¹⁰⁵ AIR 1992 Bom 295.

¹⁰⁶ See *Scotch Whisky Ass’n v. Golden Bottling Ltd.*, 2006 (32) PTC 656 (Del).

¹⁰⁷ See *id.*

1.3. International IP Obligations

While lacking specificity to the purpose and structure, there is a degree of regionalized economic cooperation on trade liberalization involving India. For example, India has entered into a Framework Agreement on Comprehensive Economic Cooperation between ASEAN and India. Here it was agreed to establish a Regional Investment and Trade Area including a Free Trade Area in goods, services, etc.; to negotiate on trade regimes, including intellectual property rights; and to strengthen cooperation on intellectual property rights. An ASEAN-India Free Trade Agreement is expected to be completed soon. India is also part of the Bangkok Agreement, an initiative under the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) for trade expansion through tariff concessions among the developing countries of China, South Korea, Bangladesh, Sri Lanka, and Laos. India also signed a South Asian Free Trade Agreement in January 2004 that entered into force on January 2006. The Agreement was signed by Bangladesh, Bhutan, India, Pakistan, Maldives, Nepal, and Sri Lanka, and while there is no specific mention of intellectual property, there was a recommendation to set up an intergovernmental experts' group to study IP rights-related issues. Further, India is party to the BIMST-EC agreement with Bhutan, Bangladesh, Nepal, Sri Lanka, Thailand, and Myanmar. It appears that the intent is to enter into a Free Trade Agreement and one of the sectors identified for increased cooperation is technology and trade. On the bilateral front, there has been some discussion of a China-India Free Trade Agreement but it is unclear if those talks will continue, due to some resistance from domestic industry associations. India and the United States launched a Trade Policy Forum in 2005 where innovation was a pillar of the discussions.

India has recently become a strong voice of developing countries' agendas in international fora. India has maintained that the TRIPS Agreement should be amended to require patent applicants to disclose the source of biological material used in their inventions and demonstrate "prior informed consent" of the source country or community and the benefit sharing agreed with the source.¹⁰⁸ India's position of conforming the TRIPS Agreement to the Convention on Biological Diversity is generally supported by several developing countries with substantial biodiversity¹⁰⁹ who have growing fears of biopiracy by multinational pharmaceutical companies.

1.4. IP Lawmaking

While many of India's IP laws were enacted during British rule, India's legislative process is similar to that of other common law jurisdictions, including the United States. The controlling legal interpretive tool is the Constitution, which is the foun-

¹⁰⁸ India also enacted the National Biodiversity Act in 2002, which addresses access to genetic resources and associated knowledge by foreign entities to provide for benefit sharing from the use of the resources, and also establishes the National Biodiversity Authority.

¹⁰⁹ This proposal enjoyed the support of Brazil, Indonesia, Peru, Pakistan, China, Thailand, and Turkey.

dation for statutory and case law. There are state legislatures and Union Territory legislatures, but federal laws are made by the Parliament and apply throughout India. Parliament has the power to legislate over matters on the Union list, which includes intellectual property.

The Parliament consists of a bicameral system with a lower House called the Lok Sabha and an upper House called the Rajya Sabha. The Lok Sabha is the house of the people, having representatives from all the states with a maximum of 552 members—530 elected from the states, and up to twenty representing the Union Territories. The other two members are nominated by the President to represent the Anglo-Indian community if he determines inadequate representation. The Lok Sabha enjoys a term of five years unless dissolved sooner or extended for a year by a Proclamation of Emergency. The Rajya Sabha is the upper house of the Parliament and consists of a maximum of 250 members, with all but twelve being elected by state and territorial legislatures.¹¹⁰ The members of the Rajya Sabha stay in office for six years, and the body is not subject to dissolution.

Generally, a bill is introduced in and passed by one house and then sent to the other.¹¹¹ If the bill is rejected or there is no reconciliation, the President may call a joint session of both Houses, which is presided over by the Speaker (presiding officer of the Lok Sabha) and the outcome is decided by a majority vote. However, the President is not a member of either House. Pursuant to the Constitution, Parliament must convene at least twice a year; it typically convenes three sessions: the budget session, the monsoon session, and the winter session.¹¹²

The laws are interpreted by the courts, with the Supreme Court being the highest court, followed by the High Courts. Some cases may begin in district level courts, and then be appealed to the High Courts. Typically cases are heard by three judges.

1.5. IP Enforcement

Piracy is a predominant concern in enforcement of IP rights in India. A study published in 2008 found that the entertainment industry sustained a loss of US\$4 billion and 800,000 jobs due to piracy.¹¹³ Lack of enforcement seems to be the greatest culprit in encouraging piracy, despite the copyright laws requiring a mandatory minimum six-month jail term and fines. One of the primary concerns for industries is the lack of police action. Specialized IP police units exist in Delhi and Mumbai, and to a lesser extent in Chennai, Hyderabad, and Bangalore. However, lack of resources greatly curtails the extent to which these units can be effective. Moreover, while the police can act on a general complaint by any member of the

¹¹⁰ The twelve non-elected members are chosen by the President to represent art, literature, science, and social services and are known as the nominated members.

¹¹¹ The exceptions are money bills, which cannot be introduced in the Rajya Sabha. Once a money bill is passed by the Lok Sabha and sent to the Rajya Sabha, it must pass it within fourteen days.

¹¹² For a detailed discussion of the legislative process in India, see J.C. JOHARI & G.S. CHHABRA, *INDIAN POLITY* (Lotus Press 2007).

¹¹³ U.S.-INDIA BUSINESS COUNCIL, *THE EFFECTS OF COUNTERFEITING AND PIRACY ON INDIA'S ENTERTAINMENT INDUSTRY* (prepared by Ernst & Young India, 2008).

public, in reality, unless a specific complaint is filed, the police do not typically take action.

Aware of the potential contribution of copyright industries to the gross domestic product, the Indian Government commissioned a study on piracy, including film and software piracy.¹¹⁴ Several types of film piracy were identified, including home video, camcorder, and cable piracy. With respect to home video piracy, films on cassettes are provided by the right holders to video libraries to be rented or bought at retail outlets for home use only. However, for popular films, the video libraries and retail stores often make mass copies of the films for rental or sale and it can be difficult for an end user to differentiate between a pirated and a legitimate product. Film piracy also occurs when optical disks with pirated movies are mass manufactured or when copies are made into video cassettes. In addition, camcorder piracy also occurs, although the quality of the films is not usually very high. With respect to cable piracy, cable operators are required to have authorization from a right holder to show a film; however, often such “cable walas” use infringing copies and display them on their cable channels. As cable and satellite connectivity continues to improve and with the increase in the younger population, the problems take on an even greater significance, particularly as it is expected that in the future Indians will allocate about 3% of their spending to films and theaters, as compared to 1.4% in 1999-2000.¹¹⁵ Not surprisingly, with increased access to broadband technology in homes and the upsurge of Internet cafes, Internet piracy is beginning to present itself as a serious problem.¹¹⁶ In 2006, the Internet and Mobile Association (IAMAI) of India estimated that India has as many as 38.5 million users over the age of 12.¹¹⁷ It is estimated that 64% of the value for the music industry is lost to piracy; for television and film it is 39% and 31%, respectively.

The entertainment industry has pushed for legislation to regulate the manufacture of optical discs as a means to help reduce piracy. The Ministry of Information and Broadcasting (MIB) has been working with the Federation of Indian Chambers of Commerce and Industry (FICCI) on draft optical disc legislation.

¹¹⁴ The study was admittedly limited in several aspects, primarily due to lack of database resources and survey content. The primary entertainment beneficiaries of copyright protection, the Indian Music Industry and the Film Federation of India, did not respond to the surveys. Concerns over potential underpayment of taxes also hindered attempts to get complete information. For a copy of the report, see <http://copyright.gov.in/mainact.asp#ack>.

¹¹⁵ The study also estimated that in 1997, the number of cable and satellite households in the country was 9.2 million.

¹¹⁶ See Shailaja Neelakantan, Local Content for Indian Internet Growth, <http://gigaom.com/2006/08/17/local-content-for-indian-internet-growth/>.

¹¹⁷ Another related area is ISP liability. ISP liability is not addressed under the copyright laws but rather the Information Technology Act, 2000 (the “IT Act”). The IT Act is directed primarily to data protection and privacy and cyber crime such as spamming, phishing, and unauthorized obscene material, and does not appear to address copyright infringement.

2. Political and Economic Infrastructure

The years following independence saw a surge of state-directed enterprises. In the mid-1960s there appeared to be a possible turn to open the markets and liberalize the trade regime, but soon thereafter, then-Prime Minister Indira Gandhi affirmed the nationalist sentiment, which was then reaffirmed through the exit of Coca-Cola and IBM in the late 1970s. This era of India's economy was described as the time of the "License Raj," which described the heavy hand of regulation in India, which intended to create a planned economy by granting few licenses.

After independence, India had adopted a policy of centralized planning, regulation of private enterprises, trade protection, and limitation of foreign capital and technology. Besides the patent laws, other laws introduced in the 1970s also helped shape the protectionist stance of the Indian government. Specifically, in the early 1970s, the Monopolies and Restrictive Trade Practices Act and the Foreign Exchange Regulation Act were promulgated. These Acts aimed to reduce the concentration of economic power by reducing foreign equity and controlled the export of foreign exchange. Indeed, the number of companies with a share of over 74% fell from twenty in 1976-1977 to five in 1981-1982.¹¹⁸ It was not until the early 1990s, under Prime Minister Rao, that India took steps to reduce barriers to foreign direct investment (FDI), primarily due to an economic crisis which threatened destabilization. The liberalization of the markets may have also been prompted by industry influence and comparison with the newly industrialized economies of South Korea, Singapore, and Taiwan, whose industrial policies encouraged growth of private enterprise. In the early 1990s, domestic industry was freed from control to allow greater FDI, thereby ending the period of the License Raj; indeed from 1992-1993 to 2003-2004, the average GDP growth was 6.1%, as compared with 5.6% the previous decade. A new industrial policy was formulated under the then-finance minister Manmohan Singh, including opening sectors for FDI, reducing tariffs, and removing import quotas. It was in this environment of growth and reform that India signed GATT-TRIPS.

As part of the reform, India adopted an automatic route for up to 100% FDI in certain sectors, including some technology fields.¹¹⁹ Moreover, there has been significantly less direct expropriation of enterprises; indeed, even though the reform in the 1990s that furthered privatization of state-owned enterprises stagnated with the change in government in 2004, this did not create a setback in the general movement away from public ownership of industry.

With respect to industries heavily dependent on IP protection, a few sectors allow up to 100% FDI, including advertising and films¹²⁰; drugs and pharmaceuticals, provided that there is not a likelihood of compulsory licensing nor can the

¹¹⁸ See P. Mohanan Pillai & Jayasree Shah, *Multinational Corporations and National Technology Capability* (Ahmedabad: Sardar Patel Inst. of Soc. & Econ. Res. 1988).

¹¹⁹ Effectively, that means that prior government approval is not necessary in that the investor need only inform the Reserve Bank of India of the investment.

¹²⁰ The film industry, however, is subject to other conditions.

pharmaceuticals use recombinant DNA technology;¹²¹ and information technology, with the exception of the aerospace and defense sectors.¹²²

In response, the GDP growth averaged 6% annually over the decade ending in 2002. In the 2007 AT Kearney's FDI Confidence Index, India was listed as overtaking the United States to occupy a position second only to China.¹²³ The government's Tenth Five Year Plan (2002-2004 to 2006-2007) aimed to enhance average annual GDP growth to 8%; it fell short by only 0.8%.¹²⁴ This was the highest growth rate achieved in a Five Year Plan. The Eleventh Five Year Plan (2007-2008 to 2011-2012) aims to achieve an average annual GDP growth of 9%. The total FDI in 2005-2006 amounted to approximately US\$6 billion. Previously, India lagged behind due to its positioning in the services sector exports rather than investments in physical assets, including manufacturing plants and equipment. In 2006, the growth was seen in all sectors, including manufacturing, telecommunications, financial and non-financial services, and wholesale and retail sectors. For research and development (R&D), of the nearly half of investors planning to increase spending in R&D, 50% was expected to be focused on the Asia Pacific region, excluding Japan. The most important factors for investment locations for R&D were, in order, lower costs for R&D, availability and quality of local R&D labor, and IP protection.

3. Educational, Social, and Physical Infrastructures

It is a generally accepted assumption that improvements in education yield economic and social progress.¹²⁵ India has made important progress as a developing country, but nevertheless still falls lower in the United Nations Human Development Index—which considers literacy rates, life expectancy, school enrollment, and per capita GDP—than some other countries of similar income levels.¹²⁶ India's poor education record goes back even prior to British rule, and it did not substantially improve under colonization. The first census taken post-independence showed that only 9% of Indian women and 27% of Indian men were

¹²¹ In such cases, prior approval from the Foreign Investment Promotion Board is required.

¹²² However, limitations on technology transfer still exist.

¹²³ The results stemmed from a survey of the world's largest 1,000 firms on their views of sixty-eight countries which received more than 90% of global FDI. The companies represent all major regions and sectors. See GLOBAL BUSINESS POLICY COUNCIL, AT KEARNEY FDI CONFIDENCE INDEX (2007).

¹²⁴ Only the last four years (2003-2007) were included in the calculation. See GOVERNMENT OF INDIA PLANNING COMMISSION, TOWARDS FASTER AND MORE INCLUSIVE GROWTH, AN APPROACH TO THE 11TH FIVE YEAR PLAN (2006), available at http://planningcommission.nic.in/plans/planrel/app11_16jan.pdf.

¹²⁵ But c.f. Lant Pritchett, *Where Has All the Education Gone?* 15 WORLD BANK ECON. REV. No. 3, at 367-91 (2001).

¹²⁶ See *India, the Human Development Index: Going Beyond Income*, in UNDP, HUMAN DEVELOPMENT REPORT, available at http://hdrstats.undp.org/countries/country_fact_sheets/cty_fs_IND.html.

literate.¹²⁷ After independence, there was enthusiasm for ensuring universal education; consequently, Article 45 of the Indian Constitution mandated that the government “shall endeavor to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years.”¹²⁸ However, as can be seen by recent census results, there is only a 61% adult literacy rate (% of people age 15 or above) and only 11.8% with tertiary education; indeed these results present a disharmonious juxtaposition to India’s dominant role in the information technology sector.

Nevertheless, literacy has improved substantially.¹²⁹ During the 1990s, literacy rates for girls aged six to nine jumped significantly, though they rose for all age groups and for both males and females. Some have attributed the increase in literacy rates to a decrease in poverty and a reduction in fertility rates, in addition to other statistical factors.¹³⁰ Nevertheless, while these increases yield some hope for improved education, several concerns remain that may hinder more substantial advancement. In the near term, these include low quality of education and lack of funding, each of which technological advances can help to alleviate. These problems need to be overcome in order to, for example, support the growing IT industry, as India will require about 2.2 million IT professionals by 2008 to meet the demand.¹³¹

Another tax on India’s infrastructure is the burgeoning population. In 2001, the population was approximately 1.01 billion. Several organizations have estimated that, at the current rate of the increase in population, by 2026 the population will be up to about 1.3 billion and by 2051 the population will be about 1.5 billion. Projections show that the increase in population will most likely occur in the “working” population, those aged fifteen to sixty-four years. The effect of this unbalance is that there will be a change in the working population. In 2001, for example, the working population constituted 58.2% of the population, whereas in 2016, it is expected that the same age group will constitute 64% of the population. In the Eleventh Five Year Plan, the expected population growth was listed as 1.5% per year.

Other general infrastructure problems impede progress in the development of the intellectual property infrastructure. For example, high energy consumption correspondingly impacts fuel prices. Other transportation issues include unpaved roads and poor port facilities. Indeed, India lags behind developing countries on general infrastructure: in 2003, only 46% of roads in India were paved as compared to 76% in Malaysia, 98% in Thailand, and 100% in the United Kingdom.

¹²⁷ JEAN DREZE AND AMARTYA SEN, *INDIA: DEVELOPMENT AND PARTICIPATION* (Oxford & Delhi: Oxford University Press 2002).

¹²⁸ CONST. INDIA, Art. 45.

¹²⁹ See Greta Kingdon et al., *Education and Literacy, in TWENTY FIRST CENTURY INDIA* 130 (Tim Dyson et al. eds., Oxford University Press 2004).

¹³⁰ See *id.*

¹³¹ For example, 50% of revenues totalling about US\$17 billion in 2002-2003 came from exports, with the United States being the largest buyer at 60% and the European Union at 25%.

4. Scientific Infrastructure

The government has already committed significant sums to biotechnology research. For example, in 2004-2005, the government allocated US\$8,579,000 for major biotechnology funding agencies in India with an emphasis on basic R&D. Coupling that with patent statistics (e.g., between 1995 to 2003, 2,378 biotechnology applications were filed wherein 716 were convention applications and 774 PCT applications, and approximately one in eight EPO patents originating from India are in the field of biotechnology), it is clear that increased funding and incentives for R&D in the biotechnology sector would be useful for promoting domestic innovation.

Biotechnology in new drug development—e.g., targeted treatments—is one possible avenue for innovative research. Not surprisingly, companies such as Ranbaxy Laboratories, which profited extensively by manufacturing generic drugs copied from innovative blockbuster drugs, have now expanded into new drug development in developing country diseases. Furthermore, there is increased convergence in the pharmaceutical industry in India, evidenced most recently by Daiichi Sankyo, a Japanese research-based pharmaceutical company, signalling its intent to purchase a majority stake in Ranbaxy.¹³² Another avenue of research would be biotechnology research in crops. A recent OECD report¹³³ shows that only 0.8% of arable land in India was planted with genetically modified crops in 2005; however, this is a substantial increase from previous years: in 2002, fewer than 0.1 million hectares were planted with genetically modified crops, whereas just three years later, 1.3 million hectares were planted with such crops.

Conclusion

While India does not appear to support strong patent protection, and thereby seems to align its agenda with those of many developing countries, to assume that India subscribes to weaker protection for all intellectual property rights is premature. In contrast to India's past reluctance to conform its patent laws to the TRIPS Agreement, India, on its own initiative, has made steps to comply with strong copyright protection absent an international treaty, namely proposing amendments whose apparent intention is to ratify and implement the WIPO Internet Treaties. Similarly, India's amendment of its trademark laws also strengthens the rights of trademark owners, and courts seem willing to acknowledge the breadth of that intellectual property right. India has also provided for protection of geographical indications and industrial designs.

On the other hand, India has appeared reluctant to provide patent protection and patent-related protection to pharmaceuticals. Moreover, India has co-sponsored and

¹³² See *Govt Approves Daiichi-Ranbaxy Deal*, ECON. TIMES, Aug. 7, 2008, available at http://economictimes.indiatimes.com/Pharmaceuticals/Govt_approves_Daiichi-Ranbaxy_deal/article_show/3336190.cms.

¹³³ See BRIGITTE VAN BEUZEKOM & ANTHONY ARUNDEL, OECD BIOTECHNOLOGY STATISTICS 2006, available at <http://www.oecd.org/dataoecd/51/59/36760212.pdf>.

voiced proposals in international fora that, if adopted, would effectively weaken such protection. The argument of access to medicines is a sympathetic one, and this argument seems to have been persuasive as India was an active participant in support of the developing country agenda leading to the adoption of the WTO Doha Declaration on the TRIPS Agreement and Public Health.¹³⁴ However, the fundamental notion that may explain the different treatment between patents and trademarks and copyrights is that the latter have achieved institutionalized legitimacy through the number of domestic stakeholders. In contrast, historically patents supported the rights of foreign stakeholders: while India had some level of control over its creativity, in part due to domestic supply and demand of creative works, the profits of the manufacturing sector in British India were exported.

However, even this argument lacks comprehensiveness. While it explains to some degree India's imitation of the British laws when independent India passed its copyright and trademark laws, it fails to explain why India also followed the British lead in its passage of its patent laws. In other words, the natural expectation would be for independent India to adopt more lenient patent laws in order to allow for a copy-industry in all sectors to develop from the date of independence, but India did not take that path. Nevertheless, through the Patents Act, 1970, India allowed its generic industry to develop substantially by continuing to prohibit the patenting of medical products. Yet, even here, the basis for this policy is questionable, as the Ayyangar report focused on statistics soon after independence when the domestic business infrastructure was still developing. Indeed, the statistics show that the effect was fewer foreign patents but no correspondingly significant increase in domestic patents. Only pursuant to its obligations under the TRIPS Agreement did India provide for patents on pharmaceutical products; however, such pharmaceutical protections (both under patents and data protection) are limited based on not only Section 3(d) of the patent law but also on the data protection report.

Further, it is difficult to hold a carrot of increased FDI with increased patent protection as a basis to encourage India to implement stronger patent laws. As noted above, though intellectual property protection was considered as a factor in companies' determination of FDI, India nevertheless appears to be favored over the United States as an investment destination. Thus there need to be other incentives for India to develop the political will to implement and/or enforce stronger patent laws, particularly with respect to pharmaceuticals and software.

Reform in India's intellectual property infrastructure requires not simply holding up the carrot of increased FDI resulting from increased intellectual property protection, but rather, as seen with advances in intellectual property protection made in its copyright industries, reform requires an increase in domestic stakeholders. The protectionist stance that the Indian government took post-independence may be mostly gone, but the roots remain. While British colonization is part of India's past, the fear that globalization is a veil for a different type of colonization

¹³⁴ Even here, however, it is possible that India's interest in the adoption of the Doha Declaration stemmed in part from the recognition that its generic industries could benefit from an implementation of Paragraph 6 of the Declaration.

strikes a chord among many of the more than a billion Indian people. An increase in the foreign ownership of IP rights in India fuels nationalist sentiment, as there is a fear that such rights will hinder progress in the two priority domestic policy goals of universal education and public health. The emergence of a “new” India relies upon promoting awareness of the role new technology and creativity as economic rights can play in furthering the domestic social policy goals coupled with identifying areas where progress would benefit domestic industry stakeholders, as it will influence the political will to improve the overall intellectual property infrastructure.

Indonesia

Christoph Antons

1. Legal Infrastructure	87
1.1. IP History	87
1.2. International IP Obligations	93
1.3. Current IP Laws	94
1.3.1. Patents, Designs, and Plant Varieties	94
1.3.2. Copyright	96
1.3.3. Trademark	97
1.3.4. Trade Secrets and Unfair Competition	99
1.4. IP Lawmaking	99
1.5. IP Enforcement	103
1.5.1. Judicial Infrastructure	103
1.5.2. Administrative Infrastructure	112
1.6. Legal Culture	113
2. Political and Economic Infrastructure	116
2.1. Political Economy	116
2.2. Who Holds the IP?	118
2.3. Where is the IP?	119
2.4. Exploitation of IP	120
3. Educational Infrastructure	121
4. Scientific Infrastructure	122
4.1. Industries Involved in R&D	122
4.2. Public/Private Innovation and Commercialisation of IP	123
Conclusion	127

1. Legal Infrastructure

1.1. IP History

The beginnings of intellectual property protection in Indonesia go back to the Dutch colonial period, specifically to the year 1844. In that year, an Act on the Granting of Exclusive Rights to Inventions, Introductions and Improvements of Objects of Art and of the People's Diligence, introduced in the Netherlands in 1817, was extended to what was then the Netherlands East Indies.¹ However, it was repealed again in the Netherlands in 1869 and in the colony in 1870.² Provisions on trademarks were first introduced in 1871 providing for a deposit of seals, stamps, and trademarks that were protected under a provision in the Criminal Code.³ A complete Trade Marks Act followed in 1885.⁴ The Act was amended in 1888, when the accession of the

¹ *Reglement op het verlenen van uitsluitende regten op uitvindingen, invoeringen en verbeteringen van voorwerpen van kunst en volksvljijt*, STAATSBLAD VAN NEDERLANDSCH-INDIË 1844 No. 28.

² STAATSBLAD VAN NEDERLANDSCH-INDIË 1870 No. 114.

³ STAATSBLAD VAN NEDERLANDSCH-INDIË 1871 No. 161.

⁴ STAATSBLAD VAN NEDERLANDSCH-INDIË 1885 No. 109.

Netherlands and its colonies to the Paris Convention was announced in the Netherlands East Indies.⁵

At the first revision conference for the Paris Convention, the Netherlands acceded also to the new Madrid Agreement concerning the international registration of factory and trade marks. Publication of this new agreement in the colony followed in 1893.⁶ As a consequence, a new Trade Marks Act was announced in 1893,⁷ which was twice amended, in 1905 and 1908. This Act was superseded in 1912 by the *Reglement Industriele Eigendom*, which remained the Trade Marks Act for the Netherlands East Indies and subsequently for Indonesia until it was finally replaced in 1961.

In the meantime, the new Dutch Patents Act of 1910 had been transferred to the Netherlands East Indies in 1911.⁸ Patents were granted at the Office of Industrial Property in The Hague, which maintained a branch office in Batavia (today's Jakarta) located at various times within the Ministry of Justice or the Ministry of Agriculture, Industry and Trade. Copyright protection began around the same time, with the new Dutch Copyright Act being declared applicable in the colony in 1912.⁹ Dutch accession to the Berne Convention followed in 1913 and was announced in the colony in 1914.¹⁰

During the remainder of the colonial period, the Patents Act and the Copyright Act were amended several times. The Netherlands acceded to the Hague Agreement concerning the international deposit of industrial designs in 1925. However, public announcement of this step in the *Staatsblad*, a precondition for validity in the colony according to the quasi-constitution of the Netherlands East Indies, did not follow until the very last days of Dutch colonial rule in 1949.¹¹ In 1936, a declaration of the Dutch government on behalf of the Netherlands East Indies to terminate the Madrid Agreement was announced.¹²

After its declaration of independence in 1945, the newly formed Republic of Indonesia struggled for four years to maintain its independence against the returning Dutch. Independence was officially recognised by the Dutch at the Round Table Conference in The Hague in 1949. During the four years of military struggle, the Dutch acceded to various international treaties and made various announcements on behalf of their colonies. Most important among these was the accession to the London version of the Paris Convention and the Hague Agreement in 1948, announced in Indonesia in 1949.¹³

The circumstances of these announcements led to uncertainty for many years about the validity of these agreements in post-war Indonesia. Indonesians date their

⁵ STAATSBLAD VAN NEDERLANDSCH-INDIË 1888 No. 187/188.

⁶ STAATSBLAD VAN NEDERLANDSCH-INDIË 1893 No. 99/140.

⁷ STAATSBLAD VAN NEDERLANDSCH-INDIË 1893 No. 305.

⁸ STAATSBLAD VAN NEDERLANDSCH-INDIË 1911 No. 136.

⁹ STAATSBLAD VAN NEDERLANDSCH-INDIË 1912 No. 600.

¹⁰ STAATSBLAD VAN NEDERLANDSCH-INDIË 1914 No. 797.

¹¹ STAATSBLAD VAN INDONESIA 1949 No. 49.

¹² STAATSBLAD VAN NEDERLANDSCH-INDIË 1936 No. 28.

¹³ STAATSBLAD VAN INDONESIA 1949 No. 49.

independence from 1945 and regard the official recognition by the Dutch in 1949 as a mere formality. As late as the early 1970s, Indonesian District Courts occasionally rejected arguments based on Indonesia's membership in the Paris Convention.¹⁴ Even after Indonesia's membership became widely recognised, confusion continued with regard to the exact dates of accession.¹⁵ In fact, there is a quite unambiguous declaration of the new Indonesian government of 1950 that Indonesia was bound by the London version of the Paris Convention, the Hague Agreement, and the Neuchatel Agreement on the restoration of industrial property and copyrights after World War II, on the basis of the Hague Round Table Agreement between the Netherlands and Indonesia on the transfer of independence.¹⁶ An affirmative declaration by President Suharto on the occasion of the centenary of the Paris Convention in 1983 finally put an end to the speculation about Indonesia's membership.¹⁷ The situation was different, however, as far as the Berne Convention was concerned. Here, there was no similar declaration of the Indonesian government and the government ended the speculation regarding the country's membership in 1958 by declaring that it was leaving the Berne Convention.¹⁸

At the national level, the continuing relevance of Dutch colonial law was much clearer. Article II of the Transitional Provisions to the Indonesian Constitution of 1945 in conjunction with a Government Decree of October 1945 provided that all enacted laws and institutions would stay in force until their constitutional replacement, provided that they were not regarded as inconsistent with the new Constitution.¹⁹ On this basis, the colonial IP laws survived the transitional period to independence, with the exception of the Patents Act. With patents, the problem was that the substantive examination had been carried out in the Netherlands. Some commentators subsequently thought that the Act was simply no longer enforceable,²⁰ whereas others saw more fundamental contradictions with Indonesia's sovereignty.²¹ The government was apparently leaning towards the latter view. In

¹⁴ Most clearly in the *Tancho* decisions, District Court Central Jakarta No. 521/1971 G. and No. 53/1972 G. of Mar. 30, 1972, in SUDARGO GAUTAMA & RIZAWANTO WINATA, HIMPUNAN KEPUTUSAN MEREK DAGANG 35-40 (Bandung: Alumni 1987).

¹⁵ For the details of this discussion, see CHRISTOPH ANTONS, INTELLECTUAL PROPERTY LAW IN INDONESIA 46-48 (London: Kluwer 2000).

¹⁶ *Circulaire du Conseil Fédéral Suisse (Département Politique Fédéral) concernant la situation de la République des États-Unis d'Indonésie à l'égard de certains actes de L'Union du 24 Novembre 1950*, 66 LA PROPRIÉTÉ INDUSTRIELLE 222 (1950).

¹⁷ 12 INDUS. PROP. 366 (1983).

¹⁸ ANTONS, *supra* note 15, at 48-49.

¹⁹ Sudargo Gautama, *Legal Developments in Independent Indonesia (1945-1970)*, in LAWASIA 157-70 (1970).

²⁰ SUDARGO GAUTAMA & ROBERT N. HORNICK, AN INTRODUCTION TO INDONESIAN LAW: UNITY IN DIVERSITY 8 n.24 (Bandung: Alumni 1983).

²¹ Wuryati Martosewoyo, *Sistem Paten Dalam Pengalihan Teknologi*, in BADAN PEMBINAAN HUKUM NASIONAL, SEMINAR ASPEK-ASPEK HUKUM DARI PENGALIHAN TEKNOLOGI 55 (Bandung: Binacipta 1981); Handaya Surya Wibawa, *Masalah Paten Ditinjau Dari Segi Hukum*, in BADAN PEMBINAAN HUKUM NASIONAL, SIMPOSIUM TENTANG PATENT 54 (Bandung: Binacipta 1978); Soegondo Soemodiredjo, *Isi dan Ruang Lingkup Pengaturan Patent Untuk Indonesia*, in BADAN PEMBINAAN HUKUM NASIONAL, SIMPOSIUM TENTANG PATENT 184 (Bandung: Binacipta 1978).

1953, the Ministry of Justice introduced a Decree providing for a provisional registration system for patents “as long as no Patents Act exists.”²²

The Copyright Act of 1912 continued in force, but had no practical relevance during the first few decades after independence. Trademark law was more relevant and, during the 1950s, a number of cases were decided on the basis of the *Reglement Industrieele Eigendom* of 1912.²³ In 1961, this was replaced by a new Trade Marks Act,²⁴ which largely adopted the provisions of the *Reglement*, especially the principle that the right followed from first use, with the registration creating only a rebuttable presumption of first use. When the Indonesian economy was booming during the 1980s, the extent to which well-known trademarks should be recognised became one of the most frequently litigated issues. A Ministerial Decree of 1987²⁵ and a Ministerial Decision of 1991²⁶ attempted to shed light on this question. The first Decree required knowledge and use for an extended period within Indonesia, but provided protection only for goods of the same kind. The Ministerial Decision of 1991 extended the protection of well-known trademarks to non-identical goods, but required knowledge of the mark in Indonesia as well as abroad.²⁷ This last decision was invalidated in 1993, when the new Indonesian Trade Marks Act of 1992 came into force.

The new Act based trademark ownership on registration and abolished the principle of first use, but first use remains important in that it may be used to oppose a registration by claiming bad faith of the registrant.²⁸ The Act obliged the Trade Marks Division to carry out a substantive examination of the application. The Act introduced service marks and collective marks and a system of claiming priority rights under international conventions, of which Indonesia is a member. Chapters on licensing and criminal provisions were also added to the legislation. Two years after Indonesia ratified the TRIPS Agreement and joined the WTO in 1995, a substantial revision brought protection for geographical indications and indications of origin, and a clarification of the provisions for well-known trademarks.²⁹

Patent protection finally became available with the Patent Act of 1989, which came into force in 1991. A transitional provision of the new Act allowed for the re-registration of provisional registrations from the last ten years before the new law came into force.³⁰

²² *Pengumuman Kementerian Kehakiman* No. J.S. 5/41/4 of Aug. 12, 1953, in *BERITA NEGARA* 1953 No. 69.

²³ For a list of early Indonesian court decisions on trademarks, published in the journal *HUKUM*, see ANTONS, *supra* note 15, at xv-xvi.

²⁴ For the Indonesian text, see *LEMBARAN NEGARA REPUBLIK INDONESIA* 1961 No. 290. For an English translation, see 20 *MALAYA L. REV.* 152-58 (1978).

²⁵ Decree of the Minister of Justice No. M.02-HC.01.01.1987 of June 1987.

²⁶ *Keputusan Menteri Kehakiman Republik Indonesia* M.03-HC.02.01 of May 2, 1991.

²⁷ ANTONS, *supra* note 15, at 205-06.

²⁸ An extensive body of case law dealing with this question has developed over the years. See ANTONS, *supra* note 15, at 247-53.

²⁹ A translation of the revised version of the 1992 Act can be found in ANTONS, *supra* note 15, at 367-90 app.3.

³⁰ ANTONS, *supra* note 15, at 134-35.

In the field of copyright, the colonial legislation of 1912 was replaced in 1982. The new Act included a non-mandatory copyright registration system to facilitate proof of ownership, but protected foreign works only if first publication had occurred in Indonesia. A Copyright Council was created to decide on various issues under the law, such as compulsory licensing. The protection period extended to a maximum of only twenty-five years after the death of the author. International criticism of the Act focused also on the limited range of protected material. Under pressure from the United States and the European Community, the Copyright Act was revised in 1987 to grant protection to new material such as video tapes, sound recordings, and computer programs. The protection period was extended to fifty years after the death of the author for original works, fifty years after first publication for adaptations, and twenty-five years after first publication for photographs, computer programs, and compilations. Foreign works were from then on protected under bilateral or multilateral treaties of which Indonesia was a member. In 1988 and 1989, bilateral treaties were concluded with the European Community on sound recordings and with the United States on copyright in general.³¹

A further revision of 1997 introduced rental rights for cinematographic works and computer programs, and new chapters on licensing and on neighbouring rights. Rather confusingly, however, it mentioned that neighbouring rights protected material among the examples for original works, thereby effectively creating a choice for performers, producers of sound recordings, and broadcasting organizations as to the form of protection and the protection period.³² However, the confusing regulation of protection periods was not confined to neighbouring rights only. Computer software, for example, although protected as a literary work under the Act, was lumped together with sound recordings when it came to the period of protection, which in this case was fifty years from first publication.³³

In 1997, Indonesia finally re-entered the Berne Convention and ratified the Patent Cooperation Treaty, the WIPO Copyright Treaty, and the WIPO Trademark Treaty. The Presidential Decree No. 15 of 1997 further removed reservations against Articles 1-12 and 28(1) of the Paris Convention.³⁴

Between 2000 and 2002, Indonesia introduced a completely new set of IP laws. Four new laws were added to the existing IP framework in 2000: Law No. 29 of 2000 on Plant Variety Protection,³⁵ Law No. 30 of 2000 on Trade Secrets,³⁶ Law

³¹ *Id.*

³² Christoph Antons, *Indonesia*, in *INTELLECTUAL PROPERTY LAW IN ASIA* 415 (Christopher Heath ed., The Hague: Kluwer 2003).

³³ ANTONS, *supra* note 15, at 123-26.

³⁴ *Id.* at 49.

³⁵ LEMBARAN NEGARA REPUBLIK INDONESIA 2000 No. 241. For the accompanying Government Memorandum, see TAMBAHAN LEMBARAN NEGARA REPUBLIK INDONESIA 2000 No. 4043.

³⁶ LEMBARAN NEGARA REPUBLIK INDONESIA 2000 No. 242. For the accompanying Government Memorandum, see UNDANG-UNDANG RAHASIA DAGANG, DESAIN INDUSTRI, DESAIN TATA LETAK SIRKUIT TERPADU, PATEN, MEREK, HAK CIPTA 1-18 (Tim Redaksi Tatanusa ed., Jakarta: PT Tatanusa 2002).

No. 31 of 2000 on Industrial Designs,³⁷ and Law No. 32 of 2000 on the Layout of Integrated Circuits.³⁸ Plant variety protection became the responsibility of the Ministry of Agriculture³⁹ and is the only field of Indonesian IP law that is not administered by the Directorate General of Intellectual Property Rights, which is part of the Ministry of Justice. A completely revised Patents Act⁴⁰ and a new Trade Marks Act⁴¹ followed in 2001. In 2002, the Copyright Act of 1982 was replaced by Law No. 19 of 2002 on Copyright.⁴² With the exception of the Trade Secrets Act and the Plant Breeders Rights Act, the jurisdiction for all of the other IP laws was transferred from the general District Court to the Commercial Court. The various laws introduced procedural provisions including injunctions and alternative dispute resolution mechanisms, and they brought various changes to the criminal provisions.

The more important changes in the Patents Act included a clarification of the prior user provision, a reversal of proof in case of process patent infringements, and the transfer of the authority to grant compulsory licences to the Directorate General of Intellectual Property Rights. Exempted from criminal prosecution were parallel imports of pharmaceutical products and the production of pharmaceutical products within two years before the expiration of a patent with the aim of getting health department approval and achieving an early circulation of the products.⁴³

The new Trade Marks Act reversed the order of the registration process, with publication and a possible re-examination now following the substantive examination of the application. A further appeal to the Commercial Court against final decisions of the Trade Mark Appeal Commission is now possible, and action can be taken against the re-registration of marks, including well-known marks.⁴⁴

The new Copyright Act finally transferred the announcements of copyright registrations from the State Gazette to a new Copyright Bulletin. It introduced the anti-circumvention and rights management provisions required under the WIPO Copyright Treaty. However, remedies in accordance with Article 12(1)(ii) of the WIPO Copyright Treaty against the unauthorised distribution, importation for distribution, broadcast, or communication to the public of works or copies of works with the knowledge (or in relation to civil remedies the reasonable grounds for knowledge) that electronic rights management information has been removed or

³⁷ LEMBARAN NEGARA REPUBLIK INDONESIA 2000 No. 243 and in Tatanusa ed., *supra* note 36, at 19-69.

³⁸ LEMBARAN NEGARA REPUBLIK INDONESIA 2000 No. 244 and in Tatanusa ed., *supra* note 36, at 71-106.

³⁹ Plant Varieties Protection Act Arts. 1(1), (9), (10), (11).

⁴⁰ Law No. 14 of 2001, *published in* LEMBARAN NEGARA REPUBLIK INDONESIA 2001 No. 109, *and in* Tatanusa ed., *supra* note 36, at 107-216.

⁴¹ Law No. 15 of 2001, *published in* LEMBARAN NEGARA REPUBLIK INDONESIA 2001 No. 110, *and in* Tatanusa ed., *supra* note 36, at 217-92.

⁴² *Published in* LEMBARAN NEGARA REPUBLIK INDONESIA 2002 No. 85, *and in* Tatanusa ed., *supra* note 36, at 293-355.

⁴³ Antons, *Indonesia*, *supra* note 32, at 397.

⁴⁴ *Id.* at 396-97.

altered are not yet available⁴⁵ and will have to await a Government Regulation, which is reportedly in preparation.⁴⁶ The 2002 Copyright Act further clarified the previously confusing protection periods for neighbouring rights and the copyright protection of databases.⁴⁷ Most recently, in 2004, Indonesia acceded to the WIPO Performances and Phonograms Treaty of 1996.⁴⁸

1.2. International IP Obligations

Indonesia is a member of the WTO TRIPS Agreement, the Berne and Paris Conventions and the Hague Agreement for the protection of industrial designs and models. The country is also a member of WIPO, and in 1997 it ratified the Patent Cooperation Treaty, the WIPO Copyright Treaty, and the WIPO Trademark Treaty.⁴⁹ Most recently, it acceded to the WIPO Performance and Phonogram Treaty.⁵⁰ Indonesia supported the submission of a group of developing countries to the TRIPS Council of June 29, 2001 that urged a broad interpretation of Article 6 in the interest of public health and ultimately led to the Decision on implementation of Paragraph 6 of the Doha Declaration adopted on August 30, 2003.⁵¹ In the face of the HIV/AIDS pandemic, the Indonesian Government has taken on the production of anti-retroviral drugs by itself via Presidential Decree No. 83 of 2004.⁵²

Under the previous government of Megawati Sukarnoputri, Indonesia took a cautious attitude towards the new trend to conclude bilateral Free Trade Agreements (FTAs) and it did not proactively seek to conclude such agreements. This changed under the government of President Yudhoyono, when the Indonesian Chamber of Commerce and Industry (KADIN) included FTAs in their recommendation to the government and received support from the new Minister of Trade.⁵³ As an ASEAN member, Indonesia is party to the ASEAN Framework Agreements on Comprehensive Economic Cooperation with China and Korea, the ASEAN-Japan Comprehensive Economic Partnership Agreement, and the ASEAN-India Compre-

⁴⁵ Antons, *Copyright Law Reform and the Information Society in Indonesia* [hereinafter Antons, *Copyright Law Reform*], in COPYRIGHT LAW, DIGITAL CONTENT AND THE INTERNET IN THE ASIA-PACIFIC 249 (Brian Fitzgerald et al. eds., Sydney: Sydney University Press 2008).

⁴⁶ INT'L INTELL. PROP. ALLIANCE, 2007 SPECIAL 301 REPORT 287 n.23 (2007), available at http://www.iipa.com/2007_SPEC301_TOC.htm [hereinafter IIPA 2007 REPORT].

⁴⁷ Antons, *Indonesia*, *supra* note 32, at 398.

⁴⁸ Presidential Decision No. 74 of 2004, in LEMBARAN NEGARA REPUBLIK INDONESIA 2004 No. 93.

⁴⁹ Antons, *Indonesia*, *supra* note 32, at 394.

⁵⁰ Presidential Decision No. 74 of 2004, in LEMBARAN NEGARA REPUBLIK INDONESIA 2004 No. 93.

⁵¹ Michael Blakeney, *TRIPS After the Doha Ministerial Declaration*, in INTELLECTUAL PROPERTY HARMONISATION WITHIN ASEAN AND APEC 25-27 (Christoph Antons et al. eds., The Hague: Kluwer 2004).

⁵² Presidential Decree No. 83 of 2004 (concerning the patent implementation by the government regarding anti-retroviral drugs), available at <http://dgip.go.id/ebhtml/hki/filecontent.php?fid=5788>.

⁵³ Hadi Soesastro & M. Chatib Basri, *The Political Economy of Trade Policy in Indonesia*, in 22 ASEAN ECON. BULL. 15 (2005).

hensive Economic Cooperation Agreement. Negotiations with the Australia-New Zealand Closer Economic Relations Agreement of 1983 have been continuing.⁵⁴

At the bilateral level, Indonesia concluded a comprehensive FTA with Japan in August 2007. This Agreement contains a detailed chapter on intellectual property, which is “TRIPS-plus” on a number of important points. It focuses strongly on problematic issues in IP enforcement, procedural law, raising public awareness, and IP administration and its transparency. Apart from the WIPO Performance and Phonogram Treaty, of which Indonesia is already a member, parties agree to endeavour to join the Madrid Protocol and the International Union for the Protection of New Varieties of Plants (UPOV). The agreement requires that parties give preference to patent applications furnished with prior art search documents from elsewhere and that a patent application will not be rejected merely on the ground that it relates to a computer program. For well-known trademarks, the parties have to provide protection against the use of the mark with unfair intentions, independently of the likelihood of confusion caused among consumers. In copyright, the agreement clarifies the remedies related to electronic rights management and requires the development of collective rights management organizations. The parties further agree to provide plant variety protection consistent with the 1991 version of UPOV and effective protection against acts of unfair competition. Border control measures are extended to exportation and re-exportation. The agreement creates a sub-committee, which will monitor the implementation of the agreement and exchange views on further topics.⁵⁵ Feasibility studies for further FTAs with the United States, the European Union, India, and Australia have been underway, as have negotiations with Pakistan.⁵⁶

1.3. Current IP Laws

1.3.1. Patents, Designs, and Plant Varieties

According to Article 1 No. 1 of the Patents Act, a patent constitutes an exclusive right granted by the state to the inventor regarding the results of the invention in the field of technology for a certain period to implement the invention or to authorise the implementation by someone else. Entitled to the invention is a sole inventor or his/her successor in title (Article 10(1)) or several people who have made the invention jointly (Article 10(2)). Unless there is proof to the contrary, the person mentioned in the application is regarded as the inventor. Article 13 protects a *bona fide* prior user, who may continue using the invention after having been granted a certificate of prior use by the Directorate General of Intellectual Property (Article 15).⁵⁷

⁵⁴ *Id.* at 16-17.

⁵⁵ A copy of the Japan-Indonesia FTA is available from the website of the Japanese Ministry of Foreign Affairs at <http://www.mofa.go.jp/region/asia-paci/indonesia/epa0708/agreement.pdf>.

⁵⁶ For detailed information on regional Free Trade Agreements, see <http://aric.adb.org/FTAbby-CountryAll.php>.

⁵⁷ ANTONS, *supra* note 15, at 148-50.

Article 12 regulates inventions made in the context of employment. The basic principle here is that the employer is entitled to the patent for such an invention, unless there is an agreement to the contrary (Article 12(1)). According to Article 12(2) the provision applies to office workers and other employees, as long as they use data and other means provided in the context of their employment and even if their employment relationship does not oblige them to make inventions. The remainder of the provision deals with compensation for the employed inventor, which is to take into account the economic value that has been obtained from the invention. The provision requires, therefore, merely that the invention results from the employment relationship. The term used for employment (*hubungan kerja*) points to private employment relationships only and seems to exclude government employment.⁵⁸

According to the Industrial Designs Act, the designer, his or her successor in title, or several designers jointly are entitled to an industrial design right (Article 6). For designs made in employment, the Designs Act foresees a similar approach as in copyright legislation. Thus, the rights to industrial designs made in government employment or commissioned by the government belong to the employer. This shall only be different if the parties so agree, or if the use of the design extends beyond the employment context (Article 7(1) and (2)). In private employment, the assumption is that the designer remains the owner, unless a different agreement has been made. The right follows from registration. The Directorate General carries out only a formal examination of the application (Article 24) and proceeds to a substantive examination only, where the registration may be opposed (Article 26). To avoid misuse of the registration process, however, the Designs Office has recently begun to carry out limited substantive examinations, in which the applied design will be compared with other applications/registrations in Indonesia.⁵⁹

The 2000 Layout-Design of Integrated Circuits Act grants protection to the designer or a successor in title (Article 5(1)), whereby the designer is defined as an individual or several persons cooperating in creating the design (Article 1 No. 3, Article 5(2)). Article 6 adopts for the employment relationship the same approach as used in the copyright and industrial design laws. Therefore, the government agency employing the designer holds the right to circuit layout designs developed within the context of the employment, unless there is a different agreement or the use of the work extends beyond the employment relationship. Again, this provision is made applicable as well to designs that are commissioned by the government, but it does not apply to private workplace agreements, unless there is a specific agreement that the right to the design belongs to the employer. The legislation grants protection from first commercial exploitation of the design or from the date of registration with the Directorate General of Intellectual Property Rights. In the former

⁵⁸ Different still is the author's interpretation of this part in ANTONS, *supra* note 15, at 151.

⁵⁹ Sara Holder & Lisa Yong, *Indonesia: Rethinking Indonesia*, MANAGING INTELL. PROP., Supplement: Asia-Pacific IP Focus 2006, at 2, available at <http://www.managingip.com/includes/supplements>.

case, the design must be registered subsequently within two years to retain protection (Article 4(1) and (2)).⁶⁰

A plant variety protection right is granted by the Plant Variety Protection Office in the Ministry of Agriculture for a plant variety that is new, distinct, uniform, stable, and that has been named (Article 1 No. 1, Article 2(1)). Entitled to the right is the plant breeder or a successor in title, which may also include a legal entity (Article 5(1)). The right to plant varieties developed in an employment context belongs to the employer, unless there is a different agreement (Article 5(2)). As in patent law, the provision refers to private workplace agreements (*perjanjian kerja*), so that government employment seems to remain unregulated. These principles apply also to commissioned varieties, which belong to the commissioning party (Article 5(3)).

1.3.2. Copyright

According to Article 1 Nos. 1 and 4 of the definition section of the Copyright Act of 2002, copyright is the exclusive right of the author⁶¹ as owner of the right or his/her successor in title. Who can be an author is further defined in Article 1 No. 2 and in Articles 5 to 9. Accordingly, the author can be an individual, several persons creating a work together, a legal entity, or a government agency. Article 1 No. 2 starts with the ordinary case of creation by an individual or by several individuals acting together. Copyright is acquired with the act of creation. There is an assumption of authorship in favour of the person who is registered as author in the Copyright Register of the Directorate General (Article 5(1)a.) and in favour of the person named on the work or in connection with the work (Article 5(1)b.). There is an assumption that the person delivering a speech or lecture is the author, if there is no written text (Article 5(2)). The Government Memorandum to Article 5 makes it plain that copyright registration, regulated in Chapter IV of the Act, merely has the purpose of facilitating evidence and is not necessary to constitute the right.⁶²

Article 6 provides that the editor or compiler is the author of edited works and compilations as such, leaving in place the individual copyrights. This is to be distinguished from cases of joint authorship, where protection under Article 5 is afforded in connection with the definition in Article 1 No. 2. Article 7 gives the planner or designer of a work the copyright, if the work is created under his/her close supervision and if all the details have been provided in advance by the designer or planner.⁶³ Article 8 covers the author as a salaried employee. In contrast to similar provisions elsewhere, the distinction in Indonesia concerns the relationship between employee and employer not only in the private sector, but in particular cases of government employment. Interestingly, Article 8(3) leaves the copyright in private employment as well as in cases of commissioned work as a general rule to the author, provided that there is no different contractual agreement. This is different,

⁶⁰ As to potential problems with this approach, see Antons, *Indonesia*, *supra* note 32, at 416-17.

⁶¹ The legislation uses the term *pencipta*, which literally means “the creator.”

⁶² ANTONS, *supra* note 15, at 75-79.

⁶³ *Id.* at 80-81.

however, if the author is in government employment or if the work is commissioned by the government. In both cases, the employing or commissioning government department will be the copyright holder (Article 8 (1) and (2)), provided that the work was created “within the domain of the employment” (*dalam lingkungan pekerjaannya*). On the other hand, the copyright reverts back to the author again “if the use of the work extends beyond the context of the government service.” While the first part of the provision creates the impression of a fairly strict approach in favour of the government agency, the second part appears very liberal. The provision is difficult to interpret and may even lead to a splitting of the copyright for various purposes.⁶⁴

Government agencies as holders of copyright are only mentioned in Article 8. In particular, they are not mentioned in the chapter on copyright registration or in the Decree of the Minister of Justice of 1987,⁶⁵ which still regulates the details of the copyright registration process. However, this does not mean that a government agency cannot register a copyright. Instead, it has to do with a fairly broad understanding of *badan hukum* as the term for legal entity. According to a Government memorandum to Article 9 of the previous legislation, the term included legal entities governed by private as well as by public law.⁶⁶

According to Article 9, a legal entity is assumed to be the author of works published by it without mentioning an individual author unless there is proof to the contrary of individual authorship. In Dutch copyright law, from which this article appears to be derived, a similar provision plays an important role in ensuring the commissioning party’s independence from the producers of the material, for example in the advertising industry, by adding “unless it is proven that the publication was illegal under the respective circumstances.”⁶⁷ The Indonesian provision has been criticized for not meeting this aim of certainty by omitting the reference to the legality of the publication.⁶⁸

1.3.3. Trademark

With the introduction of the Trademarks Act of 1992, Indonesia changed from a first-to-use to a first-to-file system.⁶⁹ The registration-based right has been maintained in the new Trademarks Act of 2001, which states in Article 3: “The right to a mark is an exclusive right granted by the State to the owner of a mark registered in the General Register of Marks” Article 6(1)b. provides an enhanced protection for well-known marks, but only for goods and/or services of the same kind. Article 6(2) allows for the extension of these principles to dissimilar goods and/or services in accordance with a Government Regulation, which has not yet been

⁶⁴ *See id.* at 81-83.

⁶⁵ Decree of the Minister of Justice No. M.01-HC.03.01 of 1987 on the Registration of Works.

⁶⁶ ANTONS, *supra* note 15, at 83.

⁶⁷ JACOB HENDRIK SPOOR & D.W.F. VERKADE, *AUTEURSRECHT* 43 (Deventer: Kluwer, 2d ed. 1993).

⁶⁸ ANTONS, *supra* note 15, at 83-84.

⁶⁹ *Id.* at 213-17.

issued. In any case, the various civil remedies available under the Trademarks Act may only be raised after the well-known mark has been registered⁷⁰ and criminal remedies apply only to violations of registered marks.⁷¹

Since the 1997 amendment to the Trademarks Act, Indonesian trademark law has protected geographical indications (Article 56) and indications of source (Article 59). Geographical indications must be registered to receive protection, and many of the trademark registration provisions apply *mutatis mutandis*. The list of potential applicants reveals that the protection is not confined to agricultural products or foodstuffs, as it includes among the relevant communities also “makers of handicraft goods or industrial products” (Article 56(2)a.3)). Other communities mentioned are “parties who trade in goods, which constitute products of nature or of natural wealth,” producers of agricultural goods, and traders selling any of these goods (Article 56(2)a.1, 2) and 4)). The communities must be represented by a body or agency, which according to the Government memorandum to the provision can be a government agency or another official body such as a cooperative or an association. Article 56(2)b. simply puts this in more general terms and speaks of a “body authorised” to register the geographical indication, and Article 56(2)c. indicates that this may also be a group of consumers of the goods. Indications of source are mentioned separately in Article 59. They simply point to the origin of the goods and mention also services in this context. They do not require registration, and they include geographical indications that have not been registered. This provision gives access to the same remedies as are available for geographical indications.

As many other areas of IP law, geographical indication protection, while in theory available since 1997, depended on a further implementing decree of the government regulating the details of the application and registration process and the relevant administrative agencies involved. This decree was finally issued in 2007 with Government Regulation No. 51 of 2007 Concerning Geographical Indications.⁷²

The regulation defines a geographical indication as “a sign, which indicates the place of origin of a good, which due to its geographical environment factors, the nature, the people or the combination thereof gives specific characteristics and quality to the goods produced therein” (Article 1 No. 1 Government Regulation No. 51/2007). Protected are agricultural products, foodstuffs, handicrafts, or any other goods within the ambit of Article 1 No. 1 (Article 2(2) Government Regulation No. 51/2007). The scope of the protection is supposed to be drawn widely and to include raw materials, as is visible from the definition of agriculture and “other goods” in the explanatory memorandum to the provision. Accordingly, it extends to forestry, plantation, breeding, fishery, and maritime resources as well as to other “raw material and/or results of process from agricultural products as well as from mining products.”

⁷⁰ See Article 68(2) for the cancellation claim in particular regarding well-known marks. For other civil remedies, see Article 76(1) and Article 85, which require either a registered trademark or proof of ownership by presenting the registration certificate.

⁷¹ Arts. 90, 91.

⁷² For the Indonesian text of this decree as well as an English translation, see the website of the DGIPR at <http://www.dgip.go.id/ebscript/publicportal.cgi?ucid=374&ctid=158&type=0>.

The protection system created is quite bureaucratic, with both the registration of geographical indications as well as that of individual users administered by the Directorate General of Intellectual Property Rights. During the examination process, the Directorate General will be assisted by a Geographical Indications Experts Team, which in turn will form a Technical Evaluation Team to assess individual applications (Article 14 of Government Regulation No. 51/2007). The Geographical Indications Expert Team is also responsible for organising and monitoring the use of geographical indications in Indonesia, in this case assisted by a Technical Controlling Team (Article 19 of Government Regulation No. 51/2007). An individual user needs to support the registration application further with a letter from a “competent technical authority,”⁷³ which may also receive third party objections to the registration of the user (Articles 15 and 16 of Government Regulation No. 51/2007). The Minister of Justice will appoint the Geographical Indications Experts team and the Directorate General of Intellectual Property Rights will appoint the various technical teams.

1.3.4. Trade Secrets and Unfair Competition

With the Trade Secrets Act of 2000, the Indonesian government has provided proprietary rights to confidential information of a commercial nature, which were previously only protected under the general torts provision of the Civil Code.⁷⁴ The Act protects information that is secret, has commercial value, and is appropriately guarded by its owner (Article 1 No. 1, Article 3 Trade Secrets Act). Trade secrets are protected indefinitely, and the owner has the exclusive right to use the trade secret itself, or to license it to third parties (Article 4).

While Indonesia has had a law dealing with monopolistic practices and unfair competition since 1999,⁷⁵ Article 50(b) of the Law expressly excludes from its scope “agreements connected with IP rights such as licences, patents, trademarks, copyright, industrial product designs, integrated electronic circuits and trade secrets and agreements related to franchising.”

1.4. IP Lawmaking

Like many other newly independent states, the Republic of Indonesia inherited from the Dutch colonial power an authoritarian legal system that had little to do with the rule of law ideals that had become prevalent in the Netherlands over the colonial period. A quasi-parliament with some limited powers was installed only in 1918, and

⁷³ “Competent technical authority” is defined by the explanatory memorandum to Article 16(1) as a “government as well as non-government institution, which has the competency in conducting an evaluation and control regarding the quality of a good.” Examples mentioned are the National Agency for Food and Drug Control and Sucofindo, an agency for the quality testing of products.

⁷⁴ SETIAWAN, ANEKA MASALAH HUKUM DAN HUKUM ACARA PERDATA 244-48 (Bandung: Alumni 1992); *see also* ANTONS, *supra* note 15, at 315-17.

⁷⁵ Law No. 5 of 1999 (concerning the prohibition of monopolistic practices and unfair business competition).

rule-making by decree rather than law was common. The first Constitution of 1945, drafted at a time of threat from the returning Dutch after World War II, provided for an exceptionally strong executive power concentrated in the hands of the President. During the so-called “Guided Democracy” in the late 1950s and early 1960s under the first President, Sukarno, clumsy attempts were made to rid the system of the remaining colonial laws. Rule by various forms of Presidential, Government and Ministerial Decrees became more and more prevalent. The government of Sukarno’s successor, Suharto, largely continued the policy of “Guided Democracy” in the field of political rights, but managed to improve the commercial law framework from the 1980s onwards. Fundamental constitutional and administrative reforms arrived after the downfall of the Suharto government, and the Constitution was amended four times between 1999 and 2002. The amendments curtailed the power of the President, strengthened the position of the parliament (*Dewan Perwakilan Rakyat*—DPR), and created local legislative assemblies (*Dewan Perwakilan Daerah*—DPD) in line with the newly introduced decentralisation policy.

Legislative priorities are part of a national legislative program. The planning process is outlined in Law No. 10 of 2004 on the Formation of Legal Provisions.

Under the amended Constitution, the initiative to introduce new legislation may come from the President, the DPR, or the DPD.⁷⁶ The amended Article 5(1) authorises the President to present a draft bill to the DPR. The details are currently based on an unamended Presidential Decision No. 188 of 1999 on the Manner of Finalising a Draft Bill. The responsible department or other organization presents a first draft to the President for approval, after which the core drafting team takes over. This team is usually chaired by the Minister responsible for the subject matter and includes officials from the relevant Directorate General, other relevant government officials, and academics and other people with expertise in the particular field. An assistant team simultaneously gathers views from civil society and NGOs about the draft. A further consultation with the wider public takes place after publication of the draft.⁷⁷

According to the amended Article 21 of the Constitution, the members of the DPR are authorised to submit proposals for draft bills. Party fractions often take the initiative and may also prepare the actual draft. Alternatively, the preparation will be carried out by the legislative committee (*Badan Legislasi*), or by the drafting team of the DPR secretariat, frequently assisted by the Centre for Information Research and Service (*Pusat Pengkajian dan Pelayanan Informasi*—P3I). Civil society organizations such as the Indonesian Center for Environmental Law or the Anti-Discrimination Movement have also submitted proposals in the past, either by using a parliamentary fraction or directly via the legislative committee.⁷⁸ On certain matters related to the provinces, the DPD can also propose legislation to the DPR (Article 22D(1) of the Constitution).

⁷⁶ Erni Setyowati, *Bagaimana Undang-undang Dibuat 1*, available at <http://www.parlemen.net/site/ldetails.php?docid=bagaimana> (last visited Aug. 21, 2005).

⁷⁷ *Id.* at 2.

⁷⁸ *Id.*

The actual formal proposal of the legislation in parliament follows via the Legislative Committee, other committees of combined committees, or seventeen individual members of parliament. After a first reading and perhaps further amendments, final discussion, and voting on the draft, it is forwarded to the State Secretariat to be signed by the President and to be enacted.⁷⁹

In IP law, the formally enacted legislation is supplemented by a fairly large number of decrees of varying formality. These are Government Regulations (*Peraturan Pemerintah*), Presidential Decrees (*Keputusan Presiden*), Ministerial Decrees (*Keputusan Menteri*), and Circular Letters (*Surat Edaran*). Presidential Decrees are based on Article 5(2) of the Constitution and are often used to provide implementing provisions for legislation. Currently, many of the implementing decrees and regulations accompanying the new legislation are still based on the previous laws and they have not been updated in accordance with the laws.⁸⁰ From 2004 to 2007, several new regulations and decrees were issued.⁸¹ According to the Annual

⁷⁹ *Id.* at 3-4.

⁸⁰ Among these implementing decrees are the following: Decree of the Minister of Justice and Human Rights No. M.09-PR.07.06 of 1999 (regarding the appointment of regional offices of the Department of Justice to accept applications for intellectual property rights); Decree of the Director General of Intellectual Property Rights No. H-08-PR.07.10 of 2000 (regarding the assignment of implementing the acceptance of applications for the registration of intellectual property rights via the regional offices of the Ministry of Justice and Human Rights of the Republic of Indonesia); Regulation of the Minister of Justice M.01-HC.03.01 of 1987 (concerning the registration of works); Government Regulation No. 1 of 1989 (on translation and/or copying of works in the interest of education, science, research, and development); Government Regulation No. 7 of 1989 (amending Government Regulation No. 14 of 1986 on the Copyright Council); Government Decree No. 34 of 1991 (concerning the procedure for the application for patent rights); Ministerial Decree No. M.04-HC.02.10 of 1991 (regarding the condition, time, and manner of paying fees for the patent); Government Regulation No. 31 of 1995 (regarding the Patent Appeal Commission); Decree of the Minister of Justice and Human Rights No. M.22-PR.09.03 of 2000 (regarding the appointment of personnel to the Patent Appeal Commission); Government Regulation No. 23 of 1993 (concerning the application for registration of marks); Government Regulation No. 32 of 1995 (concerning the Trade Mark Appeal Commission); Decree of the Minister of Justice and Human Rights No. M.23-PR.09.03 of 2000 (regarding the appointment of personnel to the Trade Mark Appeal Commission).

⁸¹ These are: Government Regulation No. 27 of 2004 (regarding the manner of patent implementation by the Government); Government Regulation No. 29 of 2004 (regarding high technology production means for optical disks); Presidential Decree No. 83 of 2004 (regarding the patent implementation by the Government for anti-retroviral drugs); Decree of the Minister of Justice and Human Rights No. M.2043.Kp.04.12 of 2005 (on the appointment of personnel to the Trade Mark Appeal Commission); Decree of the Minister of Justice and Human Rights No. M.2015.Kp.04.12 of 2005 (on the appointment of personnel to the Patent Appeal Commission); Government Regulation No. 1 of 2005 (regarding the implementation of Law No. 31 of 2000 on Industrial Design); Government Regulation No. 2 of 2005 (regarding the Intellectual Property Consultant); Presidential Decree No. 4 of 2006 (on the formation of a national team for the prevention of intellectual property violations); Government Regulation No. 9 of 2006 (regarding the application procedures for registrations of layout-designs of integrated circuits); Government Regulation No. 51 of 2007 (regarding geographical indications).

Report of the Directorate General of Intellectual Property Rights for 2003, a large number of further implementing decrees is in preparation.⁸²

The highest type of Government Regulation is a Government Regulation in lieu of Law (*peraturan pemerintah pengganti undang-undang*). This is only used in emergency situations or in cases of extreme urgency, and it requires the approval of the DPR in its next sitting (Article 22 of the Constitution and Article 25 of Law No. 10 on the Formation of Legal Provisions). The ordinary Government Regulation is set forth in Article 5(2) of the Constitution. The President is authorised to issue such a Regulation, most commonly to implement laws. A further approval by the DPR is not necessary for such implementing regulations. The majority of implementing legislation in intellectual property is issued in the form of Government Regulations.

Administrative decrees below this level come in the form of Presidential Decrees, Ministerial Decrees, or Decrees of the Director-General of Intellectual Property (*Keputusan Dirjen*). Indonesia relies strongly on the various types of implementing decrees,⁸³ and they regulate many features that in other countries would be part of the main IP act. At other times, they contain crucial guidelines for administrators and judges about how the provision is to be implemented. Most of the current decrees are from the 1980s and 1990s. Since the onset of the reformation (*reformasi*) process, the status of administrative decrees has been clarified in Law No. 10 on the Formation of Legal Provisions of 2004 and in a Decision of the People's Consultative Assembly (*Majelis Permusyawaratan Rakyat*—MPR), the highest constitutional organ of the Republic of Indonesia, consisting of all members of the DPR and DPD.⁸⁴ However, the implementing decrees in IP law have not been updated in accordance with the new revised IP legislation. The result is that there are sometimes contradictions between procedures prescribed in the new law and in the outdated implementing decree. However, transitory provisions, in particular in the Trademarks Act, specify that all implementing provisions not in conflict with the new legislation remain in force.⁸⁵ Administrators at the DGIP and practitioners have indicated that there are rarely any problems with this in practice. A more fundamental problem with the large number of implementing decrees is, however, that many of the decrees simply are still not issued years or even decades after the actual legislation has come into force. Examples here are the missing implementing guidelines for the registration of licensing agreements,⁸⁶ the protection of well-known marks for dissimilar goods,⁸⁷ and the protection of folkloric expressions

⁸² DIRECTORATE GENERAL OF INTELLECTUAL PROPERTY RIGHTS, ANNUAL REPORT 2003, available at <http://www.dgip.go.id/ebscript/publicportal.cgi?ucid=376&ctid=24&id=74&type=0>.

⁸³ As to this issue, see Antons, *Harmonisation and Selective Adaptation as Intellectual Property Policies in Asia* [hereinafter Antons, *Harmonisation*], in INTELLECTUAL PROPERTY HARMONISATION WITHIN ASEAN AND APEC, *supra* note 51, at 113-15.

⁸⁴ MPR Decision No. III of 2000 (concerning the sources of law and the order of legislative provisions).

⁸⁵ Antons, *Indonesia*, *supra* note 32, at 406.

⁸⁶ Antons, *Harmonisation*, *supra* note 83, at 113-14.

⁸⁷ *Id.* at 117.

under the Copyright Act. In the last example, folklore protection was granted by the first Indonesian Copyright Act of 1982, but the relevant implementing decree has never been issued.⁸⁸

1.5. IP Enforcement

1.5.1. Judicial Infrastructure

1.5.1.1. Civil Cases

1.5.1.1.1. Commercial Courts

Until the reform of the Indonesian IP legislation between 2000 and 2002, most IP cases were heard in the District Court (*Pengadilan Negeri*) of Central Jakarta, the headquarters of most law firms. Appeals on questions of law only went to the Supreme Court (*Mahkamah Agung*). Here, it could take years until a decision was reached.⁸⁹

The amended IP laws shifted the responsibility for civil claims related to IP law from the District Court to the Commercial Court (*Pengadilan Niaga*). This court was founded in the immediate aftermath of the Asian Crisis, when Indonesia was plagued by a wave of bankruptcies. The old colonial Bankruptcy Regulation was amended and a new Commercial Court under the supervision of the Supreme Court was established.⁹⁰ Initially, this court was responsible for bankruptcy matters only. From the beginning, however, the legislation foresaw the possibility of extending the jurisdiction of the new court to other areas of commercial law. With the reform of the IP legislation, the government has made use of this option for the most important fields of IP law. The Commercial Court is now the court of first instance for civil cases involving patents, copyright, trademarks, industrial designs, and the layout-designs of integrated circuits. The Commercial Court is also concerned with border control measures following an amendment of Law No. 10 of 1995 on Customs Matters in 2006. Criminal cases remain subject to general jurisdiction. The

⁸⁸ Antons, *Traditional Knowledge and Intellectual Property Rights in Australia and Southeast Asia*, in *NEW FRONTIERS OF INTELLECTUAL PROPERTY LAW: IP AND CULTURAL HERITAGE, GEOGRAPHICAL INDICATIONS, ENFORCEMENT AND OVERPROTECTION* 49 (Christopher Heath & Anselm Kamperman Sanders eds., Oxford & Portland: Hart 2005).

⁸⁹ See, e.g., the “Scotch Whisky” decision of the Supreme Court, No. 2654K/pdt/1994 of July 29, 1996 (deciding an appeal filed in October 1988); the “Scooby Doo” decision of the Supreme Court, No. 3879K/Pdt/1991 of Aug. 31, 1995 (deciding an appeal filed in April 1989), *printed in* SUDARGO GAUTAMA & RIZAWANTO WINATA, *PEMBAHARUAN HUKUM MEREK INDONESIA DALAM RANGKA WTO, TRIPS 1997* (Bandung: Citra Aditya Bakti 1997).

⁹⁰ As to the details of the institutional history, see Antons, *Specialised Intellectual Property Courts in Southeast Asia* [hereinafter Antons, *Specialised Intellectual Property Courts*], in “...UND SIE BEWEGT SICH DOCH!”—PATENT LAW ON THE MOVE 291 (Annette Kur et al. eds., Berlin: Heymanns Verlag 2005). The changes to the bankruptcy legislation initially were implemented as a “Government regulation in lieu of law” and subsequently ratified by Parliament and signed into law in September 1998. See JERRY HOFF, *INDONESIAN BANKRUPTCY LAW 4* (Jakarta: PT Tatanusa 1999).

District Court remains also responsible for cases involving plant varieties and trade secrets.

The amended Bankruptcy Regulation established the first Commercial Court as a specialised court at the Central Jakarta District Court. In 1999, the President established by Decree further Commercial Courts in Surabaya, Medan, Semarang and Ujung Pandang. With the exception of the relatively small jurisdiction of the Commercial Court in Semarang, which includes only the province of Central Java and the Special Administrative Region of Yogyakarta, all the other Commercial Courts cover several provinces, which in some cases stretch over various islands of the vast Indonesian archipelago.⁹¹

Judges at the Commercial Court must have extensive knowledge of the fields of law covered by the Commercial Court and have followed a special training program.⁹² The Bankruptcy Regulation allows for the appointment of non-career judges with special expertise in the relevant fields of law⁹³; however, this opportunity to appoint non-career judges has so far been ignored, and between 2001 and 2005,⁹⁴ all published IP cases were decided by traditional career judges.⁹⁵

In 2004, a completely revised new Bankruptcy Law was introduced. Among other changes, the amended law introduced the possibility for judges to file dissenting opinions in bankruptcy decisions.⁹⁶ Since the revised Bankruptcy Law refers back to the general provisions of the outdated Indonesian procedural law from the colonial period,⁹⁷ a plaintiff in an IP case has to be aware of an amalgam of procedural rules. These begin with the more specialised provisions in the IP laws regarding matters such as injunctions and deadlines, via the less specialised rules of the revised Bankruptcy Law for issues such as the composition of the courts, to the general procedural provisions of the *Herziene Indonesisch Reglement* (HIR) and the

⁹¹ Christoph Antons & Cita Citrawinda Priapantja, *Civil Enforcement of Intellectual Property Rights in Indonesia*, paper presented at the conference on Indonesian Legal Institutions, Asian Law Center, University of Washington, Seattle, Apr. 22, 2004.

⁹² Bankruptcy Regulation, Art. 283(2); Antons, *Specialised Intellectual Property Courts*, *supra* note 90, at 294.

⁹³ Bankruptcy Regulation, Art. 283(3).

⁹⁴ See the collections HIMPUNAN PUTUSAN-PUTUSAN PENGADILAN NIAGA DALAM PERKARA MEREK [hereinafter HPPN MEREK] Vol. 1 (2002), Vol. 2 (2002), Vol. 3 (2004), Vol. 4 (2005), Vol. 5 (2005), Vol. 6 (2005), Vol. 7 (2006), Vol. 8 (2006), Vol. 9 (2006), Vol. 10 (2007); HIMPUNAN PUTUSAN-PUTUSAN PENGADILAN NIAGA DALAM PERKARA HAK CIPTA (2005) [hereinafter HPPN HAK CIPTA]; HIMPUNAN PUTUSAN-PUTUSAN PENGADILAN NIAGA DALAM PERKARA DESAIN INDUSTRI (2005) (all published by PT Tatanusa, Jakarta).

⁹⁵ The legal information service HukumOnline reported in 2006 that until then only one non-career judge had participated in two bankruptcy cases in 2000. *Hakim dan Hakim Adhoc*, HUKUMONLINE, Sept. 25, 2006, <http://www.hukumonline.com>.

⁹⁶ Art. 8(6)b. of Law No. 37 of 2004 on bankruptcy and the postponement of obligations to pay debts.

⁹⁷ Indonesian civil procedural laws are spread out over a number of laws. The most general ones from the colonial period are the *Herziene Indonesisch Reglement* (HIR), valid on Java and Madura, and the *Rechtsreglement Buitengewesten* (Rbg.) for the outer islands. See MERTOKU-SUMO, HUKUM ACARA PERDATA INDONESIA 7 (Yogyakarta: Liberty, 6th ed. 2002).

Rechtsreglement Buitengewesten (Rbg.), for example for evidence-taking or the formalities to be observed in submitting the claim.

Some parts of the new IP legislation have stiffened the deadlines for the Commercial Court to reach a decision. Under Article 59 Copyright Act, cases on copyright violations must be decided within ninety days, but the Chairman of the Supreme Court may extend this deadline by one month (Article 61(2)). Trademarks,⁹⁸ layout-design of integrated circuits,⁹⁹ and industrial design cancellation¹⁰⁰ cases all have the same deadlines, again with a possibility of a one-month extension. There is no such deadline for patent cases.

The transparency of the court system in general is improving with a recent Decree of the Chairman of the Supreme Court on openness of information in the courts.¹⁰¹ The Decree requires the publication of legally binding court decisions, statistics, preliminary decisions in cases of particular interest to the public (Articles 6(1) e. and f., 6(2), 15 a. and c.), and the regulations, circular letters, and jurisprudence of the Supreme Court (Article 6(3)). As far as the Commercial Court is concerned, information is difficult to obtain. It currently has no website of its own¹⁰² and there are no published statistics about its efficiency. However, commercial publisher PT Tatanusa has an initiative to publish as many decisions as possible, at least for Metropolitan Jakarta, though this has turned out to be difficult.¹⁰³ Of the five Commercial Courts, only the decisions of the Central Jakarta Commercial Court have been made available and even these are not always complete. Nevertheless, the ten volumes of trademark cases and two volumes of copyright and design cases published as of mid-2007 give a fairly good picture of the speed with which cases are decided. Only very few of the cases decided between 2002 and 2005 exceeded the maximum period for trademark cases of four months after grant of an extension.¹⁰⁴ Of the remaining cases, many were decided in less than two months.¹⁰⁵

The cases decided in the Central Jakarta Commercial Court were predominantly trademark cases, but the collections of trademark cases included also a patent cancellation case¹⁰⁶ and an appeal against a decision of the Patent Appeal Commis-

⁹⁸ Trade Marks Act, Art. 80(8).

⁹⁹ Layout-Design of Integrated Circuits Act, Art. 31(8).

¹⁰⁰ Industrial Design Act, Art. 39(8).

¹⁰¹ Decree of the Chairman of the Supreme Court of the Republic of Indonesia No. 144/KMA/SK/VIII/2007 of Aug. 28, 2007 (on openness of information in the courts).

¹⁰² A few Commercial Court decisions have been published on the website of the National Law Development Agency (BPHN), but thus far they do not include intellectual property cases. See <http://www.bphn.go.id>.

¹⁰³ See the preface to 1 HPPN MEREK, at iii (2002).

¹⁰⁴ Christoph Antons, *The Recognition and Protection of Well-Known Trade Marks in Indonesia* [hereinafter Antons, *Recognition and Protection*], in 3 J. INTELL. PROP. L. & PRAC. 188 (2008).

¹⁰⁵ See, e.g., Commercial Court Central Jakarta, No. 14/Merek/2002/PN.Niaga.Jkt.Pst. of May 7, 2002, "BROTHER," in 3 HPPN MEREK 19-28 (2004).

¹⁰⁶ Commercial Court Central Jakarta No. 07/Merek/2002/PN.Niaga.Jkt.Pst of May 8, 2002, "ESKADE," in 2 HPPN MEREK 177-211 (2002).

sion of the Directorate General of Intellectual Property Rights.¹⁰⁷ More recently, two volumes of copyright and design cases have been published. However, if the copyright cases published thus far are indicative of a wider trend, then it seems that copyright principles are frequently used to prevent the acquisition or enforcement of other types of IP rights.¹⁰⁸ Cases published concerned the copyright ownership of logos,¹⁰⁹ a video licensing agreement,¹¹⁰ the attempt to use the copyright registration of a technical description to protect a method of developing holograms for cigarette revenue stamps,¹¹¹ and the copyright registration of a technical proposal submitted during a tender process.¹¹²

In the field of trademarks, disputes over well-known trademarks continue to provide a substantial share of the work of the Commercial Court.¹¹³ In the absence of a Government Regulation extending the protection for well-known marks to dissimilar goods, the Court continues to rely on arguments such as registration in bad faith¹¹⁴ or applies TRIPS Article 16(3) directly to fill a legal void (*kekosongan hukum*).¹¹⁵ Occasionally, there has been a return to the more problematic attitude of Indonesian courts vis-à-vis well-known trademarks in the past. This happened, for example, in the case of “CANNONMATE.”¹¹⁶ The Court rejected the argument that CANNONMATE was a well-known trademark based on the previous Decree of the Minister of Justice on well-known trademarks of 1991, and ordered the cancellation of the trademark held by the Japanese CANON company, reaffirming the right of an Indonesian owner to an earlier registered trademark. The decision caused such a stir that the Chairman of the District Court of Central Jakarta filed a dissenting

¹⁰⁷ Commercial Court Central Jakarta No. 15/Merek/2002/PN.Niaga.Jkt.Pst. of May 24, 2002, “KAPSUL MIKRO YANG MAMPU MELEPASKAN KANDUNGAN SECARA LAMBAT,” in 3 HPPN MEREK 29-66 (2004).

¹⁰⁸ Antons, *Copyright Law Reform*, *supra* note 45, at 254.

¹⁰⁹ Commercial Court Central Jakarta No. 74/Hak Cipta/2003/PN.Niaga.Jkt.Pst of Feb. 3, 2004, “Logo Trisakti,” in HPPN HAK CIPTA 1-38; Commercial Court Central Jakarta No. 28/Hak Cipta/2004/PN.Niaga.Jkt.Pst of Sept. 28, 2004, “Lambang/Logo Kesatuan Pelaut Indonesia (KPI),” in HPPN HAK CIPTA 217-49.

¹¹⁰ Commercial Court Central Jakarta No. 81/Hak Cipta/2003/PN.Niaga.Jkt.Pst of Mar. 15, 2004, “The Adventures of Tin Tin,” in HPPN HAK CIPTA 39-109.

¹¹¹ Commercial Court Central Jakarta No. 04/Hak Cipta/2004/PN.Niaga.Jkt.Pst of Apr. 15, 2004, “Hologramisasi pada pita cukai tembakau/rokok,” in HPPN HAK CIPTA 111-47.

¹¹² Commercial Court Central Jakarta No. 05/Hak Cipta/2004/PN.Niaga.Jkt.Pst of July 7, 2004, “Deskripsi teknikal penggantian katalis (Catalyst Change Out) di kilang minyak Pertamina UP-IV Balongan,” in HPPN HAK CIPTA 149-216.

¹¹³ For a survey of these decisions, see Antons, *Recognition and Protection*, *supra* note 104, at 185-93.

¹¹⁴ Commercial Court Central Jakarta No. 11/Merek/2001/PN.Niaga.Jkt.Pst of Mar. 26, 2002, “SANTA BARBARA POLO & RACQUET CLUB,” in 2 HPPN MEREK 1-19.

¹¹⁵ Commercial Court Central Jakarta No. 09/Merek/2001/PN.Niaga.Jkt.Pst of Mar. 12, 2002, “MORGAN,” in 1 HPPN MEREK 237-56.

¹¹⁶ Commercial Court Central Jakarta No. 36/Merek/2003/PN.Niaga.Jkt.Pst of Sept. 2, 2003, in 5 HPPN MEREK 379-426.

opinion,¹¹⁷ which was unprecedented at the time.¹¹⁸ The decision was promptly overruled by the Supreme Court.¹¹⁹

Some foreign owners of well-known trademarks are still struggling to have registrations of their marks in the names of Indonesian parties deleted from the register based on non-use for three consecutive years.¹²⁰ Apparently in an attempt to prevent “token sales” and other manipulations of the use requirement, which were very common in the past, the Indonesian government has made it clear in the explanatory memorandum to the provision that last use refers to the production of the goods or services, which are traded. Thus, it is the affixation of the trademark during the production which is decisive for the use requirement, even if the product is subsequently still circulating on the market. The criterion of last use during the production process has been criticised as unusual, unsuitable for service marks, and notoriously difficult to prove in practice.¹²¹ Reversal of the burden of proof in favour of the plaintiff would alleviate this problem, but only in a single published decision under the former legislation has the District Court of Central Jakarta taken this step.¹²² As a consequence of this approach, in two recent Commercial Court decisions the U.S. company Intel failed to get registrations of its famous trademarks in the name of an Indonesian party deleted from the register despite survey evidence that the mark was no longer used. The Commercial Court argued that the last use during the production process could not be established with certainty and that the plaintiff was bearing the onus of proof for this.¹²³ The Supreme Court of Indonesia rejected Intel’s appeal in February 2007.¹²⁴ In a further review of the case in March 2008, the Supreme Court upheld the previous decisions and rejected the argument that the practice in Indonesia was not in accordance with TRIPS. It also found that

¹¹⁷ Dissenting Opinion dalam Perkara No. 36/Merek/2003/PN.Niaga.Jkt.Pst, in 5 HPPN MEREK 427-38.

¹¹⁸ Dissenting opinions have now been allowed for bankruptcy decisions following the 2004 amendment of the bankruptcy legislation. Christoph Antons, *Doing Business in Indonesia: Enforcement of Contracts in the General Courts and the Creation of a Specialized Commercial Court for Intellectual Property and Bankruptcy Cases* 19 (Attractivité Economique du Droit, Working Paper AED-EAL-2007-4, 2007) [hereinafter Antons, *Doing Business in Indonesia*].

¹¹⁹ Supreme Court No. 039K/N/HaKI/2003 of Jan. 15, 2004, in 4 HIMPUNAN PUTUSAN-PUTUSAN MAHKAMAH AGUNG DALAM PERKARA HAKI 165-86 (Tim Redaksi Tatanusa ed., Jakarta: PT Tatanusa).

¹²⁰ Trademarks Act, Art. 61(2)a.

¹²¹ ANTONS, *supra* note 15, at 278-79; SUDARGO GAUTAMA, UNDANG-UNDANG MEREK BARU 63 (Bandung: Alumni 1992); SUDARGO GAUTAMA & RIZAWANTO WINATA, THE NEW INDONESIAN TRADEMARK ACT 34-35 (Bandung: Alumni 1993); Antons, *Recognition and Protection*, *supra* note 104.

¹²² District Court Central Jakarta No. 274/1974 G. of Jan. 9, 1975, “MANGKOK I,” in KEPUTUSAN-KEPUTUSAN PENGADILAN TENTANG SENGKETA MEREK 1971-1977 (Direktorat Jenderal Hukum dan Perundang-undangan Departemen Kehakiman ed., Jakarta 1981).

¹²³ Commercial Court Central Jakarta No. 43/Merek/2006/PN.Niaga.Jkt.Pst and Commercial Court Central Jakarta No. 44/Merek/2006/PN.Niaga.Jkt.Pst of Sept. 13, 2006, “INTEL” (on file with the author); see also Antons, *Recognition and Protection*, *supra* note 104, at 192.

¹²⁴ Zain Adnan & Lisa Yong, *Mixed Signals from Indonesia*, MANAGING INTELL. PROP., Dec. 2007/Jan. 2008, at 60.

the appeal court had not erred in refusing to re-examine the evidence in an appeal on questions of law only, thereby rejecting Intel's argument that it was the legal significance of the facts that was at stake and not the facts as such.¹²⁵ Prior to the decision, Intel had summarized its experience in February 2008 in a submission to the United States Trade Representative's (USTR) Special 301 Request for Public Comment.¹²⁶ There have been a few other cases that received press coverage.¹²⁷ In the case of "PRESTONE," a trademark owned by a subsidiary of the U.S. Honeywell Consumer Products Group, the Commercial Court refused to examine the substantial similarity of a competing trademark, because the trademark certificate in this case had not yet been issued and the court considered the claim as premature. The Supreme Court overturned this decision in December 2007, although it rejected Prestone's additional claim for damages. The defendant, however, requested a further review. Still concerned that it may lose the case at this final hurdle, Prestone made a submission to the USTR's Special 301 Request for Public Comment.¹²⁸

Prior to these recent high profile cases, practitioners in Jakarta had indicated that, in general, they had been reasonably content with the performance of the Commercial Court in IP matters over the last few years and that it constituted a clear improvement over the previous IP jurisdiction of the District Courts.¹²⁹ For example, the court has recently been applauded for its correct decision in Indonesia's first patent revocation action.¹³⁰ Its comparatively good performance in IP matters is also in contrast to its bankruptcy jurisdiction, in which it has made several highly controversial decisions.¹³¹ It seems in particular that the concentration of IP cases in the Commercial Court has allowed for a stronger specialisation of judges. Twenty judges were involved in the published IP cases of the Central Jakarta Commercial Court between 2002 and 2005, with fifteen of them deciding between twenty-two and forty-two cases each, and with the most experienced judge being involved in no fewer than fifty-nine IP cases.

¹²⁵ Supreme Court No. 17 PK/Pdt.Sus/2008 of Mar. 13, 2008, "INTEL", at 18-19, available at <http://www.putusan.net/app-mari/putusan/index.htm>.

¹²⁶ Submission of Feb. 11, 2008 (on file with the author).

¹²⁷ Timothy Mapes, *Battle to Reclaim a Brand*, 166 FAR EASTERN ECON. REV., May 22, 2003, at 36-37; Gunawan Suryomurcito, *Intellectual Property Laws Still Weak*, JAKARTA POST, Jan. 31, 2005.

¹²⁸ Submission of Prestone Production Corporation (on file with the author); see also Gladys Mirandah & Sariha Bhanu, *Supreme Court Strengthens Protection for Well-Known Marks*, MANAGING INTELL. PROP., Supplement: Asia-Pacific IP Focus 2007, at 33-36.

¹²⁹ Holder & Yong, *supra* note 59, at 3.

¹³⁰ Adnan & Yong, *supra* note 124, at 59.

¹³¹ Most notably with the bankruptcy declaration of highly profitable Canadian life insurance company Manulife in 2002. See RICHARD ROBISON & VEDI R. HADIZ, REORGANISING POWER IN INDONESIA: THE POLITICS OF OLIGARCHY IN AN AGE OF MARKETS 265 n.1 (London: RoutledgeCurzon 2004). For a detailed discussion of this case see also the WORLD BANK BRIEF FOR THE CONSULTATIVE GROUP ON INDONESIA, INDONESIA: MAINTAINING STABILITY, DEEPENING REFORMS 34 (2003).

1.5.1.1.2. Supreme Court

The Supreme Court (*Mahkamah Agung*) hears appeals on questions of law only (*kasasi*) from decisions of the Commercial Court. *Kasasi* is the main appeal procedure and is derived from the French *cassation*. In recent years the Supreme Court has increasingly broadened the grounds for what is reviewable to the point of frequently ignoring the distinction between fact and law.¹³² However, it is difficult to find any consistency in this matter in earlier trademark cases.¹³³ PT Tatanusa has recently published six volumes of Supreme Court decisions in IP cases,¹³⁴ which give a good picture of the performance of the court. In addition to and in accordance with the transparency requirements of the Decree of the Chairman of the Supreme Court on openness of information in the courts of 2007,¹³⁵ the Supreme Court has also established its own website for the publication of its decisions. At the time of writing, eleven industrial design decisions, nine copyright decisions, one hundred and three trademark decisions, and five patent decisions are published on this website.¹³⁶

The period granted to the Supreme Court to reach a verdict in appeal cases is even tighter than that for the Commercial Court. According to Article 83(9) Trade-marks Act, the appeal must be decided within ninety days and this deadline cannot be extended. The same period applies in copyright (Article 64(3) Copyright Act), industrial design (Article 41(9) Industrial Design Act) and Layout-Design of Integrated Circuits cases (Article 33(9) Layout-Design of Integrated Circuits Act). The period allowed for the decision of patent cases—six months—is twice as long as for the other areas of intellectual property (Article 123(9) Patents Act).

In contrast to the Commercial Court, the Supreme Court has been struggling to meet the deadline for decisions. Nevertheless, in comparison to the lengthy proceedings in the past,¹³⁷ the speed of decision-making has been impressive. While a few individual cases have taken up to nine months for a decision,¹³⁸ on average appeal cases have been decided within four to five months.¹³⁹ According to the Supreme Court website, the Court has established separate Directorates for General Law, Religious Law, and Administrative Law, whereby the General Law division has further directorates for private law and criminal law respectively.¹⁴⁰ Clearly some specialisation in IP matters is occurring at the Supreme Court level, as

¹³² SEBASTIAAN POMPE, *THE INDONESIAN SUPREME COURT: A STUDY OF INSTITUTIONAL COLLAPSE* 232-34 (Ithaca: Cornell Southeast Asia Program Publications 2005).

