



Promoting Research and Development through Intellectual Property Protection: A legal analysis of the law on patents.

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Abstract: The Constitution provides that the State shall protect and secure the exclusive rights of scientists, inventors, artists, and other gifted citizens to their intellectual property and creations, particularly when beneficial to the people. The protection of intellectual property rights is vital to the growth and development of research as it promotes the dissemination of technology and information. This sector is particularly useful in times of national distress or crises. Inventions with a lapsed patent can be helpful in bringing age-old solutions to modern-day problems. Compulsory licensing under the Intellectual Property Code and the Cheaper Medicines Account can be utilized to allow a third-party manufacturers to reproduce a patented invention to meet short-term supply shortages. Further, the author proposes amendments to include the adoption of an international exhaustion regime for certain industries and providing for a definition of limited consent for exhaustion. Another proposed amendment is to shorten the negotiation process for voluntary licenses and to adjust the mechanism for compulsory licenses as well as to strengthen incentives for employees to innovate. On a national level, intellectual property enforcement must be strengthened, the widespread use of patent landscape report be adopted, and priority examination for useful inventions be employed.

Key Words: Patent; Intellectual Property; Innovation; Law; Compulsory Licensing.

1. INTRODUCTION

The Philippine Constitution provides that the State shall protect and secure the exclusive rights of scientists, inventors, artists, and other gifted citizens to their intellectual property and creations, particularly when beneficial to the people (1987 Constitution, Article XIV, Section 13). The phrase "particularly beneficial to the people" also means that the State shall extend adequate protection for inventions or curtail the same when the public interest so requires. Otherwise stated, the State is tasked to strike a delicate balance between private and public rights. By modifying certain provisions of the intellectual property code, enforcement of these rights can be strengthened, negotiations can be shortened, stronger safeguards for the protection of private interest can be placed, and public interest can be better served.

In the recent COVID-19 outbreak, Filipino scientists were able to develop a test kit that was cheaper than its imported counterparts (Quilinguing, 2020). In addition, architects and engineers are able to introduce inventions to combat the pandemic (i.e., designs for Personal Protective Equipment, low-cost ventilators, designs for isolation rooms, and portable testing centers). Such contributions must be protected in order to promote innovation and invention.

Regarding the development of drugs and medicines, current estimates of the cost of bringing a drug to the market vary between US\$161 million and \$2.6 billion (WTO-WHO-WIPO). A failure to protect or incentivize such research will only discourage investment. Needless to say, the usefulness of research and development cannot be discounted in times of crises.



Considering that the Philippines is a hot-bed for calamities, several laws were enacted to mitigate the effects of these risks. These include Republic Act 10121 (Philippine Disaster Risk Reduction and Management Act of 2010) and Executive Order 168 (Creating the Inter-Agency Task Force for the Management of Emerging Infectious Diseases in the Philippines). However, these laws only provide a response mechanism in times of distress and does not promote invention. This is the void which Republic Act 8293, the Intellectual Property Code ("I.P. Code")¹ seeks to fill.

The State can also employ push and pull mechanisms to incentivize research. Push mechanisms provide incentives even before research has started (i.e., research grants and tax breaks). While Pull mechanisms only provide a reward if a viable product emerges (i.e., prizes, advanced market commitments, and priority reviews) (WTO-WHO-WIPO).

Current pull mechanisms include R.A. 7459 ("Investors and Innovation Incentives Act"), which provides incentives for Filipino inventors. Under Section 4 thereof, Presidential awards for inventions consisting of Cash Rewards shall be granted to patented inventions in the Philippines ranging from Twenty thousand pesos (P20,000.00) to One hundred thousand pesos (P100,000.00). The same act provides for tax incentives and tax exemptions for income derived from these technologies for the first ten (10) years from the date of the first sale (Sec. 6) and an Inventions Development Assistance Fund (Sec. 7)

Further, the Intellectual Property Office offers the Inventor Assistance Programs, which provides investors and small businesses with patent attorneys who provide free legal advice on how to file a patent to protect their inventions. Such programs also connect the inventors with the Technology Application and Promotion Institute ("DOST-TAPI") to assist them in drafting their patent applications.

