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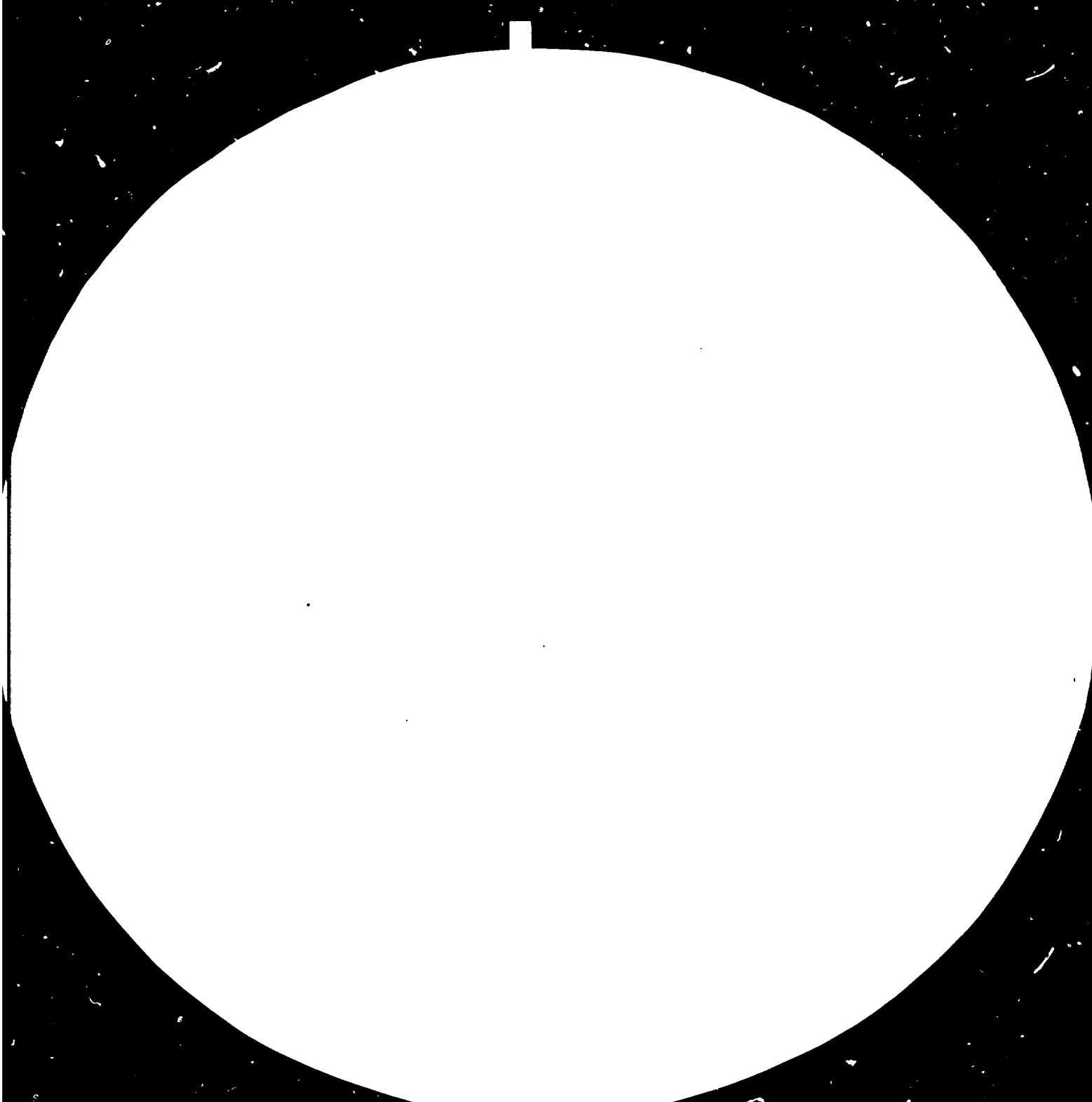

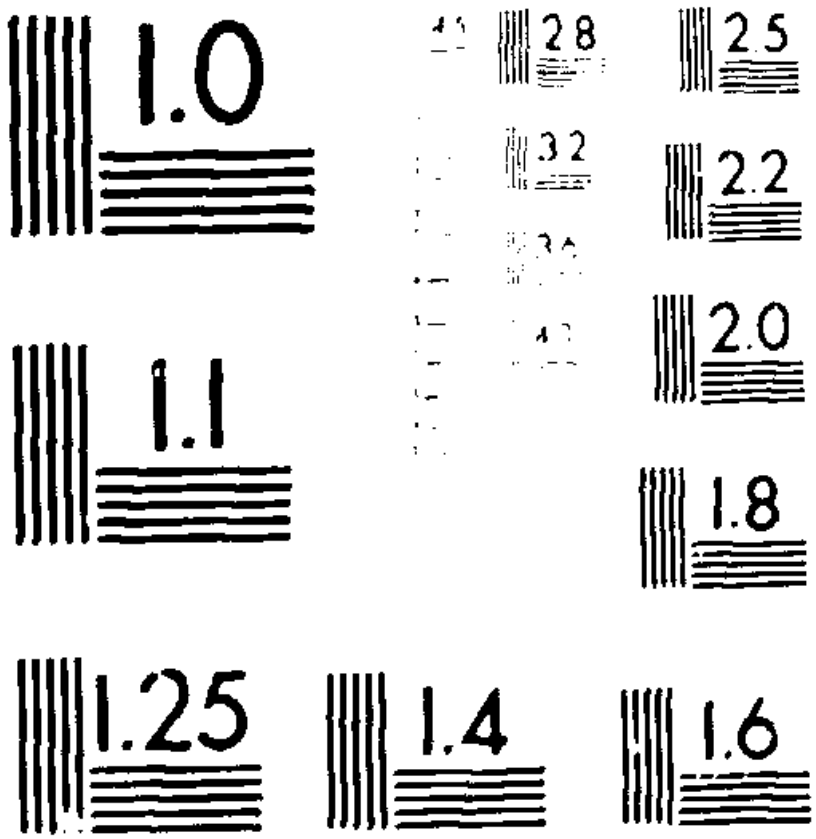

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TIES NEWSLETTER

TECHNOLOGICAL INFORMATION EXCHANGE SYSTEM

Issue No. 30 12855 July 1985

Dear Reader,

As you may recall, one of our major activities associated with TIES is the Technological Advisory Service (TAS) which UNIDO has been operating for years with the purpose of providing rapid, efficient and impartial advice to governments of developing countries in contracting industrial projects in all fields of UNIDO activities.

Current TAS activities include assistance in the preparation for negotiation of contracts, in drafting agreements and in the conduct of negotiations in major projects with heavy technological input such as petrochemicals, pharmaceuticals, fertilizers, mineral processing and the automotive industry. Government and public companies of countries such as Portugal, Egypt, Dominican Republic, Venezuela, Malaysia and the People's Republic of China, have been the main beneficiaries of TAS which has the unique advantage of combining the expertise of UNIDO staff and selected outside consultants with the access to existing facilities and experience in the area of transfer of technology negotiation, as in the case of TIES.

In parallel with the traditional form of field assistance to the technology recipient, and in order to increase the scope and flexibility of its possible outputs, TAS is being expanded so as to include a service operated at UNIDO headquarters to provide free advice on selected topics of negotiation, to review technology contracts and to supplement the analytical work carried out by the recipients or by the regulatory institutions.

Our purpose is, as always, oriented by the needs we detect from government institutions and entrepreneurs in developing countries and TAS indeed reflects a subject of major importance and concern.

Your inquiries and requests are welcome and, for additional information on TAS, please do not hesitate to contact us.

G. S. Gouri
Director
Division for Industrial Studies

In this issue:

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REGISTRY NEWS

LOCAL VALUE ADDED IN TECHNOLOGY TRANSFER AGREEMENTS - THE PHILIPPINE EXPERIENCE

by Rowena S. Paguio*

The Technology Transfer Board (TTB)

The history of national regulatory policy in the Philippines, particularly with respect to technology and investments, was influenced by both macro-economic and micro-economic concerns, as is the case in several other developing countries. Among the macro-economic planning concerns are:

1. Import substitution aimed at the creation of a national manufacturing base
2. Export promotion efforts of the government
3. The appropriateness, cost and local acquisition of foreign technology
4. Balance of payments consideration
5. Indigenous sourcing of raw materials/supplies
6. The growth and development of national technological capability

The latter concern directly ties up with the first and emphasizes the importance of technology as an essential element to the establishment of a strong national manufacturing base. In the process, the other areas of consideration are similarly addressed. Against this background, the Technology Transfer Board of the Philippines was created in June 1978 with the long-term objective of directing the growth and development of national technological capabilities that will support the country's industrialization programme. In line with this, the more immediate objectives are to ensure the appropriateness of technology imports to existing needs and situations as well as the reasonableness of the terms and conditions of acquisition.

With this, the Board is empowered to undertake the following functions:

(a) formulate policies, including a system of priorities which would promote an integrated approach to the developmental and regulatory roles of the government in the field of technology transfer;

(b) issue rules and regulations for the effective, efficient and economic implementation of policies and guidelines relative to technology transfer;

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* Paper presented at the Joint UNIDO/NOIP Workshop on the Evaluation of Joint Venture Agreements involving Equity and Non-Equity Participation, Lagos, Nigeria, 11-15 March 1985.