¹³³ ANTONS, *supra* note 15, at 292-93.

¹³⁴ HIMPUNAN PUTUSAN-PUTUSAN MAHKAMAH AGUNG DALAM PERKARA HAKI (Tim Redaksi Tatanusa ed., Jakarta: PT Tatanusa), Vol. 1 (2003), Vol. 2 (2004), Vol. 3 (2004), Vol. 4 (2004), Vol. 5 (2005), Vol. 6 (2006) [hereinafter HPMA].

¹³⁵ *See* Decree of the Chairman of the Supreme Court of the Republic of Indonesia, *supra* note 101.

¹³⁶ <http://www.putusan.net/app-mari/putusan/index.htm>.

¹³⁷ *See supra* note 89.

¹³⁸ Supreme Court No. 021K/N/HaKI/2003 of Mar. 17, 2004, "GIORDANO/GIO JEANS CO.," in 3 HPMA 71-80.

¹³⁹ Further review decisions have taken slightly longer, but are not covered by the deadlines provided for in the various IP laws.

¹⁴⁰ Website of the Supreme Court, <http://www.mahkamahagung.go.id/images/orgstru/1.gif>.

well, and judges are following specialised training courses in intellectual property. Twenty-eight judges of the Court were involved in the cases published between 2002 and 2006, with eight judges deciding twenty or more cases and with the most experienced judge being involved in forty-nine decisions.

The Supreme Court has allowed for further review of decisions that have already come into force (*peninjauan kembali*). Further review is outlined in Article 67 of the revised Law on the Supreme Court. It applies mainly in cases of subsequent identification of false evidence, emergence of new evidence, or clear errors made by the judges handling the cases in earlier instances. The revised Bankruptcy Law also makes further review available, but gives the court only one month to decide it. The number of these further review cases is rising, with two decisions in each of the first two volumes of Supreme Court decisions and four and eight cases respectively in the two most recent volumes. As for subject matter, most of the review and further review cases concern trademarks, but there have also been cases on the patent/copyright overlap,¹⁴¹ on patents and utility models,¹⁴² and on industrial designs.¹⁴³ While most of the appeals were directed against decisions of the Commercial Court of Central Jakarta, appeals have also come from other parts of Indonesia, with the exception of the jurisdiction of the Commercial Court of Ujung Pandang, where there have not been any appeals filed to date. Apart from the discretionary nature of the further review, the procedure has also been criticised as leading to delaying tactics by defendants.¹⁴⁴

1.5.1.2. Criminal Cases

On the criminal side of the enforcement system, the District Courts are still in charge of IP cases. The investigation is in the hands of the Indonesian police and of special civil servant investigators (*Pejabat Pegawai Negeri Sipil*—PPNS) attached to the Directorate General of Intellectual Property Rights (DGIPR) or to the branch offices of the Ministry of Justice in the provinces. Typical duties of the civil investigators include investigation of reports, examination of suspects, request of information from suspects, examination of documents and of places and facilities that possibly hold such documents, confiscation of infringing material for purposes of evidence, and assisting other agencies.¹⁴⁵ As of 2003, there were 129 civil servant

¹⁴¹ Supreme Court No. 011K/N/HaKI/2002 of Sept. 30, 2002, “ESKADE,” in 1 HPMA 109-51, with a further review decision in No. 02PK/N/HaKI/2003 of May 13, 2003, in 3 HPMA 285-308.

¹⁴² Supreme Court No. 016K/N/HaKI/2002 of Nov. 21, 2002, “KAPSUL MIKRO YANG MAMPU MELEPASKAN KANDUNGAN SECARA LAMBAT,” in 1 HPMA 225-40; No. 043K/N/HaKI/2003 of Mar. 30, 2004, “KARUNG PLASTIK ANTI SLIP DAN PERALATAN UNTUK MEMBUAT KARUNG PLASTIK TERSEBUT,” in 4 HPMA 243-63; No. 046K/N/HaKI/2003 of Mar. 24, 2004, “GENTENG LOGAM,” in 4 HPMA 287-307.

¹⁴³ Supreme Court No. 04K/N/HaKI/2003 of Apr. 21, 2003, “BOTOL OIL,” in 2 HPMA 161-73; No. 034K/N/HaKI/2003 of Mar. 2, 2004, “TALI TAMBANG PLASTIK,” in 3 HPMA 245-81.

¹⁴⁴ POMPE, *supra* note 132, at 246.

¹⁴⁵ See Copyright Act Art. 71(2) and the similar provisions in Trade Secrets Act Art. 16, Industrial Design Act Art. 53(2), Layout-Design of Integrated Circuits Act Art. 41(2), Patents Act Art. 129(2), and Trademarks Act Art. 89(2).

investigators throughout the archipelago, with the majority of them on the main islands of Java (50) and Sumatra (33). The civil servant investigators cooperate in their investigations with the Indonesian police and report the outcome of the investigations via the police to the prosecutor's office.

While individual large-scale police raids are highly publicised, statistical material on criminal prosecution and convictions is difficult to come by.¹⁴⁶ The International Intellectual Property Alliance (IIPA) noted progress in the enforcement efforts of the Indonesian government in its 2007 report. Its assessment was based in particular on raids the Indonesian government initiated against unauthorized optical disk production in 2006, successful prosecution and sentencing in a number of retail piracy cases, and the strong efforts of the government to ensure that Indonesian government departments use only legal software on their computers.¹⁴⁷ In its most recent report, the IIPA has recommended keeping Indonesia on the USTR Special 301 Watch List. It found that the efforts of the Indonesian government continued in 2007, but found a worsening of the situation, at least for the copyright sector, during the second half of the year, due to diversion of enforcement resources to other priorities and types of IP rights (especially counterfeit pharmaceuticals).¹⁴⁸ In a statistical table of enforcement updates, compiled by IIPA from figures provided by the Indonesian police and the International Federation of Phonographic Industries (IFPI), the Indonesian police reported thirty raids and 230 arrests related to sound recordings, while the IFPI was aware of three raids and twenty-one arrests. According to the same table, there were 28 cases in 2007 resulting in jail terms and an unknown number of cases resulting in criminal fines. The IIPA has repeatedly pointed to a number of deficiencies of Government Regulation No. 29 of 2004 concerning high technology production facilities for optical disks, which has been issued to combat the problem,¹⁴⁹ and made suggestions about how to make the regulatory structure and enforcement more effective.¹⁵⁰ In March 2006, a national task force as coordinating body for enforcement activities against IP infringements was formed by Presidential Decree.¹⁵¹

1.5.1.3. Customs Cases

Border control measures were introduced by the government in Chapter X of Law No. 10 of 1995 regarding Customs matters.¹⁵² However, a lack of implementing

¹⁴⁶ See INT'L INTELL. PROP. ALLIANCE, 2008 SPECIAL 301 REPORT 210 n.9, 214 (2008), available at http://www.iipa.com/2008_SPEC301_TOC.htm [hereinafter IIPA 2008 REPORT].

¹⁴⁷ In January 2006, the Indonesian Ministry of Communication and Information and Microsoft signed a Memorandum of Understanding (MOU) to achieve that purpose. See IIPA 2007 REPORT, *supra* note 46, at 279; see also *id.* at 276, 281-82.

¹⁴⁸ IIPA 2008 REPORT, *supra* note 146, at 206, 211.

¹⁴⁹ *Id.* at 217-18.

¹⁵⁰ *Id.* at 212-13.

¹⁵¹ The task force was formed by Presidential Decree No. 4 of 2006. See *Pemerintah Cermati Priority Watch List USTR*, HUKUMONLINE, May 26, 2006, <http://www.hukumonline.com>; IIPA 2007 REPORT, *supra* note 46, at 283-84.

¹⁵² For a detailed analysis see Christoph Antons, *Indonesia, in BORDER CONTROL OF INTELLECTUAL PROPERTY RIGHTS* (Michael Blakeney ed., London: Sweet & Maxwell 2002).

regulations meant that the law has remained largely ineffective.¹⁵³ In 2006, the law was amended by Law No. 17 of 2006.¹⁵⁴ The main purpose of this law was to transfer the responsibility for decisions about border control measures from the local District Courts to the Commercial Courts.

1.5.2. Administrative Infrastructure

The Directorate General of Intellectual Property Rights (DGIPR) is the main agency for the administration of IP rights. It is responsible for all fields of intellectual property with the exception of the Plant Varieties Act, which is administered by the Ministry of Agriculture. As part of the Ministry of Justice, the DGIPR also plays an important role in the development of new laws and decrees, in awareness-building activities like seminars, workshops, and exhibitions, and in enforcement via the civil servant investigators on the DGIPR staff.

The DGIPR is subdivided into the Secretariat of the Directorate General, the Directorate of Copyright, Industrial Design, Layout-Design of Integrated Circuits and Trade Secrets, the Directorate of Patents, the Directorate of Trade Marks, the Directorate of Cooperation and Development, and the Directorate of Information Technology. In January 2007, the DGIPR had 511 staff members, with most of them working in the Directorate of Trade Marks (144) and the Directorate of Patents (130).¹⁵⁵

While the DGIPR is the central agency for IP matters in Indonesia, it is possible to submit applications to the branch offices of the Ministry of Justice in the provinces, who will then forward the application to the DGIPR. This process is based on a decree of the Minister of Justice of 1999¹⁵⁶ and an implementing Decree of the Director General of Intellectual Property Rights,¹⁵⁷ and it has been in place since 2001. Statistics of the DGIPR indicate that the opportunity to submit an application closer to home has been quite popular with trademark owners, with 3,143 applications submitted via regional branch offices between 2001 and 2007.¹⁵⁸ Applications for copyright registration are only reported for the years 2001 and 2002. There were 176 such applications during these two years.¹⁵⁹

According to statistics of the DGIPR,¹⁶⁰ between 1991 and 2005, 43 patent agents (*konsultan paten*) were registered.¹⁶¹ Registration was restricted to a rela-

¹⁵³ The IIPA reports occasional seizures based on incorrect declarations or under-declaration. See IIPA 2008 REPORT, *supra* note 146, at 216 n.22.

¹⁵⁴ Law No. 17 of 2006 (concerning amendments to Law No. 10 of 1995 on Customs Matters).

¹⁵⁵ DGIPR website, <http://www.dgip.go.id/ebscript/publicportal.cgi?.ucid> (last visited Aug. 19, 2005).

¹⁵⁶ M.09-PR.07.06.

¹⁵⁷ H-08-PR.07.10.

¹⁵⁸ Statistik Permohonan Pendaftaran Merek Tahun 2001 s/d Dec. 2007, available at <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=9925>.

¹⁵⁹ <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=7465>.

¹⁶⁰ DGIPR Website, *supra* note 155. The list is also available from the website of the ASEAN Secretariat at <http://www.aseansec.org/6435.htm> (last visited Jan. 13, 2003; print-out on file with the author).

¹⁶¹ Government Regulation No. 33 of 1991.

tively small circle of firms and individuals, because it required proof of prior experience as a patent agent for at least two years before the enactment of the first Indonesian Patents Act in 1989¹⁶² in addition to the appropriate qualification and fee. These 43 registered agents submitted 45,576 of 48,278 total patent applications in Indonesia during this period. The most experienced patent agent alone submitted over 9,000 applications, and 24,749 total applications were submitted by the three most experienced patent agents.

Registration of agents changed as of January 2005. Government Regulation No. 2 of 2005 extended the agent registration requirement from patents to all other areas of IP law which are the responsibility of the DGIPR (there is a different registration requirement for agents handling plant variety rights in the Plant Varieties Act). Under the new Government Regulation, in order to be registered, agents must apply to the Ministry via the DGIPR. Applicants must be Indonesian citizens with permanent residency in Indonesia and must not be civil servants, they must hold a university degree, have passed the TOEFL English test with a result of at least 400, and have completed a training course for IP consultants (Articles 2 and 3 of Decree No. 2/2005). The training courses are organised and designed by the DGIPR, but outsourced to the university sector (Article 4 of Decree No. 2/2005). There will be an evaluation of the performance of IP consultants every five years, which can lead to deregistration of a consultant (Articles 9-14 of Decree No. 2/2005). The number of practitioners has grown quickly. By the end of 2006, 128 agents were involved in the filing of patents, and all together 256 consultants of IP rights are listed in an appendix to the annual reports of the DGIPR for the period 2004 to 2006.¹⁶³

1.6. Legal Culture

When the European colonial powers arrived in the Indonesian archipelago in the sixteenth century in search of spices and other natural wealth, they found major regional trading ports, which had long attracted traders from all over Asia. As they were dependent upon the monsoon winds for their arrival and departure, foreigners created significant foreign communities and often intermarried with locals during their extended stays. Tolerant feudal rulers interested in the trade and knowledge that the foreigners were bringing allowed them to remain in separate quarters of the cities, largely represented by their own community leaders and administering their own laws.¹⁶⁴ During the initial period of European colonial expansion, at first the Portuguese and then the Dutch East Indies Company (*Vereenigde Oost-Indische Compagnie*—VOC) attempted to monopolize the spice trade and control the sea lanes of the region. However, numerically weak and with limited resources, they

¹⁶² ANTONS, *supra* note 15, at 154-55.

¹⁶³ DGIPR Website, *supra* note 155; DGIPR, ANNUAL REPORTS 2004-2006 (Tangerang 2007).

¹⁶⁴ K.N. CHAUDHURI, TRADE AND CIVILISATION IN THE INDIAN OCEAN: AN ECONOMIC HISTORY FROM THE RISE OF ISLAM TO 1750, 11-14, 112-13 (Cambridge: Cambridge University Press 1985); Anthony Reid, *Economic and Social Change, c. 1400-1800*, in THE CAMBRIDGE HISTORY OF SOUTHEAST ASIA, VOLUME 1: FROM EARLY TIMES TO C. 1800, 476-83 (Nicholas Tarling ed., Cambridge: Cambridge University Press 1992).

had no choice but to continue the relatively loose administration of the multiethnic population and to encourage the further migration of foreigners.¹⁶⁵

Territorial and administrative control expanded after the dissolution of the VOC and the takeover of the colony by the Netherlands. To facilitate judicial administration, the legal status of various population groups became prescribed and a so-called “intergroup law” (*intergentiel recht*) regulated legal relationships between members of various groups.¹⁶⁶ The *intergentiel recht* distinguished between Europeans; so-called “Foreign Orientals” comprising many different trading communities, most importantly the Chinese, Indians, and Arabs; and the indigenous Indonesian population. Dutch laws were transferred to the colony and applied to Europeans, whereas indigenous Indonesians remained with few exceptions, notably in criminal law,¹⁶⁷ under Islamic and customary law (*adat*). The status of various “Foreign Orientals” was further differentiated over the years and most of the Dutch law became applicable to the Chinese in the early twentieth century.¹⁶⁸ For most of the later colonial period, however, “Foreign Orientals” were subjected to Dutch commercial law, but remained under their own religious and customary law for family and inheritance matters.

After the Japanese interregnum during World War II, Indonesia declared its independence from the Dutch in 1945. However, Indonesian forces had to struggle against the returning Dutch until agreement was reached at the Round Table Conference in The Hague in 1949. The relationship remained tense and military conflict flared up again in 1962 over the remaining Dutch territory of Western New Guinea, the current Indonesian province of West Papua. Dutch hopes for a federal republic and a continuing “Dutch-Indonesian Union” were thwarted soon after independence.¹⁶⁹ Although the new republic left most of the Dutch-derived laws intact,¹⁷⁰ Dutch legal influence subsequently declined. Many colonial laws and provisions have been declared invalid and replaced by Indonesian laws that show a variety of influences, which increasingly come also from common law countries. Legal reform has been most intensive in fields of commercial law important for the attraction of foreign investment, but more piecemeal in other areas.

Indonesia also had little choice but to accept that the state law is just one element of a pluralist setting in which various population groups see their respective inter-

¹⁶⁵ Christoph Antons, *Ethnicity, Law and Development in Southeast Asia* [hereinafter Antons, *Ethnicity, Law and Development*], in *READING ASIA: NEW RESEARCH IN ASIAN STUDIES 7-8* (Frans Hüsken & Dick van der Meij eds., Richmond & Surrey: Curzon 2001).

¹⁶⁶ SUDARGO GAUTAMA, *HUKUM ANTARGOLONGAN: SUATU PENGANTAR* (Jakarta: PT Ichtiar Baru Van Hoeve, 11th ed. 1993). GAUTAMA & HORNICK, *supra* note 20, at 1-22.

¹⁶⁷ Cees Fasseur, *Hoeksteen en Struikelblok: Rassenonderscheid en Overheidsbeleid in Nederlands-Indië*, in CEES FASSEUR, *DE WEG NAAR HET PARADIJS EN ANDERE INDISCHE GESCHIEDENISSEN 158* (Amsterdam: Uitgeverij Bert Bakker 1995).

¹⁶⁸ Antons, *Ethnicity, Law and Development*, *supra* note 165, at 11.

¹⁶⁹ ANTONS, *supra* note 15, at 22-23.

¹⁷⁰ Gautama, *Legal Developments in Independent Indonesia*, *supra* note 19.

ests best served by different laws.¹⁷¹ Thus, conflicts and discussions have continued since independence about the appropriate role of Islamic law and the many customary laws (*adat*) of various Indonesian communities within the larger context of the nation. These discussions have received new impetus from a policy of administrative decentralisation pursued since the late 1990s,¹⁷² which has brought a shift of administrative powers and tax income to the regions and away from the previous centralisation of powers in Jakarta. Indonesia is currently trying to strike a balance between this revival of regional identities and *adat*, on the one hand, and national unity, on the other hand, by stressing important postulates of national identity such as *Bhinneka Tunggal Ika* (unity in diversity) and *Pancasila* (literally, “the five pillars”), the guiding principles for the Indonesian nation developed by Indonesia’s first president Sukarno during the deliberations of the Constitution.¹⁷³ Both are enshrined in the preamble to the Indonesian Constitution.

Apart from its association with the colonial period, a further reason for the rather negative image of the state legal system has to do with the developments during the so-called “New Order” of Indonesia’s second president Suharto. This period brought many development projects to Indonesia and opened the country to foreign investment, but after Suharto’s resignation in the wake of the Asian Crisis, the government was criticised for its instrumentalist use of legal tools and for widespread corruption, collusion, and nepotism.¹⁷⁴ According to one study, by 1992 no fewer than 666 general court judges, or 30% of the entire judiciary, had been subjected to disciplinary sanctions for corruption.¹⁷⁵ “Bargaining in the shadow of the law” and the quick political fix became the preferred means of dispute resolution over lengthy, costly, and unpredictable legal proceedings.¹⁷⁶ Since the end of the New Order, law reform and the combating of KKN in the judiciary and in government institutions has been the declared policy aim of the new era of reformation (*reformasi*). The task is great and progress has been slow. Nevertheless, democracy has significantly increased transparency in general and in the judicial system in particular with court decisions and the financial position of judges now widely published and discussed in the media. In the long term, the performance and image

¹⁷¹ Christoph Antons, *Law Reform in the “Developmental States” of East and Southeast Asia: From the Asian Crisis to September 11, 2001 and Beyond*, in GLOBALISATION AND RESISTANCE: LAW REFORM IN ASIA SINCE THE CRISIS 83-84 (Christoph Antons & Volkmar Gessner eds., Oxford and Portland, Oregon: Hart 2007) [hereinafter GLOBALISATION AND RESISTANCE].

¹⁷² Franz and Keebet von Benda-Beckmann, *Between Global Forces and Local Politics: Decentralisation and Reorganisation of Village Government in Indonesia*, in GLOBALISATION AND RESISTANCE, *supra* note 171.

¹⁷³ The five principles are belief in a supreme god, just and civilised humanity, Indonesian unity, democracy guided by the wisdom of consultation and representation, and social justice for the whole of the Indonesian people.

¹⁷⁴ Indonesians use the acronym KKN (korupsi, kolusi, nepotisme) to refer to these problems. See, e.g., Kwik Kian Gie, *Pemberantasan KKN Hanya Pura-Pura*, in KWIK KIAN GIE, EKONOMI INDONESIA DALAM KRISIS DAN TRANSISI POLITIK (Priyo Utomo & Dwi Helly Purnomo eds., Jakarta: PT Gramedia Pustaka Utama 1999).

¹⁷⁵ POMPE, *supra* note 132, at 414.

¹⁷⁶ Antons, *Doing Business in Indonesia*, *supra* note 118, at 11-13.

of the judiciary and other state legal institutions may slowly recover, in particular in politically less contested areas such as intellectual property. The reasonably consistent performance of the Commercial Court in intellectual property cases in comparison to the performance of the previously responsible District Courts gives reason for some cautious optimism.

2. Political and Economic Infrastructure

2.1. Political Economy

Suharto's "New Order" government introduced foreign and domestic investment laws shortly after coming into power in 1967 and 1968. However, economic nationalism remained high during the following years, supported by high prices for oil and gas, which to a substantial degree supported the development policies of Indonesia, an OPEC country.¹⁷⁷ More restrictive policies were implemented in particular from 1974 to 1982, with compulsory requirements for joint ventures and Indonesian equity participation of 51%. Investment priorities were listed from 1977 onwards.¹⁷⁸ Foreign investors were excluded from many sectors such as retail distribution, media, and public infrastructure. However, when the price for oil and gas collapsed in the mid-1980s, Indonesia began to gradually open up its economy and liberalised its foreign investment laws. In 1988, the priority list of investments was replaced by a negative list, which automatically authorised all investments that were not mentioned there.¹⁷⁹ New Regulations were introduced in 1994 that allowed foreign individuals to be shareholders in 100% foreign-owned companies, permitted a maximum of 95% foreign shareholding in special sectors of particular interest to the Indonesian state, dropped the minimum investment requirement and that of divesting a certain share of the capital to Indonesians within a specified period, allowed the sale of shares of 100% foreign owned companies without prior approval by the Capital Investment Coordinating Board (Badan Koordinasi Penanaman Modal – BKPM), and facilitated the acquisition of shares by foreign companies and individuals.¹⁸⁰

The various governments after Suharto's resignation in 1998 continued the policy of economic deregulation and of further encouraging foreign investment.¹⁸¹

¹⁷⁷ ROBISON & HADIZ, *supra* note 131, at 50-51.

¹⁷⁸ Christoph Antons, *Japan as a Model? Comparing Law and Development in Japan, Singapore and Indonesia* [hereinafter Antons, *Japan as a Model?*], in LAW AND DEVELOPMENT IN EAST AND SOUTHEAST ASIA 234-35 (Christoph Antons ed., London & New York: RoutledgeCurzon 2003).

¹⁷⁹ HAL HILL, *THE INDONESIAN ECONOMY SINCE 1966: SOUTHEAST ASIA'S EMERGING GIANT* 100 (Cambridge, New York, & Melbourne: Cambridge University Press 1996).

¹⁸⁰ Duane Gingerich, *New Foreign Investment Rules Scrap Some Key Policies, Allow 100% Foreign Firms*, EAST ASIAN EXECUTIVE REP., Sept. 15, 1994, at 7, 11-15; Karen Mills, *Indonesia's Ongoing Deregulation of Direct Foreign Investment*, EAST ASIAN EXECUTIVE REP., Jan. 9, 1996, at 15-19; see also Antons, *Japan as a Model?*, *supra* note 178, at 235.

¹⁸¹ For a recent analysis of investment conditions in Indonesia, including the current "negative investment list," see *Rising Investment*, THE ECONOMIST, Aug. 13, 2007.

Nevertheless, Indonesia was one of the countries worst affected by the Asian Crisis and has recovered only slowly from its aftershocks. While the annual value of foreign direct investment (FDI) in the decade from 1985 to 1995 amounted on average to US\$1.365 billion or 3.5% of gross fixed capital formation, there was an outflow of FDI during the first several years after the crisis. In the worst year, 2000, there was an outflow of US\$4.55 billion.¹⁸² FDI flows finally returned to positive terrain from 2004 onwards.¹⁸³ FDI picked up substantially in 2007, when it reached 24.8% of GDP.¹⁸⁴

Experienced observers of the Indonesian political economy have attributed the slow recovery after the Asian Crisis to a number of factors, such as the lack of legal certainty, lack of security, business-unfriendly labour laws, and the confusion caused by the unfinished process of decentralisation and of devolving power to the regions and provincial governments.¹⁸⁵ However, after falling from 8.2% in 1995 to 3.8% in 2001, Indonesia's GDP has shown a consistent upward trend again¹⁸⁶ and stands currently at 6.089%. In its World Economic Outlook, the IMF predicts that this upward trend will continue, reaching 6.7% during the period 2011-2013. The IMF predicts also that the currently high inflation (7.124%) will be progressively brought under control.¹⁸⁷ To realise this cautiously optimistic forecast, Indonesia will have to address several urgent issues, including infrastructure problems¹⁸⁸ and rising food and fuel prices¹⁸⁹ with their potential to lead to major unrest. The government must also absorb a rapidly growing population, which has grown by approximately 55 million during the last twenty years and is estimated to reach 243 million by 2013.¹⁹⁰

¹⁸² *Country Fact Sheet: Indonesia*, in UNCTAD, WORLD INVESTMENT REPORT 2004, available at http://www.unctad.org/sections/dite_dir/docs/wir04_fs_id_en.pdf.

¹⁸³ Hadi Soesastro & Raymond Atje, *Survey of Recent Developments*, 41 BULL. INDONESIAN ECON. STUD. 16 (2005). See also the World Development Indicators on the website of the World Bank, <http://www.worldbank.org/data/wdi2004/>.

¹⁸⁴ World Bank, East Asia & Pacific Update (Apr. 2008), <http://www.worldbank.org/eapupdate>.

¹⁸⁵ Thee Kian Wie, *The Major Channels of International Technology Transfer to Indonesia: An Assessment*, paper presented at the Conference on Catch-up Growth and Technology Transfer, Groningen Centre for Growth and Development, University of Groningen, Oct. 17-18, 2003, available at http://www.ggcd.net/conf/Catchup_Conference/ppp-Thee.ppt.

¹⁸⁶ See the Key Indicators of Developing Asian and Pacific Countries of the Asian Development Bank (ADB), available at <http://www.adb.org/Statistics/ki.asp>.

¹⁸⁷ See the IMF World Economic Outlook Database, Apr. 2008, at <http://www.imf.org/external/pubs/ft/weo/2008/01/weodata/index.aspx>.

¹⁸⁸ Lisa Murray, *Waterlogged Jakarta*, ASIA SENTINEL, June 2, 2008.

¹⁸⁹ Indonesia was an early member of OPEC, but has more recently become a major oil importer with declining oil resources. It declared in May 2008 that it was leaving OPEC to concentrate on increasing domestic production. See *Indonesia, No Longer a Net Oil Exporter, Pulling Out of OPEC*, INT'L HERALD TRIB., May 28, 2008.

¹⁹⁰ See the ADB Key Indicators, *supra* note 186, for the period 1988-2005, and the IMF World Economic Outlook Database, *supra* note 187, for the most recent years and the forecast until 2013.

2.2. Who Holds the IP?

According to the statistics of the DGIPR,¹⁹¹ 60,817 patent and petty patent applications were submitted between the introduction of the patent system in 2001 and the end of 2007, 56,296 or 92.56% of which came from abroad. Of these applications, 43,509 went to the stage of substantive examination. Applications via the PCT have been on the rise since 1998 and now account for 45.73% of all applications during this period. Domestic applications outperform foreign ones only for petty patents. 20,134 standard patents have been granted to foreigners and only 282 to Indonesians as of the end of 2007. Again, only for petty patents is the number of grants to Indonesians (601) higher than the number held by foreigners (352).

Trademark applications have been rising steadily from a temporary low of 1,149 in 1991 during the transition to the new Trade Marks Act of 1992¹⁹² to a record high of 55,016 applications in 2007.¹⁹³ It must be pointed out, however, that the DGIPR treats renewal applications like new applications and gives them new registration numbers. The statistics therefore include an aggregate number of new applications and renewals. Of the record number of 55,016 applications in 2007, for example, 43,259 were new applications and 11,757 were renewals. Statistics comparing foreign to domestic trademark applications are only available going back to 2000. In most years since then, the number of domestic applications was more than double the number of foreign applications. All together, 210,053 domestic applications were submitted between 2001 and 2007, as compared to 80,974 foreign applications. As for the actual grants, the statistics no longer distinguish between those granted to foreigners and to domestic parties.

Copyright statistics for the period 1991 to 2000 indicate that 16,394 works were registered on behalf of domestic applicants during this period, as compared to 747 works on behalf of foreigners.¹⁹⁴ Some of the domestic enthusiasm for copyright registration during the mid-1990s, however, came from so-called “trademark entrepreneurs,” who registered well-known foreign trademarks to offer them for buy-back to the original owner, once the original owner extended its business to the Indonesian market.¹⁹⁵ Under a provision of the Trademarks Act at the time, such registrations could not be deleted if the trademark was copyright-protected. Trademark entrepreneurs therefore used copyright registrations of those marks as additional measures to slow down the cancellation process, because the original owner had to oppose the copyright registration before anything could be done about the

¹⁹¹ <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=10002> (last visited June 6, 2008). The latest statistics as of April 2008 are available at <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=10009>.

¹⁹² <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=7454>.

¹⁹³ <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=9925>.

¹⁹⁴ <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=7467>.

¹⁹⁵ Christoph Antons, *The Protection of Well-known Marks in Indonesia*, in *THE PROTECTION OF WELL-KNOWN MARKS IN ASIA 199-201* (Christopher Heath & Kung-Chung Liu eds., London & Cambridge, Mass.: Kluwer 2000).

trademark registration.¹⁹⁶ With the most recent amendment of the Trade Marks Act, this problematic provision has been deleted.

The statistics from 2002 to the middle of 2007¹⁹⁷ nevertheless show sharply rising numbers of applications for copyright registrations from 1,898 in 2002 to 5,885 in 2006. In total, 21,635 applications were submitted to the copyright registry during that period. A mere 149 of these came from abroad.

Industrial design applications have also been rising steadily since the introduction of the system in 2001. During a period from 2002 to the middle of 2007, the DGIPR received a total of 23,242 design applications, 20,004 of which came from domestic parties, as compared to 3,238 from foreign parties.¹⁹⁸ There are no published statistics yet for the remaining fields of intellectual property.

2.3. Where is the IP?

Some indications about the industries involved in patenting can be collected from DGIP statistics about the percentage of applications in each class or section using the international patent classification standards.¹⁹⁹ Most patent applications were submitted in Section C covering chemistry and metallurgy, including technologies related to fertilisers, the treatment of water, the petroleum industry, biochemistry, and sugar. In second place were patent applications in Section A for Human Necessities and including agriculture, foodstuff, tobacco, wearing apparel, footwear, and health, followed by applications in Section B for Performing Operations and Transporting, which includes machine tools, casting, printing, vehicles, ships, and aircrafts. On the trademark side, there is a clear domination of trademarks over service marks, with 212,253 trademark applications between 2001 and 2007 as compared to 47,029 service mark applications.²⁰⁰ As for copyright registrations, the vast majority of applications have been submitted for artistic works (17,815 applications from 2002 to mid-2007), followed by knowledge related works (2,291 applications) and literature (886 applications). Computer programs have been listed only since 2004 and have since generated 494 applications.²⁰¹

Statistics of the Ministry of Cooperation and Manpower of 2003 covering the period between 1997 and 2001²⁰² indicate that well over 99% of Indonesian enter-

¹⁹⁶ Antons, *Indonesia*, *supra* note 32, at 395 n.20.

¹⁹⁷ <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=7460>; <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=4901>; <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=9854>.

¹⁹⁸ <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=4916>; <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=9933>; <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=9853>.

¹⁹⁹ See the standards on the WIPO website at http://www.wipo.int/classifications/fulltext/new_ipc/ipcen.html. The following is based on the seventh edition of the classification standards. The eighth edition of classification standards came into force on January 1, 2006.

²⁰⁰ These figures include new as well as renewal applications. *See supra* note 193.

²⁰¹ *See supra* note 197.

²⁰² *See* Syahrul Aiman, Lukman Hakim & Manaek Simamora, *National Innovation System of Indonesia: A Journey and Challenges* 8, paper presented at the International Conference on Innovation Systems and Cluster: Challenges and Regional Integration, Bangkok, Thailand, Apr. 1-2, 2004.

prises are small or medium-sized, with only slightly more than 0.005% being classified as large. From the patterns of applications for IP rights at the DGIP and the involvement of larger multinational companies in industry anti-piracy networks such as MIAP (*Masyarakat Indonesia Anti-Pemalsuan-Indonesian Anti-Counterfeiting Society*) it seems that large multinational IP holders are particularly represented in the music and entertainment, computer software, and pharmaceutical industries. Where Indonesian SMEs hold IP rights, they are in the form of trademarks, industrial designs, copyrighted works, or petty patents.

2.4. Exploitation of IP

While the status of licensing agreements was still sometimes disputed during the 1970s and early 1980s under Indonesia's first trademark legislation,²⁰³ the issue was soon clarified as part of the subsequent amendments of the legislation. All parts of the new Indonesian IP legislation now have chapters and sections dealing with licensing agreements.²⁰⁴ All licensing contracts must be registered with the DGIPR in order to become effective vis-à-vis third parties. Prior to registration, the DGIPR must examine the licensing agreement to see whether it contains provisions that could harm the Indonesian economy or create limitations for Indonesians to master and develop technology.²⁰⁵ In all parts of the IP legislation, the government promises detailed guidelines for this assessment in the form of government regulations or Presidential decrees. Unfortunately, none of these decrees has so far been issued, so that the licensing provisions have been relatively ineffective and licensing agreements have been rejected by the DGIPR, because they could not be processed without the guidelines.²⁰⁶ As a consequence, it was widely accepted that licensing agreements could be concluded, but could not be registered and, therefore, had no legal effect vis-à-vis third parties. A recent statistical table of the DGIPR for 2004 outlining changes to trademark registrations, however, records sixty-three licensing agreements.²⁰⁷ Practitioners in Jakarta have explained the likely background to this figure. They often send a notification of a licensing agreement to the DGIPR with the request that this notification be recorded. The advantage of this procedure is that it allows the licensing agreement to be registered with the Capital Investment Coordinating Board. In this way, the licensing agreement becomes an integral part of a joint venture agreement and the BKPM can be called upon to mediate conflicts when they arise.²⁰⁸

²⁰³ ANTONS, *supra* note 15, at 273-74.

²⁰⁴ See Trademarks Act ch. V, pt. 2, Arts. 43-49; Patents Act ch. V, pts. 2-3, Arts. 69-87; Copyright Act ch. V, Arts. 45-47; Trade Secrets Act ch. IV, pt. 2, Art. 6-9; Industrial Designs Act ch. V, pt. 2, Arts. 33-36; Layout of Integrated Circuits Act ch. IV, pt. 2, Arts. 25-28.

²⁰⁵ See Antons, *Indonesia*, *supra* note 32, at 417-18.

²⁰⁶ *Id.*, at 418 (containing references to further sources).

²⁰⁷ See the statistical table *Statistik Permohonan Mutasi Merek Tahun 2004* at <http://www.dgip.go.id/ebhtml/hki/filecontent.php?fid=7450>.

²⁰⁸ Winita E. Kusnandar, *Post-Crisis Dilemma for Foreign Investors and Regulators*, IP REV., Sept. 2004, available at <http://www.asialaw.com/default.asp?Page=20&PUB=68&ISSO=11138&SID=439665>.

3. Educational Infrastructure

After independence, Indonesia began building up its education system from a very low base. For most indigenous Indonesians, religious schools (*pesantren* or *madrrasah*) had been the only form of education they had known during the colonial period. In spite of the efforts of the government to provide public school education for everyone, religious schools continue to provide a low-cost alternative for the poorest in society, who are not able to afford the costs of state schools. As of today, an estimated 20-25% of children in Indonesia are educated in religious schools of various denominations.²⁰⁹

Substantial progress in primary education was made during the first few decades of Suharto's "New Order" government. Toward the end of the 1980s, the government claimed that it had achieved universal primary education and an enrollment at secondary level of 55%. This claim had to be revised by 1990, when it was estimated that only about 90% of children between ages seven and twelve were in fact attending school, with even lower numbers in the more remote parts of the country.²¹⁰ Attempts to expand enrollments at secondary and higher levels during the 1990s were not matched by an equivalent expansion of the job market for highly trained graduates. In particular, private institutions profited from the expansion in higher education, but there was much criticism from employers about the overall quality of the degrees.²¹¹ The lack of quality has largely been blamed on poor funding. With 1.4% of GDP as government expenditure on education in 1995 (down from 1.7% in 1980), Indonesia had the lowest ratio in comparison with China, the newly industrialised countries Taiwan, Korea, and Singapore, and ASEAN neighbours Malaysia, Thailand, and Vietnam.²¹² On a comparative table of government expenditures as percentage of GNP of 1996, Indonesia's 1.4% was the second lowest in ASEAN, higher only than that of Myanmar.²¹³ By 2005, the state budget for education had fallen to 0.9% of GDP, by far the lowest in a comparative table of Korea and ASEAN neighbours Thailand, Malaysia, the Philippines, and Singapore.²¹⁴

The latest Human Development Report of the United Nations Development Program (UNDP) states that Indonesia's adult literacy rate is 90.4%, which puts it in

²⁰⁹ KATARINA TOMASEVSKI, ECONOMIC, SOCIAL AND CULTURAL RIGHTS: THE RIGHT TO EDUCATION, ADDENDUM—MISSION TO INDONESIA, UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL, COMMISSION ON HUMAN RIGHTS, July 1-7, 2002, at 8, 16, available at <http://www.right-to-education.org/content/unreports/unreport8prt1.html>.

²¹⁰ Anne Booth, *Education and Economic Development in Southeast Asia: Myths and Realities*, in *SOUTHEAST ASIAN PAPER TIGERS? FROM MIRACLE TO DEBACLE AND BEYOND* 183 (Jomo K.S. ed., London & New York: RoutledgeCurzon 2003).

²¹¹ *Id.* at 184-85; TOMASEVSKI, *supra* note 209, at 16-17; Fredrik Sjöholm, *Educational Reforms and Challenges in Southeast Asia*, in *INSTITUTIONAL CHANGE IN SOUTHEAST ASIA* 38 (Jose Tongzon & Fredrik Sjöholm eds., London & New York: Routledge 2005).

²¹² See the statistical table in Booth, *supra* note 210, at 175.

²¹³ See the UNESCO statistics of 2001 in Sjöholm, *supra* note 211, at 31.

²¹⁴ See the World Bank statistics on the website of the Ministry for Research and Technology, http://www.ristek.go.id/file_upload/indikator_206/5.7.html.

fifty-sixth place out of 139 countries with reported data. Combined primary, secondary, and higher gross enrollment currently stands at 68.2%, putting Indonesia at 110th place out of 172 countries with reported data.²¹⁵

Indonesia has a relatively poor level of science education in spite of a larger share of science subjects in the school curriculum than in many other countries.²¹⁶ Analysts have regarded poor funding, excessive curriculum and assessment loads, large classes, unattractive textbooks, inadequate training, and poor payment of teachers, who often hold several jobs simultaneously, as reasons for this.²¹⁷ However, according to a 2006 comparative assessment of science and mathematics education by the World Bank, Indonesia scored 5 on a scale from 1 to 7, which put it behind Singapore, Malaysia, and South Korea, but ahead of Thailand, China, Vietnam, and the Philippines.²¹⁸

More recently, there have also been signs of change for educational funding policies. The constitutional amendment of 2001 required the government to set aside 20% of the total budget for education. The current Education Minister has pointed out that the 20% goal is unrealistic due to heavy fiscal constraints, but that 9.1% of the 2006 state budget had been allocated for education. A recent Constitutional Court ruling found the budget strictly speaking unconstitutional, but acknowledged the financial constraints and requested instead that the government should embark on an efficiency campaign to redirect saved funds to the education sector.²¹⁹

4. Scientific Infrastructure

4.1. Industries Involved in R&D

A study by the German Fraunhofer Institute on the Indonesian innovation system published in 2002 found that 95% of Indonesia's products had low technology content. Furthermore, together with South Africa, Indonesia had the lowest high-technology content in manufactured exports among a select group of countries that included ASEAN neighbours Malaysia, the Philippines, Singapore, and Thailand; other Asian developing or newly developed countries such as China, India, Hong Kong, and South Korea; and Brazil.²²⁰ A more recent survey of World Bank data

²¹⁵ [Http://hdr.undp.org/statistics/](http://hdr.undp.org/statistics/).

²¹⁶ Ella Yulaelawati, *Indonesia, in SCIENCE EDUCATION FOR CONTEMPORARY SOCIETY: PROBLEMS, ISSUES AND DILEMMAS, FINAL REPORT OF THE INTERNATIONAL WORKSHOP ON THE REFORM IN THE TEACHING OF SCIENCE AND TECHNOLOGY AT PRIMARY AND SECONDARY LEVEL IN ASIA: COMPARATIVE REFERENCES TO EUROPE, BEIJING 27-31 MARCH 2000*, at 26-30 (Muriel Poisson ed., Geneva: International Bureau of Education 2001).

²¹⁷ TOMASEVSKI, *supra* note 209, at 9-10; Sjöholm, *supra* note 211, at 43.

²¹⁸ [Http://www.ristek.go.id/file_upload/indikator_206/5.10.html](http://www.ristek.go.id/file_upload/indikator_206/5.10.html).

²¹⁹ Interview with Education Minister Bambang Sudibyo, *Expensive Subsidies Carry a Cost for Education*, JAKARTA POST, Apr. 6, 2006.

²²⁰ INNOVATION IN INDONESIA: ASSESSMENT OF THE NATIONAL INNOVATION SYSTEM AND THE APPROACHES FOR IMPROVEMENT 61 (Kai Mertins ed., Stuttgart: Fraunhofer IRB Verlag 2002) [hereinafter INNOVATION IN INDONESIA].

published on the website of the Ministry of Research and Technology covering a similar group of ASEAN countries plus Korea and Vietnam showed somewhat improved figures, with 16.3% of Indonesian exports having high-technology content. This was higher than Vietnam but lower than the other countries in the survey.²²¹ Within the manufacturing sector, the main industries reporting R&D expenditures were: the Chemical Industry and Products from Chemical Material, Oil, Coal, and Plastic (31.5%); the Food, Drink, and Tobacco Industry (20.6%); the Textile, Clothing, and Leather Industry (14.8%); and the Metal Product and Machinery Industry (11.2%). Less significant were the R&D expenditures in the Non-Metal Mining Products (except oil and coal, 7.8%); in Paper and Paper Products, Printing, and Publishing Industry (7.3%); and in Wood, Bamboo, Rattan, and Grass (6.6%).²²²

4.2. Public/Private Innovation and Commercialisation of IP

During much of the 1990s, the Indonesian press reported a contest between the economic technocrats who were responsible for steering the Indonesian economy during most of Suharto's "New Order" and the "technologists" around Research and Technology Minister Habibie, who later succeeded Suharto as interim President until the elections of 1999.²²³ As Technology Minister, Habibie was responsible for some of the non-departmental government institutes (LPND), which were formally coordinated by the Ministry of Science and Technology (Menristek) and included the Indonesian Institute of Sciences (*Lembaga Ilmu Pengetahuan Indonesia*—LIPI) and the Agency for the Assessment and Application of Technology (*Badan Pengkajian dan Penerapan Teknologi*—BPPT).²²⁴ Also under Menristek's control was the Agency of Strategic Industries (*Badan Pengelola Industri Strategis*—BPIS), with controversial high technology projects such as aircraft manufacturing. A National Research Centre for Science and Technology (*Pusat Penelitian Ilmu Pengetahuan dan Teknologi*—PUSPIPTEK) and a Life Science Centre were also established, partly with the aim of supporting the strategic industries.²²⁵ As a consequence, 80% of R&D expenditures came from the Government in the early 1990s.²²⁶

²²¹ http://www.ristek.go.id/file_upload/indikator_206/4.17.html.

²²² See INNOVATION IN INDONESIA, *supra* note 220, at 48.

²²³ HAL HILL, INDONESIA'S INDUSTRIAL TRANSFORMATION ch. 8 & 187-88 (Singapore and Sydney: Institute of Southeast Asian Studies/Allen & Unwin 1997); Peter Gammeltoft & Erman Aminullah, *The Indonesian Innovation System at a Crossroads*, in ASIA'S INNOVATION SYSTEMS IN TRANSITION 156-58 (Bengt-Åke Lundvall et al. eds., Cheltenham & Northampton, Mass.: Edward Elgar 2006). Gammeltoft & Aminullah prefer to distinguish between four contending camps and include, besides the technocrats and "technologists," further economic nationalists influential until the mid-1980s and the "cronies" of the previous Suharto regime.

²²⁴ Thee Kian Wie, *Determinants of Indonesia's Industrial Technology Development*, in INDONESIA'S TECHNOLOGICAL CHALLENGE 125 (Hal Hill & Thee Kian Wie eds., Singapore & Canberra: Institute of Southeast Asian Studies/Research School of Pacific and Asian Studies 1998).

²²⁵ Gammeltoft & Aminullah, *supra* note 223, at 169-70.

²²⁶ See the statistical table for 1992 in Thee, *supra* note 224, at 129.

Criticism directed at the lack of a coherent strategy²²⁷ and the lack of cooperation between government-sponsored research and private industries led to a number of initiatives in the mid-1990s to increase the cooperation between government research institutes and private enterprises. In LIPI and Menristek statistics for the year 2000, published in 2003, the government share of R&D was reduced to 68%, although university R&D, which again is to a significant extent publicly funded, was separated here and contributed another 6%, while the remaining 26% of R&D expenditure came from industry sources.²²⁸ The government also employed 87% of scientists and engineers in 1995.²²⁹ A new national technology strategy finally came with the enactment of Law No. 18 of 2002 Concerning the National System for Research, Development and the Application of Science and Technology.²³⁰ The Law mentions as elements of the new national system the university sector, the R&D institutes, private enterprises, and supporting agencies (Article 6 of Law No. 18 of 2002). Each of these elements has its own tasks and functions. The main task of the university sector is the education and training of human resources (Article 7). The furthering of science and technology and the development of patentable inventions is the task of the R&D institutes (Article 8), which can be located within government institutions, either as departmental research institutes or as affiliated non-departmental research institutes, within the private sector, universities or other agencies and organizations. Private businesses are responsible for the commercialisation and diffusion of new technologies (Article 9), while other agencies such as standardisation and certification bodies, consumer protection organizations, or the IP administration such as the Directorate General of Intellectual Property Rights have supporting roles and functions (Article 10).

While the new system seems to address some of the earlier concerns, it has again been criticised for a lack of coherence and synchronisation between various Ministries and agencies.²³¹ There has also been criticism of rigid and bureaucratic budgeting and financing mechanisms, in which all income of government-linked R&D institutes is treated as government income and little incentives are created for the institutes to become self-reliant.²³² In fact, the aforementioned tendency in Indonesia to regard intellectual property created in government employment as owned by the employer is visible in Law No. 18 of 2002, which does not actually discuss IP ownership by individual researchers or academics. Instead, Article 16(1) foresees a compulsory technology transfer regarding intellectual property and

²²⁷ Sanjaya Lall, *Technology Policies in Indonesia*, in INDONESIA'S TECHNOLOGICAL CHALLENGE, *supra* note 224, at 155-56. Gammeltoft & Aminullah, *supra* note 223, at 162-64, point out that Indonesia did have strategies and policies during Habibie's term as Technology Minister, but they find the criticism more justified as far as coherence and implementation as well as Habibie's "technological leapfrogging" vision are concerned.

²²⁸ Aiman et al., *supra* note 202.

²²⁹ See the statistical table in Thee, *supra* note 224, at 124.

²³⁰ For a copy of the legislation see <http://www.p3skk.litbang.depkes.go.id/regulations/uu182002.pdf>.

²³¹ Aiman et al., *supra* note 202, at 3.

²³² *Id.* at 15.

research results from higher educational institutions and research institutes to private companies, the government, or “society” (*masyarakat*), as long as the research is paid in full or in part by the central government or by one of the provincial governments and the technology transfer does not conflict with public security or other laws. If third parties have been involved in the financing of the research, the technology transfer will occur on the basis of a contract with those parties (Article 16(2) Law No. 18 of 2002). Tertiary educational institutions and public research institutes may keep the income from such technology transfer or from the provision of services in the science and technology sector for their own development.

An implementing Government Regulation (No. 20 of 2005) explains the details of the scheme. Many contradictions remain, as the Regulation repeats on the one hand the necessity for universities and research institutes mentioned in Law No. 18 of 2002 to transfer the intellectual property, whereas it declares on the other hand that the central government or provincial government automatically own intellectual property from research that they have funded (Article 5(1) Government Regulation No. 20 of 2005). It is being shared with third parties, where they have also provided funding (Article 5(2) and (3)). The provisions imply that public universities and research institutes are regarded as insufficiently autonomous and insufficiently involved in the funding of the research to qualify for ownership. Nevertheless, according to Article 7 and in spite of government ownership, universities and research institutes are still to receive recognition and payment or compensation (*imbalan*) for their intellectual property and research results. The Regulation identifies licensing, cooperation, provision of services, and publication as mechanisms to transfer the technology (Article 20). However, even if universities and research institutes receive the income from their intellectual property and research results, they may not use it freely. Article 38 restricts the purposes for which such funds may be used, while Articles 39 to 47 require a detailed budget and work plan for using the resources, which must be reported to the Minister of Finance and requires a further implementing decree from that Minister.

Figures published in the most recent 2006 survey of R&D in government institutions, published by the Ministry of Research and Technology in 2007, show that the government continues to dominate the research landscape, with only 16.1% of research contributed by private institutions and industry.²³³ Law No. 18 of 2002 has meanwhile been followed by further strategic policy papers and documents, of which the National Research Agenda (ARN) for 2006 to 2009 of the National Research Council is perhaps the most detailed and comprehensive. A document of 227 pages, it outlines concrete action plans for six strategic priority areas: food safety, new and renewable energy, transportation technology and management, defence and security technology, and health-related technologies and medicines.²³⁴

²³³ SUPRAPTO ET AL., SURVEI PENELITIAN DAN PENGEMBANGAN LEMBAGA PEMERINTAH TAHUN 2006 IX (Jakarta: Deputi Bidang Program Riptek, Kementerian Negara Riset dan Teknologi 2007).

²³⁴ The report is available on the Menristek website at http://www.ristek.go.id/file_upload/referensi/agenda_rn.pdf.

Since the criticism of the lack of government/industry cooperation became more pronounced in the mid-1990s, various Ministries have started initiatives to overcome the problem. Early examples were IPTEKnet, an electronic service of science and technology related information, and the Priority Partnership Research Program (*Program Riset Unggulan Kemitraan—RUK*) to encourage jointly performed and financed research activities of government research and development (R&D) institutes and private enterprises.²³⁵ Menristek also played an important role in financing IP centres (*Sentra HaKI*) throughout the provinces. These *Sentra HaKI* cooperate with LIPI in carrying out training programs for researchers on intellectual property and providing assistance for the development of IP rights.²³⁶ When the program for the *Sentra HaKI* was introduced in 2000/2001, there were initially twenty-eight of these Centres, which received an establishment grant from the government. With very few exceptions, these were based at universities and technical colleges.²³⁷ Many more Centres have been established since then;²³⁸ many have been criticised as being ineffective and they are now facing budget constraints. Further initiatives of Menristek starting in 2002 were a Program to Obtain Patents (*Program Perolehan Paten*),²³⁹ which provided financial incentives and assistance for the patenting process and the Information Technology Kiosk (*Warung Informasi Teknologi—WARINTEK*) program which, similar to IPTEKnet, aimed at the diffusion of technological information.²⁴⁰ Other current programs of Menristek are a research database,²⁴¹ a business technology center-network,²⁴² a website to promote open source software,²⁴³ and a national commission to accredit R&D institutions.²⁴⁴ Finally, there is the incentive program (*Program Insentif*), under which Menristek grants financial support for promising research proposals, including in areas of strategic importance.²⁴⁵

²³⁵ See the website of IPTEKnet at <http://www.ipitek.net.id/ind/> and Thee, *supra* note 224, at 126. See also Tantono Subagyo, *Indonesia, in* INTELLECTUAL PROPERTY RIGHTS IN AGRICULTURAL BIOTECHNOLOGY, 286 (F.H. Erbisch & K.M. Maredia eds., Wallingford & Cambridge, Mass: CABI Publishing, 2d ed. 2004).

²³⁶ Christoph Antons, *Technology Transfer in Indonesia* [hereinafter Antons, *Technology Transfer in Indonesia*], in LEGAL RULES OF TECHNOLOGY TRANSFER IN ASIA 234 (Christopher Heath & Kung-Chung Liu eds., London: Kluwer 2002).

²³⁷ Daftar Sentra HaKI, <http://www.dgip.go.id/sentra.htm> (last visited Aug. 17, 2001; print-out on file with the author). See also KANTOR MENTERI NEGARA RISET DAN TEKNOLOGI, BUKU PANDUAN INSENTIF PROGRAM “SENTRA HKI” 2001 (Jakarta: Ristek, 2d ed. 2001).

²³⁸ Subagyo, *supra* note 235, at 287.

²³⁹ Antons, *Technology Transfer in Indonesia, supra* note 236. Subagyo, *supra* note 235, at 286. For the 2005 guidelines, see KEMENTERIAN RISET DAN TEKNOLOGI REPUBLIK INDONESIA, BUKU PANDUAN INSENTIF PENDAYAGUNAAN DAN PERLINDUNGAN KEKAYAAN INTELEKTUAL—PANDUAN INSENTIF PEROLEHAN PATEN (OLEN PATEN) UNTUK TAHUN 2005 (Jakarta: Ristek 2005).

²⁴⁰ [Http://www.warintek.ristek.go.id](http://www.warintek.ristek.go.id).

²⁴¹ [Http://www.dbripteck.ristek.go.id](http://www.dbripteck.ristek.go.id).

²⁴² [Http://www.btc-network.ristek.go.id](http://www.btc-network.ristek.go.id).

²⁴³ [Http://www.igos.web.id](http://www.igos.web.id).

²⁴⁴ [Http://www.knapp.ristek.go.id](http://www.knapp.ristek.go.id).

²⁴⁵ [Http://www.ristek.go.id](http://www.ristek.go.id) (click on “English,” “Programs,” “Incentive Programs”).

To be mentioned in this context are also the Intellectual Property Clinics (*Klinik HaKI*), which were set up at the initiative of the Ministry of Industry and Trade. They are supervised by the Ministry's Centre for the Management of Intellectual Property Rights and are supposed to encourage small and medium-sized enterprises (SMEs) to commercialise their intellectual property.²⁴⁶ Finally, some universities are also having their own commercialisation centres, which are sometimes supported by the Ministry of Education. All together, therefore, no less than three ministries have at times been involved in commercialisation of knowledge activities, creating often an overlap of activities and agencies. On the other hand, many of the strategic industries concentrated in the National Research Centre for Science and Technology (*Pusat Penelitian Ilmu Pengetahuan dan Teknologi—PUSPIPTK*) have not survived the aftermath of the Asian Crisis. Instead, a new Management Program for National Strategic Priority Research (*Riset Unggulan Strategis Nasional*) has focused since 2002 on six strategic sectors, which have meanwhile been refined and partially replaced by the priority areas of the National Research Agenda of 2006.²⁴⁷

Thus far, these programs have had only a modest impact. R&D remains government-dominated. The most recent survey of R&D institutions showed that more than half of their personnel are technical staff and support staff rather than research staff. During 2005, these institutions generated twenty-four patent applications. Fifteen patents were granted to R&D institutions and commercialisation of a single patent was achieved.²⁴⁸ As mentioned above, private sector involvement has remained equally modest.

Conclusion

Indonesia has completely overhauled its colonial-era IP system in the last twenty years. Prior to the 1980s, economic nationalist policies based on abundant oil and gas reserves meant that there was relatively little interest in IP law. Trademark law was the only field of IP law that was of interest to businesses during these early decades.

Trademark continues to be the most developed and most widely accepted field of IP law. Domestic trademark registrations have risen dramatically, but the relatively high number of registrations in copyright and industrial designs on behalf of Indonesian nationals are also encouraging, and they show a widespread acceptance of these newer forms of protection. The picture is different in the field of patents, which remains dominated by foreign patent holders.

Indonesian IP laws now largely conform to TRIPS, but problems remain in the development of the supporting institutions and in enforcement. The DGIPR has

²⁴⁶ [Http://haki.depperin.go.id/index.php?cat=1](http://haki.depperin.go.id/index.php?cat=1).

²⁴⁷ [Http://www.ristek.go.id/file_upload/program/enam_fokus.htm](http://www.ristek.go.id/file_upload/program/enam_fokus.htm).

²⁴⁸ SUPRAPTO ET AL., *supra* note 233, at IX-X; see also Suwantin Oemar, *Perlu Jaminan Paten Litbang Dipakai Pemerintah*, BISNIS INDONESIA, June 5, 2008, available at <http://www.dgipr.go.id/ebscript/publicportal.cgi?ucid=376&ctid=23&id=1876&type=2>.

improved the speed of handling applications and has become much more user friendly, although low salaries and the fact that it is part of the Ministry of Justice result in difficulties attracting engineers and technically trained personnel. The Commercial Court with its IP jurisdiction is also a vast improvement over the District Courts. Equally, the speed and reliability of Supreme Court decisions has improved with the increasing specialisation of the judges. However, a few odd decisions at both levels have attracted media attention, and injunctions are still unavailable and damages difficult to establish.²⁴⁹ Weaknesses remain also in the criminal jurisdiction, which is still under the District Courts, and with border control mechanisms and enforcement more generally. Not surprisingly, the economic hardship following the Asian Crisis has again led to an increase in piracy and IP violations. The government and police have also in recent years been preoccupied with threats of political violence in various parts of the archipelago. The legal system, with many outdated procedural laws from the colonial period, remains in need of fundamental reform.

In sum, Indonesia has come a long way since it embarked on IP law reform in the 1980s and a rising number of applications and lawsuits involving Indonesian parties show that many of the new laws have been fairly well accepted. More fundamental progress can be expected, once the ongoing and important reforms to the general legal system have taken root.

²⁴⁹ See Antons, *Recognition and Protection*, *supra* note 104, at 193.

Japan

Peter Ganea, Sadao Nagaoka

1. Pre-1868: Early IP History	129
2. 1868-1880s: The Introductory Phase	130
3. 1880s: The Codification Phase	132
4. 1899-1945: The Internationalization Phase	134
4.1. Unwillingness to Protect Foreign IP	134
4.2. Domestic Demand for IP Laws	136
5. 1945-Present: Modern IP Development	138
5.1. Patents: Tools of Industrial Development	138
5.1.1. Patents as Tools of Technology Absorption?	142
5.1.2. Continuing High Patent Propensity	143
5.2. Design and Trademark: Shift from Imitators to Victims of Imitation	145
5.3. Copyright: Japan Remaining a Net Importer of Works	146
6. Enforcement and Changing Attitudes	147
Conclusion	150
Appendix	151

1. Pre-1868: Early IP History

Japanese intellectual property history started shortly after the Meiji Restoration of 1868. Under the preceding Tokugawa regime, Japan had been a feudal caste society, strictly separated into Samurai knights, peasants, and—on the lowest level of the hierarchy—craftsmen and those in trade. It was just this lowest class of townspeople, however, that became a source of literary and artistic activity. Unlike the stoic Samurai, they developed highly cheerful, even frivolous art forms, e.g., the Kabuki theatre and paintings which reflected the sentiment of a fleeting world (*ukiyo*). Complaints of authors that others would plagiarize their works were sometimes heard, and the bookseller guilds of Edo and Osaka even managed to obtain protection against unauthorized reprints. In sum, however, individual creativity was not much appreciated. Townspeople were held in low regard and suffered victimization by the authorities. The state philosophy was Neo-Confucianism, a school of thought that favored subordination to the community over individual self-realization in terms of creativity and innovation. In 1718, the government even enacted an ordinance that prohibited innovation.¹

In 1853, an armada of U.S. gunboats appeared in Edo Bay (Tokyo) and impressively demonstrated to the government how backward Japan had become over the past two and a half centuries in autarky. In the following years, the United States and European powers pressured the country to open its harbors to foreign trade and to sign the so-called unequal trade treaties. The treaties provided, *inter alia*, unfavo-

¹ Christopher Heath, *Inventive Activity, Intellectual Property* [hereinafter Heath, *Inventive Activity*], in *A HISTORY OF JAPANESE LAW SINCE 1868*, at 404 (Wilhelm Röhl ed., Leiden et al.: Brill Academic Publishers 2005).

rable trade conditions and non-application of Japanese law to residents of foreign nationality.²

A clique of progressive Samurai recognized the regime's inability to avert the danger of complete colonization and initiated the Meiji Restoration, which, on the surface, was a restoration of the role of Emperor, which had vanished from the scene since the twelfth century (the end of Kamakura regime). In fact, it was the start of a huge effort to rebuild Japan into an economically and militarily powerful nation. Individual self-realization in terms of creativity and innovation began to play a major role in further development.³

2. 1868-1880s: The Introductory Phase

Henceforth, legal reform in Japan was driven by both the desire to get rid of the humiliating unequal trade treaties and to catch up with the West. The introduction of IP protection was motivated by the latter, and intellectual property was perceived as a useful tool to foster industrialization. During the time period shortly after Meiji, international protection standards did not yet exist, and the Europeans and Americans proudly disclosed their advanced knowledge and inventions to the "backwards" Asians.⁴ In comparison with developing countries of today, Japan was in a unique position. On the one hand, it enjoyed the freedom to absorb foreign know-how by way of translations of scientific books without asking authors for permission or by way of copying machinery without even having to pay a fee; and on the other hand, it could test the effect of patents, copyrights, and trademarks on technological and economic development within a purely domestic context.

The idea of intellectual property as an incentive instrument was part of the useful knowledge brought to Japan by a number of scholars who had returned from overseas study trips. The positive perception of IP, especially of the patent system, is highlighted by an often-cited retrospective statement given by Korekiyo Takahashi, the first president of the Japanese Patent Office, in his autobiography in 1900:

We have looked around us to see what nations are the greatest, so that we can be like them. We said what is it that makes the United States such a great nation and we investigated and found that it was patents, and we will have patents.⁵

Shortly after Meiji, the first ordinances on patent, copyright, design, and trademark protection were enacted.

² MERYLL DEAN, *JAPANESE LEGAL SYSTEM* 57 *et seq.* (London & Sydney: Cavendish, 2d ed. 2002).

³ The Oath Charter of March 3, 1868, a kind of preliminary constitution, encouraged the people to, *inter alia*, acquire knowledge, engage in self-realization, and abolish outdated traditions. GUNTRAM RAHN, *RECHTSDENKEN UND RECHTSAUFFASSUNG IN JAPAN* [LEGAL THINKING AND PERCEPTION OF LAW IN JAPAN] 58 *et seq.* (Munich: C.H. Beck 1990).

⁴ John Whitney Hall, *Das Japanische Kaiserreich* [THE JAPANESE EMPIRE], in 20 FISCHER WELTGESCHICHTE 281 (1968).

⁵ Cited in Heath, *Inventive Activity*, *supra* note 1, at 405.

Much domestic interest arose around the copyright provisions contained in the Publication Statute of 1869.⁶ The statute was a mix of both publication control and copyright regulation. This early copyright protection can be traced back to successful lobbying of one of Japan's most prominent modernizers, Fukuzawa Yukichi. In his book *Seiyō Jijō* (*The Situation in the West*), he translated the English "copyright" as *zōhan no menkyo* (printing plate license). As his first encounter with copyright occurred in the United States, the copyright provisions of the Statute adhered to the American concept in that they required registration of material intended for publication. A special provision regulated copyright in translations, as translated scientific books were one of the main routes of importing foreign knowledge. Sanctions against infringements were of a penal character—pirates and plagiarists faced fines and even imprisonment. Fukuzawa himself brought a number of cases of unauthorized reprints and plagiarism of his writings before the court.⁷

With regard to designs and trademarks, there existed some rudimentary protection rules even before the Meiji restoration. As mentioned above, the Tokugawa period had developed a vital urban community. Craftspeople were organized in guilds with strict hierarchical rules. Traditional knowledge of manufacturing items of applied art was passed from the master to the apprentice, and craftsmen were strictly banned from changing employers. Handicraft manufacture on a pre-industrial stage has a long tradition in Japan; the term *ishō* (design) was already in use long before Japan opened up to the outside world, in contrast to "patent" and "copyright," which had to be translated from Western languages. After Meiji, however, rudimentary design protection under guild rules was abolished, together with the guilds and other remnants of the feudal order. Even though "Japanese design" was soon recognized and appreciated in Europe, a design ordinance was not enacted until 1888.⁸

With regard to trademarks, Japan looked back on an even longer tradition of compulsory product marking. The first signs of compulsory marking can be traced back to the year 701.⁹ These early rules, however, had little in common with modern trademark laws. They formed instruments of circulation control instead of focusing on competition stimulation. After Meiji, the Japanese learned the concept of trademark rights from the United States; however, a first Trademark Act was not enacted until 1884.

⁶ L. Lönholm, *Collection de la législation sur les droits d'auteur*, in *NEW JAPANESE LAWS: SUPPLEMENTARY TO THE CODES* (1900) (French translation).

⁷ He did not even refrain from accusing school teachers of using unauthorized reprints of his books in classrooms, a rigidity that led to a mitigation of the statute in 1972, in that penal sanctions should only be imposed after a "consideration of the state of affairs." For more details on post-Meiji copyright history, see Peter Ganea, *Copyright History* [hereinafter Ganea, *Copyright History*], in *JAPANESE COPYRIGHT LAW 4* (Peter Ganea, Christopher Heath & Hiroshi Saitō eds., Kluwer 2005).

⁸ For more details, see Peter Ganea, *Design Law* [hereinafter Ganea, *Design Law*], in *A HISTORY OF JAPANESE LAW SINCE 1868*, *supra* note 1, at 452 *et seq.*

⁹ Christopher Heath, *Trademark Law* [hereinafter Heath, *Trademark Law*], in *A HISTORY OF JAPANESE LAW SINCE 1868*, *supra* note 1, at 466.

Patent rules, the *Senbai ryaku kisoku* (Summary of Rules on Sales Monopoly), a set of nineteen provisions that granted a monopoly right in every new invention, were enacted in 1871, but they remained largely unapplied because there was not yet a clear grant procedure in place.¹⁰

In sum, right after Meiji, intellectual property became an integral part of the modernization policy of the new government. The emergence of an IP consciousness was not tainted by obligations to protect foreign right owners. The new and unfamiliar rules, especially those on patents, were not yet ripe for practical application, however, as an administrative infrastructure for registered rights administrations was not yet in place. For the time being, the government also had to concentrate on securing its power against powerful representatives of the old regime, those who felt deprived of the privileges they had enjoyed under the old order. It was not until after the abatement of the so-called Satsuma rebellion in 1877 that the government was in a position which enabled it to pursue long-term goals.

3. 1880s: The Codification Phase

In the 1880s, after a period of deficient rules and a lack of resources for their administration and enforcement, most IP laws matured into applicable instruments. Ordinances on Literary Works, on Dramatic Scripts, and on Sheet Music were enacted in 1887. They formed the first real copyright rules in that they were separated from the provisions on censorship and publication control.¹¹

With regard to patents, one early characteristic of legislation was that only domestic inventions were eligible for patent protection, whereas imported technology remained freely exploitable. In 1885, the Exclusive Selling Patent Ordinance was enacted, and it was the first workable patent provision. It prescribed, *inter alia*, that patent applications had to include a description of the sought-after scope of protection. The filing authority was the Ministry of Agriculture and Trade (the predecessor of the Ministry of International Trade and Industry). Henceforth, industrial property legislation was prepared by the Ministry in charge of industry and trade, which also points to the strong importance attached to patents as a means of industry promotion. The ordinance contained detailed rules on protection prerequisites, patent marking, and criminal sanctions, but it remained defective in a number of aspects. For example, it did not clarify the date from which the protection term should start.¹²

In 1888, a new Patent Ordinance replaced the provisions of 1885. Due to the return of the above-mentioned Korekiyo Takahashi from a U.S. study trip, the Patent Ordinance was strongly influenced by U.S. principles. For example, it adhered to the first-to-invent principle. The Japanese, however, still made little use

¹⁰ Christopher Heath, *Patent Law* [hereinafter Heath, *Patent Law*], in *A HISTORY OF JAPANESE LAW SINCE 1868*, *supra* note 1, at 423.

¹¹ Ganea, *Copyright History*, *supra* note 7, at 5.

¹² Heath, *Patent Law*, *supra* note 10, at 425.

of the unfamiliar legal instrument. In the first years after 1885, the average number of patents granted each year was less than 250.¹³

The first Trademark Ordinance dates to 1884, but it was soon replaced by a much more thorough Ordinance in 1888 which, *inter alia*, clarified the distinctiveness prerequisite. Under the Act, trademarks could only be transferred together with the whole business and the cancellation period for non-use was only six months. This is a rather short period to prove use, but it can be traced back to the high number of bogus registrations filed under the previous Act.

After various disapproved drafts, a Design Act was finally enacted in 1888. Legal protection of designs was urgently needed because product piracy had become rampant. The Design Act was characterized by the first-to-file principle, substantive examination as to novelty, and the obligation to indicate the design right on the product. Infringement was a matter of criminal prosecution. Additionally, special emphasis was attached to the service principle, i.e., ownership in designs made by employees was attached to employers. It is remarkable that the service principle was not introduced into the Patent Act until 1909. Apparently the delay was caused by the fact that the primary applicants for patent protection were still individual inventors. With regard to design articles, however, the master-apprentice relationship in handicraft guilds still lived on as an employee-employer relationship. As in the pre-Meiji era, an entitlement of the employee to direct right ownership was perceived as disrespecting the long-term investment of the employer in his employee's skills and abilities.¹⁴

In sum, the period from Meiji to the turn of the nineteenth century can be characterized as an experimentation phase in which the Japanese tested various legislation models to find the one which best suited the economic reality. As there were no demands to protect foreign intellectual property, this trial-and-error process was grounded in a positive attitude towards patents, designs, trademarks, and copyrights. At this early stage, however, intellectual property was still perceived as an instrument for fostering the creativity of individual inventors and creators, rather than as a tool for securing corporate investment. The availability of patents, in particular, contributed to the emergence of a unique class of inventor-entrepreneurs with inventions that fit into an economic environment that was still characterized by agriculture and handicraft.¹⁵ It was not until the end of the Second World War that the number of corporate patent applications exceeded that of individual applications.¹⁶

¹³ See statistics in Heath, *Inventive Activity*, *supra* note 1, at 403, 417 *et seq.*

¹⁴ For more details, see Ganea, *Design Law*, *supra* note 8, at 454 *et seq.*

¹⁵ Sakichi Toyoda, the founder of the Toyota Motor Company, for example, made frequent use of the patent system. In 1891, he obtained a first set of patents in hand loom technology and later licensed his invention related to an automatic loom to the United Kingdom. Koichi Mikimoto, the founder of Mikimoto Pearls and inventor of a method of cultivating semicircular pearls with help of an oyster shell, obtained his first patent in 1894.

¹⁶ In 1921, when the Patent Act was supplemented by rules on employees' inventions, the rate of corporate applications was only 15%.

4. 1899-1945: The Internationalization Phase

4.1. Unwillingness to Protect Foreign IP

Until the dawn of the twentieth century, IP legislation in Japan was largely driven by domestic demand for such protection. In the 1880s, however, the first multi-lateral conventions on IP, namely the Paris Convention (1883) and the Berne Convention (1886) came into existence. Foreign right holders recognized Japan as an increasingly wealthy market with a strong demand not only for technical knowledge but also for books and music. In the 1890s, Japan was drawn into a number of bilateral agreements which either permitted foreigners to file patents in Japan or obliged Japan to become a member to the new IP conventions. The demands to accede to the Berne Convention caused much commotion, because translation of foreign scientific books was still the main channel of importing foreign knowledge. Many Japanese feared that knowledge import would run dry if foreigners were allowed to exercise their copyrights in Japan.¹⁷ The above-mentioned unequal trade treaties, however, were still in force, and the Europeans and the United States turned Japan's accession to the Berne Convention and to the Paris Convention into a precondition for the abolishment of these treaties.¹⁸ The government perceived accession as the lesser evil, so Japan finally became a member to the Paris Convention and the Berne Convention in 1899. In another overhaul of IP legislation, the laws were changed to meet the minimum requirements of both conventions.

The new Patent Act of 1899 created a priority period of seven months for foreign applications and introduced additional formalities for foreign applications. Also, corporate applications were now permitted. An important change was the introduction of the "trial of determining the protection scope" at the Patent Office. In infringement cases, patentees were invited to resort to the Patent Office rather than to the courts, to determine the scope of protection of their patent. Consequently, principles of Japanese claim interpretation were developed by the Patent Office, not by the courts. On the surface, these principles resembled the German principles of claim interpretation, in that they focused on investigating the "general inventive idea" of the protected invention. According to the Japanese reading, however, "inventive idea" did not mean to extend the scope of protection to obvious modifications, but rather the opposite, to reduce the scope of protection to the concrete mode of working, as described in the specification.¹⁹ Such a narrow interpretation practice facilitated the adoption of foreign technology for free, in that it

¹⁷ The protests were so vehement that the government made reprisals on the press. Ganea, *Copyright History*, *supra* note 7, at 6 n.22.

¹⁸ For passages of the treaties with Great Britain (1893) and Germany (1895) in which both countries promised to abolish parts of the unequal treaties, see 1 NIHON ONGAKU CHOSAKUKEN SHI 17 [JAPANESE MUSIC COPYRIGHT HISTORY] (JASRAC ed., 1990).

¹⁹ See detailed and critical explanations of the pre-1959 claim interpretation system in TOSHIKO TAKENAKA, INTERPRETING PATENT CLAIMS: THE UNITED STATES, GERMANY AND JAPAN, 17 IIC STUD. 39 *et seq.* (1995).

allowed Japanese makers to copy a technical solution, modify it slightly, and put the modified version on the market without infringing foreign patents. The trial system was abolished in the 1959 Patent Act, but the practice of narrow claim interpretation would remain until the 1990s.

The Design Act and the Trademark Act of 1899 contained new rules on applications by foreigners, including a priority period of three months for foreign designs and four months for foreign trademarks.²⁰

Copyright legislation, previously influenced by the market-oriented U.S. copyright concept, was adapted to the Continental European *droit d'auteur* thinking that characterizes the Berne Convention. Consequently, in the new Copyright Act of 1899, the term used for copyright was no longer *Hanken* (literally “printing plate right,” an advancement of the original “printing place license” (*zôhan no menkyo*) to an exclusive right) but *Chosakuken* (authorship right, meaning author’s right). The new Copyright Act contained the first moral rights provisions on the author’s right to be named in context with his work and to preserve the integrity of the work.²¹

The Japanese reluctance to protect foreign intellectual property became especially evident in the copyright field. In the time between the two world wars, Japan developed a rich cultural life in which traditional Japanese arts and styles co-existed with Western literature and music. Modern operas were popular, as were operettas created by famous contemporary composers like Gustav Mahler and Giacomo Puccini. In 1931, however, the performance right and the broadcasting right were added to the catalogue of protected rights to comply with the 1928 Revision of the Berne Convention. Henceforth, it was no longer permissible to perform foreign musical works without authorization.

Shortly after the amendment, the then-existing European collecting societies dispatched their German representative, Dr. Wilhelm Plage, to Japan. The following decade was retrospectively called the “Whirlwind Plage.” Plage ruthlessly tried to stop unauthorized performances of European works, e.g., by sending warning letters to performers and organizers and even by instituting police raids against ongoing concerts. Soon an alliance of press, administrators, and the culture industry sought to get rid of him. In 1934 and 1939, two laws were enacted which can retrospectively be termed “anti-Plage” laws. The first, a revision of the Copyright Act, contained two amendments. The first amendment provided that where the actual author of a foreign work had no legal representative in Japan, remuneration was to be paid according to official remuneration standards. It enabled Japanese performers and concert organizers to challenge Plage’s qualification as a legal representative. The other amendment permitted free broadcasting and mechanical performance of sound recordings, a clear violation of Article 11-2 of the Berne Convention. This first measure did not stop the “Whirlwind Plage,” but the death

²⁰ For more details, see Ganea, *Design Law*, *supra* note 8, at 455 *et seq.*; Heath, *Trademark Law*, *supra* note 9, at 471 *et seq.*

²¹ Ganea, *Copyright History*, *supra* note 7, at 6.

knell for Plage's activities in Japan was sounded by a second "anti-Plage" measure, the enactment of the Law on the Intermediary Business Concerning Copyright of 1939. This law permitted only approved collecting societies to do business in Japan. Surprisingly, Wilhelm Plage is held in high regard today, and many Japanese scholars regret that the legislature could find no other way to deal with him but to enact special laws to get rid of a single obstinate foreigner.²²

4.2. Domestic Demand for IP Laws

In the field of industrial property, especially patents, the imposition of international obligations did not destroy the positive attitude towards intellectual property. In 1905, the first Utility Model Law was enacted, even though such protection was not required by international IP treaties. The purpose was to reserve utility models for Japanese inventors, since the Japanese thought that after the accession to the Paris Convention, the vast majority of patents for innovations would be granted to foreigners. The model legislative structure was Germany, where utility model protection had been available since 1891. Utility model protection in smaller inventions also fit the contemporary industrial landscape where large enterprises with strong research and development (R&D) capacities were still rare. In accordance with the German model, but unlike the domestic Patent Act, utility models were granted according to the first-to-file principle. Utility model protection required a lower degree of inventiveness, and novelty was limited to domestic novelty. The subject matter of protection included "useful developments concerning the shape, the arrangement or concept of a commercial object." The protection term was limited to six years from application. Unlike in Germany, utility model applications were substantively examined. Application practice shows that the Japanese made good use of the new protection instrument. From 1906 to 1910, the application rate rose from 2,011 to 14,057. In the 1930s, applications exceeded 30,000 per year.²³

Despite the expectation that after the accession to the Paris Convention, foreigners would become the main users of the patent system, domestic patent activity increased. (See Figure 1, Appendix.) Such a reaction would have corresponded to the "pattern of negative response" found by Lerner²⁴ in his assessment of the effect of policy changes on domestic patenting activity. The number of domestic patent applications, however, continued to increase, by 6% per year. Today, about 90% of grants are to domestic applicants. But even in the initial period after Japan's accession to the Paris Convention in 1899, the domestic share

²² For more details about the "Whirlwind Plage" and its historical context, see Ganea, *Copyright History*, *supra* note 7, at 7 *et seq.*; ÔIE, NIPPON CHOSAKUKEN MONOGATARI [A JAPANESE COPYRIGHT STORY] (Tokyo: Shuppan Kaihatsusha 1981).

²³ For an overview of utility model history, see Christopher Heath, *Utility Model Law* [hereinafter Heath, *Utility Model Law*], in A HISTORY OF JAPANESE LAW SINCE 1868, *supra* note 1, at 443.

²⁴ Joshua Lerner, *Patent Protection and Innovation over 150 Years* (Nat'l Bureau of Econ. Research Working Paper No. 9877, 2002).

remained high. The fact that the availability of patent protection to foreigners did not diminish the share of domestic applications may be explained by the high propensity to patent as well as by the unique nature of the Japanese market at that time. Due to the specific demand of the Japanese and their low per capita income, there might not have been much need for foreign innovations and the incentive for foreigners to file patent applications in Japan might have been correspondingly low.

The end of the First World War marked the start of an economic boom that soon necessitated an overhaul of the existing industrial property laws. In 1921, the laws governing patents, utility models, designs, and trademarks were correspondingly amended. In the field of patents, the introduction of rules on employees' inventions foresaw that enterprises rather than individual inventors would soon become the main source of innovation. The amendments to the Utility Model Act of the same year basically aimed at better defining the difference between a utility model and a patent. The 1921 amendments to the Design Act clarified that protection should only be available to the design of an article and therefore not to mere decorations that could be attached to other articles. The amendments to the Trademark Act of 1921 extended protection against unauthorized marking of identical goods to also include similar goods.

At the dawn of the twentieth century, Japan was confronted with foreign demands to introduce an Unfair Competition Act. The Japanese, however, perceived labeling Japanese products as originating from overseas as a legal instrument of sales promotion. Additionally, consumer protection concerns were few. As a result, the government openly supported misleading labeling, by excusing the lack of unfair competition rules with the argument that the export of Japanese products would suffer if they were correctly labeled as of Japanese origin.²⁵ As a member to the Paris Convention, however, Japan could not ignore the international developments in unfair competition, especially the Washington Conference of 1925, which introduced a minimum protection standard.

In 1934, the Unfair Competition Act was finally enacted. It consisted of only six provisions that prohibited the use of widely known manufacturers' names, the use of trade names on goods in a confusing manner or to damage the reputation of other manufacturers, and the use of official symbols like flags. Despite this enactment, it is evident that the rules were not really intended for practical application; another provision provided that only intentional acts were prosecutable. And even though the U.S. occupation after 1945 abolished some of these shortcomings in unfair competition legislation, the Unfair Competition Act was scarcely applied until the 1960s, when Japanese enterprises increasingly became victims of unfair competition. Nevertheless, until the 1990s, the legislature saw no need to further develop

²⁵ See the reply of the Japanese government to a French invitation to join the Madrid Agreement in JAPANESE PATENT OFFICE, TOKKYO SEIDO 70 NEN SHI [70 YEARS OF PATENT SYSTEM HISTORY] 130 (Tokyo 1955).

the unfair competition laws to meet domestic needs—all post-war amendments were made to accommodate foreign, mainly U.S., interests.²⁶

5. 1945-Present: Modern IP Development

5.1. Patents: Tools of Industrial Development

5.1.1. From Improvers to Innovators and the Changing Role of Patents

In the Second World War, only a lifespan after Meiji when frowning Samurai with two swords tied around the waist were still a normal part of the urban scenery, the Japanese terrified the Pacific area with carriers and warplanes. Confrontation with the Allied powers, however, proved that the time had been too short to develop Japan into a real technological power. The Japanese war equipment still lagged behind in terms of safety and reliability.²⁷

The Second World War taught the Japanese that comprehending Western technology and producing it on an internationally competitive level were two different things, and that Japanese goods which incorporated sophisticated technology were not yet manufactured at a qualitatively satisfying level. The efforts of the following decades therefore concentrated on establishing a stable, internationally competitive industrial base. One of the new slogans was *gyōsei shidō* (administrative guidance), coordinated by the new Ministry for International Trade and Industry (MITI, now METI—Ministry for Economy, Trade and Industry). Contrary to a socialist command economy, such administrative guidance was of subtle nature. Firms were advised rather than openly instructed to adhere to the industrial policy. That most enterprises showed obedience to such guidance can partly be explained by the power of the government in allocating foreign exchanges in the 1950s, until the introduction of the convertibility of the yen.²⁸ Non-cooperative enterprises could face the danger of disadvantageous treatment.²⁹ In the following decades, Japanese industry accomplished a high number of technology license contracts with foreign firms.³⁰

²⁶ For more about the history of Japanese unfair competition legislation, see GUNTRAM RAHN & CHRISTOPHER HEATH, WHAT IS JAPANESE ABOUT THE JAPANESE UNFAIR COMPETITION ACT? 25 IIC STUD. 343 (1994).

²⁷ Guntram Rahn, *Die Bedeutung des gewerblichen Rechtsschutzes für die wirtschaftliche Entwicklung: Die japanischen Erfahrungen* [The Importance of Industrial Property Protection for Economic Development: The Japanese Experiences], GRUR INT. 1982, at 577, 582 *et seq.* [hereinafter Rahn (1982)].

²⁸ Such administrative guidance was based on two laws which secured the successful implementation of the “Law on Currency Control and Overseas Trade” and the “Law on Foreign Capital” in 1950, which promoted the purchase of technology from abroad.

²⁹ In 1965, for example, the firm Sumitomo refused to reduce steel production at the command of the Ministry of International Trade and Industry. In return, the Ministry shortened its supply with imported coal. See Guntram Rahn, *Recht und Rechtsauffassung in Japan*, GRUR INT. 1979, at 491, 497.

³⁰ Rahn (1982), *supra* note 27, at 583.

The technological catch-up race was not based solely on adopting foreign technology, but also focused on incentives for improving already known technical solutions. Post-war Japan developed a culture of technological improvement and of bringing blueprints to market maturity. Incentives were generated through multiple channels, including quality circles, systems of employee suggestions, and through a patent and utility model system that encouraged “smaller” inventions, i.e., improvements of technology imported from the West.³¹

Innovation was not perceived as the domain of only highly qualified R&D specialists, but, in addition, wide parts of the working population were invited to participate in innovative activity. That so many workers at the blue-collar level participated in innovative activity may be partly traced to the educational environment. In Japan, education is traditionally held in high esteem. It rarely occurs that students leave school after completing primary education. In 1991, the secondary enrollment rate was 97% (today, it is 100%). Tertiary enrollment increased from already high 30% in 1991 to 57% in 2006.³² Competition between schools and universities is fierce, and passing the entrance exam for a good secondary school or a good university requires intensive preparation.

Broad participation in corporate innovation may also be traced back to elements of the feudal society before 1868, such as the readiness of the individual to devote all of his energy to the well-being of his organization and the positive attitude towards character formation through life-long education. Even today, Japanese blue-collar workers undergo intensive on-the-job training and frequent job rotation. Single employees are normally affiliated with autonomous teams and are under huge pressure to contribute to the performance of the whole team. This high degree of personal responsibility and the broad knowledge acquired in the course of job rotation motivates and enables employees to comprehend the whole workflow, to detect weak points, and to actively take part in the repair of those weak points.³³ In exchange for their devotion, workers have historically been able to count on life-long employment.

The mentality of lifelong employment is now under stress, however, as global cost competition leads to increasing employment insecurity and even the renowned firms cannot guarantee lifelong employment any more. This transformation is reflected in a new regime governing employees’ patentable inventions. Since 1921, the Patent Act regarded employees as immediate owners of their occupational inventions, but simultaneously obliged them to transfer their inventions to their employers upon “equitable remuneration.” The equitable remuneration was determined by in-house rules which were customarily accepted as quasi-legal and there-

³¹ *Id.* at 589 *et seq.*

³² UNESCO Institute for Statistics, UIS Statistics in Brief, available at <http://stats.uis.unesco.org>. Unfortunately, figures with respect to previous decades were not available.

³³ Such Japanese production management has become known as “Toyotism.” See MASAMI NOMURA, TOYOTEIZUMU: NIHON-GATA SEISAN SHISUTEMU NO SEJUKU TO HENYÔ [TOYOTISM: MATURATION AND CHANGE OF THE JAPANESE PRODUCTION SYSTEM] (Tokyo: Minerva 1993).

fore largely uncontested. As a result of the increasing number of disputes in the 1990s challenging employees' equitable remuneration, the Supreme Court clarified in 2003 that Section 35 of the Patent Act on the adequate remuneration for employees' inventions supersedes internal company rules.³⁴

Despite these recent changes in employment policy, during the period from the 1950s to the dawn of the 1990s, in which Japan provided the rest of the world with commodities of unequalled price-performance ratio, principles of broad participation in efficiency and quality improvement was certainly one main factor of successful industrial development.

The strategy of broad participation in innovative activity was also supported by the continuing narrow claim interpretation. In the new Patent Act of 1959, the above-mentioned trial interpretation within the Patent Office was replaced by an equally narrow interpretation practice of the courts. Even though the addition of inventiveness to the protection prerequisites aimed at a higher quality of patented subject matter, courts still remained reluctant to adopt a more generous interpretation practice.³⁵ The doctrine of equivalents, for example, was acknowledged only about ten years ago, in the Supreme Court's "Ball Spline Bearings" decision of February 24, 1998.³⁶ The recent shift of the courts to a more generous claim interpretation can be traced to the growing international integration of Japanese firms. At the dawn of the 1990s, a number of U.S. courts ordered Japanese firms to pay compensation for infringement of U.S. patents in essential technologies, and this is said to have formed an additional incentive for Japanese firms to reduce dependence on foreign technology and to generate more essential innovation. A broader interpretation of patent claims was considered necessary to foster such essential domestic innovation.³⁷ The preceding narrow interpretation practice, however, can in retrospect be said to have resulted in broad-based technological development by facilitating follow-up improvements around existing essential technologies.

The amendments to the Patent Act after 1959 subsequently widened the freedom of applicants to pursue certain filing strategies and enhanced the protection level, but also raised the patentability prerequisites. The introduction of worldwide novelty aimed at preventing foreigners from filing subject matter already published

³⁴ The "Olympus" decision, 57 MINSHU 477 (Sup. Ct., Apr. 22, 2003); English translation in 35 INT'L REV. INTELL. PROP. & COMPETITION L. [hereinafter IIC] 1039 *et seq.* (2004). The most controversial decision in this context is the "Blue LED" decision, 1852 HANREI JIHŌ 36 *et seq.* (Jan. 30, 2004) (English summary in 35 IIC, 941 *et seq.* (2004)) in which the Tokyo District Court ordered the firm Nichia to pay a spectacular remuneration of 20 billion yen to its former employee who had invented the blue LED light, an invention of unexpected economic success. The sum originally paid according to internal rules was only 20,000 yen (about US\$150). According to the court, assessment of such remuneration shall depend on the profits obtained on grounds of the monopoly in the invention and on the actual contribution by the inventor. For further information about the changing employee remuneration system, see Mineko Mōri & Christopher Heath, *Employees' Inventions in Japan*, 36 IIC 663 (2005).

³⁵ TAKENAKA, *supra* note 19, at 193 *et seq.*

³⁶ English translation of the decision in 30 IIC 443 (1999) (comment by Christopher Heath).

³⁷ Guntram Rahn, *Patentstrategien japanischer Unternehmen [Patent Strategies of Japanese Enterprises]*, GRUR INT. 1994, at 377 [hereinafter Rahn, *Patentstrategien*].

abroad. In 1970, a set of mainly procedural amendments was aimed at reducing application costs and simplifying procedures. One example of this was the introduction of the deferred examination system. In 1975, multiple claims under one application became permissible. The Japanese, however, increased the use of the multiple claims only gradually.

