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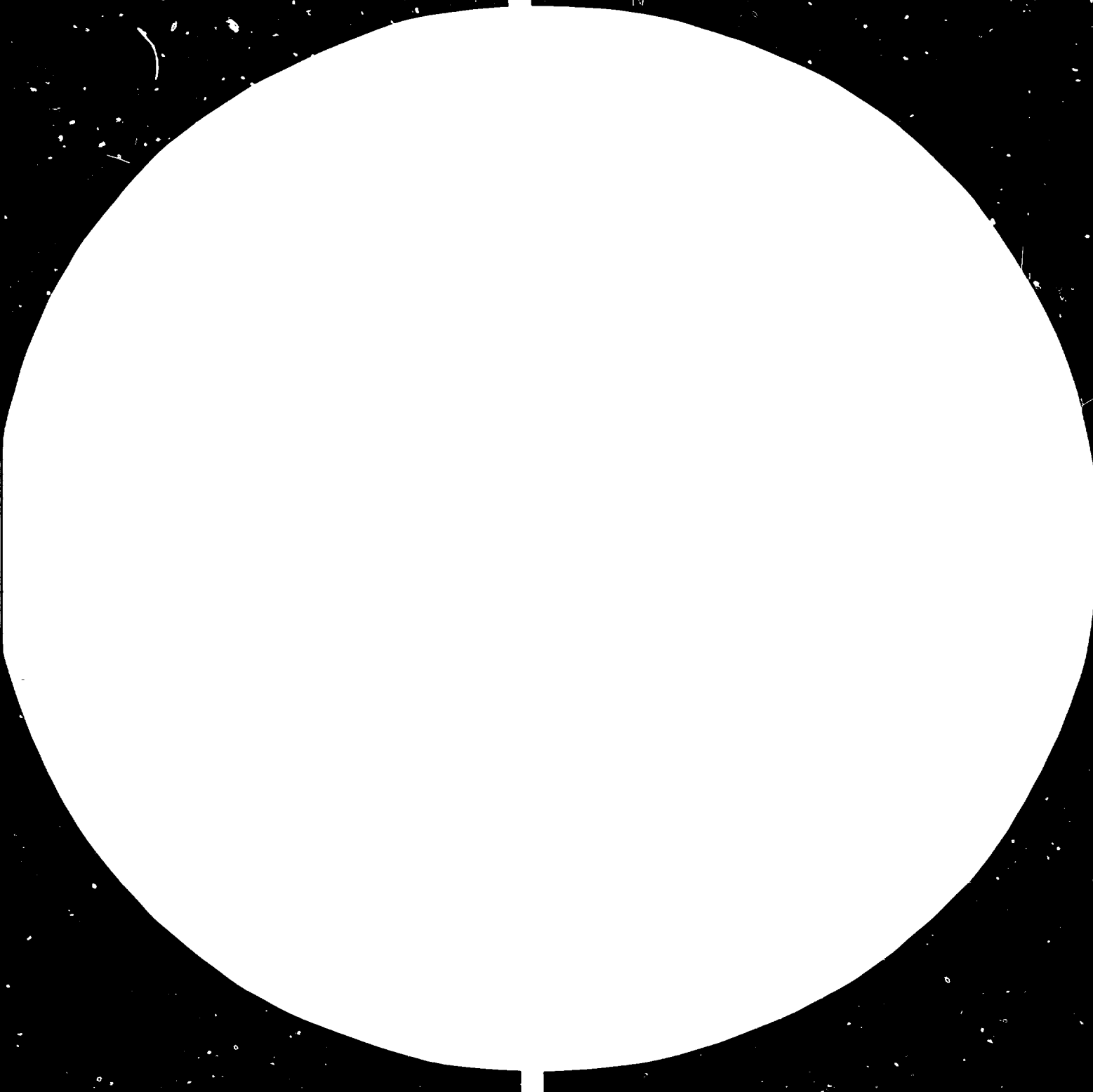
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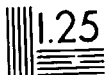
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NEWSLETTER

TECHNOLOGICAL INFORMATION EXCHANGE SYSTEM

Issue No. 34

13511

May 1986

Dear Reader,

The Transfer of Technology Programme Branch of UNIDO has always devoted a considerable effort to assisting developing countries in enhancing their technological capabilities through the upgrading of institutional infrastructure, improvement of human resources and implementation of programmes and mechanisms aimed at strengthening the negotiating capabilities for suitable conditions in the process of technology acquisition.

The Technological Information Exchange System (TIES) has proved to be one of the most efficient tools through which the transfer of technology registries regularly share experience in dealing with the technology suppliers and in refining their skills to negotiate the technology on a more equitable basis.

In parallel with TIES, other information networks are being created at the regional level and a special reference here is made to the ASEAN Technological Information System (ASTIS) whose creation and operational procedures were agreed upon at a meeting in Bangkok held from 29 September to 3 October 1986 and attended by representatives from Brunei Darussalam, Indonesia, Malaysia, Philippines and Thailand. The project for the creation of ASTIS is a joint undertaking of the ASEAN Committee on Industry, Minerals and Energy (COIME), the United Nations Development Programme (UNDP) and UNIDO.

The next TIES meeting to be held in Warsaw from 10-13 November this year will focus on the computerization of the transfer of technology registries and is expected to represent a starting point for a new phase in the operation of TIES, not only by facilitating the exchange of information but also by providing the registries with an invaluable management tool.

Together with this assistance to the developing countries, a major concern has also been the one of creating a better understanding among suppliers and recipients of technology of the reciprocal needs, expectations and constraints in order to facilitate technology flows which ultimately is the goal of both sides. This is why, over the years, UNIDO has maintained a close dialogue with the Licensing Executives Society (LES), a well-known organization traditionally regarded as being identified with the views of the technology suppliers. UNIDO is planning to precede and combine the TIES meeting in Warsaw with a meeting in Vienna from 5-7 November 1986 between LES representatives and selected heads or senior officers of transfer of technology registries.

This meeting will provide a forum for an open interaction and exchange of views on such subjects as the regulatory environment in the developing countries, the factors that affect the technology transactions and the technological development, the rewards and risks of licensing, the emerging licensing practices

and legal issues in new fields such as biotechnology and software. It will also permit the participants to become better acquainted with UNIDO's programmes and facilities oriented towards stimulating international co-operation, such as the Investment Promotion Services, World Bank/UNIDO Co-operative Programme, Industrial and Technological Information System, among others.

We sincerely expect that through a better knowledge of the elements of the triangle LES-UNIDO-TT registries, the meeting will bring about a concrete innovative programme for the benefit of all parties concerned.

Last but not least, we wish to inform you of a few organizational and personnel matters. With effect from 1 May 1986, the organizational structure of UNIDO has been changed to strengthen a country focus and to enhance the capability of the Organization to fulfil its mandate and to further improve its operational efficiency. The new organizational structure consists of the Office of the Director-General and five departments, each headed by a Deputy Director-General: the Department of External Relations, Public Information, Language and Documentation Services; the Department of Administration; the Department for Programme and Project Development; the Department of Industrial Operations; and the Department for Industrial Promotion, Consultations and Technology. The Development and Transfer of Technology Division (DTTD) is one of the component units of the Department for Industrial Promotion, Consultations and Technology (DIPCT). It consists of three units: the Industrial and Technological Information Section, the Industrial Technology Publications Unit and the Transfer of Technology Programme Branch.

The DIPCT is headed by the Deputy Director-General, Mr. Fernando Simoes Souto (who, at present, also acts as Director of the DTTD). Mr. Souto, a Brazilian by nationality, assumed office at the beginning of July. He has a Master of Science Degree in Electrical Engineering from the Massachusetts Institute of Technology and a Ph.D. in Electrical Engineering from the Rice University, Houston, Texas. Until his appointment with UNIDO, Mr. Souto served since 1982 as Managing Director for Quality Assurance of Telectronic-Electronic Equipments in Sao Paulo. From 1979 to 1982 he was President of the National Institute for Metrology, Normalization and Industrial Activities of the electro-electronic sector of the Secretariat of Industrial Technology of the Ministry of Industry and Commerce and subsequently held high-level positions in Brazilian standardization bodies and represented his country in several international institutions dealing with science and technology.

Mr. Venkataraman worked for many years as Special Technical Adviser of the Technology Programme, was reassigned as Senior Technical Adviser of the DIPCT and located to Mr. Souto's office. He is now covering all three Divisions of the Department. We are very grateful to him that he still devotes the majority of his working capacity to assist the DTTD and to support it with his valuable experience and advice.