(c) establish a system for co-ordinating all governmental activities on technology transfer and ensure continuing and meaningful interaction among various government agencies, particularly with respect to the determination of the impact of technology transfer on national development; and

(d) serve as a forum for the continuing interchange of ideas and information among the government agencies concerned, the private sector and the general public on policy issues, problems and alternative approaches relating to technology transfer.

Progressive manufacturing programmes

The desire to develop domestic manufacturing capabilities which will provide the foundation of the country's industrialization programme is a pervading concern. The government's approach has been a combination of incentives and regulation, both directed at exerting influence on local industries to depart from mere assembly and/or mixing and repackaging and move to local processing, fabrication and manufacture; attain greater productivity and efficiency; as well as penetrate world markets.

Such is the basis of the new incentive scheme of the Board of Investments (BOI), one of the elements of which is the granting of a tax credit equivalent to 10 per cent of net local content of export sales for new and expanding projects. Although this incentive is available only to direct exporters, it is expected to ultimately benefit indirect exporters, i.e., manufacturers supplying the needs of direct exporters, by encouraging them to use more local input.

Rationalization programmes of certain selected industries likewise form part of the overall government approach such as the progressive manufacturing programmes for cars, trucks, motorcycles and the local electronics input programme.

In a general sense, these programmes are aimed at creating increased manufacturing activities for the domestic manufacture of components, and in the process upgrading of engineering and production skills and provision of new technological know-how to the domestic manufacturing industry. Again, the realization of foreign exchange savings for the country through the progressively increased use of local raw materials/supplies, as well as the generation of new exports of manufactured products are aimed to be similarly fulfilled. In the long-term, the objective is the rational and orderly growth of the industry.

Thus, in implementing these rationalization programmes there is a requirement for the progressive increase in local input by annual increases in the use of locally manufactured raw materials/components, which could be a source of certain tax privileges and/or incentives. In the case of the Progressive Car Manufacturing Programme for instance, the government established minimum domestic content percentages that participants in the programme have to comply with. The domestic content ratio is the ratio of the domestic content value to the value of PCMP registered cars whose assembly was completed during the period under consideration. The value of vehicles assembled shall be the FOB cost of the completely built up (CBU) unit, without extras and accessories, priced for export. Domestic content value on the other hand is the sum of import prices, FOB, of spare parts equivalents of domestically manufactured components actually incorporated in local assembly but with a bonus addition of net foreign exchange earned by the economy from exports of domestically manufactured components attributed to the registered participant during the period. The calculated ratio multiplied by 100 becomes the domestic content percentage attained.

This approach has also led to the setting up of major component manufacturing projects by the participants to the programme, e.g. engine transmission manufacturing project, body stamping plant, etc.

Local value added consideration at the TTB

It should be pointed out however that since these progressive manufacturing programmes are selective in scope, i.e., covering specific industries only, other measures have to be devised in order to encourage greater local manufacture and subsequently greater utilization of national inputs. The Technology Transfer Board (TTB) which provides the institutional and administrative framework for regulating the entry of foreign technology into the Philippines, is one of the avenues which currently implements measures along this line. The matter of local value added (LVA) is one of the more important considerations in the evaluation/approval process of technology transfer agreements.

From the point of view of the TTB, the potential for increased LVA is an important indicator of the real value of the technology both to the user as well as to the national economy. A high LVA figure or an increasing trend in LVA figures could imply greater integration of national inputs, e.g. indigenous raw materials, locally-made parts/components, to the domestic manufacturing activity. It could also mean increased manufacturing activity and/or increased complexity in the processes being employed, reduced imports and subsequently reduced foreign exchange outflow and in the final analysis, a more meaningful quality of technology assimilation. Viewed as such, a high LVA is a desirable factor for a technology transfer transaction. The TTB would thus favour an agreement which shows a good potential for increasing LVA, if not a commitment for a build-up programme on LVA.

In terms of the mechanics of the LVA as a factor in technology transfer evaluation, local value added for purposes of TTB definition is arrived at by deducting the net sales value from the landed cost of imported raw materials and components. In this connection, the following definitions apply:

(a) imported raw materials and components shall refer to non-indigenous raw materials and semi-finished products with less than 50 per cent local content, directly or actually used as inputs in the manufacture or processing of a licensed product;

(b) by local content, we mean the difference between the manufacturing costs (which includes raw materials, labour, factory overheads, excluding depreciation) and the cost of raw material imports;

(c) landed cost of imported raw materials and components on the other hand take into account the CIF value, customs duty, compensating tax and import charges.

In the implementation of LVA as one of the factors for consideration by the regulatory agency, it is important that the mechanism as well as definition and scope of the elements involved are clearly understood by the parties concerned, i.e., the supplier, the buyer and the implementing agency itself.

Thus, in the TTB Application Form, one of the information requirements concern the local value added determination in terms of percentages. These are computed on the basis of the earlier mentioned formula over net sales. The percentage figures are required for a period of ten years broken down into the actual past and projected five-year figures and calculated from the date of effectiveness of the agreement. This ten-year range gives an indication of improvements, if any, in the value added by the imported technology on the licensee's products. Increases in

local value added percentage figures could be an indication of progressive manufacturing activity and progressive utilization of national inputs owing to the use of the imported technology. On the other hand, a constant local value added percentage figure could indicate the absence of improvement in the manufacturing capability. While local value added should not be used as the only parameter to gauge the extent of manufacturing activity and improvements thereon arising from the use of the technology, it could be a useful indicator particularly if the set of figures being compared reflect the before, during or after of the technology transfer transaction. It is important that absolute amounts of LVA are supplemented with percentage figures thus making it easier to establish trends, as well as to make comparative assessments, i.e., between firms in one sector or between industries. In the validation of LVA figures, it is also useful to obtain figures on raw material/component sourcing from indigenous/foreign sources and the respective percentages to total raw material utilization. Again, ten-year figures corresponding to the LVA figures should be required.

The table hereunder gives an example of an actual case of local value added attainment of a sample TTB registered firm.

TABLE 1

LVA attainment of company X engaged in household appliance manufacture

	(£'000) Net Sales			(£'000) Local Value Added				(£'000) Raw Mat'l./Component Imports			
	Projected	%	Actual	Projected	%	Actual	%	Projected	%	Actual	%
76			20 355			12 213.0	60			11 407	63.0
77			29 924			17 954.0	60			13 845	67.0
78			26 636			15 981.6	60			11 682	61.0
79			26 483			16 154.6	61			13 109	67.0
80			17 266			13 836.5	62			9 903	63.0
81	26 510		23 421	16 701.0	63	16 589.0	71	11 192	65	6 832	48.3
82	34 993	27	32 044	21 695.6	62	25 782.0	83	13 431	65	5 282	40.9
83	41 992	29	45 017	26 454.9	63	36 664.0	81	14 773	65	8 353	38.8

The agreement involves the manufacture of household appliances e.g., airconditioning equipment, etc. This agreement represents a shift in technology source by company X with the view to improving its products in response to the changing needs and tastes of the market. The package consists of:

(a) the exclusive right and license to manufacture and sell the licensed products;

(b) access to all technical data necessary to enable the licensee to manufacture and sell the licensed products;

(c) training of the licensee's technical engineers at the licensor's plant; and

(d) dispatch of the licensor's qualified engineers to the licensee's plant to render counsel and advice to the licensee on the manufacture of the licensed products.

Among the more interesting details of the transfer are:

(a) waffle fins for heat exchangers and the design of corresponding toolings/dies for fabrication;

(b) design for improvement in the energy efficiency ratio (EER) of airconditioning units;

(c) specifications and drawings for new models of package airconditioners;

(d) technology in obtaining proper substitutes for original parts and material for airconditioners;

(e) technology in the application and system design for concentric and eccentric types of rotary compressors;

(f) drawings/parts/material specifications, and new manufacturing processes for new aircooled roof-top package models and ceiling mounted models; and

(g) technique on productivity improvement, factory safety and quality control inspections.

In this case, the years 1976-80 represent the pre-agreement years where the actual LVA percentages are almost constant at 60 per cent. In fact, even the net sales figures show no defined upward trend.

One will note however the very significant changes during the first three years that the agreement was in effect. The company's actual sales increased by an average of 28 per cent over the three-year period from a negative growth rate in the last pre-agreement year. The local value added figures likewise registered substantial increases way above the company's projections. The fact that this increase in LVA meant a corresponding increase in utilization of local inputs is validated by the decreasing raw material/component import figures. It can therefore be deduced that here is one case of a technology transfer arrangement succeeding in attaining the objectives of increased domestic manufacturing activity; greater utilization of local raw materials/components; improved production skills and ultimately improved productivity and profitability.

Figures on net sales and raw material imports are therefore important in verifying the accuracy of the local value added figures.

It will be noted that the definition of LVA as herein discussed is a somewhat liberal one vis-à-vis the standard definition of local value added which uses manufacturing cost instead of net sales as the basis from which imports are deducted.

The real LVA could be determined with greater precision if it is computed from manufacturing cost instead of net sales, i.e., manufacturing cost minus the landed cost of imported raw materials and components. This definition eliminates the variances caused by changes in profit margins for instance, which in turn depend

on a number of other factors. The local value added definition based on net sales could at times be misleading. It can be higher (or lower) due to higher (or lower) profit margins and not necessarily due to increased (decreased) intensity of utilization of local inputs.

