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Author(s)	Kongolo, Tshimanga
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The International Intellectual Property System and Developing Countries Before and After the TRIPs Agreement: A Critical Approach*

Tshimanga Kongolo**

Abstract

This Article examines the dilemma facing developing countries in the course of implementing the so-called international norms embodied in the TRIPs Agreement, with particular emphasis on patent issues. India, Brazil and Mexico patent systems are evaluated.

This study arrives at the conclusion that without appropriate national policies, developing countries will be at the losing end. We recommend developing countries to strengthen their anti-monopoly and competition laws, adopt appropriate measures to safeguard the consumers' interests, consider a new approach to public interest, introduce the utility models regime, and adopt worldwide exhaustion as regards patents, with local working as an exception.

Keywords: developing country, intellectual property, TRIPs Agreement, India, Brazil, Mexico.

* This is a brief summary of our Ph.D. Thesis written under the supervision of Professor Junichi Eguchi and to whom we are very indebted. We have intentionally omitted parts of this thesis that are already published elsewhere.

**Research Associate, Osaka School of International Public Policy, Osaka University.

I. INTRODUCTION

In the last two decades, intellectual property protection has gained more attention within the international framework. The necessity to harmonize different national laws pertaining to the protection of intellectual property rights of member countries of international organizations, has been acknowledged. Under this perspective, WIPO played an important role in the past. In order to achieve its objectives, WIPO has considered the interests of both developed and developing countries.

However, it should be noted that the difference between these interests has given rise to a struggle over the level of protection of intellectual property rights. The struggle between the two camps is not new. Developing countries allege that they do not find any merit in providing strong protection of intellectual property rights that are created, in most cases, in developed countries. Furthermore, they argue that the protection of intellectual property entails expenses that they cannot afford due to their economic situation. Meanwhile, it is undeniably true that developing countries - importers of technology - need investment and technology to develop their industries, and thus to better the well-being of their nationals. It should be noted that most developing countries encounter problems in implementing international requirements at the national level. That makes them question the positive impacts of the alleged protection of intellectual property in worldwide perspective because the protection of intellectual property rights does not bring positive changes in their economies.

Developed countries seek more protection of intellectual property rights universally without reference to the level of development. In other words, for developed countries, it is utmost that intellectual property rights are protected in the same manner in both developing and developed countries. Thus, they argue that it is imperative to provide international standards of protection of intellectual property. Furthermore, developed countries - exporters of technology - argue that the so-called transfer of technology must be carried out in a safe environment where intellectual property rights are enforced.

The failure of the WIPO to bridge the gap of interests between the two camps,

and to assure the revision of its conventions*¹, prompted developed countries to adopt another strategy. Developed countries, as a policy, decided to link trade with intellectual property and brought the related matters under the umbrella of GATT. At the outset of discussions, most developing countries were against such insertion. They alleged that WIPO was better qualified to deal with issues pertaining to the protection of intellectual property rights. The threat of sanctions and the fear of isolation obliged developing countries to accept such a shift. Finally, developing countries concluded the Convention Establishing the World Trade Organization (hereinafter WTO). By adopting the Convention Establishing the WTO, all members (developed and developing countries) are obliged to comply particularly with its requirements which are embodied in the Agreement on Trade Related-Aspects of Intellectual Property Rights called the "TRIPs Agreement." The implementation of the TRIPs Agreement at the national level, particularly with regards to developing countries, has various implications. Will developing countries benefit economically from strengthening their protection of intellectual property? This question has not yet found an adequate answer. Their economic levels do not enable them to cope with the two realities: strong protection of intellectual property rights and development needs.

We must confess that it is not an easy task to deal with issues pertaining to the protection of intellectual property rights in developing countries. The global perception of the matters cannot be reached without having a general picture of the way intellectual property rights are protected within the international framework. Under this perspective, and because of the correlation between the TRIPs Agreement and the pre-existing instruments of protection of intellectual property, we analyze, in a theoretical approach, the main provisions of the Paris Convention for the Protection of Industrial Property and the issues stemming from the protection of intellectual property in developing countries before examining the innovations of the TRIPs Agreement in the field of patents. Furthermore, we will highlight, in a comparative approach, the patent protection systems existing in selected developing countries: India, Brazil and Mexico. We will mainly compare the existing patent systems of those countries with the TRIPs Agreement, with particular reference to conflicting issues. Finally, the implications of the TRIPs Agreement for developing

1) There are several conventions administered by the WIPO.

countries are examined. Under this perspective, we will attempt to answer to the following key questions:

1. Does the TRIPs Agreement Facilitate the Transfer of Technology between Developed and Developing Countries?
2. Is the TRIPs Agreement Overprotective, Coercive and Outdated?
3. How Should Developing Countries Escape from Strong Patent Protection Provided under the TRIPs Agreement?

This study aims at highlighting difficulties developing countries would encounter while implementing the TRIPs Agreement. Moreover, this article endeavors to recommend developing countries to adopt some policies that would enable them to counterbalance (overcome) the required strong patent protection.

II. The Pre-Existing International Instruments of Protection of Intellectual Property (WIPO System)

Due to the complexity of the notion "developing countries", under the present study, any country member recognized as such within the framework of the UN customary practice, will be deemed to be a developing country. We recommend readers to refer to specialized literature on the subject²⁾.

Prior to the establishment of the World Trade Organization (WTO), the international institution directed to deal only with the protection of intellectual property within the international framework was the World Intellectual Property Organization (hereinafter WIPO)³⁾. WIPO administers several conventions relating to the protection of intellectual property rights. Under this study, we will mainly deal with the Paris Convention for the Protection of Industrial Property by focusing on

2) Several schools of thought attempted to define development. The author recommends readers to refer to the works of the following scholars:

*WALT W. ROSTOW, *THE STAGES of ECONOMIC GROWTH*, CAMBRIDGE, CAMBRIDGE UNIVERSITY PRESS, 1960.

*Robert Solow, *A Contribution to the Theory of Economic Growth*, 70 *QUARTERLY JOURNAL of ECONOMICS* (1956). See also *Technical Change and Aggregate Production Function*, 39 *REVIEW of ECONOMICS and STATISTICS* (1957).