Rolf Kloepzig
Officer-in-Charge
Transfer of Technology Programme Branch
Department for Industrial Promotion,
Consultations and Technology

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REGISTRY NEWS

NIGERIA

Readers may recall that in TIES Newsletter issue No. 28 of March 1985 we reprinted an abstract of a paper on the transfer of technology regulation in Nigeria. Following that article, we are pleased to reprint hereunder the guidelines to assist enterprises in negotiating transfer of technology agreements under Decree No. 70 of 1979.

GUIDELINES TO ASSIST ENTERPRISES IN NEGOTIATING
TRANSFER OF TECHNOLOGY AGREEMENTS UNDER
DECREE No. 70 of 1979

Introduction

Decree No. 70 of 24 September 1979 is the law regulating the transfer of technology and industrial property rights from parties outside Nigeria to Nigerian enterprises. The National Office of Industrial Property (NOIP) created under the Decree and having its Office at 109 Western Avenue, Iponri, Lagos is the sole statutory body authorized to approve agreements/contracts for transfer of technology. Such contracts usually cover:

- (i) The use of trade marks;
- (ii) The right to use patented inventions;
- (iii) The supply of technical expertise in the form of preparation of plans, diagrams, operating manuals or any other form of technical assistance of any description whatsoever;
- (iv) The supply of basic or detailed engineering;
- (v) The supply of machinery and plants; and
- (vi) The provision of operating staff or managerial assistance and training of personnel.

2. The Decree requires that such agreements be examined, approved and registered by NOIP and a certificate of registration be issued to the Nigerian enterprises. Agreements for the transfer of technology as well as their modifications and renewals will be valid, especially for payment purposes, only when duly appraised, approved and registered by the National Office. The Federal Ministry of Finance, the Central Bank and other banks licensed in Nigeria are obliged, under section 7 of the Decree, not to effect the transfer of funds to parties outside Nigeria, relating to transfer of technology agreements, unless the transferring party furnishes such agencies with the above-stated certificate and a certified copy of the relevant agreements/contracts relating to which the payment is proposed to be made.

3. This set of guidelines has been prepared by the National Office to basically assist Nigerian enterprises in negotiating transfer of technology agreements so as to ensure their speedy processing and registration by the Office. The Guidelines are issued supplementary to the Decree and not in lieu thereof. Thus, in any conflict of interpretation, the provisions of the Decree shall prevail.

Registrable agreements

4. To facilitate the administrative processing of the agreements, the following guidelines are provided:

- (i) NOIP has the statutory function to examine and register agreements and contracts concerning the importation of foreign technology; the licensing of industrial property rights; the acquisition of foreign technical and managerial services; and the employment of foreign personnel and acquisition of machinery for the performance of the agreements. All agreements involving such matters or modifications or renewals concerning such matters or composite agreements, are to be submitted to NOIP together with completed revised Form NOIP 2-84 and the attachments referred to in the revised application Form NOIP 1-84. The submission of such document is to be made by Nigerian enterprises whether already incorporated or proposed to be incorporated.
- (ii) NOIP encourages Nigerian enterprises to submit initialled draft agreements/contracts or seek advisory assistance from the Office should they be intending new ventures or undertaking new contractual obligations.
- (iii) All existing agreements must be submitted to NOIP for registration. If it becomes necessary to re-negotiate any aspect of an existing agreement, adequate time will be given to the enterprises involved to comply, in accordance with these guidelines.
- (iv) In order to avoid delays possible in calling for or in the submission of supporting information, NOIP encourages firms with foreign equity participation to also submit joint venture (investment) agreements which have been approved by the Government or which have been submitted for such approval.

Exemptions

5. Enterprises/organizations engaged in the following activities will generally be exempted from the submission of agreements involving the transfer of technology as highlighted under point (1) above:

- (i) Classified military projects.
- (ii) Inter-Governmental arrangements relating to projects, not involving foreign exchange payments.
- (iii) Other projects as may be listed from time to time. Enterprises or organizations handling such projects may, however, seek advisory assistance from NOIP in relation to the acquisition of technical rights and services.

6. Purchase agreements involving the import of machinery and equipment against import licenses need not be submitted to NOIP unless:

- (i) The contract for the purchase of machinery and/or equipment involves the use of foreign personnel for its installation, commissioning and operations.
- (ii) The machinery, equipment, etc., is associated with the production of goods and services in relation to which the Nigerian enterprises are obliged to make the submissions under point (1) above.

7. Agreements relating to the supply of services (for example hospital services, architectural services, construction/erection services,

maintenance services, etc.), which are unrelated to the direct production of goods and services need not be submitted to NOIP unless the services are associated with matters relating to which the Nigerian enterprise is obliged to make the submissions under point (1) above.

Incentive remunerations and royalty payment

8. Incentive remuneration is defined in these guidelines as the levels of remuneration/compensation to transferors which may be regarded as "incentive" payments for effective and beneficial transfers of technology. In its efforts to promote the industrialization of the country, NOIP is prepared to endorse incentive remunerations in agreements which in particular contribute to the production of capital and industrial goods, increase the development of agro-based industries, improve industrial infrastructure and increase local value addition in the use of critical raw materials.

9. NOIP discourages the employment of foreign technology for the establishment of low local value-adding operations such as mere assembly of imported parts and components, the repackaging of imported products and the like. In these cases, NOIP will not endorse incentive remuneration arrangements between the contracting parties unless such are precedent to backward or forward integration, and will lead to substantial local value-addition, etc. towards which positive commitments and arrangements are made in the agreements.

10. Incentive remuneration arrangements will be endorsed where they will raise the technological and managerial competence, and capacity of Nigerians. Agreements are favoured which specifically provide programmes for the training of Nigerians in technical and management disciplines.

11. Royalties for the licensing of trademark rights or for the registration of licences as registered users of foreign trademarks will not be favoured unless such trademark rights are associated with the transfer of know-how and/or are associated with contractual arrangements leading to future local value-addition, export potentials, the employment of a substantial number of Nigerians and such beneficial factors.

12. Patent licenses, towards which royalties are applicable, will normally be expected to have a direct stated advantage accruing to the licensee (such as export rights under foreign patent positions of the transferor) or as applying to a situation where the licensee cannot carry out an industrial operation without infringing on the transferor's patent. Where patent licenses or patent rights in composite agreement are met, the granted patent must be a registered Nigerian patent and the patent must be directly related to the industrial operations envisaged by the licensee or transferee.

13. NOIP will generally not approve incentive royalties for patent rights acquired by the licensee for patents which have been applied for, but not granted, in Nigeria.

14. In all cases, technology arrangements will not be registered if they make provisions in respect of patents which have lapsed at the time the agreements become effective or agreements which require the licensee to reimburse the licensor for the registration and maintenance of Nigerian patents for the licensor or which require the licensee to make payments for the registration and maintenance of the licensor's Nigerian patents.

15. The total lump-sum and royalty payments wherever allowed should generally not be more than eight per cent of total expected net sales over a period not exceeding 10 years. The above would be treated as upper ceilings and the rate of royalty, the amounts of lump-sum and the period of the agreement in respect of individual cases would be determined by the National Office on a case-by-case evaluation, taking into consideration all relevant factors including current international practice.

16. There should be no requirement in any agreement for the payment of a minimum guaranteed royalty regardless of the quantum and value of production.

17. NOIP will generally favour running royalties in agreements. Lump-sum payments, in lieu of running royalties, may be approved if contractual obligations of the supplier are present in agreements on guarantees and warranties over the performance of the technology proposed to be transferred. The licensor must be seen to undertake the responsibility of rectifying deficient performance in technology without further cost to the Nigerian enterprise or be obliged to some minimum level of expenditure towards such rectification.

18. Where the provisions of an agreement involve the payment of remuneration to a party outside Nigeria, which is not in the nature of royalty, NOIP will ordinarily register such agreements when they relate the payments to the services enumerated in the agreement, which are in reasonable consideration thereof and which will be disbursed in some direct proportion to services actually rendered.

19. "Net Sales" is defined in these guidelines as "net ex-factory sales price of the product exclusive of excise duties and other taxes, minus the cost of the standard bought out components and landed cost of imported components, irrespective of the source of procurement including customs duties, insurance and freight". The merit of this system of payment is that henceforth royalty payments will be calculated on net sales and based on the actual local value-added.