In the late 1990s, the enforcement of patents was significantly strengthened. Since 1998, damages have been calculated on grounds of the license fee the patentee would actually have obtained, and no longer the “ordinary” license fee. Moreover, calculation of lost profit can now be based upon the number of infringing products sold. An amendment in 1999 introduced a reversal of the burden of proof in certain issues, forcing the defendant to cooperate in fact-finding. Such stronger enforcement became necessary due to a change in attitude, which increasingly perceives patents as a weapon for industrial competition (see below). Finally, in 2002, the scope of patentable subject matter was significantly widened by the inclusion of computer software “as such.” The Japanese maintained the technicality requirement, by including the fiction that everything that can be run on a computer is “technical.”³⁸

The successful shift from a nation of improvers to a nation of inventors is also evidenced by the changes in utility model applications over the past decades. After the war, utility models remained an attractive alternative to patents. In the mid-1980s, the average annual application rate exceeded the mark of 200,000, but then declined sharply. In 1990, only 134,000 applications were recorded, and in 1995 not more than 14,886.³⁹ The last major amendment to the Utility Model Act of 1994 reflected the diminished importance of utility models by abolishing substantial examination (reacting to the international trend to grant utility models without examination)⁴⁰ and by limiting the term of protection to six years.

It should be noted that this development would not have been possible without the integration of patent legislation and policy in proactive, long-term economic planning. Japan looks back on decades of political stability. Even in difficult times, e.g., after the Second World War, no serious power struggles endangered the public order. Since 1955 (with a short interruption between 1993 and 1994), Japan has been ruled by the moderately conservative, economy-oriented Liberal Democratic Party. With special regard to patents, it was certainly helpful that competence for patents was allocated under the ministry which was also in charge of promoting domestic industries and of foreign economic relations. This way, the patent system could be quickly adapted so as to create new incentives that fit the changing economic landscape.

³⁸ TATSUYUKI SHIBUYA, CHITEKIZAISANHÔ KÔGI [INTELLECTUAL PROPERTY COURSE] 11 *et seq.* (Tokyo 2004).

³⁹ Figures from Heath, *Utility Model Law*, *supra* note 23, at 449 *et seq.*

⁴⁰ In order to prevent litigation around factually worthless utility models, the amended law provides that a utility model must be substantively examined before an infringement action.

5.1.1. Patents as Tools of Technology Absorption?

Japan's patent history suggests that the costs of IP protection do not necessarily prevent a country from absorbing technology,⁴¹ a topic which remains intensely debated on the international stage.⁴² In the early stage of post-war recovery, patent licenses formed a main channel of technology import, since the government had restricted the direct investment from abroad until the early 1960s. Partly reflecting this, the share of foreign affiliates in the Japanese manufacturing sector accounted for only 2.6% in terms of turnover in 2001, which is far less than the 24% in the United States and the 8.3% in Germany.⁴³ However, technology absorption with the help of patents, started much earlier, namely after the accession of Japan to the Paris Convention in 1899. This includes the facilitation of direct investment from abroad.⁴⁴

The Japanese example also shows that the importance of patents as instruments of technology absorption might have declined from a certain development stage. This is discussed in Figure 2 (Appendix), which shows transfer of patents, transfer of know-how, and transfer of both patent and know-how.⁴⁵ In the 1980s and 1990s, contracts combining both patent and know-how accounted for only 30%, whereas the rest of the contracts covered either only patents (20-30%) or only know-how (45-55%). That means that a huge amount of the present know-how transfer to Japan is not based on patents. The contracts which cover only patents are most likely concluded for the mere purpose of patent clearance, where the licensee already possesses the necessary technology and know-how to implement the licensed technology.

⁴¹ See Sadao Nagaoka, *Determinants of High-Royalty Contracts and the Impact of Stronger Protection of Intellectual Property Rights in Japan*, 19 J. JAPANESE & INT'L ECONOMIES 233 *et seq.* (2005).

⁴² From an economic perspective, Nancy T. Gallini & Brian D. Wright, *Technology Transfer Under Asymmetric Information*, 21 RAND J. ECON. 147 (1990), argue that strong protection would increase the costs of imitation and therefore aggravate technology absorption, whereas ASHISH ARORA, ANDREA FOSFURI & ALFONSO GAMBARDILLA, *MARKETS FOR TECHNOLOGY* (MIT Press 2001), refer to enhanced investment security due to strong rights which aggravate infringement; one may also say that weak protection against imitation invites multinationals to export rather than to invest. See James R. Markusen, *Contracts, Intellectual Property Rights and Multinational Investment in Developing Countries*, 53 J. INT'L ECON. 189 (2001).

⁴³ See OECD SCIENCE, TECHNOLOGY AND INDUSTRY SCOREBOARD 2005, available at <http://www.oecd.org>.

⁴⁴ One example is NEC, the successor of the first U.S.-Japanese joint venture established in 1899, the year in which foreigners were allowed to file patent applications in Japan. The availability of patent protection is said to have been one of the main motivations for the U.S. side to invest equity capital and to provide the Japanese side with the necessary technical assistance.

⁴⁵ Data from the annual reports on the status of technology and technology-related importations, compiled by Science and Technology Agency (now by the National Institute for Science and Technology Policy), which are based on data from compulsory reporting under the Foreign Exchange and Foreign Trade Control Law. The computer industry is not considered, due to the non-availability of patents for computer programs as such until 2002.

With regard to the costs of technology import, Figure 2 (Appendix), which covers all kinds of IP transactions, demonstrates that after decades of technological development, Japan still remains one of the largest net payers for the import of technology, works, and other intangible assets. Between 1980 and 2000, however, the gap between royalty payments for technology import and royalty receipts from technology export has significantly narrowed. (Figure 3, Appendix.) Moreover, the share of payments relative to GDP was rather small, as from 1980 to 2000, it increased from only 0.13% to 0.23%.

5.1.2. Continuing High Patent Propensity

Already in 1991, Japan held 24% of the patents simultaneously applied for at the European Patent Office and the Japanese Patent Office (JPO) and granted by the USPTO (“triadic patent family”), whereas 34% were accounted for by the United States and the remainder was made up by the three major European nations of France, the United Kingdom, and Germany. Japan’s patent ratio per million is 92.3 and therefore significantly higher than the average 70.8 of the three major European countries and 57.7 for the United States.

The number of domestic patents granted to Japanese applicants surpassed the number of domestic U.S. patents in the early 1980s, even though U.S. applicants still lead the statistics with respect to grants of triadic family patents. However, the total number of patents granted to Japanese, be it domestic grants or global grants, still exceeds the total number of grants to U.S. applicants. (Figure 4, Appendix.) Figure 1 (Appendix) further shows that patent grants in Japan have increased more or less continuously over the decades since the war, whereas in the United States, the number of the patents granted to domestic inventors showed a decrease from the 1960s to early 1980s, even though there has been a substantial increase again since the 1990s.

One reason for the continuing increase in Japanese domestic applications is the growing investment in corporate R&D. Normally there is a clear positive correlation between R&D intensity (i.e., R&D expenditure over GDP) of a country and its patent-to-population ratio. (See Figure 5, Appendix.) The combination of high R&D intensity and high patent-to-population ratio has been observed in countries like Sweden and Finland. Such correlation does not necessarily imply that patents cause R&D, however. Rather the reverse is the case, namely that the patent system is more extensively applied as R&D investment increases. The share of corporate patent applications in Japan reached 80% in 1971 and 90% in 1980.⁴⁶ There is a good reason to assume that the efficiency gain due to the change from individual invention to corporate R&D in post-war Japan has significantly contributed to the total increase in patent activity.

⁴⁶ This also corresponds to the relatively high degree of corporate R&D. Since the dawn of the 1990s the share of corporate R&D has been constant at about 70%, whereas the state is involved in only 20% of R&D. Universities and other research institutions contribute only 7-8% to overall R&D. Iris Wiczorek, *Japans Weg in die Wissensgesellschaft [Japan's Road into the Knowledge Society]*, 8 JAPAN AKTUELL 549 (2000).

Post-war patent development was therefore mainly driven by industry, and enterprises formed the main source of patented innovation. Only recently, Japanese universities have started to actively engage in licensing activities. The Japanese version of the Bayh-Dole Act enacted in 1999, and the corporatization of the Japanese national universities in 2004 in which universities became independent legal persons, have resulted in university ownership of professors' patents as well as in the creation of technology licensing offices. Before these changes, a university professor often transferred the ownership of his inventions to the firms sponsoring his research. In both cases, a patent works for transferring the invention from a university to industry and protects industrial investment for commercialization. A recent survey suggests that only 2.3% of the Japanese triadic inventions for the period from 1995 to 2002 were made by university researchers, and surprisingly, it is at the same level as that of U.S. university researchers.⁴⁷

Another, even more important reason for the patent propensity of the Japanese is the already mentioned continuing broad participation in innovative activity. Employees without tertiary education are strongly involved in R&D, and many Japanese firms regard the number of filed patents as a tool for evaluating and encouraging employees' innovation, even if the single patent does not generate a profitable return of R&D investment. Statistics reveal that 10% or more of the employees of the electronics and precision machinery industry are somehow involved in innovative activity.⁴⁸

Even the introduction of the multiple-claim system and its full liberalization in 1987 had no decelerating effect on the increase in patent applications until recently. The average number of claims per patent increased only gradually, from slightly more than one to about nine in early 2000. This is still half of the average number of claims per patent in the United States, and may be explained by the fact that Japanese firms continue to attach special emphasis to the advertisement function of patents, so that they are interested in holding high numbers of patents rather than in bundling several inventions belonging to the same inventive concept under one application.

Finally, there is good reason to assume that the "pro-patent" policy of the Japanese government in recent years contributed to the continuing attractiveness of the patent system, especially in the corporate sector. During the development and growth phase, which lasted until the late 1980s, there was not much patent litigation. In the second half of the 1990s, however, IP owners became more combative, partly as result of the increasing international integration of the Japanese economy. As mentioned, the government strengthened patent enforcement by, *inter alia*, facilitating the calculation of damages, fact-finding, etc.

⁴⁷ See SADAO NAGAOKA & JOHN P. WALSH, INVENTIONS AND THE INNOVATION PROCESS IN JAPAN AND THE US: HIGHLIGHTS FROM THE US-JAPAN INVENTOR SURVEY (MAR. 2008), available at http://www.rieti.go.jp/en/events/08011101/pdf/1-3&1-4_E_Nagaoka&Walsh_PPT.pdf.

⁴⁸ This is based on the comparison between the number of inventors disclosed in patent applications and the number of employees in recent years.

5.2. Design and Trademark: Shift from Imitators to Victims of Imitation

The post-war development of design protection also reflected the changing economic reality. After the war, manufacturers of design products were severely affected by rampant product imitation. The 1959 amendments centered on both improved protection and enhanced protection prerequisites, e.g., worldwide novelty. The amendments were accompanied by official campaigns against product piracy in an attempt to get rid of Japan's bad reputation as a copycat nation. In the following decades, Japan became a world-renowned exporter of high-quality goods and changed from a copycat to a victim of product piracy. The wrongdoers were now located elsewhere in Asia, predominantly in the then-emerging East and South-east Asian "Tigers" of South Korea, Taiwan, and Hong Kong, and in mainland China.⁴⁹

In 1998, economic stagnation prompted the legislature to enhance the design protection level once again. Stronger incentives to compete in a qualitative respect were thought to contribute to economic recovery. Design protection, *inter alia*, was extended to product parts. Further amendments strengthened the remedies and facilitated the burden of proof of the design owner in an infringement action. To enhance the quality of designs, the protection prerequisites were enhanced by the introduction of worldwide novelty and non-obviousness.⁵⁰

Simultaneous enhancement of both the protection prerequisites and the protection level also characterized the subsequent amendments to the Trademark Act. The new Trademark Act of 1959 provided for, *inter alia*, registration of both associated marks similar to the original mark for the same goods and defensive marks. Transaction freedom was strengthened by allowing transfer of a mark independent of the business operator. Clear rules on remedies in infringement cases enhanced the protection level. Subsequent amendments obliged trademark owners who objected to the allegation of non-use to provide evidence that their trademarks were actually in use (1976), and introduced the protection of service marks (1992) and of three-dimensional marks (1996, the year in which Japan became a member to the Trademark Law Treaty). From 2000, the international registration system under the Madrid Protocol was introduced and the Trademark Act was correspondingly amended.⁵¹ Finally, in 2006, the registration of marks as geographical indications was facilitated, in order to stimulate economic activity in rural areas.⁵²

⁴⁹ Ganea, *Design Law*, *supra* note 8, at 460 *et seq.*

⁵⁰ Ganea, *Design Law*, *supra* note 8.

⁵¹ For more details on post-war trademark law development, see Heath, *Trademark Law*, *supra* note 9, at 477 *et seq.*

⁵² Christoph Rademacher, *Der Schutz geographischer Bezeichnungen in Japan* [*The Protection of Geographical Indications in Japan*], GRUR INT. 2006, at 384.

The general trend towards sophisticated production and essential innovation also increased the interest in trade secret protection. Such protection was introduced in 1990 and strengthened by the introduction of criminal remedies against secret misappropriation in the course of another amendment to the Unfair Competition Act in 2003.⁵³

5.3. Copyright: Japan Remaining a Net Importer of Works

After the war, the United States became the world's main exporter of "soft" assets in the culture, entertainment, and software sector. New international treaties that considered particular U.S. interests like the UCC and the Geneva Convention and the further reforms to the Berne Convention increased the pressure on the Japanese copyright system to reform.⁵⁴ After a number of amendments that adapted the old Copyright Act of 1899 to the various international demands, a new Copyright Act was enacted in 1970.

The new Copyright Act forms a quite unique law that combines elements of both Continental European and U.S. copyright. On the one hand, it protects the moral rights of authors and the neighboring rights of performers, phonogram producers, and broadcasters, which are alien to the original U.S. copyright doctrine. On the other hand, it vests all rights in occupational works, including moral rights, in the employer, thereby going beyond even the U.S. "works made for hire" doctrine in terms of producer-friendliness. Moreover, with regard to the protected rights catalogue, Japan opted for the American model of an exhaustive enumeration of single rights which are defined in detail, in order to avoid any danger of overprotection. For example, before the introduction of a special right in making works available at an individual's request in 1996, the unauthorized uploading of a work on an internet server would not have constituted infringement.

Since its inception, the very detailed structure of the Copyright Act, which leaves hardly any room for interpretation if, for instance, new modes of work exploitation emerge, has necessitated twenty-six amendments to the Act. The amendment wave started in the mid-1980s, when the law had to be amended in increasingly shorter intervals to react to the challenges imposed by new work forms like software or databases and new forms of work exploitation such as online transmission.⁵⁵

Just as many European countries after the war, Japan remained a net importer of U.S. movies and pop music. Until the 1990s, there was strong reluctance to overly protect foreign works and other copyrightable subject matter. For example, until 1996 Japan interpreted Article 18(3) of the Berne Convention to which the TRIPS Agreement refers as leaving the duration of retroactivity to the national legislation

⁵³ For more details, see TERUO DOI, 2003 AMENDMENT TO THE ACT TO PREVENT UNFAIR COMPETITION OF JAPAN (2), PATENTS & LICENSING 7 (2003).

⁵⁴ Peter Ganea, *Einführung—Japan [Introduction—Japan]*, QUELLEN DES URHEBERRECHTS [SOURCES OF COPYRIGHT] 6 (Paul Katzenberger et al. eds., Oct. 2003) (looseleaf).

⁵⁵ An outline of the Japanese copyright development after 1970 and the main structure of the present Copyright Act is presented by Ganea, *Copyright History*, *supra* note 7, at 508 *et seq.*

of each member state. The United States and the European Union insisted, however, that the TRIPS reference to the Berne Convention prescribed a retroactive protection for “oldie” phonograms for the full duration of fifty years. In 1996, Japan finally gave up its resistance, mainly to avoid a WTO dispute settlement procedure.⁵⁶

Recently, there has been a slight trend of perceiving copyright as a means of promoting the export of Japanese culture. An amendment to the Copyright Act of 2003 was motivated by the recent international success of Japanese films and the Japanese computer games industry. This amendment prolongs the protection term for cinematographic works (which according to Japanese case law also covers computer games) from fifty to seventy years, thereby enabling Japanese producers to enjoy longer protection in countries with similarly long protection terms on grounds of the reciprocity principle.⁵⁷

6. Enforcement and Changing Attitudes

Japanese tradition favors amicable settlement of disputes over open dissent. Before Meiji, legal rules existed, but they were of a highly penal character. Even where civil rules were available, disputing parties were normally ostracized as disturbers. It even occurred that both parties were punished for having initiated a public dispute, irrespective of who was right and who was wrong.⁵⁸ The Japanese government has even been accused of having tacitly discouraged people from court action over the decades by intentionally endowing courts with too few legal personnel, so as to render court disputes prohibitively costly and lengthy.⁵⁹ In spite of the reforms after 1868, this thinking prevailed until the dawn of the 1990s.

In the IP field, all this is about to change, due to foreign complaints about insufficient access to legal remedies and the enhanced combativeness of domestic right owners. Both are a result of Japan’s increased involvement in international business transactions. Japanese IP owners do not only defend their rights within Japan, but are also exposed to litigation practices in other countries,⁶⁰ especially when it comes to patents, and this certainly has a leveling effect on the particularities of Japanese enforcement practice. The U.S. practice of seeking license fees through the threat of litigation, for example, has become popular in Japan as a result of the above-

⁵⁶ Christopher Heath, *All Her Troubles Seemed So Far Away: EU v. Japan Before the WTO*, 12 EUROPEAN INTEL. PROP. REV. 677 (1996).

⁵⁷ Peter Ganea, *Protected Works*, in JAPANESE COPYRIGHT LAW, *supra* note 7, at 25.

⁵⁸ CARL STEENSTRUP, A HISTORY OF LAW IN JAPAN UNTIL 1868, at 157 *et seq.* (Leiden et al.: Brill Academic Publishers, 2d ed. 1996).

⁵⁹ Christopher Heath, *Japan—eine Kopierkultur? [Japan—A Copycat Culture?]*, 5 ZEITSCHRIFT FÜR JAPANISCHES RECHT 114, 128 *et seq.* (1998) [hereinafter Heath, *Japan—eine Kopierkultur?*].

⁶⁰ The numbers are from 2002. See Toshiaki Iimura, *Current Litigation Practice for IPR Infringement Cases at the Tokyo District Court (I)*, 27 J. INT’L ASSOC. FOR PROTECTION INTEL. PROP. JAPAN 3, 6 (2002).

mentioned wave of U.S. patent litigation against Japanese firms.⁶¹ Also, the significant enhancement of available remedies against infringement is said to have contributed to the perception of patents as litigation weapons.⁶²

In Japan, IP enforcement is a matter for the courts, though of course Customs also plays a significant role in cross-border enforcement. Between 1993 and 2006, the total number of IP cases accepted in the first instance increased by roughly 25%, and remained stable at slightly less than 600 cases per year between 1996 and 2006. At a first glance, this increase is considerable but not dramatic. If we take a closer look at the single categories of intellectual property, however, we find that the number of patent, trademark, copyright, and unfair competition-related lawsuits has nearly doubled, at least between the years 1993 and 2002 (newer detailed statistics were not available), whereas the importance of utility models as subject matter of IP litigation showed a sharp decrease from 120 cases in 1993 to thirty-eight cases in 2002. In spite of the trend away from utility models towards technically more sophisticated patent litigation, the average duration of IP infringement cases has more than halved from 31.1 to 12.5 months between 1993 and 2006.⁶³ Also, the courts seek methods of further speeding court litigation while maintaining the quality of their decisions. In the landmark “Kilby” decision of April 11, 2000, the Supreme Court held that in obvious cases of patent invalidity, courts should be competent to deny infringement, thereby avoiding a lengthy suspension of court procedures due to an invalidation request.⁶⁴ In 2005, this court practice was translated into law by the introduction of Section 104-3 Patent Act. The new provision goes beyond the Supreme Court’s decision, in that it permits such judicial patent invalidation also in cases in which invalidity is not obvious. Also the establishment of the IP High Court in April 2004 can be seen as a reaction to the increasing demand for better court decisions. The IP High Court, which emerged from the former IP divisions of the Tokyo High Court, specializes in both IP infringement and complaints about Patent Office decisions.⁶⁵

The demand for litigation personnel is quite pressing. For decades, the number of candidates that could pass the bar exam was held down at an extremely low 500 persons per year. At the end of the 1990s, the number of candidates allowed to pass the bar exam was increased to more than 1,000. In 2005, only 21,129 lawyers were

⁶¹ Rahn, *Patentstrategien*, *supra* note 37, at 377.

⁶² Guntram Rahn, *Conducting Patent Litigation in Japan*, PATENT WORLD, Aug. 2001, at 20.

⁶³ Statistics from 1993 to 2002 presented by Takuya Iizuka, Christopher Heath & Yasuto Komada, *The Enforcement of Copyrights*, in JAPANESE COPYRIGHT LAW, *supra* note 7, at 106 *et seq.* Statistics from 1996 to 2006 can be found at the official homepage of the Japanese IP High Court, http://www.ip.courts.go.jp/aboutus/stat_03.html. In the mid-1990s, even six years was regarded as normal in complicated patent trials. See Heath, *Japan—eine Kopierkultur?*, *supra* note 59, at 114, 128 *et seq.*

⁶⁴ Translation of the decision in 35 IIC 91 (2004) (comment by Christopher Heath & Mineko Mōri).

⁶⁵ See the English page of the High Court (<http://www.ip.courts.go.jp/eng/>). That the homepage of the IP High Court is traceable not only in Japanese and English, but also in Chinese, Korean, French, and German, impressively demonstrates the new openness of the Japanese IP enforcement system.

registered, to serve a population of more than 120 million. In 2004, Japan introduced a law school system in order to educate more legal experts, with around seventy new law schools, and the first bar exam under the new law school system was held in 2006. According to the government's plans, the number of graduates per year should be successively increased to 3,000 persons in 2010.⁶⁶

Even before this recent change in policy, patents, trademarks, and copyrights were of certain practical relevance. There must be reasons why the Japanese have been so eager to file patent applications for decades, even in times in which the granted protection scope under a patent was relatively narrow. Filing numbers steadily increased but open litigation rarely occurred. This does not necessarily mean that there were no disputes, but rather, that disputes were resolved in an amicable manner, not least because of the poor litigation resources which did not really encourage parties to go before court. Nevertheless, IP rights can be assumed to have had the function of turning innovative and creative results into property and were used as a signal to other parties not to trespass the boundaries that defined its protection. Moreover, those few IP owners who resorted to the courts and authorities could expect treatment in accordance with the law. That is, infringers could not count on a negligent attitude of the enforcement authorities. The above-mentioned Wilhelm Plage, for example, made frequent use of public resources, and even though the authorities were uneager to cooperate, they had no other choice because the law required them to do so. They could only refuse cooperation upon a change in the laws.

The evolution of IP law at a relatively early stage of development resulted both from voluntary introduction and the imposition on Japan of foreign or international standards. This is especially true for the first IP rules. From the dawn of the Meiji era, a stable leadership successfully motivated the people to catch up with the West. To achieve this goal meant to internalize Western ideas of legality, clear-cut rights, and transaction security, and to abolish traditional customs. The Japanese underwent serious efforts to choose the best among the available foreign legislation models, i.e., the one which fit best to the Japanese socio-economic reality. In the field of civil law, for example, after a long scholarly dispute in which the first French-influenced drafts on a civil code were dismissed as too statutory, the Japanese in 1896 finally opted for the German model. The then-existing drafts of the German Civil Code⁶⁷ left some flexibility not only for implementing Japanese legal thinking but also for adopting elements from other foreign laws, where deemed appropriate.⁶⁸

In sum, the historical freedom of the Japanese to align alien legal concepts with familiar domestic customs certainly had a positive effect on the perception of law and helped to reduce (but not to eliminate) the gap between law on the books and enforcement reality.

⁶⁶ Iizuka et al., *supra* note 63.

⁶⁷ The German Civil Code (*Bürgerliches Gesetzbuch*) was enacted in 1999, three years after the Japanese Civil Code.

⁶⁸ Ronald Frank, *Civil Code, in A HISTORY OF JAPANESE LAW SINCE 1868, supra* note 1, at 166 *et seq.*

Conclusion

The above overview of IP development in Japan covered an IP history of more than 130 years. First, we found that the attitude towards intangible property protection was positive from the beginning. For about twenty years after 1868, Japan was free to test intellectual property within a purely domestic context. Then, at the dawn of the twentieth century, when Japan was pressured to become a member of the then-relevant IP conventions, the foundations for a functioning IP system were already in place. The international IP regime, however, still left enough room to adapt the laws to national needs, which concentrated on both innovation incentives for domestic innovators and on avoiding overprotection of foreigners. In accordance with Japan's shift from imitators to improvers and finally from improvers to inventors, the scope of protection and the prerequisites for protection were subsequently enhanced.

What can the emerging markets of today learn from Japan? Unfortunately, the opportunity to test intellectual property within the domestic context before extending such protection to foreigners is definitely gone. Developing countries of today are faced with a dense thicket of international protection rules to which they have to adhere if they want to share in the blessings of international trade. The Japanese experiences, therefore, have only limited application to those Asian countries that are now developing

Nevertheless, Japan's experiences do have something to teach. We have learned, for example, that technological development after the war was driven by gradual improvements made by both specialists and non-expert employees and that both patents and utility models formed important tools of creating a stable technological basis. Over decades, this strategy enabled the Japanese to become world-renowned producers of high-quality goods, even though the underlying essential technology was in most cases developed abroad. Such an innovation policy, aiming at small-scale innovation and improvements on a broad base, would also be a profitable option for many emerging markets of today. In many of the emerging markets of Asia, above all China, labor-intensive manufacturing and assembling is the prevalent form of industrial activity. In these countries, however, the vast majority of exportable products stem from foreign direct investment, whereas products manufactured by local firms often lag behind in terms of safety, quality, and reliability.⁶⁹ Nothing will prevent these countries from making active use of their patent and utility model systems and of the remaining flexibilities in the multilateral IP convention framework to promote small-scale innovative activity in quality circles and the like, as the Japanese did, in order to establish a stable domestic industrial base.

⁶⁹ After crash-testing the Chinese JMC "Landwind" all-terrain-vehicle, for example, the Deutsche Allgemeine Automobilclub (National Automobile Association of Germany) spoke of disastrous safety deficiencies. See also Jian Sun, *China: The Next Global Auto Power?*, FAR EASTERN ECON. REV., Mar. 2006, at 37, 38.

Still, Japan's IP history has little in common with the textbook example of a developing economy, which first perceives intellectual property as a development obstacle but then, as development succeeds, changes its attitude due to an increased domestic interest.⁷⁰ Therefore, developing countries of today can only retrace certain elements of Japanese IP history.

Appendix

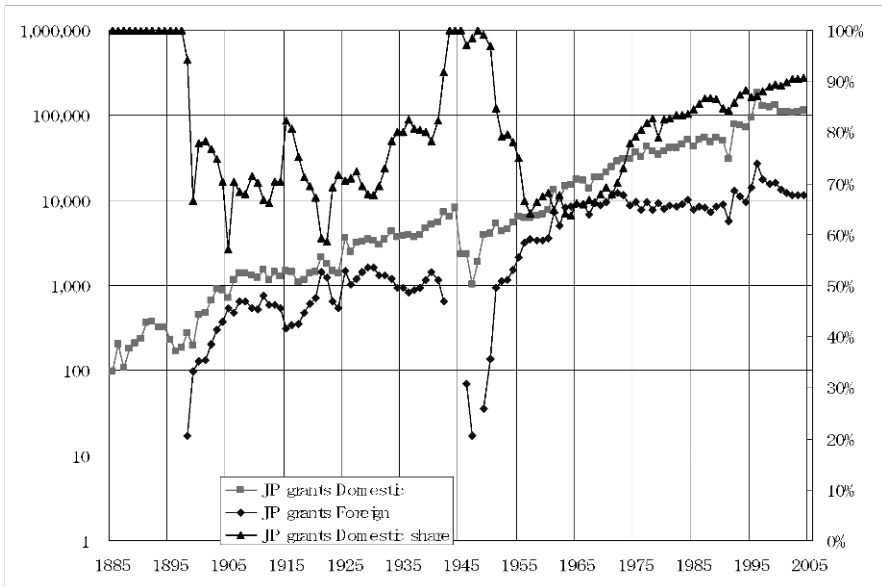


Figure 1: Japanese Patent Grants to Domestic and Foreign Inventors, 1885-2004
Data Source: Japanese Patent Office (1984) and the annual reports of the JPO after 1984.

⁷⁰ Keith E. Maskus, *The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer*, 9 DUKE J. COMP. & INT'L L. 109, 133 (1998).

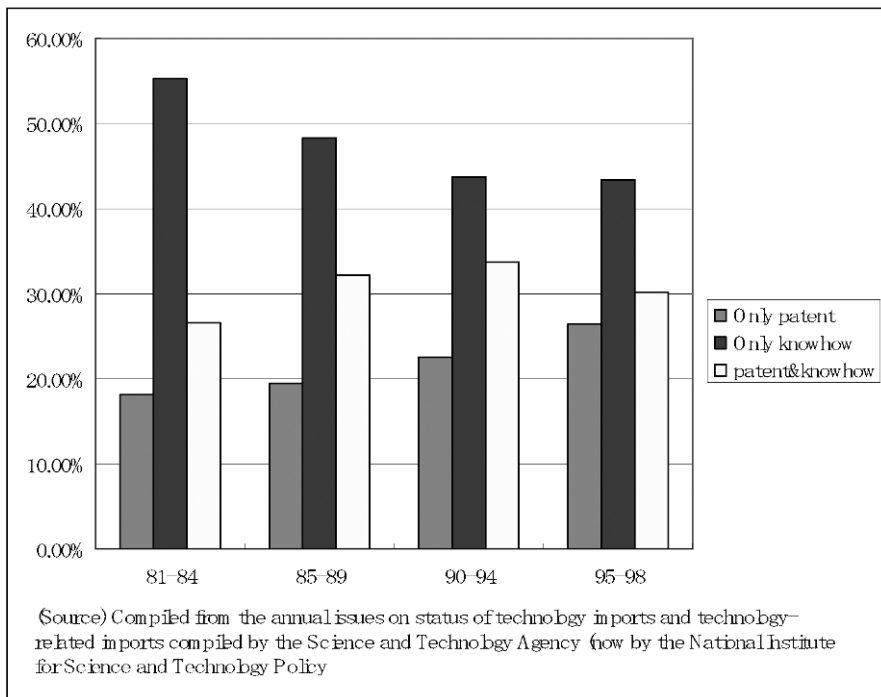


Figure 2: Composition of IP Rights in Technology Import Contracts

	1980				2000			
	Share in global payment	Share in global GDP	Payment/GDP	Share in global Receipt	Share in global payment	Share in global GDP	Payment /GDP	Share in global Receipt
Japan	14.8%	10.3%	0.13%	3.2%	13.5%	15.2%	0.23%	12.9%
USA	8.1%	26.8%	0.03%	65.6%	20.1%	31.4%	0.17%	54.5%
Germany	16.1%	8.6%	0.16%	5.6%	6.9%	6.0%	0.30%	3.7%
UK	10.3%	5.2%	0.17%	10.5%	8.1%	4.6%	0.46%	10.3%
France	11.4%	6.6%	0.15%	4.6%	2.5%	4.2%	0.16%	2.9%
Netherlands	7.1%	1.7%	0.36%	3.9%	3.1%	1.2%	0.68%	2.7%
(Source) Prepared from World Development Indicators, 2005								

Figure 3: Royalty and License Fees Relative to the Global Payment and Receipts in 1980 and 2000

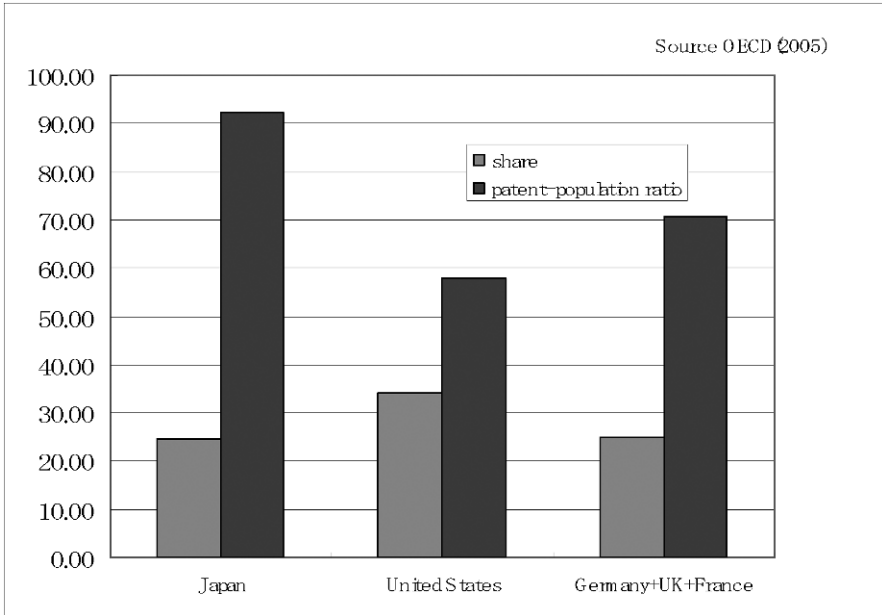


Figure 4: Share and Patenting Intensity of Japan in Triadic Patent Families

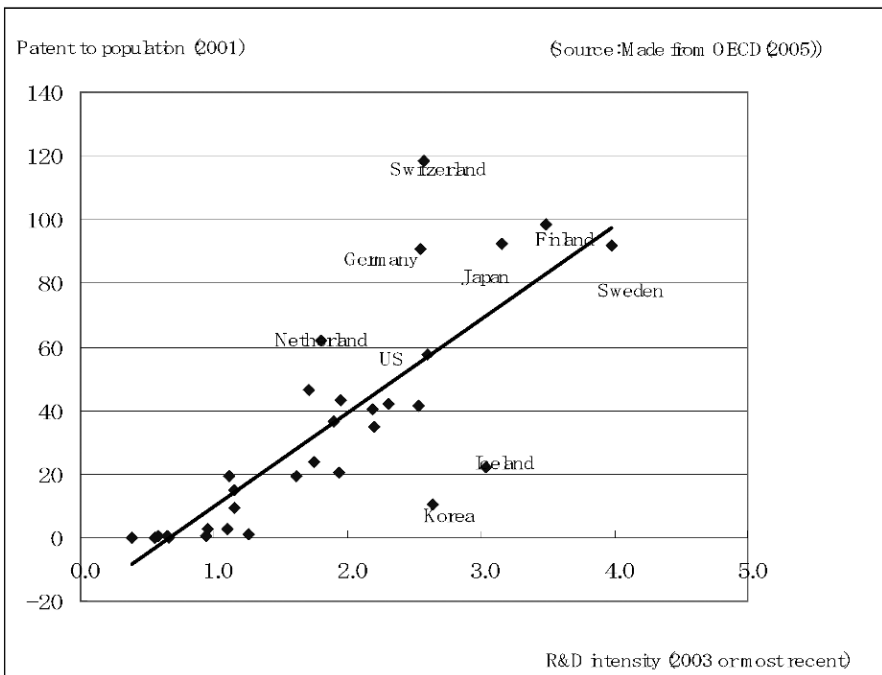


Figure 5: R&D Intensity and Patenting Intensity in OECD Economies Based on Triadic Patents

Laos¹

Peter Ganea

1. Legal Infrastructure	155
1.1. IP History and International Obligations	155
1.2. Current IP Laws	156
1.2.1. The New IP Code	156
1.2.2. Patents, Petty Patents, and Designs	156
1.2.3. Trademark	157
1.2.4. Copyright	158
1.2.5. Unfair Competition	158
1.3. IP Enforcement	158
1.3.1. Administrative Infrastructure	158
1.3.2. Judicial Infrastructure	160
1.3.3. Economic Dispute Resolution	161
1.4. Legal Culture	161
2. Political Infrastructure	162
3. Economic Infrastructure	162
4. Educational and Scientific Infrastructure	163
Conclusion	164

1. Legal Infrastructure

1.1. IP History and International Obligations

The integration of the Lao People’s Democratic Republic (“Laos”) into the international IP community started with Laos’s accession to the Paris Convention in 1998. To comply with the new obligations, the Prime Minister’s Decree on Patent, Petty Patent and Design Protection was enacted in 2002. It allows, *inter alia*, foreign applicants to claim priority from their previously filed applications abroad. Laos also acceded to the Patent Cooperation Treaty in 2006. Prior to accession to the Paris Convention, IP law in Laos consisted of little more than a 1995 trademark law that remains in force. In the copyright field, Laos is a member to the UCC since August 19, 1954², but obviously this membership has no practical meaning. At least until the enactment of the new IP Code on December 24, 2007 (in force since April 14, 2008 – see “The New IP Code,” below), Laos did not even regulate domestic copyright, at least not on the Prime Minister Decree level.

The present patent laws are of no practical relevance. In fact, the Laotians take little notice of the existence of patent protection in their country. There is neither an

¹ This paper is based in part on interviews with various authorities (Economic Police, Customs, Intellectual Property Division, Supreme Court Judges, People’s Prosecutors, OEDR) in the course of a fact-finding mission to the Lao P.D.R. from May 22-26, 2006. The mission was conducted under the auspices of the EC-ASEAN Intellectual Property Rights Cooperation Programme (ECAP II) implemented by the European Patent Office, but this article reflects solely the opinion of the author.

² http://erc.unesco.org/cp/conventions_by_country.asp?contr=LA&language=E&typeconv=1

innovative industry that would welcome such protection nor an imitative industry that would feel restrained by it. Infringing products can be found in every corner of the country. Laotian officials offer consolation in the fact that their country lacks the facilities for infringing production, and that Laos forms only a small market for the sale of imported fakes. The soundness of such statements is hard to assess. Foreign observers accuse Laos of hosting Thai infringers, given increased prosecution pressure in Thailand that has likely motivated some to move their factories over the border into the culturally similar Laos.³

1.2. Current IP Laws

1.2.1. The New IP Code

Laos recently enacted a new IP Code that encompasses all forms of intellectual property. Unfortunately, an English translation of the newly enacted IP Code could not be obtained at this time. It remains to be seen whether the flaws contained in the 2005 draft version of the IP Code were removed from the final version. The draft, *inter alia*, subsumed trademarks under “an invention or creation derived from the intellect of a human being” and imposed the same compulsory licenses without distinction on patents, trademarks, and copyright.

The bundling of all kinds of intellectual property under one law may be a suboptimal solution, but it appears unavoidable in light of the sluggish legislation process. Normally, laws are enacted or amended during the two parliament sessions per year. To split the IP Code up would have meant to protract the whole IP legislation process for several years.

The enactment of a new IP Code does not necessarily mean that the existing administrative regulatory framework was completely abolished. The new Code is probably very generally worded, so that further secondary administrative provisions will be needed for application by the various administrations in charge of IP protection.⁴ Therefore, it may well be that the Decree on Patent, Petty Patent and Design Protection (the “Patent Decree”), the Decree on Trademarks, and the decree which regulated rudimentary protection for domestic music copyright owners, remain in force.

1.2.2. Patents, Petty Patents, and Designs

The Prime Minister’s Decree on Patents, Petty Patents and Industrial Designs of January 17, 2002⁵ grants patent protection for technical solutions in all fields of technology, provided that they meet the prerequisites of worldwide novelty, non-

³ The International Intellectual Property Alliance, an organization composed of U.S. copyright industries, alleges that Laos hosts migrated optical disk plants, with reference to a recently detected export of 33,000 pirated disks to Thailand. INT’L INTELL. PROP. ALLIANCE, 2006 SPECIAL 301 SPECIAL MENTION: LAOS (LAO PEOPLE’S DEMOCRATIC REPUBLIC), available at <http://www.iipa.com/rbc/2006/2006SPEC301LAOS.pdf>.

⁴ See “Administrative Infrastructure,” below.

⁵ Available at http://www.ecap-project.org/fileadmin/ecapII/pdf/en/information/laos/Lao_Patent_Petty_Patent_I_D_Decree.pdf.

obviousness, and practical applicability. The protection term is twenty years from the filing date. The Intellectual Property Division under the Department of Intellectual Property, Standardization and Metrology (DISM) of the Science, Technology and Environment Agency (STEA) is the filing and examination authority for patents, petty patents, designs and trademarks. Patent applicants are required to furnish all foreign examination reports, but even with the support of such material, the Intellectual Property Division is presently not able to carry out any substantive examination. Therefore, the forty-six foreign and seven Laotian patent applications received so far are merely put on record but not examined.⁶ The situation may improve due to the accession of Laos to the PCT on June 14, 2006. As a designated office, the Intellectual Property Division can refer to the foreign examinations or search reports which accompany international applications. In addition, as nationals of a least developed country, Laotians who file international applications may profit from the reduced fee system under the PCT.

Petty patents, for minor inventions, must relate to “devices”; therefore, they will not be granted for substances or processes. The only protection prerequisite is “novelty,” which is presumed to be domestic novelty, because a clear reference to worldwide novelty as in case of patents is lacking. The protection term is seven years from the date of application. Petty patents are also substantively examined. Prior to grant, an applicant can convert his petty patent application into a patent application and vice versa. So far, the Intellectual Property Division has not received a single petty patent application.

Design protection may extend to designs which have not been published or publicly used anywhere in the world before the application date. The protection term is five years and can be renewed twice. So far, only thirty-seven designs have been granted, all to foreigners.⁷ Design rights are not examined as to substance. The Intellectual Property Division grants such rights merely by relying on the statement in the application that the design complies with the protection prerequisites.

1.2.3. Trademark

The Decree on Trademarks of January 18, 1995⁸ protects signs which distinguish the products or services of one enterprise from the products or services of another. The Intellectual Property Division examines whether trademarks meet the substantive requirements for protection. Those marks granted protection will be cancelled if not used for five years. In addition, trademark license contracts must be reported to the Intellectual Property Division. Foreigners, in order to obtain trademark protection, must have a branch in Laos. As enforcement measures, the Decree only mentions that infringers may be “warned” or subject to “other legal sanctions.”

⁶ Statistics available at http://www.ecap-project.org/fileadmin/ecapII/pdf/en/information/laos/Lao_IP_Statistics_for_year_2000_to_2005.pdf.

⁷ *Id.*

⁸ Available at http://www.ecap-project.org/fileadmin/ecapII/pdf/en/information/laos/Lao_Trade-mark_Decree.pdf.

Since 2000, 7,289 trademarks have been registered, but only 341 belong to domestic right owners.⁹

1.2.4. Copyright

As mentioned, Laos's membership to the UCC does not seem to play a practical role, and until the enactment of the new IP code, the country did not even regulate domestic copyright, at least not on the Prime Minister Decree level. Surprisingly, though, domestic music is effectively protected against piracy, under a decree issued by the Ministry of Culture and Propaganda on Supporting the Activities of the Composers' Association.¹⁰ The decree declares, *inter alia*, the sale of pirated Laotian music illegal. Enforcement is carried out by task forces comprised of Economic Police officers, Customs officers, and representatives of the Composers' Association. Detected infringers have to pay a ruinous fine of 500,000 kip (about US\$60) per infringing CD. The supervision is so effective that unauthorized copies of Laotian CDs have completely disappeared from the markets.

1.2.5. Unfair Competition

Laws against unfair competition are absent. On February 4, 2004, the Prime Minister issued a Decree on Trade Competition which should also be applicable to acts of unfair competition, at least according to its preamble. The detailed rules, however, are confined to competition restrictions but remain silent on unfair competition.¹¹ Article 7 of the Decree on the promotion of fair trade pursuant to which "the Government of the Lao PDR encourages business entities of all economic sectors to undertake businesses under competitive conditions with equality, fairness, and cooperation" may be interpreted as a general clause covering all forms of unfair competition, but such interpretation is nowhere else reflected in the law, which is entirely focused at antitrust issues.

1.3. IP Enforcement

The explanations below highlight the enforcement situation prior to the enactment of the new IP Code. The general "dual" structure of administrative and judicial enforcement, however, should have remained unchanged, as Laos is a transforming economy with a traditionally strong administration and a young judiciary which is still under construction.

1.3.1. Administrative Infrastructure

The Intellectual Property Division is not only competent to administer IP rights but also plays an important role in enforcement. Each of the enforcement administra-

⁹ Statistics available at http://www.ecap-project.org/fileadmin/ecapII/pdf/en/information/laos/Lao_IP_Statistics_for_year_2000_to_2005.pdf.

¹⁰ An English version of the decree is not available.

¹¹ An English version is available on the website of the Ministry of Commerce, <http://www.moc.gov.la/download/1637D6F3A11.%2015%20.PMO.DOC>

tions—the Economic Police, Customs, and the Vientiane Municipality Trademark Protection Commission—and the courts rely on the Division to investigate validity and infringement under Laotian law. The Intellectual Property Division is limited to that determination, however, as it is not competent to seize or destroy infringing goods or to impose administrative fines. The Division has mainly heard trademark-related cases.

The two administrations with country-wide competence to enforce IP rights are the Economic Police and Customs. The Economic Police comprise a special police division, which deals with all kinds of economic crimes, including illegal deforestation, fishing, and poaching. The Economic Police has only had to deal with three or four trademark cases so far. This limited experience with trademarks and other intellectual property, and the inability to distinguish fakes from genuine products, serve as the Economic Police's excuse for refusing *ex officio* action. The same applies to the Customs authorities, who are preoccupied with smuggling along their 1,500-kilometre border with Thailand. Section 76(10) of the recently amended Customs Act obliges the authorities to inspect and to seize IP-infringing goods, but as long as the detailed Implementing Decree to the Customs Act is not enacted, Customs refuse to inspect dubious goods *ex officio*.

Every border checkpoint or local Economic Police office can accept IP right owner complaints. This rarely occurs, though, as 90% of complaints are filed by foreign right owners, and foreigners must direct their complaints to a central authority (Economic Police, Customs Department or Intellectual Property Division in Vientiane) via one of eight designated trademark agencies.

Regarding remedies, a case brought before the Economic Police normally ends with a written statement by the infringer stating that he will refrain from further sale of the infringing products, and with the seizure and destruction of the infringing goods. Further claims for administrative punishment (fines) are normally rejected. The Economic Police justify this position with reference to the lack of public awareness of intellectual property and by arguing that the infringer probably did not know that he had committed an illegal act. Customs may detain infringing goods after having received a confirmation of validity and infringement from the Intellectual Property Division, but there exists no further rule on the duration of such detention or on the deposit of a security to compensate the lawful dealer in case of an unfounded request. Additional claims for damages can be made in a court preceding or in the course of a dispute resolution before the Office for Economic Dispute Resolution (see below).

Another IP protection agency was established in 2005: the Vientiane Municipality Trademark Protection Commission (the "Commission") under the Science, Technology and Environment Office of the capital Vientiane. The Commission's competence is limited to the Vientiane municipality. In 2006, it employed only nine officers, who originally belonged to other administrations, including the Economic Police and Customs. None of its officers are trademark experts, and the chief officer is simultaneously responsible for the departments of the environment and of science and technology. Just like the Economic Police and Customs, the Commission only proceeds upon a right owner's request, and before taking action, it submits the ques-

tions of validity and infringement to the Intellectual Property Division. By 2006, the Commission had only dealt with three infringement cases. The Commission's approach to infringers is similar to that of the Economic Police, in that the officers explain to the infringer, in most cases the owner of a small shop, why it is illegal to sell trademark-infringing goods. If the infringer shows remorse then the case will end. This early termination, without even an official warning letter, prevents the Commission from later imposing harsher sanctions if repeated infringements occur. As of 2006, the Commission had issued only one warning letter.

1.3.2. Judicial Infrastructure

Judicial enforcement is not yet a realistic option for right owners. As will be further outlined below, judges regard themselves as moderators and tend to urge parties in civil disputes to reconcile, rather than arriving at clear decisions which would leave winners and losers. Judges sometimes even push the parties to appear without lawyers, because lawyers who are eager to win their cases often complicate the situation. Moreover, judges lack experience in IP cases.

In spite of the low relevance of litigation, a court system composed of district courts, provincial courts, and the Supreme People's Court has been available since 1989. In 2004, the courts underwent a substantial restructuring and new laws on civil, administrative, and criminal procedures were enacted. The judicial framework now consists of sixty-three district courts, seventeen provincial courts, three newly established Appeal Courts in North, South, and Central Laos, and the Supreme People's Court. The order of the instances depends on the claim value. If the value is less than 20 million kip (about US\$2,000), the first instance will be in a District Court, and its decision may be reviewed by the local Provincial Court. For claims of higher value, the first-instance courts are the Provincial Courts, whose decisions can be reviewed by the Appeals Court. In both cases, the last instance is the Supreme People's Court. The Supreme People's Court, like many last instance courts, will only review whether the law has been correctly applied. In the case of new evidence, the Supreme Court may remand the case to the previous instance but is not allowed to reinterpret the facts. The Civil Procedures Act prescribes a maximum duration of two months for civil trials.¹² Further plans to reorganize the court system include the introduction of a chamber system for the courts on district and provincial levels. Under the plan, each court should be provided with a commercial chamber, which will be competent to deal with IP cases.

Quite unique are the so-called People's Prosecutors. They not only represent the state in court but also act as court inspectors. The role as court inspectors is typical in countries like Laos, where politics retains primacy over law. In that role, the People's Prosecutors monitor the work of the judges and may interfere wherever they find a decision non-compliant with the laws. They even accept complaints

¹² The interviewed judges admitted that in one fifth of commercial cases, this time limit cannot be observed. This is because Laotians tend to make agreements in a highly informal manner, without any written documents, and the lack of such evidence sometimes protracts trials.

from parties who are dissatisfied with court decisions, and sometimes they can cancel a decision and forward the case to the court of the next instance.

1.3.3. Economic Dispute Resolution

Economic dispute resolution is more relevant for enforcement than the incomplete court system or administrative procedures. Dispute resolution is widely regarded as the best alternative for a number of reasons. First, the parties can choose their mediators/arbitrators from among 140 designated experts from the various administrations and private businesses who are much more knowledgeable in commercial matters than the present generation of judges.¹³ Second, dispute resolution is held *in camera*, which is often in the interest of the parties.

An Economic Arbitration Center was founded on June 15, 1994 as a branch of the Ministry of Justice. In 2005, it was elevated from a mere branch to the Office of Economic Dispute Resolution (OEDR). Mediation and arbitration are carried out according to the Law on the Arbitration of Economic Disputes. Since 1995, the OEDR and its predecessor have resolved 520 commercial conflicts, most of them contract disputes between Thai and Laotian parties. Increasingly, OEDR resolves disputes between Laotians and other foreign parties, especially Chinese.

The OEDR offers two types of dispute resolution, mediation and arbitration. Mediation consists of a panel of one to three mediators, and the disputants have the opportunity to arrive at an amicable settlement themselves. Arbitration ends with an arbitral award decided by at least three arbitrators, who are allowed to collect evidence and conduct on-site inspections during a preparation phase limited to three months.¹⁴ After this phase, the arbitral award must be rendered within fifteen days. An award which has the consent of the parties cannot be reviewed in court. On the other hand, where parties do not agree and continue their dispute before a court, the judge may take the arbitral award into account.

1.3.4. Legal Culture

Like many other countries with a socialist tradition, Laos relies strongly on administrative guidance for all aspects of life. Ministerial ad-hoc decrees, which do not require Parliament's approval, often play the role of laws, and the various administrations are provided with quasi-judicial competences. The average administrative officer, however, is poorly educated; only 60% of public servants have completed secondary education. In addition, the salaries of even high-ranking administrators are so low—about US\$60 per month—that they cannot make a living without engaging in business on the side.

The strong reliance on reconciliation procedures in private business disputes, and the attitude of judges who regard themselves as moderators rather than decision-makers, may be evidence that Laotian culture prefers amicable dispute resolution over clear judgements about who is right and who is wrong. This may be

¹³ A bachelor's degree and five years of professional experience are the minimum requirements to become a designated expert.

¹⁴ Six months in complicated cases and twelve months in highly complicated cases.

correlation and not causality, however. Other causes for the tendency to avoid open disputes may include the low importance attached to law in countries with socialist leadership.

2. Political Infrastructure

Laos is a small country with a population of only 5.5 million and an average per capita income of less than US\$1,800 per year. In the nineteenth century, Laos became part of French Indochina which also included Cambodia and Vietnam. During colonial times, the French left the country's infrastructure and organization basically untouched. In 1954, in the course of France's withdrawal from Southeast Asia, Laos became an independent Kingdom.

Although officially neutral, Laos was heavily involved in the Vietnam War; it harboured the Vietcong and was frequently bombed by the U.S. Air Force. Since the end of the conflict in 1975, Laos has been ruled by a socialist, one-party government.¹⁵ In the mid-1980s, extreme poverty forced the government to tackle economic reforms. The resulting New Economic Reform Mechanism of 1986 allowed private economic activity while maintaining the socialist state plan.

The Laotian political structure has remained unchanged since 1975. The first Prime Minister of the one-party state served from 1975 until 1991, and since then, power has been transferred to his successors without noteworthy power struggles. Of course there have been occasional minority upheavals, but Laos enjoys a relatively high level of political stability, which can be regarded as an asset when assessing the risks of doing investment in the country.

3. Economic Infrastructure

Despite the reforms of 1986, industrialization is a long time coming. In terms of economic development, Laos lags far behind its booming neighbours China, Thailand, and Vietnam. After two decades of reforms on paper, noteworthy industries still have not been established. The main exports are still coffee, wood, and hydro-electricity. One reason for the slow development may be the omnipresence of foreign aid organizations that crowd out domestic economic activity.¹⁶

Recently, the government has launched a number of activities to improve the attractiveness of Laos for foreign investors. *Inter alia*, the government has made it easier for potential investors to obtain approval for engagement in Laos, and a new tax law has reduced uncertainties. Moreover, the government seems to intend to

¹⁵ For more details about Laos under communist rule, see VATTANA PHOLSENA, *POST-WAR LAOS* (New York: Cornell University Press 2006) and GRANT EVANS, *THE POLITICS OF RITUAL AND REMEMBRANCE: LAOS SINCE 1975* (Honolulu: University of Hawaii Press 1998).

¹⁶ According to UNDP statistics, official development assistance (ODA) alone generated 10.3% of the GDP in 2005. Statistics available at http://hdrstats.undp.org/countries/data_sheets/cty_ds_LAO.html. Considering that there are an additional 67 NGOs with 226 projects (see <http://www.directoryofngos.org>), the total share of GDP generated by foreign aid could be higher.

actually enforce these laws and rules; expenditure to bring the reforms to life (e.g., creation of a physical infrastructure, capacity building) amounts to 11% of the GDP.¹⁷

The available economic data reveal a more than sixfold increase in foreign direct investment (FDI) between 2005 and 2006, from US\$28 million to \$178 million.¹⁸ However, this does not necessarily mean that the endeavour to create an investment-friendly environment has already borne fruit. As compared with the total value of FDI in other developing countries in the region, this is still a very small sum. Also, the engagement of even one or only a few additional investors in the country could have caused this increase, so it is too early to predict a stable trend towards increased attractiveness for FDI.

4. Educational and Scientific Infrastructure

The primary and secondary enrollment rates show a steady but slow improvement. In 1999, 76% of boys and girls in primary age were enrolled; in 2006, it was 81%. The same is true for secondary education. In 1999, 26% of the population of secondary age were enrolled; in 2006, it was 35%.¹⁹ Total expenditure for education is about 3% of the GDP, but 20-30% of this expenditure is by private households. This implies that access to education is highly dependent on the income of parents.²⁰

With respect to higher education, the National University of Laos (NUOL), which was founded in 1995 as a merger of nine teaching institutes which had been supervised by different ministries, seems to be the only relevant higher teaching and research institution in the country.²¹ It is comprised of nine faculties and seven research institutes, all now under the Ministry of Education. The intensity of cooperation with foreign research and teaching institutes is high. The majority of cooperation projects are undertaken with partners from Japan and Korea. Since the founding of the university, the number of enrolled students has tripled. In the 2005-2006 academic year, 26,673 students were enrolled. The Faculty of Engineering absorbed the majority of students with 4,984, followed by Education with 3,636 students, the Faculty of Letters with 3,326 students, and the Faculty of

¹⁷ Chris Bisogni, *New Frontiers for Lawyers in Southeast Asia*, ASIALAW, May 2008, at 23, available at <http://www.asialaw.com>.

¹⁸ *Country Fact Sheet: Lao People's Democratic Republic*, in UNCTAD, *WORLD INVESTMENT REPORT 2007*, available at <http://www.unctad.org/Templates/Page.asp?intItemID=3198&lang=1>; see also UNCTAD, *WORLD INVESTMENT REPORT 2007*, at 42, available at http://www.unctad.org/en/docs/wir2007p1_en.pdf.

¹⁹ UNESCO country statistics on Laos are available at http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=198&IF_Language=eng.

²⁰ UNESCO Institute for Statistics, *What do Societies Invest in Education? Public versus Private Spending*, available at http://www.uis.unesco.org/template/pdf/EducGeneral/Factsheet07_No4_EN.pdf.

²¹ See the official homepage of the NUOL, <http://www.nuol.edu.la>. Only part of the homepage is translated into English.

Economics and Business Administration with 3,295 students. Statistics from previous years show a similar distribution.

Assessing the quality of teaching and research is difficult. On the one hand, only forty-nine of 1,986 university employees hold a doctoral degree, as opposed to 303 lecturers with a master's degree, 126 with a higher diploma, and 886 with a mere bachelor's degree. On the other hand, the high intensity of cooperation with institutions in developed countries points to the capability of the NUOL's faculties and institutes to cope with international standards, or at least makes it reasonable to assume that the intensity of such cooperation has a positive overall effect on the quality of teaching and research.

Further data on commercial research and development (R&D) or on the commercialization of University R&D results are not available. The non-availability of data, however, does not necessarily mean that there is no scientific infrastructure at all beyond the NUOL. In spite of the fact that in the first years of communist rule, a significant number of well-educated Laotians emigrated, this brain drain was mitigated by dispatching a number of Laotian students to the former Soviet Union and other Eastern European countries for higher education, especially in the field of engineering. Unfortunately, data on these repatriates, who would now be in their fifties, is not available. It can be assumed that a considerable number are employed in higher administrative positions, for instance, at the Intellectual Property Division.

From the incomplete information available, it can be concluded that the locations for R&D are confined to the public sector, most notably the NUOL, and that corporate R&D does not yet play a significant role.

Conclusion

Laos looks back on more than thirty years of relative peace and political stability. An established infrastructure facilitates the implementation of governmental or ministerial orders. The example of effective copyright protection for Laotian music (see "Copyright," above) demonstrates that IP protection is possible even in least developed countries, provided that such protection is perceived as in the national interest. With regard to other fields of intellectual property, namely trademarks, such political will is less visible. However, trademark infringement seems to be an imported problem, with Laos serving as a small market for fakes manufactured abroad. Despite the allegation that Thai infringers are increasingly producing in Laos, there is no evidence of a substantial imitative industry there. In the field of IP protection, the historical lack of a rule of law is not as problematic as in China or Vietnam, since Laos's industrial development has trailed behind the developments of law.

The level of IP infringement in Laos is low by Asian standards, and improvements to IP protection can be achieved by a few adjustments to the existing, mainly administrative, enforcement infrastructure. A new structure solely for the protection for intellectual property is not advisable, as it would consume too much of the available resources. Measures could start by obliging the Economic Police and the

Customs authorities to carry out *ex officio* actions, which can be supported by foreign-assisted basic training in how to distinguish infringing products from genuine ones. With regard to the comparatively less-developed court system, improvements could be made within the existing structures. To establish specialized IP chambers in court or even an IP court like in neighbouring Thailand would consume too many resources. The allocation of IP competence in the coming commercial chambers should be sufficient. In addition, the judge could be assisted by non-legal, industry experts in complicated commercial cases, and by technical specialists in patent infringement cases as they become more frequent.

In spite of the present insignificance of intellectual property for the Laotian economy, the situation may change in the coming years. Laos is surrounded by a number of highly dynamic countries like Vietnam and China. Growing labour costs in China have already prompted labour-intensive branches to look for cheaper locations for production. Regional proximity is one important factor for investment decisions in Asia,²² so Laos may soon become an attractive target for investment from other Asian countries, especially given its relative political stability and the government's recent efforts to create an investment-friendly environment. If these efforts bear fruit, Laos may soon develop a domestic industrial base with the capability to infringe but also to legitimately absorb advanced knowledge from abroad.

²² WORLD INVESTMENT REPORT 2007, *supra* note 18, at 21.

Malaysia

Christoph Antons

1. Legal infrastructure	167
1.1. IP History	167
1.2. International IP Obligations	172
1.3. Current IP Laws	174
1.3.1. Patents and Designs	174
1.3.2. Copyright	175
1.3.3. Trademark	175
1.4. IP Lawmaking	176
1.5. IP Enforcement	178
1.5.1. Civil Enforcement	178
1.5.2. Criminal Enforcement	180
1.5.3. Administrative Infrastructure	180
1.6. Legal Culture	183
2. Political and Economic Infrastructure	184
2.1. Political Economy	184
2.2. Who Holds the IP?	187
2.3. Where Is the IP?	188
2.4. Exploitation of IP	189
3. Educational Infrastructure	189
4. Scientific Infrastructure	192
4.1. Locations for R&D	192
4.2. Industries Involved in R&D	194
4.3. Commercialisation of IP	195
Conclusion	196

1. Legal infrastructure

1.1. IP History

Before the creation of the Federation of Malaya after World War II, intellectual property protection in what is now Malaysia consisted of a smattering of laws with roots in the colonial experience. In the Straits Settlements, the most important of which were Penang, Singapore, and Malacca, common law protection for trademark matters and patent and copyright protection theoretically became available as early as 1826, when English law was formally introduced via the Second Charter of Justice. This early protection was based on English patent and copyright law at the time and subsequently on the Indian Copyright Act and the Indian Patent Act.¹ However, there is no evidence that copyright or patent protection was ever evoked during this early period.² Moreover, reliance on the U.K. Registration of Trade Marks Act of 1875 and on the U.K. Patents, Designs and Trade Marks Act of 1883

¹ See KHAW LAKE TEE, COPYRIGHT LAW IN MALAYSIA 4 n.16 (Kuala Lumpur: Malayan Law Journal, 2d. ed. 2001); Lim Heng Gee, *A Study of the Historical Development of the Malaysian Patent System*, in THE PREHISTORY AND DEVELOPMENT OF INTELLECTUAL PROPERTY SYSTEMS 91-92 (Alison Firth ed., London: Sweet & Maxwell 1997).

² KHAW, *supra* note 1, at 4.

was clearly denied by the courts in *Vulcan Match Co. v. Herm Jebesen & Co.*³ and in *Fraser & Co. v. Nethersole*.⁴

Intellectual property protection via local legislation began with the Inventions Ordinance of 1871 for the Straits Settlements.⁵ Basic trademark protection became available by way of criminal sanctions for users of fraudulent marks in 1888.⁶ This was replaced in 1917 by the Merchandise Marks Ordinance. A registration-based system was finally introduced in 1938 with the Trade Marks Ordinance, which came into force in 1939. The system provided for the registration of local marks and U.K.-protected marks.⁷ A limited form of copyright protection started in 1902 with the Telegram Copyright Ordinance to protect newspapers and their legally purchased news items against printing by competitors for forty-eight hours.⁸ In 1911, the British extended their Imperial Copyright Act to “his Majesty’s dominions,” which included the Straits Settlements. This Act was later supplemented by ordinances in 1914 and 1918.⁹ In 1924, the Inventions Ordinance for the Straits Settlements was amended and allowed from then on for the re-registration of patent rights obtained in the United Kingdom.¹⁰

In the Federated Malay States (Perak, Pahang, Selangor, and Negri Sembilan), the Unfederated Malay States (Kelantan, Perlis, Kedah, Terengganu, and Johore), and the protectorates of North Borneo and Sarawak, the reception of IP principles occurred much more slowly than in the Straits Settlements and the process was less complete. Protection for inventors was provided in the Federated Malay States via legislation enacted in 1896 and 1897.¹¹ This was replaced by the Inventions Enactment of the Federation of Malay States of 1914.¹² In 1925, the Federated Malay States followed the Straits Settlements in providing protection for U.K.-registered patents.¹³ Following lobbying activities from the Society of Authors and the Performing Rights Societies, the Federated Malay States introduced the Copyright Enactment of 1930.¹⁴ Trademark and design protection became available from 1910 and 1932, respectively.

Of the Unfederated Malay States, Perlis and Terengganu did not introduce any IP laws before the end of World War II.¹⁵ Johore followed the developments in the

³ (1884) 1 KY 650, *cited in* TEO BONG KWANG, *TRADE MARK LAW AND PRACTICE IN MALAYSIA* 4 (Singapore: Butterworths Asia 2001).

⁴ (1886) 4 KY 269, *cited in* TEO, *supra* note 3, at 4.

⁵ Lim, *supra* note 1, at 93-95.

⁶ TEO, *supra* note 3, at 5.

⁷ *Id.* at 1, 5-6.

⁸ KHAW, *supra* note 1, at 4.

⁹ *Id.* at 4-5.

¹⁰ Lim, *supra* note 1, at 95-96.

¹¹ The relevant laws were the Inventions Regulation of Selangor of 1896, the Inventions Order in Council of Negri Sembilan of 1896, the Inventions Order in Council of Perak of 1896, and the Invention Enactment of Pahang in 1897. *See* Lim, *supra* note 1, at 97-98.

¹² *Id.* at 100-02.

¹³ *Id.* at 102.

¹⁴ KHAW, *supra* note 1, at 5.

¹⁵ Lim, *supra* note 1, at 105.

Straits Settlements by introducing patent rights in 1911 and registration for U.K. patents in 1924.¹⁶ From 1937, the system focused completely on the re-registration of U.K. rights.¹⁷ Johore also provided basic protection for trademarks against fraudulent use and forging in 1918 and a depository system of printed and published matter in 1931. Kelantan and Kedah enacted laws to extend protection for locally or U.K.-registered patents in 1914 and 1916 and amended them in 1936 and 1928, respectively.¹⁸

British North Borneo provided for patent protection from 1887 and shifted to the re-registration of U.K. patents in 1937.¹⁹ Trademark protection was available from 1891 and with the Merchandise Marks Ordinance in 1928. Designs were protected beginning in 1940. Copyright Ordinances in North Borneo and Sarawak followed the model of the Federated Malay States in 1935. Sarawak had also introduced patent protection in 1922²⁰ and a trademark registration system in 1934.

Following World War II, the Federation of Malaya was formed, incorporating the Straits Settlements and the Federated and Unfederated Malay States. The new Trade Marks Ordinance of 1950 applied now to the entire territory of the Federation.²¹ Independence for the Federation arrived in 1957 and Sarawak and Sabah, as British North Borneo was called, joined in 1963. The different historical circumstances during this period account for some of the differences in the IP legislation. North Borneo and Sarawak enacted new Trade Marks Ordinances in 1949 and 1957, respectively.²² In the field of patents, reliance on U.K.-registered patents continued via the Registration of United Kingdom Patents Act 1951 of Malaya, the Patents Ordinance of Sarawak and the Registration of United Kingdom Patents Ordinance of Sabah.²³ In the field of copyright, the Imperial Copyright Act of 1911 continued in force in the Straits Settlements. Its application was extended in 1952 to North Borneo, where the Copyright Ordinance of 1935 was repealed. However, a further 1953 ordinance to extend the protection of the Act to the rest of the Malay States remained in effect until it was finally repealed in 1965. The Federated Malay States remained under the Copyright Enactment of 1930. When the British replaced the Copyright Act of 1911 with the new U.K. Copyright Act of 1956, the Federation of Malaya did not adopt it. It was introduced, however, in Sarawak in 1960 and in North Borneo in 1962. As a result, when Sarawak and Sabah joined the Federation of Malaysia in 1963, there were no fewer than three different copyright acts in force.²⁴

¹⁶ *Id.* at 102-03.

¹⁷ *Id.* at 103-04.

¹⁸ *Id.* at 104-05.

¹⁹ *Id.* at 105-06.

²⁰ *Id.* at 107.

²¹ TEO, *supra* note 3, at 7.

²² *Id.* at 8.

²³ Darryl Goon, *Malaysia, in* INTELLECTUAL PROPERTY LAW IN ASIA 309-10 (Christopher Heath ed., London: Kluwer 2002); Lim, *supra* note 1, at 107-09.

²⁴ See KHAW, *supra* note 1, at 5-6, for the history of copyright during this period.

All these different laws were finally replaced by Malaysia's Copyright Act of 1969, allegedly modelled after the Nigerian Copyright Bill but rather ineffective in practice.²⁵ In 1976, the equally complex trademark system, with three different ordinances and registries in Peninsular Malaysia, Sabah and Sarawak, was unified and centralised in Kuala Lumpur by the new Trade Marks Act of 1976. The first amendments in 1994 introduced new aspects such as service marks.²⁶ After Malaysia acceded to the TRIPS Agreement in 1994, the Trade Marks (Amendment) Act of 2000 brought the Malaysian trademark legislation in line with the TRIPS Agreement by providing for, among other things, the abolition of Part A and Part B trademarks,²⁷ protection for well-known marks and geographical indications, and border measures to prevent the importation of counterfeit trademark goods.²⁸

Meanwhile, patent protection has been unified by the Patents Act of 1983, which came into force in 1986. The Act was amended in 1993, 2000, 2003, and 2006. The 1993 amendments, among other things, brought changes to the novelty concept for utility models. The 2000 amendments, which came into force in 2001, raised the period of protection for standard patents from fifteen to twenty years and included a provision prohibiting inventions offensive to public morality.²⁹ They further contained changes to compulsory licensing and government use and allowed for parallel importation.³⁰ The amendments of 2003 clarified transitory provisions,³¹ while the main purpose of the 2006 amendment was to allow for PCT applications, after Malaysia had acceded to the PCT earlier that year.³²

The 1969 Copyright Act was replaced in 1987 by a new Copyright Act, which saw several amendments over the years. The first amendment, in 1990, brought the Malaysian legislation in line with the Berne Convention, to which Malaysia acceded in October of that year.³³ The second amendment, in 1996, addressed the

²⁵ *Id.* at 6-7.

²⁶ TEO, *supra* note 3, at 8-11.

²⁷ British and British-derived trademark systems have distinguished since 1919 between trademarks registered in Part A and Part B with the aim of giving certain trademarks lesser protection until they had become distinctive through sufficient use. The distinction was abolished in the United Kingdom in 1994 and in Australia in 1995. See WILLIAM CORNISH & DAVID LLEWELYN, *INTELLECTUAL PROPERTY: PATENTS, COPYRIGHT, TRADE MARKS AND ALLIED RIGHTS* 577 (London: Sweet & Maxwell, 5th ed. 2003); JILL MCKEOUGH, ANDREW STEWART & PHILIP GRIFFITH, *INTELLECTUAL PROPERTY IN AUSTRALIA* 502 (Chatswood, NSW: Lexis-Nexis Butterworths, 3d ed. 2004).

²⁸ TEO, *supra* note 3, at 14-18.

²⁹ Goon, *supra* note 23, at 310; see also Lim, *supra* note 1, at 110-15.

³⁰ See the survey of Patent Acts on the website of the Malaysian Intellectual Property Office (MyIPO) at http://www.myipo.gov.my/index2.php?option=com_content&task=view&id=11&Itemid=6.

³¹ *Id.*

³² Karen Abraham, *Malaysia's IP Shopping List*, *MANAGING INTELL. PROP.*, Supplement: Asia Pacific IP Focus 2006, at 55. For further changes apart from PCT membership, see Patrick Mirandah, *Malaysian Patents Act Evolves*, *MANAGING INTELL. PROP.*, Apr. 2007, and Jern Ern Chuah & Mae Lin Ng, *Malaysia Switches on to IP*, *MANAGING INTELL. PROP.*, May 2007, at 59-61.

³³ KHAW, *supra* note 1, at 8-9.

copyright/design overlap typical for British-derived copyright systems and expanded the powers of the Copyright Tribunal to include the settlement of disputes over licensing agreements.³⁴ The Copyright Amendment Act of 1997 concerned mainly copyright issues in an online environment. The 2000 amendments were meant to ensure compliance with the TRIPS Agreement and included provisions on performers' rights, database protection, border control issues, and proof of copyright ownership.³⁵ The 2003 amendments strengthened criminal penalties and enforcement instruments by allowing, for example, arrests by officials of the Ministry of Domestic Trade and Consumer Affairs.³⁶

Meanwhile, Malaysia's IP landscape had been further expanded by the enactment of the Industrial Designs Act of 1996, the Layout-Designs of Integrated Circuits Act of 2000, and the Geographical Indications Act of 2000. In 2004, Malaysia enacted a Plant Varieties Act.³⁷ The Act will enter into force in August 2008, after long-delayed implementing regulations have finally been provided.³⁸ Trade secrets and various forms of confidential information are traditionally protected under the principles of the law of equity.

Apart from completing the legal framework, the Malaysian government indicated its seriousness in protecting IP rights and fostering an IP-based knowledge economy in 2007, when it announced a National Intellectual Property Policy (NIPP) and designated specialised IP courts. To achieve the aims of the NIPP, the government set up a 5 billion ringgit (US\$1.4 billion) support fund.³⁹ The rationale, objectives, and aims of the NIPP include anchoring intellectual property as an integrated component of the national economic policy, supporting more specific policy initiatives related to Malaysia's Multimedia Super Corridor and to national policies on biotechnology and biodiversity, promoting effective IP management, and developing an IP culture, a vibrant IP industry, and Malaysia as a leading IP hub.⁴⁰ The document also outlines concrete strategies for achieving these objectives. It promises to aim at the highest standards of IP protection by strengthening the administration of the Malaysian Intellectual Property Office (MyIPO), creating a pool of human resources for IP registration and enforcement, strengthening the enforcement agencies, and setting up a specialised IP court to expedite cases. There are further strategies for promoting commercialisation and activities that generate IP, developing capabilities to manage intellectual property and of an infrastructure

³⁴ *Id.* at 9.

³⁵ *Id.* at 10-11.

³⁶ INT'L INTELL. PROP. ALLIANCE, 2005 SPECIAL 301 REPORT: MALAYSIA (2005), <http://www.iipa.com/rbc/2005/2005SPEC301MALAYSIArev.pdf>.

³⁷ Rajeswari Kanniah, *Plant Variety Protection in Indonesia, Malaysia, the Philippines and Thailand*, 8 J. WORLD INTELL. PROP. 285 (2005).

³⁸ Peter Ollier, *Asia Reaps Benefit of Plant Variety Laws*, MANAGING INTELL. PROP., Supplement: Life Science Industry Focus, June 1, 2008.

³⁹ *Report: Malaysia Plans US\$1.4 Billion Fund to Boost Intellectual Property*, INT'L HERALD TRIB., Apr. 28, 2007.

⁴⁰ The document is available from the website of the Malaysian Intellectual Property Office (MyIPO) at <http://www.myipo.gov.my/images/stories/Document/ip%20policy.pdf>.

facilitating transactions involving IP, protecting Malaysia's national interest in IP, promoting human resource development, raising public awareness, and encouraging foreign investment and technology transfer.

1.2. International IP Obligations

Malaysia has been a member of the Paris Convention since January 1, 1989; of the Berne Convention since October 1, 1990; and of the WTO TRIPS Agreement since January 1, 1995. The country is also a member of WIPO, and the PCT entered into force in Malaysia on August 16, 2006.

Malaysia has recently embarked on a series of negotiations for Free Trade Agreements (FTAs), both individually and as a member of ASEAN. According to the introduction to the FTA website of the Ministry of International Trade and Industry (MITI), Malaysia's objective in these negotiations is to conclude comprehensive agreements that also include IP rights and economic cooperation in such areas as competition policy, standards and conformity assessment, information and communication technology, science and technology, education and training, research and development (R&D), and Small and Medium Enterprises (SMEs) development.⁴¹

In December 2005, the Prime Ministers of Malaysia and Japan signed the Japan-Malaysia Economic Partnership Agreement (JMEPA). The agreement took effect in July 2006.⁴² The JMEPA covers a wide range of activities, including intellectual property and the control of anti-competitive activities. Besides general provisions on efficiency, transparency, and enforcement in accordance with international agreements to which both countries are parties and confirmations of the principles of national and most-favoured nation treatment, the JMEPA also contains "TRIPS-plus" provisions. The transparency requirements, for example, while generally not very wide-ranging, extend also to "information on applications for registrations of, and registrations of, new plant varieties" and to public information on Malaysia's efforts to provide effective enforcement of IP rights. Malaysia allows for a modified substantive examination by taking into account prescribed information or supporting documents from applications filed outside Malaysia and the JMEPA confirms this practice. The agreement provides for well-known trademark protection beyond TRIPS Article 16(3) and Article 6bis of the Paris Convention. It includes the communication right agreed upon in the WCT, limitations on the liability of Internet service providers, and a requirement to promote copyright collecting societies. It requires adequate protection of new plant varieties in a manner consistent with an internationally harmonised system. The JMEPA provides also a detailed catalogue of unfair competition acts and extends border enforcement measures to the re-exportation of infringing goods. It strengthens the rights to information of IP rights holders and extends the possibility to provide for measures in

⁴¹ For a complete list of objectives, see <http://www.miti.gov.my> (click on "Malaysia and Free Trade Agreements (FTA)").

⁴² <http://www.ftamalaysia.org> (click on "Japan-Malaysia JMEPA").

other areas of IP also to new plant varieties. Further areas and forms of cooperation in IP matters are outlined in a separate implementing agreement. This foresees cooperation and exchange of information between Customs authorities regarding the importation and exportation of IP-infringing goods. Article 10 of the implementing agreement further envisages information exchange, training and exchange of experts, consultation on enforcement activities, and other forms of cooperation, including in the following areas: IP brokerage or licensing, management, registration and exploitation and patent mapping, protection of IP in the digital environment, IP education and public awareness, modernisation of IP administration, and enforcement.

Intellectual property, technology transfer, biotechnology, and information and communication technology are also included in the work programme of the Joint Council on Trade and Investment of the Malaysia-U.S. Trade and Investment Framework Agreement (TIFA), which meets annually. Here, the United States has recognised Malaysia's efforts to strengthen IP enforcement and agreed to assist with capacity-building programs.⁴³ In June 2006, negotiations commenced for a comprehensive Malaysia-U.S. Free Trade Agreement, including provisions on IP rights, competition policy, and Customs procedures. Although an initial deadline to conclude discussions in 2007 was missed, U.S. negotiators are still hopeful to reach agreement on the remaining contentious issues by the middle of 2008.⁴⁴

Negotiations with both Australia and New Zealand began in early 2005 with similar objectives, including facilitation of two-way investment flows in areas of common interest such as agriculture and agro-based industries, environmental goods, and biotechnology.⁴⁵ Meanwhile, a joint study to establish a Comprehensive Economic Cooperation Agreement with India has been completed.⁴⁶ Negotiations with Pakistan have led to an Early Harvest Programme covering various tariffs.⁴⁷ Negotiations are also ongoing with Korea and Chile.

As a member of ASEAN, Malaysia is collectively involved in the ASEAN negotiations with China, which has meanwhile led to the Framework Agreement on Comprehensive Economic Cooperation between ASEAN and China, which among other objects foresees cooperation in the field of IP rights.⁴⁸ This was followed by the ASEAN-Japan Comprehensive Economic Partnership (AJCEP) Agreement,⁴⁹ which specifically includes the enhancement of IP rights in its scope. Signing of this agreement was completed in April 2008, and it is expected to come into force before

⁴³ [Http://www.miti.gov.my](http://www.miti.gov.my).

⁴⁴ *U.S. Says Trade Pact With Malaysia is Possible This Year*, INT'L HERALD TRIB., Jan. 17, 2008.

⁴⁵ [Http://www.miti.gov.my](http://www.miti.gov.my).

⁴⁶ Press Release, Ministry of International Trade and Industry, India-Malaysia Signs Liberal Economic Cooperation Contract (June 8, 2006), available at http://www.bilaterals.org/article.php?id_article=4933; *Malaysia-India*, <http://www.miti.gov.my>.

⁴⁷ [Http://www.miti.gov.my](http://www.miti.gov.my).

⁴⁸ [Http://www.miti.gov.my](http://www.miti.gov.my) (click on "Trade," "ASEAN Economic Cooperation," "Dialogue Partners," "ASEAN-China").

⁴⁹ [Http://www.miti.gov.my](http://www.miti.gov.my) (click on "Trade," "ASEAN Economic Cooperation," "Dialogue Partners," "ASEAN-Japan").

the end of 2008.⁵⁰ The Framework Agreement on Comprehensive Economic Cooperation between ASEAN and the Republic of Korea was signed in December 2005 and came into force on July 1, 2006. It also includes cooperation in IP matters.⁵¹ In early 2005, negotiations started between ASEAN and the CER (Closer Economic Partnership between Australia and New Zealand), with the ultimate aim of concluding an ASEAN-Australia and New Zealand FTA.⁵² These negotiations are expected to be concluded by mid-2008.⁵³ An ASEAN-India Comprehensive Economic Cooperation Agreement⁵⁴ was signed in 2003 and negotiations for an FTA continue. Finally, an FTA between ASEAN and the European Union is also under negotiation.⁵⁵

1.3. Current IP Laws

1.3.1. Patents and Designs

Section 19(2) Patents Act places original ownership of a patent with its inventor. If the invention is made by two or more persons jointly, they become co-owners of the patent (Section 19(3)). If two or more persons make the same invention independently of each other, the right to the patent belongs to the application with the earliest priority date. In this case, a *bona fide* prior user of the invention in Malaysia or someone who has in good faith made preparations for production by using the patented product or process, shall be entitled to continue the exploitation of the patent in Malaysia. This right is non-assignable except as part of the business of the prior user. If the essential elements of an invention claimed in a patent or patent application have been unlawfully derived, the Court may order the transfer of the patent or patent application to the real owner (Section 19). An application for such a transfer must be made to a Court within five years of the grant of the patent.

Patent rights for inventions made in the course of employment or that are commissioned belong to the employer or to the person commissioning the work, if there are no contractual provisions to the contrary (Section 20(1)). In the absence of a contractual agreement otherwise, the inventor is entitled to equitable remuneration if the invention acquires an economic value much greater than was reasonably foreseeable at the time of conclusion of the contract. The same applies to inventions of employees who are not required to engage in inventive activities, if the invention uses data or means of the employer and there are no provisions to the contrary in the

⁵⁰ *Id.*

⁵¹ [Http://www.miti.gov.my](http://www.miti.gov.my) (click on "Trade Information," "ASEAN Economic Cooperation," "Dialogue Partners," "ASEAN-Korea").

⁵² [Http://www.miti.gov.my](http://www.miti.gov.my) (click on "Trade Information," "ASEAN Economic Cooperation," "Dialogue Partners," "ASEAN-Australia/New Zealand").

⁵³ *ASEAN-Australia and New Zealand*, <http://www.miti.gov.my>.

⁵⁴ [Http://www.miti.gov.my](http://www.miti.gov.my) (click on "Trade Information," "ASEAN Economic Cooperation," "Dialogue Partners," "ASEAN-India").

⁵⁵ [Http://www.miti.gov.my](http://www.miti.gov.my) (click on "Trade Information," "ASEAN Economic Cooperation," "Dialogue Partners," "ASEAN-India").

employment contract. The inventor is here entitled to equitable remuneration. The provisions of Section 20 apply equally to government employees (Section 21).⁵⁶

According to the definition in Section 3 of the Industrial Designs Act 1996, the person registered is the owner of the registered design, whereby ownership lies individually or jointly with two or more persons. The author of the industrial design is the original owner (Section 10(1)). For designs created in an employment context or that are commissioned, the employer or commissioning party respectively will be treated as the original owner of the design (Sections 10(2) and (3)). Computer-generated industrial designs are owned by the person responsible for the arrangement or the creation of the design (Section 10(6)).

The right holder of a layout-design of integrated circuits is the creator (Section 7(1)(a) Layout-Designs of Integrated Circuits Act 2000). According to the definition provided in Section 2 of the Layout-Designs of Integrated Circuits Act, this is the person making the arrangements for the creation of a layout-design in case of a computer-aided design. In case of commissioned layout-designs or layout-designs created in the context of employment, the rights are held by the commissioning party or the employer respectively (Sections 7(1)(b) and (c)). Layout-designs can be owned by several persons jointly (Section 7(4)). Section 11(f) declares the further exploitation of an identical design created independently as non-infringing and Section 12 makes a further exception under certain circumstances for innocent infringements.

1.3.2. Copyright

The original owner of the copyright in a copyrightable work is the author.⁵⁷ Works of joint authorship are explained in the definition in Section 3 of the Copyright Act.⁵⁸ Section 26(2)a. and b. provide that commissioned works or works created in the course of employment are deemed to be transferred to the commissioning party or the employer respectively, unless there is an agreement to the contrary. Section 26(4)a. contains a presumption of authorship in favour of the person mentioned as author of the work. Section 26(4)b. provides that the publisher of an anonymous or pseudonymous work exercises the copyright on behalf of the author. Section 26(4)c. provides that the copyright to an unpublished anonymous work vests in the Minister of Culture, if there is every reason to presume that the author is a Malaysian citizen.

1.3.3. Trademark

Registration of a trademark gives the registered proprietor the exclusive right to use the trademark in relation to the goods or services for which it is registered (Section 35 Trade Marks Act). British courts have traditionally allowed the registration of

⁵⁶ On inventions made in the context of employment, see *IDA MADIEHA BT ABDUL GHANI AZMI, PATENT LAW IN MALAYSIA: CASES AND COMMENTARY* 449-63 (Petaling Jaya: Sweet & Maxwell Asia 2003).

⁵⁷ See Copyright Act 1987, Sec. 26(1).

⁵⁸ See the detailed explanation in *KHAW, supra* note 1, at 119-22.

honest concurrent users under certain circumstances.⁵⁹ In Malaysia, this defence to the relative refusal ground of deceptive similarity has been adopted in Sections 20(1) and (1A) Trade Marks Act. The requirements have been tested in *Pakai Indus. Bhd. v. Chen Yew Indus. Sdn. Bhd.*,⁶⁰ where the court held that a certain length of concurrent use is required.⁶¹ Further, the concurrent use must be extensive and continuous.⁶²

The same provisions also allow for the registration of identical or deceptively similar marks in the names of two different proprietors in case of “other special circumstances.” Examples for special circumstances include where the mark is identical with the name of the applicant, prior use, concurrent non-infringing use, or where the use of the mark is a natural extension of the applicant’s business.⁶³ Section 20(2) allows the continuation of continuous use starting from a date before the use or registration of the conflicting mark by the registered proprietor.⁶⁴

Trademarks may be jointly owned by two or more persons (Section 21). Well-known trademarks are protected against unauthorised registration by Section 14 (1)d. and e. Well-known trademarks are accordingly protected for goods or services of the same kind and for dissimilar goods and services, if they indicate a connection between the goods or services and the proprietor of the well-known mark and the interests of the proprietor are likely to be damaged by such use.

Following Section 11 of the Geographical Indications Act 2000, an individual producer or a group of producers, a competent authority, or a trade organization or association may apply for registration of a geographical indication. Registration facilitates evidence (Section 20), but is not necessary for gaining protection (Section 3).

1.4. Lawmaking

Malaysia is a federalist constitutional elective monarchy consisting of thirteen states and the Federal Territories of Kuala Lumpur and Labuan. Legislative powers are divided between the Federation and the states in accordance with the Ninth Schedule of the Federal Constitution.

The schedule includes lists for federal, state, and concurrent legislative powers. Various types of IP rights are included under the federal legislative powers for trade,

⁵⁹ The conditions are usually collected from the judgment of Lord Tomlin in *Pirie’s Application*, [1933] 50 RPC 147 at 159-60, cited in CORNISH & LLEWELYN, *supra* note 27, at 684. For the rationale for the provision, see Lord Diplock in *GE Trade Mark*, [1973] RPC 297 at 326, cited in TEO, *supra* note 3, at 144-45.

⁶⁰ [1991] 2 CLJ 1574. See the extract of the case in IDA MADIEHA BT ABDUL GHANI AZMI, TRADE MARKS LAW IN MALAYSIA: CASES AND COMMENTARY 185-89 (Petaling Jaya: Sweet & Maxwell Asia 2004).

⁶¹ The court found that one and a half years was not sufficient. See ABDUL GHANI AZMI, *supra* note 60, at 188.

⁶² *Id.* at 188-89; see also TEO, *supra* note 3, at 147-48.

⁶³ See TEO, *supra* note 3, at 149-50 for further examples.

⁶⁴ *Id.* at 150.

commerce, and industry.⁶⁵ Government at the federal level is headed by the *Yang di-Pertuan Agong*, the ceremonial Head of State elected from among the Malaysian traditional rulers for a five-year term by a Conference of Rulers.⁶⁶ There are two legislative chambers at the federal level, the Senate (*Dewan Negara*) and the House of Representatives (*Dewan Rakyat*). Members of the House of Representatives are elected for five-year terms, whereas the Senate is a mixture of elected members and members appointed by the *Yang di-Pertuan Agong*. The *Yang di-Pertuan Agong* also appoints the Prime Minister from the majority faction in the House of Representatives.⁶⁷

Bills are introduced into Parliament as Government Bills, Private Bills, Private Member Bills, or Hybrid Bills. In practice, however, the last three categories of bills are extremely rare and legislative proposals are usually submitted by the Minister responsible for the particular subject area. The Bill may be introduced in either chamber of Parliament. There are three readings of the Bill in the chamber where it is introduced. Whereas the first reading is a mere formality, the Bill is intensively debated during the second reading, after which the matter is carried further by a Committee on the Bill or by a Special Select Committee. Finally, it is passed with or without amendments during the third reading. After this, the Bill will be transmitted to the other chamber for further consideration. If a Bill, unless it is a money Bill, originated in the House of Representatives, Article 68(2) of the Constitution limits the power of the Senate to prevent the Bill from becoming enacted. In such a case, the Senate may make amendments, but a Committee of the House of Representatives may reject the amendments with reasons. If the Bill is passed again by the House of Representatives in the next session but no earlier than one year after it was first passed and the Senate upholds again its objections, the Bill will be presented to the *Yang di-Pertuan Agong* for assent, which will conclude the process. This prerogative of the House of Representatives does not apply, however, to constitutional amendments (Constitution art. 68(5)). Voting in both chambers is by simple majority, except in cases of constitutional amendments, where a two-third majority is required.⁶⁸ Article 66 gives the *Yang di-Pertuan Agong* similar powers to return a Bill to Parliament prior to giving his assent, but if Parliament repeats its vote on the Bill, assent must be given within thirty days. The Bill becomes law as soon as the assent is granted, but it only comes into force with publication (Constitution art. 66(5)).