*Robert Lucas, *On the Mechanics of Economic Development*, 22 *JOURNAL of MONETARY ECONOMICS* (1988).

*SAMIR AMIN, *UNEQUAL DEVELOPMENT: AN ESSAY ON THE SOCIAL FORMATIONS OF PERIPHERAL CAPITALISM*, NEW YORK, MONTHLY REVIEW PRESS, 1976.

3) The objectives of the WIPO are as follows:

- (i) to promote the protection of intellectual property throughout the world through cooperation among States and, where appropriate, in collaboration with any other international organization;
- (ii) to ensure administrative cooperation among the intellectual property Unions, that is, the "Unions" created by the Paris and Berne Conventions and several sub-treaties concluded by members of the Paris Union.

patent issues.

1. Paris Convention for the Protection of Industrial Property

The Paris Convention was signed in Paris on March 20, 1883 and became effective in 1884. It has been amended several times⁴⁾. The Paris Convention has the merit to provide rules to be respected in the field of industrial property within the international framework. It has played a significant role in the course of harmonizing national industrial property laws of its members. The Paris Convention has been considered as a "Model" of legislation in the field of industrial property for most developing and developed countries parties to the Union. This Convention also gives member States the authority to deliberately decide their policies according to their levels of development and their priorities.

Paris Convention has set general provisions to be respected and implemented by all member countries in their respective national laws: principle of national treatment⁵⁾, principle of priority⁶⁾ and the principle of independence⁷⁾.

In the field of patents, the Paris Convention has provided rules that members should implement at the domestic level. What should be mentioned is that the Paris Convention has given its signatories a certain amount of leeway to determine the scope of protectable matters⁸⁾, the exclusive rights to confer to the patentee⁹⁾,

4) Paris Convention has been revised at Brussels on December 14, 1900, at Washington on June 2, 1911, at the Hague on November 6, 1925, at London on June 2, 1934, at Lisbon on October 31, 1958, and at Stockholm on July 14, 1967.

5) According to Article 2 of the Paris Convention, as regards the protection of industrial property, nationals of one of the countries of the Union shall enjoy in the territory of other member countries the same treatment as well as advantages accorded to their nationals.

6) Paris Convention has prescribed periods in which priority would be granted to any person if applications have been filed for patent, or for the registration of a utility model, or a trademark, or of an industrial design in one of the countries of the Union. Those periods of priority are fixed for twelve months as to patents and utility models, and six months for trademarks from the filing date of the first application.

7) Article 4 bis prescribes as follows:

(1) Patents applied for in the various countries of the Union by nationals of countries of the Union shall be independent of patents obtained for the same invention in other countries, whether members of the Union or not.

(2) The foregoing provision is to be understood in an unrestricted sense, in particular, in the sense that patents applied for during the period of priority are independent, both as regards the grounds for nullity and forfeiture, and as regards their normal duration.

8) Paris Convention has left to the discretion of each member to determine the scope of protection of patent rights. Generally speaking, patent is granted for "inventions" that fulfill some conditions set by each member country.

9) Despite the lack of explicit provisions dealing with rights and obligations of the patentee or right holder, under the laws of a large number of member countries of the Paris Convention, exclusive rights are granted. The patentee is the "monarch" of his property. He has the monopoly rights to exploit his property. A misuse of the owner's rights constitutes an infringement.

the conditions for granting compulsory license¹⁰⁾ including facts which may be considered to be the "working or non-working" of patent¹¹⁾, and the period of protection¹²⁾. It should be pointed out that the Paris Convention does not contain provisions relating to the enforcement of patent rights. The Paris Convention contains only very few provisions which are binding upon the substantive law of the member countries. Any member country may shape its domestic patent law to suit its respective needs and interests¹³⁾.

The UN requested for the revision of the Paris Convention to take into account claims of developing countries.

2. Specific Issues Raised in the Course of Intellectual Property Protection in Developing Countries

There are many studies and discussions regarding the protection of intellectual property rights in developing countries. There are in general three approaches: the case for strong intellectual property rights protection, the case against strong intellectual property rights protection, and the alternative attitude.

Under the UNCTAD and WIPO, the essential points discussed since 1974 involve the scope of protection of patents, the exclusivity of rights conferred, the compulsory licensing, the period of protection and the enforcement of intellectual property rights.

A. Scope of Protection of Intellectual Property Rights

With respect to patents, developing countries opposed the enlargement of the scope of patent - to include for example the pharmaceutical products - on the grounds that it is a matter of public policy for each individual country¹⁴⁾. In addi-

10) When an invention has not been worked or exploited by the patentee or the right holder in a required period, any interested party may request for the grant of compulsory license. In the same sense, a compulsory license might be granted to a third party in the hypothesis where a patentee abuses the exclusive rights conferred by the patent. It should be mentioned that a grant of a compulsory license may not be applied before the expiration of a period of four years from the date of filing of the patent application or three years from the date of the grant of the patent.

11) Most member countries prescribe period within which the patentee or the right holder must exploit or work his patent (invention).

12) Under the Paris Convention, no term of patent protection has been provided. Member countries have a certain amount of leeway to determine the period of protection of the patentee's exclusive rights. Developing countries have advocated a shorter protection period.

See M.HIANCE & Y.PLASSERAUD, BREVETS ET SOUS-DEVELOPPEMENT: LA PROTECTION DES INVENTIONS DANS LE TIERS-MONDE (1972).

13) Hans Peter Kunz-Hallstein, Patent Protection, Transfer of Technology and Developing Countries -- A survey of the Present Situation, 6 IIC, 4, 1975, at 442.

14) Kastenmeier & Beier, Intellectual Trade and Intellectual Property: Promise, Risks, and Reality, 22 VAND. J. OF TRANS. L., 1989, at 295.

tion, those countries opposed the expansion of the scope of patentability as it would have negative implications¹⁵⁾ for the economy of developing countries, since it would favor large scale companies from developed countries and lead to the monopolization of industries.