20. Payments to foreign parties arising from these arrangements are subject to Nigerian tax laws.

21. The use of foreign brand names will in general not be encouraged for internal sales.

22. The Nigerian party should be free to sub-license the technical know-how/product design/engineering design under the agreement to another Nigerian party on terms to be mutually agreed to by all the parties concerned including the transferor with the assistance of NOIP.

23. Consultancy services required to execute a project should be obtained from Nigerian consultancy firms. However, if foreign consultancy is considered necessary, a Nigerian consultancy firm should be the prime consultant.

Duration

24. The maximum period over which the obligations of a licensee can be made to legally prevail in agreements is limited by the Decree to 10 years. NOIP will not ordinarily register agreements with such a long duration, unless:

- (a) The technology proposed to be transferred is complex and the enterprise which is the recipient of the technology is likely to take the indicated duration to absorb the technology;

- (b) The agreement involves the application of know-how which cannot be exploited in Nigeria without infringing on a patent owned and registered by the licensor in Nigeria;
- (c) It can be demonstrated to the satisfaction of NOIP that Nigerian enterprises will be able to engage in acceptable level of exports within the contracted term of license. A minimum of 30 per cent of yearly production may be regarded as an acceptable level;
- (d) The Nigerian enterprise cannot acquire, or readily acquire, materials and components for the sustenance of the enterprise over the period of the agreement without supplies from the licensor or without the direct assistance of the licensor;
- (e) The licensor grants to the licensee the rights of sub-license over the period of the agreement or makes such a beneficial arrangement in respect of Nigerian national interest.

25. Agreements must specify the duration and the date or event on which the agreement will become effective.

Grants/obligations

26. Transfer of technology agreements must adequately define or describe the details of the grants and obligations of the licensor, i.e. technical know-how, technical assistance, technical services, management and managerial services as applicable, which are proposed to be disclosed or furnished to the Nigerian enterprise.

Terminal rights

27. Agreements may not be registered should the licensee be viewed as failing to enjoy the rights of use of transferred technology, seen as know-how, after the normal termination date of the agreement.

Agreements may not be registered if the licensee is not granted rights under licensor's patents to enjoy continuance under the patents, which even though licensed over the relevant duration might not have lapsed at the time of normal termination of the agreement. NOIP will view all remuneration payable to the licensor for the grant of patent and know-how rights in any agreement as including payments for the use of such rights over the life of the licensee's investments.

Renewals

28. Agreements incorporating renewal rights are subject to acceptance by NOIP. Should licensees acquire rights under new and relevant patents, important improvements of the licensor or access into viable know-how not previously proposed to be transferred in registered agreements, NOIP will favourably consider the renewal of such agreements. However, NOIP will generally allow the renewal of agreements relating to licensee's trademark rights should, in NOIP's opinion, public interest is being protected thereby. Similarly, NOIP will allow the renewal of agreements where export advantages are shown to accrue to Nigeria; product range is extended thereby or such beneficial advantage accrues to the country.

Restrictive provisions

29. By virtue of Article 6 (2) of the Decree, NOIP will be guided by the principle not to register agreements should they contain the following restrictive provisions:

- (i) Any restraint on the transferee, on the research and development he can carry out or on his employing the results of his own research and development work;
- (ii) Any compulsion on the transferee to acquire equipment, tools, parts or raw materials exclusively from the transferor or from other identified person or source;
- (iii) Any restraint on the employment of technology acquired or licensed from other sources to complement licensed technology;
- (iv) The requirement on the part of the transferee to curtail sales of licensed products; or rights by transferor to fix resale prices of licensed products in contravention of the price control Decree 1977 or such other enactment relating to prices. The provisions will also apply to sales quantities and resale prices independent of whether licensed products are intended for domestic or export markets;
- (v) The appointment of the transferor of technology as the exclusive sales agent or representative of the transferee in Nigeria or elsewhere, relating to licensed products or services, or obliging the transferee to sell licensed products exclusively to the licensor or to a designated source or agent;
- (vi) Requiring the consent of the licensor before the transferee can modify products, processes or plants;
- (vii) Requiring the transferee to make payments in full for transferred technology which remains unexploited by him;
- (viii) Where the interpretation of the agreement, the settlement of any controversy between the contracting parties, or the enforcement of settled terms is made subject to foreign jurisdiction;
- (ix) The technology to be transferred is freely available in Nigeria;
- (x) The compensation to be paid for technology or other valuable consideration to be received by the transferor of technology is not commensurate with the benefit and rights received by the licensee or commensurate with the benefit to the Nigerian economy;
- (xi) The transferor is viewed as interfering in the administration of the transferee's undertaking which may be considered unnecessary for the execution of the contract;
- (xii) The transferee is viewed as being under onerous obligation to transfer or to assign to the transferor, or to some entity identified by him, industrial property rights of the transferee, or is accepting onerous obligations to transfer technical information innovations and improvements obtained or developed by the transferee unassisted by the transferor;
- (xiii) The transferee is restricted, without adequate cause, to export licensed products exclusively to the transferor or to any person or source identified by the transferor;

- (xiv) The transferee is required to use permanently, or for an excessive period, personnel designated by the transferor of technology;
- (xv) The transferee is required to introduce unnecessary design changes or is under the obligation to employ quality controls or prescribed standards which are excessively stringent.

Period of registration

30. It is the intention of the National Office to finalize the registration of technology transfer agreements submitted to it within 90 days from the date of submission of the last information required by the Office.

National Office of Industrial Property,
109 Western Avenue, Iponri,
P.M.B. 12806,
Lagos,
Tel. 801410-9 Telex NOIP 26725 NG

UNIDO NEWS

INTIB

What is INTIB?

INTIB stands for the Industrial and Technological Information Bank.

Who established it?

In March 1975 the Lima Declaration and Plan of Action (Second General Conference of UNIDO) urged the Executive Director of UNIDO to establish the Industrial and Technological Information Bank (INTIB).

In December 1975 United Nations General Assembly in its Resolution 3507 (XXX) reaffirmed the "need to enable developing countries to have access to specific information on advanced and other technologies requested by them, as well as on the new uses of existing technologies, new development, possibilities of adapting them to local needs, and the needs ... to select technologies which meet their requirements". In this context the Executive Director of UNIDO was requested to establish INTIB.

INTIB objectives/its activities?

The main objectives of INTIB are to facilitate and accelerate industrial and technological information flow to INTIB users for the proper selection of technologies and equipment for decision-making etc.

The INTIB work programme aims at establishing and further developing the INTIB network of suppliers of technological information and improve its flow; and to generate specific technical information in the area of concern to the pre-investment choice of technology from alternatives in the 20 selected industrial sectors for the operation of INTIB as well as developing linkages and communication with end-users of INTIB in developing countries, in particular through regional, sub-regional and national focal points/national nodes so as to exchange relevant information based on needs and promote greater availability and utilization of technological information in the decision-making processes.

The INTIB serves in the technology selection process as part of the decision-making process of

investment through pre-feasibility studies. Such a selection process requires two basic pre-requisites, namely information on alternatives of technology and the capability for choice among alternatives. Therefore the INTIB has been providing selected, analysed and annotated information on industrial matters through industrial inquiry services which includes access to information on manufacturing processes and know-how as well as equipment and machinery suppliers, on criteria and parameters for selection of technology at pre-feasibility study stages, on implications of terms of conditions for better acquisition of technology, on R + D activities, on advisory services for information handling etc.

How to contact with INTIB?

INTIB industrial inquiry service may be simply explained as mail-order technical assistance.

What is it?

The Industrial Inquiry Service provides practical assistance to developing countries by answering, without charge, their inquiries regarding industrial matters and by providing details about processes, techniques, equipment, and so on.

Who can use it?

The Service can be used by officials and technical personnel of public and semi-public bodies concerned with industrial development and by industrial enterprises of all kinds throughout the developing world.

Why does it exist?

Much of the technical and industrial knowledge essential to the developing countries is already available; through its Industrial Inquiry Service INTIB taps this information and channels it to where it is needed.

How does it work?

To obtain the information requested, the Service draws on the advice and expertise of UNIDO staff and an international network of correspondents. (It should be noted however, that the service does not deal with purely scientific problems, with those involving detailed engineering, or with those requiring complete feasibility studies or extensive planning and research.)

How to use it

To enable INTIB to give a satisfactory service, inquirers should send precise details of their industrial problems and of the kind of information needed. Previous attempts made to solve the problems should also be described.

