THE LEGAL AND ADMINISTRATIVE REGULATION OF TRANSFER OF TECHNOLOGY: THE PHILIPPINE SETTING

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"The negotiation of a know-how contract between a developed country licensor and a developing country licensee has been compared to a marriage; however, the problem often is that it is like a marriage in an orthodox society where the bride has had very limited options in the selection of her mate, her parents have had to pay an excessive dowry, she has a subservient position throughout the contract and, indeed, becomes incapable of overcoming her dependence for the rest of her life."[1]

I. INTRODUCTION

The Problem in Perspective

Technology, defined as "industrial science; the application of science and of technical advances in industry, manufacturing, commerce and the arts; the totality of the means employed to provide objects necessary for human sustenance and comfort,"[2] is the foundation of the modern world. Without technology a country cannot industrialize. Without industrialization a country cannot provide for its economic needs. From this basic economic problem stem myriad other problems.

The problem of lack of technology is of special significance to developing countries.[3] In order to alleviate their economic and social problems the developing countries must acquire and establish their own technology for industrialization. The technological gap between the less developed and the developed countries has become an abyss too wide to bridge, and the cost of indigenous technological research and development often proves

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[1] Economic and Social Commission For Asia and the Pacific (ESCAP), *"Guidelines For Development of Industrial Technology in Asia and the Pacific"* United Nations Centre, Bangkok, 1976, p. 99. E/CN.11/1273/.

[2] WEBSTER'S NEW COLLEGIATE DICTIONARY, (1961).

[3] The term "developing countries" has been criticized by some as inaccurate, in the sense that all countries are still in the process of development and therefore "developing". However, the term is used in this paper in the same sense as "underdeveloped" or "less-developed" or "Third World" as it is used in many United Nations materials.

too prohibitive for a developing economy. The acquisition of technology from external sources consequently should be of prime concern for a less developed country such as the Republic of the Philippines.

The International Trade of Technology

As in the case of many a human creation, technology has become an object of commerce and trade. This trade of technology principally takes the form of contractual arrangements called "transfer of technology agreements" or "technology licensing agreements". These are contracts wherein a licensor, usually from a developed country, transfers technology to a licensee, which may either be from another developed country or from a developing country, for a consideration, under certain terms and conditions, and for a limited period.

When the parties to the contract (the licensor and licensee) are both from developed countries, there is transfer and trade of technology in the real sense. Owing to their advanced stage of development, they have the technical competence to select the appropriate types of technology. They can negotiate from positions of strength, exchange knowledge through cross-licensing, and absorb the purchased technologies into their own systems.[4] Besides, transfer of technology between the industrialized countries usually takes the form of specific know-how covered by patents or trade marks intended to cover certain specific gaps in their technical knowledge, these countries having an established technological base and substantial research facilities.[5]

On the other hand, when Third World countries try to acquire technology, the transfer is one-way, from the licensors in developed countries to the licensees in developing countries. Because of their lack of technical competence, institutional support and infrastructure, the licensees in developing countries usually assume the weaker bargaining position in what becomes an imperfect market.

The content of technology transfer to developing countries is also different. Instead of specific know-how covered by patents or trade marks, developing countries usually acquire composite or "package technology"[6] wherein the transfer must often be accompanied by technical assistance. This is due to the absence of a technological base, the lack of basic research facilities, and the lower general level of knowledge and expertise in manu-

[4] ESCAP, *op. cit.*, p. 88.

[5] United Nations, *"Guidelines For the Acquisition of Foreign Technology in Developing — With Special Reference to Technology License Agreements"*, New York, 1973, p. 4. 10/98 Sales No. E.73.11 B.1

[6] United Nations, *"Report of Group of Eminent Persons on Multinational Corporations"*, New York, 1975, p. 71.

facturing.[7] Such package technology is often channeled through the giant multinational corporations.

The transfer of technology to developing countries relates not only to the operation or complementation of an ongoing industrial base, but also to the establishment of that very base. Developing countries therefore have a greater stake in the transfer of technology.

It is said that for a person with only one hundred pesos, to make another hundred requires hard work; but for him who has a million, the second million is inevitable. This also applies to the acquisition of technology by developing countries. Such countries need basic technology in order to acquire more technology.[8]

Potential Evils from Inequitable Agreements

As will be shown later, in many of these technology licensing agreements, the terms and conditions are unduly burdensome to the developing countries. Because of the insubstantial amount of technology actually transferred, the inappropriateness of such technology to local conditions, the prohibitive costs paid by the licensees, and particularly the restrictive business practices accompanying such contractual transfers of technology, whether there is any beneficial transfer of technology at all becomes a valid question to ask.

With respect to the over-all economic development plans of the recipient developing country, such licensing agreements often do not fit in. This is understandable, the licensor firms in the developed countries having the upper hand in the bargaining and therefore adhering to their own set of priorities. It is not surprising that views are expressed to the effect that far from solving the economic and social problems of a developing country, transfer of technology under these circumstances perpetuates such problems and even gives rise to new ones.

Warnings are made that such inequitable transfers of technology will give rise to a new international economic order and a world division of labor where the Third World economies will be relegated to low-cost, labor-intensive processing, assembly plants, light industries and small-scale production while the developed countries continue to retain for themselves the monopoly of high technology industries.[9]

It is claimed that the "industrialization" brought about by such transfer of technology, especially when such transfer is channeled through multinational corporations, is defective. Instead of fostering economic independence, dependence on a new level is created. Technological subor-

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[7] United Nations, *"Guidelines For the Acquisition of Foreign Technology in Developing Countries", op. cit.*

[8] ESCAP, *op. cit.*, p. 11.

[9] CONSTANTINO, GLOBAL ENTERPRISES AND THE TRANSFER OF TECHNOLOGY 3, (1976).

dination results, with the developing countries being the recipients of obsolete or second-hand equipment and condemned to light and medium industries. It is also alleged that such importation of technology creates consumer fads and life-style expectations wholly inconsistent with the developing countries' present resources and inimical to their proper development but beneficial to the global giants.[10]

It is beyond dispute that there is a need for the monitoring, regulation and control of transfer of technology. The government of a developing country like the Philippines cannot leave the negotiation of such contracts to the enterprises concerned. The country's economic development and independence may be at stake.

The purpose of this paper is to explore transfer of technology agreements in the Philippines, the instrumentalities for their control and regulation, the weaknesses of the present regulatory machinery, and the possible measures to be adopted for the better regulation and control of the agreements.

Before the discussion of the restrictive business practices in relation to technology transfer, it is inevitable that discussion be made of the relationships between the parties in transfer of technology and the alternative sources of foreign technology. Such discussion will touch on economic and other technical matters. This will provide the necessary background for the subsequent discussion and comparative study of other countries' experiences as to the legal and administrative control and regulation of transfer of technology in the latter part of the paper.

II. Definition of Terms

For the purpose of this paper, the definition of terms used by the World Industrial Property Organization (WIPO), a United Nations body, will be adopted.[11]

(1) *Patent* means an exclusive right, granted under the law, relating to the exploitation of a technical invention;

(2) *Trade mark* is a visible sign, protected by an exclusive right granted under the law, which serves to distinguish goods of one enterprise from those of other enterprises;

(3) *Know-how* means information or skills relating to industrial manufacturing or the organization of an individual enterprise;

(4) *License* means the consent given by the owner of an exclusive right (licensor) to another person (licensee) to perform certain acts which are covered by an exclusive right, or consent as to use of know-how;

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[10] *Ibid.*, at p. 7; see also R. Krishmamurti, Some Effects of the Multinational Corporations, *Intereconomics*, No. 12, Sec. 1973.

[11] U.N., *"Guidelines For the Acquisition of Foreign Technology in Developing Countries," op. cit.*, pp. 2 and 49.

(5) *License agreement* means the contract between a licensor and a licensee on the granting of a license (alternative and more comprehensive terms for this are "transfer of technology agreement" or "technological collaboration agreement");

(6) *Royalty* means periodic remuneration to be paid by a licensee according to the license agreement, calculated per period or by reference to the extent of use by the licensee (*e.g.*, volume of production or of sales).