During the debate over the Draft of the Patent Law Treaty, developing countries argued that in respect of fields of technology eligible for patent, there should be a degree of flexibility that allow countries to exclude certain types of technology from their respective patent system. They added that those exclusions had a very substantial importance in the improvement of people's welfare, the enhancement of industrial development and other aspects in their national development. In addition, they believed that, in that regard, moral and ethical principles that were generally accepted should have been taken into consideration¹⁶⁾.

Developed countries advocated, during the debate on the Draft of Patent Law Treaty, strong protection of patent and supported the trend to provide patent protection in all fields of technology for both products and processes¹⁷⁾. In summary, the broader the scope of protection of intellectual property rights, the more developing countries are burdened to protect them.

B. Exclusivity of Rights Conferred

Developing countries see the exclusive rights conferred to the owner of the intellectual property rights as excessive¹⁸⁾.

As Oddi has noted, the exclusive right granted to a foreign patentee favors an import monopoly on the patented invention¹⁹⁾. Considering the need of developing countries in the course of their development, it seems important to recognize and to provide exceptions to the exclusive rights.

In respect of product patents, developing countries were firmly convinced that those basic rights should only consist of the making, selling and using of the pat-

15) The relatively strong protection of intellectual property rights, in particular as regards inventions, has not led to a high rate of patent registrations in African countries, nor has it stimulated technology transfer into these countries.

See Yusuf A.A. (1995), Intellectual Property Protection in the Countries of Africa, *INT. J. TECHNOLOGY MANAGEMENT*, Special Issue on the Management of International Intellectual Property, Vol. 10, 2/3, pp. 269-292.

16) Records of the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as far as Patents are Concerned, WIPO, 1991.

17) *Id.*

18) See Foyer, *Problemes Internationaux Contemporains des Brevets d'Inventions*, in 171 *DE L'ACADEMIE DE DROIT INTERNATIONAL*, Recueil des Cours 340, 378-402 (1981).

19) Samuel Oddi, *The International Patent System and Third World Development: Reality or Myth?*, *DUKE LAW JOURNAL*, 1987, 831-877.

ented product, while whether or not the patent confers a right of importation should be left to the national laws. As regards process patents, they believed that the fundamental rights conferred to the patent holder was to prevent unauthorized use of patented process. They should not extend the protection to products directly obtained from the process because it could allow extension of protection to unpatentable subject matter, or extend the term of product patent that should have lapsed²⁰⁾.

Developed countries asserted that the right holder should be able to control the commercialization of the patented products, which included the act of putting the product on the market and, therefore, comprised the act of importation. A right to prevent acts in respect of products directly obtained from a patented process was essential to ban the distribution of products that had been obtained by infringing the patented process²¹⁾.

C. Compulsory Licensing

Developing countries favored the expanded use of compulsory licenses. However, developed countries opposed such view. Indeed, according to developed countries, an invention, for instance, is a fruit of a lengthy research process. A patent shall be considered as a reward to an inventor. The recognition of compulsory licensing goes against this spirit.

Developing countries instead, have considered the regime of compulsory license as a limitation to the excessive exclusive rights granted to the owner of the intellectual property. This is especially salient in the case where the owner of patent or the right holder does not accord any license or does not exploit or work locally his invention. A "non-use" of intellectual property rights during a certain period of time may be considered to be reasonable grounds for granting compulsory licensing.

20) supra note 16.

21) supra note 16.

D. Period of Protection

There were several discussions as to the duration of intellectual property rights protection in developing countries. The period of protection is more in line with the exclusive rights accorded to the owner or right holder of intellectual property. The longer the term of protection is, the longer exclusive rights granted to the owner or the right holder last. In this context, developing countries advocated shorter period of protection of intellectual property rights in general and patent rights in particular.

Previous to the adoption of the TRIPs Agreement, a large number of developing countries provided patent protection for a period of 7 to 20 years.

In the opposite camp, developed countries argued for a much longer protection of patent rights.

E. Enforcement of Intellectual Property Rights

Developed countries urged developing countries to enforce more effectively their Laws and Regulations relating to intellectual property. According to developed countries, insufficient protection of intellectual property rights may lead to an increase of piracy or counterfeit goods.

Developing countries, however, asserted that an effective enforcement of intellectual property rights brings about no benefits and is instead costly²²⁾.

III. Patent Protection under the TRIPs Agreement (WTO System)

After several discussions and debates undertaken under the auspices of the GATT²³⁾ (Uruguay Round), in April 1994²⁴⁾, the Convention Establishing the WTO

22) Regarding costs and benefits of intellectual property to developing countries, Deardorff has stated the following:

First, taking the perspective of the world as a whole, if the costs of extending intellectual property protection exceed the benefits, then extending it is inefficient and should be rejected from a world welfare point of view. Second, when the incidence of these costs and benefits is not uniform, with the costs instead being borne disproportionately by one group in society and the benefits largely accruing to another, then the distributional implications of extending intellectual property protection should also be considered.

See Allan V. Deardorff, Should Patent Protection Be Extended to All Developing Countries?, 13 *WORLD ECONOMY*, 4, 1990, at 500.

23) Asif H. Qureshi, The Role of GATT in the Management of Trade Blocs, 27 *JOURNAL OF WORLD TRADE*, 3, June 1993.

24) See Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, April 15, 1994 (Marrakech).

was adopted.

As mentioned above, the WTO through the TRIPs Agreement has obliged developed and developing countries that are members to meet its requirements in the field of intellectual property in general and patents in particular. It is meaningful before highlighting the innovations of the TRIPs Agreement in the field of patent to address the issue pertaining to the relation between the pre-existing system and the actual system.

1. Relation between the Paris Convention and the TRIPs Agreement

According to Article 2 (1) of the TRIPs Agreement, members shall comply with Articles 1-12 and 19 of the Paris Convention (1967). In other words, every member country of the WTO is obliged to implement at the domestic level Articles 1-12 and 19 of the Paris Convention (1967), being member signatory or not of the Paris Convention. The simple fact of adhering to the WTO implies the respect of the above-mentioned provisions of the Paris Convention. Under this approach, unless otherwise stipulated, the Paris Convention for the Protection of Industrial Property is an integral part of the TRIPs Agreement.