How to describe the problem

Only an inquirer expressing his needs in such a way as to permit the Service to draft a thorough, accurate and timely reply can expect satisfaction. The Service can handle the problem only on the basis of the description offered. A few minutes of thought invested in the exact wording of the inquiry may save delays in answering, time in scanning useless material, and unnecessary work and expense for the Service. The following items should be stated as clearly and as precisely as possible:

- The subject matter;
- The problem;

- The purpose of the inquiry and the results hoped for;
- Relevant data, such as the size of an operation; specific basic data and parameters; possible or actual starting materials to be used (and their characteristics as compared to traditional materials, if applicable);
- Other sources contacted or consulted (institutions, experts, Government offices, literature);
- Any additional information that might be helpful.

INTIB's Inquir Service maintained its activities at generally the same level during the period of 1982-85. The number of substantive inquiries received during 1982-85 was about 1,300 per year. Of these, 43 per cent were related to manufacturing processes and know-how, 33 per cent to equipment and machinery suppliers, 6 per cent to research activities etc. The major users continued to be the small- and medium-scale industrial enterprises, industrial information service centres, research and development institutes, Government decision-makers, engineering consulting firms etc.

In answering industrial inquiries, INTIB has been utilizing not only in-house expertise but also external resources including over 200 on-line databases.

Whom to contact?

Inquiry by letter, telex or cable should be addressed to:

INTIB
Industrial and Technical Information
Development and Transfer of Technology
Department for Industrial Promotion,
Consultations and Technology
UNIDO
P.O. Box 300
A 1400 Vienna
Austria.

RECENT LEGISLATION

The law of the People's Republic of China on enterprises operated exclusively with foreign capital

We shall be publishing a series of recent legislation enacted in the People's Republic of China, commencing with the law on enterprises operated exclusively with foreign capital, adopted on 12 April 1986 at the Fourth Session of the Sixth National People's Congress.

Article 1: With a view to expanding economic co-operation and technological exchange with other countries and promoting the development of its national economy, the People's Republic of China permits foreign firms, other economic entities or individuals (hereinafter referred to as foreign investors) to set up enterprises exclusively with foreign capital in China (hereinafter referred to as wholly-owned foreign enterprises) and protects the lawful rights and interests of the enterprises so established.

Article 2: As referred to in the present law, wholly-owned foreign enterprises are those established in China by foreign investors exclusively with their own capital in accordance with the relevant Chinese laws. The term does not

include branches set up in China by foreign investors.

Article 3: Enterprises to be established exclusively with foreign capital shall be conducive to the development of China's national economy. Such enterprises shall use advanced technology and equipment or market all or most of their products outside China.

Provisions regarding the lines of business which the State forbids wholly-owned foreign enterprises to engage in or on which it places certain restrictions will be made by the State Council.

Article 4: The investments made by a foreign investor in China, the profits he earns and his other lawful rights and interests shall be protected by Chinese laws.

The wholly-owned foreign enterprise must abide by Chinese laws and statutes and must do nothing detrimental to China's public interests.

Article 5: Except under special circumstances, the State shall not nationalize or expropriate wholly-owned foreign enterprises. Should it prove necessary to do so in the public interest, legal procedures will be followed and reasonable compensation will be made.

Article 6: The application to establish an enterprise exclusively with foreign capital shall be submitted for examination and approval by the department under the State Council which is in charge of foreign economic relations and trade or by other authorities entrusted with such powers by the State Council. The department or said authorities shall, within 90 days from the date when such application is received, make a decision on whether or not to grant approval.

Article 7: Within 30 days after receiving a certificate of approval, the foreign investor should apply to the authorities in charge of the administration of industry and commerce for registration and a business licence. The date of issue of the business licence shall be deemed to be the date of establishment of the enterprise.

Article 8: The wholly-owned foreign enterprise which meets the conditions for being considered a legal person under Chinese laws shall be so considered.

Article 9: The wholly-owned foreign enterprise must make investments in China within the period approved by the department in charge of examination and approval. If it fails to do so, the authorities in charge of the administration of industry and commerce may revoke the business licence.

The authorities in charge of the administration of industry and commerce shall inspect and monitor the investment situation of a wholly-owned foreign enterprise.

Article 10: In the event of a separation, merger, transfer or other major change, the wholly-owned foreign enterprise must report to and seek approval from the authorities in charge of examination and approval, and register the change with the authorities in charge of the administration of industry and commerce.

Article 11: The production and business programmes of the wholly-owned foreign enterprise shall be reported to the competent authorities for the record.

The enterprise shall be free from interference in its operations and management so long as these are conducted in accordance with the approved articles of association.

Article 12: The wholly-owned foreign enterprise shall employ Chinese workers and administrative staff under contracts concluded according to law. These contracts shall include provisions relating to employment, dismissal, remuneration, welfare, occupational safety and worker's insurance.

Article 13: Workers and administrative staff in the employment of the wholly-owned foreign enterprise may set up trade unions in accordance with the law, and such unions may conduct activities to protect the lawful rights and interests of the employees.

The enterprise shall provide necessary facilities for the activities of the trade unions.

Article 14: The wholly-owned foreign enterprise shall set up account books in China, conduct independent auditing and, in conformity with the regulations, submit its fiscal reports and statements to the financial and tax authorities for supervision.

If the enterprise refuses to maintain account books in China, the financial and tax authorities may impose a penalty on it, and the authorities in charge of the administration of industry and commerce may order it to suspend operations or revoke its business licence.

Article 15: Within the scope of operations approved, the wholly-owned foreign enterprise may purchase, either in China or from the world market, raw and semi-finished materials, fuels and other materials it needs. When these are available from both sources, preference should be given to Chinese sources.

Article 16: The wholly-owned foreign enterprise shall apply to insurance companies in China for such kinds of insurance coverage as are needed.

Article 17: The wholly-owned foreign enterprise shall pay taxes in accordance with relevant State regulations. It may enjoy preferential treatment for reduction of taxes or exemption from them.

If the enterprise reinvests a portion of its after-tax profits in China, it may, in accordance with relevant State regulations, apply for a refund of the income tax paid on the reinvested amount.

Article 18: The wholly-owned foreign enterprise shall handle its foreign exchange matters in accordance with relevant State regulations.

The enterprise shall open an account with the Bank of China or with a bank designated by the Chinese authorities in charge of foreign exchange control.

The enterprise should take care to balance its foreign exchange receipts and payments. If, with the approval of the competent authorities, the enterprise markets its production in China and consequently experiences an imbalance in foreign exchange, the said authorities shall be responsible for helping it to eliminate the imbalance.

Article 19: The foreign investor may remit abroad profits legitimately earned from the enterprise, as well as other lawful earnings and any funds left over after the enterprise is liquidated.

Wages, salaries and other legitimate income earned by foreign employees in the enterprise may be remitted abroad after the payment of personal income tax in accordance with Chinese law.

Article 20: The foreign investor should apply for and secure approval of the duration of operations of its enterprise from the authorities in charge of examination and approval. When an extension of the duration of operation is desired, application must be made to the said authorities 180 days before the duration of operations expires. The authorities in charge of examination and approval shall, within 30 days from the date of receipt of such application, make a decision on whether or not to grant approval.

Article 21: When terminating operations, the wholly-owned foreign enterprise shall give timely notification and proceed with liquidation in accordance with relevant legal requirements.

Pending the completion of liquidation, a foreign investor may not dispose of the assets of the enterprise except for the purpose of the liquidation.

Article 22: At the termination of operations the wholly-owned foreign enterprise should nullify its registration with the authorities in charge of the administration of industry and commerce and return its business licence.

Article 23: In accordance with the present law, detailed rules and regulations for the implementation of this law shall be formulated by the department under the State Council which is in charge of foreign economic relations and trade and shall go into effect after approval by the State Council.

Article 24: The present law comes into force on the day of its promulgation.

Readers wishing to refer to previous articles on Chinese regulations on transfer of technology imports may like to refer to TIES Newsletters 2, 11, 19, 21 and 29.

* * * * *

Poland - New regulations on transfer of technology

According to the law, in the form of the Council of Ministers Order No. 184 dated 15 November 1985, Poland received a new comprehensive legislation directly regulating transfer of technology.

The new law had been discussed for some time to eliminate certain negative effects on the economy caused by largely uncontrolled technology inflows throughout the 1970s.

The passing of the law was connected with the earlier establishment of the Office for Technical Advancement - a ministerial rank body in charge of co-ordinating national R&D effort and the formulation of an overall innovation and technical development policy.

The main purpose of the new law is to create a coherent and complex set of procedures applicable not only to the importing of technology but also providing an attractive set of incentives to boost Polish exports of technology in its broadest sense.