Industrial property has also been subdivided into categories. One such subdivision is into two major categories:

(1) *statutory rights* such as patents, trademarks, copyrights, utility models, designs; and

(2) *non-statutory* rights which may either be tangible know-how (technical data, specifications, flowsheets, photostatics, drawings, blueprints, calculations, working models, specimens, analysis specifications, operating manuals, supply sources, formulas, prescriptions) or intangible know-how (non-patentable inventions or trade secrets, "know-how" in the narrower sense, word-of-mouth information, experience, skill, knowledge, manufacturing gimmicks).[12]

It is only the statutory rights that are properly the subject of technical licensing agreements. The second category is covered more in implicit know-how arrangements. However, technology license agreements may actually cover both categories of industrial property. For the purposes of this paper, the term "transfer of technology" will be used in its most comprehensive sense to include not only licensing agreements but also any other arrangement involving a transfer of technology or any kind of industrial property, including informal or non-commercial channels.

III. Alternative Strategies for the Acquisition of Technology

To provide for a better understanding of the Philippine situation in the sphere of transfer of technology, it is helpful to outline the alternative strategies for the acquisition of technology. Licensing agreements are usually intertwined with the various forms of foreign business collaboration, and accordingly there is a range of sources or channels for the acquisition of technology. At the extreme end of the continuum is the practice of some countries in purchasing foreign technology directly or developing indigenous technology without relying on foreign investment.

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[12] K.S. Goldschmid, *International License Contracts*, Copenhagen: 1968, pp. 24-26, as cited in Cesar Virata, *Restrictions on Exports in Foreign Collaboration Agreements in the Republic of the Philippines*, United Nations, New York, 1972, p. 1 TD/B/388.

The Economic and Social Commission for Asia and the Pacific (ESCAP), a United Nations body, lists down the following range of acquisition sources:[13]

— Subsidiaries and branches of foreign firms with explicit and implicit know-how arrangements
— Joint ventures with minority foreign capital and know-how contracts
— Turn-key and "product-in-hand" arrangements but without equity
— Straight know-how licensing contracts with payments in cash or kind
— Engineering consultants for projects design
— Co-production or subcontracting
— Intergovernmental co-operation and technical assistance from international organizations
— Improvement and adaptation of available technologies
— Local Research and Development ("R and D") efforts for innovation.

The above channels are listed in order of decreasing foreign technology imports and increasing potential for technological independence. In other words, the latter items in the list are more favorable in the long run for the recipient developing country, although there are separate considerations for each alternative such as development cost, success probability, time required for fruition, likely rewards, and development of local capabilities. Two or more channels are often used concurrently.

The movement of technology between countries may of course take informal or non-commercial channels which include know-how available in technical seminars and plant visits, the so-called "free-engineering" provided by equipment suppliers, the hiring of individual experts, subcontracting, technical information centers, international technical assistance, and inter-country industrial cooperation.[14] The term "transfer of technology" should cover all these arrangements.

The Experience of Other Countries

Different countries have utilized different modes and mixes in the acquisition of technology. The People's Republic of China, for instance, emphasizes self-reliance verging on technological autarchy. Technological innovation is stimulated from the grassroots of society, and selective imports of complex equipment and technology is only supplementary to the primary indigenous effort.[15]

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[13] ESCAP, *op. cit.*, p. 90.
[14] *Ibid.*, at p. 99.
[15] Susan B. Rijkin, "The Chinese Model for Science and Technology: Its Relevance for Other Developing Countries", Development And Change, January 1975, as cited in ESCAP, *op. cit.*, at p. 89.

Japan on the other hand has relied on massive purchase of technology from the most advanced countries through technology licensing. Japanese buying of foreign technology has reportedly cost around $10 billion over the last 20 years. The success of this method is however due to the fact that for every dollar it spent for direct importation of technology, it also spent *seven* dollars for local research and development to adapt such foreign technology to local conditions and even to improve upon such technology in order to be able to compete in the world market.[16] Now Japan is in turn eager to export technology to less developed countries of Asia to improve its balance of technology trade, *i.e.*, to compensate for its huge expenditures in importing foreign technology.[17]

However, the successes of China and Japan presuppose the presence of key factors. In the case of China, such an inward-looking technology model is feasible only where basic natural resources are available and where large populations can be mobilized and patterns of functional demand modified through political and social instruments. In the case of Japan, the efficient guidance of the Ministry of International Trade and Industry as well as the existing economic and social infrastructure, particularly the high level of education and disciplined work force, enabled the imported technology to be rigorously applied and absorbed. In both cases, indigenous research and development efforts played an indispensable part.

The Chinese and Japanese models provide viable strategies for other Asian countries if the basic capabilities exist. Moreover, intangibles such as adequate political will, education, enlightenment, creativeness and imagination of the people are indispensable ingredients for their success.

IV. Technological Licensing Agreements in the Philippines: the Period Up to 1970

In contrast to the successful experiences of China, Japan and other Asian countries in varying degrees (like South Korea, Taiwan and Singapore), the pace of industrialization in the Philippines seems to have lagged. One of the reasons for this is the inefficient transfer of technology into the country. Particularly during the period up to the year 1970, the transfer of technology lacked adequate supervision.

Data on technology transfer agreements in the Philippines are far from complete. However for the period up to the year 1970, a study (hereinafter referred to as the "Virata Report") on the specific subject has been made. The findings of the study will be discussed below. As to the period from

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[16] ESCAP, *op. cit.*, at pp. 92-93.

[17] Terutomo Ozawa, "Japan Exports Technology to Asian LDC's", Columbia Journal of World Business, January-February 1971, pp. 65-69.

1970 onwards, the data have not been organized. However there have been developments in the administrative regulation of technology transfer. These developments will also be discussed later.

The Virata Report

In a study conducted by a team of researchers under the supervision of Cesar Virata, Secretary of Finance of the Philippines, for the United Nations Conference on Trade and Development,[18] the Philippine situation in the sphere of technology licensing agreements and the restrictive business practices accompanying said agreements is given. This paper proposes to summarize the findings of the study and to comment on them.

A. *The Firms Surveyed*

The study covered a period up to 1970 and a total of 527 firms were surveyed, but of these 396 (approximately 75%) had no technical collaboration agreements. The reason for the absence of explicit technical collaboration agreements is the fact that most of the firms surveyed were branches of foreign companies registered in the Philippines to do business. Expectedly branch offices would not normally have explicit licensing agreements with their respective head offices, they being but one entity in reality.[19]

The firms having technology licensing agreements were divided into 3 groups, namely:

(1) Subsidiaries/foreign branches/majority foreign capital participation

(2) Minority foreign capital participation; and

(3) Purely technical collaboration, *i.e.*, where local firms acquire technology *without* direct foreign investment, in contrast with (1) and (2) where technology transfer comes with direct foreign investment.

It is significant that of the total of 254 technical collaboration agreements that the study was in fact able to record, 182 were entered into by the first 2 groups of companies, *i.e.*, the companies having foreign equity, while only 72 were purely technical collaboration agreements entered into by purely local firms.[20] The preference of foreign licensors to transfer technology to their own subsidiaries and companies where they have capital participation is obviously due to the desire of the licensors to participate directly in the management of the affairs of the licensee as a means of protecting their interest. On the other hand, the independent stance of purely Philippine owned companies have deterred foreign licensors from entering into agreements with them.

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[18] Virata, *supra*, note 12.
[19] *Ibid.*, at pp. 3-4.
[20] *Ibid.*, table 4, p. 6.

But precisely this is the situation which may give rise to the dangers warned against, namely the danger of the multinational licensor corporation imposing its own profit-oriented priorities, in the process riding roughshod over the national economic development plans of the country. When the transfer of technology is coursed through multinational corporations and direct foreign investment, the bargaining power of the licensee is further diminished and the potentiality of the foreign giants' controlling the transfer of technology and ultimately the economic development of the country is created.

Such a situation, while having its own advantages in terms of the relatively short time needed for the fruition of the project and its high success probability,[21] is inherently disadvantageous in the long-run because it provides the least potential for technological independence. In the range of alternative sources of technology enumerated above,[22] subsidiaries and branches of foreign firms having foreign equity are the first in the list, meaning that they require the greatest amount of technology importation but provide the least potential for technological independence.

In the case of Japan, there is also massive importation of technology but this takes the form of purely technical licensing agreements unconnected with direct foreign investment. Indeed, Japan has been jealously defensive over the entry of foreign capital into its economy, an attitude which has caused friction with other countries, especially the United States. Furthermore Japan, unlike the Philippines, has coupled its importation of technology with intensive local research and development efforts for innovation. In this way she has preserved her position of strength in the bargaining of technology license agreements.