Despite this apparent inclusion of the pre-existing system into the new system of protection of intellectual property, it should be pointed out, however, that the TRIPs Agreement has in most cases strengthened the protection or extended the scope of protection by including new items within the patent protection sphere. In addition, most provisions of the TRIPs Agreement bind every member country of the WTO. In the sense that most provisions are mandatory and do not give enough space to countries to design their national laws in accordance with their needs and priorities. There is no other alternative than complying with the TRIPs Agreement. Matters which were left under the discretionary authority of every member of the Paris Convention have been, under the TRIPs Agreement, strengthened.

2. Innovations of the TRIPs Agreement in the Field of Patents

In the area of patents²⁵⁾, the TRIPs Agreement provides rules regarding the patentable subject matter, rights conferred, conditions on patent applicants, the compulsory license, the term of protection and the enforcement of rights. In the present study, attention will be drawn to the innovations of the TRIPs.

TRIPs provides three conditions for the patentability of inventions. The invention shall be new, involve an inventive step and be capable of industrial application. In addition, the TRIPs Agreement has extended the scope of the availability for patent to inventions in all fields of technology, and regardless of the place of invention and whether products are imported or locally produced (Article 27(1)). TRIPs recommends countries to make patent protection available for pharmaceutical (products and processes) and agriculture chemical products²⁶⁾. TRIPs likewise provides items to be considered unpatentable (Article 27 (2-3)).

The TRIPs Agreement, while providing for the exclusivity of rights of the patentee, has at the same time acknowledged some limits or exceptions to these rights (Article 30). As regards compulsory licenses, TRIPs sets conditions that each member shall comply with while granting a compulsory license to a third party²⁷⁾.

TRIPs considers the importation of patented products to be the "working of patents". According to developing countries, this provision would favor the import monopoly instead of inducing multinational companies or technology producers to work locally their inventions in developing countries. This provision may have some negative implications for the so-called transfer of technology between devel-

25) According to Martin Adelman and Sonia Baldia, a universal patent system will, on the whole, benefit the world community by eliminating the free-riders' disincentives to innovate in all market structures and by increasing the supply of needed inventions that would otherwise not have been made. See Martin Adelman & Sonia Baldia, *Prospects and Limits of the Patent Provision in the TRIPs Agreement: The Case of India*, 29 VAND. J. OF TRANS. L., (1996) at 507.

See Tshimanga Kongolo, *Prospective Reform in Zairian Patent Law After the Enforcement of the TRIPs Agreement*, 1 INTERNATIONAL PUBLIC POLICY STUDIES (March 1997) at 147-160.

26) TRIPs Agreement, Article 70 (8).

Under Article 70 (9) the TRIPs Agreement provides that where a product is the subject of a patent application in a member in accordance with paragraph 8 (i), exclusive marketing rights shall be granted, for a period of five years after obtaining market approval in that member or until a product patent is granted or rejected in that member, whichever period is shorter, provided that, subsequent to the entry into force of the Agreement Establishing the WTO, a patent application has been filed and a patent granted for that product in another member and marketing approval obtained in such other member.

27) TRIPs has narrowed the scope of applicability of compulsory licenses. See Article 31 of the TRIPs Agreement.

oped and developing countries.

Under the TRIPs Agreement, the term of protection of patent is set at a minimum of 20 years from the filing date of application (Art. 33).

It should be pointed out that the TRIPs Agreement requires member countries of the WTO to provide enforcement rules and procedures under their national laws (Article 41). These rules shall be fair and equitable and shall not constitute grounds to the creation of barriers to legitimate trade and members shall also safeguard measures against their abuse.

IV. Comparative Analysis of Patent Systems of Developing Countries

This section intends to scrutinize the patent systems elaborated in developing countries, namely India²⁸⁾, Brazil²⁹⁾ and Mexico³⁰⁾ by putting more emphasis on the conflicting issues with reference to the TRIPs Agreement³¹⁾.

The inescapable conclusion which emerges from the analyses of intellectual property rights protection in developing countries is that despite their different levels of development, in the sense that some are considered to be LDCs and some others developing countries, it must be acknowledged that there are fundamental similarities between them. In actual fact, it would be more accurate to say that most developing countries encounter difficulties in the course of implementing international rules pertaining to intellectual property.

Most of them until recently, excluded from patentability some areas of technology, such as pharmaceuticals and agro-chemicals. India³²⁾ excludes from patentability pharmaceutical products, agro-chemical products and foods³³⁾. Under the Patent (Amendment) Ordinance, 1994, the protection has been extended to products or substances themselves³⁴⁾. However, this amendment has not come into force. Brazil,

28) The basic law governing patents in India is the Patents Act, 1970. It has been amended in 1994 but the revised version is not in force since the parliament has not adopted yet the amended Act, so-called the Patents (Amendment) Ordinance, 1994.

29) The Brazilian new Industrial Property Act was enacted on May 14, 1996 replacing the Law no 5.772, of December 21, 1971 (Brazilian Industrial Property Code). It entered into force on May 14, 1997.

30) The Mexican Law of 1991 Law was amended in 1994.

31) For more details, see our Ph.D. Thesis: The International Intellectual Property System and Developing Countries Before and After The TRIPs Agreement: A Critical Approach, Osaka University, March 1998.

32) Most of data were collected during our research in India (April 1997).

33) Elizabeth Henderson, TRIPs and the Third World: The Example of Pharmaceutical Patents in India, 11 E.I.P.R. (1997) at 659.

34) Tshimanga Kongolo, *Indo to TRIPs Kyotei ni kansuru Tokkyo Hogo Hanii oyobi Tokkyo Hatsumeino Jisshi*, HATSUMEI, Vol. 95, n. 5, 1998, at 44.