From the perspective of international trade, intellectual property protection is crucial. In 2018, the top patent filers were the United States (21%), Japan (20%), China (11%) (IPOP HL Annual Report). Collectively, these three countries compose at least 50% of the total filings of non-residents. It is no coincidence that, according to the World Bank, the top trading partners of the Philippines in 2018 are also United States (15.63%), Japan (14.04%), and China (12.895%), accounting for roughly 42% of total trade. Additionally, the top ten applicants for patent protection are foreign corporations accounting for 465 applications.²

Year	Resident	Non-Resident	PCT	Total ASEAN Filings
2015	293	190	2856	44,693
2016	248	243	2609	43,221
2017	284	243	2559	44,054
2018	469	550	2943	47,753
2019	434	367	3223	(no data)

Source: Intellectual Property Office Statistics and ASEAN IP Portal.

Clearly, although the number of patent applications increased throughout the years, it still falls in comparison with the total filings in the ASEAN. Additionally, PCT and non-resident applications greatly outweigh resident filings. This is an indication that foreign corporations foresee the Philippines as a venue for the manufacture of their products or as a potential market. It is also an indication of the state of Innovation laws in the Philippines.

Year	Resident	Non-Resident
2015	789	48
2016	1141	50
2017	1392	70
2018	2272	75

Source: World Intellectual Property Organization

¹ Certain provisions of the Intellectual Property Code has been amended by Republic Act 9502 (Cheaper Medicines Act)
² 1. Alibaba Group Holding Limited (Cayman Islands); 2. Nestec S.A. (Switzerland); 3. Unilever N.V. (Netherlands); 4. Sumitomo Mining

Co. (Japan); 5. Philipp Morris (Switzerland); 6. Toyota (Japan); 7. Ge Vdie Compression (United States); 8. Novartis AG (Switzerland); 9. Telefonaktiebolaget Lm Ericsson (Sweden); 10. Honda (Japan)
 Source: IPOP HL Statistics.



On the other hand, resident utility model applications outnumber non-resident filing. This can be an indicator of technology transfer as Filipino inventors are improving on technologies previously introduced in the Philippines. It bears emphasizing that utility models are any technical solutions of a problem in any field of human activity, which is new and industrially applicable (Rule 1400, Revised Implementing Rules and Regulations for Patents). A utility model does not require an inventive step under Section 26 of the I.P. Code. Thus, a utility model can be improvements to existing technology.

According to the Department of Science and Technology, from 2008 to 2017, only 26 patent applications and 153 Utility Model applications were filed by State Universities and Colleges and Higher Education Institutions. In fine, there is still an avenue for improvement in intellectual property protection in order to encourage local innovation and facilitate technology transfer.

This study will do a legal analysis of the current patent laws of the Philippines and do a comparative analysis with foreign patent laws with the end view of making recommendations that will increase the protection of patentees and better serve the interests of the public. This paper is addressed to policy makers and can serve as a guide in the upcoming reform of the Intellectual Property Code.

2. DISCUSSION

A patent is granted by the State. It consists of a bundle of rights as it gives the patentee the right to prevent any unauthorized person or entity from making, using, offering for sale, selling or importing the patented product (Sec. 71, I.P. Code). It is worth noting that after the publication of the patent application (Sec. 44, I.P. Code), the public can examine

the designs because of enablement. This requirement mandates the inventor to disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Sec. 35, I.P. Code). Succinctly, the technical know-how of the invention becomes available to the public, and in exchange, the State protects the rights of the patentee under Section 71 by granting the latter the right to sue for infringement. The term of protection lasts for twenty years (Sec. 70, I.P. Code). Thereafter, the designs in its totality will belong to the public and anyone can produce or improve the same. In essence, the rationale of patent protection is to encourage investment in innovation and to ensure the accessibility of new information to society. (WTO-WHO-WIPO).

On the Principle of International Exhaustion.

Currently, the Philippines adopts a regime of national exhaustion for patents—economic rights are deemed exhausted only when the invention has been sold in the Philippines with the consent of the patentee. One of the economic rights of a person who obtains a patent in the Philippines is to prevent its importation in the country (Sec. 71, I.P. Code).

Nevertheless, under the Cheaper Medicines Act, with respect to drugs and medicines, the Philippines adopts an international exhaustion regime (Sec. 72, I.P. Code).³ Under this regime, once an invention has been sold anywhere in the world, the economic rights for that particular item is deemed exhausted. As a consequence, parallel importation may be allowed *i.e.* a third party imports the goods put in the market by the patentee abroad and resells it in the domestic market, usually at a lower price than the localized version. These are considered as "gray" market goods (Heath,n.d.).