⁶⁵ WU MIN AUN, AN INTRODUCTION TO THE MALAYSIAN LEGAL SYSTEM 174 app.B (Petaling Jaya: Longman Malaysia, rev. 3d ed. 1982).

⁶⁶ Poh-Ling Tan, *Malaysia*, in *ASIAN LEGAL SYSTEMS* 275 (Poh-Ling Tan ed., Sydney: Butterworths 1997).

⁶⁷ CONST. MALAYSIA arts. 43-46; *see also* Tan, *supra* note 66, at 271-73; WU, *supra* note 65, at 81-86.

⁶⁸ For the details of the entire process, *see* WU, *supra* note 65, at 58-63.

1.5. IP Enforcement

1.5.1. Civil Enforcement

The federal court system of Malaysia distinguishes between the Superior and the Subordinate Courts. The Superior Courts comprise the Federal Court, the Court of Appeal, and the High Courts for Malaya and for Sabah and Sarawak. The Federal Courts hear constitutional matters and disputes between states or between the Federation and any state. The Court of Appeal hears appeals from the High Courts. The High Court has theoretically unlimited civil and criminal powers, but in practice hears matters which exceed the jurisdiction of the subordinate courts.⁶⁹ The Federal Court and Court of Appeal are based in the capital Putrajaya. There are twenty High Courts in the various states of Malaysia, fourteen in Peninsular Malaysia, and three each in Sabah and Sarawak.⁷⁰

Traditionally, civil IP cases were mainly heard in the High Courts,⁷¹ whereas criminal offences under the Patents Act, Copyright Act, and Trade Descriptions Act were also tried by a Sessions Court or a Magistrate's Court.⁷² In such cases, appeals went to the High Courts.⁷³ After some debate about the need for and feasibility of specialised IP courts in Malaysia⁷⁴ and as part of its strategy under the new National Intellectual Property Policy (NIPP),⁷⁵ the government launched such specialized IP courts on July 17, 2007. The new system left the existing Malaysian court hierarchy untouched, but created fifteen specialised IP Sessions Courts for criminal cases and six IP High Courts for civil cases and appeals.⁷⁶ The IP High Courts are situated in Kuala Lumpur, Selangor, Johor, Perak, Sabah, and Sarawak.⁷⁷

Because IP law was until recently subsumed under the general jurisdiction of the courts, there are no separate statistics about the speed and efficiency of the courts with regards to IP matters. However, the introduction of the specialised IP courts

⁶⁹ Tan, *supra* note 66, at 273-74.

⁷⁰ See the directory of courts on the website of the Kuala Lumpur Bar at <http://klbar.org.my/directory/courts.asp>.

⁷¹ See the definition of "court" in the definition section of the Patents Act (Section 3), the Trade Marks Act (Section 3), the Industrial Designs Act (Section 3), and the Geographical Indications Act (Section 2), as well as Section 37(4)(b) of the Copyright Act and Section 31 of the Layout-Designs of Integrated Circuits Act.

⁷² See Patents Act, Sec. 78; Ida Madieha bt. Abdul Ghani Azmi, *Development of Law in Asia: Divergence Versus Convergence. Copyright Piracy and the Prosecution of Copyright Offences and the Adjudication of IP Cases: Is There a Need for a Special IP Court in Malaysia?*, in *COPYRIGHT LAW: A HANDBOOK OF CONTEMPORARY RESEARCH* 422-23 (Paul Torremans ed., Cheltenham: Edward Elgar 2007).

⁷³ See Patents Act, Sec. 88(2).

⁷⁴ Abdul Ghani Azmi, *supra* note 72, at 421-24.

⁷⁵ See 5.1v) of the NIPP and "IP History," above.

⁷⁶ Abdul Ghani Azmi, *supra* note 72, at 424.

⁷⁷ Jenny Lanong, *Mahkamah Harta Intelek Capai Matlamat*, BERNAMA.COM, Apr. 15, 2008, <http://www.bernama.com/bernama/v3/printable.php?id=326846>; Establishment of Intellectual Property Court in Malaysia, http://www.myipo.gov.my/index2.php?option=com_content&task=view&id=159.

was preceded by a trial period at one of the session courts in Kuala Lumpur starting in January 2006. The trial satisfied the authorities that cases were dealt with quicker and more efficiently.⁷⁸ According to news reports, in 2005 the Session Courts only concluded 14% of filed cases. After the introduction of the IP Court, they achieved a disposal rate of nearly 70%.⁷⁹

Thus far, there is no separate reporting of IP cases. A few cases dealing with intellectual property are reported each year in the *Malayan Law Journal* (MLJ) and in the *Current Law Journal* (CLJ). Since Malaysian case material is thus relatively scarce, both the courts and the writers of textbooks rely in addition on cases from various Commonwealth countries. Occasionally there are even references to U.S. decisions or decisions of the EPO Board of Appeal. Where courts are using court decisions from elsewhere, they are mostly of a persuasive nature only. Appeals to the Privy Council were abolished in constitutional and criminal matters in 1978 and in civil matters in 1985.⁸⁰

A sample of IP cases published between 2001 and 2008 in the *Malayan Law Journal* and in the *Current Law Journal* indicates that the High Courts decided IP cases on average within one or two years. Decisions taking up to five years⁸¹ or less than one year⁸² were exceptional during this period. One particular lengthy High Court case involved the transfer of a trademark, in which the length of the proceedings was apparently due to a corporate restructuring process of the Indonesian plaintiffs.⁸³ The Court of Appeal was considerably slower and took between two to five years on average for its decisions, with the longest running appeal being concluded nine years after filing.⁸⁴ The majority of cases published during this period related to trademarks, with three patent cases, one decision on passing off related to domain names, one copyright case, and a case on the copyright/industrial design overlap. The majority of the published High Court decisions were decided in the High Court of Kuala Lumpur, but there were also cases reported from Shah Alam, Malacca, and Penang.

⁷⁸ *Mahkamah Harta Intelek*, BULETIN PENGGUNA, July 2007, at 5, available at <http://www.fomca.org.my>.

⁷⁹ Lanong, *supra* note 77.

⁸⁰ Tan, *supra* note 66, at 273.

⁸¹ *Thrifty Rent-A-Car System v. Thrifty Rent-A-Car Sdn. Bhd. & Anor.* [2004] MLJ 567.

⁸² *E-Toyo Global Stationery Sdn. Bhd. v. Toyo Ink Sdn. Bhd. & Ors.; The Registrar of Trade Marks (Interested Party)* [2005] 1 MLJ 445.

⁸³ *PT Indofood Interna Corp & Ors v. Fat East Food Industries Sdn Bhd & Ors.* [2006] 7 CLJ 433. The action in this case was commenced in October 1993 and the High Court decided the case in March 2006. A further lengthy case commenced in 1998 and decided in 2007 concerned parallel importation of audiovisual equipment. *Kenwood Electronics (M) Sdn. Bhd. & Anor. v. Profile Spec (M) Sdn. Bhd. & Ors.* [2007] 2 CLJ 732.

⁸⁴ *Meidi (M) Sdn. Bhd. v. Meidi-Ya, Japan & Anor.* [2008] 1 CLJ 46.

1.5.2. Criminal Enforcement

On the criminal side of the system, the International Intellectual Property Alliance (IIPA) in its 2008 Special 301 Report on Malaysia commended Malaysia for establishing IP courts, but also quoted industry reports, which pointed to a remaining backlog of criminal cases. A statistical table included in the report indicates that this seems to affect in particular the motion picture industry, which reports 638 cases pending in 2007.⁸⁵

Criminal enforcement in Malaysia is mainly in the hands of the Enforcement Division of the Ministry of Domestic Trade and Consumer Affairs (MDTCA). The Division was established in 1972 and has a large number of branches and officers throughout Malaysia. According to its website,⁸⁶ the Division is responsible for the enforcement of nine pieces of legislation on trade. These include important laws for IP enforcement such as the Trade Descriptions Act of 1972, the Trade Description (Original Label) Order of 2002, and the Optical Discs Act. Among its responsibilities are the licensing and supervision of optical disc manufacturing under the Optical Discs Act, the prosecution of trademark infringements and cases of passing off under the Trade Descriptions Act, and the affixation of holograms and “originality stickers” on audio, audiovisual, and other optical media products.

Industry sources quoted in the 2008 IIPA Report indicate that the Enforcement Division of the MDTCA has been successful in greatly reducing optical disk piracy and pirate production in fixed premises. Some of these activities have now moved to night markets, which are the responsibility of local authorities under the Ministry of Local Government and Housing.⁸⁷ The report pointed to the importance of sentencing guidelines and the need for an effective judicial follow-up on raids and other enforcement measures.⁸⁸ It found that problems remain in particular with Internet piracy, mobile device piracy, book piracy, and camcorder piracy.⁸⁹

The Ministry of Domestic Trade and Consumer Affairs cooperates with the Police in particular in the enforcement of copyright and of the Printing Presses and Publications Act 1984 and the Film Censorship Act 2002. The two last mentioned laws allow the authorities to confiscate material which is obscene or violates public decency.⁹⁰

1.5.3. Administrative Infrastructure

The Malaysian Intellectual Property Office (MyIPO) previously operated as a Division of the Ministry of Domestic Trade and Consumer Affairs. Following the enactment of the Intellectual Property Corporation of Malaysia Act 2002, it was

⁸⁵ INT’L INTELL. PROP. ALLIANCE, 2008 SPECIAL 301 REPORT: MALAYSIA, <http://www.iipa.com/rbc/2008/2008SPEC301MALAYSIA.pdf> [hereinafter IIPA, 2008 REPORT]. For statistics on cases brought against copyright offences until 2004, see Abdul Ghani Azmi, *supra* note 72, at 425.

⁸⁶ [Http://www.kpdnhep.gov.my](http://www.kpdnhep.gov.my) (click on “Enforcement”).

⁸⁷ IIPA, 2008 REPORT, *supra* note 85, at 267-69, 272.

⁸⁸ *Id.* at 367-68.

⁸⁹ *Id.* at 266-71.

⁹⁰ Abdul Ghani Azmi, *supra* note 72, at 406-07.

reconstituted in 2003 as a body corporate (Section 3 of the Act) and as a statutory body (Section 33). In 2005, it changed its name again from Intellectual Property Corporation of Malaysia (IPCM) to Malaysian Intellectual Property Office (MyIPO). While remaining under the direction and supervision of the Minister,⁹¹ the new form of organization has given MyIPO more freedom to regulate its own affairs with regards to its employees (Part IV of the Act) and the use of its funds (Part V of the Act). Section 17 mentions the functions of MyIPO as follows: to ensure the administration of intellectual property; to collect fees; to regulate and supervise IP matters; to advise on the review and update of legislation; to promote training and awareness of intellectual property; to carry out national and international cooperation programs; to represent Malaysia with regard to international conventions; to advise the government on international IP developments; to carry out research and commission studies; to advise the Minister on intellectual property in general; and to administer the Corporation in accordance with the directions of the Minister.

The current Director-General of MyIPO, Mr. Kamel Mohamad, reports a 70% growth in international filings since Malaysia joined the PCT and a total number of seventy-two patent examiners in early 2008.⁹² However, strengthening the IP administration of MyIPO is an essential component of the National Intellectual Property Policy (NIPP),⁹³ and MyIPO will receive an allocation from the funds supporting the NIPP to be able to cope with the increasing workload.⁹⁴

Besides the training of its own examiners, MyIPO is also responsible for the training, examination, registration, and further education of practitioners specialising in IP matters. The list of registered trademark agents on the MyIPO website⁹⁵ currently contains 337 names. Most of these trademark agents (221) are based in Kuala Lumpur or in surrounding suburbs and cities in the state of Selangor (60). Others are spread out over the country, with many of them concentrated in major centres such as Penang (25) and Johor Baru (11). There are 145 listed patent agents⁹⁶ with an even stronger concentration in Kuala Lumpur (101) and the surrounding state of Selangor (29). There are 136 registered industrial design agents, again with the majority of them in Kuala Lumpur (97) and Selangor (20).

The requirements for registration as a Patent Agent are the most complicated. They can be found in Part VIA of the Patents Regulations 1986. Registration is effected by the Registrar of Patents on application, who must be satisfied that the applicant is (a) domiciled in or is a permanent resident of Malaysia, (b) is an advocate and solicitor of the High Court in Malaya, Sabah, or Sarawak or has a relevant or equivalent degree in an appropriate branch of engineering or science from an institute of higher learning or qualifications entitling him to graduate membership

⁹¹ See Sections 6(2), 8(2), 9(e), 10, 11(1), 14, 31(2) and (3), 34, & 35 for the substantial supervisory role of the Minister.

⁹² Toh Mei Ling, *Still some way to go for IP*, THE EDGE DAILY, Apr. 14, 2008.

⁹³ See 5.1i) of the NIPP.

⁹⁴ Toh, *supra* note 92.

⁹⁵ http://www.myipo.gov.my/index2.php?option=com_content&task=view&id=32&Itemid=38.

⁹⁶ http://www.myipo.gov.my/index2.php?option=com_content&task=view&id=9&Itemid=15.

of a professional engineering or scientific institution, and (c) has passed the examination as specified in the Regulations (Section 45C(2) of the Patents Regulations). An applicant must further not have been convicted of an offence involving fraud or dishonesty (Section 45C(4)). Registration is for a period of one year and renewable indefinitely against payment of an annual fee (Sections 45C(5), 45E). Renewal can be refused or a registration cancelled where the agent has been convicted of an offence involving fraud or dishonesty (Sections 45E(3), 45F).

The examination process for patent agents is administered by the Board of Examiners (the “Board”) under the chairmanship of the Registrar of Patents. The Board is responsible for the conduct of the examination, the examination syllabus and recommended study materials, the preparation of the examination papers, the admission of candidates, the determination of time, date and place of examinations, the awarding of certificates and advice to the Registrar as to who satisfies the requirements for registration (Section 45G(7)). For the purposes of setting, assessing, and marking the exams, the Board appoints suitably qualified examiners (Section 45H). The examination consists of technology, Malaysian patent law and practice, Malaysian trademark and designs law and practice, and foreign industrial property law and practice (Section 45D (1)).

Registration as a Trade Marks Agent is regulated in Part III of the Trade Marks Regulations 1997. It requires an application to the Registrar of Trade Marks satisfying the Registrar that the following conditions are fulfilled: the applicant is domiciled or resident in or has a principal place of business in Malaysia and (a) is on the Register of Patent Agents; or (b) is an advocate and solicitor practising solely in Malaysia; or (c) holds a recognised degree in any fields of study and has had at least three years of experience in the field of industrial property; or (d) has had at least seven years of experience in the field of industrial property as an ex-employee of the MyIPO Trade Marks Division; or (e) has acted as a trademark agent to the satisfaction of the Registrar before the coming into force of the Trade Marks Regulations 1997 (Section 12 (3)). As with patent agents, persons convicted of any registrable or criminal offence involving fraud or dishonesty will not be registered (Section 12(4)). Registration is for renewable periods of one year (Sections 12(5), (7), (8)). Deregistration occurs where the agent is (a) no longer domiciled, resident or having a place of business in Malaysia; or (b) is convicted of a registrable or criminal offence involving fraud or dishonesty; or (c) is an undischarged bankrupt; or (d) has been struck off and not restored to the Register of Patent Agents or the Roll of Advocates and Solicitors or is suspended for the time being from the Register or Roll (Section 12(6)).

Registration as an Industrial Designs Agent requires an application to the Registrar of Industrial Designs satisfying the Registrar that the applicant is domiciled or resident or has a principal place of business in Malaysia, not convicted of any registrable or criminal offence involving fraud or dishonesty, and is (a) on the Register of Patent Agents; (b) an advocate and solicitor practising solely in Malaysia; or (c) holds a recognised degree in any field of studies and has had at least three years experience in the field of industrial property (Sections 33(1), (2), (3) Industrial Designs Regulations 1999). Registration is for renewable one-year periods and

agents can be deregistered if the requirements for registration are no longer fulfilled (Sections 33(5), (6), (7) and (8)).

Persons applying for registration of a geographical indication who are not resident in or do not have their principal place of business in Malaysia, must appoint an agent who is (a) domiciled or resident in Malaysia; (b) constituted under the laws of Malaysia; or (c) carries on business or practice principally in Malaysia (Section 11(2) Geographical Indications Act 2000). There is no further requirement except proper authorisation (Section 14 Geographical Indications Regulations 2001).

1.6. Legal Culture

Like Indonesia, Malaysia is a multiethnic society with a pluralist legal system consisting of state law in the common law tradition inherited from the British colonial power, Islamic law, and the customary laws (*adat*) of the various Malaysian communities. Unlike in Indonesia, however, decolonisation was not accompanied by a violent independence struggle and ties with Britain were not completely severed. Malaysia remained part of the British Commonwealth, continued to administer the common law, and still allowed for further appeals to the Privy Council in London until January 1, 1985.⁹⁷ Although both Malay and English are recognised as legal languages, English proficiency is high and case reports and textbooks from the United Kingdom continue to be used by the courts and by academics in legal education. During the first few decades after independence, judicial independence was respected and judicial review as an essential function of the judiciary in a Westminster-style government recognised,⁹⁸ although it was seldom exercised in practice.⁹⁹

Difficulties within Malaysia's legal system have in particular to do with the political economy of the country. Like Indonesia, it has to find a balance between its multiethnic and pluralist society on the one hand, and national unity on the other hand. In the Malaysian case, the postulate of national identity is embodied in the state ideology of *Rukunegara* (harmony of the nation), which was drafted and promulgated in 1970 by an Emergency Government installed after the devastating race riots in 1969.¹⁰⁰ The promulgation of the state ideology was followed by the so-called *Rukunegara* amendments to the Constitution in 1971. The amendments entrenched special privileges for the Malay population and for the natives of Sabah and Sarawak,

⁹⁷ Privy Council appeals in criminal and constitutional matters had been abolished earlier in 1978. See *The Malaysian Judiciary*, in MAHKAMAH MALAYSIA [MALAYSIAN COURT WEBSITE] 1, <http://www.kehakiman.gov.my/courts/maljudiciary.shtml>.

⁹⁸ Wu Min Aun, *The Malaysian Judiciary: Erosion of Confidence*, 1(2) ASIAN LAW 125 (1999).

⁹⁹ Tan, *supra* note 66, at 295.

¹⁰⁰ BARBARA WATSON ANDAYA & LEONARD Y. ANDAYA, A HISTORY OF MALAYSIA 297-300 (Houndmills, Basingstoke: Palgrave, 2d ed. 2001). *Rukunegara* is in fact inspired by Indonesia's *Pancasila*. Its five principles are belief in god, loyalty to king and country, upholding the Constitution, rule of law, and good behaviour and morality. See the text of the *Rukunegara* in the appendix of *The Rukunegara Amendments of 1971*, in CONSTITUTIONAL LANDMARKS IN MALAYSIA: THE FIRST 50 YEARS 1957-2007, at 130-33 (Andrew Harding & H.P. Lee eds., Petaling Jaya: LexisNexis 2007) [hereinafter CONSTITUTIONAL LANDMARKS IN MALAYSIA].

allowed for restrictions on freedom of expression for certain “sensitive issues” (citizenship, national language, special privileges of Malays and natives of Sabah and Sarawak, and prerogatives of the rulers), and restricted parliamentary privileges with regards to these issues.¹⁰¹ Where it sees a threat to national security, the state may resort to further draconian measures, such as detention without trial under an Internal Security Act inherited from anti-subversion measures of the British during their struggle against a communist insurgency in the 1940s and 1950s.¹⁰²

In the views of analysts, the strong role of the executive has led to erosion of judicial independence and of public confidence in the judiciary,¹⁰³ which is now struggling to regain credibility.¹⁰⁴ A particular dramatic period was the 1988 Judiciary Crisis, when the Lord President and two Supreme Court judges were removed from office and three other Supreme Court judges were suspended following a period of increasing tension between the government and the court over a number of Supreme Court decisions.¹⁰⁵ The crisis led to divisions within the judiciary and between parts of the judiciary and the Malaysian Bar Council. Political tensions again spilled over into the courtroom during the trials of former deputy Prime Minister Anwar Ibrahim in 1999 and 2000.¹⁰⁶ Released in 2004 and until recently barred from running for political office, Anwar is currently again facing charges of sodomy, which is punishable in Malaysia by up to twenty years in jail.¹⁰⁷

2. Political and Economic Infrastructure

2.1. Political Economy

As a former British colony, Malaysia has pursued investor-friendly policies since independence. An initial period of import-substituting industrialisation was followed by export-oriented models beginning in the early 1970s after the introduction of the New Economic Policy. Export Processing Zones (EPZs), Free Trade Zones (FTZs), and licensed manufacturing warehouses sprang up in support of the new policy. After an initial period of processing primary commodities for export, there was a shift to electrical and electronic components manufacturing in the late 1970s and early 1980s.¹⁰⁸ A state-led heavy industrialisation period followed, with

¹⁰¹ CONSTITUTIONAL LANDMARKS IN MALAYSIA, *supra* note 100, at 120-27.

¹⁰² Rueban Ratna Balasubramaniam, *The Karam Singh Case*, in CONSTITUTIONAL LANDMARKS IN MALAYSIA, *supra* note 100, at 89-91.

¹⁰³ Wu, *supra* note 98; Tan, *supra* note 66, at 302.

¹⁰⁴ Visu Sinnadurai, *The 1988 Judiciary Crisis and its Aftermath*, in CONSTITUTIONAL LANDMARKS IN MALAYSIA, *supra* note 100, at 173-95.

¹⁰⁵ *Id.* at 177-86.

¹⁰⁶ Jesse Wu Min Aun, *The Saga of Anwar Ibrahim*, in CONSTITUTIONAL LANDMARKS IN MALAYSIA, *supra* note 100, at 273-90.

¹⁰⁷ Thomas Fuller, *Opposition Leader in Malaysia Accused of Sodomy, Again*, INT’L HERALD TRIB., June 29, 2008.

¹⁰⁸ For the history of the Malaysian economy until the late 1980s, see Jomo K.S. & Chris Edwards, *Malaysian Industrialisation in Historical Perspective*, in INDUSTRIALISING MALAYSIA: POLICY, PERFORMANCE, PROSPECTS 14-39 (Jomo K.S. ed., London & New York: Routledge 1993).

a focus on industries such as steel, petroleum refining, cement, and automobiles; however, the recession of the mid-1980s forced a rethinking with regards to some of these programs,¹⁰⁹ although the automotive industry in particular remained one of the most protected sectors of the Malaysian economy. The Investment Promotion Act of 1986 liberalised the investment regime considerably and allowed wholly foreign-owned companies and majority foreign ownership in companies that exported a large percentage of their output. It also widened the exemptions from the affirmative action program in favour of the Malay population under the Industrial Coordination Act of 1975 that required divestment of equity ownership of 30% to ethnic Malays for companies with a certain size and capital.¹¹⁰ From 1986 onwards, earlier exemptions for multinational exporters in FTZs were widened to their suppliers.¹¹¹

In 1991, Prime Minister Mahathir enunciated his Vision 2020, a political manifesto that coincided with the shift from the New Economic Policy (NEP) to the National Development Plan (NDP) and the introduction of the Sixth Malaysia Plan. As Jomo K.S. has demonstrated, many of the main objectives of the Vision 2020 speech were similar to *Rukunegara*, the national ideology embodied in the Constitution, and the NEP.¹¹² However, apart from these similarities, the speech also shifted the emphasis to some extent away from the redistributive concerns of the NEP to a more competitive, market-oriented, technologically progressive and entrepreneurial Malaysia.¹¹³ Most importantly, Mahathir's speech provided a long-term perspective on Malaysia's development in addition to the shorter and mid-term economic plans. The ultimate goal enunciated in the speech was achievement of developed country status by the year 2020, a target which was to be achieved via annual growth rates of 7%.¹¹⁴

Strategies from the mid-1990s onwards emphasised a stronger integration of local supply chains, design, and R&D components into the export industries. As one of the countries affected by the Asian Crisis, Malaysia introduced a national Economic Recovery Plan in 1998, which further liberalised the conditions for foreign investment.¹¹⁵

¹⁰⁹ Sanjaya Lall, *Malaysia: Industrial Success and the Role of the Government*, in 4 THE ECONOMIC DEVELOPMENT OF SOUTHEAST ASIA 526 (Hal Hill ed., Cheltenham & Northampton, Mass.: Edward Elgar 2002).

¹¹⁰ Rajah Rasiah, *Manufacturing Export Growth in Indonesia, Malaysia and Thailand*, in SOUTHEAST ASIAN PAPER TIGERS? FROM MIRACLE TO DEBACLE AND BEYOND 37 (Jomo K.S. ed., London & New York: RoutledgeCurzon 2003) [hereinafter SOUTHEAST ASIAN PAPER TIGERS].

¹¹¹ Greg Felker & Jomo K.S., *New Approaches to Investment Policy in the ASEAN 4* [hereinafter Felker & Jomo, *New Approaches to Investment Policy*], in SOUTHEAST ASIAN PAPER TIGERS, *supra* note 110, at 98.

¹¹² JOMO K.S., M WAY: MAHATHIR'S ECONOMIC LEGACY 161-62 (Kuala Lumpur: Forum 2003).

¹¹³ *Id.* at 163-65.

¹¹⁴ Claudia Derichs, *Competing Politicians, Competing Visions: Mahathir Mohamad's Wawasan 2020 and Anwar Ibrahim's Asian Renaissance*, in MAHATHIR'S ADMINISTRATION: PERFORMANCE AND CRISIS IN GOVERNANCE 190-92 (Ho Khai Leong & James Chin eds., Singapore-Kuala Lumpur: Times 2001).

¹¹⁵ Felker & Jomo, *New Approaches to Investment Policy*, *supra* note 111, at 99.

Malaysia's relative openness to foreign investment in the manufacturing sector and in electronics manufacturing in particular must be contrasted with its much more restricted and regulated environment for domestic investments and for some industries other than the ones mentioned above. Here, the redistribution aims of the New Economic Policy and the National Development Plan and the regulations of the Industrial Coordination Act have been enforced more strictly. Sivalingam provides a list of laws that regulate businesses and provide consumer protection.¹¹⁶ These include the Price Control Act, the Control of Supplies Act, the Control of Paddy and Rice Act, the Rent Control Act, and the Electricity Act. In general, the supply and pricing of essential goods remain under the control of the government.¹¹⁷

The specific structure of the Malaysian economy and the aims of redistribution as enunciated in the New Economic Policy and the National Development Plan and implemented in the Industrial Coordination Act have so far prevented the enactment of general trade practices legislation. An exception here is the Multimedia and Communications Act 1998, which regulates the telecommunications industry.¹¹⁸ However, a comprehensive Trade Practices Bill, although already drafted, has been lingering in Ministries and committees for years. It provides among other things for a Trade Practices Commission, regulations for anti-competitive conduct, collusion, price fixing, and resale price maintenance, and for the regulation of mergers and acquisitions.¹¹⁹

Recent ethnic and political turmoil indicates that the social consensus about affirmative action policies in favour of Malays may be waning.¹²⁰ At the March 2008 election, the ruling Barisan Nasional (BN), a coalition of the main parties representing Malay, Chinese, and Indian interests respectively remained in power with 51% of the votes, but it lost its earlier two-thirds majority that allows for constitutional amendments.¹²¹ In concurrently held state elections, the opposition won in five of thirteen states.¹²² Statements hinting at abolition of aspects of the New Economic Policy by the election winners in opposition-governed states such as Penang have in turn triggered protests by Malays.¹²³ Splits in the United Malay National Organisation (UMNO), traditionally Malaysia's strongest party and the

¹¹⁶ G. SIVALINGAM, *COMPETITION POLICY IN THE ASEAN COUNTRIES* 104-05 (Singapore: Thomson Learning 2005).

¹¹⁷ *Id.* at 73-74.

¹¹⁸ *Id.* at 74.

¹¹⁹ *Id.* at 76.

¹²⁰ Robin Brant, *Malaysia's Lingering Ethnic Divide*, BBC NEWS, Mar. 4, 2008, <http://news.bbc.co.uk/1/hi/world/asia-pacific/7121534.stm>; Thomas Fuller, *Ethnic Anger on the Rise in Malaysia*, INT'L HERALD TRIB., Jan. 30, 2008.

¹²¹ *Political Tsunami*, ECONOMIST.COM, Mar. 10, 2008; Thomas Fuller, *Malaysian Opposition's Gains Signal era of Change*, INT'L HERALD TRIB., Mar. 9, 2008.

¹²² *Election Setback for Malaysia PM*, BBC NEWS, Mar. 8, 2008, available at <http://news.bbc.co.uk/2/hi/asia-pacific/7284682.stm>.

¹²³ Thomas Fuller, *Privileged Status at Risk, Malays Protest after Election Losses*, N.Y. TIMES, Mar. 15, 2008.

Malay component of the BN, appeared shortly after the elections.¹²⁴ Investors reacted nervously to the political turmoil, with the Kuala Lumpur Stock Exchange diving by more than 10% in the immediate aftermath of the election.¹²⁵ Furthermore, as many of its neighbouring countries, Malaysia is currently battling rising inflation and food and petrol prices. A decision in June 2008 to cut fuel subsidies led to a 41% increase in the price of fuel and to street demonstrations in Kuala Lumpur.¹²⁶

2.2. Who Holds the IP?

All registration-based parts of the Malaysian IP system show a majority of foreign right holders. As may be expected, the gap between local and foreign IP holders is most pronounced in the field of patents, where 85,470 foreign applications were registered between January 1986 and April 2008 as compared to 5,642 domestic applications.¹²⁷ For patents granted during the same period, the contrast is even more striking. 1,074 patents were granted to Malaysians and 34,430 patents were granted to foreigners. While a persistently rising number of local applications from 206 in 2000 to 670 in 2007 is encouraging, the number of patents granted to Malaysians stagnated for many years between eighteen and thirty-seven per year, before it finally went up to 187 in 2006 and to 338 in 2007. MyIPO received 148 PCT applications between the introduction of the system in August 2006 and March 2008.

The difference between foreign and domestic IP ownership is not quite as dramatic for trademarks, but the 71,035 foreign trademark registrations between 2000 and March 2008 are more than twice as high as the 31,727 Malaysian trademark registrations.¹²⁸ Domestic registrations have seen a dramatic increase since 2000, when only 449 Malaysian-owned trademarks were registered, reaching 8,108 registrations in 2007. Foreign registrations have seen a similar, if slightly lower, increase and they reached 17,382 registrations in 2007.

Malaysian registrations are closest to those of foreign rights owners in the field of industrial designs. Out of a total of 7,254 designs registered between January 1999 and April 2008, 4,566 have been registered on behalf of foreigners as compared to 2,688 Malaysian-registered designs.¹²⁹ For geographical indications, registration is not compulsory but serves as *prima facie* evidence that a respective indication qualifies as geographical indication. Eleven applications for geographical indications, all for Malaysian products, were submitted between 2003 and April 2008, of which four have now been registered.¹³⁰

¹²⁴ Jed Yoong, *Mahathir Quits the United Malays National Organisation*, ASIA SENTINEL, May 19, 2008.

¹²⁵ *Malaysia's Market Gets Nervous*, ASIA SENTINEL, Mar. 10, 2008.

¹²⁶ Jed Yoong, *Malaysia Faces a Succession Crisis*, ASIA SENTINEL, June 15, 2008; Jed Yoong, *Malaysia Cuts Fuel Subsidy*, ASIA SENTINEL, June 4, 2008.

¹²⁷ Statistics are available on the website of MyIPO, <http://www.myipo.gov.my>.

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.*

2.3. Where Is the IP?

Registration within the various sections of the International Patent Classification Standards can be used as an indicator for the types of industries involved. Over the period of January 1988 to March 2008, Section C for Chemistry and Metallurgy recorded the highest number of patents (8,815), followed by Section H—Electricity (6,593), Section B—Performing Operations and Transporting (5,994), and Section A—Human Necessities (5,712).¹³¹ As far as the size of companies involved in private sector R&D is concerned, about 74.6% of the R&D expenditure in 2002 came from large companies with more than 2,000 employees.¹³²

The figures from a National Survey of Innovation for the period 2002 to 2004, published by the Malaysian Science and Technology Information Centre (MASTIC) at the Ministry of Science, Technology, and the Environment, confirm some of the figures above and provide some further information about the location and profile of innovative companies in the manufacturing sector in Malaysia. While 54% of companies in the manufacturing sector described themselves as innovative,¹³³ there was a heavy concentration in radio, television, and communications equipment; textiles; motor vehicles, trailers, and semi-trailers; medical, precision, and optical instruments; watches and clocks; recycling; and office, accounting, and computing machinery.¹³⁴ The most innovative firms were larger companies with 250 or more employees, followed by companies with 50-249 employees.¹³⁵ The vast majority of innovating companies (83%) were locally owned.¹³⁶ However, the innovation survey cannot be used for the identification of IP ownership. For both product and process innovation, it states in the definition of innovation that “the innovation (new or improved) must be new to a firm, but it does not have to be new to the sector or market. It does not matter if the innovation was originally developed by the firm or by other firms.”¹³⁷ If anything, a comparison of the survey data with registration figures shows that a fairly large percentage of companies in Malaysia perceive themselves as being innovative, but that this does not necessarily lead to the establishment of IP ownership.

¹³¹ *Id.*

¹³² MALAYSIAN SCIENCE AND TECHNOLOGY INFORMATION CENTRE (MASTIC), MINISTRY OF SCIENCE, TECHNOLOGY AND INFORMATION (MOSTI), MALAYSIAN SCIENCE AND TECHNOLOGY INDICATORS: 2004 REPORT 68-69 (2004), available at <http://www.mastic.gov.my> [hereinafter MASTIC 2004 REPORT].

¹³³ MASTIC, NATIONAL SURVEY OF INNOVATION 2002-2004 11 (Putrajaya 2006) [hereinafter MASTIC 2006 SURVEY].

¹³⁴ *Id.* at 12.

¹³⁵ *Id.* at 13.

¹³⁶ *Id.* at 21.

¹³⁷ *Id.* at 7.

2.4. Exploitation of IP

With the exception of the Industrial Designs Act, all other parts of the IP legislation provide separate provisions or chapters on licensing. Copyright licence agreements must be in writing and there are detailed provisions for licensing schemes of collecting societies, which will be referred to the Copyright Tribunal in cases of disputes. Trademark licensees must be registered under Part IX of the Trade Marks Act as registered users. Licence contracts for patents must be in writing and can also be applied for through the Registrar, where the licensor has applied for an entry to the effect that any person may obtain a licence.¹³⁸ Licensing agreements for layout-designs of integrated circuits must also be in writing.

While the IP legislation does not make provisions for the assessment by the authorities of the licensed technology or the advantages or disadvantages of the licensing agreement, such an assessment will come into play in the case of technology transfer agreements in the manufacturing sector. Thus, where the licensing of patents and trademarks is part of a technology transfer package and is for the manufacture of a certain product for a certain royalty, the agreement will come under the Industrial Coordination Act 1975. According to Section 4(3) of the Act, the Ministry of International Trade and Industry (MITI) will assess the proposed agreement as to whether it is unfair or the local licensee is required to pay an excessive amount of royalties. This is a discretionary decision and, as Darryl Goon has pointed out, it is ultimately “unclear what constitutes ‘unfairness’ or what amounts to ‘excessive’ royalty.”¹³⁹ Aspects MITI will look at to assess a package are the relative newness of the technology, the form and duration of the agreement and the royalty payments, training components for Malaysians, freedom to sell the products in Malaysia and abroad, and application of Malaysian law and arbitration rules. Approvals are usually given for an initial period of five years.¹⁴⁰

The 2004 MASTIC report expressed concern about Malaysia’s widening deficit in royalties. Whereas payment of royalties increased at an average rate of 17.4% between 1992 and 2002, royalty receipt over the same period only increased by 0.1%. In 2002, the United States was the main recipient of Malaysian royalties, receiving 43% of the royalties, followed by Japan, the United Kingdom, Singapore, and Switzerland. *Vice versa*, the United States, the United Kingdom, Singapore, and Japan were also the largest source countries of royalties for Malaysians.¹⁴¹

3. Educational Infrastructure

In comparison to neighbouring Asian countries and, indeed, even by OECD standards, Malaysia has invested heavily in education over the last few decades. In 1995, the Malaysian government spent 5.2% of GDP on education, the second-highest

¹³⁸ Goon, *supra* note 23, at 331.

¹³⁹ *Id.* at 332.

¹⁴⁰ *Id.* at 333.

¹⁴¹ MASTIC 2004 REPORT, *supra* note 132, at 98, 100.

figure in a group of selected East and Southeast Asian countries after Taiwan.¹⁴² In 2004, public expenditure on education as a percentage of GDP had risen to 6.2%, or 25.2% of total government expenditure.¹⁴³ Literacy rates stand at 96% and 90.6% for males and females respectively over fifteen years of age, but at 98.1% and 98% respectively for the population group between fifteen and twenty-four years of age.¹⁴⁴ Primary, secondary, and tertiary enrollment in 2002 stood at 95%, 66%, and 28% respectively.

However, it is important to understand Malaysia's educational policies against the background of its ethnic composition and language policies. The British had encouraged migration of workers from China and India to work in the tin mines and on the rubber plantations of the British colonies and protectorates.¹⁴⁵ Waves of migration over time created Malaysia's multiethnic society, in which 62% of the population belong to the Malay majority and 27% and 8% to the Chinese and Indian minorities respectively, with a further 3% of other ethnic groups.¹⁴⁶ During British colonial rule, public English language education was preserved for the aristocratic Malay elite destined for administrative positions, whereas the Chinese and Indian minorities had to rely on missionary- or community-financed schools and similar private institutions.¹⁴⁷ In addition to the English language schools, each community, sometimes with the assistance and under the supervision of the government, maintained schools teaching in Malay, Mandarin, or Tamil.¹⁴⁸ With the arrival of independence, Malaysia inherited a social structure in which Malays held positions in government service or were farmers, Chinese dominated the small and medium-sized businesses and also played a role in the technical and professional services, and Indians were plantation workers or in professions such as medicine and law.¹⁴⁹ Independence brought a Constitution, which guaranteed Malay privileges in higher education, government employment, and certain occupations.¹⁵⁰ Malay became the national language in 1967, after enjoying equal status with English for ten years.¹⁵¹

¹⁴² See A. Booth, *Education and Economic Development in Southeast Asia: Myths and Realities*, in SOUTHEAST ASIAN PAPER TIGERS, *supra* note 110, at 175 tbl.5.1.

¹⁴³ UNESCO Institute for Statistics, *UIS Statistics in Brief: Education in Malaysia*, http://www.uis.unesco.org/profiles/EN/EDU/countryProfile_en.aspx?code=4580.

¹⁴⁴ *Id.*

¹⁴⁵ Sumit Ganguly, *Ethnic Policies and Political Quiescence in Malaysia and Singapore*, in GOVERNMENT POLICIES AND ETHNIC RELATIONS IN ASIA AND THE PACIFIC 238-39 (Michael E. Brown & Sumit Ganguly eds., Cambridge, Mass. & London: MIT Press 1997).

¹⁴⁶ *Id.* at 234 tbl.6.1.

¹⁴⁷ *Id.* at 239-43; Donald R. Snodgrass, *Education in Korea and Malaysia*, in BEHIND EAST ASIAN GROWTH: THE POLITICAL AND SOCIAL FOUNDATIONS OF PROSPERITY 175 (Henry S. Rowen ed., London & New York: Routledge 1998).

¹⁴⁸ NAT'L OFFICE OF OVERSEAS SKILLS RECOGNITION, DEP'T OF EMPLOYMENT, EDUC. & TRAINING, COUNTRY'S EDUCATION PROFILES: MALAYSIA—A COMPARATIVE STUDY 2-3 (Canberra: Commonwealth of Australia, 2d ed. 1996).

¹⁴⁹ Ganguly, *supra* note 145, at 241 n.22; Snodgrass, *supra* note 147, at 174-75.

¹⁵⁰ Ganguly, *supra* note 145, at 245-46.

¹⁵¹ *Id.* at 246; Snodgrass, *supra* note 147, at 175; LEON COMBER, 13 MAY 1969: A HISTORICAL SURVEY OF SINO-MALAY RELATIONS 49-50 (Singapore: Graham Brash 1983).

Racial tensions over persistent income inequalities and the language issue erupted in riots and inter-ethnic violence following the election of 1969. The riots led to the adoption of the New Economic Policy (NEP) by the government. The NEP was essentially an affirmative action program favouring the Malay population. It was designed to overcome the identification of race with occupation and to alleviate poverty.¹⁵² Consequences of the NEP for education were the promotion of Malay at the expense of English in the school and university curriculum and a preferential quota system for Malays in higher education. The latter has led to an exodus of non-Malay students to pursue their studies overseas and to the establishment of many campuses and branches of foreign institutions in Malaysia, usually under cooperation agreements with local institutions.¹⁵³

The NEP was replaced in 1990 with the National Development Plan (NDP), which essentially continued the affirmative action program in favour of the Malay majority population, although it also emphasised skills shortages in the education sector.¹⁵⁴ English as a language of university instruction in the public universities made a comeback in 1993, when the Prime Minister announced that English could be used for the teaching of science, technology, and medicine.¹⁵⁵ After a longer debate about the issue,¹⁵⁶ affirmative action policies in favour of the Malay population were reaffirmed in 2006 in the Ninth Malaysia Plan.¹⁵⁷ According to government statistics, Malays currently hold 77% of all government jobs.¹⁵⁸ Attempts to lure Malaysian scientists working overseas back to Malaysia under a Returning Scientists Programme have been unsuccessful, because of poor working conditions.¹⁵⁹

Besides Malay language education, Chinese and Tamil language education is available at primary school level and Chinese language education is also offered at the secondary school level, although it does not allow for immediate admission into the tertiary system.¹⁶⁰ There are technical and vocational secondary schools and postsecondary technical and vocational institutions of both public and private nature. Particularly important are the MARA vocational institutes and the Univer-

¹⁵² Ganguly, *supra* note 145, at 256.

¹⁵³ Snodgrass, *supra* note 147, at 175-76; Marika Vicziany & Marlia Puteh, *Vision 2020, The Multimedia Supercorridor and Malaysian Universities*, in ASIA EXAMINED: PROCEEDINGS OF THE 15TH BIENNIAL CONFERENCE OF THE ASAA, 2004, CANBERRA, AUSTRALIA 14 (Robert Cribb ed. 2004), available at coombs.anu.edu.au/SpecialProj/ASAA/biennial-conference/2004/Vicziany+Puteh-ASAA2004.pdf.

¹⁵⁴ Snodgrass, *supra* note 147, at 177.

¹⁵⁵ Ganguly, *supra* note 145, at 258.

¹⁵⁶ Edmund Terence Gomez, *The Perils of Pro-Malay Policies*, 168 FAR EASTERN ECON. REV. 36-39 (Sept. 2005).

¹⁵⁷ Colum Murphy, *Abdullah's Imperfect Plan*, 169 FAR EASTERN ECON. REV. 22 (July/Aug. 2006).

¹⁵⁸ Thomas Fuller, *A Cleaner Malaysia Holds Serious Political Risks*, INT'L HERALD TRIB., May 3, 2006.

¹⁵⁹ Deborah Loh, *Malaysian Scientists: Working Conditions Drive Them Away*, NEW STRAITS TIMES, Oct. 31, 2006.

¹⁶⁰ NAT'L OFFICE OF OVERSEAS SKILLS RECOGNITION, *supra* note 148, at 6-7, 9-10.

sity of Technology MARA,¹⁶¹ which were founded especially to further the education of indigenous Malay students. Technical and vocational diplomas provide further access to the Polytechnics or to Tunku Abdul Rahman College, which is generally recognised as a private institution and provides English language education.¹⁶² Finally, there is a fairly large number of private institutions and institutions supervised by other government departments, such as the Ministry of Health.¹⁶³

Statistics indicate that both Science and Technology and Social Sciences and Humanities are recording higher enrollments and graduation figures, but that Social Sciences and Humanities together are still the most popular subjects among Malaysian students enrolled in public institutions. In the academic year 2001-2002 for example, 30.3% of first degree enrollments in public institutions were in the Social Sciences, followed by 20.3% in Engineering and Technology and 17.5% in the Humanities. IT and Computer Science accounted for 9.5%, Natural Sciences for 5.8%, and Medical and Agricultural Sciences for 4.2% and 2.5% of enrollments respectively.¹⁶⁴ These figures are reflected in the number of graduates over the same period, with 57.2% graduating in the Social Sciences and Humanities and 37.2% in Engineering and Technology, Agricultural, Medical and Natural Sciences and in IT and Computer Science.¹⁶⁵ At the postgraduate level, 56.3% of students in public educational institutions graduated with a Masters Degree in humanities-related subjects and 43.8% in technical and science subjects.¹⁶⁶ In new enrollments for Doctoral Degrees at public universities, science and technology subjects made up slightly over 50%.¹⁶⁷ Because of their more specialised nature, private institutions show a much higher percentage of enrollments in science and technology subjects, which represented 92.5% of their total enrollments in 2002.¹⁶⁸

4. Scientific Infrastructure

4.1. Locations for R&D

In comparison to some of the other countries in the region, Malaysia developed a national technology policy and the elements of a national innovation system fairly early. As early as 1975, the National Council for Scientific Research and Development was created.¹⁶⁹ With the first Industrial Master Plan of 1986-1995, the Intensification of Research in Priority Areas (IRPA) program followed, which tied

¹⁶¹ MARA stands for *Majlis Amanah Rakyat* (Council of Trusteeship for the People).

¹⁶² NAT'L OFFICE OF OVERSEAS SKILLS RECOGNITION, *supra* note 148, at 13-15.

¹⁶³ *Id.* at 15-18.

¹⁶⁴ MASTIC 2004 REPORT, *supra* note 132, at 19 fig.3.4.

¹⁶⁵ *Id.* at 21 fig.3.7.

¹⁶⁶ *Id.* at 23 fig.3.10.

¹⁶⁷ *Id.* at 24 fig.3.12.

¹⁶⁸ *Id.* at 26.

¹⁶⁹ Greg Felker & Jomo K.S., *Technology Policy in Malaysia* [hereinafter Felker & Jomo, *Technology Policy in Malaysia*], in MALAYSIAN INDUSTRIAL POLICY 136 (Jomo K.S. ed., Singapore: NUS Press 2007).

research funding to identified priority areas.¹⁷⁰ While this public fund had a steadily growing budget, the weak linkages of the national research planning efforts to the private sector were increasingly recognised as problematic. The 1990 National Action Plan for Industrial Technology Development (APITD) recommended a shifting of the balance of public and private R&D spending from 80:20 to 40:60. The Malaysian Technology Development Corporation (MTDC) was a further initiative to strengthen the role of private sector R&D. Initially, MTDC's primary aim was to provide capital for companies that were interested in commercialising public sector research.

In addition, MTDC also increasingly financed existing technology companies.¹⁷¹ Apart from this, the government relied on tax incentives, the Industrial Technology Assistance Funds (ITAF) encouraging R&D in small and medium-sized enterprises, science and technology parks, and Khazanah Holdings, an investment firm backed by the Ministry of Finance for the funding of strategic projects. Many new supporting schemes have been introduced over the last few years,¹⁷² focusing for example on technology acquisition by women entrepreneurs, incentives for adoption of information and communication technology by small and medium-sized enterprises, the introduction of Internet-based common messaging standards for global supply chain management, and engineering design capabilities for SMEs.¹⁷³ Much discussed are Malaysia's Multimedia Super Corridor, established in 1996; the 2003 launch of the Biovalley project; and the design of a National Biotechnology Policy in 2005 to boost the biotechnology sector.¹⁷⁴

In general, government support schemes have received a mixed response. This is indicated in the Malaysian Science and Technology Information Centre (MASTIC) report on Malaysia's science and technology indicators of 2004, although the report cautions that precise data is difficult to come by and the conclusions from the report have to be interpreted in this light.¹⁷⁵ Nevertheless, falling numbers were registered, for example, for the Technology Acquisition Fund (TAF) and for the Multimedia Super Corridor (MSC) Research and Development Grant Scheme (MGS), which is administered by the Multimedia Development Corporation (MDC).¹⁷⁶ On the other hand, the tax incentive scheme has become increasingly popular, in particular with the semiconductor and the automotive parts

¹⁷⁰ Greg Felker, *Technology Policy and Innovation Systems in Southeast Asia*, in SOUTHEAST ASIAN PAPER TIGERS, *supra* note 110, at 142; Felker & Jomo, *Technology Policy in Malaysia*, *supra* note 169, at 136-37.

¹⁷¹ Felker, *supra* note 170, at 150; Felker & Jomo, *Technology Policy in Malaysia*, *supra* note 169, at 142.

¹⁷² MASTIC 2004 REPORT, *supra* note 132, at ch. 10.

¹⁷³ *Id.* at 150-52.

¹⁷⁴ James Nurton & Laura Ho, *Your IP Guide Through the Corridor*, MANAGING INTELL. PROP., May 2007, at 57; Timothy Siaw, *Malaysia Realizes Biotechnology Potential*, MANAGING INTELL. PROP., May 2007, at 90-92; *Low Salaries Clouding Malaysia Biotech Plan*, INT'L HERALD TRIB., Nov. 14, 2006. For a detailed analysis of both projects, see Felker & Jomo, *Technology Policy in Malaysia*, *supra* note 169, at 144-47.

¹⁷⁵ MASTIC 2004 REPORT, *supra* note 132, at 150.

¹⁷⁶ *Id.* at 152-56, 162-64.

industry.¹⁷⁷ Rising numbers of applications and grants are also registered in the Industrial Technical Assistance Funds, which is particularly utilised by small and medium-sized enterprises. High numbers of approvals and assistance were concentrated in industries such as machinery and engineering, transport equipment, electrical and electronics, plastic products, chemical products, and food manufacturing.¹⁷⁸

In sum, the government has achieved a shift of the R&D activities to the private sector in accordance with the percentage aimed at in the National Action Plan of 1990. In fact, according to the 2006 Report on the National Survey of Research and Development of MASTIC, 71.2% of the total R&D funding in Malaysia now comes from the private sector.¹⁷⁹ On the public side, the expenditure is shared between government research institutes and institutes of higher learning. Between 1996 and 2004, the share of private sector expenditure increased by 24.5%.¹⁸⁰ In line with the emphasis on private sector research, there has been a shift away from basic research to applied research and experimental work. In 2004, applied research was accounting for 55.4% of the nation's overall research expenditure, experimental research for 28.5%, and basic research for 16.1%.¹⁸¹ Analysts have pointed out, however, that Malaysia's innovation and technology development policy continues to suffer from a mismatch between strategic state intervention and strong reliance on foreign direct investment.¹⁸²

4.2. Industries Involved in R&D

Private and public R&D takes place in different fields of research. The priority areas for the private sector over the last few years were engineering sciences, information, computer and communication technology, and applied science and technologies, which together accounted for 84% of private sector R&D expenditure. Government research institutes focused in addition on agricultural sciences and chemical sciences. In fact, as is usual in many developing countries, research in agricultural sciences is a strong priority for government research and accounts for 26.7% of this sector. Institutes of higher learning focused on diverse fields of research, which in addition to engineering, applied sciences, and information and computer technology, also included biological sciences and medical and health sciences.¹⁸³ In 2004, manufacturing was the main objective for the private sector R&D, and natural sciences, technology, and engineering were on top of the priority

¹⁷⁷ *Id.* at 12, 156-58.

¹⁷⁸ *Id.* at 159-60.

¹⁷⁹ MASTIC, 2006 REPORT ON THE NATIONAL SURVEY OF RESEARCH & DEVELOPMENT 59 (2006) [hereinafter MASTIC 2006 REPORT].

¹⁸⁰ *Id.* at 8.

¹⁸¹ *Id.* at 18.

¹⁸² Greg Felker, *Malaysia's Innovation System: Actors, Interests and Governance*, in *TECHNOLOGY, COMPETITIVENESS AND THE STATE: MALAYSIA'S INDUSTRIAL TECHNOLOGY POLICIES* 136-37 (Jomo K.S. & Greg Felker eds., London & New York: Routledge 1999).

¹⁸³ MASTIC 2006 REPORT, *supra* note 179, at 40.

scale for institutes of higher learning; meanwhile, government research institutes focused especially on plant production and plant primary products.¹⁸⁴ Particularly innovative industries within the manufacturing sector were radio, television, and communications equipment, textiles, and motor vehicles, trailers, and semi trailers.¹⁸⁵ Apart from manufacturing, the second-highest expansion of overall R&D expenditures and activities took place in the information and communication services sector.¹⁸⁶

Outsourcing of R&D activities overseas was high in 2002, especially in the private sector, where as much as 78.7% of private sector R&D expenditure was outsourced overseas.¹⁸⁷ The main beneficiaries of this development at the time were India and the United States, which together received 98.02% of the outsourced expenditures.¹⁸⁸ However, there was a dramatic decline by 89.2% between 2002 and 2004, from 305.9 million ringgit outsourced in 2002 to 32.9 million ringgit outsourced in 2004. 39.4% of this amount was outsourced inside Malaysia and 60.6% outside of Malaysia. The 2006 MASTIC report sees a positive trend here towards utilisation of local R&D expertise.¹⁸⁹

4.3. Commercialisation of IP

As explained earlier, government schemes since the 1990s have supported a substantial shift of R&D activities from the public to the private sector. A further goal of many schemes is to create linkages between private and public R&D and to encourage public institutions to commercialise their research outcomes. One of these schemes is the Commercialisation of R&D Fund (CRDF). MASTIC, in its 2004 Report on Malaysia Science and Technology Indicators, has registered a dramatic decline in applications under this fund from ninety-nine in the period 1999-2000 to seventeen in the 2001-2002 period. Ten of these seventeen applications were approved.¹⁹⁰

Public institutions are also allowed to participate in the Demonstrator Application Grant Scheme (DAGS) to promote the development of software and content industries. As in the CRDF, the number of applications and grants in this scheme fell over the period 2000-2002 with public institutions receiving three grants in 2002 as compared to seven grants made to private industry.¹⁹¹ Yet another very important scheme for the university and public research sector is the Intensification of Research in Priority Areas Program (IRPA). This scheme has seen a substantial increase in interest and in the amounts that were finally approved.¹⁹² In 2004, insti-

¹⁸⁴ *Id.* at 33.

¹⁸⁵ MASTIC 2006 SURVEY, *supra* note 133, at 12.

¹⁸⁶ MASTIC 2006 REPORT, *supra* note 179, at 18.

¹⁸⁷ MASTIC 2004 REPORT, *supra* note 132, at 65.

¹⁸⁸ *Id.* at 68 fig.5.11.

¹⁸⁹ MASTIC 2006 REPORT, *supra* note 179, at 20.

¹⁹⁰ MASTIC 2004 REPORT, *supra* note 132, at 156.

¹⁹¹ *Id.* at 161-62 figs.10.10, 10.11.

¹⁹² *Id.* at 167-170.

tutes of higher learning resourced 55.4% of their total expenditure from IRPA funds.¹⁹³

One potential obstacle to greater commercialisation has been identified as lying with the general classification of inventions made in universities or research institutes as “inventions made by an employee” and the unclear division of royalties between the government, research institutes, and individual inventors.¹⁹⁴ The National Intellectual Property Policy (NIPP), with its aim of fostering cooperation and smart partnership between the government and the private sectors and between research institutions and industries,¹⁹⁵ may improve these matters. Further grant schemes and incentives can be expected in view of the substantial fund created to support the NIPP and in view of the policy’s promise to create a “conducive environment that provides incentives, grants, finance management, business transaction and dispute settlement.”¹⁹⁶ In its 2008 budget, the government allocated 12 billion ringgit (US\$3.5 billion) for R&D and commercialisation of science and technology in universities.¹⁹⁷

Conclusion

Malaysia has recorded impressive growth rates over the last few decades and has established itself as a successful exporter of high-technology products. However, much of this output has come from a limited number of multinational corporations operating in Malaysia’s Free Trade Zones. Economists have continuously pointed out that these multinational production facilities are not linked very well to Malaysian supply chains and to the many Small and Medium Enterprises operating outside of these industrial enclaves.¹⁹⁸ And while the efforts of Malaysia in the educational sector are impressive and the number of local researchers is rising, development of IP by Malaysians is still limited and IP rights awarded to foreigners currently still outnumber grants to Malaysians in the registration-based areas of IP law.

Nevertheless, the developments of the past few years indicate that Malaysia is making a serious commitment to achieve high standards of IP protection. A National Intellectual Property Policy (NIPP) includes targets and strategies to achieve this aim, and very substantial funds have been committed to support the NIPP strategies.

Malaysia’s IP legislation is derived from British models and is in conformity with the international conventions the country has acceded to. However, Malaysia is a relative latecomer in the international IP arena, with most of its agreements

¹⁹³ MASTIC 2006 REPORT, *supra* note 179, at 41.

¹⁹⁴ P. Mirandah, *Malaysia Contemplates Intellectual Property (IP) Rights Sharing*, [http://www.mirandah.com/Malaysia_Contemplates_Intellectual_Property_\(IP\)_Rights_Sharing.aspx](http://www.mirandah.com/Malaysia_Contemplates_Intellectual_Property_(IP)_Rights_Sharing.aspx).

¹⁹⁵ See 5.2vi) of the NIPP.

¹⁹⁶ See 5.2iii) of the NIPP.

¹⁹⁷ Ella Syafputri, *Malaysia Boosts University R&D*, <http://www.scidev.net>, Sept. 24, 2007.

¹⁹⁸ Jomo K.S., *Industrialization and Industrial Policy in Malaysia*, in MALAYSIAN INDUSTRIAL POLICY, *supra* note 169, at 26.

concluded in the late 1980s and early 1990s. It has shown a cautious attitude towards further international commitments, although it recently joined the Patent Cooperation Treaty and it is under pressure to join the WCT and the WPPT. While some problems remain, the Malaysian authorities have in general been commended for their enforcement efforts over the past few years. To relieve an overburdened court system that was too slow in processing the increasing number of cases, specialised IP courts were introduced in 2007 at both Sessions Court and High Court levels.

Following ethnic riots in the late 1960s, Malaysia has also embarked on a unique program to redistribute economic opportunities among the country's various ethnic groups. Until recently, this has helped to safeguard the political stability of the country, but it has been criticised by economists as economically wasteful and inefficient and by non-Malay communities as discriminatory. Recent ethnic unrest shows that the consensus on this issue may be waning. However, in spite of tough competition from other low-cost producers such as China and Vietnam, the recently adopted Ninth Malaysia Plan will continue affirmative action and redistribution programs to reach a Malay share of corporate equity ownership of 30% by 2020.¹⁹⁹ In comparison to some of its competitors, Malaysia is well endowed with natural resources and has to provide for only a relatively small population. Its English language and legal tradition is also a major asset. Nevertheless, the country has to overcome its current political turmoil and continue to find the right strategies in a much more difficult economic environment if it wants to achieve the persistently high growth rates necessary to realise former Prime Minister Mahathir's vision of developed country status by the year 2020.

¹⁹⁹ Murphy, *supra* note 157, at 19-23.

The Philippines

Ferdinand M. Negre, Jonathan Q. Perez

Introduction	199
1. Legal Infrastructure	200
1.1. IP History	200
1.2. International IP Obligations	202
1.3. Current IP Laws	203
1.3.1. Patents, Utility Models, and Designs	204
1.3.2. Trademark	206
1.3.3. Copyright	207
1.3.4. Plant Varieties	208
1.3.5. Pharmaceuticals	209
1.3.6. Technology Transfer Agreements	210
1.4. IP Lawmaking	210
1.5. IP Enforcement	211
1.5.1. Judicial Infrastructure	212
1.5.2. Administrative Infrastructure	213
1.5.3. Enforcement Reality	214
1.6. Legal Culture	215
2. Political Infrastructure	217
3. Economic Infrastructure	218
3.1. Overview	218
3.2. Foreign and Domestic Investment	219
3.3. Foreign Trade	221
3.4. Major Industries	222
4. Educational and Informational Infrastructure	223
4.1. Education System	223
4.2. Informational Infrastructure	225
4.3. IP Education	225
5. Scientific Infrastructure	226
Conclusion	229

Introduction

The advent of a borderless trade regime has spawned the need to reassess intellectual property as an international trade and policy concern in practically all jurisdictions, with the Philippines being no different from others. When the Philippines acceded to the WTO,¹ it was faced with a myriad of challenges. The WTO demands, among other things, the strengthening of IP protection. For a country like the Philippines, which is currently mired in economic and political uncertainties, attaining a formidable IP rights regime is a tall order.

The recurrent inclusion of the Philippines on the USTR Special 301 Priority Watch List² is a strong indication that there is still much to be done in terms of IP

¹ In December 1994, the Philippine Senate ratified the Marrakesh Agreement Establishing the World Trade Organization. Thus, the Philippines became a founding Member of the WTO as the Agreement entered into force on January 1, 1995. The event signaled a conscious policy decision on the part of the Philippine government to pursue further trade liberalization and embodied a firm policy objective of becoming more closely integrated with the multilateral trading system.

protection. In recent years, the Philippines had more than doubled its efforts to convince the USTR to remove it from the list. For a while, its continuous inclusion in the Priority Watch List³ yielded negative repercussions on the standing and reputation of the Philippines in the international trade community. In an unprecedented move, however, the Intellectual Property Office of the Philippines (IPO) requested an out-of-cycle review of its Priority Watch List inclusion by the USTR, and on February 15, 2006, the USTR removed the Philippines from the Priority Watch List and moved it to the ordinary Watch List. On April 28, 2006, the USTR affirmed its findings in the regular review under Special 301.⁴ The Philippines stayed on the ordinary Watch List in 2007. For 2008, the Philippines maintained its standing in the USTR Special 301 Report. This is the third year that the Philippines has been on the ordinary Watch List.⁵

The prevailing political, socio-economic, and cultural milieu in which the Philippines is situated provides insight into the direction IP rights in the Philippines will likely take in the coming years. The recent passage of the Universally Accessible, Cheaper and Quality Medicines Act of 2008, which brings affordable and quality medicines within reach of the people, is a sign of better things to come in terms of the government's effort to utilize IP legislation as a tool for socio-economic advancement.⁶

1. Legal Infrastructure

1.1. IP History

At present, legal development in the Philippines is dynamic, albeit reactive in most instances. It is mainly fostered by current socio-political concerns, but at times it is motivated by international demands. This is how current IP laws have evolved.

² The Special 301 provisions of the Trade Act of 1974, as amended, require the USTR to identify foreign countries that deny adequate and effective protection of intellectual property rights or fair or equitable market access for U.S. persons that rely on intellectual property protection. Special 301 was amended in the 1994 Uruguay Round Agreements Act to clarify that a country can be found to deny adequate and effective intellectual property protection even if it is in compliance with its obligations under the TRIPS Agreement.

³ The Philippines has been included on the USTR Special 301 Report Priority Watch List in 2003, 2004, and 2005.

⁴ Government of the Republic of the Philippines, *Strengthening the IP System: the Campaign Against Piracy and Counterfeiting in the Philippines (2005-2006)*, at 3, available at http://www.ipophil.gov.ph/ipenforcement/IPRCampaign2005-2006_Updated15March2007.pdf [hereinafter *Strengthening the IP System*].

⁵ IP Philippines, *RP Status Quo on USTR Watch List*, Apr. 25, 2008, available at <http://www.ipophil.gov.ph>.

⁶ This piece of legislation was signed into law on June 6, 2008. It implements paragraph 4 of the Doha Declaration on the TRIPS Agreement where it says, "We affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO members' right to protect public health and, in particular, to promote access to medicines for all," and "We reaffirm the right of WTO members to use, to the full, the provisions in the TRIPS Agreement, which provide flexibility for this purpose." See <http://www.wto.org>.

Historical accounts during the Spanish occupation suggest the existence of a patent regulation system in the Philippines prior to 1862.⁷ It is not known, however, when the Spanish patent law, promulgated on March 27, 1826, was first adopted and administered in the Philippines. Several royal decrees paved the way for the amendment of the laws of the Spanish colonies to place questions on patents under the jurisdiction of ordinary tribunals in the colonies.⁸ During the Spanish period, all patent applications of Philippine residents had to be sent to Spain for examination and grant.

On December 10, 1898, Spain ceded the Philippines to the United States via the Treaty of Paris, ending more than three centuries of Spanish colonization and ushering in a new colonial order under the Americans. Under Article 13 of the Treaty of Paris, patents, trademarks, and copyrights that were granted by the Spanish government continued to have legal effect in the Philippine Islands.⁹ After the Treaty of Paris took effect, patent applications emanating from the Philippines were filed with the U.S. Patent Office.¹⁰ On February 10, 1913, the Philippine Legislature passed Act No. 2235, which made U.S. patent laws applicable in the Philippine Islands.¹¹

Intellectual property has been well entrenched in Philippine law since the American occupation.¹² Act No. 3134, otherwise known as An Act to Protect Intellectual Property, was adopted in 1924. This law provided the legal framework for IP protection in the Philippines after it gained political independence in 1946.

Two laws protecting patents¹³ and trademarks¹⁴ were enacted in 1947. Through the years, additional laws were enacted and issuances promulgated to further promote and protect IP rights.¹⁵

More recently, the Philippine government has made it a state policy to protect and promote IP rights. This policy was enshrined both in the 1973 Constitution,

⁷ IGNACIO S. SAPALO, BACKGROUND READING MATERIAL ON THE INTELLECTUAL PROPERTY SYSTEM OF THE PHILIPPINES 2 (1994) (quoting Cecilia D. Tadle, *The Organization and Management of the Philippine Patent Office* (unpublished paper, University of the Philippines)).

⁸ *Id.*

⁹ *Id.*; see also *Gsell v. Yap-Jue*, No. 1816, 6 PHIL. REP. 143 (Jan. 19, 1909).

¹⁰ SAPALO, *supra* note 7.

¹¹ *Id.*; see also *Vargas v. F.M. Yapticco & Co.*, No. 14101, 40 PHIL. REP. 195 (Sept. 24, 1919).

¹² The Philippines had been under the political tutelage of the United States for more than four decades (1898-1942). In 1898, Spain ceded its colonial rights over the Philippines to the United States via the Treaty of Paris. In 1946, the United States gave the Philippines complete political independence.

¹³ Republic Act No. 165, otherwise known as An Act Creating a Patent Office, Prescribing its Powers and Duties, Regulating the Issuance of Patents and Appropriating Funds Thereof.

¹⁴ Republic Act No. 166, otherwise known as An Act to Provide for the Registration and Protection of Trade Marks, Trade Names and Trade Names and Service Marks, Defining Unfair Competition and False Marking and Providing Remedies Against the Same, and for other Purposes.

¹⁵ For instance, Presidential Decree No. 49, otherwise known as the Decree on the Protection of Intellectual Property, was enacted in 1972. It governed copyright works in the Philippines and effectively superseded Act No. 3134.

which provided that “the exclusive right to inventions, writings, and artistic creations shall be secured to inventors, authors, and artists for a limited period,” and in the 1987 Constitution, which explicitly mandates that the state shall protect intellectual property.

A turning point for the Philippines insofar as IP rights are concerned was gaining membership in WIPO in 1980. Thereafter, the Philippines became a signatory to a number of significant multinational agreements and treaties for the protection and promotion of IP rights. However, during the advent of GATT and the TRIPS Agreement in the 1990s, a re-assessment and overhaul of the IP regime in the Philippines became imperative. When the Philippines eventually became a member of the WTO, it had to contend with policy imperatives that included the formulation of comprehensive IP legislation conforming to the standards set forth in the TRIPS Agreement and by the WTO.

To this end, initiatives from both the executive and the legislative branches of government poured in and were eventually translated into legislation. After this circuitous legislative process, Republic Act No. 8293, otherwise known as the Intellectual Property Code of the Philippines (the “IP Code”), was enacted and signed into law on June 6, 1997. It took effect on January 1, 1998. Since then, the IP Code has become the cornerstone of IP protection in the Philippines, and other significant legislation relating to intellectual property has passed into law.

1.2. International IP Obligations

The Philippines has been a signatory to a number of significant political and economic treaties. In fact, the Philippines is one of the major players in ASEAN¹⁶ and an active member of the influential APEC.¹⁷ Its adherence to GATT along with its eventual membership in the WTO has brought the Philippines into the mainstream of the world economy.

The Philippines has also acceded to a number of treaties and acquired membership status in various international agreements/organizations dealing with intellectual property. The conventions in which the Philippines is a signatory are: (a) the Berne Convention (since August 1951); (b) the UCC (since August 1955); (c) the Paris Convention (since September 1965); (d) the WIPO Convention (since July 1980); and (e) the Rome Convention (since September 1984). Also, the Philippines has acceded to the following treaties: (a) the Budapest Treaty (since October 1981); (b) the WPPT (since January 1995); (c) the PCT (since August 2001); and (d) the WCT (since October 2002).

At present, the Philippines is moving towards more involvement in regional and international economic affairs. With a Filipino secretary general, Rodolfo Severino, Jr., taking the helm of the ASEAN for the first time in 1998, the Philippines spear-headed the campaign for trade liberalization and economic integration. ASEAN initiatives include, among others, the acceleration of the establishment of the

¹⁶ Member since August 1967.

¹⁷ Member since November 1989.

ASEAN Free Trade Area (AFTA) and the ASEAN Investment Area (AIA). The Philippines is currently involved in initiatives for the establishment of regional cooperation on intellectual property among ASEAN members.¹⁸

Significantly, the Philippines, through then-Department of Trade and Industry Secretary (now Senator) Manuel Roxas, played an active role in the Doha Meeting of the WTO that led to the Doha Declaration on the TRIPS Agreement. The Doha Declaration allowed each member to establish its own regime for exhaustion of IP rights without challenges, paving the way for a policy of “international exhaustion” to be passed in the Universally Accessible, Cheaper and Quality Medicines Act of 2008, also authored principally by Senator Roxas. This law allows the public, particularly those situated below the poverty line, to have access to affordable, yet quality, medicines.

1.3. Current IP Laws

The foremost law that protects the major forms of intellectual property is Republic Act No. 8293, otherwise known as the IP Code. It covers patents, utility models, industrial design, copyright and related rights, trademarks, and unfair competition.

Other pertinent IP laws include:

- the Electronic Commerce Act, Republic Act No. 8792 (2000), which extends the legal framework established by the Intellectual Property Code to the Internet;
- the Act Providing for the Protection of Layout Designs (Topographies) of Integrated Circuits, Republic Act No. 9150 (2001);
- the Philippine Plant Variety Protection Act of 2002, Republic Act No. 9168 (2002), which provides *sui generis* protection to exclusive rights of plant breeders with respect to new plant varieties in compliance with TRIPS Article 27.3;
- the Optical Media Act, Republic Act No. 9239 (2003); and
- the Alternative Dispute Resolution Act, Republic Act No. 9285 (2004), which provides speedy redress for IP infringement.

Proof of IP ownership includes: (a) registration for patents, utility models, and designs with the Bureau of Patents; (b) registration for trademarks with the Bureau of Trademarks of the IPO; (c) registration for copyrights with the Copyright Office of the National Library; and (d) technology transfer agreements forged between IP holders and licensees.

Registration with the IPO for a patent or a trademark embodies the registrant’s claim as to what is inventive or distinctive, and thus protectable. For copyright, registrations with the National Library are not an accurate measure of the scope of the copyright. Nonetheless, the level of creativity in the entertainment, literary, and related arts and the corresponding recognition afforded to artists in various fields is a reasonable measure of the scope of copyright ownership.

¹⁸ On July 20-21, 2005, the Philippines hosted the Twenty-Fourth Meeting of the ASEAN Working Group on Intellectual Property Cooperation (AWGIPC).

1.3.1. Patents, Utility Models, and Designs

Patents are granted for inventions, utility models, and industrial designs. Patent protection extends to both product and process inventions. In general, patent holders have the right to exclude others from exploiting their patented inventions.¹⁹ For inventions included in products, patent protection covers the exclusive right to restrain, prohibit, and prevent any unauthorized manufacturing, use, sale, or importation of the patented product.²⁰ For inventions contained in processes, patent protection encompasses the exclusive right to restrain, prohibit, and prevent any unauthorized use of the process and any unauthorized manufacturing, use, sale, and importation of the product directly obtained through the process. Protection and enforcement of industrial designs and layout designs of integrated circuits is akin to that of patents under the IP Code.²¹

The term of invention patents is twenty years,²² utility model registration is effective for seven years,²³ and industrial design registration is good for five years,²⁴ all counting from the time of filing of the application.

The remedies available for patent holders in cases of infringement include civil action for injunction, damages and account of profits,²⁵ and criminal action for repetition of infringement.²⁶ Thus, patent infringement only entails civil liability upon the infringer in the first instance. It becomes a criminal offense when it is repeated by the infringer or by anyone in connivance with him after finality of the judgment of the court against the infringer.²⁷ Similar remedies are available for utility models and industrial designs.

The statistics below show the increasing success of foreign patent applicants in the last few years.²⁸ While the proportion of foreign (about 40%) to domestic (about 60%) patent applications has remained stable, the proportion of patents actually granted to foreign applicants has increased substantially, from 56.9% in 2003 to 72% in 2004 to 99% in 2005.

In 2003, the IPO received 2,082 patent applications, 797 (38.3%) of which were foreign applications and 1,285 (61.7%) of which were domestic applications. Of the 2,802 applications, 574 (27.6%) were for inventions, 498 (23.9%) were for utility models, and 1,010 (48.5%) were for industrial designs. For the same year, the IPO granted 3,890 patents, 2,214 (56.9%) of which were registered to foreign inventors, while 1676 (43.1%) were registered to domestic inventors. Of the 3,890 patents

¹⁹ Republic Act No. 8293, Sec. 71.

²⁰ Republic Act No. 9502 provides that with regard to drugs or medicines introduced into the market in the Philippines and anywhere else in the world by the patent owner, the right to import shall be available to any government agency or any third party.

²¹ Republic Act No. 9150, Sec. 119.

²² Republic Act No. 8293, Sec. 54.

²³ Renewable once for a total of fourteen years. Republic Act No. 8293, Sec. 109.3.

²⁴ Renewable twice for a total of fifteen years. Republic Act No. 8293, Sec. 118.

²⁵ Republic Act No. 8293, Sec. 76.

²⁶ Republic Act No. 8293, Sec. 84.

²⁷ VICENTE B. AMADOR, PATENTS UNDER THE INTELLECTUAL PROPERTY CODE 702 (2001).

²⁸ Statistics in this section were provided by the Bureau of Patents, Intellectual Property Office.

granted in 2003, 1,167 (30%) were for inventions, 849 (21.8%) were for utility models, and 1,874 (48.1%) were for industrial designs.

In 2004, the IPO received 2,174 patent applications, which is a slight increase from the 2003 figure. Of the 2,174 patent applications, 908 (41.8%) were foreign applications and 1,266 (58.2%) were domestic applications. Of the 2,174 applications, 570 (26.2%) were for inventions, 592 (27.2%) were for utility models, and 1,012 (46.6%) were for industrial designs. For the same year, the IPO patent grants dropped to 2,920 from 3,890 in 2003. Of the 2,920 patent grants, 2,101 (72%) were registered to foreign inventors, while 819 (28%) were registered to domestic inventors. Of the 2,920 patent grants in 2004, 1449 (49.6%) were for inventions, 660 (22.6%) were for utility models, and 811 (27.8%) were for industrial designs.²⁹ For both 2003 and 2004, patent grants were mainly those pertaining to the following fields: human necessities (1,156), chemistry and metallurgy (973), performing operations and transporting (348), and physics (229).

In 2005, the IPO received 2,431 patent applications. Of the 2,431 patent applications, 1,056 (43%) were foreign applications and 1,375 (57%) were domestic applications. Of the 2,431, applications, 620 (26%) were for inventions, 546 (22%) were for utility models, and 1,265 (52%) were for industrial designs. For the same year, the IPO granted a total of 1,666 patents. Of the 1,666 patent grants, 1,644 (99%) were registered to foreign inventors, while twenty-two (1%) were registered to domestic inventors. Of the 1,666 patent grants in 2005, 1,653 (99%) were for inventions, eleven (0.1%) were for utility models, and two (0.01%) were for industrial designs.

In 2006, the IPO received 4,766 patent applications. Of the 4,766 patent applications, 3,543 (74%) were foreign applications and 1,223 (26%) were domestic applications. Of the 4,766, applications, 3,265 (68%) were for inventions, 539 (11%) were for utility models, and 962 (20%) were for industrial designs. For the same year, the IPO granted a total of 1,161 patents. Of the 1,161 patent grants, 1,018 (88%) were registered to foreign inventors, while 143 (12%) were registered to domestic inventors. Of the 1,161 patent grants in 2006, 1,053 (91%) were for inventions, ninety-one (1%) were for utility models, and seventeen (0.01%) were for industrial designs.

The Philippines became a member of the PCT in August 2001. In 2002, the IPO received only sixty-three patent applications through the PCT route. In 2003, the number of applications increased to 1,367. By 2006, the vast majority of invention patent applications used the PCT route: 2,666 used the PCT application process, while only 599 applied directly.

²⁹ According to Ms. Carmen Peralta, Director of the IPO Documentation, Information and Technology Transfer Bureau, about 90-95% of the invention patents were registered to foreign inventors. On the other hand, around the same percentage of utility model registrations were registered to domestic inventors. Again, these estimates show a low level of innovative activity in the country.

The issue of “evergreening”³⁰ patents is becoming a serious concern in the Philippines, particularly with respect to high costs of patented medicine. It is believed that the price of a drug drops after its patent expires because the drug company no longer holds exclusive manufacturing rights over the drug. It was observed, however, that off-patent drugs remain expensive.³¹ Further, big pharmaceutical companies tended to perpetuate the patent through permissible patent prosecution routes.

1.3.2. Trademark

As in other jurisdictions, trademark protection in the Philippines covers the right of an owner of a trademark, registered or otherwise, to exclusive use of his mark³² and to prevent others from using identical or confusingly similar marks without consent.³³

The legal remedies available to a trademark proprietor against unauthorized users include: (a) civil action for infringement or unfair competition, injunction and damages³⁴; (b) criminal action for trademark infringement or unfair competition³⁵; and (c) administrative action such as opposition against the registration of a rival mark³⁶ or cancellation of a rival’s registered mark.³⁷ In civil or criminal actions, courts have the authority to order infringing materials destroyed.³⁸ Further, in criminal actions, government enforcement agencies may undertake search and seizure operations to secure infringing goods as evidence in future criminal cases that will be filed against infringers. Search warrants are issued by the courts having jurisdiction over trademark infringement and unfair competition cases.

Trademark registration is valid for 10 years with the proviso that the registrant shall file a declaration of actual use within one year from the fifth anniversary of the date of registration of the mark.³⁹

For 2003, the IPO received 11,800 trademark applications, 4,908 (41.6%) of which were foreign applications and 6,892 (58.4%) of which were domestic.⁴⁰ For 2004, the IPO received 12,114 trademark applications, 5,253 (43.4%) of which were foreign applications while 6,861 (56.6%) were domestic. The IPO noted a

³⁰ A term which describes an overt effort to perpetuate a patent’s term (before its expiration) by seeking separate patent protection for a patented product’s “multiple attributes” or on “updates” to the patent.

³¹ Tessa R. Salazar, *Drug Patent Law Favors High Cost of Medicines—Gov’t Trading Firm*, PHILIPPINE DAILY INQUIRER, Apr. 23, 2005, at 5.

³² Republic Act No. 8293, Sec. 138.

³³ Republic Act No. 8293, Sec. 147.

³⁴ Republic Act No. 8293, Sec. 156.

³⁵ Republic Act No. 8293 Sec. 155 and 168 in relation to Sec. 170.

³⁶ Republic Act No. 8293, Sec. 134.

³⁷ Republic Act No. 8293, Sec. 151.

³⁸ Republic Act No. 8293, Sec. 157.

³⁹ Republic Act No. 8293, Sec. 145.

⁴⁰ Statistics in this section were provided by the Bureau of Trademarks, Intellectual Property Office.

28% increase since 1998 in the yearly aggregate of trademark applications, from 9,466 in 1998 to 12,114 in 2004. According to the IPO, this increase can be attributed to the growing awareness of the local business community of the importance of IP protection and enforcement.

However, there was a surprising fall in the number of registered trademarks in 2004 vis-à-vis the 2003 figure. In 2003, the IPO registered 4,841 trademarks, 3,852 (80%) of which were foreign marks and 989 (20%) were domestic marks. In 2004, the number of registered trademarks dipped to 3,791.

For 2005, the IPO received 12,681 trademark applications, 5,616 (44%) of which were foreign applications and 7,065 (56%) were domestic. The IPO registered 9,400 trademarks, 6,801 (72%) of which were foreign marks and 2,599 (28%) were domestic marks.

For 2006, the IPO received 14,733 trademark applications, 6,335 (43%) of which were foreign applications while 8,398 (57%) were domestic. The IPO registered 13,296 trademarks, 8,070 (61%) of which were foreign marks and 5,226 (39%) were domestic marks.

While the number of applications and patent grants has increased over the years, it is apparent that although domestic applications outnumber foreign applications, foreign applications tend to be more successful, as foreign registrations outnumber domestic registrations.

The Philippines is not yet a member of the Madrid Protocol. The IPO has been conducting dialogues with the private sectors regarding the Philippines' impending membership in the Madrid Protocol, but is still in the process of gathering information about its potential effects upon the Philippine economy. The Intellectual Property Association of the Philippines (IPAP) is objecting to this move. IPAP claims that membership in the Madrid Protocol would affect the business of trademark lawyers in the country, but no study has been done on this objection, so it remains speculative.

1.3.3. Copyright

In some ways, the Philippines is a copyright haven. Its rich cultural heritage has spawned artists excelling in various literary and artistic endeavors that include music, film, literature, and painting. Thus, copyright ownership in the Philippines is largely manifested in books, music, plays, cinematographic works, and the like. Filipinos are also known for their skills in software programming.

But the Philippines has its piracy problems. According to the Business Software Alliance, the piracy rate in the country is 72%, i.e., 72% of the software installed in computers was pirated.⁴¹ Music, movies, business software, and games software are openly sold and distributed on the streets and in malls. A large chunk of these pirated materials appear to come from China, Malaysia, Indonesia, and

⁴¹ *New Study Shows 72% of Software in Use in the Philippines Is Pirated*, MANILA BULL. ONLINE, <http://www.mb.com.ph/issues/2004/07/12/INFO2004071213821.html>.

Thailand.⁴² The consumers who patronize pirated products seem to be largely ignorant of the law, and therefore the IPO has recently stepped up its IP education and information dissemination programs.

The IP Code specifies five exclusive rights attached to copyrighted works: the rights to reproduce, distribute, perform, display, and prepare derivative works based upon the copyrighted work.⁴³

Deposit of a copyrightable material or work is prescribed under the IP Code,⁴⁴ but deposit or registration is not necessary to obtain copyright. Under the Berne Convention and the IP Code, the copyright in a work vests from the moment of creation. Based on case law,⁴⁵ however, copyright registrations are *prima facie* proof of copyright ownership notwithstanding that their issuance is ministerial on the part of the National Library. Still, not all copyrightable works are deposited with the National Library.

The remedies for copyright infringement are: (a) civil action for injunction and damages⁴⁶; (b) criminal action for infringing or aiding or abetting infringement⁴⁷; and (c) seizure, impounding, and destruction of infringing materials. The court may order the defendant to deliver under oath sales invoices, other documents involving sales, articles infringing copyright, and implements for the production of infringing materials. The court may likewise order the destruction of infringing copies, including plates, molds, and other implements for the production of infringing materials, even if the accused in a criminal case is acquitted.

In addition to the Berne Convention, the Philippines is also a member of the WCT and the WPPT.

1.3.4. Plant Varieties

Plant variety protection hinges on four requirements: novelty, distinctness, uniformity, and stability.⁴⁸ Holders of certificates of plant variety protection are vested with the right to authorize the following with respect to propagating and harvesting materials: (a) production or reproduction; (b) conditioning for the purpose of propagation; (c) offering for sale; (d) selling or other marketing; (e) exporting; (f) importing; and (g) stocking for any purpose mentioned above.⁴⁹

A holder of a certificate of plant variety protection whose rights are infringed may resort to either (a) a civil action for infringement, damages, and injunction,⁵⁰ or

⁴² The estimate is that around 80% of the pirated products are imported and more than 50% of these come from China, including Hong Kong. Border control is a major problem owing to the Philippines' geographical make-up, i.e., the Philippines has one of the longest shorelines in the world.

⁴³ Republic Act No. 8293, Sec. 177; AMADOR, *supra* note 27, at 257.

⁴⁴ Republic Act No. 8293, Sec. 191.

⁴⁵ Ching v. Salinas, G.R. No. 161295 (June 29, 2005).

⁴⁶ Republic Act No. 8293, Sec. 216.

⁴⁷ Republic Act No. 8293, Sec. 217.

⁴⁸ Republic Act No. 9168, Sec. 4.

⁴⁹ Republic Act No. 9168, Secs. 36, 37, and 38.

⁵⁰ Republic Act No. 9168, Secs. 48, 52, and 53.

(b) a criminal action. Further, upon petition by the aggrieved party, the court may order the confiscation of infringing materials for (a) distribution to charitable institutions; (b) sale and distribution of proceeds of sale to research organizations; or (c) return to the aggrieved party for further scientific use.⁵¹

Infringement of protected plant varieties is committed when a person performs any of the following acts: (a) sells the novel variety or offers it or exposes it for sale, delivers it, ships it, consigns it, exchanges it, or solicits an offer to buy it, or any other transfer of title or possession of it; (b) imports the novel variety into, or exports it from, the Philippines; (c) sexually multiplies the novel variety as a step in marketing (for growing purposes) the variety; (d) uses the novel variety in producing (as distinguished from developing) a hybrid or different variety therefrom; (e) uses seed which had been marked “unauthorized propagation prohibited” or “unauthorized seed multiplication prohibited” or progeny thereof to propagate the novel variety; (f) dispenses the novel variety to another, in a form which can be propagated, without notice as to being a protected variety under which it was received; (g) fails to use a variety denomination the use of which is obligatory under Section 15; (h) performs any of the foregoing acts even in instances in which the novel variety is multiplied other than sexually, except in pursuance of a valid Philippine plant patent; or (i) instigates or actively induces performance of any of the foregoing acts.⁵²

1.3.5. Pharmaceuticals

The most recent and significant IP legislation in the Philippines is the Universally Accessible, Cheaper and Quality Medicines Act of 2008, which was signed into law on June 6, 2008.⁵³ It amended certain provisions of the IP Code, particularly: (a) Sections 22 and 26 on non-patentable inventions and inventive step in relation to drugs and medicines; (b) Section 72 on limitations of patent rights in relation to drugs and medicines; (c) Section 74 on use of invention by the government in relation to drugs and medicines; and (d) Section 159 on limitations on actions for infringement of trademarks also in relation to drugs and medicines.

The foremost objective of the law, as its title suggests, is to lower the price of medicines and to make them more accessible to the public by: (a) allowing parallel imports of patented drugs and medicines into the Philippines; (b) preventing pharmaceutical companies from gaining perpetual rights over their patented drugs and medicines by merely recombining known substances, unless the combination results in enhancement of the known efficacy of the drug; (c) exempting from infringement the use of a patented pharmaceutical product for purposes of obtaining regulatory approvals (“Bolar provision”); (d) allowing the use or other exploitation by the government or third person authorized by the government of drugs or medicines subject to the exclusive determination of the President of the Republic of the

⁵¹ Republic Act No. 9168, Sec. 54.

⁵² Republic Act No. 9168, Sec. 47.

⁵³ See *supra* note 6.

Philippines; and (e) exempting from trademark infringement the parallel importation of branded drugs or medicines or such drugs that are off-patent.

1.3.6. Technology Transfer Agreements

In 2004, the IPO received and registered eighty-two technology transfer agreements (TTAs), which mostly pertained to the manufacturing industries: (a) manufacture of food products and beverages (15%); (b) manufacture of chemicals and chemical products (13%); (c) manufacture of vehicles, etc. (11%); and (d) manufacture of other non-metallic mineral products (9%).⁵⁴ Another 9% of the total TTAs registered with the IPO pertained to the hotel and restaurant industry.

The total number of IPO-registered TTAs does not capture all technology licensing contracts executed for 2004. In contrast to the policy prior to 1998, registration of TTAs is no longer mandatory. Thus, the figure does not present the whole picture in terms of the extent of transfer of technology activities in the country. According to the IPO, around 80% of technology transfer agreements are not registered with the IPO. In practice, the common reason for non-registration of TTAs is that they do not comply with the anti-trust requirements set forth in Sections 87 and 88 of the IP Code. As a general rule, non-conformance with any of the requirements in these provisions shall automatically render the TTA unenforceable.⁵⁵

In terms of subject matter, registered TTAs for 2004 were mainly: (a) patents, trademarks, and know-how (25%); (b) trademarks (21%); and (c) consultancy (21%). TTAs on software and management each account for 3%. Monetary consideration for TTAs is as follows: (a) royalties (65%); (b) lump-sum payment (13%); and (c) royalties and lump-sum payment combined (12%). Royalty-free TTAs accounted for 10% of the total number for 2004. The period or term of registered TTAs was either one to five years (54%), five to ten years (35%), ten to twenty years (1%), or indefinite (10%).

Licensors of registered TTAs for 2004 were mostly from Japan (38%), the United States (19%), the Philippines (11%), Switzerland (9%), and the Netherlands (8%).

In 2005, the IPO received a total of 220 TTAs and registered eighty-two of them. In 2006, the IPO received 270 TTAs and registered seventy-seven of those received; while in 2007, 246 TTAs were received with sixty-seven TTA eventually being registered.