See also Isao Noishiki, *Tokkyo no Zaisankenteki Honshitsu wo Ronzu*, 15 KANSAI DAIGAKU HOGAKU KENKYUSHO (1997) at 38.

before the enactment of the new law, did not grant protection to inventions relating to pharmaceuticals, agro-chemical products and foods. In Mexico, prior to the enactment of the 1991 Law, patents were not available as regards inventions pertaining to pharmaceutical and agro-chemical products.

The enlargement of the scope of patent to cover any invention in all fields of technology has several implications in developing countries. In addition, developing countries have been left no choice but to comply with the TRIPs Agreement, especially as regards the scope of protection of patent. As the realities existing in these developing countries have not been taken into consideration, the negative outcome is obvious. As mentioned above, the reason for excluding these areas is that they relate to the health of people and they are matters of public policy of each country, and shall be left out of the purview of patents.

Another issue relates to the compulsory license and the non-working locally of patented inventions in the countries where patents are protected. This is a big issue. As often stated, there will be no meaning to grant a patent if it is not worked domestically in the concerned country. India, Brazil and Mexico have provisions relating to the granting of compulsory license for non-working of the patented inventions. It should be noted that the Indian Patent Law, in addition, provides for the automatic "licenses of right" in the food, pharmaceutical and chemical sectors with regard to the patented processes from the date of expiration of three years from the date of sealing of the patents. However, Mexico, under its 1994 Industrial Property Law, compulsory licenses for non-working of patented inventions have been largely restricted to exceptional circumstances.

All of them require the patentee or the right holder to exploit the patented invention domestically, otherwise, a third party may be allowed through the compulsory license to use the patentee's exclusive rights. Generally, the importation of patented products is not deemed to be the working of patent. Despite this general principle, Brazil and Mexico have provided for some exceptions. In the case of Brazil, for economic reasons, the importation of patented products may be considered as the working of patent³⁵. Mexico, under the 1994 amendment, considers that the importation of patented products constitutes an exploitation of patent.

The working of patent is connected with the so-called transfer of technology. If foreign companies were not obliged to work the patented inventions, the patent

35) In the case the patentee does not get any economic profit (benefit) from the exploitation of his patent in Brazil.

system would fail to attain one of its aims which is to promote technology progress of recipient countries.

Let us look at the number of patent applications filed in India, Brazil and Mexico.

(Table1)

Table Showing the Number of Applications for Patents from Persons in India and Abroad Year-wise from 1989-90 to 1993-94.

	1989-90	1990-91	1991-92	1992-93	1993-94
Indians	1,039	1,180	1,293	1,228	1,266
Foreigners	1	1	—	—	—
resident in India					
Foreigners	2,621	2,583	2,259	2,239	2,603
resident abroad					
Total	3,661	3,764	3,552	3,467	3,869

Source: Indian Patents Report (twenty second annual report), 1993-94.

The number of applications for patents received from Indian nationals and foreigners during the years 1989-90 to 1993-94 is shown in these tables. As it could be noticed, the number of applications for patents filed by foreigners is every year higher than the number of applications filed by Indian nationals. This demonstrates that applicants who seek the grant of patents are in majority foreigners.

(Table2)

Applications for Patents and Utility Models During the Years 1991-1995 in Brazil

Year	Patent of Invention			Utility Model		
	Resident	Non-Resident	Total	Resident	Non-Resident	Total
1991	2350	10302	12652	2869	26	2895
1992	2100	5071	7171	2193	26	2219
1993	2462	2891	5353	2553	31	2584
1994	2249	2896	5145	2309	35	2344
1995	2735	3392	6127	2977	37	3014

Source: Report of the INPI, 1996

According to the table, for the year 1991, the number of applications filed for invention patents was 2350 for residents and 10302 for non-residents. However, the

number decreased during the consecutive four years for non-residents. The number dropped from 10302 in 1991 to 3392 in 1995. We should mention that during five years (1991-1995), the number of applications filed by non-residents was higher compared with the number of applications filed by residents in Brazil. This illustrates that more invention patents in Brazilian are granted to non-residents or foreign companies.

Notwithstanding the overwhelming number of applications filed by foreigners as regards invention patents, in the area of utility models for small inventions, the number of applications emanating from residents was outstandingly large respectively during the years 1991-1995. The number shows the importance attached to utility models in developing countries in general and in Brazil in particular as regards small inventions which may not be protected under the patents for inventions.

(Table3)

Applications for Patents and Utility Models in the Years 1991-1995 in Mexico

		1991	1992	1993	1994	1995
Patents	<i>Nationals</i>	626	565	553	498	432
	<i>Foreigners</i>	4727	7130	7659	9446	4802
	<i>Total</i>	5353	7695	8212	9944	5232
Utility Models	<i>Nationals</i>	40	169	261	325	352
	<i>Foreigners</i>	9	34	81	94	61
	<i>Total</i>	49	203	342	419	413

Source: IMPI Report, 1996.

It is obvious through the present table that the number of applications for patents filed by nationals is decreasing since the enactment of the Industrial Property Law in 1991. While the number of applications filed by foreigners largely increased since 1991 before decreasing in 1995. The number of applications filed by foreigners attained its highest level in 1994 which coincide with the entry into force of the Industrial Property Amendment Law and NAFTA. We could expect the same trend in 1995; however, the number shows a different outcome. What should be

also noticed is that from 1991 to 1995 the number of applications filed by foreigners has been higher compared with the one filed by nationals.

Concerning utility models, the result is quite promising, in the sense that from the introduction of utility model regime in 1991 by the law mentioned beyond, the number of applications filed by nationals is largely higher than the one emanating from foreigners. The introduction of the utility model may be the cause of decreasing in number of applications filed for patents by nationals between 1991 and 1995.

Along with the above, it is essential to understand from the surveys that more applications for patents are filed by foreigners. Consequently, more patents are granted to foreigners. The patent may be used for import-monopoly purposes in case it is not worked locally. India, Brazil and Mexico are not exceptions.

Through the surveys, it can be said that the regime of utility models is more appropriate to developing countries because it encourages small inventions. Its adoption by all developing countries can be suggested³⁶⁾. Brazil and Mexico provide protection for utility models. Unlike Patents, the majority of utility models are applied and granted to nationals.