Parallel importation drives down the price of the product. It also curbs unusually high demand, such as in times of crises or epidemics. For example, in 2006,

³ 72.1. Using a patented product which has been put on the market in the Philippines by the owner of the product, or with his express consent, insofar as such use is performed after that product has been

so put on the said market: Provided, That with regard to drugs and medicines, the limitation on patent rights shall apply after a drug or medicine has been introduced in the Philippines or anywhere



the Public Health Ministry of Thailand authorized the importation of efavirenz, an Anti-Retro Viral for HIV, to treat more than half a million of its residents infected with the disease. The patentee received a royalty of 0.5% of the total sales value. Still, the manufacturer of the drug reduced its price to compete with generic manufacturers (WTO-WHO-WIPO).

The author proposes that an international exhaustion regime be adopted for certain industries such as those dealing with national defense and essential agricultural technologies. However, the author further posits that this regime shall only be in effect for a period of ten years. The ratio of adopting this modified regime is that parallel imports gives consumers more options and facilitates technology transfer (as more copycats try to imitate the leading products). On the other hand, it is detrimental to local industries in the medium term as competition drives down the prices of goods.

A balanced combination of a modified regime and a protectionist policy (i.e., tax breaks and subsidies) for infant industries will allow these industries to weather out foreign competition in the short-run until it has developed its own competitive technologies, while at the same time satisfy short-term local demands. It must be noted that under Article 3 of the TRIPS agreement, it is provided that each Member-State shall accord to the nationals of other Member-States treatment no less favorable than that it accords to its own nationals with regard to the protection of intellectual property. Still, nothing in the agreement prevents a country from supporting its infant industries through the use of means other than intellectual property protection if such measures do not violate Part I of the TRIPS.

Another legal challenge to the principle of exhaustion is the definition of consent. As it is, Section 71 (a) can be interpreted as a bundle of rights that may be deemed exhausted in totality once the patented product has already been put into market. Such that under the first sale doctrine, once a patentee already sold the product in the domestic market, he does not have the right to prevent the importation of the same in another country (Heath, n.d.). The author posits

that the parallel importation of a product unduly deprives the patentee of his economic rights (i.e., the right to sell a product) in the destination country. It also impairs the price discrimination schemes employed by the patentee, which ultimately hampers his overall business strategy. Thus, it is submitted that there is a need to define limited consent under the patent law. In this fashion, the rights under Section 71 (a) should be taken separately and that a sale of a product in one country does not exhaust the patentee's rights to prevent the import of the same in another country. This form of limited consent can be manifested by the patentee by affixing the words "For sale only in [Country]" or "Not for sale outside [Country]." Along with this amendment, there is a need to strengthen the competition laws to properly regulate business malpractice.

On Licensing: Voluntary and Compulsory.

The Intellectual Property Code provides for three kinds of licensing: Voluntary licensing, Compulsory Licensing, and Special Compulsory Licensing.

A voluntary license is a time-bound right to exploit the patented invention (Sec. 85. I.P. Code). It achieves the legislative fiat of intellectual property laws: to protect the benefits that the inventor may reap from his patent and, at the same time, benefit the interest of the public via diffusion of technological knowledge. It is worth noting that under the draft amendments of the Chinese Patent Law, upon application of the patent, the patentee can provide a written statement to confirm that he is willing to license out the said invention. Thus, it is proposed that one of the mandatory provisions under Section 88 be amended to include a statement of willingness of the patentee to license his product. This additional statement will save time as it will shorten the negotiation process.

A compulsory license is one of the methods by which a State curtails the rights granted to a patent holder. Compulsory licensing is one of the flexibilities provided for under the TRIPS agreement. It is when the government permits a third party to utilize the patented technology without the consent of the patent holder under certain circumstances (WTO, 2018). The



grounds for compulsory licensing under our laws are found under Section 93 of the Intellectual Property Code.⁴

Under Philippine law, a compulsory license is a hybrid of eminent domain and police power. It is not an exercise of eminent domain as it does not satisfy the requirement of "taking."⁵ It does not deprive the patentee of the right to produce his invention, but only allows others to produce the same. Neither it is an exercise of police power⁶ because not all grounds under Section 93 involve public interest (i.e., Paragraphs 93.4 and 93.5).