Local value added as royalty base

In the initial stages of its operations, the TTB had the inclination to require the use of local value added as the base for computing royalties. By deducting the cost of imported components/raw materials that went into the manufacture of the licensed products, this method was seen as allowing the royalty to be paid on the basis of an approximated value of the technology being transferred.

It was also believed that by basing the royalty on local value added, the technology supplier would be more inclined to give access to technology for the manufacture of parts and components, or extend assistance to the technology buyer in the local sourcing of raw materials and supplies including developing indigenous raw materials as substitutes, or even local suppliers of components and parts. By doing this, the technology supplier could increase his royalty take inasmuch as an increased local value added or in effect a reduced import content, would mean a higher base of royalty computation and subsequently a higher royalty income. This could perhaps explain the high LVA attainment by company X vis-à-vis its original projections. The agreement cited earlier was approved at a royalty rate of 3 per cent based on local value added. In computing the effective equivalent royalty based on net sales, an increasing trend, or an increasing royalty in real terms may be noted.

On the other hand, given the experience of the TTB in the application of LVA as the base for royalty computation, difficulties in administration and monitoring were encountered along the way. This is particularly true for multi-product line companies, for instance one with a broad range of product lines, not all of which are licensed products. Segregating the imported raw materials and components that should correspond to the licensed and non-licensed products could be an administrative burden for the company, particularly where imports are in bulk and are reflected as such in the import documents.

The manpower requirements both from the technology user's point of view in the preparation of the necessary documentation, and from the regulatory agency's point of view in monitoring and verifying these figures, could be substantial.

Likewise in the evaluation process, in spite of the imposition of the LVA for royalty base purposes, there is still the need to translate into the equivalent royalty using net sales as the base to get an idea on actual increases/decreases in real terms. This is necessary for comparative purposes within the industry or between industries since the use of net sales as a royalty base is actually the rule adopted by the TTB for practical purposes.

Conclusion:

In any given context, it can be easily demonstrated that the availability of abundant capital, the existence of a large number of labourers, or the abundance of rich natural resources, is not sufficient in itself to automatically bring about the social and economic development of countries possessing these unless they have sufficient technological capacity to be incorporated into the national system for the production of goods and services. Indeed, while the growth of output may be

explained by the growth of capital and labour, it is technology that is responsible for making a greater production out of every unit of input employed.

The present day stock of commercially available technology comes from the industrialized countries. The increasing spread of the needs and demands of the population of less developed countries is unmatched by their rate of technology generation. The flow of proven productive and efficient technology from industrialized to developing countries therefore becomes imperative for the latter to bring about output-increasing activities into their economies. This is the reason for technology transfer.

Imported technology should however, be treated only as seeds for development. They are to be carefully chosen, descaled of foreign elements to be substituted with traditional components, and adapted and recreated in the context of the socio-economic environment specific to the country. By doing so, the learning experience in searching, negotiating, acquiring, adapting and assimilating particular technologies will eventually generate a new indigenous technology.

RECENT LEGISLATION

Egypt

The government of Egypt recently prepared a draft law on the organization of technology transfer. It seems clear that the law is designed to provide the Egyptian administration with centralized regulatory control on the transfer of technology agreements, through for example the establishment of a range of forbidden contractual provisions (art. 6 and 7), and provisions for sanctions (art. 14). The scope of the law covers various types of transfer of technology agreements (art. 4) underlined by the last sentence of art. 1, stating that the law covers every act of which technology is considered one of the conditions.

The law will also confer a substantial power on the competent authority through some provisions susceptible of discretionary application as in the case of:

- Reference to contracts containing "conditions which may lead to an unequal contractual relationship between the parties" (art. 6(b)) and to contracts imposing "financial obligations not proportional to the technology provided", or resulting "in a disadvantageous burden on the national economy" (art. 7(a));

- The possibility of approval and registration of contracts with unfavourable conditions in the light of art. 7 if "required by considerations relating to the common good, in accordance with the nature of the contract and the requirements of the national economy".

The project of law is rather comprehensive, defines ambitious tasks for the entity in charge of enforcing it and includes provisions that are not so explicitly found in most national laws on transfer of technology. It is to be noted in this connection that the competent authority is assigned such sensitive and complex tasks as:

- Preparing a guide concerning the types of technology, its sources and its alternatives (art. 13, I. (3));

- Co-operate with and advise government authorities and companies, either public and private in the negotiation processes concerning the transfer of technology, including the access to alternative sources of technology (art. 13, I. (4));

- Participate in the formulation of the national technological policy and take advantage of the regulatory action towards active actions for the national development (art 13, II).

It is also interesting to note that:

- Art. 8 (a) imposes on the suppliers the obligation of disclosing risks which may result from the utilization of the technology which forms the subject matter of the contract, particularly those related to the environment and public health;

- Art. 8 (d) and 8 (f) establish the principle that the supplier shall undertake to guarantee the efficiency of the technology as well as making good any damage resulting from the utilization of the technology and affecting persons and property;

- Art. 13 (a) refers to the possibility of examination and evaluation of contracts in co-operation with the specialized authorities, according to the type of technology required.

No reference is found to the period within which the Authority should take decision on the agreements submitted to registration, nor is there any explicit linkage between the Authority and the Central Bank of the government agency in charge of approving the remittances of payments. Furthermore no reference was found to the monitoring of the implementation of the agreements, possibility of the parties to appeal against the decision of the Competent Authority, patent infringement and validity.

Article 6 (g), forbidding the registration of agreements if the period exceeds ten years, follows some of the existing laws on transfer of technology.

Alternatively, and perhaps more realistic could be the provision for a definite period, appropriate to the nature of the technology; and in conjunction with the provision of a definite period, there should be a prohibition of post-expiry restrictions to the use of the technology.

In this connection it should be mentioned that, in some technological fields, on account of rapid evolution or rate of innovation, the renewal of agreements, never mentioned in the draft law, may be of interest for the recipient, in order to keep its competitive position in the market.

For the benefit of our readers, an unofficial English translation of the original Arabic text has been prepared, which follows:

In the name of God, the Compassionate, the Merciful

GENERAL AUTHORITY FOR INVESTMENT AND FREE ZONES

Draft Law on the Organization of Transfer of Technology

Chapter I

Preliminary provisions

Article 1

The provisions of this law apply to all contracts and agreements on transfer of technology whether such transfer is international, across the regional frontiers, between parties supplying and parties acquiring technology, or between resident or non-resident parties or companies established or to be established within or outside the Egyptian frontiers, or one of the parties is an affiliate or daughter company owned or supervised by a foreigner. The provisions of this law also apply to every act of which technology is considered one of the conditions.

Article 2

In the understanding of this law, the term "party" means any natural or moral person under public or private law, whether such a person is an individual, a group of persons or a company, wherever their headquarters or centres of activity are located.

Any State, governmental agency, international or regional organization or the like, when it enters into a contract concerning a transaction for transfer of technology of a commercial nature, is considered a "party".

Affiliates or daughter companies, joint ventures or the like, regardless of the nature of economic and non-economic relations existing between them, are also considered to be "parties".

Article 3

"The party acquiring technology" means any person who exploits or acquires a technology or any rights related to it, under a licence or purchase contract or by any other means.

"The party supplying technology" means any person who grants a licence or sells or makes available any vehicle of technology or any related rights.

Article 4

In the meaning of the provisions of this law, transfer of technology means the transfer of methodological knowledge required for manufacturing or developing a certain product, applying a certain means or method of providing a certain service. However, a pure sale, purchase, leasing or rental of goods is not considered a transfer of technology.

In particular, the following are considered transfer of technology:

(a) Selling or licensing of all forms of industrial property, with the exception of trade marks or manufacturers' marks, service marks or trade names, unless these form a part of technology transfer transactions;

(b) Provision of know-how and expertise, especially in the form of feasibility studies, plans, graphs, samples, specifications, instructions, formulae and basic and detailed engineering designs;

(c) Specialists' services in the provision of technical and managerial advice and training of personnel;

(d) Services relating to the operation and management of enterprises and software;

(e) Provision of technical assistance in all areas.

Chapter II

Registration of contracts

Article 5

Conclusion of contracts for transfer of technology shall be subject to the provisions and controls contained in this law. A contract may only be effective after registration in accordance with article 13 of this law.

Article 6

A contract shall be absolutely void and its registration prohibited in the following cases:

(a) If the purpose of a contract is to transfer locally available technology;

(b) If a contract obliges the acquiring party to waive, without recompense, patents of inventions or trade marks or innovations or improvements that may be obtained or undertaken, during the contractual period, by the acquiring party; or if a contract contains certain conditions which may lead to an unequal contractual relationship between the parties thereto;

(c) If a contract limits the activity of the acquiring party in the field of research and development;

(d) If a contract prevents or restricts the acquiring party from exercising its rights in the export field in a way that may be incompatible with the interests of the State;

(e) If a contract prevents the acquiring party from utilizing a complementary technology from other sources;

(f) If a contract imposes on the acquiring party restrictions relating to the size of production or sale prices for both the local and foreign markets;

(g) If the period of a contract exceeds ten years.

