NOTES ON PHILIPPINE PATENT LAW, TECHNOLOGY TRANSFER POLICIES AND ECONOMIC DEVELOPMENT*

by

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INTRODUCTION

Article II of the Philippine Constitution of 1987 declares, among others, the following state policies:

> The State shall give priority to education, science and technology, arts, culture, and sports to foster patriotism and nationalism, accelerate social progress, and promote total human liberation and development. (Article II, Sec. 17).
>
> The State shall develop a self-reliant and independent national economy controlled by Filipinos. (Article II, Sec. 19).

In Article XIV, the Constitution further recognizes the role of science and technology in national development:

> Science and technology are essential for national development and progress. The State shall give priority to research and develop ment, invention, innovation, and their utilization; and to science and technology education, training, and services. It shall support indigenous, appropriate, and self-reliant scientific and technological capabilities, and their application to the country's productive systems and national life. (Article XIV, Sec. 10).
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> The State shall regulate the transfer and promote the adaptation of technology from all sources for the national benefit. It shall encourage

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the widest participation of private groups, local governments, and community-based organizations in the generation and utilization of science and technology. (Article XIV, Sec. 12).

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, for such period as may be provided by law. (Article XIV, Sec. 13).

The above Constitutional provisions embody the goals and aspirations of Filipinos. In the light of the continuing problems of mass poverty, growing income inequality and dependent, debt-driven economic development, the promotion of scientific and technological capability and self-reliance is considered by some sectors as a critical strategy towards the achievement of these goals. This is imperative if the Aquino government's development plans and policies, specifically the drive to ensure that the Philippines will join the ranks of newly industrialized countries by the year 2,000, are to be realized.

At present, the Philippine economy continues to be mainly agricultural. Some 45 per cent of the employed labor force in 1988 were in agriculture. More than half of the population live in absolute poverty.[1] As of 1986, less than 20 per cent of all establishments were in manufacturing. This can be seen in Table 1. Of the 73,233 manufacturing enterprises in 1986, 99 per cent (or 72,639) were cottage, small and medium industries (CSMI) employing 456,254 workers (or about 71 per cent of the total employed in the manufacturing sector). In terms of contribution, these CSMIs accounted for only 17 per cent of the total census value added to the manufacturing sector while large enterprises shared 82.7 per cent.[2]

The economic underdevelopment of the Philippines can be traced to colonial American economic policy and the continuation of free trade relations between the two countries even after the grant of Philippine independence in 1946.[3] Free-trade perpetuated dependence on traditional agricul-

[1]IBON Facts & Figures. Vol. XII, No. 22 (30 November 1989), p. 3.

[2]Melito Salazar, "Technology Transfer in Small and Medium-Scale Industries in the Philippines," An abstract of the workshop on transfer of technology for SMTS, November 1988, UN ESCAP, Bangkok, p. 61.

[3]See Shirley Jenkins, **American Economic Policy Toward the Philippines** (Stanford, California: Stanford University Press, 1954).

tural exports and the neglect of industrial development. The latter has in turn contributed to the underdevelopment of Philippine science and technology. Consequently, the country continues to rely heavily on foreign capital investment and imports of technology. It is from this perspective that this paper shall examine the Philippine patent law and technology transfer regulation in the Philippines.

Table 1

DISTRIBUTION OF ALL ESTABLISHMENTS BY MAJOR INDUSTRY GROUPING (As of 1986)

Major industries	Total	Per Cent
Mining and quarrying	659	0.10
Manufacturing	73,233	19.20
Electricity, gas & water	624	0.10
Construction	1,057	0.20
Wholesale and retail	217,537	57.00
Transportation, communication and storage	5,561	1.40
Financing, insurance, real estate & business services	10,713	3.00
Community, social and related services	71,647	19.00
Total, Philippines	381,031	100.00

Source: Melito Salazar, Jr. "Technology Transfer in Small and Medium-Scale Industries in the Philippines," An abstract of the workshop on transfer of technology for SMTS, November 1988, UN ESCAP, Bangkok, p. 61.