In 2008, the Cheaper Medicines Act was enacted to secure the general public access to affordable drugs and medicines. Thus, the third mode of licensing was born: Special Compulsory Licenses. These are issued by the Director-General of the IPOPHL upon recommendation of the Secretary of Health for the importation of drugs and medicines intended primarily for domestic consumption.

The mechanism for the issuance of compulsory licenses has been sparingly used in this jurisdiction. A notable example is in *Price v. United Laboratories* (decided before the R.A. 9502). Here, a compulsory license was issued for a pharmaceutical compound known as "aminoalkyl furan derivatives," a necessary compound to manufacture an anti-ulcer medicine. However, in foreign jurisdictions, the wide latitude of the grounds to issue a compulsory license, is a subject of heated debate. Thailand issued three compulsory licenses within three months - for Merck's Efavirenz

& Kaletra for the treatment of AIDS and Plavix, which is for the treatment of heart disease. The issuance of a license for Plavix came to a shock to the world because it was neither infectious nor was it considered an epidemic (it is a chronic disease). Many observers treated it as a landmark- the beginning of an era, wherein compulsory licenses are going to be given for non-infectious diseases (Feldman, 2004). Needless to say, compulsory licenses, being a derogation of the economic rights of a patentee, dampens innovation or, at the very least, discourages the disclosure of the invention's technical designs.

Thus, the author recommends that the issuance of a compulsory license under Section 93 of the I.P. Code, be limited to where the patented invention belongs to an industry imbued with public interest (i.e. national emergency, national defense, or such industries and vital sectors of the economy, as determined by a competent authority). Further, the author recommends that a requirement should be added that there should be a genuine necessity for the utilization of the patented invention or that such use is essential to maintain the life and security of the people.

Another complication is found under Section 100.6 of the I.P. Code which provides that the patentee shall be paid adequate remuneration taking into account the economic value of the grant or authorization. Nevertheless, adequate remuneration has not been defined in this jurisdiction. Only just compensation has been defined in eminent domain cases. Thus, the author recommends that a modified standard for royalty payment under Republic Act 165 should be

⁴ SEC. 93. Grounds for Compulsory Licensing. - The Director General of the Intellectual Property Office may grant a license to exploit a patented invention, even without the agreement of the patent owner, in favor of any person who has shown his capability to exploit the invention, under any of the following circumstances:
93.1. National emergency or other circumstances of extreme urgency;
93.2. Where the public interest, in particular, national security, nutrition, health or the development of other vital sectors of the national economy as determined by the appropriate agency of the Government, so requires; or
93.3. Where a judicial or administrative body has determined that the manner of exploitation by the owner of the patent or his licensee is anticompetitive; or
93.4. In case of public non-commercial use of the patent by the patentee, without satisfactory reason;

93.5. If the patented invention is not being worked in the Philippines on a commercial scale, although capable of being worked, without satisfactory reason: Provided, That the importation of the patented article shall constitute working or using the patent. And

93.6. Where the demand for patented drugs and medicines is not being met to an adequate extent and on reasonable terms, as determined by the Secretary of the Department of Health.

⁵Apo Fruits v. Land bank of the Philippines, G.R. 165195 states that the two essential limitations to the power of eminent domain, namely, that (1) the purpose of taking must be for public use and (2) just compensation must be given to the owner of the private property.

⁶ Planters Products v. Fertiphil G.R. 166006 states that the "lawful subjects" and "lawful means" tests are used to determine the validity of a law enacted under the police power.



adopted. Under the former law, a compulsory license shall only be granted upon payment of adequate royalties commensurate with the extent to which the invention is worked. However, the royalty payment scheme under R.A. 165 should be modified so that such payment shall not exceed the average of that industry's royalties⁷ of the net wholesale price of the products manufactured under the license where the average royalty can be sourced from similar products produced locally or abroad. Worthy of note is that the Japanese Patent Office proposed a scaling of royalty fees from 0% to 6% while the Canadian government based their royalty fee on UNDP Human Development Index (WHO, 2005).

In fine, there is a need to define the current standards provided for in the issuance of Compulsory Licenses to provide adequate protection and compensation to a patentee's property rights.

On the Rights of the Employee vis-à-vis the Employer.