The Council of Ministers Order No. 184, which came into effect as of 1 January 1986 consists of the following main parts:

- General provisions;
- Provisions regulating the export of technology;
- Provisions regulating the import of technology;
- Provisions regulating the supply of technical documentation;
- Transitory provisions;
- Additional legislative body in the form of a Decree by the Minister for Foreign Trade.

The general provisions describe in detail the scope of the law and under the term "scientific and technical achievements" include:

- Inventions protected by industrial property law;
- Inventions not protected by industrial property law, such as results of R&D efforts, industrial know-how, designs, designing, organisational and other know-how, new active micro-organisms, computer software;
- Technical services forming a part of protected or non-protected know-how or invention.

The law - in the above category - includes prototypes of any kind, chemical or physical formulae if they are necessary for the proper application of the invention or the know-how.

Chapter two - provisions regulating the export of technology - deals with the proceedings related to the export of Polish originated technology and aims in particular at accelerating the R&D effort both in research establishments and in industry.

The most interesting part of this chapter is contained in article 6 which stipulates the incentives for the authors of the technology and owners (corporate owners) of the said technologies.

Under the new law inventors are granted 10 per cent of the total price (value) of the technology in foreign exchange. Furthermore, the corporate owners of the technology receive 30 per cent of the total value in foreign exchange and the rest in local currency on the basis of the current rate of exchange.

The exporting company (often the corporate owner of the technology) is also entitled to withhold up to 5 per cent of the total value of each contract for the purpose of promoting and acquiring this and other technical know-how.

Such a "division of spoils" though perhaps unattractive to the company operating in the market economy is unique amongst COMECON countries and should provide a fairly strong boost both to the innovative efforts and the exports of technology.

Poland is a net importer of technology and its largest single annual technology export value was approximately US\$2 million, in terms of royalty income. At present (1984-1985) the annual income is in the order of around US\$1-1.5 million and it is hoped that the new legislation will lead to an increase in these figures. It should be remembered that it is calculated that Polish R&D institutions employ approximately 35,000 workers, of which 12,000 are at the PhD level. Results (so far) attained in technology exports hardly justify such high investments in this field.

Chapter three - provisions regulating imports of technology - deals with the screening and approval procedures of technology inflows into Poland.

The law provides for the construction of annual and five-year programmes of technology imports in crucial sectors by the Office of Technical Advance, and provides the Ministry for Foreign Trade with evaluation, screening and approval of all technology import agreements.

The Ministry for Foreign Trade issues the final import licence which, *inter alia*, stipulates the conditions under which the technology can be imported into the country.

The contracts themselves are negotiated directly between would-be licensors and would-be licensees - often with the assistance of a specialized trading agency.

Chapter four - provisions for regulating the supply of technical documentation - establishes a simplified procedure for such deliveries, though import licenses are also issued by the Ministry for Foreign Trade. As mentioned earlier, the basic criteria for the evaluating and approving of technology agreements are contained in the Decree issued by the Ministry of Foreign Trade, dated 28 January 1986.

In its introductory section the Decree describes authorized organizations who may become parties to the technology agreements on the Polish side and who are usually foreign trading and industrial organizations who obtained "licences to perform foreign trade operations" from the Ministry for Foreign Trade (at present about 150 organizations have acquired such rights).

Furthermore, a simple format for preparing negotiations is described, which includes such elements as the formation of a negotiating team, the need for submitting competitive offers/bids, basic economic criteria for the technology's performance and an obligation to submit all the relevant documentation to the Ministry for Foreign Trade in order to obtain the import/export licence, which in the case of technology imports means the submission of each contract to the evaluation procedure.

The Decree also describes the necessity of registering each contract for technology (as well as its extension, amendment, etc.) with the Contract Registry at the Ministry. Detailed descriptions of information inputs - in addition to the original contract itself - are also provided for.

By virtue of the Decree the Registry is obliged to carry out half-yearly and yearly analyses of the conditions of the contracts entered into for statistical and analytical purposes.

The analytical/statistical requirements of the Registry are modelled on the UNIDO/TIES information system CORIS. Poland is a member of TIES.

The integral part of the Decree is the guidelines regarding contracts for the sale/purchase of technology, which provide the basic requirements as to the structure of the contract, list of clauses which in principle should be included in the contract, and a list of clauses which should preferably be eliminated from the contract.

The latter list contains principal and recognized restrictive provisions based on the antitrust legislation and research work of United Nations organizations, notably UNIDO and UNCTAD.

The basic structure of the contract should include:

- (a) A brief description of the technology and the purpose for its acquisition;
- (b) Parties involved, date and place of contract signature;
- (c) Subject matter of the contract - including its basic description;
- (d) Legal rights of the licensor in relation to the subject of the contract;
- (e) Scope of the contract (sales, manufacture, use) and territories covered by the contract;
- (f) Nature of the contract (exclusivity and its degree);
- (g) Licensors' obligations in case of infringements;
- (h) Means of transfer of rights and know-how from the licensor to the licensee;
- (i) Terms of payments including payment schedules/taxation, foreign exchange rates/price adjustments, etc.;
- (j) Rights and obligations of contractual parties, in particular warranties and guarantees, industrial property rights, contract terminations, etc.);
- (k) Terms of the contract, post-expiration provisions;
- (l) Contract law and arbitration procedures;
- (m) Entry into force stipulations.

As regards technology import agreements the Decree stipulates that the licensee should attempt at securing the following in contracts:

- 1. Information on the scope of patent protection and the extent of know-how.
- 2. Stipulations regarding earlier licensees.
- 3. Possibilities concerning the use of know-how after contract expiry.
- 4. Licensors' financial guarantee as to performance of the technology and the licensors' responsibility for the possible infringements of third party rights.
- 5. Various performance guarantees.
- 6. Provision for adequate technical assistance by the licensors during the application/introduction of a new technology.

- 7. Provision for grant-back rights throughout the duration of the contract.
- 8. Rights for sub-licensing within Polish territory.
- 9. Most favoured licensee provisions.

The Decree, for the first time, explicitly stipulates that technology agreements shall not contain clauses which may have adverse effects on the economic and technological progress of Poland or international trade in technology. The following provisions are considered to have the above adverse effects:

- 1. One sided obligation on the part of the licensee to freely grant back rights developed over the period of the contract.
- 2. Licensee's obligation not to contest industrial property rights of the licensors.
- 3. Provisions that the licensee shall exclusively use the marketing organizations of the licensor for marketing products manufactured under licence.
- 4. Price fixing provisions.
- 5. Limitations imposed on the licensee in terms of free adaptation of technology to his specific needs (also including range of products bearing no trade or service mark of the licensor).
- 6. Limitations concerning further development of acquired technology inclusive of tie-out provisions.
- 7. Tie-in clauses relating to the supply of goods, know-how or services (with exception to those provisions where such tie-in clauses decide on the quality of the product, the performance of the technology, and the granting of trade marks).
- 8. Export limitations and restrictions including royalty differentiation and excluding earlier contractual/industrial property rights of the licensor.
- 9. Post-expiration restrictions relating to the use of the technology.
- 10. Post-expiration obligations of payments to the licensor over a period of three years but excluding the termination of the contract by fault of the licensee and normal secrecy provisions.
- 11. Post-expiration of industrial property obligations in the form of fees (applicable also to know-how in the public domain).
- 12. Ten or more years terms of agreements providing for automatic extensions.

As may be seen from the Guide, its provisions are aimed at eliminating most of the more common restrictions as well as towards providing the potential licensees (and licensors) with a legal frame within which they may conduct business.

It is hoped that the above rules - which will be applied flexibly and on a case-by-case basis - will ultimately lead to a large influx of much needed modern technology into the Polish economy on the one hand and on the other stimulate exports.

An evaluation within a year or so should show the effects of the newly introduced legislation.