Article 7

Contracts may not be registered in the following cases:

(a) If a contract imposes financial obligations not proportional to the technology provided, or results in a disadvantageous burden on the national economy;

(b) If a contract allows the supplier to intervene in the administrative business of the acquiring party or regulates such business, unless the contract is confined to the provision of assistance in that area;

(c) If a contract binds the acquiring party to purchase from the supplier of the technology, or from a source designated by the supplier, equipment and machinery, spare parts, raw materials or intermediaries which might be obtained on better terms from other sources;

(d) If a contract, without justifiable reason, binds the acquiring party to sell the goods produced by it to the supplier of the technology or to another party designated by it. This provision shall also apply where the contract binds the acquiring party to nominate the supplier as its sole agent or representative.

Nevertheless, approval of the registration of contracts in the foregoing cases may be given if required by considerations relating to the common good, in accordance with the nature of the contract and the requirements of the national economy.

Chapter III

Guarantees

Article 8

The supplier shall undertake the following:

(a) To disclose risks which may result from the utilization of the technology which forms the subject matter of the contract, particularly those related to the environment and public health; the supplier shall also undertake to provide the most recent means of avoiding such risks;

(b) To indicate, at the time of conclusion of the contract, any restrictions or obstacles which may affect the rights resulting from the technology, including any formal or legal procedure;

(c) To supply the acquiring party, upon request, with spare parts or any other components produced by it which are necessary for the use of the technology which forms the subject matter of the contract, at a cost not exceeding the current prices thereof;

(d) To guarantee the efficiency of the technology for producing the goods and services agreed upon, if it is utilized in accordance with the contractual conditions;

(e) To provide all documents of a technical character as well as other data and information required for the assimilation of the technology which forms the subject matter of the contract;

(f) To guarantee to make good damage resulting from the utilization of the technology and affecting persons or property, when the technology is utilized by the acquiring party in accordance with the conditions of the contract.

Article 9

The contract must guarantee the following:

(a) Employment by the party acquiring the technology of local labour with a certain degree of expertise; the supplier shall provide an adequate number of experts to train such labour;

(b) Utilization of the materials, technical knowledge, consulting and engineering services and other resources available, as well as recourse to assistance from national research centres in solving the problems of production and its development;

(c) Provision by the supplier of the technical services required for the application and utilization of the technology;

(d) Maintenance of the confidentiality of data and information provided by both parties to the contract.

Chapter IV

Settlement of disputes and the applicable law

Article 10

The Egyptian courts shall have jurisdiction to decide on disputes arising from technology transfer contracts.

Article 11

Disputes arising between the two parties may be settled amicably, to the extent permissible under Egyptian law.

It may also be agreed to settle the disputes by arbitration.

A board of arbitration shall be composed of a member chosen by each party to a dispute and a member with a casting vote to be chosen by the arbitrators. In the event of failure to agree on the choice of the latter within 30 days of the appointment of the last arbitrator, the choice shall be made, upon request of a party, by a decision issued by the Supreme Council of the Judicial Authorities, from among counsellors to the Egyptian judicial authorities, specialized law agents or authorized arbitrators on the international arbitration lists. The same provision shall be applicable in case of failure by a party to choose its arbitrators. The place of arbitration shall be the country of the defendant in the dispute concerned.

The arbitration committee shall establish its own procedural rules without being bound by the rules of civil and commercial procedures, except those related to the basic guarantees and principles of legal proceedings, with the understanding that the committee must bear in mind the need for the speedy settlement of the controversy. The decisions of the arbitration committee shall be made by a majority of votes and the reasons shall be stated. The decision of the arbitration committee shall be deemed final and binding on both parties.

The arbitration committee shall determine the party by whom the arbitration expenses shall be borne.

Article 12

The provisions of Egyptian law shall be applicable to contracts subject to this law.

Chapter V

Terms of reference

Article 13

The Academy of Scientific Research and Technology shall have the power to enforce the provisions of this law. To this end, the Academy may seek assistance from all competent machineries. In particular, it may:

I. In the contracts for transfer of technology

(1) Examine and evaluate the contracts, in co-operation with the specialized authorities, according to the type of technology required;

(2) Register the contracts and issue the relevant certificates;

(3) Prepare a guide concerning the types of technology, its sources and its alternatives, the means of negotiation between the parties to the technology transfer contracts and the components of such contracts from the technical, economic or legal viewpoints;

(4) In the negotiation processes concerning the transfer of technology, co-operate with and guide the governmental authorities and the bodies and companies of the public sector, and extend advice to enterprises of the private sector in this connection, in order to ensure optimal conditions, including access to alternative sources for technology and its suppliers and the possibility of partial technology packages;

(5) Co-operate with the authorities concerned in developing model contracts for technology transfer;

(6) Co-ordinate with the authorities concerned in the follow-up of contracts in order to ascertain their compliance with the provisions of the law and to suggest adequate sanctions in case of discrepancies.

In all cases, the Academy has the right to request the data that it may deem necessary for the performance of its functions.

II. In the development and advancement of technology

(1) Participate in the formulation of the national technological policy;

(2) Participate in assistance for channels which link development with technological research and development activities;

(3) Take measures to achieve increased utilization of local technological sources;

(4) Encourage the utilization of local resources and, in particular, primary and intermediary materials, labour and means of production;

(5) Induce and encourage joint ventures to undertake research and development operations locally as well as to benefit from local experience;

(6) Co-operate with the competent authorities in order to establish rules and regulations to govern direct investment in the field of transfer of technology;

(7) Prepare sectoral studies on the technology transferred to Egypt, classify and analyse contracts for transfer of technology and make suggestions in that respect, in the light of an examination of technological development models in other countries;

(8) Establish relationships or links, through the machineries concerned, with foreign and regional technology transfer centres as well as with foreign and national centres for technological and scientific information.

Chapter VI

Sanctions

Article 14

Notwithstanding any more severe penalty provided for in any other law, any person who commits any one of the following acts shall be punished by imprisonment for a period not exceeding one year and a fine of not less than 5,000 Egyptian pounds or either one of these two penalties:

(a) Providing incorrect data in order to register a contract;

(b) Failure to present the contract, or the amendments thereto, for registration;

(c) Execution of the contract under different requirements than those registered;

(d) Refusing to provide the data required by the Academy within its terms of reference, in accordance with the provisions of this law.

The public action shall be initiated, in respect of the acts referred to, upon a request by the President of the Academy or whoever he may authorize for this purpose.

The Academy may, during the consideration of the action, accept reconciliation on the basis of the fines provided for in this law.

All sums ordered to be paid for violations of the provisions of this law, or those payable by the violator as a result of reconciliation, shall accrue to the Academy.

Chapter VII

Final provisions

Article 15

The provisions of this law shall apply to contracts concluded as from the date of its application.

As for contracts concluded before its entry into force, these are to be presented to the Academy for registration within a time limit of six months from the date of application of this law, notwithstanding provisions agreed upon between the parties.

Article 16

The competent authority shall issue the implementing regulations for this law in conformity with its provisions and shall facilitate the application of these provisions for the contracting parties.

Article 17

This law shall be published in the Official Gazette and shall be applicable as from the date of its publication.

PEOPLE'S OF REPUBLIC OF CHINA

The People's Republic of China recently introduced regulations concerning technology transfer thereby completing its legislative framework for economic and technological co-operation with foreign countries. We are pleased to present our readers with an overview of this legislative framework with a special emphasis on those relating to technology transfer by a country profile prepared by the Technology Import and Export Department of the Ministry of Foreign Economic Relations and Trade. This country profile will be complemented with the official English translation of the regulations of the People's Republic of China on Technology Import Contract Administration promulgated by the state council of 24 May 1985.

Country profile - People's Republic of China

I. LEGISLATION

(a) Foreign Investments

1. Laws and regulations in force

- The Law of the People's Republic of China on Joint Ventures Using Chinese and Foreign Investment, July 1, 1979.
- Regulations for the Implementation of the Law of the People's Republic of China on Joint Ventures, Using Chinese and Foreign Investments, September 20, 1983.
- The Income Tax Law of the People's Republic of China Concerning Joint Ventures with Chinese and Foreign Investment, September 10, 1980.
- Detailed Rules and Regulations for the Implementation of the Income Tax law of the People's Republic of China Concerning Joint Ventures with Chinese and Foreign Investment, December 14, 1980.
- Regulations of the People's Republic of China on the Registration of Joint Ventures Using Chinese and Foreign Investment, July 26, 1980.
- Regulations of the People's Republic of China on Labour Management in Joint Ventures Using Chinese and Foreign Investment, July 26, 1980.
- Foreign Economic Contract Law of the People's Republic of China, March 21, 1985.

2. Registration

A joint venture shall apply to the Ministry of Foreign Economic Relations and Trade for authorization of the agreements and contracts concluded between the parties.

3. Scope

A joint venture shall take the form of a limited liability company. In the registered capital of a joint venture, the proportion of the investment contributed by the foreign participants shall in general not be less than 25 per cent. Each party to a joint venture may contribute cash, capital goods, industrial property rights as its investment in the venture.

(b) Industrial property

1. Laws and regulations in force

- Trademark Law of the People's Republic of China, August 23, 1982.

- Detailed Regulations for the Implementation of the Trademark Law of the People's Republic of China, March 10, 1983.

- Patent Law of the People's Republic of China, March 12, 1984.

- Implementing Regulations of the Patent Law of the People's Republic of China, January 19, 1985.