At worst, the Philippine situation where transfer of technology is tied with direct foreign investment may be conducive to the more dramatic evils aired by some authorities, such as the creation of a new international economic order and division of labor where the less developed countries will occupy inferior positions, deceptive industrialization, and what is termed in the Latin American countries as technological *dependencia*.[23] Such a potentially disadvantageous situation underscores the need for greater regulation and control of transfer of technology into the country.

B. *Industry-wise Classification of Agreements*

Another informative finding of the Virata report concerns the industry-wise classification of agreements. The biggest percentage of the agreements

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[21] ESCAP, *op. cit.*, at p. 91.
[22] *Supra*, note 13.
[23] CONSTANTINO, *supra*, note 9.

(22%) involved the pharmaceutical industry.[24] The pharmaceutical industry needs high-cost continuous research, the facilities for which the Philippines lacks. Consequently there is heavy reliance on foreign technical collaboration with the result that the pharmaceutical industry in the country is at best mere "compounding" and not truly a drug industry.[25] Cosmetics and beverages had around 7% each of the total agreements, while the more basic motors, engines, machinery, distribution transformers and cars, car parts and rubber products only had around 3% each of the total agreements. The influence of Western culture on the Philippines has made the country a profitable outlet for various kinds of beverages, cosmetics and toiletries. The cultural implications of direct foreign investment have been discussed and noted by various authorities,[26] and this is one instance showing the interrelatedness of the economic, social and cultural aspects of direct foreign investment, especially the multinational enterprises.

C. *Type of Assets Transferred*

As to the type of assets transferred, the same report finds that most of the agreements surveyed pertained to trademarks, trade names and service marks. The study shows that only 6% of the total agreements surveyed were agreements purely on technical know-how.[27] All the other agreements involved patents, trademarks or some combination of patents, trademarks and know-how. This preponderance of agreements pertaining to trademarks and patents is explained by the fact that by their very nature technology licensing agreements deal with patents and trademarks. This is also attributable to the fact that Philippine laws require registration of trademarks, and licensing agreements filed in support thereof with the Patent Office are public documents which are readily available for inspection.[28]

This finding has a very important implication in terms of the control and regulation of licensing agreements. It shows that it is not the licensing agreement *per se* that is required by law to be registered or approved, but rather the patents and trademarks which are embodied in the agreements, by virtue of Republic Act No. 165, otherwise known as the Patent Law. As to agreements involving purely technical know-how without

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[24] Virata, *op. cit.*, at p. 6.

[25] *Ibid.*, at p. 13, note 11.

[26] See Robert Stauffer, "Nation Building in a Global Economy: The Role of MNC's", Philippine Journal of Public Administration, Vol. XVI, January 1972, no. 1; Maria Clara L. Campos, "Multinational Corporations and the Philippines as Host Country. A Legal Assessment", Phil. Law Journal, April 1975, Vol. 50, No. 2, p. 54; I. Ivanov "International Corporations and the Third World", and Jovito R. Salonga, "Multinationals in the Philippines: A Brief Analysis and a Proposed Approach", Philippine Yearbook of International Law, Vol. IV, 1975.

[27] Virata, *op., cit.*, at p. 8.

[28] *Ibid.*, at p. 7.

patents and trademarks, there is no legal requirement for their registration and therefore they cannot be effectively supervised or regulated. This is notwithstanding the fact that it is believed that technical know-how licensing is fast becoming a trend. In the words of the report itself,

> "At the moment,* there is no government regulation in technical know-how licensing, and more often than not, these agreements are collateral agreements to the purchase of equipment from a foreign licensor or tied up with a marketing agreement with a foreign buyer. The latter is particularly true in the field of mining. The world market demand for certain ores prompted foreign buyers to execute marketing agreements with local firms in return for technical know-how to be supplied by them. More and more, it is not only the patentable rights that are considered of value but also the design, process or system helpful to a particular business."[29]

Such composite or "package technology" is particularly prevalent in developing countries, as previously adverted to above.[30]

D. *Duration of the Agreements*

Another finding of the report with many implications on the regulation and control of technology license agreements is the classification of the agreements by their duration. The study shows that the duration of 68% of the agreements was indefinite. This type of agreements followed a pattern of steady rise starting with 59% of the total agreements for the year 1955 to 79% for the period covering the years 1966 to 1970. (The 68% figure represents the total agreements entered into during the years 1955 to 1970). Contracts providing for 5-10 years duration comprised 8% of the total contracts and those with over 10 years' duration 2% of the total.[31] The report refers to the "advantage" to its parties of a contract with an indefinite duration, to wit:

> "The advantage that a contract with an indefinite term gives to its parties is the reason for its frequent use. Both parties to the agreement can, subject only to the requirement of notice, terminate the contract with or without cause at any time. Moreover, such types of contract eliminate the inconveniences ordinarily encountered in re-negotiating agreements with definite terms that are about to lapse."[32]

However, it is submitted that a caveat should be observed with regard to contracts of indefinite duration. The prerogative of both parties to ter-

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* *i.e.*, 1970.
[29] *Ibid.*, at p. 8.
[30] *Supra*, note 6.
[31] *Ibid.*, at 9
[32] *Ibid.*, at p.9.

minate the contract with or without cause at any time, subject only to the requirement of notice, is an advantage to both parties only if both parties stand on equal footing and posses the same amount of bargaining power. If one party is stronger than the other, then the right to terminate will most probably be advantageous only to that party. For instance, if the technology licensing agreement is between a subsidiary and the mother company of a multinational corporation, or between a foreign corporation and a domestic corporation wherein the former has majority capital participation (in areas where such foreign capital participation is allowed under the law)[83] then the local subsidiary or enterprise will likely be controlled by the foreign enterprise.

In such a situation, the indefiniteness of a contract can be used for its perpetuation, resulting in technological dependence of the local enterprise upon the foreign enterprise and the continuous flow of royalties or fees to the foreign licensor. In fact, in the guidelines for the acquisition of foreign technology in developing countries provided by the United Nations, the period for payment of royalties should not preferably exceed ten years, as such a period is normally deemed to be quite adequate for absorption and even adaptation of foreign know-how.[84]

In the same vein, the UNCTAD, in a report entiled "Restrictive Business Practices in Relation to the Trade and Development of Developing Countries",[85] considers the following a restriction under category A*:

> "x x x b) Requirement that the licensee pay royalties for the entire duration of manufacture of a product or the application of the process involved and, therefore, without any specification of time. The Group agreed that all contracts should have a time-limit relating to the expected period for which such know-how would retain commercial value. Royalties should not be paid after the time-limit expired, except where payments were deferred.

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[83] See Republic Act No. 5186 (Investment Incentives Act) and Republic Act No. 6135 (Export Incentives Act). See also Campos, *supra*, note 25

[84] U.N., *"Guidelines For the Acquisition of Foreign Technology in Developing Countries"*, *op. cit.*, at pp. 22.

[85] UNCTAD *"Restrictive Business Practice to the Trade and Development of Developing Countries,"* United Nations, New York, 1974. (TD/B/C.Z/119/Rev.1).

* The report, which was prepared by the Ad Hoc Group of Experts of the UNCTAD, adopted the following classification in determining the likely adverse or detrimental effects of the particular practices on developing countries:

Category A: restrictions which on the basis of knowledge and past experience, *are likely to have significantly adverse effects whether in developed or developing countries.*

Category B: restrictions *where the adverse effects are less clear* and may be offset by corresponding advantages and where, therefore, more complete economic analysis is required.

In principle, the Group considered that *restrictions classified as category A should not be retained or imposed.* (*Ibid.*, at p. 3).

With regard to the inconveniences encountered in renewal and renegotiation of agreements which are about to lapse, this observation glosses over the fact that renewals and renegotiations are often indispensable and beneficial from the point of view of the licensee in view of the rapid turnover of technological developments. As the aforementioned guidelines put it, "The licensee should not normally find it necessary to renew the agreement for the same technology and techniques.. However, new processes and techniques may have been developed during the period of the agreement. To obtain access to such techniques, a renewal clause is desirable, but it is necessary to define carefully the technology for which renewal is sought so that royalties do not still have to be paid on products for whose manufacture the technology has already been fully absorbed."[36] The guidelines prepared by the ESCAP of the United Nations advise to the same effect that at least "x x x the *possibility* of renewal should be incorporated in the original contract, so that there is access to breakthroughs in processes or to new products within the original coverage."[37]

It may be added that 81% of the contracts with indefinite duration were agreements of subsidiaries, foreign branches or local companies with foreign capital participation. Only 19% of such contracts with indefinite duration belonged to Philippine-owned corporations having purely technical collaboration agreements.[38]

E. *Royalty Fees*

As to provisions relating to royalty fees, the study shows that in 57% of the total agreements there were no explicit provisions for royalty fees, *i.e.*, royalty fees were either built in with the capital equipment and/or raw materials purchased from the licensors or, particularly in cases of subsidiaries, stipulated royalties were in letter agreements not available to the public.[39] This practice is more prevalent in agreements entered into by subsidiaries, licensed foreign companies and majority foreign owned and controlled corporations. Besides, 48.5% of the contracts entered into by these kinds of companies, when they were at all available for inspection, showed royalty fees ranging from 5% to 10% of net sales, a relatively high rate for royalty fees.