Philippine Patent Law

The Philippines is a member of the Paris Union for the protection of Industrial Property. It enacted a patent law in 1947 – Republic Act No. 165.

One might ask what is a patent? It is "a government grant of the exclusive right to make, use, or sell a product or commodity usually for a limited period."[4] Such grants have by and large been given in modern times to products that are the results of invention or discovery. A patent is recognized as a species of property and has the attributes of personal property. Patents may thus be viewed as:

> basically contracts between society and the inventor. The inventor reveals his knowledge through these documents. And society recognizes inventor's contribution to development and compensates him by giving him exclusive rights to it for a limited period[5]

Let us now examine the provision of Republic Act No. 165, the law which regulates the issuance of patents. The Act lists down inventions which are patentable. These are any invention of a new and useful machine, manufactured product or substance, process, or an improvement of any of these. (Republic Act No. 165, Chap. II, Sec.7). Several patents may be issued for distinct and separate parts of the thing patented.[6] The Act also provides for patents to be issued for industrial designs and utility models. For this purpose an industrial designed is defined as "any new, original and ornamental design for an article of manufacture," and a utility model is "any new model of implements or tools or of any industrial product or part of the same which does not possess the quality of an invention, but which is of practical utility by reason of its form, configuration, construction or composition..." Patents for designs and for utility models are subject to compulsory license under the same terms and conditions specified for compulsory licensing of inventions.[7]

The Act also lists down what inventions are not patentable: if it is contrary to public order or morals, or to public health or welfare, or if it constitutes a mere idea, scientific principle or abstract theorem not embodied in an invention or any process not directed to the making or improving of a commercial product. (RA 165, Chapter II, Sec. 8)

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[4]**The New Encyclopedia Britannica**, Vol. 9; Macropaedia Ready Ref., 15th Ed., p. 94.

[5]IBON Facts & Figures, Vol. XIII, No. 3 (15 February 1990), p. 2.

[6]Republic Act No. 165, Article VI, Sec. 27A, as amended by Republic Act No. 637.

[7]Ibid., Chapter XII, Sec. 55, as amended by Republic Act No. 864.

The act similarly specifies what invention is not considered new or patentable: if it was known or used by others in the Philippines before the application for its patent by an inventor or if it was described in any printed publication in the Philippines or any foreign country for more than one year before the application for its patent.

An application for patent may be filed only by the inventor, his heirs, legal representatives or assigns. Applications for patent made by citizens of countries which by treaty, convention or law afford similar privileges to Filipino citizens are also recognized in the Philippines. [8]

Patents for inventions are granted for a term of 17 years. Those granted for industrial design and utility models have an initial term of 5 years with extension for two additional five year terms.

Voluntary and Compulsory Licensing

The patent Act also provides regulations for voluntary licensing of contracts involving payment of royalty for the use of patents. The licensee is entitled to exploit the invention during the whole duration of the patent in the entire territory of the Philippines through any application of the invention.

At the same time the Act provides that the following restrictive clauses in license contracts shall be null and void:

a) Those which impose upon the licensee the obligation to acquire from a specific source capital goods, intermediate goods, intermediate products, raw materials, and other technologies, or of permanently employing personnel indicated by the licensor;

b) Those pursuant to which the licensor reserves the right to fix the sale or resale prices of the products manufactured on the basis of license;

c) Those that contain restrictions regarding the volume and structure of production;

d) Those that prohibit the use of competitive technologies;

[8]Ibid., Chapter II, Art. 9, as amended by Republic Act No. 637.

e) Those that establish a full or partial purchase option in favor of the licensor;

f) Those that obligates the licensee to transfer to the licensor the inventions or improvements that may be obtained through the use of the licensed technology;

g) Those that require the payment of royalties to the owners of patents for patents which are not used;

h) Those that prohibit the licensee to export the licensed product.

i) Other clauses with equivalent effects. [9]