Peru -- New resolutions on foreign investment and technology

RESOLUTION OF THE BOARD OF DIRECTORS OF THE NATIONAL COMMITTEE ON FOREIGN INVESTMENTS AND TECHNOLOGY

No. 004-83-EPC/35
Lima, 18 August 1983

Considering:

That by virtue of Supreme Decree No. 246-83-EPC, the Board of Directors of the National Commission on Foreign Investment and Technology (CONITE) has been empowered to establish the general criteria according to which CONITE will, in each case, grant the specific authorization, as provided for in article 37, paragraph 2, of Decision 24 as modified by article 10 of Decision 103 of the Commission of the Cartagena Agreement, both of which have been incorporated into the national code of laws under Decree Law 18900 and Decree Law 21826, respectively;

That the current international economic situation is exerting a limiting effect on the country's debt capacity so that the attraction of external savings, as an element in support of our balance of payments, must be preferentially directed towards encouraging capital investments;

That, on the other hand, the authorization of percentages exceeding the profit transfer limit referred to in the sforesaid article 37 of Decision 24 must take into account the real contribution of the direct foreign investment to the development of the country;

That, similarly, it is necessary to supplement the rules contained in Resolution No. 003-81-EPC/35 of the CONITE Board of Directors regarding the procedures governing the remittances of profits or dividends abroad;

The CONITE Board of Directors, pursuant to the decisions adopted at its meeting of 17 August 1983 and in accordance with the powers granted to it under Legislative Decree No. 71,

Resolves as follows:

Article 1. The owners of a direct foreign investment shall be entitled to transfer abroad, in freely convertible currency and following authorization by CONITE, such verified net profits or dividends as originate from their registered direct foreign investment, in accordance with the provisions of Resolution No. 003-81-EPC/35 of the CONITE Board of Directors and the present Resolution.

Whatever the maximum authorized percentage, in no case shall it be permitted to transfer profits or dividends in excess of those actually earned and disposable after taxes.

Article 2. In cases calling for the application of the 20-per-cent limit referred to in article 37 of Decision 24, foreign investors may choose to use as an alternative limit the percentage obtained by adding 10 points to the London Inter-Bank Offer Rate (LIBOR) for one-month operations corresponding to the last day of the month prior to that in which the remittance is affected.

Article 3. CONITE may, at the request of the interested parties, authorize annually, for the fiscal year in question, remittances of profits or

dividends exceeding the limit referred to in the preceding article, in accordance with the criteria and percentages indicated below:

(a) Export promotion:

For each 10 per cent of the total value of the sales of the enterprise intended for export, an additional one percentage point, with a limit of seven percentage points, will be granted.

(b) Use of national inputs:

When 50 per cent of the total value of the inputs is of national origin, an additional one percentage point shall be granted, or if the percentage of national inputs exceeds 65 per cent, three percentage points shall be granted, or if it exceeds 80 per cent, five percentage points shall be granted.

(c) Development of the more backward regions of the country:

Additional percentage points shall be authorized according to the "stratum" as indicated on the Poverty Map of Peru, which has been prepared by the Central Reserve Bank and which is shown in detail in the annex to the present Resolution, provided that the enterprise has its centre or centres of operations in one or more provinces of the stratum in question, with at least half plus one of the total number of its permanent workers employed there, in accordance with the following table:

- Stratum I	8%
- Stratum II	6%
- Stratum III	4%
- Stratum IV	2%
- Stratum V	1% (less Lima and Callao)
- Stratum Lima and Callao	No percentage points

When no stratum accounts for half plus one of the permanent employees of the enterprise, account shall be taken, in descending order for the respective number of employees, of the strata making it possible to comply with this requirement, and the weighted average of these strata shall be awarded as additional percentage points.

Article 4. For the purposes of the authorization referred to in the preceding article, the interested parties must submit as corroborating documentation the official certification in cases in which it is required, or, lacking this, some other public affidavit or sworn declaration, in the form ordered by the Office of the Secretary-General.

Article 5. Resolutions by the CONITE Office of the Secretary-General authorizing total remittances, in the cases discussed in article 3, of more than 30 per cent shall require a vote of approval by the CONITE Board of Directors.

Article 6. The following text is to be added to article 5 of Resolution No. 003-81-EPC/35 of the CONITE Board of Directors:

"These remittances may also be made through the use of bank certificates in foreign currency,

following the presentation to the Bank of the documents mentioned above, whereby these remittances shall be subject to the verification established in article 8".

Article 7. CONITE may, at the request of the enterprises, provide information on the results of the verification of the remittances of profits or dividends effected in conformity with Resolution No. 003-81-EPC/35 of the CONITE Board of Directors and the present Resolution.

Requests of this kind may be submitted to CONITE 90 days after the remittances have been effected.

Article 8. The present Resolution shall apply to remittances of profits and dividends for the 1983 fiscal year and following years, with the exception of the provisions of article 7, which shall apply to the cases that CONITE has before it for verification.

To be registered and promulgated

Signed
JUAN ZEGARRA NUSSO
President
CONITE

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
NATIONAL COMMISSION ON FOREIGN
INVESTMENT AND TECHNOLOGY

No. 003-85-EF/35

Lima, 1 April 1985

Considering:

That, in accordance with the provisions of articles 2 and 6 of Legislative Decree No. 71, the National Commission on Foreign Investment and Technology (CONITE) is the national agency empowered to establish the rules governing the treatment of foreign investment, technology and trade marks;

That, in accordance with article 6 of Legislative Decree No. 71, one of the functions of the Board of Directors of the National Commission on Foreign Investment and Technology is to formulate the provisions regarding the procedures to be followed in transactions with CONITE;

That it is the policy of the Constitutional Government to simplify the existing procedural steps required by the agencies of the Public Administration;

That this simplification must include the determination of those applications that are to be processed within one day of their submission, as well as those that require preliminary study, that is, those on which a decision is to be reached following their evaluation within the time limits established under the present Resolution;

That, Supreme Decree No. 499-83-EPC having been annulled, the present Resolution is contained in article 13, subsection (a), of Supreme Decree No. 071-84-PCM;

The CONITE Board of Directors, pursuant to the decisions adopted at its meeting of 1 April 1985,

Resolves the following:

Article 1. The following applications shall be processed within one day of their submission:

- (a) Enterprise qualification certificates;
- (b) Conversion of foreign into national investors;
- (c) Transformation agreements (conclusion, amendment and annulment);
- (d) Certificates of direct foreign investment; and
- (e) Transfer of shares among foreign investors registered with CONITE.

Article 2. The following applications shall require preliminary evaluation by the Office of the Secretary-General:

- (a) Direct foreign investment in the establishment of enterprises 20 days
- (b) Participation of direct foreign investment in increases of capital 30 days
- (c) Registration of direct foreign investment 20 days
- (d) Remittances of profits in excess of the general limits 30 days
- (e) Transfer of shares among foreign investors not registered with CONITE 20 days
- (f) Investments by nationals in the Andean subregion 40 days
- (g) Contracts covering technology, patents or trade marks (approval, extension or modification) involving the payment of royalties 40 days
- (h) Contracts covering technology, patents or trade marks (approval, extension or modification) not involving the payment of royalties 20 days
- (i) Regulation procedures in the appropriate cases 90 days

Article 3. Once the time periods referred to in the preceding article have elapsed without a relevant decision having been issued, the applications shall automatically be regarded as approved, with CONITE required to deliver the corresponding ruling, provided the application is free of any defect that might render it invalid in a way that cannot be corrected.

The time periods referred to in article 2 are expressed in working days. Days on which, although they were working days, actual work at CONITE was not possible for reasons of force majeure shall not be included in these periods.

In cases in which CONITE requests the rectification, correction or clarification of the documentation submitted or orders the modification of contract, or when this is done at the request of the parties, the calculation of the time period to which this article refers shall be suspended from the day on which CONITE gives notice of its instructions to the day following that on which the information requested is submitted or the modification effected, as the case may be. The time periods to which this article refers shall not apply

in such cases as require a vote of approval by the Board of Directors. These cases shall be decided by a resolution of the COMITE Board of Directors.

Article 4. The applications referred to in articles 1 and 2 must be submitted on stamped paper, addressed to the Office of the Secretary-General of COMITE, and accompanied by the complete documentation specified for each case in the annexes that form an integral part of the present Resolution, as well as by a receipt attesting to the payment of duties, when such are required. Applications that fail to comply with the conditions indicated shall be returned by the Office of the Secretary-General to the parties concerned at the time they are submitted, and no processing of these applications shall be regarded as having been initiated.

Such documents as, in accordance with this article, are required to be produced by the parties concerned may be submitted in the original or in notarized copies.

Article 5. Applications submitted to COMITE shall not require any documentation or supporting information other than that expressly stipulated in the present Resolution or, in the case of those applications the processing procedures for which have not yet been regulated, in the instructions issued by the Office of the Secretary-General.

Article 6. In cases in which the information or documentation required under the present Resolution has previously been submitted to COMITE and has not been returned to the party concerned, and has likewise not lost its validity or currency or passed out of force, it shall be sufficient for the party concerned to note in his application or written statement the date on which this information or documentation was submitted, along with a reference to the appropriate file or case number, and to enclose a copy of the corresponding validated receipt.