F. *Restrictive Business Practices*

The licensing agreements surveyed in the Virata report contained restrictive clauses which more or less cover the whole range of such

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[36] U.N., *"Guidelines For the Acquisition of Foreign Technology in Developing Countries"*, *op. cit.*, at pp. 22.
[37] ESCAP, *op. cit.*, at p. 107.
[38] Virata, *op. cit.*, at p. 9.
[39] *Ibid.*, at p. 10.

clauses as can be found in technology licensing agreements. The following are the types of restrictive clauses noted:

(1) Export Restrictions:
   a) Those which require permission from licensor prior to export;
   b) Those which provide that exports are permitted only to certain countries;
   c) Those which prohibit exports absolutely;
   d) Those which restrict exports to licensor's agents/distributors;
   e) Those which restrict the use of trademarks for exports.

(2) Tied-in purchase of materials.

(3) Restrictions on production patterns.

(4) Payment of minimum royalty.

(5) Patent/process improvement by licensee to accrue to licensor.

(6) Agreement construed and/or disputes settled according to laws other than Philippine laws.

(7) Restrictions on termination of agreement.[40]

(1) *Export Restrictions* —

As enumerated above, export restrictions take many forms. They range from absolute prohibitions to any country and under any conditions, to those which require prior permission from the licensor, and those which allow exports only under certain conditions. Restrictive clauses relating to exports have several possible ramifications.

An absolute prohibition to export imposed upon the local licensee may limit the production of the licensee below its potential, and thereby affect adversely the chances for greater economic development as a whole. This is particularly true if the products made are those which have great export potential. On the other hand, it is possible that a licensee has really no capacity to export and to insist on providing for this right to export the licensed product may be academic. Often a licensor may have entered into agreements with other licensees in other countries relating to the same products and might have made commitments as to the distribution of the products in such countries. Hence the licensor prohibits the exportation of the same products to such countries to avoid conflict.

However, instead of imposing an absolute prohibition to export, a licensor may provide that the licensee may export its products only to the licensor itself. This arrangement is significant, especially when the arrangement involves subsidiaries of a multinational corporation, for it is one of the ways wherein transfer-pricing may be practiced. If exports are made

[40] *Ibid.*, at p. 12.

between subsidiaries of a multinational corporation, or between a subsidiary and the mother company, then the prices of such exports can be manipulated through the centralized management of the multinational corporation. Such prices may not reflect the true value or international market prices of such exports and may be manipulated by the multinational corporation to take advantage of tax havens, to take the place of or to complement royalty fees, etc., all such strategies pointing to the overriding motivation of any business enterprise, namely the maximization of profits.

It is to be noted that in the Virata report, 65% of the total agreements with restrictive clauses contained restrictions on export of products.[41] Such clauses have several possible implications, but current thinking on the matter generally disfavor such restrictions. The UNCTAD Ad hoc Group of Experts has designated it to be a restrictive business practice within category A, *i.e.*, a *prima facie* restriction.[42]

(2) *Tied-in Purchase of Raw Materials* —

This kind of restritcion imposes upon the licensee the obligation to obtain the raw materials of the licensed product or the equipment necessary from the licensor or a person designated by the latter, and from no other source. Such restriction may prevent the local licensee from taking advantage of international market fluctuations to purchase such raw materials at the prevailing market rates. In effect it increases the cost of foreign technical collaboration.

Another disadvantage of such a practice is that it makes possible the much-feared and criticized phenomenon of transfer-pricing, especially by the multinational corporations. If the foreign licensor and the local licensee are both affiliates of a multinational enterprise, then manipulation of the prices of such raw materials and basic equipment may be made to evade taxes and maximize profits in such a way where regulation and control would be very difficult. In the words of one writer, "Transfer pricing, the setting of special prices for goods sold by one affiliate to another, is also widely used to reduce the income tax paid by the firm, to cope with import duties, to increase the liquid funds available to an affiliate, to hedge against devaluation or other currency changes."[43]

In the survey, restrictive clauses on the purchase of raw materials was second highest in number to export restriction clauses.[44] The various guidelines prepared by the United Nations and other international or regional bodies, as well as the legislations of various countries on the matter, have

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[41] UNCTAD, *op. cit.*, at p. 4.
[42] Virata, *op. cit.*, at p. 11.
[43] A.A. Fatouros, *The Computer and the Mud Hut: Notes on Multinational Enterprise in Developing Countries*, 10 COLUM. J. TRANSNAT, 325-365 (1972).
[44] Virata, *loc. cit.*

designated this kind of arrangement a restrictive business practice which should be discouraged if not prevented. The export restrictions and the restrictions on purchase of raw materials are the major types of restrictions in terms of the increase of the cost of the transfer of technology to the country.

(3) *Restrictions on Production Patterns* —

Restrictive clauses in technology transfer agreements may take many other forms. Among them are restrictions on production patterns. These are restrictive because they leave no flexibility to the licensee to adapt its production patterns (*e.g.*, volume of production, manufacturing process to be used, the labor-capital mix) to its own needs and to the prevailing local conditions.

(4) *Payment of Minimum Royalty* —

Conditions on the payment of a minimum royalty may also be unduly burdensome upon the licensee in that it will be obliged to pay royalties whether or not there are actual sales or profits. Royalties should normally be based on a percentage of net sales, volume of production, or other similar bases.

(5) *Patent/Process Improvement by Licensee Accruing to Licensor* —

A condition that whatever new patents and improvements on the technological process made by the licensee should accrue to the licensor is inequitable to the licensee because it prevents the licensee from using freely what strictly considered is its own property. It also places the licensee in a position of continuing technological subordination to the licensor.

(6) *Agreements Construed and/or Disputes Settled According to Laws other than Philippine Laws* —

Stipulations that the licensing agreement will be construed and/or disputes will be settled according to laws other than Philippine laws are also restrictive because, more often than not, the licensee is not aware of the laws of the licensor, and therefore the local licensee is at a disadvantage in enforcing any claim against the licensor in the event of a dispute.

(7) *Restrictions on Termination of Agreement* —

Lastly, restrictions on the duration or the termination of the agreement, such as contracts providing for an indefinite duration or providing for termination at the sole option of the licensor, may also be unfair to the licensee. It may perpetuate the licensee's inferior position vis-a-vis the licensor. It assures a continuous flow of royalties to the licensor and

prevents the licensee from using the know-how for its own purposes and adapt it to local conditions.

All these restrictive clauses have a common denominator in that they impose unfair burdens upon the local licensee, and consequently upon the economy as a whole. They also make possible anomalous practices, foremost among which is transfer-pricing. There is imperative necessity for the monitoring, regulation and control of these restrictive clauses, to which inquiry we now turn.

To give a picture of the legal and administrative machinery for the control and regulation of technology transfer as of 1970, the Virata report itself says:

> "The present system in the country provides for no particular government office to take charge of screening licensing agreements. The more powerful party to a licensing agreement can dictate the terms thereof in cases where the parties are left to their own devices, and agreements are concluded without regard to the effect of such contracts on the economy. The Board of Investments may by moral suasion reduce restrictive provisions of licensing agreements between a BOI registered firm and a foreign licensor by refusing to register such a project to qualify for incentives offered by the Government. If the firm is not engaged in an activity declared preferred by the board, or even if it is but does not or cannot register to avail itself of government incentives, no government office can directly abolish such restrictive clauses."[45]

The role of the Patent Office is also noted:

> "x x x Likewise, to a certain extent, the Patent Office may pass upon licensing agreements covering patents and trademarks registered with its office. While it is true that under R.A. 165, as amended by R.A. 637 and R.A. 864, creating the Patent Office, such power is not specifically stated, the broader power of the Department of Commerce and Industry* and the rule-making power of the Patent Office can perhaps be the source of this authority since the office accepts the registration of these licensing agreements."[46]

Again, the regulation which can be exercised by the Central Bank is explained in the report thus:

> "Perhaps a more potent tool which can be utilized in the absence of a government office specifically charged with the function of screening licensing agreements would be the emergency powers of the Central Bank under Sec. 74 of R.A. 265 (Central Bank Charter) on foreign exchange, under which no foreign exchange remittance should be al-

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[45] *Ibid.*, at p. 26.