(c) Technology transfer

1. Laws and regulations in force

- Regulations on Administration of Technology Import Contracts of the People's Republic of China, May 24, 1985.

- Foreign Economic Contract Law of the People's Republic of China, March 21, 1985.

2. Scope

- Assignment or licensing of patent or other industrial property rights;

- Know-how provided in the form of drawings, technical data, technical specifications, such as production processes, formulas, product designs, quality control and management skills;

- Technical services.

3. Restrictive practices

Unless specially approved by the approving authority, a contract shall not include any of the following restrictive provisions:

- Requiring the recipient to accept additional conditions which are not related to the technology to be imported, such as requiring the recipient to purchase unnecessary technology, technical service, raw materials, equipment products;

- Restricting the freedom of choice of the recipient to obtain raw materials, parts and components or equipment from other sources;

- Restricting the development and improvement by the recipient over the imported technology;

- Restricting the acquisition by the recipient of similar or competing technology from other sources;

- Non-reciprocal terms of exchange by both parties of improvements over the imported technology;

- Restricting the quantity, variety and sales price of products to be manufactured by the recipient with the imported technology;

- Unreasonably restricting the sales channels and export markets of the recipient;

- Forbidding use by the recipient of the imported technology after expiration of the contract;

- Requiring the recipient to pay for or to undertake obligations for patents which are unused or no longer effective.

4. Remuneration

The way of technology payment is fixed by negotiation between the recipient and supplier, which include:

- Royalty payment

- Lumpsum payment

- A combination of initial fee and royalty

5. Taxation

The technology supplier who receives royalties for the provision of technology for use in China shall pay an income tax of 20 per cent or 10 per cent (a withholding tax) according to different cases.

II. INSTITUTIONAL ARRANGEMENTS

(a) Competent approval authority

The Technology Import and Export Department, Ministry of Foreign Economic Relations and Trade

(b) Office staffing

Management		2
Evaluation -	Engineers	2
	Economists	3
Study/Evaluation		2

(c) Competence

Major technology import contracts must be approved by the Technology Import and Export Department, Ministry of Foreign Economic Relations and Trade. Ordinary ones will be approved by different administrative bodies concerned.

(d) Co-ordination

The Technology Import and Export Department, Ministry of Foreign Economic Relations and trade co-ordinates its work with foreign trade corporations and organizations concerned.

(e) Evaluation

Appraisal will take into account the interests of the nation as well as the interests of recipient and supplier. The level of payment is to be fixed according to the level of technology imported. The ways of payments include royalties, lumpsum fee and initial fee and royalty. The royalty should not exceed 5 per cent on net sales.

REGULATIONS OF THE PEOPLE'S REPUBLIC OF CHINA ON TECHNOLOGY IMPORT CONTRACT ADMINISTRATION
(Promulgated by the State Council on May 24, 1985)

Article 1: These Regulations are formulated to further expand China's international economic and technological co-operation, upgrade the scientific and technical standard of the country and promote the growth of national economy.

Article 2: "Technology import" in the present Regulations means the technology acquired by the companies, enterprises, organizations and individuals within the territory of the People's Republic of China (hereinafter referred to as the recipient) from the companies, enterprises, organizations or individuals outside China (hereinafter referred to as the supplier) through trade or economic and technological co-operation which include:

1. Transfer or licensing of patent or other industrial property rights;

2. Technical know-how in the fields of technological process, formulation, product design, quality control as well as management, provided in the form of drawing, technical data or technical norms and standards; and

3. Technical service.

Article 3: The technology to be acquired must be advanced and appropriate and must conform to no less than one of the following requirements:

1. Develop and turn out new products;

2. Improve the quality and performance of products, reduce production cost and save energy and raw materials;

3. Cater for the full utilization of local resources in the country;

4. Expand the export of products to increase foreign exchange earnings;

5. Facilitate the environment protection;

6. Ameliorate safety in production;

7. Improve management and administration; and

8. Upgrade the scientific and technical standard.

Article 4: The recipient and the supplier shall conclude a written technology transfer contract (hereinafter referred to as contract) which shall be submitted by the recipient within 30 days from the date of signature to the Ministry of Foreign Economic Relations and Trade of the People's Republic of China or other agencies authorized by the Ministry (hereinafter referred to as the approving authority) for examinations and approval. The approving authority shall approve or reject the application of the contract within 60 days from the date of receipt. Contracts shall be effective on the date of approval. In case the approving authority makes no decision within the fixed period of time, the application shall be regarded as being approved and become effective automatically.

Article 5: The conclusion of a technology import contract shall abide by the Foreign Economic Contract Law of the People's Republic of China and other relevant legal provisions.

The following areas shall be clearly stated by the two contracting parties in the contract:

1. Detailed description of the contents, scope and requisite introduction of the technology to be acquired and an exhaustive list of patents and trademarks if they are involved;

2. The technical ends to be achieved and the relevant measures and time limit for the achievement of such ends; and

3. Remuneration, the composition of remuneration and methods of payment.

Article 6: The supplier shall guarantee that he/it is the legitimate owner of the technology to be supplied and the technology is complete, accurate, effective and capable of achieving the technical ends as specified in the contract.

Article 7: The recipient shall take the obligation to withhold the technological secrets contained in the technology transferred by the supplier according to the scope and time limit agreed upon by the two contracting parties concerned.

Article 8: The term of validity of the contract shall be adapted to the time needed by the recipient to digest the transferred technology, which is usually no more than 10 years unless specially permitted by the approving authority.

Article 9: The supplier shall not compel the recipient to accept unfair restrictive requirements; any of the following restrictive provisions shall not appear in the contract unless specially permitted by the approving authority:

1. Additional conditions which are irrelevant to the technology to be acquired by the recipient, including purchase of unnecessary technology, technical service, raw materials, equipment or products;

2. Restrict the recipient to make free choices from other sources for the procurement of raw materials, spare parts or equipment;

3. Restrict the recipient to further develop or improve the technology to be acquired;

4. Restrict the recipient to obtain from other sources similar technology or competitive technology of the same kind;

5. Unequal conditions between the two contracting parties for exchanging technical improvements;

6. Restrict the quantity, variety or sale price of products the recipient may turn out by applying the technology to be acquired;

7. Irrational restrictions on the sales channel and export market of the recipient;

8. Forbid the continued utilization of the acquired technology by the recipient on expiration of the contract; and

9. Require the recipient to pay for or be under obligation to unused or invalid patent.

Article 10: When applying for approval of a contract, the following documents shall be submitted:

1. An application for approval of the contract;

2. A copy of the contract and its pertinent translation of foreign language; and

3. Documents of evidence proving the legal status of the two contracting parties.

Article 11: Any revision or renewal of the term of the contract shall be handled in accordance with the provisions of Article 4 and Article 10 of the present Regulations.

Article 12: The Ministry of Foreign Economic Relations and Trade shall withhold the right of interpretation and the right to formulate detailed rules for the implementation of the present Regulations.

Article 13: The present Regulations shall enter into force on the date of promulgation.

TECHNOLOGY ACQUISITION

Guide on Guarantee and Warranty Provisions in Technology Transfer Transactions (mechanical warranties)

Further to the articles on suitability (issue 28) and completeness and correctness technology (issue 29) taken from the above paper, we are pleased to present hereunder a further section on mechanical warranty. We are pleased to present some comments received on the article related to suitability guarantees in a special section called letters to the editor. We are pleased that through presenting selected issues concerning guarantees in technology transfer transactions, a discussion on this complex issue can be stimulated. In this connection we would be pleased to receive other comments.

Mechanical warranty

(a) Purpose and function

Many technology transactions such as turnkey contracts are not restricted to the transfer of patented and unpatented knowledge, but include the provision of construction and design plans, as well as the supply of machinery equipment, tools, spare parts, materials or erection of plants. It is desirable that these different items meet certain standards or achieve certain results.

Depending on the subject matter, the terms "engineering guarantee" or "guarantee for designs" (for design, construction plans, etc.), "equipment guarantee" or "material guarantee" (for machines, tools, equipment, etc.) and "construction guarantee" or "guarantee for workmanship" (for the erection of works) are used. Sometimes the guarantee that the plant as a whole is mechanically capable of meeting the operation requirements ("dry-run") is also called a mechanical guarantee.

While performance guarantees usually apply to the performance of a complex technological process, mechanical guarantees have a similar function for specific parts or equipment to be used in that process. Sometimes they are also called performance guarantees, e.g., when the supplier of a specific piece of equipment guarantees a certain performance of the equipment under specified conditions.

Mechanical guarantees, like most guarantees, have a two-fold function to assure the recipient of a certain minimum quality (e.g. durability) of the parts supplied and to define the liability of the supplier. For a speedy implementation of the technology in the recipient's country they have at least two other important functions: first, the recipient may detect defects of certain inputs at an early stage. At a later stage it may be impossible to trace back the origin of some defects once the input has been installed and the process has worked for a time. At the least, precious time will be lost and damages caused to the entire plant and process may be considerable and even exceed the maximum amount of liability of the supplier. Secondly, the tests required to determine whether the requirements of the mechanical guarantee are met will ensure that the recipient's personnel is involved in the difficult areas of the technology project and thus become acquainted with the technology at an early stage in order to facilitate absorption of the technology.