Clearly the above provisions of the Act were intended to ensure that monopolies of technological knowledge and know-how would be prevented and that society would get the maximum benefit from patented inventions. The Act, moreover, provided for compulsory licensing under a particular patent at any time after the expiration of two years from the date of the grant of the patent, under any of the following circumstances:

a) If the patented invention is not being worked within the Philippines on a commercial scale, although capable of being so worked, without satisfactory reason;

b) If the demand for the patented article in the Philippines is not being met to an adequate extent and on reasonable terms;

c) If by reason of refusal of the patentee to grant a license or licenses on reasonable terms, or by reason of the conditions attached by the patentee to licensee or to the purchase, lease or use of the patented article of working of the patented process or machine for production, the establishment of any new trade or industry in the Philippines is prevented or the trade or industry therein is unduly restrained;

d) If the working of the invention within the country is being prevented or hindered by the importation of the patented article; or

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[9]Republic Act No. 165, Chap. VIII, Art. I, Sec. 33-c (2) as amended by Presidential Decrees No. 1263 and 1520.

e) If the patented invention or article relates to food or medicine or manufactured products or substances which can be used as food or medicine, or is necessary for public health or safety. [10]

Compulsory licensing may also be ordered by the National Economic Development Authority, even before the expiration of two years from the grant of patent, for certain products or processes which are declared to be of vital importance to the country's defense or economy or to public health. Moreover, products, substances or processes which are subjects of projects approved by the Board of Investments under the Investments Incentives Act shall be deemed products or substances and/or processes vital to the national defense or economy or to public health. If the proponent of these projects is neither a patentee or licensee, the Board of Investments may endorse the issuance of a compulsory license in his favor. [11]

Implementation of Patent Act

The Bureau of Patents, Trademarks and Technology Transfer (BPTTT), under the Department of Trade and Industry is presently responsible for the implementation of the Patent Act. It is tasked to formulate and implement regulations for the protection of industrial property rights, in particular, patents and trade marks.[12] It is also directed to create the appropriate mechanisms to guide and manage the transfer of needed industrial technology in the Philippines.

Tables 2 and 3 show the number of patent applications processed and letters patent granted by the BPTTT from 1978 to 1988. It will become readily apparent from the attached Table 3 that during the ten years indicated, foreign patentees outnumber local patentees in the category of inventions. Foreign patentees comprised 94.6 per cent of total; local patentees account for a mere 5.5 per cent. In the category of utility models, foreign patentees comprised 1.8 per cent of total; local patentees comprised 98.2 per cent. For the industrial

[10] **Ibid.**, Chapter VIII, Art. 1, Sec. 34.

[11] **Ibid.**, Chap. VIII, Art. 2, Sec. 34-A to 34-C.

[12] **See Rules of Procedures of the Technology Transfer Registry of the Bureau of Patents, Tardemarks, & Technologyy Transfer** (BPTTT), Makati, Metro Manila, 1988); and **Technology Transfer Regulations in the Philippines: A Primer.**

design, foreign patentees comprised 73.4 per cent of total. On the whole, foreign patentees comprised 64.9 per cent; local patentees, 35.1 per cent.

Tables 4 and 5 show the number of trademark applications and trademark certificates issued by BPTTT. As in the case of patents, foreigners were issued more trademark certificates (55.8 per cent) than local applicants (44.2 per cent).

The BPTTT also administers technology transfer agreements that companies enter into the Philippines. These are classified by BPTTT as know-how and consultancy.

The licensor in these technology transfer agreements is usually the foreign patent holder who gets paid for the transferred technology. Thus the licensor benefits from the patent system; he gets equity participation or part ownership in these agree ments.

As has been shown earlier in this paper, Philippine laws try to ensure that technology transfer actually takes place. However, an analysis of data for 1989 on technology transfer agreements tends to show that only 38 per cent among these agreements are patent-related. Moreover, more than 38 per cent of patent-related technology transfer negotiations fall under those where equity participation of licensor (EPL) comprise more than 50 per cent. Thus no transfer of technology actually takes place. This can be seen from Table 6.