1.4. Lawmaking

As in most jurisdictions, IP lawmaking is undertaken through the legislature. The Philippine Congress is the legislative branch of government. It is a bicameral body consisting of the Senate and the House of Representatives. Senators are elected at-large while representatives of the lower house are elected by geographic constitu-

⁵⁴ Statistics in this section were provided by the Documentation Information and Technology Transfer Bureau, Intellectual Property Office.

⁵⁵ Republic Act No. 8293, Sec. 92.

ency and through sectoral (party) representation. Traditionally, the legislature has been a gracious host to numerous landed elites and wealthy scions who have personal interests to protect. They easily win seats in the legislature primarily because of affluence and political patronage. In recent years, however, the Philippine Congress has gradually accommodated non-traditional politicians, with the entry of representatives from various sectors and interest groups, media and sports personalities, and individuals from the entertainment industry, among others.

In the Philippines, legislation is a tedious process.⁵⁶ Passing a proposed piece of legislation into law can be protracted. In fact, there are proposed measures that are deliberately stalled, or are not given priority at all. The relatively slow pace at which the legislative mill works may be attributed to the interplay of differing political and economic interests of the legislators, the usual pressure emanating from the presidency, and the process itself.

A proposed piece of legislation takes a two-pronged route before it can be signed into law. It has to be filed in both houses of Congress, the Senate and the House of Representatives. A bill has to undergo three readings and is referred to committees before versions from both houses can be consolidated and approved by a bicameral committee consisting of select members from both houses of Congress. Throughout the entire process, the proposed measure is subject to close scrutiny and lengthy debates.

Normally, legislative procedures are fast-tracked if the President certifies a legislative measure as priority. The President's clout comes to the fore in such instances, especially when both legislative houses are dominated by individuals affiliated with the President's political party. Conversely, a measure which has no official endorsement from the President will have to undergo the long circuitous route before it is passed into law.

There has been a strong clamor from various sectors for charter change or amendments to the Philippine Constitution. An important yet controversial proposal for amendment would change the current presidential form of government into a parliamentary one. Advocates of the parliamentary form of government argue that the legislative process could be simplified because an identifying characteristic of a parliamentary government is its unicameral legislature, where the chief executive and members of his executive family will be elected and appointed, respectively.

1.5. IP Enforcement

The Philippines has made remarkable reforms in the judiciary and in IP enforcement and regulation. The Supreme Court, the Department of Justice, and other concerned government agencies have lent their support to the IPO's campaign to seriously address IP enforcement issues by instituting policies and reforms in their respective turfs that are geared towards better IP enforcement and regulation.

⁵⁶ House of Representatives, Congress of the Philippines, *How a Bill Becomes a Law*, <http://www.congress.gov.ph/legis/index.php?l=process>.

1.5.1. Judicial Infrastructure

The Philippine judicial system is patterned after that of the United States in that the Philippine judiciary is constitutionally independent from the executive and legislative branches of government. The judiciary is basically a hierarchical structure composed of first-instance courts such as the municipal/metropolitan trial courts and the regional trial courts; and the appellate courts such as the Court of Appeals and the Supreme Court. Jurisdiction, original or appellate, of the various courts comprising the judiciary is generally determined by the legislature. Administrative supervision of the judiciary, however, is vested in the Supreme Court.⁵⁷

Because the judicial system is a vital component of IP protection and enforcement, a comprehensive IP protection regime is one that addresses apparent flaws in the judicial system. Generally speaking, the common weaknesses, institutional or otherwise, of the Philippine judicial system are the following: (a) the slow judicial process caused by clogged dockets, procedural delays, and incompetence; (b) the propensity of courts to issue injunctive relief such as temporary restraining orders (TROs), which at times is counter-productive in issues pertaining to business and the economy;⁵⁸ and (c) the propensity of the courts to stray beyond matters of legal interpretation into policy-making functions.

As part of a recent effort to improve IP adjudication, the Supreme Court has designated sixty-five special commercial courts nationwide to adjudicate IP cases.⁵⁹ Judges of these IP courts were provided training under programs sponsored and organized by the IPO, WIPO, EC-ASEAN Intellectual Property Rights Cooperation Program II, and the Philippine Judicial Academy. The Supreme Court also promulgated provisional remedies for civil cases on intellectual property, such as the Rules on Search and Seizures in Civil Actions for Infringement of IPR.⁶⁰

Beginning in 2002, the Department of Justice, which is the prosecuting arm of the government, formed a task force of eighteen special IP prosecutors supervised by a department undersecretary. In 2003, the task force was given permanent status and the number of prosecutors was increased to twenty-eight.⁶¹ Since then, the task force has been reorganized several times, on August 11, 2006, October 12, 2006, and November 12, 2007, with more state prosecutors appointed as members of the task force.⁶² The IPO also provided extensive training to the members of the IP task force.

These institutional reforms have created a clear-cut and focused approach towards prosecution of cases involving IP rights violations. More importantly, IP cases are now heard and adjudicated by prosecutors and judges with at least a basic knowledge of IP laws and their underpinnings.

⁵⁷ CONST. PHILIPPINES (1987), Art. VII, Sec. 5(5)-5(6).

⁵⁸ *Traders blame SC freeze of e-VAT*, PHILIPPINE DAILY INQUIRER, July 5, 2005, at A1.

⁵⁹ S.C. Admin. Memorandum 03-03-03 (June 17, 2003).

⁶⁰ S.C. Admin. Memorandum 02-01-06 (Jan. 22, 2002).

⁶¹ DOJ Department Order No. 45.

⁶² DOJ Department Order Nos. 595 (Aug. 11, 2006), 823 (Oct. 12, 2006), and 937 (Nov. 12, 2007).

1.5.2. Administrative Infrastructure

IP enforcement activities have been on the upswing since the IPO and various law enforcement agencies have begun coordinating their efforts. The Philippine National Police (PNP) and the National Bureau of Investigation (NBI) are the main enforcement arms of the government. Both agencies have special divisions assigned to investigate IP violations.

The creation of the Optical Media Board (OMB), under Republic Act No. 9239,⁶³ was a welcome development. Unlike its predecessor, the Videogram Regulatory Board, which had a limited mandate, the OMB is armed with extensive enforcement powers and a wider scope of responsibility. OMB's mandate encompasses all forms of optical media as defined in the enabling law. Its powers include the filing of administrative and criminal charges against optical media pirates and those that violate the provisions of the Optical Media Act. By and large, the OMB reinforces existing regulatory and enforcement efforts against software piracy. In cases involving optical media products, the OMB has the power to hear and resolve administrative cases against violators and impose administrative sanctions. Section 20 of the Optical Media Act lays down the rule for the imposition of administrative penalties, enabling the OMB to impose fines.

In the area of border control, which is an important aspect of IP enforcement, the Bureau of Customs (BOC) prescribed new rules to implement the IP Code in relation to Articles 51-60 of the TRIPS Agreement.⁶⁴ To further ensure implementation, the BOC has created a permanent unit within the Bureau to specialize in intellectual property.⁶⁵ This special IP unit, now fully operational, coupled with the connection of the central office with all ports in the country, allegedly results in enhanced implementation of border control measures.

In 2004, the NBI, the PNP, the OMB, and the BOC conducted a total of 973 enforcement operations.⁶⁶ The government seized 2,708,365 pieces of pirated and counterfeit products worth PHP 835 million (US\$15.5 million).⁶⁷ In 2005, counterfeit items amounting to PHP 1 billion (US\$25.6 million) were confiscated through different anti-piracy activities conducted from January to December from a total of 2,930 enforcement operations.⁶⁸ In 2006, from a total of 1,467 reported enforcement operations, two million items and 7,559 boxes/sacks of fake goods with an

⁶³ Otherwise known as An Act Regulating Optical Media, Reorganizing for this Purpose the Videogram Regulatory Board, Providing Penalties Therefor, and for Other Purposes. The President signed the law on February 10, 2004, while the Implementing Rules and Regulations took effect on March 12, 2004.

⁶⁴ Customs Admin. Order No. 6-2002 (Oct. 31, 2002).

⁶⁵ Customs Special Order No. 19-2003 (Sept. 12, 2003).

⁶⁶ *The Philippines: Gaining Ground on IPR Protection*, Comment of the Philippines submitted to the United States Trade Representative's Office in relation to the annual Special 301 Review, at 2.

⁶⁷ *Id.*

⁶⁸ The Philippines Scored High in IP Enforcement, <http://www.ipophil.gov.ph/ipenforcement/iprReport.asp>.

estimated value of PHP 1.3 billion (US\$30 million) were confiscated.⁶⁹ In 2007, government enforcement agencies were involved in 3,045 reported enforcement operations which yielded seven million pieces and 17,707 boxes/sacks of counterfeit items with an estimated value of nearly PHP 3 billion (US\$66.8 million).⁷⁰ Due to the continued and intensified IP enforcement campaign of the government's top enforcement agencies, an encouraging trend in terms of the number of operations and the amount of confiscations is apparent.

However, enforcement activities are generally initiated by IP owners, most of whom are domestic and foreign corporations that spend a huge sum to protect their rights and goodwill. In general, government enforcement agencies are most responsive to those IP owners who actively work with them to target infringement. Normally, enforcement agencies will not proactively target infringement unless the IP owner brings it to their attention and works with them on surveillance and enforcement actions.

In addition to judicial resolution, violations of the IP Code may also be prosecuted administratively with the Bureau of Legal Affairs (BLA) of the IPO.⁷¹ Administrative cases are heard by designated hearing officers whose decisions are reviewed and approved by the BLA director. The BLA acquires jurisdiction over IP violation cases where claims for damages are at least PHP 200,000 (approximately US\$4,500).⁷² For cases worth less than PHP 200,000, the Department of Trade and Industry has concurrent jurisdiction. The BLA can issue injunctive relief and assess damages against infringers or IP violators.

1.5.3. Enforcement Reality

Despite headway in enforcement infrastructures, the figures regarding prosecution of infringers are not encouraging. From the Supreme Court database, the judiciary appears to have in its dockets 423 IPR cases pending nationwide. There were only sixty-four convictions from 2001 to 2007, of which forty-two were handed down in 2005-2006. Thus, while it is apparently easy to file criminal or civil cases for IPR violations in court, there appears to be a low conviction rate. Furthermore, in terms of penal sanctions, IPR violations are not considered major crimes.⁷³ Thus, penalties per se could not be a great deterrent against infringement.

⁶⁹ *Strengthening the IP System*, *supra* note 4, at 12.

⁷⁰ IP Philippines, Office of the Director General.

⁷¹ Republic Act No. 8293, Sec. 10.

⁷² Republic Act No. 8293, Sec. 10.2(a).

⁷³ Patent infringement is not criminal if committed at the first instance, while a repeat infringement is punishable by imprisonment of between six months and three years and/or a fine of PHP 100,000-300,000. Republic Act No. 8293, Sec. 84. Trademark infringement and unfair competition are punishable by imprisonment from two to five years and a fine of PHP 50,000-200,000. Republic Act No. 8293, Sec. 170. Copyright infringement is punishable by imprisonment of one to three years plus a fine of PHP 50,000-150,000 for the first offense; imprisonment of three years and one day to six years plus a fine of PHP 150,000-500,000 for the second offense; imprisonment of six years and one day to nine years plus a fine of PHP 500,000-1,000,000 for third and subsequent offenses. Republic Act No. 8293, Sec. 217.

The efficacy of judicial resolution is also a serious concern. Clogged court dockets mean that court hearings are set at long intervals, and trial for criminal and civil cases drags on for at least two years. Because of the prospect that court action will be lengthy, many cases are settled out of court. For cases that do go to trial, judges sometimes succumb to political pressure or even bribery in rendering their decisions.⁷⁴ In most cases, however, judges do strictly apply IP laws.

In terms of exercising their options, IP holders more often choose criminal than civil actions, mainly because of their immediate effect in stopping the violation through seizure of the infringing products, including the machines and tools used in the criminal activities. Another important reason is the deterrent effect in view of possible arrest during trial and imprisonment after conviction. Recently, some IPR holders have started using administrative bodies, particularly the IPO, because of its expertise and its ability to act relatively faster than the courts. In 2004, the IPO received thirteen administrative cases involving violations of IP rights. In 2005, the number increased to twenty-three.⁷⁵ As of April 2008, there are forty-two administrative cases involving IP violations pending before the BLA.⁷⁶

1.6. Legal Culture

The Philippine legal system is largely influenced by four centuries of Spanish colonization and American political administration. It is a peculiar mixture of civil law, common law, indigenous customary law, and contemporary law designed to meet current conditions, with a separate and distinct Muslim legal system operating from the Muslim minority.⁷⁷

Civil law, which is basically code law or written law, was ingrained into the Philippine legal system primarily through the Spaniards. The codification movement in the Philippines began in 1909 and 1910, which resulted into the Administrative Code of 1917.⁷⁸ Thereafter, a purely Filipino Code Commission revised the Civil Code of the Philippines, which was regarded as the first “brown race” civil code.⁷⁹ The new Civil Code took effect in 1950. In 1987, yet another significant code was passed into law, when then-President Corazon C. Aquino⁸⁰ promulgated Executive Order No. 209, or the Family Code of the Philippines.⁸¹ Republic Act No. 8293, or the Intellectual Property Code, was yet another significant codification. Today, the civil law system operates in the areas of family relations, property, succession, contracts, criminal law, and, recently, IP law.

⁷⁴ See, e.g., *Why the Judiciary is Corrupt*, MANILA STANDARD TODAY, Aug. 8, 2008, http://www.manilastandardtoday.com/?page=emilJurado_aug8_2008.

⁷⁵ Bureau of Legal Affairs, Intellectual Property Office.

⁷⁶ *Id.*

⁷⁷ FORTUNATO GUPIT, JR. & DANIEL T. MARTINEZ, *A GUIDE TO PHILIPPINE LEGAL MATERIALS* 95-96 (1993).

⁷⁸ *Id.* at 80.

⁷⁹ *Id.* at 81.

⁸⁰ At that time, President Corazon C. Aquino possessed legislative power.

⁸¹ GUPIT & MARTINEZ, *supra* note 77, at 82.

When the Americans came to the Philippines at the turn of the twentieth century, common law, which relies heavily on case law, was superimposed onto the Philippine legal system. The existing Spanish civil system remained intact, but essential features of common law found their way into the Philippine legal system, such as (a) the judge's inherent equitable powers; (b) the judge's power of civil contempt; and (c) the doctrine of *stare decisis*,⁸² among others. Statutes and principles of common law origin are evident in such fields as constitutional law, procedure, corporation law, negotiable instruments, taxation, insurance, labor relations, and banking laws.

Inasmuch as a great majority of the Philippine population is Catholic, there are also traces of canon law in the Philippine legal system. Canon law is especially evident in family law. For instance, canon law language was used in providing for a ground for a special declaration of invalidity of a marriage. Islamic personal law is recognized and is operative in some parts of Mindanao,⁸³ and includes Shari'ah courts and the Shari'ah Bar.

Emerging from these various influences are the actual sources of Philippine law. Currently, the main sources of Philippine law are the Constitution, statutes, treaties and conventions, and judicial decisions. The Constitution is the fundamental law of the land and as such, it is the authority of the highest order against which no law can prevail. Every official action must conform to it. On the other hand, statutes are enactments passed by the Philippine legislature and are intended to supply the details that the Constitution leaves unprovided for. Statutes also include presidential decrees issued during the martial law period and executive orders issued by the President under the Freedom Constitution. Treaties entered into by the Philippines with other states have the same force of authority as legislative enactments. Finally, the Civil Code provides that "judicial decisions applying or interpreting the laws or the Constitution shall form part of the legal system of the Philippines." Only decisions of the Supreme Court, however, establish jurisprudence and are binding on all other courts.

The combination of civil law and common law in the Philippines has its downsides. Most lawyers are oriented in the civil law tradition, while the courts have common law powers.⁸⁴ This situation breeds confusion and uncertainty in many ways. As an example, there is no definitive rule as to how judges should decide when no law exists. While the Civil Code provides guidance in the interpretation or application of laws, it does not present a solution when the law is entirely silent on a particular matter.⁸⁵ Judges do not simply refuse to decide a case even when statute law is silent, insufficient or obscure. There is therefore that tendency for courts to indulge in "judicial legislation," albeit under the guise of equity principles.

Despite such downsides of the complex legal structure, there are certain truisms that are well entrenched in the Philippine legal system that can serve as guidance, as

⁸² *Id.* at 97.

⁸³ Mindanao is located in the Southern Philippines.

⁸⁴ GUPIT & MARTINEZ, *supra* note 77, at 98.

⁸⁵ *Id.* at 99.

follows: (a) laws hold ascendancy over judicial decisions in that the courts have to apply them and are forbidden to challenge their wisdom, which is an exclusive function of the legislature; (b) in the rare event that courts declare the laws unconstitutional, the courts cannot replace the legislation that they have voided; and (c) Philippine courts are courts of both law and equity.⁸⁶

The interplay of civil and common law in the Philippines manifests itself in IP law. While IP law in the Philippines is basically defined by statute, principles and doctrines on intellectual property are likewise defined through jurisprudence. Jurisprudence pertaining to IP law is evolving at a relatively slow pace. Over the years, the number of IP disputes reaching the Supreme Court has not been enough to establish jurisprudence on some important aspects of IP law. This may be attributed to two key factors: (a) relatively few IP cases are actually prosecuted all the way up to the Supreme Court, and (b) IP stakeholders tend to settle with infringers. In dealing with IP issues, therefore, courts in the Philippines rely heavily on U.S. jurisprudence.

2. Political Infrastructure

The Philippines has a representative democracy, which is modeled on the United States system. The structure of political power in the Philippines is clearly defined in its Constitution.⁸⁷ It is mainly characterized by a system of “checks and balances” among three co-equal branches: (a) the executive branch, which includes the presidency and administrative bodies; (b) the legislative branch, which is composed of the Senate and the House of Representatives; and (c) the judiciary. The relative independence of each political branch, however, does not preclude interaction, particularly when putting into place reform initiatives. The President puts forth policy initiatives, Congress transforms them into law, and the court interprets the law.

Nonetheless, the ultimate center of power still lies in the presidency. It is the President, as head of state, who sets the national agenda. When pushing for reforms, the President normally gathers political strength from allies in the other branches of government. In reality, this is easier said than done. Policy initiatives and concerns, particularly those geared towards reforms, are often scrutinized before the court of public opinion. Frequently, when actual legislation is proposed, the lawmaking process is greatly impeded by clashing interests within the legislature.

In the politico-cultural context prevailing in the Philippines, pushing for policy initiatives and a reform agenda on intellectual property is not trouble-free, yet it is possible. Intellectual property reforms and initiatives are not expected to grow from grassroots movements. In general, local political leaders who are elected to office would rather address the immediate concerns of their respective constituencies

⁸⁶ *Id.* at 104-05.

⁸⁷ The Philippines has had three Constitutions, in 1935, 1973, and 1987. The 1987 Constitution provides for a presidential type of government with a bicameral legislature and an independent judiciary.

before delving into issues of national magnitude. Foremost in the agenda of local political leaders are issues on housing, productivity, and infrastructure, among others, that would have an immediate impact on their constituents. If included at all, intellectual property is placed at the lower rung of their policy initiatives.⁸⁸

Conversely, putting the matter on the agenda of the national government, particularly the President, appears to be the best route through which policies and reforms on intellectual property can be effectively attained. The President, as the most influential political figure, could more easily muster collective support not only from the policy-makers and legislators but from IP stakeholders as well. Because intellectual property is a national and international concern that has economic repercussions, it is not far-fetched to think that it could be elevated in the near future as a priority on the President's policy agenda. Currently, the prevailing political scenario stands as a formidable stumbling block against efforts to situate IP concerns in the national government's consciousness. Nonetheless, the passage of the Universally Accessible, Cheaper and Quality Medicines Act of 2008 shows the government's political will in terms of utilizing intellectual property as a tool for poverty alleviation.

3. Economic Infrastructure

3.1. Overview

Historically, the Philippine economy has taken an erratic ride due to inconsistent policies towards the basic allocation of resources, and by virtue of government trade relations. For more than half a century since the Philippines acquired political independence, the economy has been at the mercy of widely divergent government policies, ranging from extreme trade protectionism in the 1970s to economic liberalization beginning in the period after the EDSA Revolution in the mid-1980s. Despite several economic reforms put in place by different political administrations, the one constant in the Philippine economy is poverty. It is no wonder that the centerpiece of the incumbent President's economic agenda is the need to foster broad-based economic growth to reduce poverty in the country.⁸⁹

Based on a recent survey on poverty in the Philippines, the percentage of families below the poverty line increased from 31.8% in 1997 to 33.7% in 2000.⁹⁰ This translates to around 31 million Filipinos, or close to 5 million families, living in poverty. Poverty incidence in the population overall (as opposed to families) rose from 36.8% in 1997 to 39.4% in 2000.⁹¹ However, the survey also revealed that the poverty line is estimated at PHP 13,823 (US\$308), reflecting an increase of 22.1% over the estimate of PHP 11,319 (US\$252) in 1997.⁹² A different government

⁸⁸ For example, only a few of the major cities have passed ordinances against piracy and counterfeiting within city limits.

⁸⁹ Asian Development Bank, *Philippines: Private Sector Assessment* 6 (Feb. 7, 2005).

⁹⁰ NATIONAL STATISTICS OFFICE, 2000 FAMILY INCOME AND EXPENDITURES SURVEY, available at <http://www.census.gov.ph/data/sectordata/2000/ie00ftrtx.html>.

⁹¹ *Id.*

⁹² *Id.*

statistic says that poverty incidence increased to 26.9% for families in 2006 compared to 24.4% in 2003.⁹³ This is still slightly lower than the 27.5% poverty incidence in 2000.⁹⁴ In 2006, a Filipino family of five members needed a monthly income of PHP 4,177(US\$93) to be able to sustain their family's minimum basic food needs, an increase of 23% from 2003.⁹⁵

The unemployment rate remained stagnant at an average of around 11.1% to 11.4% from 2000 to 2003, but rose to 11.8% in 2004.⁹⁶ Jobs generated by various industries could not keep up with the exponential rise in available manpower during this period. However, the unemployment rate fell sharply soon thereafter. In 2005, it was 11.7%; it was 8.7% in 2006 and 7.9% in 2007.⁹⁷

The continuing incidence of poverty, aggravated by unfavorable economic developments, may provide a hint as to why the country has been a haven for counterfeit products, why infringement activities thrive in the country, and why IP violations are rampant. Meager incomes of poor Filipinos living below the poverty line and those just above the poverty threshold are spent primarily on items and services needed for daily existence such as food, rent, and transportation. When buying products other than basic needs, their financial limitations require them to settle for cheap counterfeit versions rather than the more expensive genuine products.

3.2. Foreign and Domestic Investment

Foreign direct investment (FDI) in the Philippines amounted to an aggregate PHP 680.27 million (US\$15 million) in 2004.⁹⁸ That figure, however, is a far cry from investments that poured in during the previous years.⁹⁹ The 1990s had seen the Philippines benefiting from high levels of FDI. The passage into law of the Foreign Investment Act of 1991¹⁰⁰ liberalized the investment regime in the country. It provided for various incentives to foreign investment. During the period from 1990 to 1997, FDI averaged around PHP 962 million (US\$21.5 million) annually. The figure increased to an average of PHP 1.3 billion (US\$30 million) annually during the period 1998-2002. In 2003, FDI hit a high of PHP 1.49 billion (US\$33 million). In sharp contrast, FDI for 2004 plummeted 54.3%.

⁹³ [Http://www.nscb.gov.ph](http://www.nscb.gov.ph).

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ BUSINESS MONITOR LTD. INC., THE PHILIPPINES BUSINESS FORECAST REPORT (Q3 2005), at 14.

⁹⁷ Index Mundi, Philippines Unemployment Rate, http://www.indexmundi.com/philippines/unemployment_rate.html.

⁹⁸ Doris C. Dumlao, *Foreign investments slump 54% in 2004*, INQUIRER NEWS SERVICE, available at <http://www.inq7.net>.

⁹⁹ However, the increase in FDI from 2006 to 2007 is notable. From an aggregate amount of PHP 165.9 billion (US\$3.7 billion) in 2006, FDI shot up to 215.2 billion (US\$2.8 billion) in 2007, posting a significant 29.8% growth. National Statistical Coordination Board, Foreign Direct Investments, <http://www.nscb.gov.ph/fiis/default.asp>.

¹⁰⁰ Republic Act No. 7042 (1991), amended by Republic Act No. 8179 (1996).

The decline in FDI levels is attributed to: (a) negative perceptions about the investment environment aggravated by security, peace, and order concerns (i.e., armed threats from Muslim rebels and communist insurgents, and crime incidence); (b) political uncertainty; (c) the deteriorating fiscal situation; (d) transparency levels; (e) governance standards; (f) perceived corruption; (g) excessive state regulation; and (h) frequent delays in investment disputes.

In general, there is a declining competitiveness of the Philippines vis-à-vis neighboring countries. This may be attributed to the increasing cost of labor, perceived inefficiency and corruption in the public sector, inadequate infrastructure, and the deterioration of English language proficiency. As it is, foreign investors are now channeling a huge bulk of their FDI allocation for the Asia-Pacific region to China.

While the Foreign Investment Act of 1991 and the subsequent amendments to it eased the entry of foreign investment, the law nonetheless sets out specific restrictions for investors. The law provided for negative lists, which enumerated key sectors that were relatively restricted or totally off limits to foreign investment. To an extent, these negative lists were perceived to have fended off foreign investment. Negative List A restrictions were based on the equity ownership limits prescribed under the Constitution.¹⁰¹ Negative List B, on the other hand, restricts or limits foreign ownership (generally to 40%) for reasons of national security, defense, public health, safety, and morality.

The subsequent passage of the Retail Trade Liberalization Act, however, triggered additional foreign investments into the Philippines which should translate to heightened intellectual property inflow from the retail sector.

The foreign investment portfolio is relatively diversified.¹⁰² Manufacturing and telecommunication companies were the biggest beneficiaries of foreign direct equity flow in 2004. Investments in electronics and semiconductors shot up to PHP 9.53 billion (US\$212 million) during the first quarter of 2005.¹⁰³ In the first three quarters of 2006, foreign investments in the manufacturing sector surged to PHP 21.5 billion (US\$479 million) from 11.2 billion (US\$250 million) in 2005 for an increase of 91.4%.¹⁰⁴ In the first quarter of 2007, there was renewed interest from

¹⁰¹ CONST. PHILIPPINES (1987), Art. XII, Sec. 10.

¹⁰² Asian Development Bank, *Philippines: Private Sector Assessment* (paper) (Feb. 2, 2005) (“Shares of foreign equity in the agriculture, industry, and services sectors were estimated at 19.3%, 50.8%, and 34.3%, respectively, in 2000. The increases in the shares of foreign equity are highly notable in sectors that have been substantially liberalized, such as manufacturing and electricity, gas & water, wholesale and retail trade, transport, storage & communications, financial intermediation and real estate.”)

¹⁰³ *Electronics, Semiconductor Investments Up*, BUS. WORLD, Apr. 26, 2005, at 6 (“Japanese design and manufacturer of integrated circuits (ICs) Rohm Electronics accounted for the largest investment of P2.7 billion, over two-thirds of the P3.183 billion recorded by the Philippine Economic Zone Authority (PEZA) in January. The other big investments came from Hitachi Global Storage Technologies, P1.57 billion; TDK Fujitsu Philippines, P1.35 billion; Intel Philippines Mfg., Inc. P1.16 billion; and Lear Automotive, P1.28 billion.”).

¹⁰⁴ National Statistical Coordination Board, *Foreign Direct Investments Quarterly Report: 3rd Quarter 2006* (Jan. 4, 2007), <http://www.nscb.gov.ph/fiis/2006/3q-06/>.

foreign investors in the trade and mining sectors. Pledges to the trade industry, at PHP 126.8 million (US\$2.8 million), were second-highest for the sector in the last three years. The mining industry likewise attracted PHP 104.3 million (US\$2.3 million) worth of FDI in the first quarter of 2007.¹⁰⁵

For the first three quarters of 2004, domestic investment was slightly on a downturn.¹⁰⁶ A massive increase in domestic investments was seen in the last quarter of 2004.¹⁰⁷ An even greater amount of investment from domestic sources poured in during the first quarter of 2005.¹⁰⁸ On the whole, aggregate investments in the Philippines, from both foreign and domestic sources, are still substantial in amount. This signals the proliferation of new processes, products, marks, and other IP rights that assist with the establishment of new businesses and the expansion of those already in place; hence, stronger IP protection and enforcement becomes imperative.

It is expected that foreign investors bringing in products and services to the country will likely secure IP registration and foster technology transfer arrangements with domestic counterparts. On the other hand, apart from securing licenses from foreign IP stakeholders, there is enough room for domestic investors to come up with their own innovations in order to compete with foreign businesses operating in the country.

3.3. Foreign Trade

In a span of forty years, from 1950 to 1990, the Philippines had difficulty in generating sufficient exports to pay for its imports.¹⁰⁹ Within this period, the trade balance was positive only in 1963 and 1973.¹¹⁰ The dismal trade history of the Philippines is attributed to a host of factors, such as persistent overvaluation of the exchange rate and trade policies that favored import-substitution industries to the detriment of the export industries.

In 2004 and early 2005, the bulk of exports came from industrial manufacturing, including electronics, machineries, metal products, construction materials, and chemicals.¹¹¹ Export of manufactured consumer goods such as garments, housewares, holiday decorations, toys, fashion accessories, furniture, and similar products was substantial.¹¹² Resource-based exports such as coconut products, mineral products, forest products, tobacco, seaweeds, carrageenan, marble products, and the

¹⁰⁵ National Statistical Coordination Board, *Foreign Direct Investments Quarterly Report: 1st Quarter 2007* (June 29, 2007), <http://www.nscb.gov.ph/fiis/2007/1q-07/Default.asp>.

¹⁰⁶ From PHP 14.1 billion (US\$314 million) in the first quarter to 6.4 billion (US\$142 million) in the second quarter to 2.8 billion (US\$62 million) in the third quarter. [Http://www.nscb.gov.ph](http://www.nscb.gov.ph).

¹⁰⁷ PHP 24.6 billion (US\$549 million). *Id.*

¹⁰⁸ PHP 34.6 billion (US\$772 million). *Id.*

¹⁰⁹ PHILIPPINES: A COUNTRY STUDY: INTERNATIONAL ECONOMIC RELATIONS (Ronald E. Dolan ed., 1991), available at <http://countrystudies.us/philippines/75.htm>.

¹¹⁰ *Id.*

¹¹¹ Valued at around US\$30.4 billion in 2004, and \$12.2 billion for the first five months of 2005. Statistics in this section were provided by the Philippines National Statistics Office, <http://www.census.gov.ph/data/sectordata/datafts.html>.

¹¹² Valued at around US\$2.1 billion in 2004 and \$1.4 billion for the first five months of 2005.

like were relatively high.¹¹³ By 2005, electronic products contributed 66.2% of the total income, at US\$27.30 billion, a 2.1% increase from 2004's \$26.73 billion. Articles of apparel and clothing accessories, valued at US\$2.31 billion, increased by 6.3% compared to 2004's figure of \$2.17 billion.¹¹⁴

Importation has been highest on industrial manufactured goods,¹¹⁵ followed by resource-based products¹¹⁶ and food/food preparations.¹¹⁷ Interestingly, the Philippines imported few consumer products compared to its exports of the same.

In 2005, total trade of the Philippines increased by 5.9 percent, rising from US\$83.72 billion in 2004 to \$88.67 billion. Export receipts amounted to US\$41.26 billion, a 4% increase compared to the 2004 figure of \$39.68 billion. Expenditures on imported goods rose by 7.7% at US\$47.42 billion from \$44.04 billion in 2004. In 2005, there was a US\$6.163 billion deficit—higher than the deficit of 2004, \$4.36 billion.

In 2006, total external trade reached US\$99.184 billion, representing an 11.9% increase from \$88.673 billion in 2005. Total export receipts grew by 14.9% to US\$47.410 billion from \$41.255 billion in 2005. Similarly, total imports rose by 9.2% to aggregate dollar expenditure of US\$51.774 billion from \$47.418 billion in 2005. The balance of trade in goods for the Philippines registered a US\$4.364 billion deficit in 2006, narrower than the previous year's deficit of \$6.163 billion. In 2006, electronic products continued to be the top earner with 62.6% of the total exports or an increase of 8.7% to US\$29.683 billion from \$27.299 billion in 2005.¹¹⁸

3.4. Major Industries

The major industries in the Philippines are agriculture, mining, manufacturing, power, electronics, information technology (IT), and shipping. The Philippines, owing to its bio-diversity and vast natural resources, is traditionally an agricultural economy. While the country has attained a certain level of industrialization, agriculture still remains a major component of the economy. The major crops are rice, corn, coconut and coconut products, sugar, and tropical fruits. The country produces world-class mangos, bananas, and pineapples. It is also a reliable source of carra-geenan and tuna. Capitalizing on its competitive advantage of possessing a good source of competent English-speaking workers, the Philippines has emerged as a strong player in IT services like call centers,¹¹⁹ business process outsourcing, animation, medical transcription, software development, and engineering design.

¹¹³ Valued at around US\$2.5 billion in 2004 and \$1.1 billion for the first five months of 2005.

¹¹⁴ [Http://www.census.gov.ph/data/sectordata/datafts.html](http://www.census.gov.ph/data/sectordata/datafts.html).

¹¹⁵ Valued at around US\$31.9 billion in 2004 and \$8.6 billion for the first four months of 2005.

¹¹⁶ Valued at around US\$7.4 billion in 2004 and \$2.8 billion for the first four months of 2005.

¹¹⁷ Valued at around US\$2.4 billion in 2004 and \$918 million for the first four months of 2005.

¹¹⁸ [Http://www.census.gov.ph/data/sectordata/datafts.html](http://www.census.gov.ph/data/sectordata/datafts.html). Aggregate figures for 2007 are not yet available as of this writing.

¹¹⁹ *Id.* ("Call center seats increased from 20,000 in 2003 to 42,000 in 2004. In 2005, the sector is expected to grow by 60% to 70%, with call center seat growth expected at 90%.")

Intellectual property plays a major role in most of these industries. For example, because the Philippines is rich in biodiversity, protection of traditional knowledge and plant varieties play an important role. For this reason, the IPO is currently conducting studies on the need to provide a *sui generis* protection of traditional knowledge. On the other hand, the Philippines has its plant variety protection in place.¹²⁰

The other major IP-intensive industry is the electronics industry. The electronics industry in the country, mostly producing semiconductors, has boomed. It grew from a mere 49% share in the country's exports in 1996 to a staggering 69% in 2005.¹²¹ The Philippines exported electronics valued at US\$26.64 billion in 2004.¹²² This is a fast-paced technology-based industry that requires patent protection for industrial designs and inventions, and copyright protection for computer programs. However, there is no study that shows an increase in applications filed at the IPO directly related to the activities in this industry.

While there are indications of correlation between intellectual property and the economy, there is no definitive study on the matter. It is indubitable, however, that intellectual property is a contributor to economic growth. The possible significant indicators of the relationship of intellectual property to economic growth include contribution to the GDP, impact on firms' economic performance, employment generation, income generated by IP creators.¹²³ A study on the impact of copyright on economic development estimated that the total contribution of the copyright-based industries (CBIs) to the GDP of the Philippines was 4.82%.¹²⁴

4. Educational and Informational Infrastructure

4.1. Education System

Education in the Philippines is basically a public or state function. Public elementary and secondary education is supported by the national government. The Philippine Constitution mandates the protection and promotion of the right of all citizens to quality education at all levels and that the government shall take appropriate steps

¹²⁰ Republic Act No. 9168, otherwise known as An Act to Provide Protection to New Plant Varieties, Establishing National Plant Variety Protection Board (June 2002).

¹²¹ 2005 FULL-YEAR ECONOMIC REPORT: RETHINKING EXPORTS 6, <http://www.senate.gov.ph/publications/ER%202006-02%20-%202005%20Full-Year%20Economic%20Report%20-%20Rethinking%20Exports.pdf>.

¹²² NAT'L ECON. & DEV. AUTH., SOCIOECONOMIC REPORT 2004, at 51, http://www.neda.gov.ph/econreports_dbs/SER/ser%202004.pdf.

¹²³ NAT'L INTELL. PROP. & STRATEGY PROJECT TEAM, INTELLECTUAL PROPERTY OFFICE, REPORT ON THE NATIONAL INTELLECTUAL PROPERTY POLICY & STRATEGY: ADVANCING GREAT IDEAS AND INTELLECTUAL PROPERTY IN 2008-2010, at 40-46 (2007).

¹²⁴ *Id.*, citing EMMA FRANCISCO ET AL., COPYRIGHT FOR ECONOMIC DEVELOPMENT: A BASELINE STUDY OF THE ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES IN THE PHILIPPINES.

to make such education accessible to all.¹²⁵ Specific provisions on education upon which all decrees, policies, regulations, and rules on education are based, are provided in the Constitution.

Elementary education, which consists of six years of study,¹²⁶ is compulsory and provides basic education to children ages seven to twelve. Secondary education is also compulsory and covers four years of formal schooling for students aged thirteen to sixteen.¹²⁷ Optional tertiary education provides prescribed courses of studies which are credited towards degrees in academic disciplines or professions. It includes two-year post-secondary technical and vocational courses, various professional courses, and general higher education, including graduate and post-graduate studies.

A Philippine Institute for Developmental Studies (PIDS) study by Dr. B. Caesar Cororaton revealed that the Philippine educational system produces a very high number of tertiary graduates, but the post-baccalaureate science and engineering students as a percentage of post-baccalaureate students is low.¹²⁸ Dr. Cororaton concluded:

The low number of scientists and engineers is reflective of the general tendency of the educational system in the Philippines to produce non-technical graduates. There is in fact a dilemma in the present education system because of the educational “mismatch”: while there is a great demand for technical and engineering-related graduates by local industries, private tertiary schools continue to produce non-technical graduates. This is, indeed, a big policy area problem. One of the factors that would explain this is that private schools prefer not to go into these technical related courses because of their high laboratory requirement that is capital intensive. Non-technical courses are less laboratory intensive and therefore less capital intensive.¹²⁹

At present the prevalent mode of instruction is the conventional face-to-face lecture or tutorial method. However, with advanced information communication technologies coming to the fore, education (especially IP education) could be effectively channeled through Internet-based distance learning. In the Philippines, the viability of resorting to the latter method largely depends on the prevalence of telecommunications facilities and Internet accessibility.

¹²⁵ CONST. PHILIPPINES (1987), Art. XIV, Sec. 1.

¹²⁶ Except in few private schools which offer a seven-year curriculum.

¹²⁷ The Philippines has a ten-year basic education system, where other countries have twelve. There is a strong clamor for the government to conform to the global standard and improve the quality of Philippine education that has deteriorated through the years. *Only in RP: 10-Year Basic School Cycle*, PHILIPPINE DAILY INQUIRER, June 9, 2008, at 1, available at http://archive.inquirer.net/view.php?db=1&story_id=141567.

¹²⁸ Caesar B. Cororaton, *Research and Development and Technology in the Philippines* (Phil. Inst. for Dev. Studies, Discussion Paper 2002-23, Sept. 5, 2002).

¹²⁹ *Id.* at 32.

4.2. Informational Infrastructure

Statistics culled from the National Telecommunications Commission (NTC) reveal that of 86.9 million Filipinos, only 4.18% have telephone subscriptions, the bulk of whom are from Metro Manila and Region IV.¹³⁰ At present, there are at least nine companies providing telephone services nationwide. Telephone density in the south, particularly the Visayas and Mindanao, is notably low.¹³¹ This is attributable to the difficulty in putting up infrastructure in far-flung areas and in areas where peace and order is a concern.

As of 2006, there were 408 Internet service providers registered with the NTC with an estimated 2 million subscribers.¹³² A correspondent for a Filipino website, however, estimates that there are around 3.5 million Internet users in the Philippines, 191 Internet service providers, and 1,500 Internet cafes.¹³³ A U.S.-based research firm said that Internet users in the Philippines are projected to increase by more than 69% to 20 million by 2007.¹³⁴

With the existing telecommunication and Internet infrastructure, Internet-based distance learning is highly feasible in the Philippines. In fact, it has been instituted in some major universities such as the University of the Philippines and De La Salle University. However, owing to the uneven distribution of telecommunication facilities and Internet service, prospective students would most likely come from metropolitan areas such as Metro Manila, Cebu City, and Davao City.

4.3. IP Education

Intellectual property practice in the Philippines is first and foremost a legal discipline. As such, only law students in universities and colleges take up IP education. The bachelor of laws is a four-year postgraduate course, and only students who have finished a four-year bachelor degree can take up law studies. Intellectual property is often entirely ignored in legal training, and the depth of learning is very superficial for a majority of the students who do study it. IP law is a very small part of the more general subject of commercial law offered to second- or third-year law students. Most professors teach only the basics of IP law with few discussions about international treaties and conventions to which the Philippines is a member. Only a minority of professors assign cases decided by foreign jurisdictions. This means that international aspects of IP law are barely discussed, even though Philippine courts rely on foreign jurisprudence when faced with novel questions of IP law.

¹³⁰ Statistics are available from the National Telecommunications Commission, <http://www.ntc.gov.ph>.

¹³¹ *Id.*

¹³² *Id.*

¹³³ Janette Toral, Philippine Internet Demographics 2007, http://www.digitalfilipino.com/ecommerce_article.cfm?id=57.

¹³⁴ *Rapid rise of Internet use in the Philippines, e-commerce to follow: IDC*, SPACE DAILY, Mar. 30, 2005, <http://www.spacedaily.com>.

The establishment of the Intellectual Property Research and Training Institute (IPRTI)¹³⁵ under the IPO and the institution of the Intellectual Property Professors and Researchers Organization of the Philippines (IP-PRO Phil.)¹³⁶ are welcome developments to provide the resources and venue needed for propagating IP education.

The IPO, in partnership with Ayala Foundation, Inc. (AFI) and the Commission on Higher Education (CHED), has recently begun a program of offering briefings and seminars on IP topics in state universities.¹³⁷ This government initiative is expected to push IP awareness in the academy.

5. Scientific Infrastructure

Statistics on research and development (R&D) are a reliable measure of the state of science and technology in any country. In the Philippines, it is the Department of Science and Technology (DOST) that oversees the country's science and technology activities. DOST's recent survey on Philippine R&D gives a comprehensive view of the country's R&D.¹³⁸

Based on the updated 2002 DOST figures, the total R&D expenditure of the country reached around PHP 5.5 billion (US\$122 million). This is a remarkable increase overall in national R&D; in 1992, R&D was close to PHP 3 billion (US\$6.7 million), and in 1996 around 4.1 billion (US\$91 million). But public R&D expenditure experienced a sharp fall from PHP 2.48 billion (US\$55 million) in 1996 to 1.6 billion (US\$35 million) in 2002. On the other hand, stiff competition in the private sector seems to have accounted for increased aggregate R&D spending. From around PHP 851 million in 1992, private R&D expenditure rose to around 1.6 billion (US\$35 million) in 1996 and further soared to 3.9 billion (US\$87 million) in 2002. In a span of ten years, then, private R&D expenditure increased by more than 300%.

Except for in the government, R&D expenditures in various sectors continued to increase from 1992 to 1996 and on to 2002. Interestingly, R&D expenditure in higher education, both public and private, is on an upward trend: PHP 433.2 million (US\$9.6 million) in 1992, 654.5 million (US\$14.5 million) in 1996, and 762.5 million (US\$17 million) in 2002.

Despite the increase in national R&D expenditure, the number of R&D scientists, engineers, and personnel continues to decline. In 1996, there were about 156 scientists and engineers per million people. This went down to only eighty-nine in

¹³⁵ Inaugurated on June 6, 2007.

¹³⁶ The authors are Founding Trustees of this organization.

¹³⁷ IP Philippines Hosts Seminars on Intellectual Property for University Grantees, http://ipophil.gov.ph/htm_doc/seminar12122006.htm.

¹³⁸ In 2002, the DOST launched the R&D Statistical System Project (RDSSP) aimed at establishing sustainable institutional arrangements for the regular updating of R&D statistics. In May 2004, DOST came up with its research report (based on the 2002 research data) entitled *Improving the Philippine Research and Development Statistical System*. The survey results were updated around March 2005.

2002. R&D personnel likewise fell from 239 per million in 1992 to 114 in 2002. This decrease indicates that the Philippines is slowly losing its R&D workforce either to more lucrative non-R&D domestic job opportunities or to better-paying jobs abroad.

Further, the PIDS study cited above revealed that the pool of R&D manpower is dominated by people with basic college degrees who generally have very limited advanced technical training.¹³⁹ Dr. Cororaton explained that limited R&D manpower with advanced technical training

in itself presents a big stumbling block because new technologies available are already in advanced state and require special technical skills. Thus, the lack of adequate R&D manpower places the country in a very disadvantaged position because it does not have enough technical capability to adopt, through R&D, developed technologies in the market. In other words, with inadequate technological capability, the Philippines may find it difficult to catch-up in terms of access to and mastery of the key emerging or leading edge technologies. This, in turn, negatively affects future growth and international competitiveness.¹⁴⁰

There is also apparent underinvestment in R&D, in spite of the increased spending. The UNESCO standard for developing countries is an investment expenditure rate of 1% of GDP. DOST findings on real R&D expenditures, as a percentage of GDP, show a downhill trend.

As reflected in the level of spending per industry, government R&D efforts are mainly geared towards three main sectors: (a) agricultural production and technology; (b) industrial production and technology; and (c) protection and improvement of human health. A large chunk (close to 50%) of the government sector pie on R&D expenditure goes into personal services rather than maintenance, operating expenses, and capital outlays. Insofar as R&D is concerned, the government relies heavily on its own funds and gets little support from foreign sources.

The R&D level in higher education institutions (HEIs) saw an upswing from 1992 to 2002. The bulk of R&D expenditures in HEIs was devoted to (a) agricultural production and technology; (b) protection and improvement of human health; (c) social structures and relationships; and (d) control and care of the environment. Similar to government R&D institutions, HEIs spent a considerable amount of their funds on personal services or salaries, bonuses, and allowances of researchers. Compared to government institutions, however, HEIs received more foreign funding. Notably, while numerous HEIs devote time and resources to R&D, they are independent from each other, as there is no clear network or institutionalized linkage among these HEIs.¹⁴¹

For the non-profit private sector, the increasing investment in R&D is largely on the following: (a) agricultural production and technology; (b) social structures and

¹³⁹ Cororaton, *supra* note 128, at 29-30.

¹⁴⁰ *Id.*

¹⁴¹ There are national commodity research centers such as UP Los Baños, Central Luzon State University, etc., which maintain links with the regional and cooperating research stations. The linkage, however, is *ad hoc* in character and project-related.

relationships; and (c) control and care of environment. The spending pattern of private institutions is similar to that of the government and HEIs, in that a large portion of the fund is devoted to personal services and salaries. Non-profit private institutions got 82.6% of their R&D funds from domestic sources.

The level of collaboration between private and public research is quite low. Dr. Cororaton observed:

There is a weak link between the private sector and the larger research community. Most private research centers exist principally to meet the needs of the companies that established them. As such, there is no interaction with the rest of the research community dominated essentially by the government sector, except for a few privately operated research centers that perform public services.¹⁴²

A survey¹⁴³ on the R&D situation in the manufacturing industry revealed the following, among other findings: (a) only big firms, which are industry leaders, engage in innovation; (b) innovation activities are perceived by the firms to improve their competitiveness through improved quality, lower production costs, and enhanced marketing performance; and (c) a majority employ only college graduates or less-educated workers in their innovation activities, implying a very low level of innovation activity. The dearth in innovation activity is quite apparent in the relatively few patents issued to domestic inventors as well as in the small percentage of patents granted to domestic inventions vis-à-vis patents on foreign inventions.¹⁴⁴ The low level of innovation activity also relates to the scarcity of utility model applications and invention applications filed with the IPO.

There is no clear-cut R&D incentive system in the country. For one, the government could only offer a few fiscal incentives provided by the Board of Investment to foreign investors vis-à-vis technology transfer and research. Recently, Republic Act No. 8439, or the Magna Carta for the Government Science and Technology Personnel, was passed to address the problem of low incentives. In particular, the law allows for the provision of honoraria, share of royalties, hazard allowance (compensation for dangerous employment), and other benefits to science and technology workers.¹⁴⁵ The law, however, does not address incentives to private institutions or individuals engaged in science and technology R&D.

¹⁴² Cororaton, *supra* note 128, at 24.

¹⁴³ The survey conducted by T. Macapanan, *Private Sector Activities on Research and Development* (Philippine Institute for Development Studies, Discussion Paper No. 99-19, 1999) was cited in Cororaton's paper. *Id.* at 29. It includes five industry groups, namely food processing, textile and garments, metals and metal fabrication, chemicals, and electronics and electrical machines.

¹⁴⁴ See "Patents, Utility Models, and Designs," above. In 2004, of the 2,920 patent grants, 2,101 (72%) were registered to foreign inventors, while 819 (28%) were registered to domestic inventors.

¹⁴⁵ House Bill No. 03270, entitled An Act Providing The Framework And Support System For The Ownership, Management, Use, And Commercialization Of Intellectual Property Generated From R&D Funded By Government, or Technology Transfer Act of 2008, is now pending in Congress, which seeks to increase incentives to government researchers.

Generally, the R&D regime in the country is hampered by the following gaps: (a) inadequate funding; (b) inefficiencies caused by the misallocation of research resources within the sector; and (c) weaknesses in the institutional framework of the research system, i.e., organizational structure, lack of accountability, incentive problems, and weak linkage between research and extension.¹⁴⁶

Conclusion

In a relatively short span of time, the Philippines has put in place a comprehensive IP Code, a good number of laws geared towards the protection of certain IP sectors, and a central IP administrative unit (the IPO) which oversees the national policy direction on intellectual property. This is a big leap from the previous IP regime characterized by relatively archaic and fragmented legal rules.

While decent legal and institutional mechanisms for IP protection are well in place, the challenge for the Philippine government is how to effectively implement IP laws and rules. Often the laws and rules are not followed to the letter or not complied with at all. The Supreme Court, in some IP cases, has strayed from the legal norms.¹⁴⁷ If the Supreme Court is susceptible to mistakes, the same is likely true with lower courts. An overhaul of the judicial system, focused on addressing the issues of integrity and competence, is necessary.

Administrative rules on intellectual property are not any different with respect to the discrepancy between the rules and their practical application. Inconsistencies between rules and application are apparent in *inter partes* cases involving cancellation of trademarks and in patent prosecution. An aggressive IP enforcement campaign from the concerned agencies (PNP, NBI, OMB, BOC, etc.) that is not wholly dependent on IP holders' initiatives would be ideal. A statement from IPO Director General Adrian Cristobal that his office, together with the DOJ, the PNP, the NBI, the OMB, and even the NTC, are firming up an "IPR Plan"¹⁴⁸ that is geared towards more coordination, cooperation, and consultation among agencies is a good sign. In addition, the IPO is preparing a memorandum of agreement (MOA) to: (a) clarify jurisdiction and a coordination mechanism to hear and decide IP violations cases; (b) build up a database¹⁴⁹ for IPR enforcers which would include names of violators, number of cases filed, monitoring of cases for prosecution, the

¹⁴⁶ Cororaton, *supra* note 128, at 14-15.

¹⁴⁷ Some Supreme Court decisions have highlighted the divergence between laws and their application. This was quite evident in *Emerald Garment Manufacturing Corp. v. Court of Appeals, et al.* (G.R. No. 100098, Dec. 29, 1995), in which the Supreme Court was perceived to have deviated from established rules on "confusing similarity" and "colorable imitation." In this case, the Supreme Court ruled that the mark "Stylistic Mr. Lee," where "Lee" is the dominant feature, is not confusingly similar to the "Lee" trademark, despite the fact that both marks were used for the same line of products.

¹⁴⁸ Marianne V. Go, *IPO Head Confident US Will Remove RP from IPR Watchlist*, PHILIPPINE STAR, Aug. 4, 2005, at B6.

¹⁴⁹ The database was launched on February 22, 2007 during the first Public-Private Partnership Council for Intellectual Property Rights Forum for 2007.

number of items seized and destroyed, and all information relevant for enforcement; and (c) education, including mainstreaming IP education in elementary and high school.¹⁵⁰

The Philippine government needs to achieve more if it wants to get out of the routine of scampering out of USTR's watch. Intellectual property should at least be on the government's priority list, if not at the top of the government's policy concerns. A categorical directive from the President towards this end could jumpstart initiatives from the government's line departments, the Congress, and the judiciary. The President can fast-track the legislative process by certifying IP measures as a governmental priority. The incumbent President's¹⁵¹ policy statement in a luncheon for the National Committee for IPR gives reason to hope. She declared that "protection of IPR is first and foremost in the interest of the Filipino people."¹⁵² In the President's latest policy directive, which came out on November 16, 2006, entitled "Sustaining Our Gains in Protecting Intellectual Property Rights," she emphasized that "protecting and promoting IPR is a strategic and critical component to the country's socio-economic development and the government's effort to raise the level of competitiveness of Philippine businesses."¹⁵³

Despite such positive pronouncements on intellectual property, the government's immediate preoccupation is not IP, but reforming the Constitution as it shifts towards a parliamentary form of government, regaining the political credibility which has been dissipating in the past few years, and stabilizing the struggling economic situation.

The Philippine economy relies heavily on foreign investment. This explains the government's initiative to create a more investment-friendly environment. Overreliance on foreign investment, however, could stifle innovation, creativity, and R&D on the local level. Local industries could be reduced to mere "technology absorbers." Currently, small and medium enterprises that cannot afford R&D are constrained to imitate in order to stay competitive, but the influx of foreign investments requires strong IP protection. Local industries are characterized by weak R&D or the total lack of it. Strengthening R&D activity could spur economic growth. It would also allow domestic industries to compete on even terms with foreign counterparts, at least in terms of quality and innovation. A strong R&D regime also requires strong IP protection.

Significantly, the government is beginning to realize the importance of nurturing a culture of R&D and innovation. On November 26, 2007, the President formally launched the "National Innovation Strategy" during the first National Innovation Summit in Makati City.¹⁵⁴ The strategy calls for action in four strategic areas: (a) strengthening Filipino human capital; (b) supporting business incubation and accel-

¹⁵⁰ Go, *supra* note 148.

¹⁵¹ President Gloria Macapagal Arroyo, whose term will end on June 30, 2010.

¹⁵² *Strengthening the IP System*, *supra* note 4, at 3.

¹⁵³ *Id.* at 4.

¹⁵⁴ Department of Science and Technology, RP's First National Innovation Summit (Oct.-Dec. 2007), http://www.stii.dost.gov.ph/sntpost/NewPOST/OctDec2007/Editorial_RPs_1st_Natl_Innovation_Summit.html.

eration efforts; (c) regenerating the policy environment for innovation; and (d) upgrading the Filipino mindset towards a culture of innovation.

Another government project that could catapult R&D in the Philippines to a higher level is the “Balik Scientist Program” which is administered by the DOST. The program is a “brain gain thrust” developed to encourage top scientists who are Filipino citizens or of Filipino descent based in foreign countries to return and work for a specified period in the Philippines and share or diffuse knowledge. The program’s priority areas include alternative fuel, biotechnology, the environment, pharmaceuticals, and information and communication technology. About 300 scientists have signed up for this program since 1975. DOST aims to attract a hundred more from 2007 to 2010.¹⁵⁵

The Philippines needs to decide whether it wants IP policy to be directed by foreign investors or by a government interested in protecting domestic R&D initiatives. Either way, a strong IP protection system would cater to the best interests of the country. At this stage of the country’s economic and industrial development, a strong IP protection system is imperative for several reasons. First, it is a draw for investment, whether domestic or foreign. The revitalization of the IP regime in the Philippines could be a component of the government’s economic agenda. Second, it encourages industries to invest heavily in R&D, which is apparently wanting in the Philippines in terms of limited scientific manpower and inadequate research budgets. The token attention devoted to R&D has stagnated the development of certain industries, which had become overly dependent on outside technology, and hampered their competitiveness in the world market. Finally, IP protection would be a catalyst towards the promotion of the creative arts and the entertainment industry, especially if there were clear-cut measures to address specific copyright concerns.

IP awareness in the Philippines leaves much to be desired. Currently, IP education is mostly a legal discipline. Incorporation of intellectual property into the mainstream of the Philippine school system, from the elementary to the tertiary level, would be a novel way of creating IP awareness on top of the current IP awareness campaign by the IPO. IP awareness is important in the formation of legal dialogue on intellectual property that in the long run will translate into concrete policies and legislation.

¹⁵⁵ [Http://archive.inquirer.net/view.php?db=1&story_id=112398](http://archive.inquirer.net/view.php?db=1&story_id=112398).

Singapore

Ng-Loy Wee Loon¹

Introduction	.233
1. IP and Economic Development	.234
1.1. 1965-1989: Towards an Industrialised Economy	.234
1.2. 1990-1999: Towards a Globalised Economy	.240
1.3. 2000 and Beyond: Towards a Knowledge-Based Economy	.244
2. Enforcement Infrastructure	.248
3. Cultural and Political Infrastructure	.250
4. Educational and Scientific Infrastructure	.251
Conclusion	.252
Appendix	.254

Introduction

For a project that seeks to identify the factors that impact the status of intellectual property in Asia’s emerging markets, Singapore is a very interesting case study. For one thing, Singapore’s experience appears to be a textbook example of the theory that advocates that a strong IP infrastructure promotes economic growth. When Singapore became an independent nation in 1965, her GNI per capita of US\$529 was mainly derived from a colonial economy that was highly dependent on *entrepôt* trade² and the British Army. This Third World economy did not have a very good physical infrastructure, much less a strong IP infrastructure. Today, the scene is very different. Singapore is a highly industrialised country whose GNI per capita of US\$33,919³ qualifies her as a “high income country” in the books of the World Bank, placing her with developed/First World countries.⁴ On the IP front, her legal regime of protection is “TRIPS-plus,” and recently she even emerged as one of only three Asian countries (the others being Japan and Taiwan) on the list of the top twenty-five countries in the world with the lowest software piracy rates.⁵

¹ I would like to thank Ms. Rose Hanna Ramli and Ms. Juay Puay Yong from the Intellectual Property Office of Singapore for their help in collating statistical data on the filing of patent and trademark applications.

² “*Entrepôt* trade” refers to the business of importing goods into a port or trading post (Singapore, in this case) and selling them to another trader who would then re-export these goods to other countries. In short, the traders in the trading post act as middlemen.

³ This is the GNI per capita for 2007, available from the Singapore Department of Statistics website, <http://www.singstat.gov.sg>. In the World Bank ranking of countries based on their GNI per capita for 2006 (atlas methodology), Singapore came in 31st (US\$29,320).

⁴ According to the World Bank’s classification by 2006 GNI per capita, the economy of a country qualifies as “high income” if its GNI per capita is US\$11,116 or more.

⁵ See FIFTH ANNUAL BSA AND IDC SOFTWARE PIRACY STUDY (2007), available at http://global.bsa.org/idcglobalstudy2007/studies/2007_global_piracy_study.pdf.

As this paper will show, there is a co-relationship between the degree of maturity of the IP infrastructure in Singapore and that of her economy: the growth of her IP infrastructure is in fact the result of concerted efforts of her policy-makers to nurture it, to use it as a tool to achieve economic goals. This paper first tracks the evolution of the IP laws of Singapore, as well as the policy reasons underlying the changes made during the following three stages of her economic development: (1) 1965-1989 (Towards an Industrialised Economy) (2) 1990-1999 (Towards a Globalised Economy); and (3) 2000 and Beyond (Towards a Knowledge-Based Economy). Next it looks closely at enforcement of IP rights, noting the extent to which IP laws in Singapore are more than just laws on the books. To provide a gauge of the growth of IP practice from one stage to the next, statistical data relating to the filing of trademark and patent applications and to infringement actions are also given. The paper then provides a brief overview of the cultural, political, education, and scientific factors that contribute to Singapore's IP infrastructure.

Another reason why Singapore is interesting to this project is that, unlike the other East Asian "Tigers," South Korea and Taiwan, Singapore's rapid technological development and industrialisation programme is heavily dependent on MNCs rather than on indigenous firms.⁶ The Conclusion briefly examines whether the strong IP infrastructure has any adverse effects on innovation amongst indigenous firms. It also offers some thoughts on the use of a strong IP infrastructure to attract foreign direct investment (FDI) into a country.

1. IP and Economic Development

1.1. 1965-1989: Towards an Industrialised Economy

A glimpse of the bleak economic landscape in Singapore at the start of its nationhood is given by Lee Kuan Yew, the country's founding Prime Minister, in his memoirs, *From Third World to First: The Singapore Story, 1965-2000*: a small island with no natural resources, apart from her deep-water harbour, and whose only valuable asset was her two million people (described by Mr. Lee as "hard-working, thrifty, eager to learn"⁷); the end of her *entrepôt* trade (as her immediate neighbour and former political partner, Malaysia,⁸ worked to bypass Singapore and deal directly with its trading partners through its own ports); the loss of a vast hinterland and domestic market to absorb Singapore-made goods (also as a result of her political fall-out with Malaysia); and the impending withdrawal of the British Army,⁹ and with it, the loss of some 20% to GDP and over 70,000 jobs in

⁶ Wong P.K., *From Leveraging Multinational Corporations to Fostering Technopreneurship: The Changing Role of S&T Policy in Singapore*, 22 INT'L J. TECH. MGMT. 539 (2001).

⁷ LEE KUAN YEW, *FROM THIRD WORLD TO FIRST: THE SINGAPORE STORY, 1965-2000*, at 24 (2000).

⁸ Singapore was part of the Federation of Malaysia from 1963 to 1965. In 1965, Singapore was expelled from the Federation.

⁹ This withdrawal took place between 1968 and 1971.

direct and support services. Unemployment in Singapore then was high (at 14%) and rising.

The strategy was to embark on an industrialisation programme that was export-oriented. Foreign investors were actively wooed¹⁰ to develop their manufacturing operations in Singapore for export to world markets—both in low-technology, labour-intensive industries (e.g., textile, garment, and toy factories were set up by Hong Kong and Taiwanese businesses) and in higher-technology industries. The electronics sector began during these early years with American MNCs setting up in Singapore: Texas Instruments in 1968, National Semiconductor in 1969, Hewlett-Packard in 1970, etc. From the outset, the political leaders were not suspicious of MNCs; they did not believe that MNCs would exploit Singapore. In the words of Mr. Lee, “If MNCs could give our workers employment and teach them technical and engineering skills and management knowhow, we should bring in the MNCs.”¹¹

By the late 1970s, Singapore had solved its unemployment problem.¹² In fact, its economic planning succeeded so well that it was facing a new problem: a tight labour market and upward pressure on wages, which made Singapore a less attractive place for MNCs relative to the emerging low-cost countries in the region. The 1980s, therefore, saw Singapore embark on what the Government called the “Second Industrial Revolution,”¹³ wherein her investment policy shifted toward promoting higher value-added and skills-intensive activities such as engineering design and computer services.

During the first phase of industrial revolution in Singapore from 1965 to the late 1970s, IP barely featured. This is hardly surprising, given that, apart from trademarks, IP was not really an issue in low-technology manufacturing industries—except phonograms, a case which I will return to shortly. Further, the MNCs who brought in the higher technology had not begun to see the value of IP and seemed satisfied, if they thought about IP at all, with the existing system of IP protection. This system, inherited from the British, comprised the following:

¹⁰ The Economic Development Board was the lead agency in Singapore tasked with courting and convincing foreign investors that Singapore was a good place to invest in, a role it still plays today.

¹¹ LEE, *supra* note 7, at 76. Further on in his memoirs, Mr. Lee elaborated on the decision to bring in the MNCs: “We did not have a group of ready-made entrepreneurs such as Hong Kong gained in the Chinese industrialists and bankers who came fleeing from Shanghai, Canton and other cities when the communists took over [China]. Had we waited for our traders to learn to be industrialists we would have starved. It is absurd for critics to suggest in the 1990s that had we grown our own entrepreneurs we would have been less at the mercy of the rootless MNCs.” *Id.* at 85-86.

¹² The unemployment rate in 1978 had fallen to 3.6%.

¹³ References to this “Second Industrial Revolution” as the aim for the 1980s may be found in speeches made during Parliament sittings. *See, e.g.*, Debate on the President’s Address, HANSARD vol. 63, col. 82 (Feb. 17, 1981); Budget Debates, HANSARD vol. 39, col. 1134 (Mar. 19, 1980).

- Copyright protection under the U.K. Copyright Act 1911, a piece of imperial legislation decreed by King George V for “His Majesty’s dominions,” modified by the Copyright Act 1914 for application to Singapore,¹⁴ and supplemented by the Copyright (Gramophone Records and Government Broadcasting) Act 1968.
- Patent protection under the Registration of U.K. Patent Act 1937, for U.K. patents which had been re-registered with the Registry of Patents in Singapore, supplemented by the Patents (Compulsory Licensing) Act 1969.
- Design protection under the Registration of U.K. Designs Act 1938, for U.K.-registered designs (without any need of re-registration in Singapore).
- Trademark protection under the Trade Marks Act 1939 (almost identical to the U.K. Trade Marks Act 1938), for trademarks registered with the Registry of Trade Marks in Singapore.
- Trademark protection in an action for passing off,¹⁵ for unregistered trademarks.
- Common-law action for breach of confidence to protect trade secrets.

Of the above laws, only two were enacted after independence: the Copyright (Gramophone Records and Government Broadcasting) Act 1968 and the Patents (Compulsory Licensing) Act 1969. The purpose of the second is self-evident. The first deserves special mention because the parliamentary debates generated during the enactment of this Act provide insight into the attitude of the policy-makers towards IP at that time.

The Copyright (Gramophone Records and Government Broadcasting) Act 1968 was introduced into Parliament with two specific aims. First, it was to deal with the increase in the importation and sale of pirated records of copyrighted musical works. This problem, according to the Minister of Law and National Development at that time, threatened the livelihood of local artists, composers, and musicians, as well as the subsistence of three newly established sound recording companies in the Jurong Industrial Park. The proposed law therefore imposed penalties (fine and/or imprisonment) for the manufacture or commercial exploitation of pirated gramophone records. The second purpose of the Act was to exempt Government broadcasting from infringement of copyright in musical works and in gramophone records, in order to stop payment of royalties to the Performing Rights Society (PRS) and International Federation of Phonographic Industry (IFPI). Under colo-

¹⁴ The Copyright Act 1914 was enacted for the Straits Settlement (comprising the British Empire’s three colonies: Singapore, Penang, and Malacca). It provided, for example, that, in relation to infringing copies imported into the colony, the Registrar of Imports and Exports of the colony shall assume the duties and powers of the U.K. Commissioner of Customs and Excise conferred under the U.K. Copyright Act 1911.

¹⁵ This “passing off” action has its origins in English common law, which was received into Singapore via the Second Charter of Justice 1826 (an Act passed by the British Parliament for the Straits Settlements). As early as the late 1880s, courts in Singapore were hearing disputes brought by traders seeking common law protection for their unregistered trademarks. *See, e.g.*, *Fraser & Co. v. Nethersole*, 4 KY 269 (1885-1890); *Seah Lee v. Kiam Guan*, 4 KY 403 (1885-1890); *Katz Bros. Ltd. v. Kim Hin & Co.*, 6 SSLR 1 (1900-1901).

nial rule, the Governor of Singapore had issued a directive to make the payments to these U.K.-based organisations. The new political leaders of Singapore did not agree that such payments were due, since broadcasting in Singapore was a non-profit activity undertaken by the Government and had an educational component. The exemption proposed by the new bill would dispense with further payments to PRS and IPFI, thereby keeping the cost of broadcasting as low as possible for the benefit of the people.

In the course of persuading his colleagues to accept the proposed law, the Minister assured them that, although Singapore had attended many international conferences on the protection of copyright, designs, and patents:

. . . we are not a member of international conventions and we have no intention of becoming a signatory to these conventions. The reason, I repeat, is that these conventions are for the benefit of the developed countries who refuse to share their knowledge with us. It is for this reason that a Bill of this nature was not passed before. I have mentioned that three industries have been set up in Jurong producing musical records and it is for the protection of these industries that this Bill is introduced.¹⁶

This renunciation of IP, one might say, epitomises the attitude of a Third World country towards IP. (Indeed, even the United States, in its early days as a net-importer of copyright works, did not exactly give priority to the protection of foreigners' works under its copyright law (the 1790 Act), thereby allowing piracy in the United States of books by British authors such as Charles Dickens.¹⁷) The Minister's speech is also interesting for another reason: it demonstrates how focused policy-makers in Singapore can be, how willing they can be to toughen up IP laws in order to achieve a particular economic goal—in this case, the survival of the three sound recording companies in the Jurong Industrial Park.

The change in Singapore's attitude towards IP started in the mid-1980s,¹⁸ corresponding to the shift in the country's focus towards higher-technology industries such as the software industry. By March 1985, the Minister of Trade and Industry

¹⁶ The Second Reading of the Copyright (Gramophone Records and Government Broadcasting) Bill, HANSARD vol. 28, col. 823 (Nov. 23, 1968).

¹⁷ See Daniel Burkitt, *Copyrighting Culture: The History and Cultural Specificity of the Western Model of Copyright*, 2 INTELL. PROP. Q. 146 (2001) (arguing that the early history of American copyright law—when piracy of British books was condoned because of the greater good of having cheap books in America—shows that copyright protection in the United States is not based on the natural justice theory, but is extremely utilitarian in its approach); see also Graeme W. Austin, *Does the Copyright Clause Mandate Isolationism?* 26 COLUM J.L. & ARTS 17, 40 (2002) (attributing the failed attempts to protect foreign authors under the 1790 Act to lobbying by American publishers).

¹⁸ Even in the earlier half of the 1980s, Singapore was still ambivalent about IP. For example, when the Minister of Law was asked during a Parliamentary sitting how the Government intended to deal with the unhappiness of writers at the lack of protection for literary works they published, the Minister responded that a committee had been set up to examine the implications and impact, both economic and social, of revising the copyright law, and the costs and long-term disadvantages of the reform. HANSARD vol. 42, col. 734-36 (Mar. 14, 1983). It was definitely a non-committal reply. A similarly non-committal reply was made to a question asking if Singapore was going to amend her patent law. HANSARD, vol. 41, col. 22-24 (June 15, 1981).

spoke in Parliament of the importance of having stronger, better copyright laws if Singapore wanted to “foster an environment of creativity, and to encourage the development of our software industry.”¹⁹ A revamp of copyright law was proposed in 1986. When introducing this new law in Parliament, the Minister of Law also repeated the need for Singapore to update its copyright law to keep abreast of developments in the field of computer science, sound and video recording, cable television, satellite broadcasting, and photocopying. Some emphasis was given to the software industry—the need to provide the legal framework necessary for the development of a strong software industry in Singapore, so that major international computer companies and software houses planning to set up software development centres in Singapore could be assured that their products would be adequately protected.²⁰

There was another reason for Singapore’s decision in 1985-1986 to improve its copyright law. The 1980s was the era when developed countries started linking international trade with IP protection. In particular, the United States had passed the Trade & Tariff Act in 1984, tying the trading benefits of the Generalized System of Preferences (GSP) granted to developing countries, to their respect and protection of U.S.-origin IP. The United States exerted pressure on Singapore to enact a new copyright law before the completion of the U.S. GSP Review at the end of January 1987, or face the consequences of losing her GSP status, that is, higher cost for Singapore goods imported into the United States because of the tariffs payable on these imports, making them less competitive vis-à-vis imports from other developing countries. In fact, Singapore was promised a better GSP package if the timing and quality of her new copyright law satisfied the United States.²¹ The U.S. influence on the enactment of the Copyright Act is not groundless speculation. The Minister of Law himself candidly acknowledged this, when he introduced the Copyright Bill in Parliament in 1986:

Beyond our own requirements, I should also mention that in recent years one significant source of friction with our trading partners, particularly the United States, has been the inadequacy of our existing copyright laws. ... I hope that the introduction of this Bill will remove one contentious issue and so improve our relations with these partners.²²

But, the Minister emphasised, this external consideration coincided with Singapore’s national interest in updating its copyright law (e.g., the growth the software industry, development of Singapore as an information centre, greater incentives to foreign investors to come to Singapore).²³ His message was for Singapore to focus

¹⁹ Budget Debates in Parliament, HANSARD vol. 45, col. 1709 (Mar. 29, 1985).

²⁰ The Second Reading of the Copyright Bill, HANSARD vol. 48, col. 11-12 (May 5, 1986).

²¹ To ensure that the quality of the new copyright law would satisfy the United States, the draft of Singapore’s copyright bill was shown to the U.S. delegation, and when the U.S. delegation requested changes to specific provisions, these were incorporated into the bill. This revelation was made during debates in Parliament when questions were asked relating to the U.S. decision to withdraw the GSP status of Singapore. HANSARD vol. 50, col. 596-600 (Feb. 25, 1988).

²² The Second Reading of the Copyright Bill, HANSARD, vol. 48, col. 12 (May 5, 1986).

²³ The Third Reading of the Copyright Bill, HANSARD vol. 48, col. 986 (Jan. 26, 1987).

not on the “stick,” but on the “carrots” of having a modern copyright law. As events would show later, this proved to be the right attitude to adopt.

Parliament passed the Copyright Act on January 26, 1987, meeting the deadline set by the United States. The Copyright Act 1987 is still the governing copyright legislation today. By and large, it embodies the standards of copyright protection found in developed countries; it is modelled on Australia’s copyright law, but there are also British and American influences.²⁴ At the same time, there are home-grown provisions catering to Singapore’s particular needs. For example, a provision was crafted to allow parallel imports into the market so that the public in Singapore would not be denied the opportunity to purchase lower-priced but legitimate editions of books originating from some other country.²⁵ As for the *raison d’être* of the new law, the Copyright Act 1987 expressly gave protection to computer programs as a type of literary work. Regulations were also immediately enacted to extend copyright protection to American works.²⁶ As *quid pro quo*, the United States accorded Singapore an enhanced GSP package.

Barely six months after Singapore started enjoying an enhanced GSP package, the United States informed Singapore that it would be “graduated” from its GSP status in 1989. While stung by the United States’ decision,²⁷ Singapore’s stoical response was to “not cry over split milk” but “to work hard to make good by being more competitive, by diversifying our markets, by moving into more sophisticated products, where the GSP makes less difference.”²⁸ After all, the domestic conditions in Singapore alone justified the promulgation of a stronger copyright regime.²⁹

Figures 1 and 2 (Appendix) set out the statistical data relating to patent and trademark filings in Singapore. During the 25-year period of industrialisation in Singapore, there were in total 14,596 patent applications and 107,289 trademark

²⁴ A classic example would be Section 35, providing for the defence of “fair dealing” for the purpose of “research or private study.” This provision was a medley of sub-sections originating from the copyright laws of Australia, the United Kingdom, and the United States. Note that this provision has since been amended, particularly in 2005. Today, the “fair dealing” defence in Singapore is much closer to the American model of “fair use.” See also *infra* note 70 and accompanying text.

²⁵ See Sec. 25(2); see also the discussion on parallel imports during the Third Reading of the Copyright Bill, HANSARD vol. 48, col. 970-71 (Jan. 26, 1987); *infra* notes 46-48 and accompanying text.

²⁶ See Copyright (International Protection) Regulations 1987. This came into force at the same time as the Copyright Act, on April 10, 1987. In addition to American works, copyright protection under the Copyright Act 1987 was also extended to British works in the same year (with effect from Apr. 16, 1987). In subsequent years, copyright protection was extended to Australian works (in 1990, pursuant to a bilateral agreement between the two countries), then to other WTO member countries (in 1996, pursuant to the implementation of the provisions of the TRIPS Agreement), and finally to Berne Union member countries (in 1998, when Singapore acceded to the Berne Convention).

²⁷ See the outcry of some of the Members of Parliament at what they perceived to be a “breach of faith” by the United States during a Parliamentary sitting in 1988. HANSARD vol. 50, col. 589-600 (Feb. 25, 1988).

²⁸ This response was given by the Minister of Trade and Industry in Parliament. HANSARD vol. 50, col. 1444 (Mar. 25, 1988).

applications filed. The majority of this—59% of the patent applications and 56% of the trademark applications—was filed during the 10-year phase of the Second Industrial Revolution (1980-1989), when the economy in Singapore was more mature.

1.2. 1990-1999: Towards a Globalised Economy

The late 1980s saw intensifying competition from neighbouring developing countries. By 1992, for example, China had become the largest recipient of FDI in Asia, exceeding ASEAN's share in total.³⁰ To meet these challenges, Singapore's economic planning for the 1990s included strategies to promote the service sector together with manufacturing, to deepen the technology base, and to create an "external" economy through globalisation.

The idea behind the strategy to deepen the technology base in Singapore was to move Singapore up the value-chain in manufacturing, especially in emerging fields such as biotechnology, and to attract research and development (R&D) activities. The policy-makers firmly believed that a solid IP infrastructure, particularly a sound patent system, was needed to achieve this goal.³¹ The patent regime in Singapore dated back to the Registration of U.K. Patent Act 1937, a piece of colonial legislation which set up a system of re-registering a patent granted in the United Kingdom.³² It was a costly, cumbersome, and time-consuming process. The Ministry of Law acted, announcing plans in 1990 for the review of this patent registration system.³³ Singapore became a contracting party to the WIPO Convention in December 1990, and the review of its patent law was done with the advice of WIPO.³⁴ In 1994, the Patents Act was passed.

²⁹ Singapore's experience supports Professor John Barton's view that IP rights are most likely to have a positive impact in developing countries when they are at "middle-income" level, with nations generally adopting stronger IP rights on their own at about US\$8,000 per capita income level. See John Barton, *Patents and the Transfer of Technology to Developing Countries*, in PATENTS, INNOVATION AND ECONOMIC PERFORMANCE 322 (OECD 2004). Singapore reached this level in 1988 when her GNI per capita was US\$9,068.

³⁰ See REPORT OF THE ECONOMIC REVIEW COMMITTEE OF SINGAPORE 16, chart 2.2 (2003).

³¹ See, for example, the speech of the Minister of Law during the second reading of the new patent law on March 21, 1994. HANSARD vol. 62, col. 1445 (Mar. 21, 1994) ("[W]e live in a global economy where trade is driven by desire, potential for profit, which in turn is determined by the element of competitiveness. Inventions and innovations sharpen this competitive edge. More countries are therefore improving their industrial property systems, particularly their patent systems, to encourage invention and innovation, and to assist in the recoupment of continuing investment costs for development of products and services. The proposed new patent system will create such a favourable climate for innovation, for developing research and innovative capabilities, and advance technological innovation in industry.").

³² This patent granted in the United Kingdom must be registered in Singapore within three years of the date of issue of the patent. After the United Kingdom joined the European Patent Convention, and its Patents Act 1997 was in force, the registration system in Singapore included registration of patents granted by the European Patent Office designating the United Kingdom as the country of protection.

³³ See the addenda of the Ministry of Law to the President's Address. HANSARD vol. 56, col. 31-32 (June 7, 1990).

The new Patents Act 1994 (still in force today) is modelled on the U.K. Patents Act 1977, but a few material differences exist. For example, the Singapore law expressly allows parallel imports,³⁵ and there is no prohibition against the patenting of animal or plant varieties or essentially biological processes for the production of animals or plants (other than microbiological processes or their products thereof).³⁶ This prohibition was considered and specifically rejected by the Select Committee set up to scrutinise the Patents Bill. The Select Committee took the view that allowing patents on varieties of plant and animal (non-human species) was necessary in order to encourage research into horticulture, agriculture, and biotechnology.³⁷ The difficult moral and ethical issues involved in such research did not appear to faze the policy-makers. However, it would not be fair to say that Singapore's utilitarian approach to IP completely ignores morality and ethics. In fact, unlike the United States, the new Patents Act has a provision prohibiting the patenting of an invention the publication or exploitation of which would generally be expected to encourage offensive, immoral, or anti-social behaviour.³⁸ Thus, any attempt to patent human beings and the related biological processes could be resolved by reference to this *ordre public* provision.³⁹

One other feature of the new patent regime should be highlighted. Given its relatively small economy and limited human resources, Singapore decided to avoid the substantial investment that would be needed to build up full-fledged search and examination capabilities in Singapore. Hence, patent registration in Singapore is a "self-examination" system, that is, there is no substantive examination of patent applications by the Singapore Registry of Patents. Instead, patent grants are made

³⁴ See the speech of the Minister of Law during the budget debates in Parliament. HANSARD vol. 59, col. 889-90 (Mar. 12, 1992).

³⁵ Sec. 66(2)(g); see also REPORT OF THE SELECT COMMITTEE ON THE PATENTS BILL vi ("Representations were made that parallel importation of medicinal, curative and surgical products should not be allowed for various reasons, including the safety and efficacy of non-patented sources and the prejudicial effect of parallel imports on the interests of authorised licensors, importers and distributors. The Committee was not persuaded by the representations to make an exception to the Government's policy of allowing parallel imports of genuine products."). In 2005, pursuant to the U.S.-Singapore FTA, amendments were made to restrict parallel importation of pharmaceutical products. See also *infra* note 68 and accompanying text.

³⁶ See U.K. Patents Act 1977, c. 37, Sec. 76A, sched. A2, 3(f) (formerly Sec. 1(3)(b)) (Biotechnological Inventions). See also European Patent Convention, Art. 53(b); E.U. Directive on the Legal Protection of Biotechnological Inventions 1998, Art. 4.

³⁷ REPORT OF THE SELECT COMMITTEE ON THE PATENTS BILL vi. Singapore did not have any *sui generis* protection for plant varieties at that time. Only in 2004 was her Plant Protection Varieties Act passed when she became a member of the International Convention for the Protection of New Varieties of Plants (UPOV Convention). Today, it is possible to get protection for plant varieties under this new Act *and* under the patent regime.

³⁸ See Section 13(2), which is derived from Section 1(3) of the U.K. Patents Act 1977. See also European Patents Convention, Art. 53(a); E.U. Directive on the Legal Protection of Biotechnological Inventions 1998, Art. 6(1).

³⁹ The Select Committee, when rejecting the ban on the patenting of plant and animal varieties, also pointed to the power of the Minister under the new law (Sec. 13(5)) to order the prohibition of a patent of certain subject matter for the purposes of maintaining conformity with developments in science and technology. Note that Section 13(5) was repealed in 1995.

based on search and examination reports furnished by designated foreign patent offices or the International Search and Preliminary Examinations Authorities under the Patent Cooperation Treaty (PCT). Thus, at the same time as the Patents Act 1994 came into force in February 1995, Singapore acceded to the PCT, as well as to the Budapest Treaty and the Paris Convention. Plugging herself into the international patent registration system also accorded with Singapore's strategy to globalise.⁴⁰

For Singapore and her plans to globalise in the 1990s, the conclusion of the General Agreement on Tariffs and Trade (GATT) negotiations could not have been more timely. Singapore was all poised to enter the WTO on January 1, 1995, and to implement the minimum standards of IP protection recognised by the international community as set out in the TRIPS Agreement. The following are the more significant revisions made to her IP laws between 1995 and 2000 to comply with the TRIPS obligations:⁴¹

- Patent law: the prohibition on the patenting of certain matters (e.g., mathematical methods, computer programs) was removed⁴²; the scope of the provisions allowing compulsory licensing and Government use was narrowed.⁴³
- Trademark law: a new Trade Marks Act 1998 and a Geographical Indications Act 1998 were enacted.
- Copyright law: copyright protection was extended to works originating from any WTO or Berne Union member country⁴⁴; a commercial rental right was created for software⁴⁵; performers' rights and border enforcement measures were introduced.
- Layout-design law: a new Layout Designs of Integrated Circuits Act 1999 was enacted.

⁴⁰ On the trademarks front, Singapore's globalisation strategy was affected by becoming a party to the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks in October 2000.

⁴¹ See Article 65(2) of the TRIPS Agreement, which provided a five-year transition period for developing countries, so that the deadline for implementation of the provisions therein for such countries was 2000. Singapore's status as a developing country is recognised by international agencies such as the World Bank and the Asian Development Bank.

⁴² This prohibition is the same as the notorious "as such" provision in Section 1(2) of the U.K. Patents Act 1977. *See also* European Patent Convention, Art. 52(2)-(3). Singapore took the position that this prohibition is inconsistent with Article 27(1) of the TRIPS Agreement, which requires WTO members to make available patents for "any inventions, whether products or processes, *in all fields of technology*, provided that they are new, involve an inventive step and are capable of industrial application" (emphasis added).

⁴³ This was to bring the compulsory licensing provisions in the Patents Act 1994 in line with what is allowed in Article 31 of the TRIPS Agreement.

⁴⁴ Singapore acceded to the Berne Convention in 1998.

⁴⁵ *See* TRIPS Agreement, Art. 11. Singapore did not introduce this right for cinematographic films, presumably relying on the exception allowed in Article 11, that is, rental of cinematographic films in Singapore has not led to widespread copying of such works, which is materially impairing the exclusive right of reproduction of the authors.

There were other changes to Singapore's IP laws during the 1990s, which were not TRIPS-related; rather, they were part of the Government's efforts to adjust the IP laws to meet the needs of the public and the industries in Singapore, and/or to update the laws to keep abreast of the developments of new technology. Four sets of amendments will be mentioned as examples to illustrate this.

First, an amendment to the copyright law was made in 1994 to ensure that copyright owners would not be able to exercise their monopoly to repel parallel imports. It has been mentioned earlier that the Copyright Act 1987 contains a provision specifically aimed at legitimising parallel imports.⁴⁶ The provision proved to fall somewhat short of this aim, a shortfall which became apparent in the litigation in *Public Prosecutor v. Teoh Ai Nee*.⁴⁷ Within one year after this case was decided in September 1993, the Government moved to amend the Copyright Act 1987 to plug the identified lacuna.⁴⁸

Second, an amendment to the copyright law was made in 1998 to delete a provision that excluded commercial entities from the "fair dealing" defence for the purpose of "research or private study."⁴⁹ The existence of this provision had compelled the Court of Appeal to find, in *Creative Technology Ltd. v. Aztech Systems Pte. Ltd.*,⁵⁰ that reverse engineering of software (by decompilation) for commercial purposes was prohibited by the Copyright Act 1987. There was no leeway for any consideration of the fairness or otherwise of the activity.⁵¹ The difficulties posed by such a provision to R&D work in Singapore are obvious. About

⁴⁶ *Supra* note 25, and accompanying text.

⁴⁷ 1 SLR 452 (1994). This case held that the importation of a copyright product and its distribution in Singapore would be unlawful if the imported article was manufactured abroad without the consent of the local owner in Singapore. Although the effect of the decision would still allow for parallel imports, for example, when the local and foreign owners are identical, one class of genuine imports—those manufactured in countries whose copyright owner is different from that in Singapore and where the Singapore copyright owner has not given his consent to the manufacture of the product—would be barred.

⁴⁸ See Copyright (Amendment) Act 1994 (Aug. 25, 1994) (introducing new subsections 25(3)-(4)).

⁴⁹ See the repealed Section 35(5), providing that, for the purpose of the fair dealing defence for "research or private study," "'research' shall not include industrial research or research carried out by corporate entities (not being bodies corporate owned or controlled by the Government), companies, associations or bodies of persons carrying on business."

⁵⁰ 1 SLR 621 (1997). The litigants, Creative Technology Ltd. and Aztech Systems Pte. Ltd., are Singapore companies and rivals in the sound card industry. Creative Technology Ltd. is the market leader, where its famous "Sound Blaster" sound card sets some of the industry standards. In order to develop a sound card that is compatible with the sound standards existing in the industry, Aztech reverse engineered (by decompiling) the software in the "SoundBlaster" sound card. The parties had also started litigation in the United States. When the action was brought in Singapore, the U.S. action was then dismissed on the basis of *forum non conveniens*. See *Creative Technology, Ltd. v. Aztech System Pte., Ltd.*, 61 F.3d 696 (9th Cir. 1995).

⁵¹ Compare the U.S. situation, as exemplified by *Sega Enterprises Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992), a case also involving reverse engineering of software by decompilation, where the legitimacy of this reverse engineering was assessed by reference to the list of factors set out in the American "fair use" defence.

sixteen months after the Court of Appeal's judgment was delivered, this provision was repealed.⁵²

Third, a new Registered Designs Act 2000 was enacted. This discontinued the protection of designs registered in the United Kingdom and put in place a registration system, thereby making it an easier for businesses to obtain protection for their product designs in Singapore.

Fourth, major amendments were made to the copyright law in 1999 to "address the more urgent needs of copyright owners and users of copyright materials in the on-line environment."⁵³ This set of amendments, *inter alia*, introduced a "user caching" defence permitting the making of a transient or electronic copy of copyrighted material in the user's computer from an electronic copy of the material made available on a network; introduced civil remedies to protect rights management information; and created certain exemptions from copyright liability for network service providers.

Compared to the first twenty-five years, IP practice in Singapore in the 1990s grew by leaps and bounds, as can be seen from the statistical data on patent and trademark filings set out in Figures 1 and 2 (Appendix). For example, the average number of patent applications filed per year in 1990-1999 (4,786) represents a 720% increase over the average number of patent applications filed per year in 1965-1989 (584).

1.3. 2000 and Beyond: Towards a Knowledge-Based Economy

In 1995, with a GNI per capita of US\$24,520, Singapore made it to the World Bank's list of "high income countries." The strategies adopted in the 1990s to move Singapore's manufacturing sector up the value chain bore fruit: for example, chemicals-related products accounted for 17% of this sector in 2001 compared to 8% in 1985, and R&D had grown in traditional areas like electronics but also in new areas like biomedical sciences.⁵⁴

But countries in the region were also fast catching up. For example, in 1996 when Singapore launched the "Singapore ONE" project to develop a nationwide multimedia broadband network, Malaysia established its "Multimedia Super Corridor" in the same year. To maintain Singapore's competitiveness in this new millennium, the current phase of economic planning is to work towards graduating Singapore into a "knowledge-based, innovation-driven economy."⁵⁵ This means, *inter alia*, moving its manufacturing sector even further up the value chain to become more knowledge- and research-intensive; shifting R&D from applied and

⁵² See Copyright (Amendment) Act 1998 (Feb. 19, 1998).

⁵³ See Second Reading of the Copyright (Amendment) Bill 1999, HANSARD vol. 70, col. 2069 (Aug. 17, 1999).

⁵⁴ REPORT OF THE ECONOMIC REVIEW COMMITTEE, *supra* note 30, at 23.