* Now divided into the Department of Trade and the Department of Industry.

[46] *Ibid.*, at p. 28.

> lowed for raw materials, equipment, royalties or fees where the licensing agreements provide for restrictive business practice. Submission of licensing agreements to the Central Bank may also be required for purposes of allocating the country's scarce foreign exchange resources. The presence of sanctions of this type may reduce the number of restrictive practices in technical collaboration agreements. For a country which is dependent on developed countries for technical development, this would seem to be of paramount importance."[47]

As will be seen later, the Central Bank has precisely passed a circular under its rule-making power requiring royalty/rental contracts to be submitted to it for approval under certain conditions. This administrative regulation was passed and became effective December 3, 1973.

V. Transfer of Technology Agreements in the Philippines: Present Regulation

Possible Approaches to the Monitoring, Regulation and Control of Technology Transfer

As already stated above, agreements between licensors in developed countries and licensees in developing countries need to be monitored, regulated and controlled, especially where such agreements are between affiliated companies of a multinational corporation because they heavily influence the direction of development that a country is to take.

In the regulation, monitoring and control of technology transfer, several approaches may be adopted by a developing country. These are to regulate and control such transfer through:

(1) Industrial property laws; and/or

(2) Transfer of technology legislation; and/or

(3) Administrative regulation in the form of guidelines, registration and screening procedures for foreign investment and technical collaboration arrangements made by existing administrative agencies.[48]

Accordingly, this paper will discuss, in broad terms, the monitoring, regulation and control of technology transfer along these three lines of approach. Needless to say these approaches are not mutually exclusive and various combinations are usually adopted by different countries.

A. *Industrial Property Laws*

Technological collaboration agreements often include the licensing of patents and trademarks (although the trend of the trade in technology is towards unpatented know-how). The Philippines today has a strong and

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[47] *Ibid.*

[48] UNCTAD, *op. cit.*, at p. 11.

well-established patent system adequately enforced by the Patent Office and the courts of law. This factor has encouraged foreign licensors to have their industrial property patented in the Philippines. In fact, about 90% of the patents in the country are granted to foreigners. At first blush this may seem beneficial to the nation's industrial development; however certain sectors have seen how this phenomenon can actually retard rather than promote industrial development.

While the basic rationale for the patent system is the protection of inventions and other industrial property in order to encourage technological and industrial innovation and consequently national development, the same system has been abused to promote only the interests of the patent holders at the expense of the national interest. As stated in the explanatory note of the draft proposal for amendments to the Patent Law of the University of the Philippines Law Center,

> "In this period of heightened industrial activity and economic development in this country, the present patent system actually hinders rather than promotes industrial and economic development considering that our laws merely protect patent rights but do not compel the patentees to do their share in the promotion of economic development by the working of the patent, either by the patentees or by willing licensees. Patentees, it is observed, use their patents purely as licenses to import to the exclusion of others, thus allowing virtual monopoly of trade. Taking advantage of this monopoly, ese patentees import patented products — usually important ones like medicine, food and much-needed technological devices — made in their home countries and then sell these products in this country at excessive and abusive prices."

It was also noted in the same that whenever foreign patent holders have entered into licensing agreements with local enterprises, "such licensing agreements are shot through with restrictions and limiting conditions addressed to the licensee and are framed to promote mainly, if not solely, the interests of the foreign licensor in total disregard of the national economic plans and development programs of the country. This is hardly encouraging to local enterpreneurs and businessmen as well as to foreign investors who would otherwise be eager to join in industrial manufacturing and trade."

As a consequence, it is pointed out that:

(1) The establishment of many important new industries or trades in the Philippines which could contribute to the development of the national economy and help alleviate the unemployment problem, is prevented;

(2) A potential source of sizeable tax revenue and foreign exchange earnings is lost; and

(3) Transfer of technology is hampered since learning by doing is not made available.

The situation presents a paradox: the patent system is one way to encourage transfer of technology into the country and promote national development; however, the patent system also opens the door to abuse such that national development is retarded rather than promoted. This situation is in fact but a particular variation of the basic problem facing the government with regard to transfer of technology: how to encourage entry of technology because of its necessity, but at the same time prevent technological collaboration with foreigners from being used as an instrument to hamper national development. Fortunately the situation is not the Gordian Knot that it seems. The solution lies in the vigilant supervision and regulation by the government over such matters.

With regard to the patent system, certain amendments to the Patent Law, Republic Act No. 165, have been proposed. One would require prior approval of and registration with the Board of Investments and the Central Bank as well as registration with the Patent Office of voluntary licensing agreements. Another would fix a maximum limit on the royalty that may be imposed by the licensor. With respect to compulsory licensing,* the proposed amendments seek to shorten by one year the 3-year period at present required to lapse before an application for compulsory licenses may be filed so as to hasten the working of the patent. A provision is also suggested which specifically provides that mere importation shall not constitute "working".

B. *Transfer of Technology Legislation*

A number of countries have enacted specific laws to control restrictive business practices involved in the licensing by foreign firms of patents, trademarks as well as unpatented know-how. Among these countries are Mexico, Argentina, Venezuela and Spain. With regard to the Andean Group of countries,** the Commission of the Cartagena Agreement provides similar provisions dealing with restrictive business practices in foreign collaboration agreements.[49] Some countries, through legislation, have also established national offices for the transfer of technology which perform not only regulatory but also co-ordinatory and promotional functions.

The Mexican Act of December 28, 1972 has been much cited as an example of technology transfer legislation. The law, entitled "Registration

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* *i.e.*, when the patent holder fails to work his patent within a specified period of time, he may be compelled to license such patent to a third party.

** The Andean Group includes the countries (originally Bolivia, Chile, Columbia, Ecuador and Peru) which were parties to the subsequent integration agreement (Bogota, 1969), known as the Cartagena Agreement.

[49] *Ibid.*

of the Transfer of Technology and the Use and Display of Patents and Trademarks", creates a National Register of Transfer of Technology where there shall be entered "all documents embodying instruments, contracts or agreements of any kind intended to have effect in the national territory" and to govern:

(a) Grant of the use of trademarks or of authority to display them;

(b) Grant of the use of patents of inventions, improvements, models, and industrial drawings or of authority to display them;

(c) Furnishing of technical expertise by means of drawings, models, guidelines, instructions, formulae, specification, personnel training and qualification, or by other means;

(d) Supply of basic or detailed project study for the installation of plant or equipment or for the manufacture of products;

(e) Technical assistance in any form.[50]

(1) *Enforcement of the Law* —

To enforce the registration of such instruments, the law provides that "instruments, agreements or contracts as referred to in Article 2, and amendments thereto, which have not been registered in the National Register of Transfer of Technology, shall have no legal effect and accordingly shall not be submitted to any authority and no action to enforce them may be entertained by a national court or tribunal.

"Instruments as aforesaid shall, if their registration has been cancelled by the Ministry of Industry and Trade, likewise have no legal effect, and no action to enforce them may be entertained by a national court or tribunal."[51]

In the matter of enforcement of technology transfer legislation, the laws of other countries have provided for penalties for infringement. For example, the Venezuela law on technology transfer provides:

> "Article 34. — Infringement of the present law, its implementing regulations and the resolutions that the authority of application may issue by virtue of the powers granted to it shall be subject to the penalties imposed by the State Secretariat of Industrial Development. The penalties will be applied by he State Secretary of Industrial Development to the individuals or companies or to both simultaneously, that may be responsible for those infringements, prior indictment to be drawn up after hearing the defendants, subject to the rules of procedure that may be established and may consist, jointly or severally in:

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[50] The Mexican Act of December 28, 1972 on "Registration of the Transfer of Technology and the Use and Display of Patents and Trademarks", Art. 2, in ESCAP, *op. cit.*, at p. 206.