An examination of the nationality-wise classification of technology transfer agreements as of June 1988 shows that the USA and Japan are the main sources of technology imports in the Philippines. This can be seen from Table 7. As shown in this table, more than half of technology transfer agreements involved no equity participation by the licensor.

An analysis of technology importation in the Philippines from October 1978 to June 1981 shows a significant number of restrictive clauses in operation. This is despite the provision of law against such restrictions. This can be seen from Table 8.

Eighty three percent of contracts entered into by subsidiaries of foreign companies with majority capital participation contained restrictive provisions. Among agreements involving companies with minor foreign capital participation, 87 per cent contained restrictive clauses.

The prevalence of these restrictive clauses in technology transfer agreements tend to indicate a number of things. One is the weakness of the monitoring of these agreements and ineffective law enforcement. It may also indicate the political influence wielded by the TNC's in the country through their local partners or licensees. It appears that the criteria for assessing applications for technology transfer agreements is based more on potential savings in foreign exchange rather than potential development for technological capability.[13] Hence the country has not been benefiting as much as it should from the existing agreements. It may in fact be on the losing side considering the substantial expenditures for royalties, consultant's and technician's fee. This may be gleaned from Table 9.

Concluding Observations

Patents are supposed to be instruments for promoting access to technological information and thereby encourage innovation. They are supposed to hasten technological development through the transfer of technology between developed (DC's) and less developed countries (LDC's). But as has been shown by a number of studies, patents have become instruments for privatizing, controlling and monopolizing knowledge and markets.[14] As such these tend to accentuate the technological and economic gap between the DC's and LDC's. As this brief paper has shown, LDC's are at the losing end. There is clearly a need for LDCs to have a common stand on patents and transfer of technology. This is especially so in the light of developments in genetic engineering and biotechnology. Considering that most LDCs have predominantly agricultural economies, patenting life forms by the DCs can restrict the flow of scientific information to LDCs. This can have deleterious consequences for their societies as a whole. Only through concerted action such as this Convention can LDCs share their experience and together act to protect their common interest in the preservation of the freedom on information exchange in so vital a field for the advancement of their science and technology and their economic development.

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[13]Celso R. Roque, "The Anatomy of Technology Transfer," **Dilliman Review**, Vol. 35, No. 4 (1987), pp. 61-62.

[14]See, for example, Lilia R. Bautista, **Transfer of Technology Regulations in the Philippines**, UNCTAD/TT32 (1980); Takabumi Hayashi, "Technology Control and Transfer of Multinational Companies and the Philippine Economy," **Technology and Foreign Exchange** (May 1989), pp. 36-44.

Table 2

PATENT APPLICATIONS RECEIVED, PHILIPPINES
1978 - 1988

	1978		1979		1980		1981		1982		1983		1984		1985		1986		1987		1988		TOTAL	
	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F
INVEN-	129	1271	144	1327	119	1454	91	1514	134	1514	63	1613	102	1194	91	1489	75	1379	76	1568	86	1617	1110	15940
TION	1400		1471		1573		1605		1648		1676		1296		1580		1454		1644		1703		17050	
UTI-	674	18	762	24	781	15	705	19	518	21	409	27	474	2	449	13	346	6	354	8	330	7	5802	168
LITY																								
MODEL	692		786		796		724		539		436		476		462		352		362		337		5962	
INDUS-	295	72	298	57	415	90	474	119	202	94	222	128	168	148	183	120	189	109	290	92	269	119	3005	1148
TRIAL																								
DESIGNS	367		355		505		593		296		350		316		303		298		382		388		4153	
TOTAL	1098	1361	1204	1408	1315	1559	1270	1652	854	1629	694	1768	744	1344	723	1622	610	1494	720	1668	685	1743	9917	17248
APPLI-																								
CATIONS																								
RECEI-																								
VED	2459		2612		2874		2922		2483		2462		2088		2345		2104		2388		2428		27165	

L – Local F – Foreign

Source: Bureau of Patents, Trademarks and Technology Transfer, Department of Trade and Industry, 1988 Annual Report, (Mimeo.), p. 38.