⁵⁵ *Id.* at 65.

downstream research to basic and IP-creating research; and promoting the digital media sector.⁵⁶

It is also important for Singapore to further expand external ties. On the latter, it was observed that:

We [Singapore] will continue to support the World Trade Organisation (WTO) as it remains the foundation for world trade, and protects small countries like Singapore against unfair unilateral trade policies. However, a purely multilateral approach has its limitations. We are therefore supplementing it with bilateral FTAs with key trading partners.⁵⁷

Of the few FTAs which Singapore has signed, the most significant (from the IP perspective) is the one with the United States. The U.S.-Singapore FTA, signed in May 2003, has an IP Chapter mandating the adoption of standards of IP protection which go beyond the minimum standards laid down in the TRIPS Agreement. Some of them even go beyond the standards set out in the more recent international IP treaties, namely, the WCT 1996 and the WPPT 1996. A few examples on copyright and patent will illustrate the “TRIPS-plus” and “WCT/WPPT-plus” nature of the U.S.-Singapore FTA:

- While the TRIPS Agreement leaves the issue of parallel importation (exhaustion of IP rights) to be decided by the individual WTO country,⁵⁸ the FTA provides certain restrictions on parallel importation of pharmaceutical products.⁵⁹

⁵⁶ The digital media sector is part of the “creative cluster” (arts and culture, design, media) identified by the *Report of the Economic Review Committee* (2003) as one of the three promising growth areas for Singapore in the New Millennium (the other two being healthcare and education). The creative industries already account for about 3% of GDP in Singapore. See Toh M.H. et al., Ministry of Trade and Industry, *Economic Contributions of Singapore’s Creative Industries*, <http://www.mica.gov.sg> (estimating that the creative industries’ contribution to GDP was 2.8% in 2000); see also Chow K.B. et al., *The Economic Contribution of Copyright Based Industries in Singapore*, 2 REV. ECON. RES. ON COPYRIGHT ISSUES 127 (2005) (estimating that core-copyright industries’ contribution to Singapore’s GDP in 2001 was 2.9%). The target is to develop the creative cluster so that its contribution to GDP will double to 6% by 2012. See the recommendation of the Economic Review Committee, Subcommittee on Service Industries, Working Group on Creative Industries, available at <http://app.mti.gov.sg/default.asp?id=507#4>.
⁵⁷ REPORT OF THE ECONOMIC REVIEW COMMITTEE, *supra* note 30, at 52.

⁵⁸ TRIPS Agreement, Art. 6 (“For the purposes of dispute settlement under this Agreement, subject to the provisions of Articles 3 and 4 nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights.”).

⁵⁹ For example, Article 16.7.2 of the U.S.-Singapore FTA obliges parties to provide “a cause of action to prevent or redress the procurement of a patented pharmaceutical product, without the authorization of the patent owner, by a party who knows or has reason to know that such product is or has been distributed in breach of a contract between the right holder and a licensee, regardless of whether such breach occurs in or outside its territory. Each Party shall provide that in such a cause of action, notice shall constitute constructive knowledge.” This is subject to the following proviso: “A Party may limit such cause of action to cases where the product has been sold or distributed only outside the Party’s territory before its procurement inside the Party’s territory.”

- While the TRIPS Agreement’s provision on permissible exceptions to the patent monopoly is general in nature,⁶⁰ the FTA introduces a specific “Bolar” exception, which allows generic drug manufacturers to conduct tests on a patented drug during the patent term, limited to testing to meet the requirements for marketing approval in the United States and Singapore. In other words, the testing cannot be done for the purpose of meeting the requirements for marketing approval outside the country.⁶¹
- While the TRIPS Agreement provides for a minimum patent term of twenty years, the FTA requires parties to provide for the extension of this twenty-year patent term in two cases: (a) to compensate for unreasonable delays that occur in granting the patent, and (b) with respect to any patented pharmaceutical product, to compensate for unreasonable curtailment of the patent term as a result of the marketing approval process.⁶²
- While the TRIPS Agreement provides for a minimum copyright term of “life plus fifty years,” the FTA extends this duration by an extra twenty years.
- While the WCT/WPPT’s provision on anti-circumvention measures is general in nature,⁶³ the FTA contains very specific provisions which are fashioned very closely after those in the U.S. Digital Millennium Copyright Act of 1998.⁶⁴
- While the WCT/WPPT’s provision on enforcement is general in nature,⁶⁵ the FTA’s provision on enforcement has twenty-one paragraphs. One of the key provisions here relates to the requirement to criminalize “wilful copyright or related rights piracy on a commercial scale,” which includes (i) significant wilful

⁶⁰ TRIPS Agreement, Art. 30 (“Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.”).

⁶¹ Compare Australia and Canada, where the patent law provides for a “Bolar” exception that allows testing of a patented drug for the purpose of obtaining marketing approval in foreign countries. In the case of Canada, the validity of its “Bolar” exception was challenged by the European Community (E.C.) on the basis that it contravened the provisions of the TRIPS Agreement. The WTO Dispute Panel resolved this dispute in Canada’s favour, holding that the Canadian “Bolar” exception was permitted by Article 30 of the TRIPS Agreement. Panel Report, *Canada—Pharmaceutical Patents*, WT/DS114/R (Mar. 17, 2000).

⁶² U.S.-Singapore FTA Arts. 16.7.7, 16.8.2.

⁶³ WIPO Copyright Treaty, Art. 11 (“Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.”). See also WIPO Performances and Phonograms Treaty, Art. 18.

⁶⁴ Compare U.S.-Singapore FTA, Art. 16.4.7 with U.S. Digital Millennium Copyright Act, Sec. 1201.

⁶⁵ WIPO Copyright Treaty, Art. 14 (“(1) Contracting Parties undertake to adopt, in accordance with their legal systems, the measures necessary to ensure the application of this Treaty. (2) Contracting Parties shall ensure that enforcement procedures are available under their law so as to permit effective action against any act of infringement of rights covered by this Treaty, including expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringements.”)

infringements of copyright or related rights that have no direct or indirect motivation of financial gains, as well as (ii) wilful infringement for purposes of commercial advantage or financial gain.⁶⁶ This is targeted at businesses using pirated or unlicensed software and downloading and distribution of copyrighted works on the Internet. Previously, such infringing activities attracted civil liability only.

The United States has come under fire for its use of bilateralism to “ratchet up” the level of IP protection around the world.⁶⁷ In the case of Singapore, it should be pointed out that Singapore was hardly a “victim.” Her agreement to the higher level of IP protection under the U.S.-Singapore FTA appears to be within the Government’s agenda. This is evident from the concluding remarks made by the Minister for Law during the last set of copyright amendments made in the 1990s:

Sir, in closing, let me say that this [1999 Amendment] Bill reinforces Singapore’s commitment to provide a strong intellectual property rights regime to encourage the growth of a knowledge-based or information economy and to promote e-commerce and creative innovation. As technologies are ever evolving and as new issues surface as a result of the constantly changing environment, I must say that this Bill is by no means the last word on the subject. We will continue to monitor international developments and we may have to propose further refinements to our copyright regime to cope with the technological developments as and when the need arises. We are committed to ensuring that our copyright law will be responsive to the changing needs of industries and we will continue to evolve to take into account new developments.

Even in the case of Singapore’s agreement to accept a restriction to allow parallel imports in her patent law where pharmaceutical drugs are concerned, it should be understood within the wider context of the international debate on access to cheaper medicine in the Least Developed Countries⁶⁸: Singapore’s pro-parallel importation policy discourages drug companies from selling essential drugs cheaply in these poor countries because these drugs could leak into the higher-priced markets such as Singapore.

After the signing of the U.S.-Singapore FTA in May 2003, in 2004-2005 Singapore went about making the necessary changes to her IP laws to implement her obligations under the FTA. During this period, there were changes made which were unrelated to the FTA, many of which were to take into account further changes in

⁶⁶ U.S.-Singapore FTA, Art. 16.9.21.

⁶⁷ See, e.g., Frederick M. Abbott, *Toward a New Era of Objective Assessment in the Field of TRIPS and Variable Geometry for the Preservation of Multilateralism*, 8 J. INT’L ECON. L. 77 (2005); N. Gallus, *Parallel Policies on Pharmaceutical Parallel Trade*, 11 INT’L TRADE L. & REG. 77 (2005); Duncan Matthews, *TRIPS Flexibilities and Access to Medicines in Developing Countries: The Problem with Technical Assistance and Free Trade Agreements*, 11 EUR. INTELL. PROP. REV. 420 (2005). The author’s earlier writings on this subject matter also contain some tinges of indignation. See, e.g., Ng-Loy Wee Loon, *The IP Chapter in the US-Singapore FTA*, 17 SINGAPORE ACAD. L.J. 24 (2004).

⁶⁸ For further discussion of this issue, see Ng-Loy Wee Loon, *Parallel Importation of Pharmaceuticals: DOHA vs. Free Trade Agreements*, in *INTELLECTUAL PROPERTY & FREE TRADE AGREEMENTS* (Christopher Heath & Anselm Kamperman Sanders eds., Hart 2007).

technology (e.g., an exemption to allow the making of a copyrighted work for the purpose of simulcasting⁶⁹). Then, there were a few changes which were made to ensure that the expansion of copyright has not tilted too much in favour of copyright owners. In particular, Singapore jettisoned the British model of “fair dealing,” which is a narrower defence tied to specific purposes (research or private study; criticism or review; reporting of current events) in favour of a wider, “open-ended” model that resembles the American “fair use” defence.⁷⁰

Figures 1 and 2 (Appendix) show that the number of patent and trademark applications filed in the first six years of the new millennium has already outstripped the number filed in the preceding 10-year period.

2. Enforcement Infrastructure

A thorny issue in the U.S.-Singapore IP relationship used to be what the United States perceived to be a lack of enforcement against IP piracy by the Singapore authorities. Thus, for example, the decision of the Office of the U.S. Trade Representative (USTR) to have Singapore remain on its Special 301 Watch List in 2000 cited the following reasons⁷¹: (i) the growing problem of optical disk piracy which resulted in open retail availability of pirated CDs, VCDs, and CD-ROMs in Singapore;⁷² (ii) the “self-help” approach to IP enforcement adopted by the Singapore Government, which shifted the primary burden and expense of the investigating and prosecuting infringement to the IP right owners; and (iii) insufficient efforts at the borders to stop the in-flow and transshipment of infringing articles through Singapore.

In 2000, a unit called the IP Rights Branch was set up within the Specialised Crime Division in the Criminal Investigation to conduct raids against retail vendors of pirated works. In 2001, the Intellectual Property Office of Singapore (IPOS) was converted into a statutory board. Beyond performing the traditional regulatory functions of registering patents and trademarks etc., IPOS also plays a critical role in policy development, law reform, and educational activities (especially to raise

⁶⁹ See Copyright Act 1987, Sec. 43A, 107A (introduced in 2004).

⁷⁰ See *id.* at Sec. 35. This “open-end” model of fair dealing raises issues as to whether its scope is wider than that allowed by the “three-step” test in Article 13 of the TRIPS Agreement (requiring WTO members to “confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder”). This issue is further discussed in Ng-Loy Wee Loon, *Restoring the Balance in IP Law*, in DEVELOPMENTS IN SINGAPORE LAW BETWEEN 2001 AND 2005 (Teo K.S. ed., Singapore Academy of Law 2006).

⁷¹ See UNITED STATES TRADE REPRESENTATIVE (USTR), 2000 SPECIAL 301 REPORT 28 (2000).

⁷² To deal with this problem, Singapore invoked its Manufacture of Control Act in 1998 to regulate the manufacturing of optical discs, such as CDs and VCDs. In 2004, as part of her obligations under the U.S.-Singapore FTA, Singapore passed a new Manufacture of Optical Discs Act to enhance this regulatory regime.

public awareness of IP rights). In 2002, the Supreme Court announced the creation of an IP Court.⁷³

The establishment of the IP Rights Branch within the police force and its efforts in conducting raids against retail vendors of pirated works were noted in the 2001 USTR Special 301 Report.⁷⁴ This, as well as the ongoing U.S.-Singapore FTA negotiations at that time, accounted for the United States taking Singapore off the Special 301 lists for the first time in 2001. Figure 3 (Appendix) shows the statistics relating to IP enforcement by the police and the Department of Customs and Excise in the years 2000-2007.

The IP enforcement efforts by the police are complemented by a stiff sentencing policy from the courts. In *Ong Ah Tiong v. Public Prosecutor*, the former Chief Justice Yong Yung How (who retired in April 2006) heard an appeal from an accused who had been sentenced by the District Judge to thirty-two months' imprisonment on three counts of trademark infringement. The District Judge had adopted two principles in coming to this sentence: first, custodial sentences for IP counterfeiting offences are the norm unless the quantity of infringing articles is quite small; and second, the starting tariff for offences involving 1,000 infringing articles or more would be a sentence of twelve months' imprisonment and upwards. In upholding this sentence, the Chief Justice expressed his approbation for such a stiff sentencing policy. In his view, this would be consistent with the Government's "strong efforts to promote Singapore as a regional intellectual property centre and the concomitant need to clamp down on piracy of intellectual property."⁷⁵

The new law criminalising "significant and wilful" infringements of copyright, which came into force on January 1, 2005, has already been invoked to prosecute businesses for using unlicensed software,⁷⁶ and individuals for distributing hundreds of pirated digital music files via the Internet.⁷⁷ As mentioned in the Introduction, Singapore is now amongst the top twenty-five countries in the world with the lowest software piracy rates.⁷⁸

Enforcement of IP rights via civil litigation is not very prevalent in Singapore, as the small numbers of reported judgments set out in the Figure 4 (Appendix) show. These numbers reflect in part the smallness of Singapore; even today, she only has a population of 4.6 million. Further, some cases alleging infringement of IP rights are resolved by mediation or arbitration. For example, a high-profile IP dispute that erupted in 1999 between Singapore Airlines (SIA) and British Airways (BA), in which BA alleged that SIA's first-class seat-beds infringed patents held by BA, was amicably settled after two days of settlement talks mediated by a retired judge at the Singapore Mediation Centre.⁷⁹ Settling disputes via alternative dispute resolution

⁷³ *Special Court to Settle Intellectual Property Disputes*, STRAITS TIMES, Sept. 20, 2002.

⁷⁴ USTR, 2001 SPECIAL 301 REPORT 390 (2001).

⁷⁵ 1 SLR 587, 593-94 (2004).

⁷⁶ *Firm with Unauthorized Software Fined \$30,000*, STRAITS TIMES, Apr. 28, 2006.

⁷⁷ *Two Jailed for Sharing Pirated Music Online*, STRAITS TIMES, Feb. 18, 2006.

⁷⁸ *Supra* note 5.

⁷⁹ *SIA, BA Drop Lawsuits Over Seats*, STRAITS TIMES, Feb. 19, 2000.

(ADR) is a reflection of the Asian values still held within Singapore, in spite of her highly industrialised economy.⁸⁰

Although the number of IP cases may not be large, as the IP infrastructure of Singapore has become more sophisticated, so has the nature of these cases. In the first years of the new millennium, the IP cases involved more complicated facts and issues. For example, there was a case involving a patent relating to the HIV-2 virus,⁸¹ and another involving a patent relating to the “ThumbDrive”—a unitary storage device that is inserted into any universal serial bus (USB) socket, thereby becoming fully integrated with a PC or laptop.⁸² Many would be familiar with the “ThumbDrive,” but few would know that it is the subject matter of a patent registered by a Singapore company.

3. Cultural and Political Infrastructure

Singapore’s ability to successfully implement IP protection is tied to Singapore’s unique cultural and political landscape. The country enjoys a high level of respect for the rule of law and low rates of corruption. The public perception towards IP is generally favourable. This could in part be due to Government’s promotion of IP as essential to economic survival. For example, according to a recent study of the Singapore consumer’s piracy-related behaviour (e.g., in downloading pirated music or movies), 57% of the respondents believe that Singapore’s economy would suffer if everyone continued to buy pirated CDs or download illegally.⁸³ This could also be due to the public’s respect for IP based on the “just rewards” theory. Thus, in the study just mentioned, 82% of the respondents agreed that “people deserve to have their creations protected by intellectual property rights.”

Another reason Singapore has been able to accomplish long-range objectives is Singapore’s exceptional political stability. The People’s Action Party (PAP) has been the ruling party since the beginning of nationhood (1965), and it enjoys an overwhelming majority: there are only two opposition members in the entire 84-member Parliament. This consistent majority means that legislators can take a long-term approach, and also that the process of lawmaking is relatively efficient.

⁸⁰ Another IP dispute which was started in court but was ultimately resolved through mediation is the copyright and trademark infringement case *Fragrance Foodstuffs Pte. Ltd. v. Bee Cheng Hiang Hup Chong Foodstuff Pte. Ltd.*, 1 SLR 305 (2003). See *Rival Companies Settle Trademark Dispute Out of Court*, STREETS, Apr. 17, 2003. It was reported that the settlement was achieved through the mediation of the president of the business association of which the plaintiff and the defendant were members. Another area of disputes which may involve an IP right (trademarks), namely, disputes relating to registration and use of “.sg” Internet domain names, is governed by the Singapore Domain Name Dispute Resolution Policy, which is modelled on the Internet Corporation for Assigned Names and Numbers’s (ICANN) Uniform Dispute Resolution Policy.

⁸¹ *Genelabs Diagnostics Pte. Ltd. v. Institut Pasteur*, 1 SLR 121 (2001).

⁸² *Trek Technology (Singapore) Pte. Ltd. v. Global Electronics Pte. Ltd. & Ors.*, 3 SLR 389 (2005).

⁸³ LIM S.S., *ILLEGAL DOWNLOADING & PIRATED MEDIA IN SINGAPORE: CONSUMER AWARENESS, MOTIVATION & ATTITUDES* (IP Academy 2006).

IP laws are made in one of two ways. Statute-based laws go through the relatively efficient legislative process: (1) the first reading of the bill (where the bill is just introduced in Parliament); (2) the second reading of the bill (where the debates on the bill take place); and (3) the third reading of the bill (where any amendments to the proposed bill are introduced, and the bill is passed). Some IP laws are common-law based (e.g., passing off, breach of confidence), and are developed by judges.

4. Educational and Scientific Infrastructure

As in many Asian cultures, education is highly valued in Singapore. Six years of primary education are mandatory. Primary schools are bilingual, in English and the child's native language (Chinese, Malay, or Tamil). 87% of these students go on to receive secondary education or higher. In lieu of higher education, students may enroll in an Institute of Technical Education to earn certificates in technical fields. Tertiary education is available at the National University of Singapore (NUS), the Nanyang Technological University (NTU), Singapore Management University several polytechnics (an American-style business management school), and the National Institute of Education. In 2006, universities graduated 10,428 students, polytechnics graduated 16,715 students, and the National Institute of Education 2,004 students.⁸⁴ The most popular fields by far were engineering, information technology, and business and administration.⁸⁵

Both NUS and NTU are research-intensive institutions. NUS contains dozens of research centres and has affiliations with many national centres as well. The "NUS Enterprise" program promotes industry engagement and entrepreneurship; it includes an Industry Liason Office specifically charged with protecting the university's IP and promoting collaboration between the university and industry.⁸⁶ NTU has six "clusters" of research centres in Intelligent Devices and System, Nano and Microfabrication, Biomedical and Pharmaceutical Engineering, Advanced Computing and Media, Information and Communications, and Environmental and Water Technologies. NTU also boasts "30 spin-off companies specialising in e-commerce, IT, electronics and manufacturing process."⁸⁷

The Agency for Science, Technology and Research (ASTAR) is the national research body that oversees public sector R&D activities in Singapore. It not only manages R&D activities, but contains education and commercialisation arms, as well. It also conducts and publishes an annual survey of R&D in Singapore. According to that survey, in 2004 R&D expenditures amounted to 2.25% of GDP,

⁸⁴ Singapore Department of Statistics, <http://www.singstat.gov.sg/pubn/reference/yos/statsT-education.pdf>.

⁸⁵ *Id.*

⁸⁶ <http://www.nus.edu.sg/enterprise/ilo/>.

⁸⁷ Singapore Department of Statistics, <http://www.singstat.gov.sg/pubn/reference/yos/statsT-education.pdf>.

nearly triple the level in 1990. Over half of R&D expenditures were in the private sector.⁸⁸

Conclusion

There is little doubt that a factor critical to the growth of IP in Singapore is the Government's firm belief that strong IP is very important—perhaps even necessary—in the plan to achieve the economic goals set for the country. Singapore's actual attainment of these goals certainly fuels this belief. From an economic perspective, the fruits of adopting a First World level of IP protection were almost immediate: soon after the signing of the U.S.-Singapore FTA, the big players who set up their development centres in Singapore in 2004-2005 included Lucasfilm (owned by George Lucas of *Star Wars* fame), Koei (a leading Japanese games company renowned for its Chinese and Japanese medieval action and strategy games), Motorola, Dell Computers, Novartis, Pfizer, and GlaxoSmithKline. It would be very naïve, though, to attribute Singapore's economic success solely (or even primarily) to a strong IP infrastructure. For example, when Lucasfilm announced its decision in 2004 to set up a digital animation studio in Singapore, while it cited Singapore's commitment to protect IP as a reason for choosing Singapore as its first place of venture outside of the United States, other reasons given were Singapore's education system, cosmopolitan environment, and pro-business policies.⁸⁹ In other words, a strong IP infrastructure is a very important factor but certainly not a sufficient factor to pull in FDI.⁹⁰

Externally, Singapore also gained some mileage in the international IP platform. In March 2006, the first WIPO diplomatic conference in Asia was held in Singapore, a conference which gave birth to the Singapore Treaty on the Law of Trademarks. The influence of Singapore in shaping IP law in the international arena may be seen from the fact that the judgment of a Singapore judge, Justice Andrew Phang (who is now a Justice of Appeal), in a trademark case involving shape marks was recently cited with approval and followed by the South African Supreme Court of Appeal.⁹¹

What, then, is the impact of a strong IP regime on innovation amongst indigenous firms? It is generally believed that strong IP rights favour the incumbent MNCs in a country and disfavour independent development of technology by indigenous firms. Interestingly enough, in the case of Singapore, her strong IP

⁸⁸ [Http://www.a-star.edu.sg/a_star/123-Statistics-on-R-D-in-Singapore](http://www.a-star.edu.sg/a_star/123-Statistics-on-R-D-in-Singapore).

⁸⁹ *The Force is with Singapore and Lucas Studio Soon*, STRAITS TIMES, Aug. 4, 2004.

⁹⁰ See, e.g., Keith E. Maskus, *The Role of IPR in encouraging FDI and Tech Transfer*, 9 DUKE J. COMP. & INT'L L. 109, 128-29 (1998) ("It must be emphasised that strong IPRs alone do not sufficiently generate strong incentives for firms to invest in a country. If that were the case, recent FDI flows to developing economies would have gone largely to sub-Saharan Africa and Eastern Europe. In contrast, China, Brazil, and other high-growth, large-market developing economies with weak IPRs would have attracted less FDI.").

⁹¹ *Nation Fittings (M) Sdn. Bhd. v. Oystertec Plc. & Anor.*, 1 SLR 712 (2006), cited in *Bergkelder Bpk. v. Vredendal Koöp Wynmakery*, SCA 8 (2006) (S. Africa).

regime does not appear to have stunted the development of technology by indigenous firms. In fact, a study which tracks the patenting trend in Singapore from 1976 to 2004 reveals a notable increase in the number of Singapore-related UPTO patents since 1996,⁹² which marks the start of Singapore's aggressive promulgation of IP laws. The relevant statistics are shown in Figure 5 (Appendix).

Singapore remains a net-importer of IP. For example, of the 9,955 total patents granted in 2007, 9,226 (93%) went to foreign entities.⁹³ Yet many in Singapore hope that one day Singapore will itself become a net exporter of IP. In a very short time, Singapore has transitioned from a developing to a developed economy, in part because of its savvy use of IP; its next transition will be "from a mentality of mere IP users to that of IP owners."⁹⁴

⁹² Wong P.K. and Ho Y.P., *Knowledge Sources of Innovation in a Small Open Economy: The Case of Singapore*, 70 SCIENTOMETRICS 223 (2007).

⁹³ Intellectual Property Office of Singapore (IPOS), <http://www.ipos.gov.sg/topNav/pub/sta/>.

⁹⁴ The Senior Minister of State for Law. See the Minister's speech made at the launch of the IP-CEP (Creation-Exploitation-Protection) Programme for local enterprises on November 8, 2002, available at the Intellectual Property Office of Singapore (IPOS) website, <http://www.ipos.gov.sg>.

Appendix

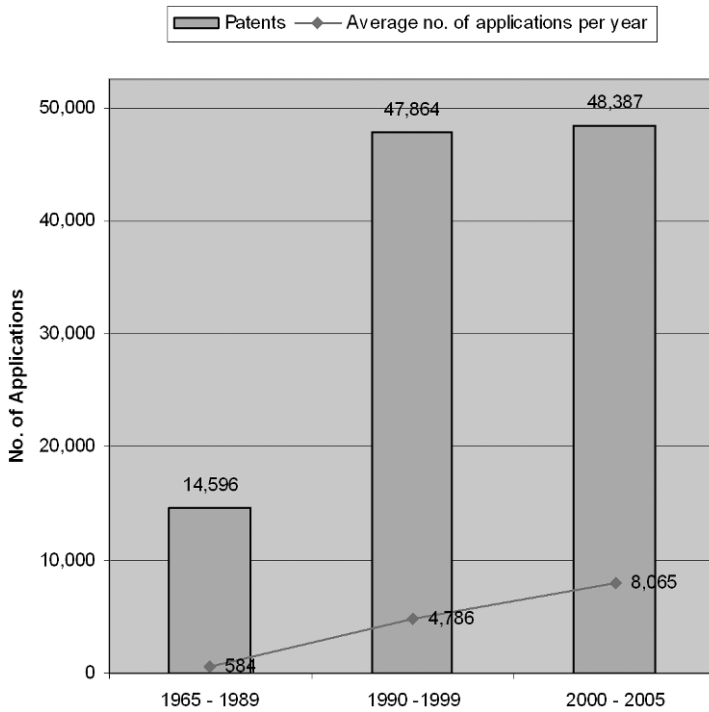


Figure 1: Statistics on Patent Filings 1965-2005

Data Source: The Intellectual Property Office of Singapore (IPOS). The statistical data for 1990-2004 are available on IPOS's website, <http://www.ipos.gov.sg>. Data for the other years were kindly made available by IPOS to the author.

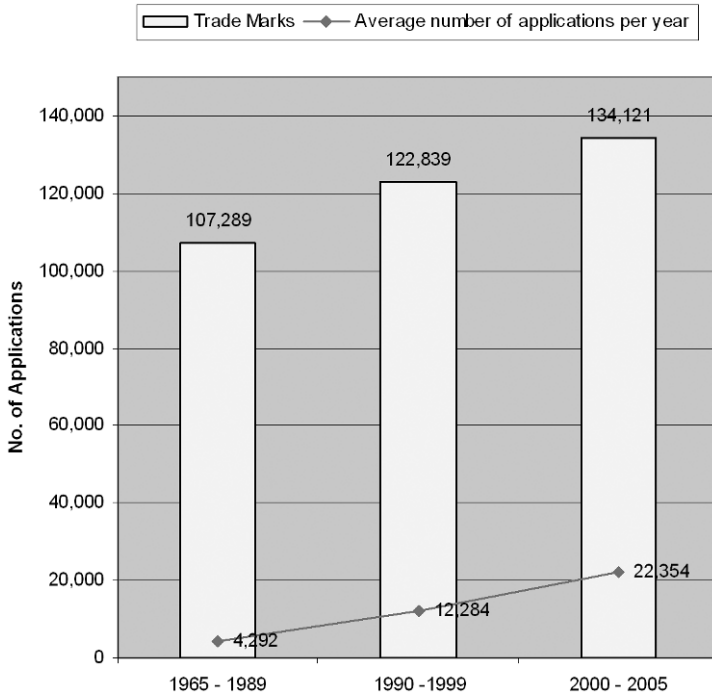


Figure 2: Statistics on Trademark Filings 1965-2005

Data Source: The Intellectual Property Office of Singapore (IPOS). The statistical data for 1990-2004 are available on IPOS's website, <http://www.ipos.gov.sg>. Data for the other years were kindly made available by IPOS to the author.

Year	Copyright Raids	Trademark Raids	Total Raids	Total Value Seized
2000	308	146	454	S\$16,310,436.28
2001	308	183	491	S\$15,553,324.95
2002	284	207	491	S\$9,415,266.00
2003	266	160	426	S\$33,185,092.00
2004	126	190	316	S\$12,665,969.00
2005	61	168	229	S\$19,774,083.00
2006	57	144	201	S\$9,952,296.00
2007	54	196	250	S\$3,385,269.00

Figure 3: Statistics on IP Enforcement 2000-2007

Data Source: Intellectual Property Office of Singapore (IPOS) website, <http://www.ipos.gov.sg>.

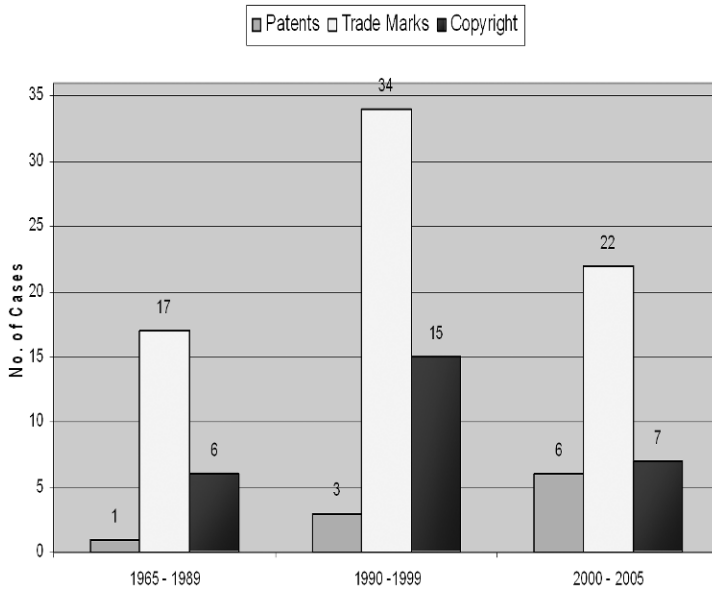


Figure 4: Statistics on IP Civil Cases* 1965-2005

Data Source: Singapore Law Reports.

*Civil cases relating to infringement and/or validity of the IP right. The statistical data shown in this Figure does not include unreported judgments from the Supreme Court or any judgment from the Subordinate Courts.

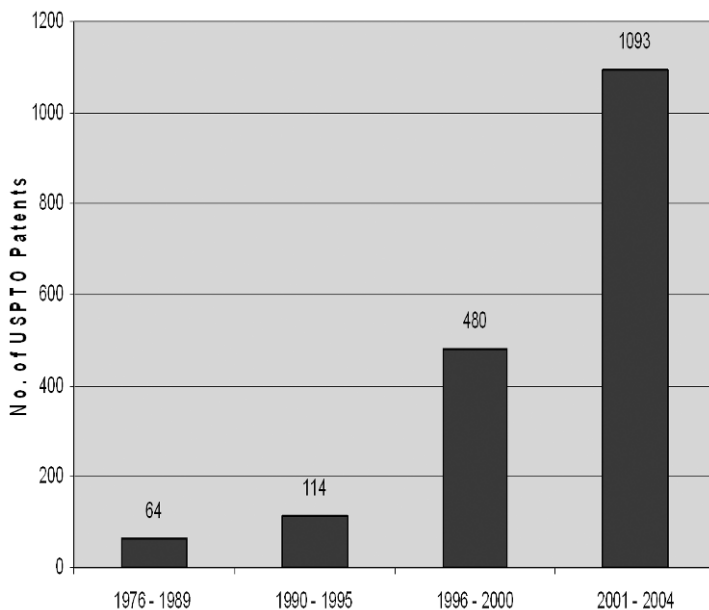


Figure 5: Statistics on Singapore-Related Patents** Granted by USPTO 1976-2004
Data Source: Wong P.K. and Ho Y.P., NUS Entrepreneurship Centre (2004).

**Where the patent is assigned to either: (a) a locally majority-owned Singapore firm; (b) a Singapore-based subsidiary of a foreign company or foreign-based company (usually a parent or headquarter company) that is known to have an operational presence in Singapore; or (c) a Singaporean tertiary institution or public research institute.

South Korea

Ji-Hyun Park

1. Legal Infrastructure	259
1.1. IP History	259
1.2. International IP Obligations	261
1.3. Current IP Laws	262
1.3.1. Patents, Utility Models, and Designs	262
1.3.2. Copyright	263
1.3.3. Trademark	263
1.3.4. Unfair Competition	263
1.3.5. Other	264
1.4. IP Lawmaking	264
1.5. IP Enforcement	264
1.5.1. Judicial Infrastructure	264
1.5.2. Administrative Infrastructure	266
1.5.2. Enforcement Reality and Legal Culture	266
2. Cultural Infrastructure	268
3. Political Infrastructure	269
4. Economic Infrastructure	271
4.1. Overview	271
4.2. Innovation Incentives	272
4.3. Foreign Investment and Technology Transfer	273
4.4. Domestic Industry	274
5. Educational Infrastructure	276
6. Scientific Infrastructure	277
6.2. Research and Development	277
6.2. Public/Private Innovation and Commercialization of IP	277
Conclusion	278
Appendix	279

1. Legal Infrastructure

1.1. IP History

The earliest Korean¹ law protecting intellectual property was enacted in 1908 during the closing chapter of the Chosun Dynasty, with the promulgation of a Patent Decree, a Design Decree, a Trademark Decree, and a Copyright Decree. In 1910, when Japan annexed Korea, these Royal Decrees were repealed and Japanese IP laws were instituted with little alteration. Those laws remained in effect until 1945, the end of the Japanese colonization.

Between 1945 and 1948, the new Korean government laid foundations for the current system of protection for industrial property. In 1946, the Patent Bureau was established within the Ministry of Trade and Industry, and the Patent Act, which covered inventions, utility models, and designs, was passed later in the same year. The Trademark Act was passed into law in 1949. The nation continued to follow the

¹ Korea as used in this chapter denotes South Korea (the Republic of Korea) only.

substantive provisions of Japanese copyright law until 1957, when the Government of the Republic of Korea enacted a new Copyright Act.

The above laws remained in effect until the government passed a new Patent Act in 1961 and a new Trademark Act in 1963 (the origins of the current Patent and Trademark Acts). The Trademark Act of 1963 was subsequently amended in 1997 to protect three-dimensional trademarks, and then again in 2001, in order to adopt the Madrid System of International Registration of Marks and the Trademark Law Treaty. Recent amendments to the Trademark Act allow geographical names to be registered as trademarks when they acquire secondary meaning, and provide for compensation for losses incurred prior to registration of a trademark.²

The 1961 Patent Act has also undergone several revisions. The 1980 amendment recognized the priority right pursuant to the Paris Convention, required a multiple claim system, and adopted laid-open publication systems.³ IP protection was further improved by the introduction of product patents in 1986, and by the expansion of the scope of plant inventions in 1990. The protection for new plant varieties began in 1997 with the Plant Varieties Protection Act.⁴

The 1957 Copyright Act was completely redrafted in 1986,⁵ followed by a number of significant revisions. The 1986 revision extended the protection of copyrighted works from thirty years to fifty years past the death of the author,⁶ acknowledged the notion of “work-for-hire,” and recognized foreigners’ copyrighted works.⁷ Revisions to the Copyright Act in 1997, 2000, and 2003 provided for protection of an author’s moral rights and strengthened the penal provision for copyright infringement. In 2003 in particular, the amendments improved the effectiveness of technological protection measures (TPMs) by prohibiting production and trafficking of devices aimed at circumventing TPMs, and the framework for a “notice and takedown” was introduced under which an Internet service provider would be given a legal incentive to respond promptly to take-down requests for pirated sites. Korea also enacted the Phonogram Act and the Motion Picture Act, mainly for strengthening the enforcement of copyrights in sound recordings and films.⁸ In January 2005, Korea revised its Copyright Act by granting sound recording producers and performers certain exclusive transmission rights. The government also issued interpretations of the new legislation that may help the music industry in its legal battles against downloading, uploading, and exchanging computer files of sound recordings without the permission of the rights holders.

² Trademark Act, Law No. 8852 of 2008.

³ This is equivalent to the U.S. “provisional rights” system upon publication of a patent application.

⁴ Plant Varieties Protection Act (or Seed Industry Law), Law No. 5024 of 1997.

⁵ Copyright Act, Law No. 3916 of 1986.

⁶ Copyright Act, Art. 36.

⁷ Copyright Act, Art. 3(1).

⁸ Phonograms Act (Audio and Video Works Act), Law No. 4351 of 1991; Motion Picture Act, Law No. 2436 of 1973, *amended* by Law No. 3776 of 1984.

1.2. International IP Obligations

Korea's entry into WIPO in 1979 marked its first participation in the multilateral process, following which Korea proceeded to join the Paris Convention in 1980. The commitment to extend the national treatment to foreigners as prescribed in the Paris Convention, along with the right of priority under the Convention, led to a sharp increase in the number of applications for industrial property rights filed by foreign parties in Korea.⁹ Korea also joined the PCT in 1984, bringing forth remarkable improvements in the efficiency and internationalization of patent filing procedures. As of 1999, the Korean Industrial Property Office (KIPO) began acting as an international search and examination authority, as well as performing other search and preliminary examination functions.¹⁰

In addition, Korea became a member of the Budapest Treaty on Micro-Organisms in 1988 and the Berne Convention in 1996. After joining the Berne Convention, Korea amended its Copyright Act and Computer Program Protection Act so as to increase the level of protection to match international standards. In particular, the new Copyright Act of 1996 provided for the retroactive protection of foreign works published prior to 1987.

The WTO TRIPS Agreement has also had a significant impact on the IP regime in Korea. After the Uruguay Round negotiations concluded in 1993, Korean legislators amended the Copyright Act, extending the term of protection for neighboring rights from twenty years to fifty years, including providing database protection and recognizing rental rights for phonograms.¹¹ The amendment also reduced the scope of exemption from fee payments for educational use, from a broad range of educational materials to those used in primary and secondary schools,¹² reflecting the provisions in Article 13 of the TRIPS Agreement. Adhering to the TRIPS principle of most favored national treatment, the "pipeline protection" of pharmaceuticals and agrochemicals given to U.S. patent holders by the Korean government in 1986 had to be adjusted. Also in 1992, the Semiconductor Chip Layout Design Act was enacted¹³ in response to the TRIPS negotiations following the Treaty on Intellectual Property in Respect of Integrated Circuits (the "Washington Convention" of 1989). Similarly, the trade secret law could not have been enacted in 1991 in Korea without the international recognition of trade secrets as a kind of intellectual property, an understanding that was crystallized in the draft TRIPS provisions. In response to the concerns of foreign technology suppliers, the Korean National Assembly approved

⁹ The ratio of patent registrations by Koreans versus foreigners before 1979 was 55.6:44.4, whereas in 1980 it increased drastically to 11.4:88.6. Korean Intellectual Property Office (KIPO), <http://www.kipo.go.kr>.

¹⁰ Such as PCT/ISA (International Searching Authority) and IPEA (International Preliminary Examining Authority).

¹¹ Copyright Act (1993), Arts. 7 and 70.

¹² Copyright Act, Art. 23.

¹³ Semiconductor Integrated Circuits Layout Design Act, Law No. 4526.

revisions to the Unfair Competition Prevention Act to include the provision for trade secret protection.¹⁴

Much of the progress in the area of intellectual property in Korea, as marked by the legislative changes described above, has come about due to the changing global economic environment. In particular, the biggest trigger was the pressure from the United States as Korea's biggest trade counterpart. Given the importance of the Korean market to those investing in Korea, the level of protection and enforcement of the broad range of IP rights has received vast attention from foreign governments, most notably that of the United States.¹⁵

The Korean Patent Act was amended in 1986 following vigorous trade negotiations with the United States, to allow for patent protection of chemical substances, pharmaceuticals, and agrochemicals for a term of fifteen years (extended from twelve years).¹⁶ At the same time, the Patent Examination Guideline was amended to make it clear that claims on micro-organisms are allowable. Similarly, in 1985 the Section 301 investigation started pressuring the Korean government and industry with the threat of retaliation should its copyright regime continue to provide inadequate protection for American works. As a result, Korea agreed to introduce a general copyright bill by 1987, in which the scope of copyright protection would conform to the standards enumerated in the UCC. At the same time, Korea agreed to enact the Computer Program Protection Act explicitly covering computer software.¹⁷

1.3. Current IP Laws

The basic provision for the protection of intellectual property resides in Article 22(2) of the Korean Constitution, which states that "the rights of authors, inventors and artists shall be protected by law."¹⁸ For a list of the current IP legislation and relevant administrative authorities, see Figure 1 (Appendix).

1.3.1. Patents, Utility Models, and Designs

An invention is protected in Korea upon the grant of a patent pursuant to the Patent Act or upon the registration of a utility model pursuant to the Utility Model Act. For a patent or utility model registration, an invention must satisfy the basic criteria of industrial applicability, novelty, and inventiveness. To qualify for a patent, the

¹⁴ Unfair Competition Prevention and Trade Secrets Protection Act, Art. 2. For further details, see Sang-Hyun Song & Seong-Ki Kim, *The Impact of Multilateral Trade Negotiations on Intellectual Property Laws in Korea*, 13 UCLA PAC. BASIN L.J. 118, 125-30 (1994).

¹⁵ The Office of the U.S. Trade Representative (USTR) estimated that piracy in Korea caused US\$572 million in losses to U.S. copyright owners in 2002, and the USTR included Korea on its Priority Watch List in 2004 because of its concern with online music piracy. <http://www.ustr.gov>.

¹⁶ Patent Act, Law No. 3891 of 1986.

¹⁷ Computer Programs Protection Act, Law No. 3920 of 1986.

¹⁸ This section (1.3) is a summary of Chapter 1 in YOUNG KIM, BACKGROUND READING MATERIAL ON THE INTELLECTUAL PROPERTY SYSTEM OF THE REPUBLIC OF KOREA (WIPO 1996) [hereinafter KIM, BACKGROUND READING].

invention must be “a high-level creation of a technical idea utilizing the laws of nature.”¹⁹ The term of protection for a patent is twenty years from the date of the filing of the patent application. For a registered utility model, the term is ten years from the filing date.

Designs are protected under the Design Act. This Act defines a design as “the shape, pattern or color of an article or any combination thereof which produces an aesthetic impression on the sense of sight.”²⁰ Designs must be examined and registered at KIPO in order to enjoy protection.

1.3.2. Copyright

Any work that falls within the literary, scientific or artistic domains may be eligible for protection under the Copyright Act. No registration or other formality is required for the establishment of a copyright. However, a copyrighted work registered with the Ministry of Culture, Sports and Tourism enjoys certain presumptive advantages in the event the copyright holder seeks to enforce the copyright against third parties.²¹ Both derivative works and compilations of works are protectable under the Copyright Act as original works, except to the extent that they prejudice the rights of the authors of the original works upon which they are based.²²

1.3.3. Trademark

Trademarks are protected mainly under the Trademark Act. A trademark is defined in the Act as “a sign, character or figure, or combination thereof which is used by a person who produces, manufactures, processes, certifies or sells goods for business, in order to distinguish his goods from those of others; or a combination of color with any one of the sign, character, figure or combination thereof.”²³ The Trademark Act also provides for the registration of associated marks, service marks, collective marks, and non-profit business emblems. Unauthorized copying of unregistered business indications, including a trademark or a service mark, is prohibited also under the Unfair Competition Prevention Act if the indicators are widely known to consumers in Korea.

1.3.4. Unfair Competition

The misappropriation of trade secrets has long been punishable under the Criminal Code. However, a more accessible legal basis for the protection of trade secrets was provided with the addition of special provisions to the Unfair Competition Prevention and Trade Secrets Protection Act, which came into effect in 1992 and was recently amended in 2004. The acquisition of a trade secret through larceny, embezzlement, coercion, or other improper means, or the use or disclosure of the trade secret so acquired, constitutes an act of infringement under the law.

¹⁹ Patent Act, Art. 2.

²⁰ Design Act, Art. 2.

²¹ Copyright Act, Art. 51.

²² Copyright Act, Art. 5.

²³ Trademark Act, Art. 2.

1.3.5. Other

In addition to the above, certain IP rights are protected under specially legislated acts. For example, computer programs are protected under the Computer Program Protection Act of 1987, giving fifty years of protection for the program copyright.²⁴ Also, the Semiconductor Chip Layout Design Act, enacted in 1992, provides protection for semiconductor chip layout designs for ten years from the date of registration.²⁵

1.4. IP Lawmaking

Intellectual property laws are created in the same way that other laws are made in Korea. The legislative process in Korea takes the following steps.²⁶ A legislative bill is introduced either by at least ten members of the National Assembly or by one of the executive branches. When a bill is introduced by the government, the submitting branch consults with other concerned ministries or branches and posts a Public Notice for the bill for twenty days or more. A bill submitted by the members of the National Assembly is reviewed by the Standing Committee within the National Assembly. Thereafter, each bill is referred to the competent State Council for examination and submitted to the Ministry of the Government Legislation for review of its legality, structure, and wording. When the bill is approved by the President, then it is sent to the National Assembly for deliberation and passage. Once passed by the National Assembly, it is finally sent to the executive branch for promulgation. In Korea, most of the IP-related bills have been introduced by the government rather than the National Assembly.

1.5. IP Enforcement

1.5.1. Judicial Infrastructure

The main recourse for the enforcement of IP rights (“IPR”) in Korea is to bring a civil action before a court. Criminal sanctions may also be imposed on the infringer if the case is prosecuted based on related criminal charges. The procedures from both civil laws and criminal laws apply to the enforcement of IPR, and each IP law specifies the remedies available for civil and for criminal infringements.

Civil remedies include injunctions, damages and measures to help restore one’s business reputation.²⁷ The recovery of damages is available only when an infringer has acted willfully or negligently. The amount of damages awarded tends to be determined based on the profits earned by the infringer or the reasonable royalty, rather than the actual amount of loss to the right holder due to the infringement. The

²⁴ Computer Program Protection Act, Art. 8.

²⁵ Semiconductor Chip Layout Design Act, Art. 7.

²⁶ See <http://www.moleg.go.kr>.

²⁷ For example, courts may demand the infringer to put an advertisement in the newspaper about the infringed IP rights. However, measures to restore damaged business goodwill are not available in the cases of semiconductor chip layout design rights and computer program copyrights.

Korean legal system is unfamiliar with the notion of treble damages or any sort of punitive damages as a civil remedy.

Therefore, intellectual property owners in Korea often rely on criminal prosecution to enforce their patents, copyrights, and trademarks. These can be initiated regardless of pending civil infringement suits. In most cases, criminal penalties include imprisonment for up to seven years and fines of up to KRW 100 million.²⁸ Criminal investigations and indictments for infringement may be brought upon the complaint of the right owner.²⁹ At that point, it is up to the prosecutor of the case to determine whether or not to bring an action. Prosecutors can also take actions such as raids and seizure of the infringing products. If a raid is unsuccessful and the infringer is convicted, the right holder can subsequently bring a civil action for damages (if not done earlier), using the criminal conviction as evidence of infringement.

Korean courts are generally viewed as fair and reliable in enforcing IP rights. Korean judges are well educated and highly respected for the most part, and the general public tends to give deference to the decisions they issue. With regard to IP litigation, courts often exercise their broad discretion to consult the IP-related laws and practices of other jurisdictions. Korean courts continue to educate the judges dealing with the complicated technology-related cases so that they are competent to rule on those cases.³⁰

In Korea, candidates for the bar must sit for a bar exam upon completion of 4-year college education.³¹ By passing the bar exams one gains admittance to the 2-year practical training program at the National Judicial Training and Research Institute. Depending on the grades earned at the Institute, one can apply for a position within courts, prosecutors' offices, law firms, companies, and other organizations. As it is extremely difficult to be licensed to practice law in Korea,³² once they make into their posts, attorneys are generally held in high esteem.

1.5.2. Administrative Infrastructure

Under the Patent, Utility Model, Design, and Trademark Acts, administrative actions for trials that are closely related to the enforcement of industrial property rights may be brought before KIPO. Such trials include an invalidation trial, a trial to confirm the scope of a patent, trademark, or the like, and a trial to cancel a trademark registration. The owner of the industrial property right or the alleged infringer,

²⁸ US\$1 = KRW 1,045 as of June 2008.

²⁹ In the case of trademark infringement or unfair competitive activities, however, criminal prosecution may be initiated *ex officio* even if no complaint is filed. Under the amended Copyright Act, prosecutors can initiate enforcement without right-holders' complaints in the case of habitual perpetuation of infringing acts for commercial purposes.

³⁰ Robert M. Sherwood, *IP Systems and Investment Stimulation: The Rating of Systems in Eighteen Developing Countries*, 37 IDEA 261, 337 (1997).

³¹ In the current national pipeline is the plan of instituting graduate law schools and allowing only those graduating from these law schools to sit for the bar exam.

³² While the figures are changing, historically fewer than 5% of the law graduates have passed the national bar exam each year.

and in many cases, any other “interested party,” may file for such a trial either simultaneously with, or independent of, a court action. Generally, these administrative actions are brought by the defendant in a civil action for patent infringement. As can be seen in Figure 2 (Appendix), there has been a steady increase of administrative actions filed at KIPO.³³

Appeals from decisions made by the Korean Intellectual Property Tribunal of KIPO are heard by a specialized Patent Court, which was established in 1994 to enhance the efficiency of the patent litigation system in Korea by bifurcating infringement claims and invalidity claims. The Patent Court is equipped with twelve judges appointed by the Supreme Court who have experience in patent cases and have academic background in science or engineering, as well as seventeen technical examiners who have expertise in various science and technology fields, in order to ensure uniform interpretation of the patent law and the effective settlement of technology disputes.³⁴ Since its establishment, the Patent Court has handled more than 7,000 cases, giving more efficient judicial review on the invalidation and scope confirmation of patents.³⁵ Fewer than 20% of the decisions issued by the Patent Court are challenged in the Supreme Court.

In addition to the above remedies, trademark owners can request Customs authorities to restrict the import or export of goods infringing their trademark rights by recording their registered trademark rights with Customs authorities. Customs officials suspend operations on articles presented for import or export clearance that are suspected of being counterfeit, and they have the right to investigate the related infringers.

1.5.3. Enforcement Reality and Legal Culture

While various measures of enforcement of rights are available under the IP laws, in many cases, right-holders of patents, trademarks, and copyrights in Korea have found it difficult to enforce their rights through civil actions. First, it is not easy to prove a suspected infringement: evidence of infringement must be collected by the plaintiff and it is very difficult to prove damages.³⁶ Due to the lack of a pretrial discovery process in Korea, however, it is very difficult for the plaintiff to prove the defendant infringer’s profits.³⁷ Locating suitable experts can be challenging for

³³ The drastic hike in the filing rate in 1998 is because the Trial Board and the Appellate Trial Board of KIPO were merged into the Industrial Property Tribunal that year.

³⁴ See http://patent.scourt.go.kr/patent_e/intro/intro_01/index.html. For further background information on the establishment of a Patent Court system in Korea, see Jong-Kyun Woo, *The Patent Court of Korea: An Overview of the Background, Organization, Jurisdiction and Standard of Review*, CASRIP NEWSLETTER Vol. 6 No. 2, Autumn 1999 (Seattle, Wash.: University of Washington), available at <http://www.law.washington.edu/CASRIP/newsletter/Vol6/news6i2Woo.html>.

³⁵ See the statistics of patent court cases at <http://patent.scourt.go.kr>.

³⁶ And the evidence gathered by plaintiff’s private investigator (whose business is limited in Korea to business credit investigation under the Credit Investigation Act of 1977) is not given much weight.

³⁷ Under the Korean discovery system, the parties are not obligated to produce documents in their possession.

many complex patent infringement cases. Second, while injunctive relief is available in patent, copyright, and trademark cases, the procedure for obtaining a preliminary injunction is often time-consuming, usually taking several months.³⁸ In fact, interlocutory relief has rarely been granted by the Korean courts. Further, courts generally ask that a security or bond be posted before issuing an interlocutory injunction, which can be burdensome.

It was not until the twenty-first century that the government was able to dedicate meaningful resources in enforcing IP rights, due to other pressing matters (e.g., economic development, financial stabilization, etc.). In many instances, courts and police alike were not sufficiently educated to try IP cases. Even now, when the system has developed more knowledge and resources, tracking online piracy and video-DVD piracy has become more difficult due to the growing sophistication of pirate production facilities and advanced distribution technologies.

In addition to these technical difficulties, a cultural attitude stemming from Confucianism prevalent in Korea has played a significant role in limiting enforcement efforts (see below). Ethics has traditionally been the principal regulator of human conduct and virtue; therefore, written laws did not mean as much as customs, traditional values, and family relations. Therefore, statutes identifying rights to foreign concepts (such as private intellectual property) have been ignored easily as they are not in line with the existing social norms. If legislation providing for IPR was not meaningful, enforcing those laws was even more challenging, where litigation represented a failure of social harmony.³⁹

Hence, Korean leaders have over time understood that Western-imported systems can function well only when they have been accepted, absorbed, and redefined as part of a greater whole in Korean society. The most notable example is with regard to copyright laws: there has been a perception among average Koreans that these laws have been adopted to meet the demands of Western foreigners only (the United States in particular). While the understanding of copyright as a rights-based property has now become more widespread in Korean society, a negative attitude toward copyright protection remained intact for a long time; even the law-enforcing institutions, including the police, prosecutors, and even courts, were not free from such an attitude.⁴⁰ The vast majority of the young generation, until very recently, held to the belief that copying of books, software, and albums without the creator's authorization is no vice at all.⁴¹

However, thanks to continuous efforts by the government and various awareness programs initiated by schools and industry, the enforcement reality has much improved in the last decade or so. Further, as more demand for effective protection of intellectual property began to be generated domestically, such concerns gradually started to be alleviated.

³⁸ Song & Kim, *supra* note 14, at 133.

³⁹ Arthur Weinburg, *Jurisprudence in Asia: Enforcing Intellectual Property Rights*, 5 U. BALT. INTELL. PROP. L.J. 25, 26-27 (1997).

⁴⁰ Song & Kim, *supra* note 14, at 120.

⁴¹ *See, e.g.*, KOREA ECON. DAILY, Jan. 31, 1994.

2. Cultural Infrastructure

As briefly mentioned above, the concept of intellectual property as exclusive personal property has long been alien to Korean culture. To some extent, this may be attributed to the Confucian ethic that dominated the Korean socio-cultural value system, which viewed intellectual creations as being in the public domain rather than belonging to their individual creators. In Confucianism, the ideal was harmony; the family and the community, not the individual, were the focal units. It was not an individual's personal achievements, but his or her relationships, i.e., contributions to the harmony of the family and the community, that were the measure of accomplishment.⁴² Therefore, Confucian cultures tended to be antagonistic to private, individual IP rights. Such cultures considered creativity as collectively benefiting their community and posterity.⁴³ Inventing a product or authoring a work of art was considered an accomplishment of the family and the community; thus, the expectation was that it would be shared. Copying a book written by others was not an offense, but instead a recommended activity.⁴⁴

The concept of linking economic advantage to creativity was also foreign to Confucian cultures. It was considered dishonorable for a learned person to write a book for sheer profit. Hence, invention and authorship simply were not recognized as worthy of special legal protection of the individual over the community.⁴⁵ Moreover, works of drama and music were never properly accredited under the Confucian tradition due to the low social status of the people in the business of entertainment. Artists and musicians were classified in the same rank as butchers and gravediggers.⁴⁶ Historically, entertainers created their artistic works without the intention of making money, because they were retained more or less as slaves by the noble classes for whom they created their works upon request.⁴⁷ It is not surprising, therefore, that their creative works were neither appropriately acknowledged nor protected.

However, much has changed since the 1970s. Fast-paced global economic activity has motivated Korea to provide better protection of IPR in order to maintain its competitiveness in the high-technology market. This was marked by amendments to various IP laws, which heightened the degree of protection for patents and copyrights in particular. Along with it came a shift in cultural attitude among Koreans, as they began to acknowledge the value of the technological innovation that was driving the market.

⁴² Sang-Hyun Song, *The Protection of Intellectual Property Rights in Korea*, Intellectual Property Protection in Pacific Rim Countries Conference, Boston, Mass., Mar. 1995.

⁴³ Weinburg, *supra* note 39, at 25.

⁴⁴ Song & Kim, *supra* note 14, at 120.

⁴⁵ *Id.*

⁴⁶ KI-BAIK LEE, *A NEW HISTORY OF KOREA* (1984).

⁴⁷ Won Soon Park, *The Korean Situation on Music Copyright*, International Symposium on the New Copyright Law, 1987.

Korean people, and especially younger generations, are fascinated by new trends and new technology.⁴⁸ This passion for new and creative features has expanded to other commercial products and has motivated the market to compete for innovations that will win over customers. Companies started acknowledging the significance of their innovative power and quickly responded by creating effective knowledge management mechanisms. Many have adopted a system of rewarding the inventors within their company, acknowledging their contributions to the company's success. Corporations and organizations alike became very active in commercializing their intellectual property and expanded their licensing departments.⁴⁹ While Confucian attitudes still influence Korean thinking and appear at the margins of the Korean IPR setting, many of the referenced traditions are outdated and only of historical interest, as economic interests now play a much more determinative role.

3. Political Infrastructure

One of the important factors steering the economic development to the current knowledge-based economy has been Korea's strong government. The Korean growth strategy was based primarily on the Japanese model of the government's detailed intervention in the nation's economic activities. The direct interventions of the state have played a significant role in every stage of Korea's economic development.⁵⁰

The most notable example was after the establishment of a new government by President Jung Hee Park following the military coup in 1960. He enabled a shift in policy that stressed economic growth and established a leading governmental role in the nation's economic activity. For a crucial period beginning in the early 1960s, the Korean state comprised a tightly organized, like-minded group of military and civilian political leaders and technocrats, who were oriented towards the well-defined national goal of rapid economic growth.⁵¹ During this period, the government tried to promote the development of key industries by establishing public

⁴⁸ For example, an average Korean switches to a newer model of handset in 15.6 months, which is a shorter duration than in most OECD countries. Members of the younger generation, from ages twelve to twenty-nine, use their phones for twelve months on average before switching to a newer model. NATIONAL INTERNET DEVELOPMENT AGENCY, MINISTRY OF INFORMATION & COMMUNICATIONS, 2004 SURVEY ON WIRELESS INTERNET USE.

⁴⁹ For example, Samsung Electronics Co. now employs more than a hundred personnel in its licensing department, which was created in 1996. Universities are also implementing technology transfer departments to commercialize the fruits of their R&D activities.

⁵⁰ Kuk-Hwan Jeong & John Leslie King, *Korea's National Information Infrastructure*, in NATIONAL INFORMATION INFRASTRUCTURE INITIATIVES: VISION AND POLICY 112 (Brian Kahin & Ernest J. Wilson III eds., 1997).

⁵¹ KARL J. FIELDS, ENTERPRISE AND THE STATE IN KOREA AND TAIWAN 26 (Cornell University Press 1995).

enterprises,⁵² and the most intense legislative activities took place to make new, ambitious, and government-driven economic plans. These laws and legal institutions were instrumental in achieving the nation's economic success. The relationship between the state and the market was "government: the leader, business: the follower," which persisted for two decades.⁵³

Korea's top-down decision-making process in politics and the deference to the authority by officials executing the decisions enabled a fast implementation of various national agendas aiming at the country's growth. Most recently manifested are the efforts towards the recovery of the economy after the 1997 financial crisis. The government implementation of a nation-wide reform and restructuring program was enthusiastically greeted by every sector, including financial, corporate, labor, and public. All sectors made unanimous efforts to go through a rather painful change of the respective internal structure to enhance the profitability and soundness of the nation's economy. This carried on through the government's initiative to build a technology-focused economy for the twenty-first century. The state actively encouraged the *chaebols*⁵⁴ to enter high-technology industry to invest in its infrastructure.

Korea's transition from labor-intensive to technology-intensive investment did not happen overnight; it happened through careful long-term planning by the government. For example, the strength of the Korean telecommunications industry is due to the government's vision and proactive policy adopted in the early 1980s for building a framework that wired the entire country with optical fiber lines. This provided a basic infrastructure for a rich IT industry with high-speed Internet and telecom services.

One factor discouraging foreign investment into Korea over time, however, has been the volatile nature of politics, combined with the uncertainty vis-à-vis North Korea. The regional antagonism running deep, and the correspondingly bitter and reductive tone of political debate often appearing in the National Assembly, have frequently impeded policy formation and implementation. Historical economic indicators reveal that during the times of heightened unrest in the nation's political climate and of augmenting threat from North Korea, foreign capital withdrew significantly.⁵⁵ Experts say that political stability is sometimes more important than democracy for foreign investment.⁵⁶ What matters most is that the leadership within

⁵² The banking sector and other social infrastructures such as electricity, telecommunications, roads, railways, port facilities, fertilizers, oil refineries, and steel were all owned and controlled by the government, which consolidated the economic power of the government vis-à-vis the private sector in the 1960s and 1970s.

⁵³ Kwang Shik Shin & Seung Wha Chang, *The Role of Law and Legal Institutions in Asian Economic Development: The Case of Korea* 57 (Development Discussion Paper No. 661, Harvard, Nov. 1998).

⁵⁴ Large Korean conglomerates.

⁵⁵ See <http://www.bok.go.kr>.

⁵⁶ China, for example, has been receiving a constant inflow of investment because the government is perceived as stable, and there has been continuity since the Open Door Policy was initiated in 1978.

government is united, and that the government is prepared to take decisive actions to remedy problems and to stick to its decisions.⁵⁷ Foreign investors have a stake either in protecting their intellectual property or in avoiding any risk of being involved in IP disputes with competitors, which will bring down the value of their investments. Therefore, they pay close attention to the viability of the policy or legislative plans for certain IP laws and regulations, and to the government's unified commitment to enforcing the rights under those laws and following through with their commitments.

As seen earlier, the IP regime has been guided by the government's initiative to join the international treaties and to provide a statutory framework for the protection of IP rights. The sustainability of such an IP regime depends on whether the government can stay consistent with what they have signed on to, irrespective of the change of administration or the climate within the parliament. Over time, the Korean government has realized that prioritizing intellectual property in their agenda is necessary, as the stake is highly linked with the foreign trade that directly impacts the local economy.

4. Economic Infrastructure

4.1. Overview

During the last half-century, the Korean economy has risen from the ashes of the aftermath of the Korean War to become a modern industrial powerhouse. Korea's per capita GNP in 1960 was US\$80 per year, placing it even with Ghana and Sudan, but by the 1990s, after some three decades of growth averaging nearly 9% a year, Korea had become one of the world's most developed countries, joining the OECD in 1996.⁵⁸ It now boasts the world's tenth-largest economy.

Until the mid-1990s, Korea's economic growth was based primarily on traditional manufacturing industries such as the shipbuilding and automotive industries. In the 1990s, Korea's traditional industrial paradigm was challenged by the rapid rise of knowledge as the principal driver of competitiveness. In the new economy—a so-called “knowledge-based economy,” which is directly based on the production, distribution, and use of knowledge and information⁵⁹—the contribution of the information and communication technology sectors to output and productivity growth became visible and significant. Therefore, the challenge Korea faced was to increase its productivity and the efficiency of its investments in both physical

⁵⁷ Interview with Lord Byron Griffiths, Vice Chairman of Goldman Sachs Europe, *How Policy Makers Can Attract Foreign Investment*, 4 ECON. REFORM TODAY 10 (1997), available at http://www.cipe.org/publications/ert/e26/E26_04.pdf; Douglas H. Brooks & Lea R. Sumulong, *Foreign Direct Investment: The Role of Policy*, Asian Development Bank (ADB) Econ. & Res. Dep't Policy Brief No. 23 (Dec. 2003), available at http://www.adb.org/Documents/EDRC/Policy_Briefs/PB023.pdf.

⁵⁸ World Bank, <http://www.worldbank.org>.

⁵⁹ See LESTER C. THUROW, *BUILDING WEALTH: NEW RULES FOR INDIVIDUALS, COMPANIES, NATIONS IN A KNOWLEDGE BASED ECONOMY* (New York: HarperCollins 1999).

capital and knowledge, especially through more effective investments in education, information infrastructure, and research and development (R&D). The role of the government was stressed in unleashing the creative power of competition and markets while providing proper legal and regulatory supports and guarding against the digital divide between those with and without access to knowledge and information technologies. More precisely, Korea was faced with the need to make effective use of knowledge for economic and social development, by (i) developing educated and skilled people to create, share, and use knowledge well, (ii) fostering a dynamic information infrastructure to facilitate the effective communication, dissemination, and processing of information, and (iii) strengthening IPR and their enforcement.⁶⁰

Korea's knowledge-based industries, including high-tech manufacturing, communication services, and finances, have played a leading role in Korea's economic growth. In 1999, knowledge-based industries accounted for 45.6% of the nation's annual GDP growth rate. Currently, five high-tech exports—semiconductors, computers, parts and accessories, telecom equipment, and electrical machinery and apparatus—account for more than one-third of total exports and have generated much of the trade surplus. In recognition of this trend, the Korean government has taken a number of additional measures to optimize conditions for this new industry, such as developing a high-speed communications network infrastructure and encouraging foreign direct investment (FDI) from technology-intensive companies.

4.2. Innovation Incentives

Since the financial crisis in 1997, the IT industry (information technology equipment, telecommunication services, and software) has played a greater role in the Korean economy. It has been viewed as the area of growth that would encourage recovery in the overall economy. The Korean government instituted an aggressive IT policy for the new knowledge-based economy with the vision that broadband should become a universal service, similar to telephone service in the past. Since the mid-1990s, the Ministry of Information and Communications (MIC) has pursued a policy of high-speed telecommunication infrastructure as a foundation to build this knowledge-based society. The government started to work on an initial plan for the Korea Information Infrastructure (KII) and has been investing incremental amounts each year on R&D for this project, estimating approximately KRW 32 trillion (US\$32 billion) by 2010.⁶¹

The government's deregulation and competition policies have also contributed much to the success in the telecommunication sector. Before broadband emerged, the government facilitated the market by giving licenses to multiple carriers, introducing competition into the local and long distance call sectors. The intense competition led to relatively low prices, and subsequently a rapid increase in demand.

⁶⁰ WORLD BANK INSTITUTE, *KOREA AND THE KNOWLEDGE-BASED ECONOMY: MAKING THE TRANSITION* (2000).

⁶¹ The government's spending on R&D for this project was US\$295 million in 1997, \$495 million in 1998, and \$2 billion in 2000. MINISTRY OF INFORMATION & COMMUNICATIONS, *BROADBAND INTERNET SERVICE: KOREA'S EXPERIENCE* (2002), <http://www.mic.go.kr>.

Furthermore, there has been little entry regulation for Internet services (whereas the government has kept entry regulation for voice telephone services). The government's "hands-off" policy allowed any business that wanted to provide high-speed Internet access to do so upon following a simple registration procedure.⁶² The revision of telecommunication laws, including the Telecommunication Business Act in 1997,⁶³ aimed at minimizing government intervention and increasing the competitiveness of the telecommunication industry, enhancing the transparency of policies and regulations, providing non-discriminatory treatment to foreign-owned or foreign-origin suppliers of telecommunications equipment and services, and applying industrial policies to prevent possible market failure.⁶⁴

Since then, the IT industry has grown from 8.6% of GDP in 1997 to 16% in 2006, the highest proportion among OECD countries.⁶⁵ Likewise, cellular phone penetration rates have soared and the use continues to grow by more than 30% a year, reaching a 71% penetration rate in 2004.⁶⁶ The subscribers of mobile telecommunication service had already exceeded the number of fixed lines by 1999. According to the OECD study report released in 2003, Korea is the most developed country in terms of broadband penetration and coverage rate among its member countries.⁶⁷

4.3. Foreign Investment and Technology Transfer

After joining the OECD in 1996, Korea streamlined the previously restrictive regulations and brought them up to internationally accepted levels. The Korean government has undertaken a series of steps to liberalize import trade and FDI through the new Foreign Investment Promotion Act (FIPA).⁶⁸ Market access has expanded through the facilitation of cross-border mergers and acquisitions, which often brought transparency in management and boosts in efficiency. The enforcement of antitrust and anti-competition laws—the Monopoly Regulation and Fair Trade Act (last amended 2005) and the Unfair Competition Prevention and Trade Secret

⁶² J. Park & J. Lee, *The Prospect and Policy Directions of the Broadband Internet Market*, 40 TELECOMM. MARKET 73-88 (2002); see also Heejin Lee, Robert M. O'Keefe & Kyounglim Yun, *The Growth of Broadband and Electronic Commerce in South Korea: Contributing Factors*, 19 INFO. SOC'Y 81-93 (2003).

⁶³ <http://www.itu.int/ITU-D/treg/Legislation/Korea/BusinessAct.htm>.

⁶⁴ United Nations Online Network in Public Administration and Finance (UNPAN), <http://www.unpan.org>.

⁶⁵ Korean Information Strategy Development Institute (KISDI), <http://www.kisdi.re.kr>.

⁶⁶ EXPO COMM WIRELESS REPORT, 2004, <http://expocomm.com/wirelesskorea/> (last visited Dec. 2004).

⁶⁷ Its broadband penetration recorded 23.3 subscribers per 100 inhabitants in 2003, compared to 6.2 in Switzerland and 11.5 in Canada. ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), THE DEVELOPMENT OF BROADBAND ACCESS IN OECD COUNTRIES (Oct. 29, 2001), <http://www.oecd.org/dataoecd/48/33/2475737.pdf>; see also INTERNATIONAL TELECOMMUNICATION UNION, WORLD TELECOMMUNICATION DEVELOPMENT REPORT: ACCESS INDICATORS FOR THE INFORMATION SOCIETY (2003), reprinted in ITU NEWS 6-17 (Oct. 2003), available at http://www.itu.int/ITU-D/ict/dai/material/DAI_ITUNews_e.pdf.

⁶⁸ Act No. 5559 of 1998, revised in 2005.

Protection Act (last amended 2004)—resulted in a decline in the percentage of market share by *chaebols*, making it a less hostile environment for foreign competitors to enter into the market. Joint ventures were encouraged, especially for small and medium-sized local firms, by giving tax benefits.

This increased foreign capital enabled Korean industry to focus on R&D and on maximizing the positive spillovers from foreign investments. This not only provided improved conditions for industry, but also induced foreign firms to transfer skills, technologies, and management practices, allowing domestic enterprises and individuals to capture the spillover effects.⁶⁹ At the same time, it also provided an opportunity for domestic firms to realize the inadequate protection of IP rights and the weak climate of innovation, compared to more developed nations. This fostered internal changes in order to persuade foreign investors or strategic partners to keep making sizeable technology transfers.⁷⁰

Such change necessitated the transition of the technology transfer model from reverse engineering to a more sophisticated means of licensing. In the beginning, the massive imports of foreign capital goods became a major source of learning through reverse-engineering by Korean firms.⁷¹ Korean companies started acquiring, assimilating, and improving available foreign technology mainly through duplicative imitation. Then, beginning in the 1990s, they switched gears to a more creative imitation through formal technology transfer using written documentation, such as licensing agreements.⁷² The licensing enabled Korean firms to acquire both tacit (training and supervision) and explicit (blueprints, product specifications, production manuals, etc.) knowledge, which they assimilated rapidly.⁷³ This promoted significant developments in licensing and patenting practice in general. Accompanied by the recruitment of higher caliber scientists and engineers, and intensified local R&D activities, IPR became important even for local firms, because there was a real need to guard these hard-won technologies.

4.4. Domestic Industry

The implementation of strong IP laws had a significant impact on Korea's domestic industry. Since the 1987 amendment to the old Patent Act, for example, the Korean pharmaceutical industry has invested large amounts in R&D, resulting in the growth of the industry. The Korean pharmaceutical market is the tenth largest in the world, and accounts for roughly 1.5% of the country's GDP.⁷⁴ The Korean market for pharmaceuticals was valued at US\$4.5 billion in 2003, and recently the market demand for pharmaceuticals has grown at 8-10% annually, outpacing growth in the global market and representing an increase in domestic production volume. While the

⁶⁹ WORLD BANK INSTITUTE, *supra* note 60, at 42-43.

⁷⁰ *Id.* at 124.

⁷¹ LINSU KIM, *IMITATION TO INNOVATION* 39-43 (Harvard Business School Press 1997).

⁷² LINSU KIM, *TECHNOLOGY TRANSFER AND INTELLECTUAL PROPERTY RIGHTS: LESSONS FROM KOREA'S EXPERIENCE* 18-19 (UNCTAD/ICTSD 2002).

⁷³ *Id.*

⁷⁴ <http://www.kpma.or.kr>.

Korean pharmaceutical industry had previously focused on mere manufacture of generics, more and more pharmaceutical and biotech firms today are investing in R&D for novel drugs and are overseeing their own projects at various stages of clinical development.⁷⁵

In addition, the effective protection of copyrights under the new Copyright Act has led to the rapid growth of the domestic publishing industry. Sales of domestically published books in Korea increased over 700% between 1985 and 1998 (from US\$2.6 million to \$20 million), losses due to book piracy dropped from US\$70 million in 1984 to \$35 million in 1988,⁷⁶ and Korean export printing revenues rose 41% in 1987 alone.⁷⁷

The newly enacted Computer Program Protection Act of 1987 also enabled the domestic software industry to prosper in a relatively short period. Although the registration system provided under the Act was not mandatory for legal protection, the number of programs registered sharply increased between 1987 and 1993, totaling 8,917 in 2002.⁷⁸

More notably, Korea is at the forefront of the semiconductor industry, with related products being the single largest export item from Korea, accounting for 17% of total exports in 2003. This is reflected by the number of semiconductor-related patent applications by Koreans, which rose sharply from 708 in 1989 to 3,336 in 1995, outpacing those by foreigners.⁷⁹

Patent activities in Korea have also increased significantly, and Korean firms have become active in registering foreign patents. As a result, there has been a marked historical growth of IP filings overall. (See Figure 3, Appendix.) The number of patent applications filed increased from 236 in 1947 to 166,189 in 2006. Following a drop in applications in 1998 in the aftermath of the IMF crisis, 2000 again saw significant increases in all IP filings.⁸⁰ According to WIPO, Korea ranked fourth in the 2007 International Patent Applications statistics, occupying 4.47% of global patents.⁸¹ Surprisingly, however, Korea had the highest number of resident patent applications filed per billion dollars of GDP and per million dollars of R&D expenditures.⁸²

⁷⁵ For further updates on the developments of the Korean pharmaceutical industry, see <http://www.kdra.or.kr/>.

⁷⁶ Nisha M. Vora, IPR Case Study: Anti-Piracy Efforts in South Korea, <http://www.4ath.gov.us> (last visited Dec. 2004).

⁷⁷ Sally A. Taylor, *Asian Authors Push for a Statute of Limitations*, FAR EASTERN ECON. REV. (Oct. 1988). For further updates in the development of Korean publishing industry, see the Korean Publishers Association website, <http://www.kpa21.or.kr/main/index.htm>.

⁷⁸ Song & Kim, *supra* note 14, at 137.

⁷⁹ KIM, IMITATION TO INNOVATION, *supra* note 71, at 150-70.

⁸⁰ See the statistics on filings at the Korea National Statistics Office, <http://www.nso.go.kr/>.

⁸¹ http://www.wipo.int/export/sites/www/pct/en/activity/pct_2007.pdf.

⁸² See the 2007 WIPO statistics on patent applications at <http://www.wipo.int/ipstats/en/statistics/patents/index.html>.

5. Educational Infrastructure

An important source of Korea's IP-intensive economy is the educated manpower that lays the foundation for its infrastructure. Korea's disciplined human resources have been recognized as the primary source of a positive environment for the knowledge-based economy. Korea retains a highly educated population—40% of population aged 25-34 are university graduates, which ranks Korea as the third highest globally as of 2001.⁸³ This stems from the long-held Confucian tradition of stressing education for the young generation. A system of public grants and subsidies was developed to assure access to higher education for poor children. With economic development, the tertiary enrollment ratio soared from 16% in 1980 to 68% in 1996.⁸⁴

The government took part in building this manpower by giving funds to universities to make scholarships available for students that have potential to be the future leaders of the IT economy.⁸⁵ Businesses have participated by investing in the education sector and by training college students. Primary and secondary schools have started placing more emphasis on excellence and creativity, in contrast to the memorization-oriented study techniques stressed until the late 1980s. However, the country is recognizing the problem of brain drain as increasing numbers of highly skilled Koreans are leaving the country.⁸⁶ The success of Korea in the future will depend upon how many highly educated professionals it can continue to secure and retain.

Traditionally, copying and sharing of intellectual property was seen to serve a culturally inspired educational goal of fulfilling "a passion for learning." Topped with the societal emphasis on education, this explains the high rate of book piracy. The university setting was long "a sanctuary to the unauthorized reproduction of books,"⁸⁷ where professors and students both benefited from the low price of pirated course materials. Even the government was reluctant to aggressively enforce the copyright laws to prevent the piracy of books, because it saw book piracy as promoting the social value of education of young people.

Persistent efforts have been made to change this. Various public awareness programs and campaigns have been hosted by KIPO and other organizations. The government also provides training programs for teachers and educational seminars for students across the nation. Now the general public has the enhanced awareness

⁸³ In Korea, high school education is mandatory.

⁸⁴ UNITED NATIONS DEVELOPMENT PROGRAMME, HUMAN DEVELOPMENT REPORT 2001, at 86 (2001), available at <http://hdr.undp.org/en/media/completenew1.pdf>.

⁸⁵ For example, the Ministry of Information and Communications has been giving student grants totaling up to US\$1 billion every year to those pursuing studies overseas in the field of IT since 2002.

⁸⁶ The National Science Foundation Network in the United States conducted a study in 2004 that showed 73.9% of South Korean doctoral degree holders in the United States were planning to remain in the United States.

⁸⁷ *Seoul Waging War Against Illegal Copying*, KOREA TIMES, Apr. 6, 1999.

of the consequences of illegal copying, and ignorant copyright infringement incidents within schools have declined.

6. Scientific Infrastructure

6.1. Research and Development

Between 1970 and 2004, total R&D investments made in Korea, both private and public,⁸⁸ showed almost a six-fold increase, from 0.38% of the GNP to 2.85%.⁸⁹ Sharp increases in R&D by Korean companies created pressures for effective protection of the fruits of R&D through patents, trademarks, and copyrights at home.⁹⁰ Therefore, in addition to the pressure from the United States and the changing global economic environment, the urge for the protection of IPR came from within the Korean domestic industry itself.⁹¹ Driven by the rising cost of R&D for new products or processes, the shortening of the product life cycle, the rapid growth in international trade in high-technology products, and the internationalization of the research process, Korea moved from its role of knowledge acquirer to that of knowledge generator. Korea further acknowledged the fact that, without adequate protection of IPR, the nation would not be able to entice high-technology industries from abroad, nor would it be able to induce and control the flow of foreign investment and international trade, which had become essential to the process of reviving the Korean economy and building the new knowledge-based economy.

6.2. Public/Private Innovation and Commercialization of IP

Until recently, the level of research productivity in universities and government research institutes has been low. Universities have been doing very little R&D, and most R&D and patenting have been done by a few large conglomerates.⁹² Universities' R&D expenditure was US\$790 million in 1994, accounting for only 7.7% of the nation's R&D spending in 1994. Government statistics indicate that the private sector accounted for 45.1% of the nation's basic research, while universities accounted for only 29.1%.⁹³

⁸⁸ The ratio of government to private sector R&D is about 25:75.

⁸⁹ Korea Industrial Technology Association, <http://www.koita.or.kr/koita/data/main.asp?opt=6&pos=5>. See also the statistics on the trend of R&D expenditure and the rate of R&D to GDP from the Ministry of Science and Technology, http://www.mest.go.kr/ms_kor/inform/public/edu/index.jsp.

⁹⁰ KIM, BACKGROUND READING, *supra* note 18, at 4.

⁹¹ Shin & Chang, *supra* note 53, at 12.

⁹² Carl Dahlman, *Knowledge Strategies for Development: Challenges for Korea*, Presentation to KEDI WB Workshop, Feb. 23, 2004, available at <http://siteresources.worldbank.org/INTKOREA/News%20and%20Events/20229765/korea-development.ppt#35>.

⁹³ KOREAN MINISTRY OF SCIENCE AND TECHNOLOGY, 1994 REPORT ON THE SURVEY OF RESEARCH AND DEVELOPMENT IN SCIENCE AND TECHNOLOGY (1994).

The government took note of this and since the early 1990s has started introducing a scheme to organize science research centers and engineering research centers in universities. Also, in order to promote R&D in national and public universities, the National Assembly amended the Patent Act and the Technology Transfer Promotion Act (TTPA) to allow national and public university professors greater control over their discoveries. Since the new laws became effective in 2002, Seoul National University and other major public universities started establishing their own business ventures, which entitled them to exclusively control and manage faculty members' and students' patents. Under the old laws, faculty members at national and public universities had to transfer their IP rights to the government, which then held and obtained the rights to the patents. As a result, professors at national institutions were given few incentives to produce patents which inevitably would reach the hands of the government. The revision of the patent laws facilitated the technological transfer of its patents via an exclusive legal entity or a business venture. In addition, the amendment also allows the national and public universities to reinvest the profits generated from their patents back into their R&D fund and provide greater incentives to faculty members by compensating them for their works.⁹⁴ It remains to be seen how the trend will change in the long-term.

Conclusion

The building of IP infrastructure in Korea involved the interaction of many factors—legal, cultural, economic, political, educational, and scientific. However, the interplay of legal and economic factors was most notable of all.

First, foreign pressure from international technology suppliers, concerned about the extent to which their products were being copied by Korean competitors, created an international demand for the amendment of Korean IP laws. Multilateral trade negotiations, especially those with the United States, had a significant impact on IP law reform in Korea. Secondly, the domestic demand for foreign investment in high-tech industries acted as a stimulus to related economic and legal developments. The leaders of the Korean economy realized the need to strengthen the protection of IPR in order to encourage foreign technology and investment in Korea. Third, the demand from within domestic industries for the adequate protection of their own IP rights acted as a catalyst for the development of a strong IP infrastructure.⁹⁵ It has been this continued interaction between law and economy that has brought about further developments in Korea's IP infrastructure.

Korea's history of technological learning has some valuable implications for emerging markets. Korea's strong and highly centralized developmental government that effectively orchestrated various development policies (including R&D, foreign investment and licensing, and export-driven policy) was a major player in

⁹⁴ *New Business Venture to be Established at National and Public Universities*, NEWS LETTER (Hanyang Law Firm), Mar. 2003, available at <http://www.hanyanglaw.com/news/200203.html#b>.

⁹⁵ For further analyses, see Shin & Chang, *supra* note 53, at 15.

providing the framework for a strong IPR regime in Korea. In addition, the private sector's technology transfer strategy that adjusted flexibly to changing needs, together with other socio-cultural systems, contributed to setting the direction for fast technological learning in Korean industries. Yet the most important driver of all is Korea's manpower. Just as the inexpensive but well-educated and hard-working labor force pulled the country out of its poverty and crisis, the highly-skilled brainpower and innovative minds of today will steer the knowledge-based infrastructure of the country. Given these rich technological resources and solid industry infrastructure, Korea will likely move toward an even more effective national innovative system and stronger protection of IP rights for its own benefit.

Appendix

Type of IPR		Law	Authority
Industrial Property Rights	Patents	Patent Act	Korean Intellectual Property Office (KIPO)
	Utility Models	Utility Model Act	
	Designs	Design Act	
	Trademarks	Trademark Act	
Unfair Competition Prevention and Trade Secrets Protection	Unfair Competition and Trade Secrets Protection Act		
Semiconductor Integrated Circuit Layout Right	Semiconductor Chip Layout Design Act		
Copyright	Copyright Act	Ministry of Culture and Tourism (MCT)	
Computer Programs	Computer Programs Protection Act	Ministry of Information and Communications	
New Breed of Plants	Seed Industry Act	Ministry of Agriculture and Forestry (MAF)	
Customs clearance regulation on counterfeit goods	Customs Act	Korea Customs Service	

Figure 1: Overview of IPR Systems in Korea

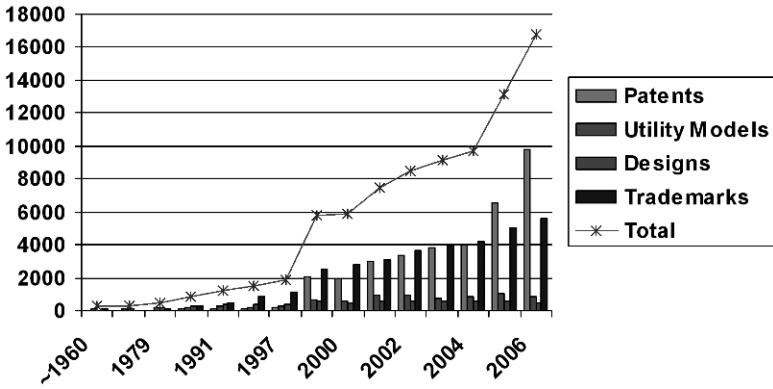


Figure 2: KIPO Industrial Property Tribunal: Trial Examinations (Decided)
 Data Source: Korean Intellectual Property Office (KIPO), <http://www.kipo.go.kr>.

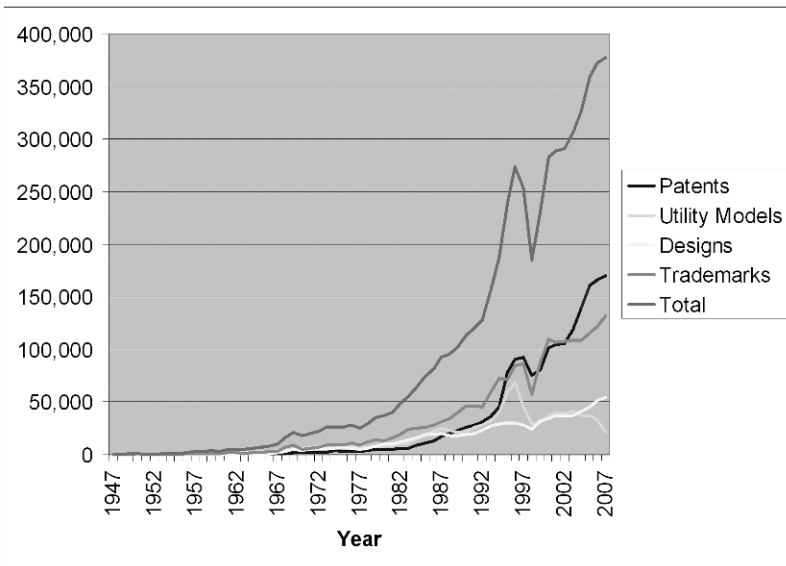


Figure 3: IP Filings in Korea
 Data Source: Korean Intellectual Property Office, <http://www.kipo.go.kr>.

Taiwan

Paul C.B. Liu¹

1. Legal Infrastructure	281
1.1. IP History	281
1.2. International IP Obligations	282
1.3. Current IP Laws	283
1.3.1. Patents, Utility Models, and Designs	283
1.3.2. Copyright	284
1.3.3. Trademark	285
1.3.4. Trade Secret	285
1.3.4. Unfair Competition	286
1.4. IP Lawmaking	286
1.5. IP Enforcement	286
1.5.1. Judicial Infrastructure	286
1.5.2. Administrative Enforcement	287
1.5.3. IP Lawyers and Agents	288
1.5.4. Enforcement Reality	288
2. Cultural Infrastructure	289
3. Political Infrastructure	289
4. Economic Infrastructure	290
4.1. Who Holds the IP?	290
4.2. Where Is the IP?	291
4.3. Innovation Incentives	291
4.4. Foreign Investment	292
5. Educational Infrastructure	293
6. Scientific Infrastructure	294
6.1. Research and Development	294
6.2. Ownership of R&D Results	295
6.3. Public/Private Innovation and Commercialization of IP	295
Conclusion	296
Appendix	297

1. Legal Infrastructure

1.1. IP History

The modern system of intellectual property laws in Taiwan was substantially developed between 1992 and 1996. Prior to this time, Taiwan enjoyed more than ten years of economic growth driven by international trade, without paying too much attention to issues of intellectual property. Before 1992, Taiwan did have its own IP laws, but people paid little attention to those laws. In fact, Taiwan was notorious as the kingdom of piracy.

As a result of this piracy, the United States government targeted Taiwan via Section 301 of its Trade Act, and the Taiwanese government was forced to re-examine its attitude toward and treatment of IP protection. The only choice for

¹ Special thanks are due to Florence Y. T. Huang, Ph.D. candidate, Graduate Institute of Technology and Innovation Management, National Chengchi University, for their help in compiling data and editing the draft.

Taiwan was to change its identity as a piracy heaven. The evolution of IP laws in Taiwan, then, was mainly driven by extremely high pressure on international trade from the U.S. government, as well as the strong demand inside Taiwan to become a member country of the WTO.

As a result, many new laws conformed to the requirements of the TRIPS Agreement or adopted content from the IP laws of the United States. From 1992 to 1996, the legislature passed numerous amendments to the IPR laws and added many new provisions in an attempt to modernize the IP system and to conform to TRIPS. Figure 1 (Appendix) shows the date of enactment of the critical IP laws and their subsequent amendments. One can see when the legislature changed the old laws and when they adopted new, previously non-existent, IPR laws.

What was the major effect of the amendments of the IP laws in Taiwan? Basically, all of the amendments had the same goal—to comply with international IP protection standards, to avoid more IP suits, and to modernize.

For patents, the major amendments extended the protection period to twelve years for utility model patents; abolished the administrative opposition system of the patent prosecution procedure in order to timely ensure the ownership of patent rights; decriminalized patent infringement; changed the examination of utility model patents from a substantive examination system to one based on mere adherence to formalities; and adopted a “request for examination” system and “early publication” mechanisms.

In the field of copyright, major amendments moved from the registration protection system to the creation protection system; added protection of performances by performers; abolished compulsory licensing of the translation right; retroactively increased protection of the copyrightable works of other WTO member countries to life plus fifty years; and adopted the requirements of the WCT and the WPPT.