Under the Code, an employee's invention shall belong to the employer, if the invention is the result of the performance of his regularly-assigned duties, unless there is an agreement, express or implied, to the contrary (Sec. 30.2b, I.P. Code). On the other hand, the right to the patent belongs to the employee if the inventive activity is not a part of his regular duties even if the employee uses the time, facilities, and materials of the employer (Sec. 30.3a, I.P. Code). Furthermore, the patent belongs to the person who commissioned the work unless the contrary is provided in the contract (Sec. 30.1, I.P. Code).

Clearly, such an arrangement is not in favor of an employee. Thus, in order to stimulate an employee's innovation, the author proposes that in the event the invention was created by an employee in the course of his regular duties, he must still have a share in the royalty payments derived from its sale. A similar view has been proposed in the Draft Amendments of the Chinese Patent Law.

On the incorporation of other Push and Pull mechanisms in the Intellectual Property Code.

It is further recommended that the IPOPHL be given the mandate and appropriation to regularly prepare patent landscape reports. Such reports provide a snapshot of the situation of a specific technology, either within a given country or region or globally (WIPO, 2018). Thus, patent mapping/analytics can be done to assist the different industries by identifying gaps in technology and provide an avenue for the development of new technology. As per its 2018 Annual Report, the IPOPHL has done 25 patent landscape reports. Among the technologies examined are abaca, rice (focused on production, health, fertilizer), shrimp, and natural rubber, crab, livestock feed resources, edible paper, and rice (focused technology areas). Under the current fee structure of the IPOPHL, a comprehensive patent search costs Php. 14,500.00 to Php. 17,400.00, depending on the size of the requesting entity. There is no doubt, that regular landscape reports will provide the necessary information for key decisions makers.

The author also makes another recommendation that certain inventions which are identified as beneficial to the public shall be given priority status. In the United States, the proposed legislation entitled "Patents for Humanity Program Improvement Act" awards the inventor the option to accelerate certain proceedings in the United States Patent Office. In its 2018 Annual Report, the IPOPHL reported that the average pendency time from 'filing to grant' is 48.37 months. Given that the term of patent protection is twenty (20) years from the date of filing of the application, an accelerated proceeding will definitely provide first-mover advantage.

On the Formalization of the NCIPR.

⁷ Prior to the author's modification, the maximum royalty rate is six percent under R.A. 165



Executive Order No. 736 institutionalized the National Committee on Intellectual Property Rights ("NCIPR"). The order directed member agencies to designate a permanent intellectual property unit. The committee has the primary function of intensifying the promotion, protection, and enforcement of intellectual property rights in the country (Sec. 4, E.O. 736). The NCIPR is a commendable effort by the joint bodies in charge of law enforcement. In the Annual Report of the IPOPHL (2018), the NCIPR seized Php. 23.5 billion worth of counterfeit goods. This increased by 179% from 2017's Php 8.36 billion haul. Considering the increasing effectiveness of the NCIPR, there is a need to strengthen its capabilities.

There are current mechanisms in place, such as the deputization of IPOPHL employees by the Optical Media Board and the Bureau of Customs (2010 NCIPR Annual Reports), there are also institutional arrangements with the Department of Justice to provide full-time prosecutors to handle IPR violations. Nevertheless, the NCIPR has not been formalized under legislation and is constrained by administrative and budgetary concerns. The committee suffers from a regular rotation of the personnel. Such that an agent who had specialized in intellectual property will only be rotated out of the unit eventually.

As such, there is a strong need to embody the structure of the NCIPR in legislation which must clearly provide at the minimum, the following: a permanent body composing of personnel from various agencies; a clearly defined funding mechanism and the allocation thereof; an established secretariat to handle its day to day operations; organization of committees on the regional level to promote regional cooperation; and a formalized training program.

3. CONCLUSIONS

Considering that Intellectual Property plays a crucial role in the stimulation of research and development, there is a need to amend certain provisions of the Intellectual Property Code to balance public interest and private benefit. These amendments include the adoption of an international exhaustion regime for certain industries and providing for a definition of

limited consent for the application of the principle of exhaustion. Another proposed amendment is to shorten the negotiation process for voluntary licenses and to adjust the mechanism for compulsory licenses. In addition, there is a need to strengthen incentives for employees to innovate. On a national level, intellectual property enforcement must be strengthened, the widespread use of patent landscape report be adopted, and priority examination for useful inventions be implemented.

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