Article 7. Concerned parties whose applications fall under the terms of article 1 of this Resolution may exert their rights on the basis of a copy of their application bearing the seal and signature of the Secretary-General or his deputy, whereby this copy shall be sufficient proof of the approval of the application.

The certificates referred to in subsections (a) and (d) of article 1 shall be delivered on the day following the submission of the application.

Article 8. Within the first half of the time periods established for the individual cases referred to in article 2, COMITE may require of the parties concerned that they bring up to date, clarify, rectify or correct the documentation submitted as part of the procedures in question.

Such a requirement shall have the suspending effect referred to in article 3 and shall be precise and unequivocal with respect to the updated, clarifying, rectifying or corrective information or documentation that the party concerned is required to submit within the legally established time limit.

Article 9. In accordance with the provisions of article 48 of the Regulations on General Rules of Administrative Procedure, COMITE may issue a requirement without observing the conditions indicated in the preceding article, but in such cases the requirement shall lack the suspending effect referred to in article 3.

Article 10. COMITE may not deny an application on the grounds of a defect or omission that has not been the subject of a requirement or in respect of which such requirement failed to comply with the conditions set out in the preceding articles.

In either of these two cases COMITE must issue a favourable decision, or such a decision shall be regarded as issued on the condition that the presentation by the interested party of the missing required elements is suspended.

Article 11. The decisions issued by the COMITE Office of the Secretary-General shall be subject to petition for reconsideration, which shall be decided on by the same authority, or for appeal, which shall be decided on by the Board of Directors. When a petition for reconsideration has been entered, the ruling on this petition may be the subject of an appeal to the Board of Directors.

The ruling of the Board of Directors on appeals against the decisions of the Office of the Secretary-General represents the final level of administrative recourse. The parties concerned shall be entitled to seek remedy from the courts.

Petitions for reconsideration and appeal must be entered within 15 working days from the date on which notification was given of the decision being challenged. In appropriate cases, the distance provision, in accordance with the Code of Civil Procedure, shall be applied.

Article 12. The Office of the Secretary-General and the Board of Directors of COMITE shall rule on petitions for reconsideration or appeal, respectively, within 30 working days from the date on which the petition is entered. The parties concerned may regard as rejected such challenges as have not been settled within this period or may await the express ruling by COMITE.

Article 13. All documents, requests and information submitted to COMITE either for the processing of cases under its competence or in compliance with such orders or requirements as it may regard as relevant to the exercise of its functions, shall have the character of a sworn declaration and must be authenticated by the party concerned in the case of natural persons or by the appropriate legal representative or official in the case of juristic persons.

The representative shall be responsible for the truthfulness of the information and the authenticity of the documentation submitted, under penalty of the sanctions provided for by the law and the automatic invalidation of such administrative steps as may have already been taken.

Article 14. The authorizations granted under the present Resolution shall not exempt the parties concerned from obtaining any other authorization or complying with any other procedure that may be required of them by other agencies of the Public Administration.

Article 15. All aspects not covered in the present Resolution shall be governed by the Regulation on the General Rules of Administrative Procedure, Supreme Decree No. 006-67-SC of 1967.

Article 16. The following are annulled: articles 4, 5, 6, 7 and 8 of Resolution No. 010-83-RFC/35 of the COMITE Board of Directors; article 2 of Resolution No. 002-83-RFC/35 of the COMITE Board of Directors; article 2 and article 6,

paragraph 1, of Resolution No. 003-83-EPC/35 of the COMITE Board of Directors; articles 6 and 7 of Resolution No. 005-81-EPC/35 of the COMITE Board of Directors; and such other provisions as may be contrary to the present Resolution of the COMITE Board of Directors.

Supplementary provisions

Single article. Such cases as are pending at the time the present Resolution comes into force shall be settled in accordance with the previous legislation, unless the parties concerned resort to the procedural steps set forth in the present Resolution, to which end they must make appropriate application in accordance with the provisions of article 4.

To be recorded and promulgated.

Annex I

APPLICATIONS PROCESSED WITHIN ONE DAY OF THEIR SUBMISSION

A. Enterprise qualification certificate*

- Annex 3 of the present Resolution.

In the case of enterprises with direct foreign investment, this investment must be duly authorized and registered.

B. Conversion of foreign into national investors*

The application must contain an explicit renunciation of present and future investments over the notarized signature of the party concerned, together with:

- Notarized copy of the Tax Book [Libreta Tributaria];
- Notarized copy of the Alien Registration Permit [Carné de Extranjería].

C. Transformation agreements (conclusion, amendment and annulment)*

- Conclusion: The application must state the time periods and minimum participation amounts in accordance with article 4 of Resolution No. 004-81-EPC/35 of the COMITE Board of Directors;
- Modification: The application must indicate the pertinent changes in respect of time periods and minimum participation amounts;
- Annulment: The application must indicate the number of the Resolution under which the agreement or the amendment to it was approved.

D. Certificate of direct foreign investment*

- The application must be accompanied by a copy of the COMITE decision under which the authorized investment was registered.

E. Transfer of shares among foreign investors registered with COMITE*

- Application addressed to COMITE in accordance with the model of annex 5 and accompanied by a copy of the ruling granting the registration;

- The registration of the transfer of shares to the new foreign investor requires the submission of an application to COMITE and notarized proof of the entry of the transfer in the Share Register [Libro de Registro de Acciones].

Annex II

APPLICATIONS REQUIRING PRELIMINARY EVALUATION

A. Foreign investment in the establishment of enterprises*

- Application addressed to COMITE and containing the information indicated in parts I to IV of the form which as annex 4 represents a part of the present Resolution;
- The foreign investment may be made according to the modalities described in subsections (a), (b) and (c) of article 2 of Resolution No. 010-83-EPC/35 of the COMITE Board of Directors.

B. Participation of foreign investment in increases of capital*

- The application must contain the information indicated in annex 4 of the present Resolution;
- In the case of the capitalization of external credits, the application shall also include:

For credits in the form of money

- (1) The registration certification issued by the Central Reserve Bank of Peru;
- (2) The certification, issued by the bank intervening in the operation, to the effect that the payment of the obligation is outstanding.

For credits in the form of goods

- (1) The commercial invoice indicating the value of the goods;
- (2) The import permit issued by the Customs Department [Dirección General de Aduanas];
- (3) Certification, issued by the bank intervening in the operation, to the effect that payment of the obligation is outstanding.

In the case of credits in the form of goods, the Office of the Secretary-General may accept the submission, in place of the documents referred to above, of a report prepared by independent external auditors and corroborating the truthfulness of the information in question.

C. Registration of investment*

- Book-keeping entry of the contribution or capitalization, or sworn declaration by the legal representative of the enterprise regarding the date and the amount of the entry;
- Simple copy of the corporation charter, and in cases of an increase in capital the notarized affidavit indicating the

capitalization. In both cases, inscription in the Public Registry is required;

- In the case of contributions in foreign currency originating from abroad, evidence, issued by a local bank, of the entry of the foreign currency into the country and to the account of the enterprise;
- In the case of contributions in the form of physical or tangible goods originating from abroad: (1) the paid commercial invoice indicating the value of the goods; (2) the import permit issued by the Customs Department;
- In the case of contributions in the form of physical or tangible goods, the Office of the Secretary-General may accept the submission, in place of the documents referred to above, of a report prepared by independent external auditors and corroborating the truthfulness of the information in question;
- COMITE will not effect the corresponding registration if there is a discrepancy between the corporation charter and the authorization or authorizations granted.

D. Remittance of profits in excess of the general limits*

- The requirements for this operation shall be those specified in Resolution No. 004-83-EPC/35 of the Board of Directors of 18 August 1983.

E. Transfer of shares among foreign investors not registered with COMITE*

- Application addressed to COMITE in accordance with the model of annex 5 of the present Resolution;
- The registration of the transfer of shares shall require the submission of an application addressed to COMITE along with a notarized statement attesting to the transfer of shares.

F. Investment by nationals in the Andean subregion*

- Application addressed to COMITE describing the investment to be carried out;
- Sworn statement to the effect that the investment to be carried out will in no way affect the existing investments in the country;
- Copy of the records of the meeting of the enterprise's competent body at which the decision to carry out the investment was adopted.

G. Technology contracts*

(a) Approval or modification:

- Application addressed to COMITE according to annex 6 of the present Resolution;
- Two copies of the contract in Spanish or, lacking that, two copies of the translation of the contract;

- Copies of the valid certificates covering the trade marks or patents and issued by the Institute of Industrial Technology Research and Technical Standards (ITINTEC), in the event they have not previously been submitted to COMITE or have lapsed.