[51] *Ibid.*, Art. 6, at pp. 206-207.

a) Fines up to one million (1,000,000) pesos which may be applied "in solidum" to the individuals or companies responsible for the infringements;

b) Special disqualification to exercise commercial acts for a period of up to two (2) years to promoters, founders, directors, administrators, syndic (statutory auditors) or managers of the companies comprised in this law, without prejudice to application of the penalties determined by Artcle 248 of the penal Code, when relating to autarchical State bodies or State corporations or other entities in which the State has share participation;

c) Temporary suspension of the rights arising from the inscription;

d) Cancellation of the inscription of the contract in the registry;

e) Withdrawal of the legal capacity in the case of civil or commercial associations, or cancellation of the inscription in the National Commercial Court when relating to business companies without corporate form."[52]

(2) *Restrictive Clauses prohibited* —

The laws regulating transfer of technology invariably enumerate the restrictive clauses and business practices which, if contained in a transfer of technology agreement, will preclude the registration of such agreement. These restrictive clauses are the same clauses discussed above, plus others. These are the same clauses looked upon with disfavor by the various United Nations bodies and instrumentalities. As an illustration, the Mexican law provides:

"Article 7. The Ministry of Industry and Trade may not register an instrument, agreement or contract as referred to in Article 2 —

a) Whereof the purpose is transfer of a technology readily obtainable in the country;

b) Where the price or consideration is disproportionate to the acquired technology, or constitutes an unjustified burden on the national economy;

c) Where clauses are included which enable the supplier of the technology directly or indirectly to control or to intervene in the management of the buyer;

d) Where patents, tradenames, trademarks, innovations or improvements obtained by the technology buyer are required to be transferred, with or without compensation, to the technology supplier;

e) Where restrictions are imposed on research or technological development by the buyer;

f) Where the buyer is made to obtain equipment, tools, parts or raw materials exclusively from a specified source;

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[52] United Nations Industrial Development Organization (UNIDO), "Functions and Organization of National Offices for Transfer of Technology", June 9, 1976, p. 32 (ID/WG.228/3)

g) Where the export of goods or services produced by the buyer is prohibited or restricted in a way contrary to the interests of the country;

h) Where the use of supplementary technologies is prohibited;

i) Where the goods produced by the buyer are required to be sold exclusively to the supplier;

j) Where buyer is required to use permanently staff specified by the technology supplier;

k) Where production volumes are limited, or sale or resale prices are imposed on the buyer's national production or exports;

l) Where the buyer is required to conclude in the national territory exclusive sale or representation contracts with the supplier;

m) Where the period of validity is too long: the buyer may in no case be bound for more ten years;

n) Where disputes arising from the interpretation or execution of the said instrument, agreements or contracts are to be brought before or settled by a foreign court."[53]

There is also a classification of the restrictive clauses into those which are strictly or absolutely prohibited and those which may be allowed under certain conditions. The Mexican law provides, in Article 8, that the "Ministry of Industry and Trade may register in the National Register of Transfer of Technology instruments, agreements or contracts which fail to meet one or more of the requirements set out in the preceding article where the technology so transferred is of particular benefit to the country. *There may be no derogation from the provisions of paragraphs (a), (d), (e), (g) and (n) of the preceding article*" (Italics supplied).[54] It will be noted that this classification parallels the classification by the UNCTAD's Ad hoc Group of Experts of restrictive clauses into those falling within "Category A" and those falling within "Category B".[55] This classification will give a certain degree of flexibility to the agency or body charged with the screening of technology transfer agreements.

In the regional level, the Commission of the Cartagens Agreement which covers the Andean Group of Countries[56] has adopted "Common Rules for the Treatment of Foreign Capital and Trademarks, Patents, Licenses and Royalties" in its Decision No. 24 of December 1970. Article 20 of such decision provides:

"The member Countries shall not authorize the conclusion of contracts relating to the transfer of technology or to patents which contain:

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[53] ESCAP, *op. cit.*, at p. 207.
[54] *Ibid.*
[55] See p. 80, *supra.*
[56] See p. 88, *supra.*

a) clauses whereby the supply of technology entails an obligation on the country or the importing enterprise to acquire from a specific source capital goods, intermediate products, raw materials or other technology, or to use, on a permanent basis, staff specified by the enterprise supplying technology. In exceptional cases the importing country may accept clauses of this nature for the acquisition of capital goods, intermediate products or raw materials, provided that their price corresponds to the price levels current on the international market;

b) clauses whereby the enterprise selling technology reserves the right to fix the sale or resale price of products manufactured on the basis of the technology concerned;

c) clauses containing restrictions on the volume and structure of production;

d) clauses prohibiting the use of competing technology;

e) clauses giving the supplier of technology a total or partial option to purchase;

f) clauses obliging the purchaser of technology to transfer to the supplier inventions or improvements obtained through the use of the technology concerned;

g) clauses requiring the payment of royalties to the patentee for unused patents, and

h) clauses with equivalent effects.

Save in exceptional cases, duly recognized by the competent authority of the importing country, clauses shall not be admissible where they prohibit or in any way restrict the exportation of products manufactured on the basis of the technology concerned.

In no case shall such clauses be admissible in relation to trade in the subregion or for the exportation of similar products to third countries.[57]

Article 25 of the same document enumerates similar restrictive clauses contained in license contracts for the use of foreign trademarks on the territories of the Member Countries.[58]

(3) *Provision for Technology Transfer Agreements Existing at the Time of Passage of the Law* —

One of the most important aspects of technology transfer legislation which must inevitably be considered if the law is to be effective as well as uniform in its application, concerns the treatment to be given to agreements that were entered into prior to the effectivity of the regulating law. In other words, the law should be applied retroactively to all technology contracts signed earlier. It must be remembered that in the Philippines, for instance, a great number of the subsidiaries of

[57] UNIDO, *op. cit.*, at pp. 42-43.
[58] *Ibid.*, at p. 44.

multinational corporations and other forms of foreign investment have been well-established even before the passage of R.A. No. 5186, otherwise known as the Investment Incentives Act in September 16, 1967, R.A. No. 5455, otherwise known as the Foreign Business Regulation Act in August 15, 1968, and R.A. No. 6135, otherwise known as the Export Incentives Act in August 31, 1970, the three principal Philippine laws on foreign investment. If transfer of technology legislation were to be passed (requiring registration and screening of technology transfer agreements), how will those agreements entered into prior to the passage of such law be treated, especially if such agreements contain the prohibited restrictive clauses? On this point, it may be noted that all the licensing agreements surveyed in the Virata report would fall squarely within the question.

To meet this situation, the Mexican legislation on technology transfer contains "transitional provisions", to wit:

> "x x x x x x x x x
> *Second.* Instruments, agreements or contracts to which Article 2 applies concluded before the date of the entry into force of this Act shall be brought into conformity with its provisions and registered in the National Registry of Transfer of Technology within two years after that date. The Ministry of Industry and Trade may extend this period when special circumstances so warrant.
> *Third.* When the provisions of the previous article are complied with, within the periods established, the parties may continue to enjoy the benefits and incentives referred to in Article 5, which have been previously granted to them. Otherwise, such benefits and incentives shall be cancelled.
> *Fourth.* Until the acts, agreements or contracts referred to in Article 2 have been adjusted to the provisions of this Law and have been registered, the parties shall not have the right to enjoy the benefits, incentives, aids or facilities referred to in Article 5, nor shall their manufacturing programmes be approved.
> *Fifth.* Upon the termination of the periods referred in Transitory Article Second and the extensions thereof, the acts, agreements and contracts which have not been registered in the National Register for the Transfer of Technology, shall not be legally effective, as provided in Article 6.
> *Sixth.* In the case of acts, agreements or contracts which have been executed prior to the date of this law, the ruling of the Ministry of Industry and Commerce on their registerability in the National Register for the Transfer of Technology, shall be issued within 120 days following the date of filing the documents."[59]

Provisions for a "submission-for-information" procedure regarding prior contracts in order that such contracts will be modified within a certain

[59] ESCAP, *op. cit.*, at p. 208.

period of time in order to conform to the provisions of the law is a factor which will cause the passage of the law to be opposed by the powerful sectors composed of the well-established subsidiaries and other forms of foreign investment in the country. It may take considerable political will to push through such a measure, but it is clear that the activities of enterprises which are already established should not escape the regulation and control envisioned, more so because they are already an integral and substantial part of the nation's economy.