(b) Present legal situation and contractual practice

Legislation usually leaves the quality standards to be met to the negotiations of the parties. If they have not defined them, the non-binding norms of the law of obligations, commercial law and some specific regulations such as product liability, will apply. These laws generally require that the goods delivered must be free from defects and/or must be fit for the contractual purpose and that services and workmanship must meet the standard that can be expected from a person using sound and proper skills.

In contractual practice the scope of items covered depends on the scope of the contract. It may include items such as plant and equipment, materials, tools and supplies, as well as all civil works which may include all buildings, roads, foundations and other work requiring civil engineering.

The extent of the guarantees are sometimes defined in very general terms such as "any defects", by a reference to general standards such as "sound engineering practice" or by a reference to "specification in the contract" and its annexes. It

is better when a reference is made to the various sources of defects such as faulty or improper design, workmanship, material, manufacture, fabrication, shipment or delivery.

The main corrective action to be undertaken by the supplier in case of non-fulfilment is usually to remedy the defects by repairing or replacing the defective parts. But often the mechanical warranty is subject to a number of qualifications, specifications and liability exceptions limiting the scope of the supplier's liability such as in the following example of a mechanical warranty clause which was used in a contract between a developed and a developing country:

Illustrative clause

"The supplier warrants the good quality and construction of the supplied machinery and shall be responsible, during the warranty period for repairing or replacing free of charge any part of which when defects arise by reason of the quality of the material, poor workmanship or improper installation, excluding normal wear and tear or damage made by improper operation by the recipients personnel, by over-loading beyond the contractual limits or by force majeure".

Accordingly, the supplier may except from his liability, defects arising from:

- equipment not properly used;
- changes undertaken by the recipient without prior authorization by the supplier;
- materials provided for or design stipulated by the recipient;
- the recipient's faulty maintenance;
- repairs carried out improperly by the recipient;
- normal wear and tear;
- force majeure;

  (See paragraph on "Limits to the extent, exceptions").

The modalities of the remedy are usually further qualified by such elements as:

- notification of the defects (different requirements for visible and hidden defects);
- time limits in which the remedy has to be effected;
- place of repair;
- cost and risk of transportation, travelling etc.;
- standard of workmanship.

Contracts generally stipulate that the recipient is obliged to notify the supplier without delay and in writing of any defects that have appeared and give the supplier every opportunity of inspecting and remedying these.

The time limits in which the remedy has to be effected are often expressed in terms which state that the supplier shall "remedy the defects forthwith" or "promptly undertake the necessary corrective action".

As to the place of repair, a contract may state that the recipient shall return to the supplier any part in which a defect has appeared for repair and replacement by the supplier, except in those cases where it is appropriate to undertake the repairs on site.

If transport is involved, the recipients are often obliged under present contractual practice to bear the cost and risk of transport of defective and repaired parts.

On the other hand, in Art. 28.3. UNIDO/PC.25/Rev.1, the transportation costs are included in the costs to be borne by the supplier.

In addition, some contracts leave the appointment of any additional expenses to the parties or the arbitrator.

The standard of workmanship to be applied for the repair of defects are often worded in contractual practice to be proceeded with "due diligence" and a failure to meet this requirement may provide for the recipient to "proceed to do the necessary work at the supplier's risk and expense provided that he does so in a reasonable manner".

As a consequence of non-fulfilment, a warranty clause usually provides for an extension of the guarantee period in case of defects of equipment, materials, tools and supplies, etc. for which the supplier is liable. Such a clause may state that a fresh warranty period equal to the original warranty period shall apply under the same terms and conditions as those applicable to the original items to items repaired or supplied in replacement of the defective ones. Sometimes such a clause specifies that "the warranty period will in no event be extended beyond 12 months after the expiration of the original guarantee period".

If the items subject to the mechanical warranty are used more intensively than stated in the contract, the contract may provide for a reduction of the guarantee period.

If the supplier does not fulfill his obligation to remedy, or if he fails to remedy the defects "within a reasonable time", the recipient may take consequential actions such as the right mentioned above, to undertake the remedies himself at the cost of the supplier.

Alternatively, sanctions similar to those in the general rules of the applicable law will be applied such as the right to withhold part or all of the payments, to terminate the contract in case of severe defects and/or to ask for damages and consequential loss.

In addition, there is usually a provision in the contracts on the liability for damages caused by the defective part;

But the scope of such provisions is usually very limited by excluding certain damages such as loss of profit altogether, by limiting the liability to a certain maximum amount by making it subject to a specific level or fault such as "gross misconduct".

(c) Problems and possible solutions

Type: The most important question in connection with mechanical (as well as performance) guarantees is the question whether the supplier is only bound to a certain level of diligent and careful workmanship in providing material or executing works ("obligation de moyen") or whether he is bound to achieve a certain result regardless of the best efforts applied by him ("obligation de résultat").

The recipient should urge for provisions guaranteeing certain objective well-defined results instead of provisions guaranteeing that the supplier will do his best to achieve certain results. For the same reason the results guaranteed should not be qualified by a reference to fault. Therefore, clauses of the following type should be avoided:

Illustrative clause 23

"Supplier undertakes to remedy any defect in case the supplier has been guilty of gross misconduct (or negligence)."

Scope: The scope of the mechanical guarantee depends on the subject matter of the specific agreement. It may cover any of the items mentioned above such as equipment, materials, tools and supplies, but the recipient should make sure all items contained in the technology are covered by a guarantee.

Extent of guarantee: Mechanical guarantees mainly cover "defects" of different kinds. Therefore, parties must have a clear understanding when a certain part is defective. For the main part of technological equipment, detailed specifications should be set out. Another possibility would be a reference to international standards (ISO, DIN), but in order to avoid differences the titles and numbers of those standards should be expressly quoted. A more general criterion could simply refer to a quality reaching standard usual in that business and country. Because of its evident vagueness it should be avoided.

Usually, mechanical guarantees also set out the cause for the defect by referring to defects due to faulty or improper design, workmanship, fabrication etc. Such a provision is a double-edged sword. On the one hand it may extend the scope of the guarantee by including more remote causes. Thus a machine may be constructed properly according to the design furnished and may be without defects in comparison to the design, but if the design is defective, the machine will be defective as well. On the other hand, those causes not listed may not be acknowledged as a basis for defects. Especially in developing countries climatic conditions etc. may cause defects. Therefore, the list of reasons causing the defect should be elaborated to include circumstances relevant in the recipient's country or they should be omitted entirely.

Limits to the extent, exceptions: Usually, the supplier will only warrant those mechanical elements which are under his control and exclude defects which are caused by factors beyond his control. (See paragraph on list of exceptions).

The recipient may seek to involve the supplier in the inspection, control and approval of the inputs provided by the recipient or other parties involved. To this extent the supplier may be made liable for the effects of insufficient control, unless he explicitly disclaims responsibility of certain inputs.

Also, the meaning of ambiguous terms such as "faulty maintenance" should be specified, e.g. by "disregard of the supplier's written instructions" (see UNIDO/PC.25/Rev.1. Section 28.6.1).

Period of guarantee: While the recipient's interest should be to inspect each item of the technology supplied as early as possible (see below), the proper functioning of the various items may depend on this installation in the ensemble of the plant and may only show after some time of operation. Therefore, the mechanical guarantee should not only be met at the time of delivery, but some time thereafter. It may be measured by calendar time or by operating hours. In view of the fact that the erection of a plant may take a number of years, the guarantee period should start only after successful acceptance test runs. In return, the supplier may add that the guarantee period will start even without acceptance test runs, if the recipient is without due reason unwilling to start the test run. It may also be practical to refer to the actual operating times. In this case, delays and interruptions does not affect the guarantee period. The length of the period will depend on the type of equipment. Thus, it will be shorter for products which are subject to quick wear and tear, longer for construction works.

As has been stated above a mechanical warranty often provides for a maximum warranty period on the supplier's liability.

A maximum warranty period as such is only acceptable because there has to be a limit in time at one point on the supplier's liability. If a new warranty period starts each time an item is defective, the supplier would never come to a cut-off point with respect to his liability under the mechanical warranty.

On the other hand, if the plant is not operated due to defective part(s), the risk of a maximum warranty period is that it might not be possible to fully test the functions of other items before the maximum warranty period expires.

If the defective part(s) have not been repaired or replaced during the new warranty period, the recipient will not know if the item(s) will function in his environment. Furthermore, the recipient has no or little influence on the speed within which the defects will be mastered and such a clause may even be an incentive to the supplier to let the period go by in order to avoid costly repairs. Therefore, the recipient must have some safeguards that the items work. Such safeguards might be provided for in another part of the contract, such as in the guarantee on delayed completion.

In any case a maximum warranty period should only be applied if the mechanical warranty provides for extensive damages, which would allow the recipient to replace the defective technology by a new one.

Inspection and test: The recipient should have an interest in assuring himself of the proper functioning of each item as early as possible in order to minimize potential damages and time delays. In many cases, a first inspection should take place at the plant of the supplier, a second inspection should be undertaken at the site of the recipient before installation in order to detect transportation damages and to ascertain functioning characteristics under local conditions.

Test procedures, where necessary, should be clearly spelt out. In a number of cases, the recipient may not have the testing equipment or the expertise to test the material himself. In such cases, he should ensure that testing equipment is made available to him or that consultants or laboratories agreed by both parties are acknowledged to perform the tests.