The regime of utility model is not new. In some developed countries such as Japan, the utility model helped enterprises to access new technology and to improve small inventions which contributed to the development of the country. The example of Japan³⁷⁾ can inspire developing countries to adopt the utility model regime in order to favor small inventions³⁸⁾. The small and medium-sized firms would benefit from the adoption of the regime of utility model because it creates incentive to undertake inventive activities without imposing big burden. Several studies confirm this finding³⁹⁾.

The term of protection of patents varies from one country to another. India provides the duration of patents for 5 years from the date of the issue of patent or 7

36) The utility model regime is provided under the Paris Convention for the Protection of Industrial Property. The TRIPs Agreement has not mentioned it under its provisions.

37) Japan was the first country after Germany to introduce a Utility Model Act (1909).

See Christopher Heath, Continuity and Development in Japanese Intellectual Property Rights, 26 IIC (1995) at 909.

38) See Kobashi Kaoru, Jitsuyoshinan-Ho Kaisei no Eikyo, 16 NIHON KOGYO SHOYUKEN GAKKAI NENPO (1991) at 154.

See also Kumagai Kenichi, Jitsuyoshinan-Seido no Minaoshi ni Tsuite, 16 NIHON KOGYO SHOYUKEN GAKKAI NENPO (1991) at 143.

39) In the light of what has been argued earlier, it should be clear that the system of utility model as regards small inventions fits well to the need of developing countries. It was demonstrated through the study of some developing countries which have adopted this regime that, unlike patent, the number of applications filed by residents as regards utility model was higher than the number of applications filed by non-residents.

years from the filing date of application as regards drugs and foods (processes). Regarding other patents, the term of protection has been set at 14 years from the date of patent. Under the Brazilian Law, the term of protection has been extended from 15 to 20 years from the date of filing of application for patent. The same thing can be said in respect of Mexico which has extended the term of protection of patents from 14 (from the granting date) to 20 years from the filing date of application.

In summary, developing countries encounter tremendous difficulties in implementing the TRIPs Agreement. The necessity for these countries to adapt the so-called international rules to fit their national interests is required.

V. Implications of the TRIPs Agreement for Developing Countries

As stated above, TRIPs Agreement requires member countries of the WTO to respect its prescriptions without any consideration to the level of development⁴⁰⁾. In other words, developing countries which we have dealt with shall comply with the requirements of the TRIPs Agreement⁴¹⁾. Prior to the enactment of the TRIPs Agreement, most developing countries excluded from the ambit of patent protection some areas of technology. However, TRIPs recommends members to avail patent for inventions in all fields of technology.

Under the present study, we attempt to give answers to the following key questions:

1. Does the TRIPs Agreement Facilitate the Transfer of Technology between Developed and Developing Countries?
2. Is the TRIPs Agreement Overprotective, Coercive and Outdated?
3. How Should Developing Countries Escape from Strong Patent Protection Provided under the TRIPs?

40) Michael Rom, Some Early Reflections on the Uruguay Round Agreement as Seen from the Viewpoint of Developing Countries, *JOURNAL of WORLD TRADE*, 1994.

41) Harold C. Wegner, TRIPs Boomerang---Obligations for Domestic Reform, 29 *VAND. J. of TRANS. L.*, 534-558 (1996).

1. Does the TRIPs Agreement Facilitate the Transfer of Technology between Developed and Developing Countries?

The issue entails evaluating whether the system of protection embodied into the TRIPs Agreement facilitates the transfer of technology between developed and developing countries.

It is needless to mention that the so-called transfer of technology between developed and developing countries can be carried out through different means, such as technical assistance, direct investment, joint-venture, and license agreement.

However, TRIPs, under its rules, does not create any incentive for the patentee to license his technology. As mentioned above, the patentee can directly supply the market in a developing country without licensing his technology. Under the TRIPs Agreement, the importation of patented products in the country where a patent is protected is deemed to be the "working" of patent. In principle, countries are not allowed anymore to grant compulsory licenses to third parties on the ground that patents have not been worked locally when the patented products are imported in the concerned country by the patentee or the right holder.

Almeida P.R. points out that an exclusive focus on the monopolistic rights of the patent owner, without any concern for his obligations, would be particularly detrimental to the developmental efforts of the developing countries and would only widen the gap between industrialized and developing countries⁴²⁾.

Stumpf maintains that the role of patents in technology transfer cannot be overestimated⁴³⁾.

Analyzing the impact of TRIPs on the so-called transfer of technology, Verma argues that the TRIPs Agreement, by conferring specific power to import on the patentee and equating importation with working of the patent, has further reduced chances of working the patent locally and deprived the granting country of all chances for having access to patented technology⁴⁴⁾.

What we should do is to go beyond conventional measures to see who benefits. Referring to the provisions of the TRIPs Agreement, the position of developing

42) De Almeida Paulo R., *The Political Economy of Intellectual Property Protection: Technological Protectionism and Transfer of Revenues among Nations*, 10 INT. J. TECHNOLOGY MANAGEMENT (1995) at 221.

43) Herbert Stumpf, *Interests and Conflicts of Interest in Technology Transfer - The Role of Patents*, 9 IIC, no 4, (1978) at 315.

44) S.K. Verma, *TRIPs - Development and transfer of Technology*, 27 IIC, no 3, 1996, at 355.

countries regarding the transfer of technology has worsened because their economic level has not been considered. TRIPs Agreement has put more accent on the rights of technology holders rather than technology users.

2. Is the TRIPs Agreement Overprotective, Coercive and Outdated?

A large number of scholars distrust the notoriety of the TRIPs Agreement. The TRIPs Agreement is the transposition of the industrialized countries' national laws to the international framework. As previously mentioned, developed countries, especially the US, put pressure on developing countries to acknowledge the insertion of the TRIPs within the ambit of the GATT/WTO and to elevate the protection of intellectual property rights at its highest level.