(4) *A National Office for Transfer of Technology* —

Whereas many countries rely on existing government agencies and institutions for the monitoring, regulation and control of transfer of technology, others have found it necessary to establish a national office for the transfer of technology. Such an office is often given broad powers and a high status so as to perform its functions effectively. Some countries have given such an office sole responsibility for deciding all matters related to the transfer of technology and for implementing national technological policies. Allegedly this is in response to the ineffectiveness of entrusting the function of regulating transfer of technology to existing agencies whose functions are in some way related to technology transfer, but nevertheless have their own principal duties and functions apart from the regulation of technology transfer. In the Philippines, such agencies are the Board of Investments, the Central Bank, the Patent Office, the National Science Development Board, the Oil Industry Commission, the Department of Trade, the Department of Industry, and the National Economic and Development Authority. It is claimed that instead of leaving the task to diverse agencies, it would be more efficient and economical in the long run to establish a national office for the transfer of technology.

In the study made by UNIDO,[60] it is suggested that in executing technological policies, the national office performs regulatory, co-ordinatory and promotional functions. "In some circumstances the regulatory functions may predominate, while in others the coordinating or promotional functions may be more important. There is no single pattern that can be applied extensively in organizing a national office. Each developing country, after carefully analyzing its own needs and specific conditions must develop its own model once it recognizes the necessity for such an office."[61]

The regulatory functions include the evaluation of all agreements involving the transfer of technology, the approval or non-approval of such agreements, and if approved, their registration. The evaluation, on the

[60] UNIDO, *op. cit.*, note 50.
[61] *Ibid.*, at p. 4.

basis of which the decision to approve or reject agreements is made, has three aspects:

a) Legal, which determines conformity with prescribed national legislation and generally acknowledged rules for international transfer of technology;

b) Technical, which evaluates the possibility of adapting and utilizing technology, proper selection of technology to meet the requirements of industrialization, input for local research and development;

c) Economic, which analyzes the project's commercial viability, conformity to foreign exchange controls, and comparative analysis.[62]

On the other hand, the coordinating functions of the office derive from the fact that transfer of technology is intimately related to many areas of the economy such as foreign investment, balance of payments, fiscal policies, research and development, employment, and others. It is necessary therefore that the national office coordinate the relevant functions of the agencies dealing with these various areas of the economy.

The promotional function of the national office includes efforts to present and explain government policies and directives to both the foreign suppliers of technology and the domestic business community. Such promotional efforts may be carried on in foreign business circles through official as well as unofficial channels. The national office can also advise local businessmen on all issues related to the transfer of technology, collect and analyze technological information from all sources, and organize training courses for government officials and local businessmen on the key issues of technology transfer, thereby increasing skills in this specialized field and increasing the bargaining position of local licensees.

The National Registry for the Transfer of Technology of Mexico created by the Mexican Act of December 28, 1972 on the "Registration of the Transfer of Technology and the Use and Display of Patents and Trademarks", provides an example of one office exercising basic regulatory functions as well as promotional and coordinating functions. It is attached to the Ministry of Industry and Trade, and its Director General reports directly to the Minister of Industry and Trade.

Among the salient features of the law creating it are: (1) the requirement that either party to a technology transfer agreement domestic or foreign, must submit it for evaluation within 60 days after date on which they are concluded; (2) the establishment of a deadline for handing down decisions on agreements submitted for evaluation (90 days after date of submission); (3) provision that agreements which are rejected after evaluation may be renegotiated; and (4) a system of fees to be paid by the

[62] *Ibid.*, at p. 5.

parties to the agreement for evaluation and registration of the same has also been established.[63]

C. *Administrative Approach to Transfer of Technology Regulation*

Against the argument that separate legislation creating a separate body for the regulation of transfer of technology is needed, it is contended that existing agencies can provide the adequate machinery for the purpose. The present system of regulation of transfer of technology in the Philippines may be classified as falling under the administrative approach, *i.e.*, the regulation takes the form of an informal, "ad hoc" interagency arrangement between the Board of Investments, the Central Bank and the Patent Office.

The Board of Investments (BOI) plays a central role. It is in a convenient position to do so, being the agency in charge of overseeing foreign investments in the country. In determining whether a certain enterprise falls under a "pioneer" area of investment, one of the criteria it uses is whether the enterprise proposes to use a "design, formula, scheme, method, process or system of production or transformation of any element, substance or raw material into another raw material or finished good which is new and untried in the Philippines x x x".[64] For a pioneer enterprise, the law provides for a number of incentives. One of the many functions of the BOI is therefore the encouragement of transfer of technology into the country.

Yet the BOI has seen the need for the regulation of transfer of technology in order to dovetail the policies on foreign investment and technology transfer with the national economic policies in general. In fact the situation facing the BOI is another particular manifestation of the situation confronting the government *vis-a-vis* transfer of technology: encourage technology to come in because of its necessity to the country's economic development, but at the same time regulate the transfer so as to obtain maximum benefits at minimum costs.

Accordingly the BOI has adopted guidelines in the evaluation of technology licensing agreements which are part of equity investments. In the evaluation, account is taken of such factors as the need for the technology and/or trademark, the reasonableness of the cost of know-how or trademark, and restrictive clauses in the contact.[65] The latter are divided into category A restrictive clauses which are prima facie restrictive in nature and can only be allowed if there is an overwhelming economic and in-

[63] *Ibid.*, at p. 9.
[64] Rep. Act No. 5186, sec. 3(a).
[65] Lilia R. Bautista, *The Legal, Fiscal and Economic Aspects of Technology Transfer*, Board of Investments, Dec. 17, 1975.

dustry justification therefore, and category B restrictive clauses which may be restrictive in nature but may be allowed where advantages can accrue to the economy directly or indirectly. Examples of category A clauses are:

> a) Direct or indirect restrictions on exports whether or not protected by patents in other markets (*e.g.*, higher royalty for export sales, prior approval of licensor before exportation, restrictions on level of production, fixing prices and manufacture by licensor).
>
> b) The charging of royalties on patents after their expiry or during the entire duration of manufacture of a product or the application of the process involved and, therefore, without any specification of time;
>
> c) Restrictions or a prohibition on the use of know-how after termination or expiry of the contract (exception would be necessary where early termination of the contract took place on account of breach of the contract by the licensee).
>
> d) Restrictions tying the purchase of goods such as raw materials and equipment to the licensor or a person designated by him (exception can be made where the purchase of a particular input is essential to safeguard the value of a trademark).

On the other hand, category B clauses include:

> a) Obligations to communicate, for example by way of grant-back or otherwise to the licensor improvements and knowledge acquired in respect of the working of a patent or the use of know-how licensed (such obligation could be burdensome to the licensee when it already pays high royalty charges; however, it may be permitted on a reciprocal or non-exclusive basis).
>
> b) Obligations to transform royalty payments or technical know-how fees into capital stock (exception can be made in case of urgent need for foreign exchange for the project or if this is the way to ensure continuing technical know-how).
>
> c) Insistence by licensor that the law of his country govern the contract.
>
> d) "Manufacturing" royalty in excess of 5%, or for contracts involving "marketing" services (including use of foreign brands, trade-names or trademarks), in excess of 2% of the wholesale price of the commodity manufactured under royalty arrangement (assuming royalty is within the ceiling aforestated, the industry group should also look into its reasonableness).
>
> e) Contract term in excess of 5 years and/or with automatic renewal clause.[66]

Of the three factors considered by the BOI in evaluating a licensing agreement, the third, *i.e.*, restrictive clauses in the contract, is the least

[66] Board of Investments, "Guidelines in Evaluating Licensing Agreements", pp. 1-2.

difficult to perform. Checking a contract against a prepared list of restrictive clauses is a relatively simple thing to do. The other factors however can be very difficult to assess. The need for the particular technology, patent or trademark entails engineering and technical expertise which may well be beyond the principal functions of the BOI at present. The same is true for the determination of the reasonableness of the cost of the technology. The BOI does perform these functions to the extent that it is properly involved, *i.e.,* to the extent that the transfer of technology is part of an enterprise which must be registered with the BOI in order to avail of the incentives for foreign investment provided by law. For instance, in contracts for supply of machinery and turn-key contracts, the BOI has made it a rule that "before an entity can avail of tax exemption, deduction or deferment for his capital equipment importation, public bidding is required unless there is only one known manufacturer of the machinery, the total cost of importation is less than $1 million, and the Board has other means of determining the reasonableness of the procurement cost."[67] Nevertheless, the BOI is at present hard put to be the agency charged with monitoring, regulating or controlling transfer of technology *per se.*

The same holds true of the Central Bank, another government agency engaged in the regulation of licensing agreements. The Central Bank has issued Circular No. 393 which regulates "royalty/rental contracts involving or which may involve the use of trademarks, copyrights and patents as well as the use/transfer of technology or furnishing of service payment for which is based on the value of the article manufactured, used or sold entered into by and between residents and non-residents."[68] The circular provides that the contracts' term should not exceed 5 years and shall not contain automatic renewal clauses; there shall be no export restrictions; that royalties and/or rental shall not exceed 5% of the wholesale price of the commodities manufactured under the royalty agreement, and for contracts involving "marketing" services, 2% of the wholesale price; and that remittances of royalties/rentals may be allowed in full if they are submitted to the Central Bank for approval under this circular. The Central Bank consults the BOI in approving and registering such contracts and renewals thereof. Again, circular 393 covers only contracts with explicit royalty provisions and the regulation it affords involves only the restrictive clauses of a contract, not the purely technical and engineering aspects.