Corrective action. Remedy of defects: The recipient is not interested in damage payments, but in a properly working technology. Therefore, remedy of any defects is the primary objective and its working deserves particular care. The

time in which the defect has to be rectified, the place of rectification, the diligence applied for the rectification and all cost and risk elements that may incur in the course of rectification should form part of the defects provision. Looking at the time element, a term such as "forthwith" often used in contractual practice, might be replaced by terms asking for utmost speed such as "with all possible speed" (FIDIC), "expeditiously" (FIDIC) or "in minimal time". To speed up repairs or replacement, the recipient may be obliged to promptly notify the supplier.

Illustrative clause 25

"In the event that any defects are found in the equipment, erection or civil works within their warranty period, the purchaser will immediately inform the contractor by telegram/telex and contractor will promptly respond to the communication." (UNIDO/PC.25/Rev.1, Sect. 28.9).

In principle, all costs directly connected with eliminating the defect, including transportation and travel costs, should be borne by the supplier, even if the original obligation had to be fulfilled "ex supplier's works" or "FOB". In this case the recipient has already paid the transportation costs for the first defective part. There is no reason to have him pay this a second time, unless the defect was caused by faulty transportation.

Other corrective actions should only apply in addition to the primary corrective action of remedying the defect or when the supplier fails to remedy the defect. Such a failure may not only be present when the defect cannot be eliminated, but also when it is unduly delayed or when the repair is not done with proper care.

Illustrative clause 26

"If the contractor shall make default or delay in diligently commencing, continuing the completing, the making good of such defect, breakage or failure in a manner satisfactory to the purchaser, the purchaser may proceed to do so independently and to place the works in good operating condition in accordance with the contract, and the contractor shall be liable for all costs, charges and expenses incurred by the purchaser in connection herewith and shall pay the purchaser an amount equal to such costs, charges and expenses upon receipt of invoices." (UNIDO/PC.25/Rev.1, Section 28.3, sentence 2).

The corrective action proposed in this provision is that the recipient himself will take the necessary steps to remedy the defect. This approach may also be used in the case of minor defects, where involvement of a contractor from abroad would be unjustifiably costly, or in emergency cases. But care must be taken that the supplier will not be relieved from his other guarantee obligations on the grounds that the remedy taken by the recipient was not authorized.

Defects of a part often do not only affect the specific part, but may cause damages to other portions of the works, injuries to employees and other persons, and loss of profits. Such damages should be covered by a clause entitling the recipient to damage claims. However, such provisions are met with strong reservations from the side of the suppliers. They may only be ready to accept liability to an extent which can be insured at a reasonable premium.

Separation of responsibilities: If the technology supplier is not the supplier of the equipment as well, the equipment will usually not be covered by any guarantee given by the technology supplier. Therefore the recipient has to ensure

that independent suppliers will also agree to guarantees. Since the equipment will be used together with the technology, any guarantee concerning the technology will be affected by the quality of the equipment. The recipient should try to oblige the technology supplier by inspecting all equipment and other parts and to affirm that it is consistent with the specifications on which his own guarantee is based. The same, of course, applies to any equipment supplied or works undertaken by the recipient himself. If the recipient is not able to commit the supplier to such extensive inspection obligations, the specification of any equipment or material acquired from third parties should be scrupulously harmonized with the specifications given by the technology supplier.

If the technology supplier has to provide all the equipment and uses the subcontractors for this purpose, the fulfilment of any mechanical guarantee is his responsibility. Nevertheless, the recipient may be well advised to inspect the material himself, as well. This does not only help him to develop a better understanding of the technology, but it is an additional device to avoid defects at a later stage. This is of particular importance, if the maximum amount of liability which may be obtained from the supplier is limited, as is the usual practice.

The recipient, however, has to take care that the inspections undertaken by him do not relieve the supplier from his own liability for the equipment and do not prejudice the objection of the equipment at a later stage.

Illustrative clause 27

"All equipment, materials and work preformed in connection with this contract with the exceptions to be agreed between the contractor and the purchaser, shall be available for inspection by the purchaser (through his duly authorized representatives). The contractor and his subcontractors shall provide safe and necessary access for the inspection envisaged by this Article. The purchaser shall be afforded full and free access to the shops, factories, site or places of business of the contractor, the subcontractors and/or suppliers for such inspection to determine the condition and progress of work under the contract. Neither the failure to make such inspection nor failure to discover defective workmanship, materials, or equipment, or approval of, or payment to the contractor for such work, materials or equipment (pursuant to this contract) shall prejudice the rights of the purchaser thereafter to require correction, replacement, or reject the same as herein provided." (UNIDO/PC.25/Rev.1, Section 14.5).

The recipient should bear in mind that mechanical guarantees are not only guaranteed to him by suppliers, but that he may be the granter of mechanical guarantees as well, to the extent that he provides equipment etc., through his own facilities or through subcontractors.

Alternatives: It is sometimes suggested that a guarantee of good workmanship with construction and erection of the works might not be necessary in a turnkey contract, because these guarantees are only for the construction and pre-operation stage of the project and expire when the performance guarantees become effective. This will only hold true for a turnkey contract. Even there, the performance guarantee may be phrased more continuously in certain parts, or the responsibility for the nonfulfilment may be difficult to be established. In such cases a mechanical warranty has a right of its own. In addition, mechanical warranties have the important task of verifying any defects at the earliest possible stage. For these reasons performance guarantees can only partially replace mechanical guarantees.

If the technology supplier does not provide the equipment by himself or through subcontractors, he may be obliged to inspect all parts coming from third parties (see above) and/or at least provide the recipient with a list of potential suppliers who have the capability of providing the equipment of specified quality.

Since mechanical warranties may also be used to restrict the suppliers responsibility under the non-binding norms of the applicable law, it may in some cases be better to refrain from a warranty altogether and rely on the law.

(d) Checklist

1. Type of mechanical guarantee

   - "best-effort" obligation ("obligation de moyen")
   - achievements of result ("obligation de résultat")
   - degree of fault necessary

2. Scope

   - design
   - engineering
   - construction
   - materials
   - tools
   - equipment
   - spare parts
   - foundation of buildings
   - civil works
   - plant.

3. Extent

   - key word used

     - defects
     - breakage
     - failure

   - definition of "defect" or other key word

     - specification in the contract
     - reference to international standards and norms
     - reference to purpose of contract
     - reference to "good engineering standards" or usual practice in the field

   - cause of defect

     - no reference
     - (non-) exclusive list of causes

       (faulty) design
       (faulty) material
       (faulty) manufacture, fabrication
       (faulty) workmanship
       (faulty) shipment
       (faulty) transportation

   - conditions in recipient's country

4. Limits to extent, exceptions

- maintenance by recipient
  - faults of recipient
  - disregard of instructions
- changes by recipient
  - specific disclaimers by supplier
  - obligation of supplier to inspect and issue certificate of acceptance
- materials and designs of recipient
  - specific disclaimers by supplier
  - obligation to inspect (certificate of acceptance)
  - checking procedure

5. Guarantee period

- measurement
  - calendar time
  - operating time
  - achievement of results
- differentiation of length of period according to item concerned
- beginning of period
- extension of period
  - reasons
  - items covered by extended period
  - use of actual operating time as alternative
- maximum period
- guarantee period for replacement parts.

6. Inspection, tests

- place of inspection
  - supplier's plant
  - site of recipient's plant
- time of inspection
  - before shipment
  - after arrival at recipient's site
  - after installation
- inspection personnel
  - recipient's personnel
  - consultants
  - independent persons

7. Test procedures

- measurements, specifications
- test methods
- qualification of testing personnel
- availability of testing equipment

8. Corrective action, rectification

- form of rectification
  - repair
  - replacement
  - additions
- place of rectification
  - recipient's plant
  - supplier's plant
- diligence to be applied
  - due diligence
  - good workmanship
- speed
  - forthwith
  - expeditiously
  - with all possible speed
  - in minimal time
  - in a reasonable time
- notification by recipient
- cost of rectification
  - direct costs/replacement parts
  - shipping costs
  - travel expenses
  - other expenses

9. Other corrective actions

- reasons
  - failure to rectify
  - failure to rectify in time
  - damage
- injury to persons inside/outside the plant
  - loss of profits
  - minor defects
  - urgency

- remedy by recipient
  - prior notification
- form of remedy
  - requirement for reimbursement
  - effects on supplier guarantees
- damages
  - for delays
  - for damages to other parts of technology
  - for injuries
  - for loss of profits
  - calculation of damages
  - maximum amount of damages
- retention of payment
- diminuition of payment
- termination of contract

10. Separation of responsibilities
    - inspection with relation to third parties/subcontractors of supplier
    - pre-inspection by recipient and consequences
    - inspection of equipment of third parties by supplier

11. Burden of proof

12. Alternatives
    - performance guarantees
    - information
    - reliability of suppliers
    - no mechanical warranty - use of (non-) binding provisions of applicable law