For trademarks, the major amendment enlarged enforcement measures against trademark-infringing objects; added new protection for color combinations; abolished the service certification mark; extended protection to service marks, color marks, visually perceptible representations (like three-dimensional marks), and sound marks; strengthened well-known trademark protection without filing and obtaining a defensive trademark in advance; abolished associated trademarks and the practice of registering trademarks for purely defensive purposes; and added protection for geographical indications.

1.2. International IP Obligations

The status of Taiwan is unique in international diplomacy. The United Nations and most countries do not recognize Taiwan as an independent country, but rather as a province of mainland China. Taiwan has had difficulty joining international organizations, including many international IP organizations and treaties, such as WIPO, the Rome Convention, the Trademark Law Treaty, the PCT, the International Convention for the Protection of New Varieties of Plants (UPOV), and so on.

In 2002, Taiwan finally succeeded in gaining membership in the WTO as the “Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu.” The govern-

ment of Taiwan worked hard to conform its laws to the TRIPS Agreement, whose requirements are currently the main international obligation of Taiwan. Since the WTO requires its member countries to obey the basic rules of the Paris Convention, the Berne Convention, the Washington Treaty, and the Rome Convention, these four conventions/treaties are also included in the international IP obligations of Taiwan even though Taiwan has never officially acceded to them.

Taiwan has also been working to promote new cultural and economic relationships with incumbent WTO members and to establish new diplomatic relationships with non-WTO nations. In order to break the political impasse that hinders full integration in the international economic order, Taiwan pursues alternative arrangements that include bilateral and multilateral agreements on intellectual property. Taiwan has been entering into bilateral agreements on intellectual property since 1993 to encourage international trade between Taiwan and other countries. It has entered into agreements of various kinds with (in chronological order) the United States, Australia, Germany, Switzerland, Japan, France, Liechtenstein, New Zealand, the European Union, New Zealand, the United Kingdom, Austria, Paraguay, El Salvador, the Netherlands, Chile, Costa Rica, Guatemala, Nicaragua, and, most recently, the Philippines.

1.3. Current IP Laws

1.3.1. Patents, Utility Models, and Designs

The current Patent Act encompasses three types of patents: patents (or “invention patents”), utility model patents, and design patents. The standard of patentability refers to any invention, whether product or process, in any field of technology, that meets three requirements: novelty, non-obviousness, and capability of industrial application. Therefore, patent protection usually requires a high degree of creativity and may be either a radical innovation or an incremental invention. Business models and mental acts are excluded from patent protection.

In contrast to patents, utility models, also called “minor patents,” usually apply only to incremental innovations with a lower degree of creativity. Basically, patents and utility model patents are quite similar except for the degree of innovation required. Design patents are granted on the ornamental design of a functional item, including color, pattern, and shape.

Some inventions cannot be patented as they are regarded as a data-processing procedures or discoveries rather than inventions, or because of ethical concerns. Unpatentable subject matter includes animals, plants, and essentially biological processes for production of animals or plants, except the processes for producing microorganisms; diagnostic, therapeutic, or surgical operation methods for the treatment of humans or animals; or inventions which are contrary to public order, morality, or public health.

In addition, there are some current controversies regarding the patentability of certain items. First, there is a controversy about whether new chemicals, drugs, and pesticides are patentable. The legal answer is yes, as the current Patent Act is quite broad. Second, there are restrictions on nuclear technology patents; such technology

patents cannot be transferred to other parties or exported to other countries. Third, there is debate about patent protection for computer software. Currently, the program and algorithms are examined “as a whole” to determine if there is any technology innovation. Otherwise, computer software can only be protected by copyright, not patent. Finally, the patentability of traditional knowledge, natural resources, and folklore is still a matter of debate.

The term of patent in Taiwan is twenty years from the filing date of the patent application; an extension of between two to five years may be granted only once for certain pharmaceutical or agrochemical patents subject to regulatory approval. The term of utility model patents is ten years from the filing date, while that of design patents is twelve years from the filing date.

1.3.2. Copyright

Current copyright protection in Taiwan follows the Berne Convention. This means that a copyright is automatically valid without any official registration, which is a change from the original Copyright Act of 1928. Therefore, copyright ownership is created immediately upon the completion of a creative work without any official registration with a government authority.

The types of “works” protected by copyright include a wide range of creative, intellectual, and artistic forms, including oral and literary works, musical works, dramatic and choreographic works, artistic works, photographic works, pictorial and graphical works, audiovisual works, sound recordings, architectural works, and computer programs. However, the work’s underlying ideas, procedures, production processes, systems, methods of operation, concepts, principles, or discoveries, are not protected under the Copyright Act. Copyright does protect derivative works,² compilations,³ and performance by a performer of a pre-existing work or folklore,⁴ which are deemed independent creative works.

Some subject matter cannot receive copyright protection.⁵ This includes the Constitution, Acts, regulations, or other official documents; translations or compilations by central or local government agencies of such works; slogans or common symbols, terms, formulas, numerical charts, forms, notebooks, or almanacs; oral or literary works for news reports that are intended strictly to communicate facts; or test questions from all kinds of examinations held pursuant to acts or regulations.

The term of copyright in Taiwan is fifty years after the death of the creator.⁶ By contrast, the author’s moral right to publicly release the work lasts perpetually.

In contrast to copyright, the right of a publisher to text layout (“plate right”) cannot be obtained automatically upon the completion of work but needs to be officially registered with the Taiwan Intellectual Property Office (TIPO). This right lasts for ten years after the registration.

² Copyright Act, Art. 6.

³ Copyright Act, Art. 7.

⁴ Copyright Act, Art. 7-1.

⁵ Copyright Act, Art. 9.

⁶ Copyright Act, Art. 30.

1.3.3. Trademark

Official registration at TIPO is required to obtain trademark rights. Moreover, if a trademark owner wants to transfer his rights to another party or use the right of trademark as a pledge, he also needs to register this exchange with TIPO so that the agreement will be valid against a third party.

A word, design, symbol, color, sound, three-dimensional shape, or a combination of any of these can constitute a trademark under current trademark law in Taiwan. Such a trademark needs to be distinctive enough for relevant consumers of the goods or services to recognize it as identification of those goods or services and to differentiate such goods or services from those offered by others.

In addition to the general trademark we usually see, which can be protected by trademark law, some special marks are also protected, such as: (1) certification marks, which are used to certify the characteristics, quality, precision, place of origin, etc. of another person's goods or services; (2) collective membership marks, which can be used by any business association, social organization, or any other group that exists as a juristic person and wishes to exclusively use a mark to identify its organization or membership; (3) collective trademarks, which are used on goods or services by some members of an organization to identify the said goods or services whereby they may be distinguished from those provided by others; and (4) geographic indications of the countries signing bilateral agreements with Taiwan.

Article 23 of the Trademark Act lists eighteen exclusions from trademark protection.⁷ These include, among others, a generic sign or term used in relation to the designated goods or services; a mark that is a three-dimensional shape of the goods or packaging thereof and is indispensable for performing the intended function(s); a mark that is identical or similar to the national flag, national emblem, national seal, military flags, military insignia, official seals, or medals of the Republic of China, or flags of foreign nations; or a mark that is identical or similar to a mark used or medal or certificate awarded by a government agency of the Republic of China or by an exhibition assembly.

The term of trademark is ten years after the publication of the trademark grant, with a ten-year extension.

1.3.4. Trade Secret

In order to maintain industrial ethics and order in competition, the Taiwanese government enacted the Trade Secret Law. To qualify as a trade secret, information must meet the following criteria: (1) it is not known to persons generally involved with information of this type; (2) it has economic value, actual or potential, due to its secret nature; and (3) its owner has taken reasonable measures to maintain its secrecy. Such a trade secret can be the subject matter of a lien or compulsory execution.⁸ Infringement includes the following actions⁹: (1) acquiring a trade secret by improper means; (2) acquiring, using, or disclosing a trade secret knowingly or

⁷ Trademark Act, Art. 23.

⁸ Trade Secret Act, Art. 8.

⁹ Trade Secret Act, Art. 10.

unknowingly due to negligence; (3) using or disclosing an acquired trade secret knowing, or not knowing due to gross negligence, that it is a trade secret; (4) using or disclosing by improper means a legally acquired trade secret; or (5) using or disclosing without due cause a trade secret to which the law imposes a duty to maintain secrecy.

1.3.5. Unfair Competition

Taiwan promulgated the Fair Trade Act in 1996 to regulate unfair competition and anti-trust. Under this Act, monopoly, collusion, and multi-level sales (also called “multi-level marketing”) are prohibited¹⁰ in certain situations.¹¹ This includes preventing other corporations from joining the market by unfair means, making inappropriate decisions regarding pricing of services or goods, giving special advantages to another party in a transaction without a rational reason, and engaging in any abuse of corporate market position such as preventing proper competition or interfering with fair competition. If any corporation uses its own intellectual property to engage in any abusive action on the market, the corporation will be punished under the Fair Trade Act.

1.4. IP Lawmaking

The legislative procedure in Taiwan for IP laws begins with an initial draft which is proposed by either the relevant executive department, such as TIPO, the Ministry of Justice, or the senators from the Legislative Yuan of the Republic of China. The draft is sent to the legislature for a majority vote. Then, if it is approved, the new law is announced by the President. The IP protection system in Taiwan also includes regulations, bylaws, and administrative orders that are drafted by Executive departments as needed to meet the demands of rapid development in the field. However, the law created by the legislature pre-empts the law drafted by the Executive departments.

1.5. IP Enforcement

1.5.1. Judicial Infrastructure

Before 2007, there was a dual judicial system to solve IP disputes in Taiwan. People could bring their case to either criminal or civil court, depending on the nature of the issues. Generally, copyright and trademark infringement cases were brought in criminal courts to first determine whether an infringement occurred. If infringement was found, then the case was automatically transferred to a civil court to calculate the amount of damages. Alternatively, contract-based disputes were brought before civil courts and issues of validity were decided in the administrative court.

The judicial system was criticized by IP owners for its lack of efficiency and lack of expert personnel. The Taiwanese government become aware of this

¹⁰ Fair Trade Act, Arts. 10, 14, 23.

¹¹ Fair Trade Act, Arts. 10, 14, 19, 20, 21.

problem, and in response, established independent Intellectual Property Courts on July 1, 2008. IP Courts are comprised of judges with professional IP backgrounds and technology examiners to assist judges with technology matters. All the disputes, whether criminal, civil, or administrative in nature (including disputes concerning validity, which used to go through the administrative enforcement system), will go to the same court system so that there will not be time wasted in the case transfer.

1.5.2. Administrative Enforcement

The government has established some administrative procedures to assist in IPR enforcement. Here we will discuss the most important administrative enforcement means in patent, copyright, and trademark.

With respect to patents, TIPO is the authority in charge of receiving patent applications, procedural and substantive examination of the applications, and prosecution. Examination procedures differ depending on the type of patent. For invention patents, the application undergoes the strictest scrutiny with the following procedure: (1) procedural examination; (2) preliminary examination prior to publication to determine whether the patent involves any matters of national security, national defense, or detriment to morality or public health; if so, it won't be disclosed to the public and the subsequent procedures will be private; (3) substantive examination and substantive re-examination; (4) if the application is rejected, the filing of an appeal with the Ministry of Economic Affairs (MOEA). For utility model patents, the procedure is much simpler, with only with a procedural and a formal examination. For design patents, the examination procedure is the same as that of invention patents, except for the step of preliminary examination prior to publication. If the applicant is not satisfied with the decision made by TIPO and the MOEA, he can file a lawsuit in administrative court to argue the validity of the patent. In addition, any person may file an invalidation action or present evidence against granting the term extension of an invention patent.

With respect to copyright, since Taiwan has adopted the creation protection system instead of the registration protection system, an author need not register his work with TIPO to obtain the copyright. However, publishers must register their works with TIPO to obtain rights in text layout ("plate right"). In addition, before exporting audiovisual works, TIPO must receive a copyright authorization document inspection form to ensure the copyright owner's authorization to exporters. Also, all compulsory licensing of music, copyright registration or revocation, and creation of copyright licensing agencies must be reported to TIPO for administrative management purposes.

With respect to trademark, TIPO is the authority in charge of receiving trademark applications and performing substantive examination. During the procedure of trademark examination, a third party can file an opposition to a trademark registration within thirty days upon the publication of such registration. If the application is rejected by TIPO, the applicant can file a plea of trademark validity with the MOEA, which has thirty days to issue a decision. If the applicant is still not satisfied with the decision, he can file a confirmation suit in an IP Court. The IP Court, as a

court of first instance, must complete the examination procedure within two months. If the application is denied in IP Court, the case can be brought to the highest level of administrative court, the last resort for trademark registration. The final decision must be issued within twenty days after the applicant files the case.

1.5.3. IP Lawyers and Agents

Taiwan's IP practice consists of attorneys, patent/trademark agents, and judges. In the past, patent/trademark agents assisted clients with prosecution, registration, application, or other administrative matters. Taiwan's IP attorneys were general practitioners, as there was no separate patent bar. Law is a selective field; the passage rate of the general bar examination is about 8%. About one third of attorneys choose IP law as their professional focus, meaning that approximately 1,500 of the total 4,500 attorneys in Taiwan are currently working in intellectual property. To improve the practice quality of patent-related matters, in 2007, the Patent Attorney Act was promulgated, and became effective in 2008. It replaces patent agents with patent attorneys, who must pass a separate patent attorney bar examination that requires technical training. The first patent attorney bar examination took place in August 2008.

The educational requirements for the legal profession have been changing in other ways. Since the legal professional education in Taiwan starts in undergraduate, not graduate, programs, a university degree is enough for a judge or lawyer to practice law, as long as he or she passes the National Bar Examination. This education system causes a serious problem, in that that most members of the legal profession lack knowledge of disciplines other than law, such as finance, management, or technology. Today, there is a demand for cross-disciplinary programs in legal education after graduation from universities. Some graduate institutes, like the Graduate Institute of Intellectual Property at National Chenchi University, provide legal training as well as practical knowledge of technology, accounting, and finance. More and more members of the legal profession are receiving such advanced training with a double focus.

1.5.4. Enforcement Reality

The enforcement of IP laws, though not perfect, is better than in most other Asian countries. In the past several years, Taiwan has taken steps to increase the effectiveness of enforcement. It has established an IP police force with 200 full-time officers charged with pursuing piracy and counterfeiting matters. A specialized IP court was established in 2008, and courts have begun to impose longer jail terms for pirates. The judicial branch has provided IP training for judges and prosecutors. As a result of these and other measures, foreign copyright owners' organizations such as the Business Software Alliance (BSA), the Motion Picture Association of America (MPAA), and the International Federation of Phonogram Industries (IFPI), have approved of the efforts and the results.

2. Cultural Infrastructure

Until the recent two decades, laws in Taiwan have been viewed as a tool of the government for political control. Members of the legal profession in Taiwan were considered aides to assist politicians, without any independence or professional ethics. People thought of laws as serving only specific social strata, not all of society. However, in the past twenty years, the legal profession has gradually built up trust and reliability, both in ethics and professional knowledge. This has been accomplished as the legal profession has contributed to activities such as international negotiations regarding bilateral/multilateral agreements, critical international patent litigation for Taiwanese international companies, and setting up a Judicial Reform Foundation to improve judicial operation quality. Society is changing its point of view, beginning to view the legal profession as an intensive, knowledge-based career with high ethical standards.

Although reception of intellectual property in Taiwan is generally positive, there are some cultural barriers to implementing strong IP protection. As mentioned above, the main reasons for Taiwan to pay attention to building up modern IP protection legal systems are international trade demands and pressure from global, mainly U.S., companies. Recently, the U.S. government has been pushing very hard to encourage Taiwan to take more serious actions to protect intellectual property, including asking the government to list IPR protection as an official subject on the national examination of university admission, asking the government to authorize the police to search academic institutes, and so on. However, pushing in these directions ignores the fundamental principle of academic independence guaranteed in the Constitution of Taiwan and causes great objections from society. Taiwan has a long tradition of treating students as a disadvantaged minority that needs to be protected, and academic independence is highly respected in Taiwanese society. This might force the government and the judicial system in Taiwan to minimize IP protection in order to balance it with a deeply held cultural value.

3. Political Infrastructure

Taiwan is a democratic republic with a president elected by citizens over twenty years old. The President has the right to designate and appoint a premier as the chief officer of the executive department, the Executive Yuan of Taiwan. The Executive Yuan is the department in charge of administration affairs, including preparation of drafts of laws. Generally, the political propensity of the premier of the Executive Yuan will affect the legal policy as well as the content of draft. However, the policy must still be debated and approved by the legislature with a majority vote to become effective.

Due to intensive international trade and technology development, no matter which political party is in power, there is not much room to dramatically change the IP protection system if it still wants to comply with international IP protection standards and requirements, especially those regulated under the TRIPS Agreement. Political change will not alter the fundamental structure of the IP protection

legal system in Taiwan, but will only affect the selection of instruments to regulate and enforce IP protection.

4. Economic Infrastructure

4.1. Who Holds the IP?

According to TIPO's 2007 Annual Report,¹² the number of new patent applications has increased steadily from 1998 to 2007. (See Figure 2, Appendix.) In 1998, there were 54,003 applications and 23,640 certificates issued. By 2007, there were 81,834 applications and 40,290 certificates issued. Among the new applications, the invention patent takes the largest proportion, with a share of 63.15% in 2007. In second place is the utility model patent, with 27.76% of applications, and last is design patents, with 9.09%. (See Figure 3, Appendix.)

Additionally, there were several important trends in the nationality of patent applicants. (See Figure 4, Appendix.) Between 1998 and 2007, the number of Taiwanese citizens applying for patents rose dramatically; the number of Taiwanese applicants in 2007 was almost five times that of 1998. Also, the number of foreign applications filed has increased, though not as quickly as domestic applications. There was, however, a noted decrease in utility model applications by foreigners, from 1,112 in 1998 to 501 in 2007, due to changes in the patent laws that made such patents less attractive. While most patent applicants are from Taiwan (60.60% in 2007), there are also significant numbers from Japan (15.35%), the United States (11.88%), South Korea (2.52%), and Germany (2.13%). Figures 5 and 6 (Appendix) represent the status of patent approval and grant both in 2007 and from 1998-2007. They show that invention patent filings by foreigners have a higher passing rate than filings by Taiwanese nationals, which might indicate a higher quality of applications and better preparation of documentation.

With respect to administrative disputes, the case number has declined in the last five years (see Figure 7, Appendix), which hints at great improvements in the patent examination procedure due to better communication between TIPO and applicants, as well as clearer information disclosure, so that applicants can accept TIPO's decisions more easily.¹³

According to TIPO statistics, trademark application and registration has declined in the past three years. In 2005, there were 64,580 applications, which increased in 2006 but then decreased to 61,454 in 2007. While in 2005 there were 59,517 approvals of registration, by 2007 that number had decreased to 52,569. Ultimate registration was granted to 55,181 applications in 2005, but only 51,326 in 2007. Most applicants were from Taiwan (77.26%), the European Union (6.49%), the United States (6.47%), Japan (4.85%), and mainland China (1.04%). (See Figure 8, Appendix.) In addition, there were 24,072 cases of trademark registration

¹² Available at http://www.tipo.gov.tw/dataserve/dataserve/public/public_paper01.asp (providing a thorough set of statistics about IP applications and grants).

¹³ Full statistics are available in the 2007 TIPO ANNUAL REPORT, *id.*

change, transfer, licensing, and pledge in 2007, as well as 26,737 cases of trademark extensions. (See Figure 9, Appendix.)

In 2007, there were 52,092 cases of copyright authorization document inspection, and three registration cases and two revocation cases for the right of plate making.

4.2. Where Is the IP?

A business magazine in Taiwan, *Business Weekly*, worked with the Graduate Institute of Intellectual Property (IIP) at National Chenchi University to rank the “Top 100 Companies with Patents.”¹⁴ The report found that patents were mainly located in semiconductor and computer-related companies, as follows: semiconductors (38%); components, parts, and module manufacturing (25%); systems engineering (12%); photoelectronics and optics (8%); research institutes/non-profit organizations (7%); traditional manufacturing (6%); and telecommunications, IC, and IT (4%). These rankings were computed by picking the top 100 Taiwan corporations that have the most patents issued by the United States Patent and Trademark Office (USPTO) in 2004 and subsequently ranking them by industry according to the quantity and quality of the patents they owned. The semiconductor industry has the highest quality of patents, evaluated by the use of the patented technology in manufacturing, the industrial value created by licensing, and the ability of the patent to prevent competitors from entering the industry.

Another source of rankings, the MIT Patent Scoreboard, divides industries into eight categories. Taiwanese corporations appear in two main industrial fields, the semiconductor industry and the computer and IT industry. Twenty-eight Taiwanese corporations were included in the following five areas: semiconductors, computers, electronics, chemistry, and telecommunications.¹⁵

In the research conducted by IIP and *Business Weekly*, big companies such as TSMC or UMC owned most of the patents. However, a few small to medium-sized corporations have been listed in the top 100.

4.3. Innovation Incentives

As for the investment environment, according to the Global Competitiveness Report 2007-2008 issued by the World Economic Forum (WEF), Taiwan ranked 14th in the world and fourth among Asian countries for global competitiveness. In its third report in 2006, Business Environment Risk Intelligence (BERI) of Switzerland ranked Taiwan’s investment environment sixth in the world and third in Asia. In its September 2006 report, the Economist Information Unit (EIU) ranked Taiwan’s business environment (for 2006 to 2010) 19th among sixty countries

¹⁴ See *Top 100 Companies with Patents*, 932 BUS. WKLY. 94-118 (2007).

¹⁵ See *id.* at 100.

worldwide, and third among Asian countries, behind only Singapore and Hong Kong.¹⁶

The above achievements are attributable to certain features of Taiwan's economy, which are generally recognized as Taiwan's most competitive incentives for industries. These include: (1) a strong vertical integration in IT and electronics sectors, which directly enhances operational efficiency and industrial competitiveness; (2) a complete and mature fundamental industrial base including broadband and wireless construction; (3) a leading source of venture capital in Asia; (4) strong industrial research and development (R&D) capabilities; (5) Chinese and international market experience; and (6) active entrepreneurship as well as a well-developed innovative corporate sector.

As for the legal environment contributing to investment, Taiwan creates its own special incentives for industries via preferential regulations regarding taxes, stock options, employee stock ownership plans, and R&D human resource supply. The most important law is the Statute of Industries Upgrading, which grants preferential tax treatment to industries such as electronics and semiconductors. Recently, for the purpose of nurturing the biotech industry, the government promulgated the Statute of Biotechnology and Pharmaceutical Industry Development, which granted preferential tax treatment and loosened the limitations on corporations and government officials in order to encourage more technicians in public sectors to take entrepreneurial action. The influence of this statute may be seen in the fact that, in 2006, biotechnology was one of the top five industries attracting venture capital funds in Taiwan.

Moreover, the government provides a wide range of R&D funding to industry, academia, and research institutes. The Department of Industrial Technology, MOEA, funds the IT Application Promotion Project, the Industrial Technology Oriented Service Development Program, and the Technology Development Program for Academia and Multinational Innovative R&D Centers.

4.4. Foreign Investment

In Taiwan, inward foreign direct investment (FDI) has shown dramatic growth since 2005; the investment amount increased more than 300% from 2005 to 2007, according to the statistics from the Investment Commission under the MOEA in Taiwan.¹⁷ Meanwhile, outward FDI also increased dramatically during the same period. The investment flow shows a bull market existing from 2005 to 2008 with hot economic activities in Taiwan. (See Figure 10, Appendix.)

From 1952 to 2008, the top five industries with the greatest inward FDI were: banking and insurance (17.75%); electronic and electrical components (15.55%); wholesale and retail (9.08%); computer, electronic, and optical goods (6.23%); and

¹⁶ See INDUSTRIAL DEVELOPMENT & INVESTMENT CENTER, MOEA, INVESTMENT ENVIRONMENT: A HIGHLY COMPETITIVE INVESTMENT CLIMATE AND A PROGRESSIVE ECONOMIC DEVELOPMENT VISION, available at <http://investintaiwan.nat.gov.tw/en/env/>.

¹⁷ INDUSTRIAL DEVELOPMENT & INVESTMENT CENTER, MOEA, THE INVESTMENT ENVIRONMENT OF THE ROC ON TAIWAN, <http://www.dois.moea.gov.tw/asp/relation3.asp>.

financial holdings (5.81%).¹⁸ Other industries with high inward FDI were chemicals and machinery and equipment. The top five sources of such investment were the United States (19.27%), the Netherlands (16.67%), British Possessions in the Caribbean (16.42%), Japan (16%), and Singapore (6.02%).¹⁹

Taiwan also has great performance of outwards FDI in some industries. The top five industries from 1952-2008 were banking and insurance (33.68%), financial holdings (11.85%), electronics and computer components (11.31%), wholesale retail (7.67%), and computer, electronic, and optical goods (4.87%).²⁰ (See Figure 10, Appendix.) The five favorite destinations for investments are British Possessions in the Caribbean (36.45%), the United States (18.19%), Singapore (9.36%), Hong Kong (4.93%), and Bermuda (4.37%).²¹ (See Figure 11, Appendix.)

Despite a high level of investment, Taiwan was ranked only the 11th investment destination in Asia by UNCTAD.²² Also, Taiwan ranked only 31st worldwide on the Inward FDI Performance Index in 2007 and 25th on the Outward FDI Performance Index.²³

Some scholars emphasize that the formal FDI statistics underscore the importance of foreign-based multinational corporations in Taiwan.²⁴ Since 1995, the government has encouraged foreign firms to set up operational headquarters in Taiwan, and provided them with incentives to establish R&D centers since 2002. By 2004, there were twenty foreign companies headquartered in Taiwan and twenty-three R&D centers.

5. Educational Infrastructure

Based on the latest statistics in 2007 from the Ministry of Education, the illiteracy rate of citizens above fifteen years old is only 2.37%.²⁵ The legally required level of education is senior high school. However, university degrees are traditionally held in high esteem by Chinese society, and students generally seek higher degrees.

¹⁸ INVESTMENT COMMISSION, MOEA, STATISTIC REPORT ON OVERSEAS CHINESE & FOREIGN INVESTMENT, OUTWARD INVESTMENT, MAINLAND CHINA INVESTMENT (2008), available at <http://www.dois.moea.gov.tw/content/doc/9705-4.xls>.

¹⁹ *Id.* The prominence of investment funds both to and from the British Possessions in the Caribbean is due to restrictions imposed by the Taiwanese government on investments to and from mainland China. As a result, many such investments are directed through corporations based in these British Possessions in the Caribbean.

²⁰ *Id.*

²¹ *Id.*

²² UNCTAD, WORLD INVESTMENT REPORT 2005, at 83, available at <http://www.unctad.org/fdi> statistics.

²³ *Country Fact Sheet: Taiwan*, in UNCTAD, WORLD INVESTMENT REPORT 2007, available at <http://www.unctad.org/fdistatistics>.

²⁴ Bee-Yan Aw, *Firm-Level Productivity and Foreign Direct Investments in Taiwan*, prepared for the Conference on Foreign Direct Investment and Economic Development: Lessons from the East Asian Experience (Feb. 2004), available at <http://econ.la.psu.edu/papers/FDI.WB8.pdf>.

²⁵ See Department of Statistics of the Ministry of Education, *Illiteracy Rates for Age 15 Plus*, available at <http://www.edu.tw/files/publication/B0013/index3.xls>.

According to the latest statistic of Ministry of Education,²⁶ the number of graduate students both in private and public universities has increased steadily from 1998 to 2007; people are getting as many higher academic degrees as they possibly can.

To be accepted at universities, students need to take either the national university entrance exam or, for early acceptance, they need to take an exam demonstrating the so-called “basic ability of study.” Almost all of the prospective students need to decide upon their majors before they apply to schools. The recent trend shows more and more students picking science or engineering as their majors; 47.3% of Masters students are majoring in science or engineering.²⁷ In Ph.D. programs, the proportion of science majors was 70.0% for the 2005 academic year,²⁸ which is almost twice the percentage majoring in humanities and social sciences. This trend shows that industry exerts an intense pulling force on students. Since Taiwan has a large proportion of high-tech/electronic industrial human resource demand, students with related degrees find jobs more easily than those with humanities and social sciences degrees.

Under this education system, Taiwan gets sixteenth place in the international rankings of the Social Science Citation Index (SSCI) in 2007.²⁹

6. Scientific Infrastructure

6.1. Research and Development

R&D expenditure in Taiwan increased steadily from NT\$224 billion (US\$7 billion) in 2002 to NT\$307 billion (US\$9.8 billion) in 2006.³⁰ If we look at expenditures by the type of R&D, most expenditures were concentrated on experimental development, accounting for 62.1% to 63.4% of total R&D expenditure. Applied research takes second place, with a rate of 25.3% to 26.9% of total R&D expenditure, and it is increasing at an annual rate of 7.7%. Basic research gets the smallest proportion of total R&D expenditure. It increased with an annual rate of 6% before 2004, but declined in 2005. This could be a problem as basic research is the original source of knowledge and innovation.

In the following, we will disclose R&D expenditure by industries, noting the fields which generate the most intellectual property. According to the 2007 report of the Department of Accounting and Statistics of the Executive Yuan,³¹ more than

²⁶ See the statistics of the Department of Statistics of the Ministry of Education, http://www.edu.tw/files/site_content/B0013/overview06.xls.

²⁷ *Id.*

²⁸ *Id.*

²⁹ See DEPARTMENT OF STATISTICS OF THE MINISTRY OF EDUCATION, THE EDUCATIONAL INDICATION STATISTICS (2007), http://www.edu.tw/files/site_content/B0013/overviewssci.xls.

³⁰ See NATIONAL SCIENCE COUNCIL, INDICATORS OF SCIENCE AND TECHNOLOGY, TAIWAN, 2007, 7, available at http://www.nsc.gov.tw/tech/book/data_main/data_main.pdf.

³¹ See *Business Enterprise R&D Expenditure by OECD Industrial Classification and Type of Costs, 2006*, in NATIONAL SCIENCE COUNCIL, NATIONWIDE SURVEY ON SCIENCE AND TECHNOLOGY ACTIVITY, 2006, available at http://www.nsc.gov.tw/tech/book/data_main/III2-2-2.pdf.

50% of research funding went to the manufacturing industry, which includes: the electronic parts and components industry, the electrical machinery and supplies industry, the computer systems design services industry, the machinery and equipment and repairs industry, and the telecommunications/chemical materials and chemical products industry. These industries were the ones that produced most patents, concentrated in the semiconductor industry, the components, parts and module manufacture industry, the systems engineering industry, and the telecommunications industry. Overall, most of the research activity is in the semiconductor-, computer-, and chemistry-related industries.

In addition to scientific R&D, Taiwan has some traditional R&D in areas such as food and beverages, textile mills, apparel, clothing accessories, furniture and fixtures, tobacco, and other non-manufacturing industries.³² However, the size of this R&D is much smaller than that of the manufacturing industry.

6.2. Ownership of R&D Results

Before 1996, there was no law about ownership of R&D results in Taiwan; assignment of rights was limited to the provisions contained in employment contracts. Moreover, science and technology policies in Taiwan were mostly executed by administrative orders instead of legislation, and the R&D results from projects sponsored by the government usually belonged to the government.

In September of 1996, the fifth National Science and Technology Conference proposed the formulation of the Science and Technology Fundamental Law. The proposed law adopted most of the provisions of the Bayh-Dole Act of the United States. After a lively discussion at the conference, the National Science Council took on the responsibility of drafting the new legislation. The Science and Technology Fundamental Law enacted in 1999 is the first law in Taiwan that has built a solid foundation for science and technology development. The law releases the ownership of R&D results from the government to universities, research institutes, and private industries, in order to make it easier for industry to commercialize R&D results. The provisions of this law were adopted in the following sub-regulations: the Technology R&D Results Ownership and Utilization Law, the Act of Employing Technical Personnel, and the Regulations on Managing the Technology Development Fund.

6.3. Public/Private Innovation and Commercialization of IP

Most of the funding for research comes from the government. In the past, most of Taiwan's private industries did not have the financial strength to support R&D centers. Accordingly, Taiwan's government has established many large-scale R&D centers, such as the National Academia Sinica, the Industrial Technology Research Institute, the National Health Research Institute, and the Biotech Development

³² See *Business Enterprise R&D Expenditure by OECD Industrial Classification and Type of Costs, 2004*, in NATIONAL SCIENCE COUNCIL, NATIONWIDE SURVEY ON SCIENCE AND TECHNOLOGY ACTIVITY, 2005.

Center. In addition, the National Science Council and the MOEA provide the majority of grants for university research projects. In recent years, however, private industries in the areas of semiconductors and TFT-LCD have started independently funding their own research. Nowadays, the private sector plays a leading role in supporting R&D. Business enterprise investment in R&D grows at an average rate of 9.8% annually, from NT\$141 billion (US\$4.5 billion) in 2002 to NT\$206 billion (US\$6.6 billion) in 2006.

The Taiwanese government encourages technology transfer and licensing from universities to industries in order to improve industrial performance and upgrade the overall technology level in industries. More than eighty incubation centers are set up in universities to do the technology transfers, generating more than 500 cases of technology transfer from universities to industries each year. The Industrial Technology Research Institute (ITRI) has done a remarkable job of commercializing its research results. It produced about 1,000 products in 2004 and the income from IPR amounted to more than US\$35 million. In 2006, it auctioned 480 cases of its patents to industries and had 470 licensing cases.

Conclusion

In the last ten years, Taiwan's IP legal system has reached a level where it is almost in compliance with WTO standards. However, due to the international nature of intellectual property, Taiwan still needs to improve its system. Taiwan is an island country and depends profoundly on international trade to sustain economic growth. Therefore, the issue of intellectual property is extremely important for its social and economic development. In the past, neither the government nor industry paid much attention to IP protection. This is because Taiwan had a low economic growth rate, but high industrial technology needs. To meet these needs in a highly competitive environment, local industries were forced to pirate protected intellectual property. They treated piracy as a useful means of learning and improving.

Since Taiwan did not have much of its own intellectual property to protect, the government adopted a loose IP protection and enforcement policy. This allowed domestic companies to perform without having to pay huge royalties to foreign IP owners. The government focused more on economic development than on IP protection, which is not unusual for developing countries. Furthermore, most local industries lacked knowledge of IP protection and management, so they ignored both the legal and business risks of IP infringement. The lack of well-trained IP legal and management professionals exacerbated this problem.

As economic development progressed, Taiwan's industries started to own their own technology and know-how. As they began to register their own intellectual property, they hoped for protection, both locally and internationally. In addition, international IP infringement suits forced Taiwan's companies to educate themselves about intellectual property. Furthermore, international industry cooperation and division of functions helped to push the trend of IP protection. Taiwan plays an important role of OEM and ODM in the international manufacturing process. Without proper IP protection, international partners would not give OEM contracts.

The Taiwanese government now encourages industry and research institutes to pay more attention to the quality and intensity of IP protection. Additionally, the enactment of the Science and Technology Fundamental Law, which decentralizes IP ownership, provides more incentives for industry and universities to protect and commercialize their intellectual property. After the enactment of the Science and Technology Fundamental Law, the commercialization of R&D outputs has improved drastically. ITRI has shown that the exploitation of intellectual property can become very profitable in Taiwan if sufficient incentives are provided and proper training is given to licensing managers.

Intellectual property is currently taking a lead in Taiwan's economic development. The number of foreign patent applications has steadily increased since 2001. In 2004, the USPTO ranked Taiwan as the number three foreign country, next to Japan and Germany, in terms of number of patent applications filed there. From the viewpoint of effectiveness of value added, the highest values are the upstream R&D and downstream marketing. Intellectual property will play a key role in developing these business values. Taiwan is a good model demonstrating that the protection and management of intellectual property have positive effects on economic development.

Appendix

Name of Law	Original	Amended
Patent	1949	1994, 1997, 2001, and 2003
Trademark	1930	1992
Copyright	1928	1992 and 2003
Trade Secret	1996	
Fair Trade (unfair competition)	1991 promulgated, 1992 effective	
Integrated Circuit Layout Design Protection	1995	
Plant Variety & Seedling Protection	1988	2005
Science & Technology Fundamental Law	1999 effective	
Protection of Sensitive Technology	2005 drafted	

Figure 1: Enactments and Major Amendments of Key IP Laws

Item Yr	New Application	Declaration of Patent approval	Grant of Patent Certification	Declaration of Patent Approval & Grant of Patent Certification
'98	54,003	25,051	23,640	-
'99	51,912	29,144	24,338	-
'00	61,231	38,665	31,096	-
'01	67,860	53,789	43,277	-
'02	61,402	45,042	44,101	-
'03	65,742	53,034	42,082	-
'04	72,082	27,717	66,490	21,893
'05	79,442	-	58,306	57,236
'06	80,988	-	49,315	48,774
'07	81,834	-	49,290	49,006

Figure 2: Patent Application and Approval 1996-2007

Data Source: TAIWAN INTELLECTUAL PROPERTY OFFICE (TIPO), 2007 ANNUAL REPORT.

*The "Declaration of Patent Approval" system was effective until June 30, 2004.

*"Grant of Patent Certification" refers to the actual annual case number of certification granted.

*"Declaration of Patent Approval & Grant of Patent Certification" refers to the annual case number of simultaneously declaring a patent approval with granting a certification. This system has been effective since July 1, 2004.

	Patent	Utility Model	Design	Total
Total Application Case	51,676	22,715	7,443	81,834
Proportion Rate	63.15%	27.76%	9.09%	100.00%
Application Case of Domestic Citizen	23,330	22,214	4,051	49,595
Proportion Rate	28.51%	27.14%	4.95%	60.60%
Application Case Of Foreigner	28,346	501	3,392	32,239
Proportion Rate	34.64%	0.61%	4.15%	39.40%

Figure 3: Patent Application Overview 2007

Data Source: TAIWAN INTELLECTUAL PROPERTY OFFICE (TIPO), 2007 ANNUAL REPORT.

	Patent	Utility Model	Design	Total
Total Grant Case	22218	20769	6019	49006
Proportion Rate	45.34%	42.38%	12.28%	100.00%
Grant Case to Domestic Citizen	10,578	20,267	3,223	34,068
Proportion Rate	21.58%	41.36%	6.58%	69.52%
Grant Case to Foreigner	11,640	502	2,796	14,938
Proportion Rate	23.75%	1.02%	5.71%	30.48%

Figure 4: Patent Grant Overview 2007

Data Source: TAIWAN INTELLECTUAL PROPERTY OFFICE (TIPO), 2007 ANNUAL REPORT.

Item Yr	Domestic Citizen				Foreigner			
	Patent	Utility Model	Design	Total	Patent	Utility Model	Design	Total
'98	1,598	12,454	2,365	16,417	6,880	962	792	8634
'99	2,139	13,375	1,538	18,052	9,141	923	1,028	11,092
'00	3,834	14,924	4,979	23,737	11,823	1,066	2,039	14,928
'01	6,477	19,999	5,834	32,310	17,952	1,213	2,314	21,479
'02	5,683	15,265	3,898	24,846	17,353	850	1,993	20,196
'03	6,399	20,315	4,241	30,955	18,735	1,124	2,220	22,079
'04	4,859	8,856	2,201	15,916	9,829	636	1,336	11,801
'05	9,124	29,328	3,872	42,324	11,502	790	2,620	14,912
'06	11,431	18,857	3,485	33,773	11,797	550	2,654	15,001
'07	10,578	20,267	3,223	34,068	11,640	502	2,796	14,938

Figure 5: Patent Grant 1998-2007

Data Source: TAIWAN INTELLECTUAL PROPERTY OFFICE (TIPO), 2007 ANNUAL REPORT.

*The case number of grant in 1998-2004 refers to "Declaration of Patent Approval."

**The case number of grant in 2005-2007 refers to the case number of "simultaneously declaring a patent approval with granting a certification," which is a new system effective from July 1, 2004.

Item Yr	Domestic Citizen				Foreigner			
	Patent	Utility Model	Design	Total	Patent	Utility Model	Design	Total
'98	5,213	21,123	7,907	34,243	16,765	1,112	1,883	19,760
'99	5,804	20,283	6,556	32,643	16,375	1,198	1,723	19,278
'00	6,830	22,660	6,879	36,369	21,621	1,068	2,173	24,862
'01	9,170	24,220	6,820	40,210	24,222	1,150	2,278	27,650
'02	9,638	20,692	5,596	35,926	21,978	1,058	2,440	25,476
'03	13,049	21,231	5,383	39,663	22,774	704	2,601	26,079
'04	16,747	20,809	5,464	43,020	25,172	709	3,181	29,062
'05	20,093	22,641	4,987	47,721	27,748	585	3,388	31,721
'06	21,365	22,674	4,587	48,626	28,746	605	3,011	32,362
'07	23,330	22,214	4,051	49,595	28,346	501	3,392	32,239

Figure 6: New Patent Application by Nationality of Applicant 1998-2007
Data Source: TAIWAN INTELLECTUAL PROPERTY OFFICE (TIPO), 2007 ANNUAL REPORT.

Item Yr	Plead			Administrative Litigation			Total		
	Filing Case	Revocation Decision	Rate of Revocation Decision	Filing Case	Revocation Decision	Rate of revocation decision	Filing Case	Revocation Decision	Rate of Revocation Decision
'01	1,256	65	5.18%	208	23	11.06%	1,464	88	6.01%
'02	1,849	65	3.52%	693	34	4.91%	2,542	99	3.89%
'03	1,373	88	6.41%	519	44	8.48%	1,892	132	6.98%
'04	1,242	103	8.29%	555	40	7.21%	1,797	143	7.96%
'05	1,085	96	8.85%	562	38	6.76%	1,647	134	8.14%
'06	737	91	12.35%	534	28	5.24%	1,271	119	9.36%
'07	685	45	6.57%	486	22	4.53%	1,171	67	5.72%

Figure 7: Patent Administrative Disputes 2001-2007
Data Source: TAIWAN INTELLECTUAL PROPERTY OFFICE (TIPO), 2007 ANNUAL REPORT.

Nationality	New Application				
	Patent	Utility Model	Design	Total	Application Proportion
Taiwan	23,330	22,214	4,051	49,595	60.60%
Japan	11,043	64	1,456	12,563	15.35%
United States	8,977	136	607	9,720	11.88%
South Korea	1,889	18	154	2,061	2.52%
Germany	1,494	10	239	1,743	2.13%

Figure 8: New Patent Applications by Nationality 2007

Data Source: TAIWAN INTELLECTUAL PROPERTY OFFICE (TIPO), 2007 ANNUAL REPORT.

Year	Application of Registration	Approval of Registration	Ultimate Registration
2005	63,580	59,517	55,181
2006	65,457	57,860	54,597
2007	61,454	52,569	51,326

Figure 9: Trademark Application and Registration 2005-2007

Data Source: TAIWAN INTELLECTUAL PROPERTY OFFICE (TIPO), 2007 ANNUAL REPORT.

Items	Case Unit	Proportion of Total cases	Investment Amount	Proportion of Total Investment Amount
Banking & Insurance	937	4.05%	17,235,774.58	17.75%
Electronic & Electrical Components	1,606	6.94%	15,097,743.92	15.55%
Wholesale & Retail	5,804	25.09%	8,814,631.23	9.08%
Computer, electronic & optical goods	1,295	5.60%	6,048,664.16	6.23%
Financial holdings	1,098	4.75%	5,645,418.80	5.81%

Figure 10: Inward FDI by Industry 1952-2008 (US\$ thousands)

Data Source: MINISTRY OF ECONOMIC AFFAIRS, INVESTMENT COMMISSION, STATISTIC REPORT ON OVERSEAS CHINESE & FOREIGN INVESTMENT, OUTWARD INVESTMENT, MAINLAND CHINA INVESTMENT (2008), available at <http://www.dois.moea.gov.tw/content/doc/9705-4.xls>.

Items Industry	Case Unit	Proportion of Total cases	Investment Amount	Proportion of Total Investment Amount
U.S.A	3,744	16.18%	18,708,178.63	19.27%
Netherlands	385	1.66%	16,183,123.36	16.67%
British Possessions in the Caribbean	3,272	14.14%	15,946,236.01	16.42%
Japan	5,673	24.52%	15,531,633.50	16.00%
Singapore	1,174	5.07%	5,847,364.96	6.02%

Figure 11: Inward FDI by Geographic Resource 1952-2008 (US\$ thousands)

Data Source: MINISTRY OF ECONOMIC AFFAIRS, INVESTMENT COMMISSION, STATISTIC REPORT ON OVERSEAS CHINESE & FOREIGN INVESTMENT, OUTWARD INVESTMENT, MAINLAND CHINA INVESTMENT (2008), available at <http://www.dois.moea.gov.tw/content/doc/9705-4.xls>.

Thailand

Julia Sorg

1. Legal Infrastructure	303
1.1. IP History	303
1.2. International IP Obligations	305
1.3. Current IP Laws	306
1.4. IP Lawmaking	307
1.5. IP Enforcement	309
1.5.1. Enforcement Infrastructure	309
1.5.2. Enforcement Reality	310
2. Cultural Infrastructure	312
3. Political Infrastructure	314
4. Economic Infrastructure	315
4.1. Overview	315
4.2. Who Holds the IP?	316
4.3. Innovation Incentives	317
4.4. Foreign Investment and Trade	318
5. Educational and Informational Infrastructure	320
6. Scientific Infrastructure	321
6.1. Research and Development	321
6.2. Public/Private Innovation	323
Conclusion	324
Appendix	325

1. Legal Infrastructure

1.1. IP History

A written Thai Law (the Law of the Three Seals)¹ has existed since 1805. Despite having well-established laws, the Thai Kings have shown a great openness toward Western legal systems since the nineteenth century. King Rama V explicitly instructed the courts to refer to the principles of U.K. law if there was no appropriate Thai law.² Moreover, the codification of civil and trade law was influenced by the French Code Civil and by the Japanese Civil Code.³ Since Thailand belongs to the civil law countries, it is not surprising that Western models like the WTO TRIPS

¹ Codification in the period of King Rama I with elements of Dharmasatra, royal decrees, and edicts. For details, see Yoneo Ishii, *The Thai Chammathat, in THE LAWS OF SOUTH-EAST ASIA, VOL. I: THE PRE-MODERN TEXTS 143-44* (M.B. Hooker ed., 1986) [hereinafter THE LAWS OF SOUTH-EAST ASIA] and Chachapon Jayaphorn, *Reformation of the Thai Legal System at the Beginning of the 20th Century: Context and Origin*, CHULALONGKORN L.J. (Aug. 2005).

² Christoph Antons, *Legal Culture and History of Law in Asia*, in INTELLECTUAL PROPERTY LAW IN ASIA 23 (Christopher Heath ed., 2002), with reference to Preedee Kasemsup, *Reception of Law in Thailand, a Buddhist Society*, in ASIAN INDIGENOUS LAW IN INTERACTION WITH RECEIVED LAW 267-300 (Masaji Chiba ed., 1986).

³ Vichai Ariyanuntaka, *Sophistication of Dispute Resolution in Special Courts: A Perspective from Thailand*, in LAW, DEVELOPMENT AND SOCIO-ECONOMIC CHANGES IN ASIA 348-49 (Naoyuki Sakumoto, Masayuki Kabayashi & Shinya Imazumi eds., 2003).

Agreement are more accepted than in other Asian countries. Thailand was able to adapt to modern international standards even though the system of protection of intangible property is relatively new.⁴

In contrast to other Asian countries, Thailand has never been a Western colony. It has a unique position within Asia as it had time to develop its own legal system, including IP protection, voluntarily and to a large extent without external pressure.

The first Thai Codification in the field of protection of intangible property dates from 1892 and protected books from the Royal Library: the Royal Proclamation of Vachirayan Library for the Protection of Literary Works R.S. 111. The scope of protection was enlarged to cover all kinds of registered publications in 1901.⁵ In 1931, important amendments were made in order to bring the law in line with the Berne Convention. Then in 1995, the proclamation was replaced by the new Copyright Act of 1994, which was compliant with the TRIPS Agreement.

Another important milestone in IP protection was set in 1914, when the protection and the registration of trademarks became regulated by law. After amendments in 1931 and 1991, the latest extensive trademark law reform took place in 2000, bringing the law in line with the TRIPS requirements.

In contrast to copyright and trademark, patent protection has a relatively short tradition in Thailand. In 1979, the first Patent Act B.E. 2522 was enacted in order to promote and accelerate economic development and to transform the country into an industrial producer.⁶ Thus protection of inventions was implemented because of the country's own best interests, absent foreign pressure.

It was only toward the end of the millennium that Western influence on the IP system became visible. Later amendments of the Patent Act, for example, namely the amendments necessary to bring the law in line with the TRIPS Agreement in 1992 and 1999, were heavily driven by the threat of trade sanctions by the United States.⁷ Thailand had been on the Special 301 Watch List since 1991, due to IP

⁴ Critical of this adaptation is Christopher Heath, who speaks of a "clash" with social and cultural beliefs with which the Western system "fitted ill." Christopher Heath, *Intellectual Property Rights in Asia*, in INTELLECTUAL PROPERTY LAW IN ASIA, *supra* note 2, at 5.

⁵ For details, see Jakkrit Kuanpoth, *Thailand*, in INTELLECTUAL PROPERTY LAW IN ASIA *supra* note 2, at 340-41 [hereinafter Kuanpoth, *Thailand*].

⁶ *Id.* at 341; see also Jakkrit Kuanpoth, *The Role of Patent Law in Technological Development: Thailand's Experience* 5, presentation paper at the IX AAOU Annual Conference (Hong Kong 1993) [hereinafter Kuanpoth, *The Role of Patent Law*].

⁷ Thomas Mesevage, *The Carrot and the Stick: Protecting U.S. Intellectual Property in Developing Countries*, 17 RUTGERS COMPUTER & TECH. L.J. 421, 446-50 (2001); Thomas N. O'Neill III, *Intellectual Property Protection in Thailand: Asia's Young Tiger and America's "Growing" Concern*, 11 U. PA. J. INT'L BUS. L. 603 (1990) (recognizing that it might be too early for Thailand to have an IP system modelled after a Western system due to its state of economic development, but underlines the importance of stronger IP protection for U.S. exports). See also Stefan Kirchanski, *Protection of U.S. Patent Rights in Developing Countries: U.S. Efforts to Enforce Pharmaceutical Patents in Thailand*, 16 LOY. L.A. INT'L & COMP. L.J. 569, 591-95, 603-07 (1994) (critical due to the level of economic development); Myles Getlan, *TRIPS and the Future of Section 301: A Comparative Study in Trade Dispute Resolution*, 34 COLUM. J. TRANSNAT'L L. 173, 196-99 (1995) (critical towards the obligation to patent pharmaceuticals).

violations that seriously affected U.S. exports.⁸ By the end of the millennium, many other new laws and amendments were being implemented to bring Thailand in line with international treaties.

Along with the creation of new IP laws came the foundation of a special court for IP litigation in 1997, the Central Intellectual Property and International Trade Court (CIPITC). The CIPITC has bundled competencies for civil and criminal IP litigation in the first instance.⁹

1.2. International IP Obligations

Thailand entered the WTO in 1995. Before this, it became a member of the Berne Convention in 1931 and of WIPO in 1989.¹⁰ Recently, on January 10, 2008, Thailand became a member of the Paris Convention and of the PCT.¹¹ Additionally, Thailand is member of ASEAN (1969), APEC (1989), and AFTA (Asian Free Trade Area).¹²

In the field of trademarks, several bilateral Trade and Investment Agreements (TIFA) have been concluded with the United States, Japan, China, India, and Australia, ensuring IP protection in return for investments. The U.S.-Thai TIFA is only preliminary as the countries work toward a free trade agreement (FTA).¹³ Its aims are primarily to ensure a higher IP protection standard and, secondly, to enhance IP enforcement, especially for pharmaceutical patents.¹⁴

⁸ See Preeti Sinha, *Special 301: An Effective Tool Against Thailand's Intellectual Property Violations*, 1 PAC. RIM L. & POL'Y J. 281, 288-98 (1992) (in favour of the U.S. foreign policies). But see Ted L. McDorman, *U.S.-Thailand Trade Disputes: Applying Section 301 to Cigarettes and Intellectual Property*, 14 MICH. J. INT'L L. 90, 118 (1992) (more critical toward U.S. pressure). Thailand also appears on the latest Special 301 Watch List due to lack of enforcement. See Special 301 Report Watch List 43-44 (2006).

⁹ Act for the Establishment of and Procedure for Intellectual Property and International Trade Court B.E. 2639 (1996), Sec. 7; see also Kuanpoth, *Thailand*, *supra* note 5, at 362.

¹⁰ For an overview of membership in international agreements, see Heath, *supra* note 4, at 7-9.

¹¹ In the past, academics called for adherence to the PCT and the Paris Convention to simplify patent applications. See, e.g., Kuanpoth, *Thailand*, *supra* note 5, at 338. In fact, with the adherence to Paris Convention, an applicant for a Thai patent is now able to claim priority in the Paris Convention member states, and all PCT applications filed after April 10, 2008 will automatically designate Thailand. Other academics opt for a stronger cooperation within ASEAN, e.g., mutual recognition of the research results.

¹² One important provision stipulates that foreign investors who want to relocate their car production to Thailand have to obtain 40% of the car components from Thai companies in order to enjoy tax advantages for distribution within AFTA.

¹³ The United States and Thailand are currently negotiating an FTA. There had been six rounds of negotiations as of 2006. For an update, see http://www.ustr.gov/Trade_Agreements/Bilateral/Thail_FTA/Section_Index.html.

¹⁴ For an overview, see V. Chuenjaipanich & Edward J. Kelly, *Reform gets underway in Thailand*, 143 MANAGING INTELL. PROP., Supplement: Asia-Pacific Focus 2004, 77-83 (Oct. 2004). For a critical view, see Jakkrit Kuanpoth, *Why FTA's are Bad for the Poor*, 140 MANAGING INTELL. PROP. 4 (June 2004).

1.3. Current IP Laws

The Patent Act B.E. 2535 brought patent protection in line with the TRIPS Agreement and entered into force on September, 27, 1999. The Act covers invention patents, utility models, and designs.¹⁵ The requirement of “novelty” is defined in accordance with U.S. law: “the invention may neither be disclosed (known or used) domestically in Thailand nor be described in a publication anywhere in the world.” The term of protection for invention patents is up to twenty years from the time of the application, while utility models are protected for a maximum period of six years and designs for ten years. Patent claims are generally offered a broad scope of protection. Both patents and utility models can be granted for products or for processes.¹⁶ The definition included in the code for designs is also wide-ranging.¹⁷

Copyright protection is governed by the Copyright Act B.E. 2537. Registration is not a requirement for protection, but if registration is chosen then copies may be deposited with the Department of Intellectual Property (DIP). The Protection of Layout-Designs of Integrated Circuits Act B.E. 2545 was enacted in 2000 and the Manufacture of Optical Discs Act B.E. 2548 in September 2005.

Trademarks are protected by the Trademark Act B.E. 2534 (last amendment in 2003), and trade names can obtain protection under the Civil and Commercial Code. Trademark registerability requires distinctiveness and a lack of similarity with prior registered marks. If an examiner rejects a mark, there is a possibility of appeal to the Trademark Board within ninety days.¹⁸ According to Section 18 Trademark Act, the Board’s Decision is final. A refusal of registration by the Board can only exceptionally be appealed to a court¹⁹; the Supreme Court has recognized this possibility of judicial review in two decisions.²⁰ The Court held that an appeal can be made to the Central Intellectual Property and International Trade Court (CIPITC), and to the Supreme Court in the second instance if the Board’s decision is unlawful. After grant of a trademark, cancellation proceedings can be initiated by a petition to the Trademark Board under Section 61-67 Trademark Act. Additionally, new legislation for geographical indications was introduced in April 2004 with the Geographical Indications Act B.E. 2546.²¹

In addition to patents and copyrights, knowledge can be protected by trade secret or other specialized law. The Trade Secrets Act B.E. 2545 protects industrial

¹⁵ For an overview, see Kuanpoth, *Thailand*, *supra* note 5, at 345-50.

¹⁶ Fabrice Mattei, *Thailand: Comparative Analysis of Patents for Invention, Utility Models and Product Design*, PATENT WORLD 42 (Apr. 2000).

¹⁷ “Any configuration of a product or composition of lines or colors which gives a special appearance to a product and can serve as a pattern for a product of industry or handicraft.”

¹⁸ Administrative Court Establishment Act, Sec. 9.

¹⁹ See Boonma Tejavaniya & Rutorn Nopakun, *Up to the Challenge? Can Inherent Registrability Decisions from Thailand’s Trademark Board be Challenged in Court?* 172 TRADEMARK WORLD 28-30 (2004).

²⁰ Thai Supreme Court, Decision 3542/2545 “TRUSTY,” 2002 (confirming its view toward the possibility of judicial review in case of an unlawful ruling which it held in the 1998 precedent “CONCERT,” Decision 3549/2541).

²¹ Probably useful for the promotion of genuine Thai products.

and commercial secrets and became effective July 30, 2002.²² Traditional knowledge and genetic resources are protected by the Traditional Medicine Act 1999 and the Plant Variety Protection Act B.E. 2543, also enacted in 1999.

Provisions against unfair competition are contained in various laws: the Civil and Commercial Code, the Civil Procedure Act, and the Penal Code. In 1999, the Thai government also adopted a Competition Act (Antitrust law) as a reaction to the Asian Crisis, to establish a more transparent and market-friendly economic system.²³ At that time, patent pooling did not yet exist, and very few cartel cases were reported. But the 1997 Asian Crisis showed that there was a lack of market rationality and that, from the point of view of the West, the economic systems needed more transparency and accountability.²⁴

Enforcement provisions are incorporated in the different substantive laws. Further provisions for border enforcement of copyrights and trademarks, but none for patents, exist under the Notification of the Ministry of Commerce on Exports & Imports B.E. 2536.²⁵

1.4. IP Lawmaking

Legislation is enacted by a democratically elected parliament.²⁶ Until the April 2006 re-election, most of the parliamentarians were from the dominant Thai Rak Thai Party. After the military coup, the former Thai Rak Thai Party, now known as the People's Power Party, won the election in December 2007 and built a coalition with five other parties by the end of January.²⁷

Under the Constitution in force since 2007,²⁸ the parliament comprises two chambers: the House of Representatives, whose members were elected directly by the people, and the Senate. The process of enactment of laws²⁹ can be quite time-

²² For details, see 16 WORLD INTELL. PROP. REP. 12-13 (July 2002).

²³ For details, see Nobuyuki Yasuda, *How Can Law Interact with Society?: A Note on Recent Law Reform Movements in Asia*, in 6 LAW, DEVELOPMENT AND SOCIO-ECONOMIC CHANGES IN ASIA 18-22 (Naoyuki Sakumoto et al. eds., 2003). Yasuda gives this example to show the interaction between law as a norm and law as culture whose gap can be closed by ways of bridge-building through independent institutions. The author explains this phenomenon by the insertion of an unfair competition law in Thailand in 1999 together with formation of the Thai Trade Commission.

²⁴ *Id.* at 19-20. But the author mentions that the system of unfair competition prevention was contradicting the country's cultural beliefs of "harmony" as the predominant principle.

²⁵ For details, see Boonma Tejavanija, *Legal Action against Intellectual Property Infringement in Thailand*, in THE KOREA INTELLECTUAL PROPERTY ASSOCIATION IN COMMEMORATION OF THE 60TH BIRTHDAY OF PATENT ATTORNEY MYUNG-SHIN KIM, LEGAL ACTION AGAINST INTELLECTUAL PROPERTY INFRINGEMENT IN ASIA 497-518.

²⁶ Even the constitution enacted by the military interim government foresees democratic elements in the constitution, including election of a parliament.

²⁷ In the December 2007 election, there were more than forty candidate parties.

²⁸ Constitution of the Kingdom of Thailand B.E. 2550 (approved by referendum Aug. 19, 2007), available at <http://www.concourt.or.th/download/Constitution2007byIFES.pdf> (unofficial English translation). The provisions about the legislative process were already contained in the former constitution.

²⁹ *Id.* at Sec. 142 *et seq.*

intensive: an act of parliament can take several years to be finalized.³⁰ The National Assembly has a legislative session of 120 days, which includes examination of bills, government orders, amendments to the Constitution, and approval of treaties. The legislative process begins with bills being submitted to the House of Representatives and then being passed on to the Senate for an examination period of sixty days, which can be extended by thirty days. If the Senate does not complete examination of the bill within this period, it is deemed adopted. Only if the Senate does not agree, the bill is suspended and returned to the House of Representatives, which has a 180-day period to reconsider the bill. If the amendment is rejected, a joint committee is formed for considering the bill, which means that a long legislation phase could begin.³¹ In case the Senate makes amendments, the bill is sent back to the House of Representatives. If the House of Representatives accepts, the bill is sent to the King for his signature.

In order to avoid a time-consuming legislative process, the procedural rules for the Central Intellectual Property and International Trade Court (CIPITC) have been enacted by the Court itself in accordance with Section 30 Act of the Establishment of and Procedure for Intellectual Property and International Trade Court B.E. 2539 (1996).³² The CIPITC seems to be much more sophisticated than the lower Thai courts. This is due to the fact that the CIPITC judges are appointed in a special process and are required to have expertise on intellectual property.³³

In contrast to other Asian countries, IP legislation in Thailand is clear and interpretations by the courts are rare. The courts merely serve the purpose of clarifying certain issues instead of giving wide-ranging interpretation of the code, like in other Asian countries, e.g., in the People's Republic of China. There exist just a few regulations like the CIPITC Regulation concerning Guidelines for the Foreign Body Corporate Copyright Owner Demanding One Half of the Court Fine B.E. 2546 (2003) as well as some Ministerial Implementing Regulations, e.g., the Guidelines of Descriptiveness of Trade Marks under the Ministerial Order 80/2539, and the Commerce Ministerial Notification from November 4, 2004 stipulating which geographical names are not inherently registerable as trademarks, and the Notification stipulating new criteria for well-known trademarks from September 21, 2004.

³⁰ See Vichai Ariyanuntaka, *Sophistication of Dispute Resolution in Special Courts: A Perspective from Thailand*, in LAW, DEVELOPMENT AND SOCIO-ECONOMIC CHANGES IN ASIA, *supra* note 23, at 348, 365.

³¹ Firstly, a joint committee with equal representation of both chambers has to be set up. If one of the two assemblies rejects the conclusions of the joint committee, the bill is deferred. A deferred bill returns to the Chamber, which re-examines it in a 180-day period. If the Chamber accepts the first bill adopted or that of the joint committee by an absolute majority, the bill is considered adopted by the National Assembly.

³² Ariyanuntaka is in favor of the new possibility for the Thai Intellectual Property and International Trade Court to determine its own rules. Ariyanuntaka, *supra* note 30, at 348, 365-66. See also Michael A. Cherubim & Laurenz Meckmann, WRP 1998, at 844, 846.

³³ Act of the Establishment of and Procedure for Intellectual Property and International Trade Court B.E. 2539 (1996), Sec. 14, 15.

1.5. IP Enforcement

1.5.1. Enforcement Infrastructure

In Thailand, as in some other Asian countries, there is a double track system for IP enforcement. On the one hand, there is an administrative enforcement system; on the other, there is a court system.³⁴ Administrative enforcement is coordinated by the Thai Department of Intellectual Property (DIP) as the highest administrative authority. DIP set up the Centre for Coordination of Deterrence against Intellectual Property Violation, which coordinates enforcement actions with other enforcement authorities. The number of administrative actions has increased from 867 cases in 1995 to 1,507 cases in 1999.³⁵ Most of these are trademark infringement cases. The main problem of the system, though, is a lack of resources and a lack of qualified staff. This results in Thailand's dependence on help from foreign nations in such matters as prior art search and examination.³⁶

For civil and criminal IP litigation, the CIPITC has competence in the first instance. As the court has enacted its own procedural rules,³⁷ there is some flexibility in litigation³⁸ and the CIPITC can render time-efficient decisions: 90% of the cases are terminated within one year.³⁹ An appeal against a CIPITC decision can be brought to the Thai Supreme Court.

Judges are comparatively well educated. The requirements to become a judge⁴⁰ or public prosecutor⁴¹ are strict. In addition to compulsory membership with the Thai Bar Association⁴² and two years of practical experience, a potential judge has

³⁴ For an overview, see Kuanpoth, *Thailand*, *supra* note 5, at 342-43.

³⁵ DEPARTMENT OF INTELLECTUAL PROPERTY (DIP), MINISTRY OF COMMERCE, ANNUAL REPORTS.

³⁶ Kuanpoth, *The Role of Patent Law*, *supra* note 6, at 8. Help is given by, e.g., Austria and Australia.

³⁷ The Court was given the power to issue procedural rules under Act for the Establishment of and Procedure For Intellectual Property and International Trade Court B.E. 2639 (1996), Sec. 30.

³⁸ Rules for Intellectual Property and International Trade Cases B.E. 2540 (1997), *available in English at* <http://www.judiciary.go.th/eng/indexEng.html>. Their advantages are, on the one hand, special knowledge in IP matters, as well as the avoidance of a lengthy legislative process. See Ariyanuntaka, *supra* note 30, at 348, 365. Regarding the CIPITC procedure, see Cherubim & Meckmann, *supra* note 32.

³⁹ Ralph Cunningham, *Double Change on the Cards*, 127 MANAGING INTELL. PROP., Supplement: Asia-Pacific Focus 2003, at 14 (Mar. 2003). By comparison, usual civil litigation in the first instance will take twelve to eighteen months. See Tejavaniya, *supra* note 25, at 497, 501.

⁴⁰ Laid down in the Regulation of the Judicial Service Act B.E. 2543 (2000).

⁴¹ Laid down in the Regulation of the Public Prosecutor Officers Act B.E. 2521 (1978).

⁴² In order to become a lawyer, the applicant must have obtained a law degree (LL.B. or equivalent), pass the Thai Bar Association exam, and register for and obtain a lawyer's license from the Law Society of Thailand, which is issued after examination. The applicant must have passed a training course in professional ethics and basic principles of advocacy of a minimum of ninety hours and gained practical working experience in a law firm for a minimum of six months. For details, see The Lawyers Act B.E. 2528 (1985) and CHARUNUN SATHITSUKSOMBOON, THAILANDS'S LEGAL SYSTEM: REQUIREMENTS, PRACTICE AND ETHICAL CONDUCT (Bangkok: Tilleke & Gibbins 2001), *available at* http://www.tillekegibbins.com/publications/pdf/thailand_legal_system.pdf.

to pass three exams: a knowledge test, an open examination, and a special selection exam. Afterwards, the judge participates in a training program for at least one year before court approval. There is also a special selection procedure for CIPITC judges.⁴³ Candidates need to possess special knowledge and expertise in intellectual property.⁴⁴ A prosecutor candidate has to pass the public prosecutor-trainee examination and, after a training period at the Attorney General Office for at least one year, the candidate will be evaluated by the Public Prosecutor Committee.

In the area of patents, the profession of the patent attorney is not recognized in Thailand. In practice, attorneys file patent applications and represent applicants in prosecution proceedings and at trials.⁴⁵ The Thai Patent Office lacks qualified staff,⁴⁶ and currently, few applications for examiners are forthcoming as the financial resources of the institution are insufficient. However, Thailand has taken some steps to improve the patent situation. The government has installed a computerized system of IP registration, and the DIP has initiated technical courses as well as patent law education.⁴⁷ Despite this, the DIP still strongly depends on foreign government assistance in creating an educational infrastructure as well as in technical assistance and trainings with regard to the patent application process.⁴⁸

1.5.2. Enforcement Reality

Most of the IP cases are criminal proceedings in the field of copyright and trademark infringement. In contrast, cases of technological or know-how theft, patent infringement, and violation of trade secrets are comparatively rare. Additionally, the number of cases has increased dramatically in the last few years. In 2000, only 158 civil cases and 2,300 criminal cases were brought; in 2005, the numbers had more than doubled to 439 civil and 5,998 criminal cases.⁴⁹ (See Figure 1, Appendix.)

⁴³ Act for the Establishment of and Procedure for Intellectual Property and International Trade Court B.E. 2639 (1996), Sec. 14, 15, in accordance with the rules and methods prescribed in the Ministerial regulations.

⁴⁴ Act for the Establishment of and Procedure for Intellectual Property and International Trade Court B.E. 2639 (1996), Sec. 15(3) and (4).

⁴⁵ But this is not compulsory. Since 1999, Thais, as well as foreigners with a domicile or head office in Thailand, can file the patent application themselves (in Thai). For trademarks, requirements are also lax. See Kuanpoth, *Thailand*, supra note 5, at 343, 347 (patents), 352 (trademarks).

⁴⁶ See THE LAWS OF SOUTH-EAST ASIA, supra note 1; Weerawit Weeraworawit, *Asia Intellectual Property at the Cross-roads: The Changing IP Landscape and its Implications on Global IP Strategies/Policies, Recent Developments in Intellectual Property Law & Policy in Asia* (IPA Fordham, 3rd Annual Asian IP Law and Policy Day, New York, Apr. 2006, Working Paper) claims that there are fewer than twenty patent examiners in the Thai Patent Office (which is comparatively low compared to the United States, with approximately 5,000 officials).

⁴⁷ The level of which is not comparable to a graduate school for professional training of patent attorneys. See Kuanpoth, *Thailand*, supra note 5, at 343.

⁴⁸ Jakkrit Kuanpoth, ICTSD Dialogue on Technical Cooperation for IP Policy in Developing Countries, Geneva, July 11-12, 2005, available at http://www.iprsonline.org/ictsd/docs/2005-07-11_Kuanpoth.pdf.

⁴⁹ Annual data available at <http://www.cipitc.or.th> in Thai; monthly and yearly judicial statistics in English available at http://geocities.com/cipit_estat/.

The high number of criminal cases can be explained by several reasons. First, the right holder can initiate criminal proceedings by bringing a private claim even if the Public Prosecution Department does not initiate a public criminal action.⁵⁰ However, private right owners need to dedicate time to develop the evidence required in criminal proceedings.⁵¹ Second, the criminal track has some advantages for the right owner, such as quicker resolution than civil proceedings.⁵² An additional advantage in copyright infringement cases is that the court can order the infringer to pay to the right holder half of the fine.⁵³ Even if fines are comparatively low,⁵⁴ this mechanism may compensate the right holder for the harm done. Nevertheless, the claimant can request additional damages at the same court if the amount of the fine was not sufficient to compensate him.⁵⁵

The predominance of criminal proceedings is often criticized because it also reflects foreign right holders' strategy of aggressive enforcement against small businesses, e.g., owners of karaoke bars or of small CD/DVD shops.⁵⁶ This "over-use" of criminal enforcement is criticized as not effectively increasing IP awareness among the Thais.⁵⁷ On the one hand, sanctions against the producers of infringing products could be more efficient than sanctions against the owners of the small

⁵⁰ According to Tejavanija, *supra* note 25, at 497, 499-502, "private criminal action" is an effective enforcement tool which can be brought if the attorney general renders a non-prosecution order; others share the opinion that a private claim—at least in conjunction—is necessary to start criminal proceedings at all.

⁵¹ According to Rule 45 of the Rules for Intellectual Property and Intellectual Trade Cases B.E. 2540 (1997), the plaintiff shall submit a list of witnesses and documentary evidence prior to preliminary examination or the date on which evidence is actually taken.

⁵² According to *Thailand*, in USTR, U.S. TRADE SUMMARY 2003, at 464, available at <http://www.ustr.gov> [hereinafter U.S. TRADE SUMMARY 2003], civil litigation takes about 390 days to the judgment of first instance, whereas criminal proceedings are terminated within six to twelve months. Cunningham, *supra* note 39, at 14, also speaks about a duration of approximately one year for civil litigation.

⁵³ Copyright Act B.E. 2537, Sec. 76. But in court practice, the amount is not that high, as courts usually reduce the fine to one-half if the accused pleads guilty. See Weeraworawit, *supra* note 46, at 3.

⁵⁴ The maximum fine for violation of a patent is 200,000 baht (about US\$5,500) for an official, Patent Act, Sec.81, and 20,000-300,000 baht (about US\$550-8,250) for an individual or company, Patent Act, Sec. 82-88. For violation of trade secrets, the maximum fine is 1 million baht (about US\$27,500), Trade Secrets Act, Sec. 35. For copyright infringement, it is 100,000 baht (about US\$2,750), Copyright Act, Sec. 43. For trademark infringement, the maximum penalty is 400,000 baht (about US\$11,000), Trademark Act, Sec. 108.

⁵⁵ Proposal by Kuanpoth, *Thailand*, *supra* note 5, at 362.

⁵⁶ For example, in 2005, 2,565 of 2,568 trademark criminal cases concerned the selling or offering for sale of goods. (Trademark Act, Sec. 108, 109), as well as 3,238 of 3,239 copyright cases (Copyright Act, Sec. 31).

⁵⁷ Weeraworawit, *supra* note 46, at 5-7 speaks of an "over-use" of criminal penalties to the detriment of the "small fish." She claims that foreign right holders have not yet taken any big business operator to court, e.g., the big broadcasting companies and big entertainment places. She warns that this strategy could lead to disenchantment with enforcement as there is no public use of enforcement but merely protection of individual interests.

businesses. On the other hand, it is questionable whether right holders have any alternatives to criminal sanctions.⁵⁸

The rate of concluded cases is quite impressive.⁵⁹ Compared to other countries, e.g., China, the discrepancy in Thailand between the theory and practice of IP protection is not as great. Problems of enforcement are due more to insufficient staff or resources than to a lack of enforcement systems. Problems mainly arise in fields where the TRIPS Agreement leaves its member countries some flexibility or where enforcement of individual rights conflicts with economic and social reality. One example is patent infringement in the pharmaceutical field. Conflicts between IP protection and society's interests arise when people with serious illnesses cannot afford the prices for pharmaceuticals and if a compulsory license is denied. Enforcement of patents can be problematic or even impossible and in cases of serious illnesses compulsory licenses are frequently granted by state authorities.⁶⁰

The complexity of IP infringement is also different than in other Asian countries. Thailand has a problem with DVD piracy and faked textiles—products which can easily be produced in large quantities without high technological expertise. But infringers are reluctant to imitate products which might seriously affect health or the security of people.⁶¹

2. Cultural Infrastructure

Historically, the attitude towards law as well as of the perception of the law profession in Thailand had been negative, as law was perceived as a punitive institution rather than a protective mechanism.⁶² However, since the end of the nineteenth century, the legal profession has obtained a better reputation, as King Rama V recognized the importance of qualified lawyers for legal and structural reforms. This resulted in the foundation of the first law school in 1897, where legal education

⁵⁸ It seems that right holders prefer to either use private criminal action or to participate in public criminal action initiated by state authorities with the consequence that the procedure is more or less the same in civil or criminal litigation. The right holder has to file a formal complaint with the police and thus needs to collect evidence. See Tejavaniya, *supra* note 25, at 497, 501.

⁵⁹ The Courts seem to work surprisingly efficiently: according to the statistics, approximately thirty cases are concluded each day.

⁶⁰ One example is *AIDS Access Found. v. Bristol Myers Squibb Co. and DIP [Thai Patent Office]*, CIPITC 1, Case No. (Black) IP 34/2544 (2002); CIPITC 1, Case No. (Red) 93/2545 (2002) (concerning the patent for Didanosine); see also Ralph Cunningham, *Health Crises Undermine Patent Rules*, MANAGING INTELL. PROP., Supplement, at 43 (June 2003); Arvind Subramanian, *Medicines, Patents and TRIPS*, FIN. & DEV., Mar. 2004, at 22.

⁶¹ Statistics from the German Customs office in 2003 show that Thailand is the number one country of origin for fake products, with one-quarter of all fakes world-wide, but there is a concentration on textiles and DVDs. See <http://www.zoll.de>.

⁶² Vitit Muntarbhorn, *Rule of Law and Aspects of Human Rights in Thailand*, in ASIAN DISCOURSES OF RULE OF LAW 348 (Randall Peerenboom ed., 2004), speaks of a historical tendency in Thailand to “emphasize duties rather than rights” even in the different Thai Constitutions. See also Ishii, *supra* note 1, at 162-64 (describing the situation in Thailand in the seventeenth century).

was given by leading professors who graduated from either Oxford or other reputable Western law schools and who were familiar with Western legal principles.⁶³

It is difficult to say whether the rule of law has been completely established in Thailand, especially when taking into consideration that Thailand was guided by authoritarian rule for many decades.⁶⁴ But there are some indications of the establishment of the rule of law. In comparison to other Asian countries, legal rules are relatively transparent and court decisions are predictable. Judges are impartial⁶⁵ and chosen upon their qualifications. Lawyers all have university degrees and have obtained special training. Nevertheless, there remains some lack of transparency.⁶⁶

The process of independent institution building has already begun; see, e.g., the Thai Trade Commission.⁶⁷ Certain guarantees as well as the right to sue a state authority, agency, or enterprise for non-fulfilment of their legal duties are recognized by the Thai Constitution.⁶⁸ Nevertheless, corruption remains an issue. Thailand is currently listed number 59 of 159 countries on the Transparency International Corruption Index.⁶⁹ Some experts think that the former Prime Minister Thaksin Shinawatra, ousted in the military coup of 2006, was involved in corruption.

An important aspect of Thai law is that private property is recognized by the Thai Constitution, which is not always the case in other Asian countries. Several authors share the opinion that the acceptance of private property rights is a prerequisite for comprehensive protection of intangible assets and enforcement thereof.⁷⁰

Cultural hurdles are lower than in many of the other Asian countries, though they do exist. Thailand has a Buddhist tradition.⁷¹ As a result, one obstacle for effective IP protection might be that in the Buddhist mentality, competition as well as

⁶³ Jayaphorn, *supra* note 1.

⁶⁴ Muntarbhorn, *supra* note 62, at 346, 358, claims inconsistencies with the rule of law as well as self-amnesty of the military governments.

⁶⁵ Muntarbhorn also sees positive developments but requires future improvements in the promotion of independence of the judiciary and its efficacy. *Id.* at 368.

⁶⁶ E.g., court decisions are not all reported to the public; English publications of court decisions are especially rare.

⁶⁷ Yasuda, *supra* note 23, at 21-22.

⁶⁸ For details, see Muntarbhorn, *supra* note 62, at 358-60.

⁶⁹ But Thailand's accession to the ADB/OECD Anti-corruption Initiative for Asia-Pacific in spring 2005 is a positive sign for future improvement.

⁷⁰ See, e.g., Christopher Heath, *Bedeutet TRIPS wirklich eine Schlechterstellung von Entwicklungsländern?* GRUR INT. 1996, at 1169, 1171 (noting that as long as people see intangible property as a "common heritage of mankind," enforcement problems are the logical consequence). See also Assafa Endeshaw, *The Paradox of Intellectual Property Lawmaking in the New Millennium: Universal Templates as Terms of Surrender for Non-Industrial Nations; Piracy as an Offshoot*, 10 CARDOZO J. INT'L & COMP. L. 47, 74 (2002) (pointing out cultural obstacles to an understanding of IP protection).

⁷¹ 94-95% of the population is Buddhist. U.S. Dep't of State, Background Note: Thailand, available at <http://www.state.gov/r/pa/ei/bgn/2814.htm>.

enforcement by constraints is undesirable.⁷² Nevertheless, awareness of intellectual property and sanctions for infringement have been developing as side-effects of the open-door policy Thailand has had since the 1980s.⁷³ Despite this, general awareness of intellectual property still has to be improved, as do the relevant enforcement structures. To remedy this, the relevant state organizations and the King have a clear policy of promoting IP protection, focusing on awareness creation and the developing of initiatives to show the positive impact intellectual property can have economically and socially.⁷⁴

A prominent example is that King Bhumibol Adulyadej himself is a dedicated inventor who focuses on inventions addressing health problems.⁷⁵ For example, he invented a water purifier, which adds oxygen to polluted water. This is a very valuable contribution towards fixing Thailand's lack of clean water. In parallel, he is working on alternative energies that protect the environment. For example, he invented a bio-gasoline made of palm oil, which is only produced locally in Thailand. His influence in creating IP awareness cannot be underestimated.

In 2007, the new Constitution⁷⁶ emphasized observation of the policy directive on sciences, intellectual property, and energy. Another positive factor supporting IP protection is information transparency: there is no censorship in Thailand, as freedom of expression and freedom of press are recognized by the Constitution.

3. Political Infrastructure

Thailand has a constitutional monarchy. Democratic elements, however, have been recognized in the Constitution since 1991. After two decades of military interventions, military rule was dismissed, and in 1997, the first popular-based constitution was enacted.⁷⁷

However, the current situation causes doubts⁷⁸ about Thailand's stability. Military coup is a known and recurring mechanism to ensure balance of power in Thai-

⁷² For a detailed examination of the correlation between Buddhism and market economies as well as enforcement of rights and freedom, see the dissertation of Sabine Koenig, *Zwischen Realität und Ideal. Zur Vereinbarkeit von buddhistischer Ideologie und Marktwirtschaft* (LIT Münster 2004).

⁷³ Yasuda, *supra* note 23, at 21.

⁷⁴ Social and health progress is strongly needed in Thailand as the situation is alarming. In 2000, more than 1 million people were infected with HIV according to Kuanpoth, *Thailand*, *supra* note 5, at 345. Effective and affordable pharmaceuticals are urgently needed.

⁷⁵ See *Intellectual Property as a Lever for Economic Growth: The Asian and Pacific Region Experience (Part I)*, WIPO MAG., July/Aug. 2004, at 2-4.

⁷⁶ Constitution of the Kingdom of Thailand B.E. 2550, *supra* note 28, at Sec. 86.

⁷⁷ For a detailed report about the transition to democracy, see Muntarbhorn, *supra* note 62, at 346-48.

⁷⁸ After a heavy debate about Prime Minister Thaksin's alleged abuse of power (his Thai Rak Thai party had a two-thirds majority in parliament), corruption, interference with independent state bodies, and other irregularities, reelections were held in April 2006. The elections were nullified by the Constitutional Court in May 2006 due to abstentions from voting. As the opposition's efforts to force Thaksin to retire by democratic means were not successful, he was finally ousted by the Thai military led by Sondhi Boonyaratkalin in September 2006. In the December 2007 elections, Thaksin's former party (now called the People's Power Party) won the elections (232 out of 480 seats).

land. The take-over in 2006 was peaceful and legalized by King Bhumibol⁷⁹; its aim was to rebuild democracy and to ensure responsible use of democratic power, and a new constitution⁸⁰ was enacted and approved by referendum on August 19, 2007. However, the former Thai Rak Thai party (now the People's Power Party) won the December 2007 election and formed a new government in coalition with five other parties. It is doubtful whether the military council will accept the result of the December 2007 elections.⁸¹

This instability has several causes. On the one hand, the high number of parties in Thailand might be an obstacle for a stable government. Possibly, a change in the Constitution would create more stability. From a Western perspective, it seems that parties are rather interest groups with a strong focus on a certain person than institutionalized parties. On the other hand, in the past, the Thai king has often been a "moral instance" who helped to maintain stability. The king is now eighty years old, and it is not clear whether this role can be upheld by his successor.

From an economic point of view, the military coup has neither affected the Thai economy nor foreign investments,⁸² especially in the short run. But when a comparison to other Asian countries is made, one could assume that a strong political leadership could enhance IP protection⁸³ and foster stronger economic development.

4. Economic Infrastructure

4.1. Overview

Thailand is still a very poor country, though OECD does not classify it as a least developed country. Nevertheless, Thailand shows important growth rates. Since 1999, GDP rates have been constantly on the rise.⁸⁴ Nominal GDP has risen from

⁷⁹ The Thai King has repeatedly been the "moral conscience" of the political system in Thai history.

⁸⁰ However, the national objectives as defined in the new Constitution in a very general and broad way might give leeway to the military to easily claim failure of the government.

⁸¹ The former party of Prime Minister Thaksin won the elections. The People's Power Party is criticized as illegal. Some observers speculate that the military, which lost the elections, might intervene again.

⁸² There were no visible disruptions to the stock market. See, for example, a report by Anne Gottschalck in the German *Manager-Magazin*, Sept. 28, 2006, citing several investment bankers that neither restricted investments in their Asian funds, nor limited the share of Thai companies.

⁸³ For example, the situation in Thailand and the Philippines is comparable in some ways: in both countries, there has repeatedly been a lack of strong and stringent political leadership and both countries suffer from IP infringement. On the contrary, one can see, for example, in Singapore a strong IP regime with stable and stringent political leadership.

⁸⁴ 1999: 4.4%; 2000: 4.6%; 2001: 2.1%; 2002: 5.4%; 2003: 6.9%; 2004: 6.1% and 2005: 4.3%. Data from the Nat'l Econ. & Soc. Dev. Bd. (NESBD) (Sept. 2005), available at <http://www.nesdb.go.th>; see also Thailand Bd. of Inv., *Thailand Economic Review: Thailand records 4.5% growth in 2005*, 15 BOI E-NEWSLETTER (May 2006), available at http://www.boi.go.th:8080/issue/200605_15_5/25.htm [hereinafter *Thailand Economic Review*].

US\$126.8 billion in 2002 to \$174.5 billion in 2005. In 2005, Thailand was ranked number 30 of the political economies worldwide (ranked according to GDP).⁸⁵ In parallel, per-capita income has risen from US\$1,994 in 2002 to \$2,577 in 2005.⁸⁶ Currently, more than 55% of the GDP is obtained by the service sector, while industry obtains approximately 35% (with an important share of the manufacturing industry) and agriculture 10%.⁸⁷ Economic growth is largely fuelled by exports.⁸⁸

The Thai government has a long-term strategy to develop its economy that seems to be showing results. First, the country creates favourable conditions for foreign investment as shown by foreign direct investment (FDI) statistical data (see “Foreign Investment,” below). The investment policy supports the country in making the necessary development steps from the production of products for the local market towards industrial production fuelled by foreign investment. Second, instead of focusing on aggressive technology transfer, companies develop their businesses by providing assembly parts and components. Economic development is realized due to cost advantages of Thai companies and by slight technological progress in small steps.

Further economic development, however, is needed for Thailand to get rid of the strong dependence on foreign imports. But Thailand is on its way to making an important structural transformation from an economy based on agriculture to an industrialized economy.

4.2. Who Holds the IP?

Statistics⁸⁹ on foreign versus domestic IP owners show that a distinction has to be made between the different IP rights, as shown in Figures 2 and 3 (Appendix). While foreign applicants dominate invention patents—applications and grants⁹⁰—other IP rights like utility models, designs, and trademarks are predominantly used by Thais. In 2005, Thailand granted 3,901 patents to foreigners but only 272 patents to Thai applicants; this is roughly proportional to the number of applicants. Other kinds of intellectual property tip in favor of Thai applicants. For example, in 2002 trademarks were granted to 13,281 Thai applicants and to 9,865 foreign applicants; in 2005, protection for designs was granted to 814 Thai applicants and to 451 foreign applicants. Utility models tend to be dominated by Thai applicants: in 2005, 592 utility models were granted to Thai applicants and only seventeen to foreigners. Unfortunately, so far no statistics on the number of Thai versus foreign copyright applications exist.

⁸⁵ See Buerkle, Stefan, *Kostengünstig und attraktiv, Investitionsstandort Thailand im internationalen Vergleich* 3 ASIA AKTUELL 58 (Mar. 2006).

⁸⁶ BFAI, *Wirtschaftstrends kompakt, Thailand 2006*, available at <http://www.bfai.de>.

⁸⁷ BFAI, *Wirtschaftsentwicklung Thailand 2004/05*, available at <http://www.bfai.de>.

⁸⁸ While Thai exports were US\$65,187 billion in 2001, the number has increased to \$110,882 billion in 2005. *Thailand Economic Review*, *supra* note 84.

⁸⁹ All figures were taken from the website of the Department of Intellectual Property, <http://www.ipthailand.org>.

⁹⁰ Kuanpoth, *The Role of Patent Law*, *supra* note 6, at 8, therefore speaks of “foreign patent control.”

Trademarks, utility models, and designs play an increasing role for Thais and have been recognized as functional assets as both the number of applications and the number of grants are on the rise. This phenomenon may be explained by several reasons. First, compared to foreign investors and applicants, Thailand has different needs due to its stage of economic development. Second, the development by small adaptations of technological products is part of the economic development strategy. An industry-oriented analysis shows that this finding is correct (see below). Third, the conditions for protection are more easily fulfilled for trademarks, utility models, and designs than for invention patents.

There are indications of a correlation between Thailand's economic development in certain sectors and the sectors where IP applications are made. Applications for IP rights are made in sectors whose products are predominantly exported. As exports have a large share in GDP contribution, IP rights help to foster economic development in Thailand.

Figures 4-6 (Appendix) show IP rights applications classified by industry. Concerning patents, in Figure 4, one can see a clear dominance of foreign applications in the chemical, machinery, and electrical appliances sectors, and in physics. Copyrights, in Figure 5, play an important role in the entertainment sector, as they are reserved mainly for musical works. Unfortunately, so far no statistics for the number of Thai versus foreign copyright applications exist, but the increase of copyrights for musical works could be related to the popularity of Thai music and thus serve domestic economic development. As far as trademark applications are concerned, there are two particularities in the data in Figure 6. First, trademarks increased in the chemicals, machinery, or engineering sectors that grew as a result of help from FDI. Second, trademark applications also reflect the strategy of the Thai government to promote genuine Thai products, mainly in the nutrition and textile sector,⁹¹ as applications for trademarks are made for domestic products. In addition, since 2003, there has been an increase in service mark applications, which reflects the government's focus on service industries.

4.3. Innovation Incentives

Thailand is a free market economy. The ongoing privatization of formerly state-owned companies is enhancing competition. Thus, the preconditions that affect formation of an IP system theoretically exist, which is not always the case in Asia where there exist socialist as well as transforming economies. IP rights can create incentives for individuals and companies in Thailand to obtain competitive advantages.

On the legal side, domestic research and development (R&D) will be stimulated by the insertion of the protection of utility models.⁹² In addition, the new incentives

⁹¹ Nevertheless, it is surprising that there has been no registration for Thai products as geographical indications yet. The Thai strategy is still limited to trademark registration, while there would be a high potential for geographical indications.