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[67] Bautista, *op. cit.*, at pp. 6-7.

[68] Central Bank Circular No. 393, "Regulations Governing Royalties/Rentals", Dec. 7, 1973.

VI. Conclusion and Recommendations

There is an ongoing debate on the question of what is the most appropriate machinery to take charge of the regulation of technology transfer. Some quarters contend that a national center for technology transfer created by special legislation, in the pattern of the Mexican institution, is the best set-up. On the other hand, it is also argued that the government may lack the expertise necessary for the operation of a national body for transfer of technology, so that the present interagency arrangement is the more feasible alternative.[69] It is also claimed that if such a national office were to be endowed with substantial powers, then the various agencies now concerned may view this as a matter of "territorial imperative" and therefore neglect to assist in the matter altogether. Then, the establishmen of such a national office may only focus the efftorts of the giant multinational corporations to influence the government on a single bureaucratic body.[70] Other intermediate alternatives have been suggested, such as the establishment of an information center where all such technical collaboration agreements and other data and statistics will be submitted for purposes of information and monitoring the activities of foreign firms, such information center having no power to approve or disapprove the agreements.

Whatever be the result of the debate, it would seem that there is no single pattern of government regulation that can be applied to all countries. Much would depend upon the existing regulatory machinery. A centralized national office may be appropriate for one country while an interagency

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[69] The paper entitled "Tranfer of Technology: Action to Strengthen the Technological Capacity of Developing Countries-Policies and Institutions" submitted at UNCTAD IV, Nairobi, May 1976, describes the personnel needed for a national office for technology transfer thus: "The categories of staff would include engineers and economists able to identify, seek out and evaluate technologies in the range of economic activities being undertaken by the government; those with a training in law, especially the law relating to industrial property, in commerce, accountancy and economics and statistics and hence with an aptitude to unpackage the imported technology, review contracts and where necessary negotiate or renegotiate them; design engineers with experience of research and development and hence capable of promoting the adaptation of acquired technology and initiating the development of indigenous technology; and specialists able to collect the information required or requested by the users as well as as to assist users in the first stage of the process through knowing where to find alternative sources of technology. A multi-disciplinary background is desirable on the part of the personnel, as well as practical experience of the production system, interchange of staff between this system and the centre would also be of advantage. The estimate of the manpower required and the phased plan for building up the strength would clearly be worked out on a country-by-country basis.

[70] This matter was discussed at a workshop-seminar on "The Multinational Corporations in the Philippines" held at the Development Academy of the Philippines, Tagaytay City, 1976.

arrangement could perform just as well for another country. In the Philippines, an interagency agreement may perhaps be adequate for present purposes, but groundwork should be laid for the eventual establishment of a national office for technology transfer to meet future needs.

Rather, it is more important to foresee the consequences of transfer of technology and to provide for all of them. The physical make-up of the regulatory body is not crucial as long as all the possible ramifications of technology transfer are considered and properly supervised and directed towards the realization of the development goals of the country.

The transfer of technology is an involved and complicated process. In the words of one writer,[71] "the technology recipient country is faced with a sequence of problems and decisions to make, including the identification of its technological requirements, then the search of existing alternative technologies as well as alternative sources of such technologies, a fairly standardized and institutionalized procedure by which appropriate evaluation and selection of the preferred technology is undertaken (including adaptation and local development if called for), and where necessary, the unpackaging of the technology package so as to provide for greater flexibility of choice and greater economy."[72]

In the monitoring, regulation and control of technology transfer, the office in charge should perform the following functions:

1) Collection of data and information. A recurrent problem of administrative agencies is the lack of systematic data, statistics and information on which to base their actions and policies. In the field of technology transfer, data and statistics are inadequate and need to be updated. What is needed is not only data on executed or executory technology agreements but also information as to the alternative sources of technology, the various possible foreign licensors, the market conditions of the country, the region and the world, the legal provisions of the country related to technology transfer as well as the generally accepted standards of international transfer of technology, and other technical, economic and legal matters. The data and information thus collected will be used as the basis of the formulation and implementation of policies in promoting and

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[71] Armand F. Fabella, "Transfer of Technology and Restrictive Business Practices", paper submitted at the International Conference on the Survival of Humankind: The Philippine Experiment, 1976, p. 3.

[72] The same author, Fabella, *ibid.*, explains the term "unpackaging" thus: "The process of unpackaging refers to the separation of the component parts of a transfer of technology activity, such as say the construction of a factory and turning it over to the developing country entity in operating condition. By breaking down the component costs of putting up such an enterprise, the technology recipient can shop around, as it were, and in effect put together its own set of requirements to suit its own needs best."

encouraging technological development, as well as in assisting and advising local businessmen in negotiating and bargaining with the foreign licensors.

2) Evaluation of Technology Transfer Agreements. The evaluation of agreements and contracts involving transfer of technology has three aspects, at the least:

> a) Legal. This will ensure conformity with prescribed national legislation and generally acknowledged rules for international transfer of technology;
>
> b) Technical. This will explore the possibility of adapting and utilizing the technology, proper selection to meet the requirements of industrialization, input for local research and development, and engineering aspects;
>
> c) Economic. This will involve the analysis of the projects' commercial viability, impact on foreign exchange reserves, and dovetailing technological development with the national economic development plans.

3) Coordination of Areas Affected by Technology Transfer. Since transfer of technology affects many areas of the economy like balance of payments and trade, domestic and foreign investment, fiscal policies, employment, research and development, the office should have access to the other agencies concerned. Among these agencies are the Board of Investments, the Central Bank, the Patent Office, the National Economic Development Authority, the National Science Development Board, the Oil Industry Commission, the Department of Trade, the Department of Industry and the Department of Natural Resources.

4) Promotion. A very important function of the office is to explain and promote the government's policies to both the foreign licensors and the domestic business community. These efforts may be carried on officially or unofficially and they will result in the encouragement of foreign licensors to deal with local enterprises. The local business community on the other hand must be made to understand and support the government's goals. Promotion includes:

> a) Advisory Services to Local Businessmen — Part of the promotional functions of the office is to disseminate the data and information it collects to the local business community to advise it on all issues related to transfer of technology.
>
> b) Training in the Negotiation of Technology Collaboration Agreements — The office should provide training courses-seminars-workshops wherein the local licensees and the government personnel engaged in the negotiation of the agreements may increase their negotiating skills and improve their bargaining positions.

5) Encouragement of local research and development efforts. The country's attainment of technological independence will depend on whether the technology coming from abroad is complemented by local research and development efforts. Basic research is very expensive and requires the establishment of an infrastructure to adapt technology to local requirements. This infrastructure should consist of trained manpower and domestic research facilities. Although difficult and expensive, local research and development efforts will in the long run enable the country to be technologically self-sufficient in some degree. To this end, proposals are made that users of imported technology set up a portion of their profits for domestic research.

Considering the myriad functions of a body or office charged with the supervision and regulation of transfer of technology, it is clear that the present machinery is inadequate. Regulation is presently focused on contractual matters of technology transfer. Evaluation of technological and engineering aspects, data collection, promotional efforts and local research and development are inadequately performed. These functions can be performed by a national office for technology transfer created by special legislation or, if present resources preclude the setting up of such an office, by an "ad hoc" committee composed of representatives from the various existing government agencies involved.

The parties to a technical collaboration agreement, namely the foreign licensor and the local licensee, are both profit-oriented entities. Notwithstanding the national interest involved in their activities, they can only be expected to give priority to their own interests. Government regulation and supervision of transfer of technology must be directed towards securing the interests of the people of the nation.