13. Legal requirements

MEETINGS

Date	Title	Place
2-6 Sept.	UNCITRAL Ad-hoc Group of Experts on the New International Economic Order (UN Meeting)	Vienna, VICC D 20 Conf.Rm. II
9-13 Sept.	Expert Group Meeting on Guidelines for the Import, Assembly and Manufacture of Agricultural Machinery and Training	Vienna, VICA(E/F/S) Conf.Rm. VIIC D
15-30 Sept.	Workshop on "Theory and Practice of Industrial Planning" for African countries	TbilisiA(E/F/R) USSRC D
23-26 Sept.	Expert Group Meeting on Industrial Co-operation in the Field of Agricultural Machinery Design and Manufacture with Special Emphasis on the Role of the Medium- and Small-scale Enterprises	CaracasA(E/S) VenezuelaC D
30 Sept.- 8 Nov.	Sixteenth In-plant Group Training Programme in the Field of Plastic Technology	Vienna, VICC Conf.Rm.III (opening onl
September	Expert Group Meeeting on Strengthening of National Industrial Training of Institutions	Vienna, VIC C D
1-3 Oct.	Expert Group Meeting to advise on the development of practical guidelines on the establishment and operation of mini iron and steel plants in the developing countries	Vienna, VIC Conf.Rm. VII
4-7 Nov.	Expert Group Meeting on Enterprise-to-Enterprise Co-operation among Developing Countries (ETEC) with Special Emphasis on Plastics in the Latin American Region	Argentina
4-8 Nov.	Third Consultation on the Petrochemicals Industry	Vienna, VIC Boardroom, Conf.Rms.I/II
18-21 Nov.	Investment Promotion Meeting for Ecuador	Quito Ecuadro
25-28 Nov.	Expert Group Meeting on multinational production enterprises in developing countries	Vienna, VIC Conf.Rm. VII
November (tentative)	Investment Promotion Meeting for Mexico	Mexico

Date	Title	Place
4-9 Dec.	Investment Promotion Meeting for Central Africa	Libreville Gabon
9-20 Dec.	UNCITRAL - Working Group on International Negotiable Instruments, fourteenth session (General Assembly resolution 2928 (XXVII)) (UN Meeting)	Vienna, VIC Boardroom or Cont.Km. II

PUBLICATIONS

ID/335 (ID/WG.434/8) First Consultation on the Building Materials Industry, Athens, Greece, 26-30 March 1985. Report

ID/SER.M/13 (84.II.B.5) Industry and development no.13 (ISSN 0250-7951), (ISBN 92-1-306143-9)

Meeting of High-level Experts on Africa's External Debt in Respect of the Industrial Sector
Vienna, Austria, 14-17 May 1985

ID/WG.439/7/ Rev.1 Foreign exchange expenditures by African countries on major industrial commodities

ID/WG.439/9 Final report

Regional Meeting for the Initiation of a Regional Network for Microelectronics in the ECLAC Region (REMLAC)
Caracas, Venezuela, 3-7 June 1985

ID/WG.440/6/ Add.1 Report on the UNIDO mission preparatory to the establishment of a regional system for microelectronics in Latin America (REMLAC)

ID/WG.440/7/ Corr.1 Government policies for the data processing industries in Argentina, Brazil and Mexico
Corrigendum

ID/WG.440/11 Approach to regional microelectronics co-operation programme

Expert Group Meeting on Guidelines for the Import, Assembly and Manufacture of Agricultural Machinery and Training
Vienna, Austria, 9-13 September 1985

ID/WG.443/1 Guidelines to international contracts for the acquisition, assembly and manufacture of agricultural machinery and spare parts therefor

LETTERS TO THE EDITOR

Readers are welcome to comment on items appearing in the TIES Newsletter or raise other appropriate issues. The views expressed are those of the letter writer and not necessarily those of UNIDO. The editor reserves the right to shorten lengthy letters.

Sir,

Reference is made to the Guide on Guarantee and Warranty Provisions in Technology Transfer Transactions as found in TIES Newsletter of March 1985.

I. The issue presented is the Suitability Guarantee, characterized by TIES as controversial, which in my opinion it really is since it extracts an essential part from a total concept of the feasibility of a project, thereby giving it a life of its own and discussing the responsibility therefor as a separate item.

II. When following the order of TIES, the discussion concentrates primarily on 'purpose and function'. In my opinion the suitability of a technology should not be classified within the realm of guarantees, but within the realm of objectives. The objectives of a prospective recipient of technology encompass an integrated total of many components; upon review of relevant facts the recipient (or his bankers) decide on proceeding with a certain project, because they judge the technology amongst other items to be suitable to their purposes. Consequently the suitability of the project apparently is a requirement to be judged by the recipient, because he is the party setting the subjective parameters by virtue thereof. In normal practice he would do so upon the advice of consultants, government agencies, banks and the like. The definition of the project and the technology qualifying result from that definition: within this definition the suitability of the project is likely to be translated into different component parts, such as performance guarantees.

In my experience licensors of know-how (e.g. without equipment supplies) do give performance guarantees, under certain conditions (e.g. plant has been built according to his know-how and according to good engineering standards by an experienced contracting firm). If the phrase 'suitability' is also to cover these performance guarantees, one might be introducing a grey area for both licensors and recipients of technologies by which neither of them gains and by which perhaps unrealizable goals or unnecessary worries may be created. This fact may even be supported by the open question who would have to grant suitability guarantees.

III. The presented illustrative clauses give the possibility of a closer look on:

(a) what was intended with suitability and

(b) what consequences may be attached.

Illustrative clause 19 seems to indicate that upon occurrence of a more suitable advanced technology the contracted one becomes no longer suitable. This clause contains two areas of concern:

(a) the usual presence of a mutual exchange programme of improvements, that keeps the licensee up-to-date and

(b) the risk that contractually bound parties take with their decision to enter into a certain relationship.

It may be advisable to treat these two areas separately; in doing so it may be an area of negotiation to define the parties' attitude to the occurrence beyond their control of such technology; it may even be considered as making a project on the basis of the previous technology no longer feasible; however to attach termination to it may only be considered acceptable to the other side if suitable arrangements are reached re attribution of this risk.

The problems connected with unproven technology deserve more than one paragraph on termination. Parties entering into such contractual arrangement should be aware that they are in a high risk area with an attendant distribution thereof. This could be the subject of a separate study.

Extensive information on technology in a precontractual phase may definitely be considered as an advantage to a recipient but may be subject to stricter agreements on confidentiality to protect the supplier's interests.

Yours sincerely,

T. Vankampen
Netherlands

Dear Sir,

The case study published on TIES NEWSLETTER, issue no. 27, pages 10 and 11, clearly shows how the concept of technology transfer should be interpreted by the governmental authorities of developing countries. Technology transfer should be conceived the same way as it is in developed countries, namely, as an economic and financial question. In this context I would like to raise the following comments:

1. How can I (parent company) transfer something (technology) to myself (subsidiary company)? Which law permits a person to rent an apartment to himself. Suppose the baby boy of an English couple is born in Brazil. The baby is a Brazilian under the laws of Brazil and English by the English laws. Suppose again when the baby grows up he decided to live in Brazil and bought an appartment in England. He is not supposed to collect in Brazil the rent of this apartment he owns in England. The same holds true if the situation were in reverse. He could not collect the rent in England of an apartment he owned in Brazil. Both countries do not allow remittances of this kind. Why is this situation acceptable in the technology transfer?

2. How can a technology transfer registry technically evaluate a secret know-how? Why are such registries, generally, against the patent system, which at least includes a "minor" disclosure of the technology protected? Why do they prefer secrets? How can a secret be controlled by the society? Last but not least, some countries do not grant foods or pharmaceuticals patents, but approve a pharmaceutical or food know-how agreement. It is very difficult to understand the logic of this policy, which protects the secrets and forbids even minor disclosures, while trying to disseminate the technological knowledge.

3. The Group of 77 is fighting hard to modify article 5 of the Paris Convention, considering that a patent should only be granted to be worked industrially in the country. This position emphasizes the basis of patents, which grant a monopoly to industrial production and not to the commerce, as it used to be by the 1623 Statutes of Monopolies. Therefore, the "transfer of technology" as a commercial transaction, mainly for the imports of goods from the parent company, should not be accepted. The TIES NEWSLETTER case study is a good example of the use of the

technology transfer channel to overprice imports, thus circumventing the import duties. The fair decision of the technology transfer regulatory agencies should then be to deny the agreement, based on the economic protection of the competing companies due to an unfair competition procedure.

Some recent analyses criticize the technology transfer registries because of their "passive approach" to the transfer of technology problem. This passive attitude, was partly due to the fact that the registries were created to solve some balance of payment problems. So, it was recommended registries should abandon this passive action and start an "active approach", and be involved in the selecting and adapting of the imported technology. Unfortunately, developing countries are facing a huge foreign debt as a consequence of the international economic crisis.

The final solution adopted by the registry indicated in this case study suggests that the basic role to be performed by the technology transfer registry should be to help the tax authorities control and manage international financial flows. Interesting enough, the registry approved the agreement but the tax authorities disapproved it...

The transfer of technology is, first of all, concerned as an economic and financial problem in developed countries, whose solution is sought through the manipulation of the enterprises income taxes, using incentives and disincentives related to the income tax, those countries select and adapt the best imported technology.

Finally, I would like to refer to another article published in the same issue of TIES NEWSLETTER - "Brazilian Technology Imports: Some Comments on the Food Product Sector" (pages 12-15). The data presented in this article clearly support my point of view and demonstrate the different policies approached by the national registries.

Yours sincerely,

Antonio F. Barboza
Rio de Janeiro, Brazil

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