⁹² Kuanpoth is critical towards the positive impact of utility models on stimulation of the Thai economy. Kuanpoth, *Thailand*, *supra* note 5, at 343.

for R&D concerning medical engineering as well as automotive and IT R&D are helping. It remains a problem, though, that there are few further government incentives for private investment in R&D. The industries that benefit from domestic investment are mainly in the production sector. The successful sectors are mainly engineering and components for automotive and electronic products. Local production in these fields is additionally protected by import restrictions for competing products. This does not violate Thailand's WTO obligations, as Thailand is not a signatory of the WTO Government Procurement Agreement.

The focus on service industries is also beginning to show results. For example, there is a Thai service company (Ticon) focusing on simplifying foreign investments. It offers a complete leasing package for investors comprising the factory building as well as related services like land-use rights, necessary approvals, employees, and contacts to potential suppliers.⁹³

4.4. Foreign Investment and Trade

The Thai investment policy aims to enable Thailand to develop from a producer of products for the local market to an industrial producer on a global scale. Currently, the high-technology sector is still dominated by foreigners, while locals focus on standardised products.⁹⁴ Thai companies, however, have begun to develop and to produce components (especially in the automotive and in the electronics sector) and have obtained a good reputation in the automotive supply industry.

Foreign investment in Thailand is limited and regulated by the Foreign Business Act B.E. 2542 (1999).⁹⁵ On the one hand, its aim is to protect indigenous Thai resources and culture. Certain local industries and genuine Thai products are protected by way of investment limitations in the Foreign Business Act. Additionally, local industries are protected by the 2001 "Buy Thai Directive" which is partially criticized as discriminating against foreign investors as they are excluded from certain bids.⁹⁶ In parallel, the development of a Thai car components industry is promoted by the 40% quota provisions of AFTA.

The Foreign Business Act imposes several requirements on foreign businesses.⁹⁷ First, foreigners need a business license according to Section 7 Foreign Business Act B.E. 2542 (1999). Second, investments are divided into categories (lists and groups). According to Section 8 Foreign Business Act B.E. 2542 (1999), business activities in categories 1 and 2 are limited to Thais or joint ventures with a share of the Thai partner of at least 40% (Section 15). All other sectors, which are either not listed at all or appear on list 3 (simple permission required) or exception-

⁹³ See Buerkle, *supra* note 85, at 64-67.

⁹⁴ Kuanpoth, *Thailand*, *supra* note 5, at 343.

⁹⁵ There is an upcoming revision of the Foreign Business Act. The exact timeframe is unclear due to the long legislative process in Thailand.

⁹⁶ U.S. TRADE SUMMARY 2003, *supra* note 52, at 469. But as Thailand is not a signatory of the WTO Government Procurement Agreement, local protection is legal.

⁹⁷ As noted above, there is an upcoming revision of the Foreign Business Act that may change these requirements.

ally on list 2 (ministerial permission required), allow foreigners to invest without limitation.

On the other hand, certain kinds of foreign investment get explicit support from the Thai Board of Investment (BOI) as they also have potential value for Thai economic development, e.g., agricultural products, food, and non-food-products including bio-technology. On the technological side, the automotive and transport equipment, information technology (computer hardware), semiconductors, embedded electronics (including software), communication technologies, and print industries are supported since technological progress can serve industrialisation and economic catching-up processes. Finally, there is special support for textiles and jewelry, alternative technologies, and service industries (logistics, health, job agencies).

Additional incentives that exist to stimulate FDI include tax advantages for foreign investors as well as other progressive non-fiscal incentives such as guaranteed private property,⁹⁸ the possibility to fund or acquire wholly foreign-owned companies, and granted land-use rights. There are also certain geographic zones where foreign investors get further advantages, which help the area to develop economically, e.g., the Eastern Seaboard.

FDI by multinational corporations is increasing. According to the BOI, FDI has increased from US\$5,235,000 in 2003 to \$9,751,000 in 2006.⁹⁹ In 2004, UNCTAD announced that Thailand would be part of the top four nations for FDI from 2005-2007.¹⁰⁰ The industries that have the greatest FDI are within the technology sector.¹⁰¹ Important investments are made in the engineering sector, especially in the fields of metal and machinery (including automotive) and in the electronics and electronic appliances sector. The other main industries in Thailand are textiles and nutrition.

Export statistics show an increase in manufactured and high-technology exports. In 1990, primary exports were 36% of the merchandise exports; the number decreased to 22% in 2003. On the contrary, manufactured exports increased from 63% of merchandise exports in 1990 to 75% in 2003 and high-technology exports from 21% of merchandise exports in 1990 to 30% in 2003.¹⁰² According to trade statistics,¹⁰³ top Thai export products in 2003 were manufactured products like elec-

⁹⁸ With exceptions for acquisition of real estate for foreigners. See Land Code B.E. 2497 (1954), Sec. 86.

⁹⁹ UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), WORLD INVESTMENT REPORT 2007, U.N. Sales No. E.07.II.D.9 (July 2007).

¹⁰⁰ UNCTAD, PROSPECTS FOR FOREIGN DIRECT INVESTMENT AND THE STRATEGIES OF TRANSNATIONAL CORPORATIONS, 2004-2007, UNCTAD/ITE/IIT/2004/8 (Aug. 2004).

¹⁰¹ STEPHEN THOMSEN, SOUTHEAST ASIA: THE ROLE OF FOREIGN DIRECT INVESTMENT POLICIES IN DEVELOPMENT 10-11 (1999) (mentioning an FDI share in the manufacturing sector of one-third in the 1990s).

¹⁰² UNITED NATIONS DEVELOPMENT PROGRAM (UNDP), HUMAN DEVELOPMENT REPORT, available at <http://hdr.undp.org> [hereinafter HUMAN DEVELOPMENT REPORT].

¹⁰³ Int'l Trade Ctr., Exports of Thailand 2003, available at http://www.intracen.org/appli1/Trade-Com/TP_EP_CI.aspx?RP=764&YR=2003.

tronic integrated circuits and micro assemblies, computers (mainly pocket-PCs), computer parts, raw materials (mainly rubber, balata, gutta-percha), and rice. In 2005, automotive components also took an important share. In comparison, in 1999 products at a technological lower stage like computer parts and accessories (but no computers per se) as well as nutrition (shrimp, fish, rice) were the dominant export products.¹⁰⁴

It would be easy to derive from these facts that sustainable economic development in Thailand is evident. In the 1990s, experts estimated that technology transfer from FDI was at a moderate level¹⁰⁵ as the electronics sector was dominated by multinational companies. But in the last years a number of successful Thai companies have appeared in the engineering and automotive sector. These companies are developing their own products (even if these are mainly components and no high-tech end products). This indicates that there is sophisticated production in Thailand which has developed with the help of FDI. An additional positive factor is Thailand's economic development strategy, which is sustainable and is increasing wealth development in small steps by adaptation with slight technological progress.

5. Educational and Informational Infrastructure

While an OECD report from 1999 claimed deep deficiencies in the educational system as well as in the information infrastructure,¹⁰⁶ Thailand has since reformed its educational systems and the education level has constantly improved in recent years. Statistical data shows important improvements compared to other developing countries. Primary and secondary educations have durations of six years each and are compulsory.¹⁰⁷ The illiteracy rate had decreased to 4.3% by 2005.¹⁰⁸ In 2003, it was 7.4% among adults (the average for all developing countries was 23.5 percent) and 2% among people ages fifteen to twenty-four.¹⁰⁹ The education index in 2003 was 0.86 (the average for all developing countries was 0.72; the OECD average was 0.95).¹¹⁰ Public expenditure on education increased from 3.5% of GDP in 1990 to 5.2% in 2003 and from 20% to 28.3% (2000-2002) of the total government expend-

¹⁰⁴ Int'l Trade Ctr., Thailand International Trade, *available at* <http://www.nationsencyclopedia.com/economies/Asia-and-the-Pacific/Thailand-INTERNATIONAL-TRADE.html>.

¹⁰⁵ THOMSEN, *supra* note 101, at 28 (referring to a 1994 survey by the Thailand Research Development Institute (TDRI)).

¹⁰⁶ ORGANIZATION FOR ECONOMIC COOPERATION & DEVELOPMENT (OECD), KNOWLEDGE-BASED INDUSTRIES IN ASIA: SCIENCE, TECHNOLOGY, INDUSTRY (STI) 20-21, 49-64, 67 (2000), *available at* <http://www.oecd.org/dataoecd/11/14/2090653.pdf> [hereinafter KNOWLEDGE-BASED INDUSTRIES IN ASIA] (mainly pointing out inadequate information, especially a telecommunication infrastructure that needs continuing investment, and claiming that Thailand's education ranking is far lower than its income ranking and needs to be strengthened).

¹⁰⁷ This is an improvement, as compulsory education was just six years in 1995. *See* World Bank, *Education Profile Thailand*, *available at* <http://web.worldbank.org> [hereinafter *Education Profile Thailand*].

¹⁰⁸ German Federal Agency for Foreign Economy, <http://www.bfai.de>.

¹⁰⁹ HUMAN DEVELOPMENT REPORT, *supra* note 102.

¹¹⁰ *Id.*

iture on education.¹¹¹ The largest portion of this was the public expenditure on the tertiary education level. The tertiary enrollment rate improved from 19% in 1985 to 41% in 2004.¹¹² These figures show that the attitude towards education is positive. In addition, the Human Development Index (HDI) rose from 0.714 in 1990 to 0.749 in 1995 and to 0.778 in 2003 (the average for developing countries in 2003 was 0.694).¹¹³ In 2003, Thailand ranked 73 of 177 countries regarded by OECD. The GINI Coefficient was 43.2 in 2005.¹¹⁴ English language skills are not widespread within Thailand,¹¹⁵ although English is one of Thailand's commercial languages.

In parallel, Thailand is constantly working on improving its information infrastructure. The NITC's IT policy¹¹⁶ attempts to correct social and economic imbalances between urban and rural areas by providing access to information technology and by improving education. The number of people with private telephones (main lines and cellular phones) and the number of people with access to the Internet have increased considerably. While from 1992 to 1998, only 58.4 out of every 1,000 persons had a telephone mainline and 20.82 had a mobile,¹¹⁷ the number increased to 84.5 per 1,000 people for mainlines and 39.57 for cellular phones in 1999.¹¹⁸ In 2003, the number of telephone mainline holders was already 105 out of every 1,000 persons and 394 people were cellular subscribers.¹¹⁹ There is the same tendency when examining data for PC possession and Internet access¹²⁰: the number has increased to 111 out of every 1,000 people in 2003.¹²¹

6. Scientific Infrastructure

6.1. Research and Development

Information about R&D in Thailand hardly exists. In 2000, the National Science and Technology Development Agency and the Brooker Group jointly conducted a survey to examine the innovation of industrial enterprises in Thailand.¹²² According

¹¹¹ *Id.*

¹¹² *Education Profile Thailand, supra* note 107.

¹¹³ HUMAN DEVELOPMENT REPORT, *supra* note 102.

¹¹⁴ *Id.*

¹¹⁵ Buerkle, *supra* note 85, at 60.

¹¹⁶ THAILAND NAT'L INFO. TECH. COMM., 1995 PLAN OF INFORMATION TECHNOLOGY DEVELOPMENT: TOWARDS SOCIAL EQUITY AND PROSPERITY: THAILAND IP POLICY INTO THE 21ST CENTURY (1995).

¹¹⁷ WORLD BANK, WORLD DEVELOPMENT INDICATORS 2000 (statistical data for 1992-1998) [hereinafter WORLD DEVELOPMENT INDICATORS].

¹¹⁸ IMD INTERNATIONAL, WORLD COMPETITIVENESS YEARBOOK 2000 (statistical data for 1999).

¹¹⁹ HUMAN DEVELOPMENT REPORT, *supra* note 102.

¹²⁰ WORLD DEVELOPMENT INDICATORS, *supra* note 117 (statistics for 1994-1998).

¹²¹ HUMAN DEVELOPMENT REPORT, *supra* note 102.

¹²² For more details concerning the survey objective, approach, questionnaire, response rate, evaluation, and results, see The Brooker Group, *Technological Innovation of Industrial Enterprises in Thailand: Project Synthesis for the Regional Workshops on Innovation in the Manufacturing Sector* (Bangkok, Thailand, July 18, 2001; Penang, Malaysia, July 20, 2001).

to the survey, a total of 13.5 million baht was spent for R&D in 1999¹²³ (0.29% of GDP). Medium and large companies in the manufacturing sector spent over 5.5 million baht (approximately US\$163 million) on R&D and employed 5,291 research staff. About 7 million baht were spent on R&D in the public sector and about 1 million baht in the rest of the private sector (SMEs, services, etc.).¹²⁴ As far as product innovation is concerned, outsourcing of R&D still is very low. However, there is a new increase of collaboration between companies and Thai universities regarding the development of new products (see “Public/Private Innovation,” below). On the contrary, process innovation activities are often carried out in collaboration with foreign-owned suppliers.¹²⁵

According to the survey, in 1999 the industries involved in R&D were¹²⁶:

- Food, beverages, and tobacco sector (48%)
- Fabricated materials, machinery, and equipment (35%)
- Jewelry and related industries (1%)
- Others (16%).

Current export statistics prove that there are a growing number of engineered products. Export products are mainly created in the automotive, IT, and electronics sectors. Consequently, successful Thai companies often appear in the automotive parts sector. Their international competitiveness is not only due to comparative advantages in low-cost production, but is also a result of progressive technological development.¹²⁷ Development of new parts had taken place in collaboration with the Deutsche Entwicklungsgesellschaft (DEG) and Chulalongkorn and Thammasat Universities as well as with the King Kongkut Institute.

In 1999, 72% of the R&D expenditure was on experimental development, 66% of which was used for product-oriented R&D.¹²⁸ The aims of R&D were mainly quality improvement and reduction of production costs.¹²⁹ On the contrary, expenditure for marketing R&D seems to be very small. There is a new R&D project which aims to promote Thailand as a global R&D location in the medical sector.¹³⁰ But to foster FDI in this know-how-intensive sector, IP protection has to be improved, especially protection of secret information and data exclusivity.

¹²³ *Id.* at 4.

¹²⁴ *Id.*

¹²⁵ *Id.* at 5.

¹²⁶ *Id.* at 4.

¹²⁷ E.g., Able Auto Parts or MB Technology. See Beurkle, *supra* note 85, at 68-70.

¹²⁸ The Brooker Group, *supra* note 122, at 4.

¹²⁹ *Id.* at 5.

¹³⁰ Edward J. Kelly & Edward A. Madden, *Thailand's push for stronger IP rights in life sciences*, ASIALAW IP REVIEW, Jan. 2006, at 5-7.

Advancement in the sciences is still limited by inadequate R&D, a lack of R&D incentives or support, and a lack of qualified personnel.¹³¹ On the one hand, state financial support for R&D is very poor. According to OECD, R&D expenditure in Thailand between 1997 and 2002 was 0.2% of GDP, which is comparably low, as the average for developing countries is 0.9% of GDP (the OECD average is 2.5%).¹³² On the other hand, labor resources are scarce. From 1990 to 2002, there were only 289 researchers per million people involved in R&D in Thailand (the average for developing countries was 400; worldwide 1,146; OECD 3,046).¹³³ Also, the degree of research collaboration between universities and companies was comparatively low, at 3.05 in 2000.¹³⁴

Even if government incentives are small, there are some new government initiatives to promote innovation that merit attention. To promote capitalization of traditional knowledge as IP assets, the Thai government set up the Assets Capitalization Bureau. Its aim, with the help of DIP,¹³⁵ is to give advice and to create access to capital for the poor that have traditional knowledge. Another important step was the establishment of the National Innovation Agency in 2003, whose purpose was to raise the innovation level as well as to promote an innovative culture in Thailand. Its task is to systematically support innovation by coordination and creation of networks.¹³⁶

Despite the low degree of R&D, there has been advancement in the sciences and engineering in recent years. There has been considerable technological progress in the manufacturing sector which is shown by the development of export products.

6.2. Public/Private Innovation

Information about joint research hardly exists, as collaboration between university and private industry is not common yet. Nevertheless, there is a new governmental incentive for technology transfer in the field of medical inventions.¹³⁷ In parallel, there is a new initiative promoting R&D within the automotive sector. The Thai government plans a development program with a volume of €177 million including an R&D center to modernize production of components and an IT center where 100,000 employees will get qualified education.¹³⁸

¹³¹ The Brooker Group, *supra* note 122, at 5, 7. The companies propose to improve information about and incentives for R&D as well as to develop human resource capabilities. *See also* KNOWLEDGE-BASED INDUSTRIES IN ASIA, *supra* note 106, at 58-59, complaining about the low level of R&D inputs in Thailand and underscoring the need for a reform.

¹³² HUMAN DEVELOPMENT REPORT, *supra* note 102.

¹³³ *Id.*

¹³⁴ WORLD DEVELOPMENT INDICATORS, *supra* note 117 (measured on a scale from 1-10). In comparison, the average for high-income OECD was 4.77.

¹³⁵ For more details, see Weeraworawit, *supra* note 46, at 12.

¹³⁶ *Id.* at 13.

¹³⁷ Kelly & Madden, *supra* note 130, at 5-7.

¹³⁸ Data from BFAI, *Wirtschaftstrends kompakt, Thailand 2006*, Gesamtwirtschaftlicher Ausblick, at 4, available at <http://www.bfai.de>.

Conclusion

The socio-economic infrastructure in Thailand is positive for IP protection even if the current situation is still far from ideal. The political and the economic systems both recognize freedom and property rights and thus provide a structural framework favourable for competition as well as for innovation. The process of independent institution building has just begun but practical experience has yet to be gained. Enforcement problems are not due to biases against intellectual property but due to insufficient staff and resources as well as to the low stage of economic development.

Problems in patent enforcement arise as individual interests and public needs have to be balanced, mainly in the field of health. There is a great need for affordable medicine due to the alarming health situation. Thus, high prices for (patented) pharmaceuticals are a serious problem and enforcement authorities are in the difficult situation of having to enforce individual rights contrary to social needs. Here, the lack of experience with the IP system is clear, pharmaceutical patents were frequently nullified by the courts for formal reasons. In 2006 and 2007, quite a significant number of compulsory licenses was granted to patents on pharmaceuticals against AIDS, cancer, and heart disease. But the country's economic development program shows that it is willing to protect intellectual property and that it understands the value of intellectual property to promote innovation and sustainable economic development.

To judge the overall economic impact of intellectual property within the country's socio-economic context, a differentiation between different types of IP rights according to their economic function has to be made. Certain IP rights help to accelerate economic progress in Thailand. Technological IP rights (invention patents) do not play an important role for Thais yet. This is due to the fact that the high-tech sector is still dominated by foreigners, as well as to Thailand's long-term economic strategy. As Thailand plans to develop its economy in small steps, utility models play an important role in achieving the development aims. Two examples of economic progress are the development of components for cars as well as improvement and developments of parts and assemblies in electronics. Competitive advantages for Thai components result from lower production costs as well as from slight technological progress.

On the other hand, trademarks and geographical indications play an important role due to their marketing and quality function. They potentially serve to promote and market genuine Thai products, e.g., jasmine rice, and fulfill marketing functions for Thai export products (mainly components/parts in the engineering and automotive sectors). Copyrights are of great importance with regards to the Thai music industry. Nevertheless there are gaps in enforcement for copyrighted works in other fields not yet important for Thai industry, for example films (DVDs).

In general, the demand for IP protection, mainly for patents, will grow as the quality of existing products and techniques are enhanced. In the field of patents, intellectual property as a licensing tool is not important yet and patent owners seldom profit from royalties. In 2003, Thailand only received US\$0.1 royalties

or license fees per person while the average for developing countries was \$0.6.¹³⁹ Enforcement of patents will improve if the country obtains more financial resources for the patent office and for education of its staff.

There are many signs pointing towards greater importance of intellectual property in Thailand in the future and for a more stringent enforcement of IP rights. The seeds have been sown, but the effort has yet to bear fruit.

Appendix

	2005	2004	2003	2002	2001	2000
Civil litigation: total no. of cases (thereof concluded)	439 (199)	407 (159)	329 (134)	292 (136)	225 (90)	158 (71)
Trademark infringement	77	75	84	97	112	74
Trademark cancellation/ appeal	141	104	72	79		
Copyright infringement	74	66	48	53	46	54
Patent infringement	21	22	9	9	4	2
Patent cancellation/ appeal	24	25	21	29		
Trade secret infringement	8	6	2	1	2	0
Others*	94	238	186	132	61	25
Criminal litigation: total no. of cases (thereof concluded)	5,998 (5,558)	5,771 (5,337)	4,352 (3,934)	3,896 (3,545)	3,436 (3,122)	2,300 (2,116)
Trademark infringement	2,568	2,470	2,084	2,248	1,901	1,305
Copyright infringement	3,239	3,076	2,103	1,445	1,421	924
Patent infringement	27	25	25	20	10	0
Trade secret infringement	11	4	2	0	0	0
Offences under Sec. 271-275 Penal Code	153	196	138	95	104	71
Litigation: total no. of cases (thereof concluded)	6,437 (5,757)	6,178 (5,496)	4,681 (4,068)	4,188 (3,681)	3,661 (3,212)	2,458 (2,187)

* = including breach of licensing agreement

Figure 1: IP Litigation 2000-2005

Data Source: Annual data available on the CIPITC website, <http://www.cipitc.or.th> in Thai; monthly and yearly judicial statistics in English available at http://geocities.com/cipit_estat/.

¹³⁹ The worldwide average is 17.9 and the OECD average is 80.6. See HUMAN DEVELOPMENT REPORT, *supra* note 102.

Patents			
Year	Thai	Foreigner	Total no. of applications
1999	738	4,438	5,176
2000	561	4,488	5,049
2001	534	4,798	5,332
2002	615	3,874	4,489
2003	684	4,303	4,987
2004	660	4,099	4,759
Total	3,792	26,000	29,792

Designs			
Year	Thai	Foreigner	Total no. of applications
1999	1,148	573	1,721
2000	1,939	740	2,679
2001	1,970	692	2,662
2002	2,415	822	3,237
2003	2,674	895	3,569
2004	2,388	871	3,259
Total	12,534	4,593	17,127

Trademarks			
Year	Thai	Foreigner	Total no. of applications
1999	13,601	8,838	22,439
2000	16,495	10,560	27,055
2001	16,712	9,407	26,119
2002	13,281	16,828	30,109
2003	23,335	9,714	33,049
2004	No data available	No data available	36,968

Utility Models			
Year	Thai	Foreigner	Total no. of applications
1999	185	17	202
2000	555	61	616
2001	745	66	811
2002	1,148	74	1,222
2003	1,290	54	1,344
2004	1,390	64	1,454
2005	1,561	91	1,652
Total	6,874	427	7,301

Figure 2: Intellectual Property Right Applications

Data Source: Ministry of Commerce, Department of Intellectual Property (DIP), <http://www.ipthailand.org>.

Patents			
Year	Thai	Foreigner	Total no. of grants
1999	29	363	392
2000	45	371	416
2001	58	738	796
2002	39	1,063	1,102
2003	162	988	1,154
2004	50	620	670
2005	272	3,901	4,173

Trademarks			
Year	Thai	Foreigner	Total no. of grants
1999	7,230	8,481	15,711
2000	7,686	6,531	14,217
2001	11,453	8,484	19,937
2002	13,281	9,865	23,146
2003	No data available	No data available	17,389

Designs			
Year	Thai	Foreigner	Total no. of grants
1999	81	125	206
2000	119	209	328
2001	360	360	720
2002	596	768	1,364
2003	624	803	1,427
2004	814	451	1,265

Utility Models			
Year	Thai	Foreigner	Total
1999	7	0	7
2000	108	17	125
2001	341	51	392
2002	376	13	389
2003	476	11	487
2005	364	28	392
2005	592	17	609
Total	2,264	137	2,401

Figure 3: Intellectual Property Right Grants

Data Source: Ministry of Commerce, DIP, <http://www.ipthailand.org>.

Chemistry Sector			
Year	Thai	Foreigner	Total no.
2001	13	388	401
2002	16	487	503
2003	17	379	396
2004	34	367	401
2005	16	112	128

Engineering Sector			
Year	Thai	Foreigner	Total no.
2001	23	236	259
2002	12	395	407
2003	25	408	433
2004	16	207	223
2005	24	279	303

Physics Sector			
Year	Thai	Foreigner	Total no.
2001	22	114	136
2002	11	181	192
2003	14	163	177
2004	7	85	92
2005	22	100	122

Figure 4: Patents Classified by Industry

Data Source: Ministry of Commerce, DIP, <http://www.ipthailand.org>.

Year	Total	Musical	Artistic	Literary	Sound recordings	Others
1999	3,000	1,833	416	524	89	138
2000	9,233	5,503	2,758	752	106	114
2001	9,709	6,354	2,412	599	171	173
2002	12,714	8,315	2,777	837	164	621
2003	16,240	12,230	2,321	1,074	153	462
2004	20,418	15,395	2,280	1,128	595	1,020
2005	22,019	15,325	2,607	1,598	1,757	732

Figure 5: Copyright Notifications Classified by Work

Data Source: Ministry of Commerce, DIP, <http://www.ipthailand.org>.

Year	Total (All classes)	Chemicals, drugs, cosmetics (class 1-5)	Machinery, electrical appliances, vehicles (class 7, 9-13)	Fiber, thread, textiles, clothing (class 22-25)	Food, beverage, sweets (class 29-33)	Service marks (class 35-42)	Other
2001	26,119	5,954	4,382	2,839	4,574	4,059	4,311
2002	30,109	6,222	4,723	3,445	6,049	3,786	5,884
2003	33,049	6,988	4,772	4,325	6,628	3,621	6,715
2004	36,968	7,973	5,207	4,641	7,262	4,625	7,260
2005	36,423	7,923	5,635	4,192	6,652	5,084	6,937

Figure 6: Trademark Applications by Classes

Data Source: Ministry of Commerce, DIP, <http://www.ipthailand.org>.

Vietnam

Viet D. Phan

1. Legal Infrastructure	331
1.1 IP History	331
1.2. International IP Obligations	333
1.3. Current IP Laws	335
1.3.1. Industrial Property	336
1.3.2. Copyright	336
1.3.3. Trademark	337
1.3.4. Unfair Competition	338
1.4. IP Lawmaking	338
1.5. IP Enforcement	339
1.5.1. The Players: IP Lawyers and Agents	339
1.5.2. Administrative Infrastructure	340
1.5.3. Judicial Infrastructure	341
2. Cultural Infrastructure	342
3. Political and Economic Infrastructure	343
3.1. Political Economy	343
3.2. Innovation Incentives	343
3.3. Who Holds the IP?	344
3.4. IP as a Licensing Tool/Defensive Tool	345
3.5. Domestic and Foreign Investment	346
4. Educational Infrastructure	347
5. Scientific Infrastructure	348
5.1. Research and Development	348
5.1.1. Scientific R&D	349
5.1.2. Marketing R&D	349
5.1.3. Foreign Investment in R&D	350
5.2. Public/Private Innovation and Commercialization of IP	351
Conclusion	351
Appendix	352

1. Legal Infrastructure

1.1. IP History

The current IP legal system of Vietnam emerged only in the 1980s with the Rules on Technical Innovations and Inventions and Rules on Trademarks, both issued by the Government Council in 1981.

The Rules on Technical Innovations and Inventions defined two types of patents: the Exclusive Right Patent and the Inventor Patent. The Exclusive Right Patent is similar to today's invention patent, while the main purpose of the Inventor Patent is the moral recognition of innovative ideas. In fact, right holders were not encouraged to apply for the Exclusive Right Patent: although 460 patent applications were filed under the Rules, only one Exclusive Right Patent was granted¹. However, these statistics also show that the effects of Inventor Patents were very

¹ Statistics of the National Office of Intellectual Property (NOIP), <http://www.noip.gov.vn/>.

limited, as they could neither foster the innovative capacity of domestic inventors nor attract patent applications of foreign right holders.²

In the later part of the decade, the Decree on Author's Rights (1986), the Rules on Industrial Designs (1988), and the Rules on Utility Solutions (1988) were enacted. These established the first framework for IP law in Vietnam. The IP laws of this early period were generally affected by the socialist concept of encouraging innovation, which has its main purpose in the strengthening and improvement of socialist property, rather than recognition of private (exclusive) rights. Subsequent to 1989, the IP legal system was reformed to adapt to the new conditions of the market economy. All industrial property matters were brought together in the new Ordinance on Protection of Industrial Property Rights (1989), while the protection of copyright was regulated in the new Ordinance on Protection of Author's Rights (1994).

With the Ordinance on Protection of Industrial Property Rights, Vietnam for the first time acknowledged intellectual values as "property," and the Exclusive Right Patent became the primary protection for inventions, though the Inventor's Patent was still being issued for a limited number of applications. The copyright system of the Ordinance on Protection of Author's Rights generally followed the standards of the Berne Convention.

The Civil Code of 1995, effective from July 1, 1996 to December 31, 2005, contained all the provisions of the previous Rules and Ordinances together in Part VI, where copyright, industrial property, and technology transfer came under the general title "Intellectual Property." The Civil Code has been since amended by a number of Decrees to adapt to the standards of the TRIPS Agreement as well as to comply with various bilateral agreements between Vietnam and other countries. In 2000, a Decree was enacted on industrial property-related protection of trade secrets, commercial names, and geographical indications, and protection against unfair competition relating to industrial property. It was followed by a Decree on protection of new plant varieties in 2001 and a Decree on protection of industrial property rights for integrated circuit layout designs in 2003.

In 2005, in the course of adapting its legal system to WTO standards, the country passed the new Civil Code and the Law on Intellectual Property.³ The new Civil Code contains very basic rules on intellectual property, while the related rights and obligations are mostly stipulated in the Law on Intellectual Property.

² Of 460 patent applications only seven are from foreign inventors. *Id.* The NOIP in its retrospect also emphasizes that most of the eighty-one patents granted between 1984 and 1989 are inventor patents. [Http://www.noip.gov.vn/noip/cms_vn.nsf/vwDisplayContent/30836B943897CC1A47256E9A0029FCAE?OpenDocument](http://www.noip.gov.vn/noip/cms_vn.nsf/vwDisplayContent/30836B943897CC1A47256E9A0029FCAE?OpenDocument).

³ While the new Civil Code came into effect on January 1, 2006, the Law on Intellectual Property did not come into effect until July 1, 2006. Thus, most IP rules of the Civil Code of 1995 remained effective until the latter date.

1.2. International IP Obligations

Vietnam is currently a member of the following international IP and trade agreements:

- the WIPO Treaty;
- the Paris Convention for the Protection of Industrial Property of 1883 (Stockholm Act 1967);
- the Madrid Agreement Concerning the International Registration of Marks of 1891, revised in 1979;
- the Patent Cooperation Treaty (PCT 1970);
- the Berne Convention for the Protection of Literary and Artistic Works (Paris Act 1971);
- the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (Rome Convention);
- the Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms (Geneva Phonogram Convention 1971);
- the Brussels Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite (Brussels Convention 1974); and
- Framework Agreements on Enhancing ASEAN Economic Cooperation (AFTA 1992).

After more than ten years of negotiation, on November 7, 2006 the WTO General Council approved the terms for Vietnam's membership, and Vietnam became the 150th member of the WTO on January 11, 2007. In June 2007, Vietnam signed a Trade and Investment Framework Agreement with the United States, which should be a bridge to future economic cooperation between the two countries. As of now, in April 2008, there is no sign that Vietnam and the United States will enter into negotiations for a Free Trade Agreement in the near future.

In the course of WTO accession, Vietnam has concluded several bilateral trade agreements with WTO members, including the United States, China, Japan, the European Union, and Australia.⁴ Fulfilling its commitments under those agreements, in the last ten years Vietnam has made a large number of amendments to old, as well as enacted several new, IP laws. Among the most significant changes are the removal of ideological conditions for author's right protection⁵ and the new protection of integrated circuits.⁶

Although Vietnam has entered into many international agreements, both multi-lateral and bilateral, it remains difficult to determine a negotiation strategy. For

⁴ According to the Ministry of Trade, at the end of 2005 Vietnam was a member of fifty-one bilateral trade agreements.

⁵ Civil Code of 1995, Art. 749 lists a number of works that cannot be protected by copyright, e.g., works that are hostile to the State of Vietnam or demolishing the "national block of unity" (749.1.a) or works containing "distortion of history or denial of revolutionary results" (749.1.d).

⁶ Law on Intellectual Property, Art. 68.

example, the country's accession to the WTO was programmatically prepared by the National Committee on International Economic Cooperation (NCIEC). The NCIEC determined the issues to be met within the WTO accession negotiations as follows:

One of the essential issues Vietnam shall achieve to expedite the WTO accession process is to increase the activeness through measures to restructure the economy, systemize the legal frameworks, alter the business environment and train officers ...

Enterprises will be the ones directly affected by the WTO Accession process. Hence, we shall strengthen the preparing activities for enterprises to be able to properly evaluate chances and challenges in order to have appropriate programs and take advantage of those chances.

The accession negotiations will be very difficult. The essential issue is that we shall prepare and carry out progressive adaptation with WTO rules and obligations on the basis of economic development needs of the country at the time being as well as in middle and long term future.

The training of the cadre and the improvement of the coordination system between various branches shall also be appropriately attached special importance to.

International economic integration is a comprehensive and complicated process. Experiences show that Vietnam shall combine WTO negotiations with other negotiation forums in a complex of reforms and international economic integration in order to achieve the highest effects.⁷

The above determination corresponds to the framework set out in Resolution No. 07/NQ-TW of the politburo of the Communist Party of Vietnam of November 27, 2001. However, this seems to be a general policy rather than a strategic or tactical opinion, and hence "a comprehensive strategy to [international] integration is still missing," as a former head of the Vietnam delegation for WTO negotiations recently stated.⁸

During the trade negotiations, intellectual property seemed to be undervalued, and thus considered as a trade-off for other, mainly industrial and agricultural, preferences rather than as an essential negotiation issue. As an example, in the Vietnam-U.S. bilateral trade agreement, the country accepted the extension of copyright protection to seventy-five years from the first authorized publication for certain works,⁹ although this is obviously a "TRIPS-plus" point and requires an amendment of the current legal provision, which prescribes protection for fifty years only.¹⁰ On the other hand, Vietnam expected the elimination of all existing textile

⁷ NATIONAL COMMITTEE ON INTERNATIONAL ECONOMIC COOPERATION, VIỆT NAM VÀ CÁC TỔ CHỨC KINH TẾ QUỐC TẾ [VIETNAM AND INTERNATIONAL ECONOMIC ORGANIZATIONS] 59-60 (Hanoi: National Policy Publishing House 2004).

⁸ Nguyễn Đình Lương, *Đưa Việt nam hội nhập sâu hơn vào nền kinh tế thế giới*, in 46 LAO ĐỘNG, Feb. 16, 2006, at 2.

⁹ Ch. II Art. 4.4, available at <http://www.usvtc.org/trade/bta/text/chapter2.htm>.

¹⁰ TRIPS, Art. 12, in CÁC CÔNG ƯỚC VÀ HIỆP ƯỚC QUỐC TẾ VỀ QUYỀN TÁC GIẢ [CONVENTIONS AND TREATIES ON COPYRIGHT] 407-08 (Hanoi: Copyright Office of Vietnam 2000).

and apparel quotas on Vietnam by the United States upon Vietnam's accession to the WTO and the permanent normal trade relations (PNTR) status.¹¹

Resolution No. 07/NQ-TW of the politburo of the Communist Party of Vietnam of November 27, 2001 also mentions general lines of protection for the domestic industries: “[P]rotection of domestic production shall be focused on industries having the potential to develop effective business but being weak at the beginning, labor intensive industries or industries using agricultural raw materials or agricultural products.”¹² However, the Resolution also considers the protection of domestic industries as temporary measures, as the country shall not provide “endless protection for dependency and weak skills. The protection shall be maintained with a limited term and a schedule to lower protection shall be expressly announced, that schedule may last for possibly one to two 5-year-plans.”¹³ Thus, restrictions on trading rights have been significantly loosened as of 1989. Since 1998, the permit requirements for export and import have also largely been abolished. In the past, Vietnam used import quotas as an important protection instrument. In 1999, nearly twenty commodities were under import quota. The number of commodities subject to an import quota was reduced and by the end of 2002, only two commodities, petroleum and sugar, remained under quota.¹⁴ For the year 2008, import quota is imposed on poultry eggs, tobacco raw materials, sugar and salt.¹⁵

Despite recent loosening of trade protections, effective protection of local industries remains relatively high in Vietnam, a result of the policy favoring domestic industries dominated by state owned enterprises against imports. (See Figure 1, Appendix).

1.3. Current IP Laws

The use of the term “intellectual property” allows the treatment of protectable subject matters as properties, disregarding their immaterial nature. However, in Vietnam the differences between intellectual, thus *immaterial*, and material properties have not been made clear, neither under the laws, nor in any authentic commentaries.¹⁶

¹¹ See Trade Issues, US-Vietnam Trade Council, at <http://www.usvtc.org/trade/wto/>, especially the position paper of the National Retail Federation at <http://www.usvtc.org/trade/wto/coalition/PositionPaperNRF.pdf>

¹² NATIONAL COMMITTEE ON INTERNATIONAL ECONOMIC COOPERATION, *supra* note 7, at 215-16.

¹³ *Id.*

¹⁴ See AN ASSESSMENT OF THE ECONOMIC IMPACT OF THE UNITED STATES-VIETNAM BILATERAL TRADE AGREEMENT, ANNUAL ECONOMIC REPORT FOR 2002, 94 (Hanoi: National Political Publisher 2003).

¹⁵ Decision of the Ministry of Industry and Trade number 14/2007/QĐ-BTC dated Dec. 28, 2007.

¹⁶ *E.g.*, MINISTRY OF JUSTICE, BINH LUAN KHOA HOC MOT SO VAN DE CO BAN CUA BO LUAT DAN SU [SCIENTIFIC COMMENTARY ON SELECTED BASIC ISSUES OF THE CIVIL CODE] (Hanoi: Nha xuất bản Chính trị Quốc gia 1997); BINH LUAN NHUNG NOI DUNG MOI CUA BO LUAT DAN SU 2005 [COMMENTS ON THE NEW CONTENTS OF THE 2005 CIVIL CODE] (Dinh Trung Tung ed., Hanoi: Nha xuất bản Tu pháp 2005).

1.3.1. Industrial Property

The new Civil Code uses “industrial property” as the generic term for inventions, industrial designs, integrated circuit layouts, trade secrets, marks, trade names, and geographical indications.¹⁷ Industrial property rights allow the right holder to have the exclusive right to use the object of industrial property¹⁸ and to dispose of the same.¹⁹

Although importation is defined as part of industrial property rights,²⁰ this right is limited only to the first sale, as the law now explicitly allows importation of products legally put into the market, either domestic or foreign.²¹ Thus, Vietnam follows the principle of “international exhaustion” of industrial property rights and allows parallel imports for all protected objects under certain conditions.

1.3.2. Copyright

With the 2005 Civil Code, the author’s right area of intellectual property in Vietnam has moved closer to international standards. The confusing term “owner of the work” used in the 1995 Civil Code has been replaced now by the term “author’s right owner,” meaning any person holding one or more of the author’s property rights. The Code distinguishes between “personal rights” and “property rights” of the author. Personal (or moral) rights are defined as the author’s rights to:

- name the work;
- put his or her name or pseudonym to the work; or have his or her name or pseudonym cited when the work is published, disseminated or used;
- publish the work or have it published; and
- protect the integrity of the work, and not allow other persons to alter, cut, or distort the work.²²

The property rights comprise the rights to

- replicate the work;
- allow the creation of derivative works;
- distribute and import the original work or replications of the same;
- communicate the work to the public; and
- rent the original of a computer program or replications of the same.²³

It is clear that “personal rights” are what the Berne Convention calls moral rights, and “property rights” are economic rights. While personal rights are protected without any time limitation, the protection of property rights is limited for the term of

¹⁷ Civil Code, Art. 750.

¹⁸ Law on Intellectual Property, Art. 123.1.a-b, 124, 125.

¹⁹ *Id.*, Art. 123.1.c, 138-140.

²⁰ *Id.*, Art. 124.1.d, 124.2.c, 124.3.c, 124.5.c and 124.7.c.

²¹ *Id.*, Art. 125.2.b.

²² Civil Code, Art. 738.2.

²³ *Id.*, Art. 738.3.

fifty years *post mortem auctoris* or fifty years from the first publication or fixing of the work.²⁴

In contrast to industrial property rights, the Civil Code and the Law on Intellectual Property stipulate the exclusive right of the author to import the original work or replicas of the same,²⁵ and thus explicitly deny international exhaustion of author's rights.

1.3.3. Trademark

Trademarks are visible signs used to distinguish the goods or services of different producers.²⁶ A trademark may appear in the form of words, letters, or images, or a combination of such elements in one or many colors.²⁷ Only signs that can be represented graphically can be registered, as only such signs can be published in the official gazette as required.²⁸ These include:

- Words: includes surnames, forenames, company names, geographical names, and any other words or sets of words, whether meaningful or fanciful, and slogans;
- Letters and numerals: single letters/numerals and sequences of letters/numerals are not protectable, unless secondary meaning is acquired by intensive use, or such letters and numerals are pronounceable;
- Devices: includes fanciful devices, drawings, symbols, and also two-dimensional representations of goods or containers;
- Color marks: includes words, devices, and any combination thereof in color, as well as color combinations as such; and
- Three-dimensional signs: the shape of goods or their packaging. For the registration of a three-dimensional mark, the application has to contain two-dimensional representations (drawings, pictures, etc.) for their publication in the official gazette.

Not permissible for registration are audible signs (sound marks), olfactory marks (smell marks), and other invisible signs.

The first-to-file rule is applied in Vietnam. It says if two or more applications for an identical or confusingly similar mark were filed, protection will be granted to the application first received by the National Office of Intellectual Property (NOIP).²⁹ Applications for trademark registration will be examined formally as well as substantively.³⁰

²⁴ Law on Intellectual Property, Art. 27. The seventy-five-year protection period mentioned above applies only to certain kinds of works and seems not yet to have been implemented into domestic law.

²⁵ Civil Code, Art. 738.3.c; Law on Intellectual Property, Art. 20.1.d, 28.16.

²⁶ Law on Intellectual Property, Art. 4.16.

²⁷ *Id.*, Art. 72.1.

²⁸ *Id.*, Arts. 105.2 and 110.3.

²⁹ *Id.*, Art. 90.

³⁰ *Id.*, Art. 109.1, 114.1.

A registered trademark is initially valid for ten years. It is then possible to renew for an unlimited number of consecutive periods of ten years each.³¹

1.3.4. Unfair Competition

Competition law is a new area in Vietnam, with the Law on Competition promulgated only in December 2004 and effective as of July 1, 2005.³² The Law on Competition provides both a mechanism against competition restriction and provisions against unfair competition. It defines competition restriction acts as “acts performed by enterprises in the process of doing business, which run counter to common standards of business ethics and cause damage or can cause damage to the State’s interests, legitimate rights and interests of other enterprises or consumers.”³³ Although the law does not provide explicit rules for licensing of IP rights, the prohibition of various acts restricting competition must be considered when entering into exclusive licensing agreements. Specifically, the law forbids agreements or acts which restrict technical and technological development³⁴; restrict production and distribution of goods or services; limit markets; prevent technical and technological development; cause damage to customers³⁵; or prevent new competitors from entering the market.³⁶

1.4. IP Lawmaking

Vietnam has a relatively complicated legal system, with the legislative power vesting in various authorities, from the National Assembly to the provincial People’s Assembly and from the Government to Ministries and provincial People’s Committees.

Sources of IP laws in Vietnam are:

- laws: Civil Code, Law on Intellectual Property, Criminal Code, Trade Act;
- ordinances: Ordinance on Treatment of Administrative Offences, Ordinance on Advertisement;
- decrees of the government: Decree on Industrial Properties (Decree 103/2006), Decree on Copyright (Decree 100/2006), Decree on Infringements of Intellectual Property Rights (Decree 105/2006), Decree on Administrative Penalties Relating to Industrial Properties (Decree 106/2006);

³¹ *Id.*, Art. 93.6.

³² The official English translation of the Law on Competition of December 3, 2004 is published as LUAT CANH TRANH (VIET-ANH-PHAP) [THE LAW ON COMPETITION (VIETNAMESE-ENGLISH-FRENCH)] 72-132 (Hanoi: Nha xuất bản Chính trị Quốc gia 2005).

³³ Law on Competition, Art. 3.3.

³⁴ *Id.*, Art. 8.4. According to the wording of the law, it is unclear whether only direct, or also indirect, restrictions are forbidden. Theoretically, indirect restrictions should be included. However, the usually pragmatic interpretation of Vietnamese authorities may result to the contrary.

³⁵ *Id.*, Art. 13.3.

³⁶ *Id.*, Art. 13.6.

- circulars of the ministries: Circular 3055/TT-SHCN/1996, Circular 29/2003/TT-BKHCHN, Circular 30/2003/TT-BKHCHN on Registration Procedures for Industrial Properties, Circular 27/2001/TT-BVHTT on Copyright;
- decisions of provincial People’s Assemblies or People’s Committees; and
- decisions and official letters of ministerial and general departments.

Normally, laws or ordinances—the legal documents of the highest level—can only be enforced under implementing decrees and circulars, such that, in some cases, a law may be subject to a delay of several months before application. On the other hand, in areas not yet covered by law, the promulgation of a decree can also be a fast way to provide accurate and enforceable rules.

Without a Constitutional Court, there is practically no means for right holders to request revision of legislative acts of administrative bodies, which are called “implementing documents,” if they contradict the law or even the Constitution. Also, case decisions of Vietnamese courts do not serve as binding precedent. The only means of assuring uniform implementation of laws is through legislative acts of the Supreme People’s Courts, which are abstract documents giving guidelines for legal interpretation, rather than case-related decisions.

1.5. IP Enforcement

1.5.1. The Players: IP Lawyers and Agents

There are two types of IP professionals who may take part in IP proceedings: industrial property agents and lawyers. Industrial property agents are professionals who are certified by the National Office of Intellectual Property (NOIP) to practice in the field of industrial property. Only industrial property agents are entitled to represent industrial property owners before the NOIP. Author’s right agents are professionals who are authorized by the Copyright Office of Vietnam (COV) to practice in the fields of author’s right, and only they can represent the author’s right owners before the COV in registration proceedings. Only lawyers can represent IP owners before the courts.

Representation by an IP agent is no longer compulsory in IP proceedings in Vietnam,³⁷ but IP agents are retained in most cases for their special knowledge and effectiveness. They are also active in enforcement of IP rights, as most enforcement cases are handled by administrative offices, which also require a preliminary assessment of the NOIP or COV. As of December 2007, there are 244 industrial property agents practicing from 77 IP firms throughout the country,³⁸ while the number of lawyers has risen to more than 4000.³⁹ However, there are no statistics on how many or how often the lawyers are involved in IP disputes.

³⁷ Contrary to the Decree Nr. 63/CP of 1996, where applications of foreign right owners to the NOIP shall be submitted by a registered industrial property agent, the Law on Intellectual Property requires only submission of such applications by an authorized representative in Vietnam.

³⁸ NOIP registry.

³⁹ Report of the Minister of Justice to the 2d Session of the 12th National Assembly on Nov. 5, 2007.

1.5.2. Administrative Infrastructure

The power to enforce industrial property rights has been vested in various authorities, from central to local government offices. At the central level, the most effective authority is the Board of Inspectorates of Science and Technology (BIOST) within the Ministry of Science and Technology (MoST), while at the local level it is the Departments of Science, Technology and Environment (DoST). Other effective authorities include the Market Management Departments of the Ministry of Industry and Trade at the central level and of the provinces at the local level, as well as the Economic Police and Customs at both central and local levels.

Administrative action is limited with respect to regulation of proceedings as well as the award of compensation to the right holder.⁴⁰ However, administrative action is preferred in Vietnam due to the simple proceedings and, therefore, quick results. Figure 2 (Appendix) shows the number of IP infringement complaints filed each year from 1997 to 2004. While only forty-five cases, composed mainly of trademark disputes, were handled by civil courts from 1995 to 2001,⁴¹ 404 complaints against infringements were filed at the NOIP in 2004 alone. From 2001 to mid-2003, the administrative authorities handled around 1500 passing-off cases, primarily relating to trademark infringement.⁴²

Administrative procedures normally begin with the right owner. However, *ex officio* authority is available as part of a criminal investigation or if infringing activities are otherwise discovered by the authorities themselves. There is no specific protocol as to how administrative procedures should be carried out. However, the administrative authorities have developed an experiential scheme of actions that allows lawyers and agents who have been involved in many cases to become familiar with the standard way of proceeding.

Administrative authorities are, depending on their level, authorized to impose various penalties on infringers, including confiscation of infringing goods and equipment, a monetary fine up to VND 500 million (approximately US\$31,200), and withdrawal of business licenses.

Other types of administrative measures include Customs actions at the border. Between 1999 and 2003, nearly 400 infringement cases were handled by Customs offices in Vietnam.⁴³ In principle, Customs actions are of the same nature as other administrative actions and may yield the same results. The main difference is that the Customs officials may prevent damage to the right holder by impeding importation of infringing goods into the country. Vietnam has not served as a transshipment

⁴⁰ With Decree 106/2006 on administrative penalties relating to industrial properties, the right of the applicant to claim damages within administrative procedures has been removed. Thus, the right holder shall now rely on civil procedures only.

⁴¹ KEY REPORT AND PRESENTATIONS AT THE NATIONAL CONFERENCE ON THE ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS IN VIETNAM, SEPT. 8, 2004, at 4 (Hanoi 2004).

⁴² *Id.* at 5.

⁴³ *Id.* at 5. There are no further statistics indicating how many cases are being transferred to the courts for final decisions. According to practical experience, most cases will find their solution at the Customs offices.

region for counterfeit and pirated goods and there have been no known statistics about this as of the time of this article.

1.5.3. Judicial Infrastructure

1.5.3.1. Civil Actions

Only ordinary courts may award monetary damages to the right owner. Claims must be lodged with the People's Court of the provincial level (including provinces and several main cities) where the infringement took place or where the defendant has his domicile. In cases in which one of the parties is a foreign national or a foreign resident, the competent court will be the People's Court of Hanoi or Ho Chi Minh City at the choice of the plaintiff, regardless of the place of the infringing activities or the residence of the defendant. Provincial People's Courts are comprised of five divisions: the criminal, civil, economic, labor, and administrative courts. There is no special court for IP matters; thus IP disputes are handled by the civil, administrative, or even criminal court, depending on how the case was raised.⁴⁴ It usually takes six months to a year for an IP case to be heard by a civil judge.

The law on civil proceedings does not oblige the parties to be represented by lawyers in court proceedings. Nevertheless, there are certain actions that only lawyers can perform, such as delivering statements from one party to the other and examining the court's file.

In civil actions, the plaintiff is required to provide the court with evidence of the infringing acts as well as of the damages suffered as a result of the infringement. The burden of proof cannot be shifted, in contrast to the rules in Germany, or *saisie-contrefaçon*, as in France. Thus, it would be helpful for the plaintiff if criminal proceedings were carried out in advance, though this is not required.

The court may, upon the request of the plaintiff, issue a temporary and urgent order to stop the infringing acts as well as to seize or safeguard proofs, if the evidence provided by the plaintiff justifies such an action.

Generally, damages are calculated on the basis of actual losses, including interests from the use or exploitation of the property object concerned and costs appropriate to prevent, to limit, or to eliminate further damages (Section 612 Civil Code). Damages in industrial property proceedings are calculated on the basis of the actual amount of the owner's loss or illegal profits made by the infringer.

Decisions of the court of the first instance may be appealed to the competent court of the next level, i.e., the Supreme People's Court in the case of industrial property proceedings. The decision of the court of appeal is final and binding on the parties. However, a final and binding decision may be reversed within a period of three years from the date of effect of the decision upon request of either the president of the Supreme People's Court or the president of the Supreme People's Inspection. Such a request may be raised for two kinds of reasons: essential faults in

⁴⁴ See VIET D. PHAN, *SELECTED ASPECTS OF ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS IN JAPAN AND VIETNAM: A COMPARATIVE STUDY WITH RESPECT TO TRIPS STANDARDS OF ENFORCEMENT* 20-21 (Tokyo: Institute of Intellectual Property 2003).

decision of the instance courts, either in consideration of the facts and evidence, or in the procedure, or in application of legal rules; or discovery of facts that were unknown to the parties and the instance courts and that are substantial to the case.

One of the main problems in civil actions is the enforceability of a court's decision. Often courts' decisions cannot be enforced even after one or more years due to the organization of the Execution Office and qualification of Execution Officers.⁴⁵ The Execution Office is organized as a department of local administrations instead of the courts, thus it lacks of independence and often depends on administrative decisions. On the other hand, the bailiffs, or in official language the "Execution Officers" are lacking the necessary skills in enforcement and often repeatedly attempt to seek voluntary fulfillment from the obligor and hesitate to decide on compulsory execution of judgments.⁴⁶

1.5.3.2. Criminal Actions

The Criminal Code provides for criminal punishments for production of and trading in counterfeit goods⁴⁷ and against illegal use or possession of industrial property objects.⁴⁸ The punishment can be severe, ranging from six months to three years of imprisonment for infringement of IP rights. If the counterfeit goods are drugs, food, or agricultural chemical products, the punishment can be up to twenty years of imprisonment. In addition, a counterfeiter may be ordered to pay a monetary fine, forbidden to hold certain positions, and disqualified for certain professions for a period of up to five years.⁴⁹ Within the criminal proceedings, the victim may also claim damages, which will be decided by the court according to rules of the civil laws.⁵⁰

However, with the exception of producing or trading in counterfeit goods related to human or animal health or agricultural production, the general problem of criminal prosecution of industrial property infringements is the lack of awareness of the prosecuting authorities, a problem seen in both developing and developed countries.⁵¹

2. Cultural Infrastructure

Ancient Vietnamese society subscribed to Confucianism as a general philosophy. It was the emperor, not the people, who was the center of society. The Vietnamese people, in their feudal society, did not have private laws to govern their individual relationships. There were only penal rules enacted by the emperor.⁵²

⁴⁵ According to statistics of the Ministry of Justice in 2001, some 37% of judgments in civil cases remained unenforced. For more, see *id.* at 15.

⁴⁶ *Id.*

⁴⁷ Criminal Code, Art. 156-58.

⁴⁸ *Id.*, Art. 171.

⁴⁹ *Id.*, Arts. 157 and 158.

⁵⁰ Code of Criminal Procedure, Art. 40.

⁵¹ For example, Japan. See PHAN, *supra* note 44, at 31.

⁵² See Viet D. Phan, *Das Urheberrecht in Vietnam [Copyright in Vietnam]*, GRUR INT. 2001, at 111, 112.

In today's Vietnam, private civil law remains underdeveloped with respect to legislation, jurisprudence, and the judiciary. This seems to be a result of both traditional circumstances as mentioned above and the socialist idea of collectivism that nearly wholly undermined private interests within the legal system. Only since the beginning of social reforms (Đổi mới) in about 1986 has civil law been gaining a more and more visible position within the legal system of Vietnam.⁵³

3. Political and Economic Infrastructure

3.1. Political Economy

Without doubt, Vietnam's recent economic development depends largely on the country's political stability, which is based on the constitutional leading role of the Communist Party of Vietnam.⁵⁴ With some small interruptions caused by the Asian financial crisis of 1997, the country has achieved a continuous growth of 7-8% per year since 1990,⁵⁵ the second-highest growth rate in the world in this period. However, there are also a multitude of problems and risks in the country's development policy. For example, it relies heavily on foreign aid and capital inflows,⁵⁶ and the inflation rate remains at a relatively high level.⁵⁷ Inefficiency in economic regulation is a critical point in a transformation economy.⁵⁸ Corruption has also become a serious issue for the country's development and was noted as such by the 10th Congress of the Communist Party of Vietnam in April 2006.⁵⁹

3.2. Innovation Incentives

At the 6th Party Congress in December 1986, the Communist Party of Vietnam identified the state's central economic management as a key factor that inhibited both economic growth and micro-level reforms. As a result, the party began to open the country's market with formal decentralization through the slogan of "commercialization" (*thuong mai hoa*) of the state economy. This allowed markets to play a more important role in the allocation of resources and encouraged non-public

⁵³ See PHAN, *supra* note 44, at 13

⁵⁴ Constitution of 1992, Art. 4.

⁵⁵ MINISTRY OF PLANNING AND INVESTMENT, VIETNAM'S SOCIO-ECONOMY ON THE THRESHOLD OF INTEGRATION 48 (Hanoi: Nha xuất bản Thong ke 2005).

⁵⁶ See "Economic Infrastructure," below. In 2004, the FDI stocks of Vietnam came up to 66.3% of the country's gross domestic product.

⁵⁷ According to Tuoi Tre Online, the inflation rate of Vietnam was 9.5% in 2004 and 8.5% in 2005. <http://tuoitre.com.vn/Tianyon/Index.aspx?ArticleID=137299&ChannelID=11>. According to the General Department of Statistics, since 2007 the inflation rate has increased dramatically, from 12.63% in December 2007 to 16.37% in March 2008.

⁵⁸ This issue has been openly addressed by the Prime Minister at the 3d Session of the 12th National Assembly on May 6, 2008, *available at* <http://www.tuoitre.com.vn/Tianyon/Index.aspx?ArticleID=256224&ChannelID=3>.

⁵⁹ The Political Report of the Politburo at the 10th Party Congress (Apr. 2006) paid special attention to this issue in Section XI.3, "Active prevention of and resolutely combating corruption and squandering."

sectors to exist and develop in production and services.⁶⁰ Since then, the country has reformed numerous industries so as to adapt to the conditions of a market economy, but it still keeps several other industries in state hands “so as to ensure political stability.” The latter industries include the post and telecommunication industry, the oil and energy industry, and the transportation industry. In the early 1990s, the state was still the dominant owner of the means of production within industry. The non-state share of industrial production was estimated to be 23%, while that of retail business and trade had increased from 30% to 70% during the last years of the 1980s. In banking, mining, communications, and many other sectors, state ownership dominated completely.⁶¹ Nevertheless, privatization has continued. The Bank for Foreign Trade (Vietcombank), one of the country’s largest commercial banks, was recently equitized.

3.3. Who Holds the IP?

As the Vietnamese economy opened up from 1984 to 2004, there was a dramatic increase in patent grants, especially from 1996, when the Civil Code of 1995 came into effect.⁶² (See Figure 3, Appendix.) There was also a sharp reversal of the proportion of domestic to foreign patent holders through these years. Between 1984 and 1989, of eighty-one total patents granted, seventy-four went to Vietnamese citizens. In 2004, 641 of the 698 new patents were granted to foreign applicants.

As the R&D activities of Vietnam have been mainly focused on local adaptation, i.e., their main purpose has been to absorb and adapt technologies in local environments, the number of utility models has gradually increased from 1995 to 2004, with a relative balance between domestic and foreign grantees. (See Figure 3, Appendix.) In 1995, eight utility solution (utility model) patents were granted to Vietnamese citizens and sixteen to foreign citizens; after a steady increase, in 2003 the number granted to Vietnamese citizens overtook the number granted to foreigners. In 2005, forty-one were granted to Vietnamese citizens and thirty-three to foreigners.

While the numbers of invention and utility solution patents granted reveal only slow progress in modern technological advances, there was rapid development of commercial utilization of other IP rights, such as industrial designs or trademarks. (See Figure 3, Appendix.) Between 1989 and 2004, the total number of industrial design patents granted increased from eighty-seven to 647. Of those 647, 412 went to Vietnamese nationals. In 1990, only 688 trademark registration certificates were issued, with over half going to foreigners. By 2004, the picture had changed dramatically: 7,600 total certificates were issued, with 5,444 granted to Vietnamese citizens.

⁶⁰ Sujian Guo, *Economic Transition in China and Vietnam: A Comparative Perspective*, in 32 ASIAN PROFILE 399 (2004).

⁶¹ *Id.*

⁶² All statistics in this section come from the NOIP, <http://www.noip.gov.vn/>.

As of today, the statistics of the NOIP only include figures for trademark registrations according to industry zones. Figure 4 (Appendix) shows the industries with the most trademark filings.

3.4. IP as a Licensing Tool/Defensive Tool

Establishing and developing a science and technology market is an essential aim of Vietnam's leadership. The Strategy for Social-Economic Development 2001-2010 of the Communist Party of Vietnam sets out the goal "to develop the science and technology market, to create a competition environment and to protect IP rights and author's rights; to have a mechanism encouraging enterprises to increase their investment in developing science and technology, to foster technical ideas and improvements, optimization of production and to commission research organizations."⁶³

According to the laws of Vietnam, all licensing agreements and other agreements on the transfer of industrial property rights (transfer agreements)⁶⁴ are subject to registration at the Ministry of Science and Technology. It is therefore possible to follow the development of the licensing market after the Civil Code of 1995 became effective. (See Figure 5, Appendix.) The data show that industrial property licensing has become more and more important over the years, and it has increasingly become a matter of concern in the domestic market, with an increase of more than 50% from 1999 to 2004. With an increase in the awareness of intellectual property as a licensing tool, a rising number of companies are actively caring for their intellectual property with the aim to market it within the framework of franchising agreements.⁶⁵ It is, however, obvious that the industrial property market of Vietnam remains relatively small, with only 359 licenses in the year 2004 (150 inward technology transfer agreements in the years 1990-2002).⁶⁶ As most R&D activities in Vietnam aim at local adaptation of (foreign) technologies and the standard of technology in the country is not high, it is obvious that the main purpose of foreign patent registrations in Vietnam is to hinder competitors' access to the local markets.

Vietnamese right holders are often not aware of the defensive role of IP rights. For example, despite a high rate of passing-off and serious enforcement difficulties, only a few trademark owners have registered surrounding marks.⁶⁷

⁶³ *Report of the 8th Central Committee at the 9th Party National Congress of the Communist Party of Vietnam*, in VĂN KIẾN ĐẠI HỘI ĐẠI BIỂU TOÀN QUỐC LẦN THỨ IX [DOCUMENTS OF THE 9TH NATIONAL PARTY CONGRESS] (Hanoi: National Policy Publishing House 2001).

⁶⁴ The laws of Vietnam allow either the assignment of separate economic rights or the whole object of industrial property rights itself, and distinguish therefore between the licensing agreements and the agreements to transfer ownership of the industrial property (transfer agreements).

⁶⁵ "Trung Nguyen" and "Dilmah" are two of the best-known examples of success in the franchising business.

⁶⁶ Ngo Van Hong, *Vì sao công nghệ nhập khẩu vào Việt nam còn quá ít?* [Why Does the Amount of Technology Imported into Vietnam Remain Too Low?], BÁO ĐẦU TƯ [INVESTMENT JOURNAL], Dec. 13, 2002, at 14.

⁶⁷ E.g., "Miliket" and "Vinamilk" each have approximately forty surrounding marks.

3.5. Domestic and Foreign Investment

With an average growth rate of more than 10%, the level of domestic investment has more than quadrupled from VND 20,000 billion (approximately US\$1.33 billion) in 1995 to VND 84,900 billion (approximately US\$5.66 billion) in 2004.⁶⁸ Moreover the Law on Encouragement of Domestic Investments was promulgated in 1994, and since 1995 investment incentives have been granted to 12,638 projects with a total capital of more than VND 192,484 billion (approximately US\$12.8 billion).⁶⁹

Figure 6 (Appendix) gives an overview of the investments by industries. From 2000 to 2004, the processing industry, telecommunications industry, and energy industry have received the largest amount of domestic as well as foreign investment.⁷⁰ Apart from “party and association,” the science and technology services share the smallest part of this domestic investment allocation.

Since the beginning of the economic reforms in Vietnam in the late 1980s, foreign direct investment (FDI) has played an essential and increasing role in development success. In the years 1990, 2000, and 2004, the FDI stocks of Vietnam rose to 25.5%, 65.7%, and 66.3% respectively of the country’s gross domestic product.⁷¹ The number of new investment projects continuously increased from fifty-five in 2002 to 161 in 2004.⁷²

With the economic reforms, the level of official development assistance (ODA) Vietnam received has nearly quadrupled within the decade from 1993 to 2007, from US\$1.81 billion to \$5.43 billion.⁷³ (See Figure 7, Appendix.) According to the Ministry of Planning and Investment, 10.73% of the ODA resources were used in the areas of health, education, science, technology, and environment.

As of December 20, 2005, 5918 foreign investment projects registered a total capital of more than US\$50.5 billion with a realized capital of nearly \$27 billion. (See Figure 8, Appendix.) A large amount was dedicated to the telecommunication industry, which has had the world’s highest growth rate in recent years. However, the most capital intensive investments were in the petroleum industry, with only US\$1.9 billion registered, and \$4.6 billion realized capital.⁷⁴

⁶⁸ Press Release, General Office of Statistics (2005).

⁶⁹ Press Release, Ministry of Planning and Investment (2005).

⁷⁰ These statistical figures comprise only purely domestic investments, as investments of facilities of foreign companies in Vietnam are also considered foreign investments.

⁷¹ *Transnational Corporations and Internationalization of R&D*, in UNCTAD, *WORLD INVESTMENT REPORT 2005*, at 322.

⁷² *Id.* at 258.

⁷³ Ministry of Planning and Investment, *Overview of ODA mobilization and usage in Vietnam Period 1993-2007*, available at <http://oda.mpi.gov.vn/portal/index.jsp?sid=1&id=39&pid=6>.

⁷⁴ Ministry of Planning and Investment, Department of Foreign Investment, <http://www.mpi.gov.vn>.

4. Educational Infrastructure

According to the Law on Education of 1998, the education system of Vietnam has five levels:

- Pre-primary education is voluntary and provided to children between three and six years of age.
- Primary education is compulsory and covers the first five years of schooling. The subjects taught include Vietnamese, ethics, mathematics, sport, and arts. In 2004, there were 15,585 primary schools with 8,350,191 pupils.⁷⁵
- The secondary education system covers the next seven years of schooling, grades 6 to 12. The lower secondary schools cover four years (i.e., grades 6 to 9) and became compulsory in 2006, according to the Law on Education of 2005. The upper secondary schools cover the next three years (i.e., grades 10 to 12); they provide extended general education as a basis for higher education, professional training, or working life. In 2004, there were 12,013 secondary schools with 6,612,099 lower secondary and 2,616,207 upper secondary pupils. In addition to the general secondary schools, there are 286 technical and vocational schools providing vocation-oriented upper secondary education to 360,392 students.⁷⁶
- Higher education is provided by colleges and universities. Colleges provide practical training for certain occupations. In 2004, 127 colleges provided education and training to 231,107 students. Universities are organized into specialized universities (university of economics, university of construction, university of laws, etc.), national universities with a focus on theoretical research, and technical universities. In 2004, there were eighty-seven universities with 28,434 teachers providing higher education to 801,333 students.⁷⁷
- Post-graduate education is provided by universities and certain research institutes.

Vietnam has recently made some advances in education. With a literacy rate of 93%,⁷⁸ the country achieved the rank of 108 in the UNDP human development report of 2005⁷⁹ while steadily improving in the human development index from 0.617 in 1990 to 0.704 in 2003. The country is still endeavoring to catch up to world standards by reforming its educational system with the latest Law on Education promulgated in 2005, which became effective on January 1, 2006.

⁷⁵ Ministry of Education and Training, <http://en.moet.gov.vn/>.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Achievements in Protecting and Promoting Human Rights in Vietnam*, WHITE BOOK OF THE FOREIGN MINISTRY OF VIETNAM (Hanoi 2005), available at http://www.mofa.gov.vn/en/ctc_quocte/ptklk/nr040819162124/ns070206102551.

⁷⁹ [Http://hdr.undp.org/en/](http://hdr.undp.org/en/).

5. Scientific Infrastructure

5.1. Research and Development

As Vietnam is an agrarian country, most of the advancements seen in science and technology were related to agriculture.⁸⁰ Examples include the discovery of a new kind of cotton plant (VN35),⁸¹ the development of technology to detect and print out sketches of termite dens with a radar device and to destroy termites by drilling in river dikes,⁸² and the development of a technology for industrial production of dry shrimp foods.⁸³ The most technological advancements are in the areas of “small inventions.”⁸⁴

Research and development (R&D) activities are dominated by state R&D organizations, which account for 60% (with social organizations’ R&D, activities account for 96%) of the country’s R&D organizations. According to the statistics of the Ministry of Science & Technology in 2005, there has been a steady but slow increase in the number of private R&D organizations from 2001 to 2004 (See Figure 9, Appendix).⁸⁵ It is important, however, to note that the statistics are rather incomplete with respect to private organizations, in particular foreign enterprises.

Several industries are actively involved in R&D. However, there are few available statistics on their activities and results, as most of the R&D statistics concern state-owned organizations. In 2001, there were more than 150,000 enterprises (among which approximately 5,000 were state owned) in Vietnam. Although 94% of all science and technology investment was dedicated to technological improvement, only 6% was used for R&D.⁸⁶ The situation did not change much during 2004.⁸⁷

⁸⁰ See Ministry of Science and Technology, KHOA HỌC VÀ CÔNG NGHỆ VIỆT NAM 2001 [SCIENCE AND TECHNOLOGY OF VIETNAM 2001] 173-200 (Hanoi 2002).

⁸¹ *Id.* at 183.

⁸² *Id.* at 188.

⁸³ *Id.* at 189.

⁸⁴ According to the Ministry of Science and Technology, there are ninety-eight outstanding technical advancements achieved by the country’s R&D organizations. See Ministry of Science and Technology, KHOA HỌC VÀ CÔNG NGHỆ VIỆT NAM 2004 [SCIENCE AND TECHNOLOGY OF VIETNAM 2004] (Hanoi 2005) at 174. However, in 2005, the number of patents for inventions granted to Vietnamese right holders was only twenty-seven, and the number of patents for utility solutions was forty-one. (See Figure 3, Appendix.)

⁸⁵ *Id.* at 42 and KHOA HỌC VÀ CÔNG NGHỆ VIỆT NAM 2001, *supra* note 80, at 19. According to the Central Institute for Economic Management (CIEM), the number of private R&D organizations should be around 500. See Cao Cương, Nâng chất lượng tư vấn xây dựng chính sách [*Increasing the Quality of Consultations for Policy-Making*], THỜI BÁO KINH TẾ SÀI GÒN [SAIGON ECON. TIMES], Sept. 15, 2005, at 17.

⁸⁶ See KHOA HỌC VÀ CÔNG NGHỆ VIỆT NAM 2001, *supra* note 80, at 50.

⁸⁷ Only 6.14% of 7,232 industrial enterprises invested in R&D, and that made up 8% of all science and technology investments of the enterprises. *Id.* at 71.

5.1.1. Scientific R&D

Scientific R&D activities in Vietnam focus primarily on detailed production solutions, such as appropriate and saving use of resources and energy, development of domestic raw material resources in order to replace imported raw materials, modernization of existing technologies, and utilization of modern technologies.⁸⁸

The country's materials production industry was quite successful in 2004, owing much of its success to the completion of the ferro-magnesium rare earth production technology and the development of technology to produce super water-absorbing materials using manioc powder.⁸⁹

In recent years, political encouragement of computer and computer-related industries, especially the software industries, has stimulated their development. As one of the fastest growing industries in Vietnam, the IT industries can now rely on six Internet exchange points with a total band width of 3,505 Mbps.⁹⁰ As a result of strong political will, the country has developed eight software parks in major cities, including Hanoi and Ho Chi Minh City. Intensive public relations activities have been organized in the form of annual competitions or industrial prizes, thus making public the results of the industries' R&D activities. In 2004, the computer industry was successful in developing a character recognition software for Vietnamese and a voice recognition software. The industry also designed a supercomputer binding and parallelizing mathematical operations system to solve the task of meteorological forecasting, which helps reduce the calculating time of the E.U.-originated HRM program from four hours to one hour, and reduces the cost of the equipment from US\$2 million to \$200,000.⁹¹

Biotechnology remains one of the most supported industries in Vietnam, and this is expected to continue for at least the near future. The main results of biotechnology research during 2004 were the development of new plant and animal varieties,⁹² and the production of several vaccines⁹³ and drugs using traditional or domestic biomaterials.⁹⁴

In the automation and mechanical industries, the country remains a developer and producer of import substitutions, e.g., production of a plasma slicing machine or production of a crane with an ultimate load of 120 tons.⁹⁵

5.1.2. Marketing R&D

Marketing industries have a special interest in the country's development policy in the years to come. Among the Ministry of Industry's strategies for development

⁸⁸ *Id.* at 109.

⁸⁹ *Id.* at 109, 110.

⁹⁰ [Http://www.vnnic.net.vn](http://www.vnnic.net.vn).

⁹¹ KHOA HỌC VÀ CÔNG NGHỆ VIỆT NAM 2004, *supra* note 84, at 110, 111.

⁹² *Id.* at 102-04.

⁹³ *Id.* at 115.

⁹⁴ *Id.* at 117.

⁹⁵ *Id.* at 112.

from 2000-2010 was a specific strategy for the clothing industry.⁹⁶ The government also issued decisions on development schemes for further marketing industries, such as the beverage industry,⁹⁷ the paper industry,⁹⁸ the milk industry,⁹⁹ and the ceramics industry.¹⁰⁰

There are many research organizations involved in the marketing industries, and almost all are state owned. In only a few years, the clothing industry has developed several research institutes, which include the Fashion Design Institute (FADIN), the Textile and Garment Economic and Technical Research Institute, and the Cotton Research Institute of the Vietnam Textile and Garment Cooperation (Vinatex). According to the Ministry of Industry, thirteen research institutes of marketing industries have carried out 479 research projects with a total budget of VND 48.53 billion (approx. US\$3.05 million) during the period 1991-2000.¹⁰¹

5.1.3. Foreign Investment in R&D

Attracting foreign R&D organizations into Vietnam has been a well-publicized aim of the government's policy.¹⁰² Under the law on Investments, investments in R&D belong to the specially favored areas and so can enjoy the most incentives from the state.¹⁰³

However, there are no figures on how much R&D activity has been streamed into or out of the country to date. According to UNCTAD's "World Development Report 2005—Transnational Corporations and the Internationalization of R&D," there have been no notable R&D activities in Vietnam in recent years,¹⁰⁴ and there seems to be no change likely in the near future.¹⁰⁵

⁹⁶ The Strategy to Develop the Textile and Garment Industry to 2010 was approved by the government's decision Nr. 55/2001 of Apr. 23, 2001.

⁹⁷ Decision Nr. 58/2003/QĐ-TTg of Apr. 17, 2003.

⁹⁸ Decision Nr. 160/1998/QĐ-TTg of Sept. 4, 1998.

⁹⁹ Decision Nr. 22/2005/QĐ-BCN of Apr. 26, 2005.

¹⁰⁰ Decision Nr. 174/2004/QĐ-BCN of Dec. 22, 2004.

¹⁰¹ Ministry of Industry, <http://www.ips.gov.vn>.

¹⁰² In its Social-Economic Development Strategy for 2001-2010, the Communist Party set as a target "to encourage and provide favorable conditions for enhanced international communication and cooperation in science and technology, attracting skilled experts of the world to contribute into the development of the country in appropriate manners." *Report of the 8th Party Central Committee at the 9th National Party Congress*, *supra* note 63. In 2002, a conference of the Party Central Committee was dedicated mostly to the development of training, education, science, and technology of the country, of which one of the conclusions was to create and develop a science and technology market in Vietnam. CÁC KẾT LUẬN HỘI NGHỊ LẦN THỨ SÁU BAN CHẤP HÀNH TRUNG ƯƠNG ĐẢNG [CONCLUSIONS OF THE 6TH CONFERENCE OF THE PARTY CENTRAL COMMITTEE] 111-14 (Hanoi: National Policy Publishing House 2002).

¹⁰³ See Article 27 of the Law on Investments and Exhibit A of Decree 108/2006 on implementation of the Law on Investments.

¹⁰⁴ WORLD INVESTMENT REPORT 2005, *supra* note 71, at 139-43.

¹⁰⁵ The country did only receive 1.5% of responses on the question of attractive prospective R&D locations 2005-2009. *Id.* at 153.

5.2. Public/Private Innovation and Commercialization of IP

According to statistics of the Vietnam Business Forum, there were only 150 inward technology transfer agreements between 1990 and 2000,¹⁰⁶ 90% of which were agreements between foreign companies and their Vietnamese subsidiaries.¹⁰⁷ To date, there is no information about any remarkable exchange between research institutions, particularly universities, whether foreign or domestic, and private industries in Vietnam. Although it is a general policy to encourage all technology transfer activities, there are no political instruments that would encourage cooperation between science and production,¹⁰⁸ even in areas of essential interest, such as agriculture.

Conclusion

The current system of IP rights in Vietnam largely conforms to WTO/TRIPS standards. The country now provides for protection of all subject matter required by the TRIPS Agreement, including integrated circuits, trade secrets, and new plant varieties. It also provides for temporary means to avoid infringements of IP rights.

Vietnam has recently made various efforts to strengthen public awareness of intellectual property. In 2003, the Government approved a Ministry of Trade program to promote trade names of domestic companies,¹⁰⁹ which will encourage the creation and use of domestic trademarks.

However, intellectual property still plays a subordinate role in Vietnam. Despite the continuously increasing number of trademark registrations, only a few businesses actually consider their IP rights as a real property and build up any kind of IP right management system. Even in international negotiations, intellectual property does not seem to carry much weight in the government's consideration; Vietnam has easily made concessions on IP matters, especially during bilateral or international trade negotiations.¹¹⁰

The speed of with which laws have been enacted is mainly for the purpose of adapting to WTO standards. The IP Law of 2005 was prepared in just three years, with many sudden changes. Although the law appears to satisfy TRIPS requirements, enforcement issues will remain open, as the law did not change the enforcement system, and it introduced some remedies that are new to the Vietnamese legal system.

¹⁰⁶ Ngo, *supra* note 66, at 14.

¹⁰⁷ “*Bộ n bề... hoạt động chuyển giao công nghệ*” [“*Technology transfer activities ... all over the place*”], BÁO ĐẦU TƯ [INVESTMENT J.], Nov. 26, 2002, at 4.

¹⁰⁸ See Nguyễn Danh Sơn, *Nhận dạng thị trường khoa học và công nghệ Việt nam và một số gợi ý chính sách* [Determining the Science and Technology Market in Vietnam and Several Policy Proposals], in CENT. INST. FOR ECON. MGMT. & UNDP, PHÁT TRIỂN THỊ TRƯỜNG KHOA HỌC VÀ CÔNG NGHỆ Ở VIỆT NAM [DEVELOPING THE SCIENCE AND TECHNOLOGY MARKET IN VIETNAM] 53 (Hanoi: Science & Technology Publishing House 2004).

¹⁰⁹ Decision of the Government No. 253/2003/QĐ-TTg of Nov. 25, 2003.

¹¹⁰ See “International IP Obligations,” above.

It is often said that IP laws have a negative impact on developing economies.¹¹¹ This issue has been mentioned in some forums in Vietnam during the course of WTO accession. However, whether IP laws have a negative impact on Vietnam in particular was never professionally assessed during the WTO negotiations.

Appendix

	1997		2002	
	Nominal tariff rate	Effective tariff rate	Nominal tariff rate	Effective tariff rate
Agriculture	8.1	9.1	6.2	12.6
Mining	9.4	5.7	17.8	0.13
Manufacturing	26.9	111.1	21.1	77.8
Overall Average	17.4	59.7	15.9	54.2

Figure 1. Nominal and Effective Tariff Rates by Sector

Data Source: *An Assessment of the Economic Impact of the United States-Vietnam Bilateral Trade Agreement*, in ANNUAL ECONOMIC REPORT FOR 2002, at 94 (Hanoi: National Political Publisher 2003).

Year	1997	1998	1999	2000	2001	2002	2003	2004
Patents*					2	9	23	33
Industrial Design	32	20	41	60	93	108	53	65
Marks	124	219	110	119	198	282	278	306
Total	156	239	151	179	293	399	354	404
* Including utility solution patents								

Figure 2: Complaints of Infringements of IP Rights

Data Source: National Office of Intellectual Property (NOIP), <http://www.noip.gov.vn/>.

¹¹¹ See *Integrating Intellectual Property Rights and Development Policy*, REPORT OF THE COMMISSION ON INTELLECTUAL PROPERTY RIGHTS 21-22 (London 2002) (with further references), available at <http://www.iprcommission.org/>.

Invention Patents Granted 1984-2005																	
Year	1984	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of patents granted to	1984 - 1989																
Vietnamese citizens	74	11	14	19	3	5	3	4	0	5	13	10	7	9	17	22	27
Foreign citizens	7	3	13	16	13	14	53	58	111	343	322	620	776	734	757	676	641
Total	81	14	27	35	16	19	56	62	111	348	335	630	783	743	774	698	668

Utility Model Patents Granted 1990-2004																
Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of utility model patents granted to																
Vietnamese citizens	23	44	23	9	18	8	5	8	3	6	10	17	21	28	44	41
Foreign citizens		1	1	1	9	16	6	12	14	12	13	9	26	27	25	33
Total	23	45	24	10	27	24	11	20	17	18	23	26	47	55	69	74

Industrial Design Patents Granted 1989-2004																
Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Industrial Design Patents granted to																
Vietnamese nationals	87	91	219	433	528	524	626	798	261	728	841	526	333	368	359	412
Foreign Applicants		9	5	6	21	27	85	68	62	94	94	119	43	9	109	235
Total	87	100	224	439	549	551	711	866	323	822	935	645	376	377	468	647

Trademark Registration Certificates Issued 1982-2004																
Year	1982	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Trademark registration certificates issued to	1982 - 1989															
Vietnamese nationals	380	423	1525	1487	1395	1744	1627	1383	980	1095	1299	1423	2085	3386	4907	5444
Foreign applicants	1170	265	388	1821	2137	2342	2965	2548	1506	2016	2499	1453	1554	1814	2243	2156
Total	1550	688	1913	3308	3532	4086	4592	3931	2486	3111	3798	2876	3639	5200	7150	7600

Figure 3: Patents Granted and Trademark Certificates Issued

Data Source: National Office of Intellectual Property (NOIP), <http://www.noip.gov.vn/>.

Industry	Year		
	1995	2000	2007
Cosmetics and sanitary products	1005	410	1301
Pharmaceutical preparations, sanitary preparations for medical purposes	1256	1166	9157
Scientific, optical, measuring, life-saving and teaching apparatus and instruments; electrical apparatus and instruments; apparatus for recording, transmission or reproduction of sound or images; magnetic data carriers, recording discs; data processing equipment and computers; etc.	832	528	1797
Clothing, footwear, headgear	732	341	1269
Nourishment	1072	790	2745
Advertising; business management and administration; office functions	294	551	3945
Insurance; financial affairs; monetary affairs; real estate affairs	100	149	1391
Building construction; repair; installation services	117	136	1128
Education; providing of training; entertainment; sporting and cultural activities	180	134	1187
Food and drink services; temporary accommodation	n/a	191*	1307
* 2002 (no application until 2001)			

Figure 4: Trademark Applications by Industry

Data Source: National Office of Intellectual Property (NOIP), <http://www.noip.gov.vn/>.

License Agreements								
Applications for License Agreement Registration					Registered License Agreements			
Parties	V-V	V-F	F-F	Total	V-V	V-F	F-F	Total
Year								
1995	18	82	09	109	14	22	48	84
1996	10	196	17	223	02 (02)	99 (114)	24 (25)	125 (141)
1997	18 (20)	68 (103)	25 (47)	111 (170)	13 (26)	21 (172)	09 (23)	43 (221)
1998	08 (08)	51 (183)	31 (44)	90 (235)	07 (07)	23 (167)	26 (67)	56 (241)
1999	15 (20)	59 (214)	20 (49)	94 (283)	09 (15)	46 (157)	20 (58)	75 (223)
2000	16 (18)	57 (208)	07 (31)	80 (257)	11 (14)	60 (159)	09 (32)	80 (205)
2001	11 (15)	62 (267)	11 (45)	84 (327)	15 (22)	52 (200)	12 (36)	79 (258)
2002	40 (48)	82 (312)	17 (42)	139 (402)	32 (40)	80 (335)	20 (60)	132 (435)
2003	81 (114)	75 (247)	9 (14)	167 (375)	34 (45)	60 (232)	5 (5)	99 (272)
2004	160 (215)	62 (160)	20 (92)	242 (467)	157 (222)	66 (139)	15 (84)	238 (445)

* V-V: Domestic agreements
** V-F : Agreements between Vietnamese and foreign parties
*** F-F : Agreements between foreign parties
**** In brackets are numbers of licensees

Transfer agreements								
Applications for Registration of Transfer Agreements					Registered Transfer Agreements			
Parties	V-V	V-F	F-F	Total	V-V	V-F	F-F	Total
Year								
1997	37 (52)	03 (03)	109 (112)	149 (167)	16 (42)	01 (01)	21 (46)	38 (89)
1998	61 (69)	05 (25)	152 (308)	218 (402)	33 (43)	03 (14)	61 (166)	97 (223)
1999	108 (222)	07 (12)	104 (191)	219 (425)	78 (191)	05 (18)	90 (184)	173 (393)
2000	151 (191)	07 (07)	207 (456)	365 (654)	99 (171)	06 (07)	122 (375)	227 (553)
2001	145 (328)	03 (03)	218 (530)	366 (861)	117 (295)	07 (08)	146 (299)	271 (603)
2002	101 (201)	4 (5)	196 (574)	301 (780)	100 (222)	2 (2)	164 (411)	266 (635)
2003	139 (208)	10 (22)	227 (650)	376 (880)	122 (178)	4 (16)	246 (889)	372 (1083)
2004	171 (393)	7 (7)	191 (368)	369 (768)	157 (329)	11 (13)	231 (579)	359 (921)

**** In brackets are numbers of assignees

Figure 5: License and Transfer Agreements

Data Source: National Office of Intellectual Property (NOIP), <http://www.noip.gov.vn/>.

Year	2000	2001	2002	2003	2004*
Agriculture and forestry	17218,2	13628,6	14528,7	16532,6	19700,0
Aquaculture	3715,5	2513,2	2919,4	3042,9	3600,0
Mining industry	9587,7	8141,1	7922,7	10980,8	13100,0
Processing industry	29171,6	38140,5	45101,7	49431,4	59300,0
Water and Energy	16983,6	16921,6	20834,5	24090,8	28300,0
Construction	3562,7	9045,8	10435,1	11140,6	13100,0
Trading; Repair services	3035,5	7953,0	11899,8	14290,1	17000,0
Hotel and gastronomy	4453,2	2974,7	3827,2	4095,2	4800,0
Transportation, telecommunication	19913,3	26999,1	32229,9	37007,5	44300,0
Credit & finance	1302,9	2017,6	1113,8	1919,8	2200,0
Science & technology	1882,8	1935,5	691,5	1117,4	1300,0
Property and consulting services	4031,0	1734,6	2598,1	3490,1	4000,0
Security and Defense	3913,6	3854,0	3475,5	4818,9	5600,0
Education and training	6083,7	6225,3	5851,1	6891,0	8200,0
Health and social welfare	2323,1	2770,1	3190,2	4231,0	5000,0
Sport and culture	2811,8	2228,4	3013,7	4151,6	4900,0
Party and association	792,6	342,0	393,6	354,5	400,0
Others	20400,2	23070,9	29078,0	34030,0	40200,0
Total	151183,0	170496,0	199104,5	231616,2	275000,0
* estimated					

Figure 6: Investments by Industry (VND billions)

Data Source: Press Release, General Office of Statistics (2005).

Year	1993	1994	1995	1996	2000	2001	2002	2003	2004	2005	2006	2007	Total
Commitment	1,810	1,940	2,260	2,430	2,400	2,400	2,500	2,830	3,440	3,748	4,457	5,426	42,438
Disbursement	413	725	737	900	1,650	1,500	1,528	1,421	1,650	1,787	1,785	2,176	19,865

Figure 7: Official Development Assistance 1992-2007 (US\$ million)

Data Source: Ministry of Planning and Investment, *Overview of ODA mobilization and usage in Vietnam Period 1993-2007*, available at <http://oda.mpi.gov.vn/portal/index.jsp?sid=1&id=39&pid=6>.

No.	Area	Quant	Total Capital*	Legal Capital*	Realized Capital
I	Industry	3.983	30.670.134.046	13.194.306.153	18.454.818.329
	Petroleum	27	1.891.191.815	1.384.191.815	4.556.250.381
	Light Industry	1.667	8.334.820.162	3.757.445.407	3.152.121.254
	Heavy Industry	1.717	13.313.466.747	5.267.467.433	6.531.053.276
	Food Industry	261	3.135.296.403	1.357.851.161	1.894.416.334
	Construction	311	3.995.358.919	1.427.350.337	2.320.977.084
II	Agriculture, Forestry	772	3.729.563.343	1.612.768.526	1.815.757.877
	Agriculture, Forestry	658	3.421.667.163	1.478.591.145	1.660.316.464
	Aquaculture	114	307.896.180	134.177.381	155.441.413
III	Service	1.163	16.134.892.288	7.652.459.899	6.692.470.457
	Transportation, Telecommunication	161	2.917.439.255	2.317.916.195	735.916.214
	Hotel, Tourism	163	2.863.768.774	1.247.338.654	2.335.371.047
	Finance, Banking	60	788.150.000	738.895.000	642.870.077
	Culture-Medicine-Education	201	904.212.251	384.212.797	283.224.479
	Construction - New Urban Area	4	2.551.674.000	700.683.000	51.294.598
	- Office, Apartments	111	3.931.781.068	1.375.208.984	1.769.533.870
	- Infrastructure of EPZ-IZ	21	1.025.599.546	387.519.597	526.521.777
	Others	442	1.152.267.394	500.685.672	347.738.395
	Total	5.918	50.534.589.677	22.459.534.578	26.963.046.663

Figure 8: Foreign Direct Investment in Vietnam 1988-2005* (US\$)

Data Source: Ministry of Planning and Investment, Department of Foreign Investment press release of Dec. 20, 2005.

*As of December 20, 2005.

Sector	1995	2000	2001	2002	2003	2004
State owned	374	517	661	631	668	688
Social	130	311	399	440	487	481
Private	15	25	41	44	44	52
Total	519	853	1101	1115	1199	1221

Figure 9: R&D Organizations in Vietnam

Data Source: MINISTRY OF SCIENCE AND TECHNOLOGY, KHOA HỌC VÀ CÔNG NGHỆ VIỆT NAM 2004 [SCIENCE AND TECHNOLOGY OF VIETNAM 2004] 42 (Hanoi 2005).