Table 3

LETTERS PATENT GRANTED, PHILIPPINES

1978 - 1980

	1978		1979		1980		1981		1982		1983		1984		1985		1986		1987		1988		TOTAL	
	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F
INVEN-	106	780	82	775	93	811	69	718	35	525	52	1228	29	1098	22	1259	36	1272	44	1182	43	1142	611	107
TION	886		857		904		787		560		1280		1127		1281		1308		1226		1158		11401	
UTILITY	498	6	465	3	520	14	463	7	318	3	288	7	235	2	294	8	278	8	275	7	192	5	3826	
MODEL	504		468		534		470		321		295		237		302		286		282		197		3896	
INDUS-	201	48	168	25	276	60	209	81	158	95	109	65	94	20	72	40	126	46	154	118	226	51	1793	649
TRIAL																								
DESIGNS	249		193		336		290		253		174		114		112		172		272		277		2442	
TOTAL	805	834	715	803	889	885	741	806	511	623	449	1300	358	1120	388	1307	440	1326	473	1307	461	1198	6230	11509
LETTERS																								
PATENT	1639		1518		1774		1547		1134		1749		1478		1695		1766		1780		1659		17739	
ISSUED																								
TOTAL																								
APPLICA-	2247		2350		2473		2336		2815		2595		2723		2906		2871		3140		2659		29115	
TIONS																								
DISPOSED																								

TOTAL PATENT GRANTED SINCE THE BEGINNING	INVENTION	UTILITY MODEL	INDUSTRIAL DESIGN	TOTAL
	21629	6539	4089	33916

L – Local F – Foreign

Source: Bureau of Patents, Trademarks and Technology Transfer, Department of Trade and Industry, **1988 Annual Report**, (Mimeo.), p. 39.

Table 4

TRADEMARK APPLICATIONS ISSUED, PHILIPPINES

1978 - 1980

	1978		1979		1980		1981		1982		1983		1984		1985		1986		1987		1988		TOTAL	
	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F
PRINCI-	1806	1251	1614	1482	1967	1353	1804	1590	1362	1599	1210	1528	1067	1373	1470	1280	1409	1288	1496	1490	1653	1695	15052	14678
PAL	3057		3096		3320		3394		2961		2738		2440		2750		2697		2986		3348		29730	
	852	20	864	19	1277	20	1191	16	552	11	689	15	470	6	684	25	755	21	639	30	347	12	7468	175
SUPPLE-																								
MENTAL	872		883		1297		1207		563		704		476		709		776		669		359		7643	
	50	233	23	239	27	185	38	218	23	219	35	136	39	163	18	129	34	167	38	180	33	325	308	1961
RENEWAL	283		262		212		256		242		171		202		147		201		218		358		2269	
CON-	–	–	1	–	–	–	–	–	1	–	–	2	5	–	7	–	11	–	7	–	–	1	32	3
TAINER	–		1	–	–	1	2	5	7	11	7		1		35									
TOTAL																								
TRADE																								
MARK	2708	1504	2502	1740	3271	1558	3033	1824	1938	1829	1934	1681	1581	1542	2179	1434	2209	1476	2180	1700	2033	2033	22860	16817
:APPLIC.																								
:RECEIVED	4212		4242		48209		4857		3767		3615		3123		3613		3685		3880		4066		39677	

L – Local F – Foreign

Source: Bureau of Patents, Trademarks and Technology Transfer, Department of Trade and Industry, **1988 Annual Report**, (Mimeo.), p. 40