Under WIPO framework, member countries were left free to determine the appropriate system to protect intellectual property rights. Developing countries could design their laws in accordance with their developmental needs. They could adopt adequate rules and policy to implement international recommendations embodied in the WIPO and its conventions. Unlike the pre-existing instruments of protection of intellectual property, TRIPs recommends its members (developed and developing countries) to comply with its requirements without considering the priorities and levels of development. On the other hand, developing countries do not consider the protection of intellectual property as a matter of the utmost importance.

As mentioned above, in some respect, the minimum standards of protection prescribed under the TRIPs Agreement are more in conformity with the industrialized countries' vision. The fact that the TRIPs Agreement safeguards the sole interest of developed countries, it renders its implementation uncertain in developing countries.

Imposition of foreign legal standards on unwilling states in the name of "harmonization" constitutes a polite form of economic imperialism⁴⁵⁾.

45) See Reichman, , Intellectual Property in International Trade: Opportunities and Risks of a GATT Connection, 22 VAND. J. OF TRANS. L., (1989), at 813.

See also LADAS, PATENTS, TRADEMARKS, AND RELATED RIGHTS: NATIONAL AND INTERNATIONAL PROTECTION (1975); Ullrich, GATT: Intellectual Property Protection, Fair Trade and Development, in GATT or WIPO (1989).

Harmonization of law involves a search for uniform solutions; in certain areas it may be simply undesirable or impracticable from a country's national point of view, since the concession to achieve agreement may not be worth it.

Ullrich states that the balance of minimum rights and national treatment is entirely altered if national treatment is sought not for minimum, but for high level protection with a view to obtaining industrial property control over both the domestic market of exporting countries and the import market of third countries.

The TRIPs Agreement by extending the scope of protection of intellectual property in general and patent in particular, has likely engendered further issues. The point to be made here is that in the pharmaceutical and chemical fields, the extension of protection to products is not welcomed in developing countries in the sense that it would be utilized as a tool to control, in case of monopoly, the flow of drugs without consideration to the social dimension. In addition, under the TRIPs Agreement, rights conferred in respect of patents for processes must extend to the products directly obtained by the process⁴⁶⁾. Under this approach, it could be alleged, from the view point of developing countries, that TRIPs is overprotective.

A number of scholars maintain that the TRIPs Agreement is already outdated because it is not able to give answers to the existing issues stemming from the protection of intellectual property rights. The resulting tensions can only be lessened through good faith negotiation and cooperation between states, in the manner that takes into account the interests of developed countries without prejudicing the interests of developing countries⁴⁷⁾. In this connection, Rom has pointed out that it is important that more flexibility should be introduced in the system to enable weak, developing countries to cope with their problems⁴⁸⁾. Reichman argues that mature intellectual property systems produce harmful results when transposed to the developing country milieu without proper adjustments for local needs and conditions⁴⁹⁾.

Claudio Frischtak⁵⁰⁾ has advocated in his study the differentiated regimes in the course of protection of intellectual property rights instead of harmonized regimes. He has alleged that differences in individual country characteristics, stage of development and budgetary constraints make differentiated regimes superior from a domestic welfare perspective⁵¹⁾.

In conclusion, the TRIPs Agreement is a product of coercion, pressure from developed countries rather than a result of consensus between developed and developing countries.

46) E. Opoku Awuku, How Do the Results of the Uruguay Round Affect the North-South Trade, *JOURNAL of WORLD TRADE*, 1994, at 84.

47) See Reichman, *supra* note 45, at 814.

48) Michael Rom, *supra* note 40, at 30.

49) Reichman, *supra* note 45, at 867.

50) Claudio R. Frischtak, Harmonization versus Differentiation in International Property Rights Regimes, 10 *INT. J. TECHNOLOGY MANAGEMENT*, 1995, at 203.

51) *Id.*, at 201.

3. How Should Developing Countries Escape from Strong Patent Protection Provided under the TRIPs?

As stated above, developing countries must adopt effective and adequate strategies to overcome strong protection of intellectual property as provided under the TRIPs Agreement. Developing countries expect to acquire technology and investment that would lead to the welfare of people.

Ringo argues that sovereign rights need to be respected, especially the recognition of the need for the economic, social and technological development of all countries to ensure balance between these needs and the rights granted to intellectual property rights holders-ensuring proper and effective diffusion of technology to meet them⁵²⁾.

Braga has emphasized that for a Third World country a reform designed to increase intellectual property rights protection will tend to generate a welfare loss at its initial stages. Because LDCs are typically net importers of technology, a usual consequence of a more strict regime of intellectual property laws would be an increase in royalty payments to foreigners⁵³⁾.

How can developing countries escape from strong protection of intellectual property rights? Developing countries should recourse to three means to escape from strong protection of intellectual property rights:

- Strengthening of Anti-Monopoly and Competition Laws
- Adoption of Measures that Safeguard Consumers' Interests
- Adoption of New Approach to Public Interest

Developing countries must strengthen their anti-monopoly laws and competition laws. The anti-monopoly laws should be able to find out the line of demarcation between the protection of intellectual property rights and anti-competitive practices⁵⁴⁾. Each developing country must determine acts that cross the borderline between the intellectual property law and anti-monopoly law or competition law⁵⁵⁾. It should be clearly stipulated under these laws that the abuse of monopoly right of

52) Frederick Ringo, *The Trade-Related Aspects of Intellectual Property Rights in the GATT and Legal Implications for Sub-Saharan Africa*, J.W.T., 1995, at 128.

53) C.A. Primo Braga, *The Economics of Property Rights and the GATT: A View from the South*, 22 VAND. J. OF TRANS. L., 1989, at 256.

54) For more discussion, see Matsushita Mitsuo, *Dokusenkinshi-Ho no Shiko*, 13 KEIZAI-HO-GAKKAI NENPO (1992) at 18-19.

Yamabe Toshifumi, *Dokusenkinshi-Ho Ichinen no Ugoki*, 15 KEIZAI-HO-GAKKAI NENPO (1994) at 146-154.