Table 5

TRADEMARK CERTIFICATES ISSUED, PHILIPPINES

1978 - 1980

	1978		1979		1980		1981		1982		1983		1984		1985		1986		1987		1988		TOTAL	
	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F	L	F
PRINCI-	316	534	659	1006	353	475	700	829	351	634	666	803	387	633	336	668	471	952	280	1033	1240	3547	5759	11114
PAL	850		1665		828		1529		985		1469		1020		1004		1423		1313		4787		16873	
	567	26	658	45	785	30	550	30	235	34	267	28	306	61	356	50	381	58	387	36	44	24	4709	420
SUPPLE-	593		703		815		580		269		295		367		406		439		423		68		5129	
MENTAL	25	184	36	104	24	149	15	153	45	436	41	276	29	128	32	141	28	139	35	114	7	99	329	2049
RENEWAL	209		140		173		168		481		317		157		173		167		149		106		2378	
CON-	–	–	–	5	–	4	–	1	–	2	–	1	–	5	–	–	2	–	–	–	10	–	3	18
TAINER	–		5		4		1		2		1		5		1		2		–		10		21	
TOTAL TRADE																								
MARK	908	744	1358	1155	1166	654	1266	1012	633	1104	975	1107	727	822	724	859	882	1149	702	1183	1301	3670	10642	13459
CERTIF.																								
ISSUED	1652		2513		1820		2278		1737		2082		1549		1583		2031		1885		4971		24101	
TRADEMARK																								
APLICS.	3529		3589		3702		3191		4218		6711		6971		5036		4315		4441		5070		50773	
DISPOSED																								
TOTAL																								

TRADEMARK CERTIF. ISSUED SINCE THE BEGINNING	PRINCIPAL	SUPPLEMENTAL	RENEWAL	CONTAINER	TOTAL
	42484	8095	4040	122	54741

L – Local F – Foreign

Source: Bureau of Patents, Trademarks and Technology Transfer, Department of Trade and Industry, **1988 Annual Report**, (Mimeo.), p. 41.

Table 6

Classification of Technology Transfer Agreements
by Type of Assets Transferred
(As of 30 June 1989)

Type of Assets	Number of Agreements				Total
	1	2	3	4	
Patents-Related Agreements	92	41	93	120	346
Trademarks Know how	29	19	36	346	264
Trademarks	17	7	20	44	88
Know how	19	9	49	73	150
Pure Consultancy	6	5	26	51	88
Total	162	81	224	469	936

Legend: Equity Participation of Licensor
1 - 90 to 100% 3- 50% or less
2 - 51 to 89% 4- 0

Source: **IBON FACTS & FIGURES**, Vol. XIII, No. 3 (15 February 1990), p. 4., based on Department of Trade and Industry, Technology Transfer Registry.

Table 7
NATIONALITY WISE CLASSIFICATION OF AGREEMENTS
(As of 30 June 1988)

Company class/ country	No. of Agreement Equity Participation of Licensor				Total
	1	2	3	4	
USA	92	36	64	191	383
Japan	2	10	63	66	141
UK	8	4	7	39	58
W. Germany	12	2	7	20	41
Switzerland	11	10	13	21	55
France	1	1	3	12	17
Italy			1	6	7
Australia	1	-	7	12	20
Denmark	-	-	5	-	5
Sweden	-	-	4	3	7
Korea	-	-	-	4	4
Bermuda	-	-	-	3	3
India	-	-	-	1	1
Belgium	-	-	-	2	2
Taiwan	-	-	2	2	4
New Zealand	-	-	-	3	3
Panama	-	-	-	5	5
Netherlands	5	5	2	3	15
Spain	-	-	-	2	2
Hongkong	1	-	8	9	18
Norway	-	-	-	1	1
Malaysia	-	-	4	1	5
Singapore	-	-	3	1	4
Canada	-	-	4	4	8
Thailand	-	-	-	1	1
China	-	-	-	1	1
Austria	-	-	-	6	6
Bahamas	-	-	1	1	2
Finland	-	-	-	1	1
Bulgaria	-	-	-	1	1
Total	133	68	198	422	621
Percentage	16	8	24	52	100

Legend: Equity participation of licensor
1 - 90 to 100% 3 - 50% or less
2 - 51% to 89 4 - 0

Source: Technology Transfer Registry, Bureau of Patents, Trademarks and Technology Transfer, Department of Trade and Industry.