55) See MURAKAMI MASAHIRO, *DOKUSENKINSHI-HO*, 1st Edition, KOBUNDO (1996) at 21.

any intellectual property right violates the anti-monopoly law. Each developing country should adopt competition laws in conformity with its needs and priority. The developing countries' competition laws should be against power, exploitation, and exclusion of the weak by the powerful⁵⁶⁾. These laws should be non-discriminatory and transparent to enable any person who suffered from the abuse of intellectual property to recourse to.

In the field of intellectual property, the protection of consumers' rights is in close relation with different rules relating to competition laws that prevent the owner of intellectual property from abusing his exclusive rights. In this connection, in order to safeguard the interests of consumers, developing countries should effectively enforce their consumer laws. In the same line of reasoning, government must assist consumers if the protection of intellectual property rights entails negative implications to their situation. For example, in the pharmaceutical area, the government can intervene by adopting measures aiming to control the price of pharmaceutical products. The anti-monopoly laws, competition laws and consumer-related legislation pursue the same objective, that is, to protect the interests of consumers and maintain fair competition among competitors.

The problem of reconciling the public interest (national interest) at the domestic level with the nature of the international recommendations has become of increasing importance. The resolution of this basic dilemma between domestic norms and international rules is essential to the future viability of the international system of protection of intellectual property rights.

Each developing country must effectively implement rules that would favor national gain. In other words, as a policy, rules embodied into the TRIPs that are in conformity with the interests of a concerned developing country should be fully implemented at the national level. Developing countries should let public interest prevail whenever there is a conflict between international recommendations and national needs and priorities.

56) Eleanor M. Fox, Trade, Competition, and Intellectual Property- TRIPs and its Antitrust Counterparts, 29 VAND. J. of TRANS. L. (1996) at 499.

See Aaditya Mattoo & Arvind Subramanian, Multinational Rules on Competition Policy- A Possible Way Forward, 31 JWL (1997) at 95-114.

VI. Conclusion and Recommendations

This study has attempted to scrutinize difficulties developing countries encounter while implementing the TRIPs Agreement in the area of patent. It has been noted that the pre-existing system of protection of patent embodied in the Paris Convention somehow took into consideration the interest of developing countries by giving them the authority to design their laws in accordance with their priorities. Notwithstanding that the previous system is not without flaws, it has been proved throughout the findings of this article that the TRIPs Agreement has worsened the situation of developing countries by providing rules that hamper a smooth transfer of technology between developed and developing countries. The TRIPs Agreement has neglected to take into account claims of developing countries addressed under the auspices of the UNCTAD and WIPO. In this connection, the TRIPs does not create incentive for multinational companies to invest in developing countries or locally work their inventions in those countries.

To respond to the expectation of developing countries in the area of intellectual property, TRIPs should adopt concrete measures to foster the cooperation between developed and developing countries. Furthermore, in the areas of technology that require more expenditure, the assistance and cooperation of developed countries are needed⁵⁷⁾.

The compliance with the TRIPs Agreement is not a priority for most developing countries. The most important thing is the system that can finally lead to the well-being of people. Under this perspective, developing countries should adjust their laws to meet their needs. In this regard, developing countries should let the public interest (national interest) prevail while protecting intellectual property in general and patent in particular. In the same line of reasoning, developing countries should adopt measures that safeguard the interest of consumers. In addition, they must strengthen or adopt new anti-monopoly and competition laws adapted to their realities.

Developing countries must adopt the utility model regime for small inventions.

57) See PETER NANYENYA, *TECHNOLOGY TRANSFER AND INTERNATIONAL LAW*, PRAEGER PUBLISHERS (1980) at 70-72.

The utility model regime to be adopted must permit rapid and simple registration. Each concerned developing country should provide the extent to which the utility model law applies. In the same line, the subject matter should be determined in order to avoid the confusion between patent and utility model. The applicant should prove the practicability of the invention to be eligible for protection.

Sharing the idea of Oddi⁵⁸⁾, we recommend developing countries to adopt a worldwide exhaustion⁵⁹⁾ doctrine as regards patents with some limitations in the case of local working⁶⁰⁾. An exception to this worldwide exhaustion rule may be considered in the case the patented invention is worked locally. If the invention satisfies the working requirements, the worldwide exhaustion should not be applied. Hence, the domestic patent owner or licensee could exclude patented products originating from other countries as an incentive for local working⁶¹⁾.

In conclusion, the TRIPs Agreement does not meet the expectation of developing countries regarding the protection of intellectual property rights within the international framework. It is time to rethink the whole international system of protection of intellectual property. Developing countries would not protect the rights of owners of intellectual property if the protection is harmful to local producers or local inventors. The protection of intellectual property should not become a barrier to free trade.

The setting up of the new system of protection of intellectual property requires the contribution not only from developed countries but also from developing countries.

In sum, because of technological differences between developing and developed countries (including differing levels of interest), the artificial uniformization of norms and standards for intellectual property rights protection, renders the TRIPs Agreement unrealistic and mal-adapted to the coming 21st century.

58) A. Samuel Oddi *TRIPs-Natural Rights and "a Polite Form of Economic Imperialism"*, 29 VAND. J. of TRANS. L., 1996, at 466-467.

59) See Eguchi Junichi & Chaen Shigeki, *Kokusai Torihiki to Chitekizaisan*, in Genzai Kokusai Torihihi-Ho Koza (Matsuoka Hiroshi) Horitsu Bunka-Sha (1996) at 190.

See also Shibuya Tatsuki, *BBS Arumihouru Jiken Saikosai Hanketsu*, 1119 JURISTO (1997) at 96.

60) Under the worldwide exhaustion doctrine, any patented product sold with direct or indirect authorization of the patentee or the right holder may be imported into the country without regard to whether that particular product is patented in that country.

61) The worldwide exhaustion would enable developing countries to tackle not only the issue relating to the working of patented invention domestically but it would also favor competition among competitors. Consumers would have more choices. In this connection, the import-monopoly would be reduced. We believe that patentees or right holders would prefer working their patented inventions locally than facing competition from uncontrolled and unknown competitors. Each developing country must take appropriate measures to implement this principle in accordance with its policy.