(b) Extension of validity:

- Application addressed to COMITE according to annex 6 of the present Resolution;
- Copies of the valid certificates covering the trade marks or patents and issued by ITINTEC, in the event they have not previously been submitted to COMITE or have lapsed.

TECHNOLOGY ACQUISITION

Topics for negotiators

We shall be presenting in this issue and in subsequent issues of the TIES Newsletter some very lucid parts of a paper written for UNIDO by Prof. F. Dessemondet, University of Lausanne, Switzerland, beginning with a general introduction to technology transfer problems and giving an overview on the general economic and social issues of technology transfer policies, and followed by a chapter on technology transfer legislation in developing countries.

Industrial development and technology transfer

Up to the 1950s, industrial development appeared to be mostly a northern hemisphere phenomenon. Within the following decades, however, the importance of industry in the non-Western world has begun to grow, and cost-competitive manufactured goods have been produced by the South and exported to the North. It was expected that the world economic growth would become interdependent, industrialized countries furnishing technology to the South which, through its development, would more and more open new markets to the North. Although this interdependence has worked in a negative way for developing countries since the 1980s - decline of their gross domestic product, debt crisis - it is submitted that the economic development of southern countries is necessary in the interest of both industrialized and third world countries. Economic development is not only a means to respond to the need for welfare and social peace; it is also a way to give an impulse to the world economy, which has been subject to a slow-down since the mid-1970s. Moreover, as a long-term perspective, economic development could enhance the solution of the debt crisis, since developing countries should be able to repay their debts by exporting goods to northern markets. Nevertheless, as industrialized countries are facing unemployment problems (stagflation) and consequently have adopted protectionist measures (tariff and non-tariff barriers), it is difficult to rely upon an opening of their markets to southern exports. In view of that situation, South-South trade should provide an alternative basis for exports from developing countries.

Technology and development

Another objective of economic development for southern (especially African) countries is

* Following payment of the appropriate duties in accordance with Supreme Decree No. 287-84-EPC, which payment is to be made directly through the Bank of the Nation and proof of which must be submitted to COMITE together with the application, in accordance with article 5 of the present Resolution.

self-sufficiency in vital commodities, such as food energy, building supplies, etc. In this respect, it has been argued at times that developing countries should avoid the recourse to the new technologies because these would be inadequate, too difficult to learn, often based on capital-intensive rather than labour-intensive methods, and undepicted to the need to be fulfilled. Although this is basically a question of political choice, it is necessary to stress that by renouncing to the acquisition of innovative and most performing technologies, developing countries would maintain themselves in a state of underdevelopment and impede the development process; the goods so manufactured would be mostly unfit for export. Moreover, the new technologies have their importance even for vital sectors such as agriculture: for example, biotechnology is destined to play a role in the creation of fertilizers and in obtaining new vegetal varieties, which could be especially adequate for cultivation in tropical and sub-tropical countries. Economic development is linked in most fields to the continuous acquisition of technology. Productivity growth in agriculture and industry mainly depends on the technical environment (mechanization, robotization; in this regard, the perspectives offered by micro-electronics, among others, have to be taken into consideration). Exploitation of natural resources also requires a technological background. In other words, technology is the necessary support for utilization of all human and natural resources.

Technology dependence

Theoretically, technology may come from any origin (indigenous, foreign developing countries, foreign industrialized countries). Practically, the reality is completely different: as far as the patents in force are concerned, only about 1 per cent of the world total are held by nationals of developing countries, and approximately 80-90 per cent of the technology is transferred to third world countries through transnational corporations. This situation of technological dependence of the South vis-à-vis the North leaves developing countries with no choice but to rely on foreign technology. However, this foreign technology has to be acquired in order to enhance the developing countries' own technological potential. Otherwise, it would increase the technological dependence of the South: the danger of relying on foreign inputs and consequently neglecting indigenous development must be avoided. In other words, acquisition of technology must lead to a reversal of the present situation of technological dependence. This is of course a long-term perspective; but it is clear that the decisions which are to be taken now will have their impact on the future, and that is why these decisions must aim at giving the developing countries the means for a technological self-reliance.

Technological self-reliance

Technological self-reliance does not signify to reach independence by cutting off the developing countries from Western technology. It must be understood as the capacity to select and apply both foreign and domestic technology under conditions that enhance the growth of national technological capability. In this respect, the approach for a technological self-reliance must be towards a selective acquisition of technology, so as to secure the following objectives:

- Adaptation of the transferred technology to local factor endowments, domestic infrastructure, social customs and values and national development objectives;

- Absorption of the transferred technology by the indigenous economy, which should be able to use and to master this technology;
- Appropriation of knowledge and other means of production, so as to ensure a continuous development in the national interest.

Interrelationship between industrial development, human resource development and technology policy

Technology transfer supposes the acquisition of knowledges. But knowledges, by themselves, are not productive. To be effective, mastered and developed, they need financial and human supports. The ever-present requirements of financing are well-known. On the other hand, the importance of the human resource development has to be emphasized. The basis for technology adaptation and absorption, as indeed of technological development, is provided by qualified engineers and scientists, middle-level technicians and skilled labour. By promoting educational and training facilities and research, developing countries would strengthen their scientific and technological capabilities. Measures which are to be taken in this regard must follow definite objectives in linkage with the guidelines established for national development; these measures would be useless if their adoption were not bound with concrete and effective implementation. In other words, build-up of skills must be orientated towards the development prospects, so as to exploit these skills and help to create a favourable sociological climate for activities of the trained people, which will in turn minimize the so-called "brain drain" or "reverse transfer of technology". The complexity of these problems and the interrelationship between these objectives clearly demonstrate the need for a technology policy, which should organize the acquisition and development of technology or, at least, establish general guidelines for governmental agencies and private investors.

Marketing

Acquisition and mastery of technology will give the developing countries an opportunity to increase their industrial potential. However, the capability of manufacturing goods is not an objective in itself. These goods are further to be marketed. Channels for trade must accordingly be found or opened up, and they have to be defined before acquiring technology. Dealing accordingly is the responsibility of businessmen, but this point is of such a crucial importance that it cannot be ignored by national technology policies. Industrial development is not only a question of technical know-how; it is also a problem of market development. For example, if manufactured goods are destined for export, it is necessary, before beginning production - and consequently before acquisition of the related technology - to know if there are markets where the goods may be sold and if these goods have to fulfil certain requirements (technical, but also legal ones, such as domestic standard) which may have an influence upon feasibility of their trade. As such circumstances may be decisive in selecting technology, it is clear that the questions pertaining to marketing must be reviewed before acquisition of technology.

Trends and prospects

Although technology policies are defined by each country, the objectives linked with the industrial development cannot be attained without a common strategy. Technological self-reliance supposes a co-operation between developing countries, so as to reduce their technological

dependence vis-à-vis Western countries: exchanges of experience, development of their complementary capacities, mutual information on available raw materials, on manpower and alternative sources of technology, for example. This co-operation should take place whenever it is possible, through training programmes, or common applied research, among others. These common actions should be organized at an interregional level so as to gain a maximum efficiency and to shorten the costs involved. Technological development implies an industrial restructuring, which represents a challenge for southern countries. Rationalization should be the key for such a reorganization. It supposes a co-ordination at the local and national levels, but also at an interregional level. Opportunities for co-ordinated actions between developing countries have to be consistently investigated. These actions might consist for example of joint ventures or production sharing, each partner having a speciality which corresponds to his abilities and the means at his disposal (available manpower and skilled labour, raw materials, technology). In this regard, industrial development does not imply ruinous self-sufficiency; it rather means interdependence in a constructive fashion, with a view to reaching the highest degree of efficiency. For example, if a country is not able to produce certain goods at a competitive price, it would be better not to build up production facilities and to import these goods from another country at a lower price. This selectivity may not help reduce unemployment in a first phase, but this should be balanced by the later development of industries more adapted to the local capabilities. The cost of technology is too high to justify the grant of subsidies to enterprises which are not competitive.

These so-called "South-South" strategies should not be limited to technological and industrial co-operation. Tariff and non-tariff barriers should be abolished to facilitate trade between developing countries. If reciprocal, this would enhance commercial exchanges from which each country would profit; the opening of Southern markets to Southern countries would moreover compensate the fact that the access to Northern markets has been impeded by protectionist measures taken by industrialized countries. Strengthened competition on Southern markets among Southern suppliers and with companies of industrialized countries could initiate a learning process and heighten technical and marketing capabilities.

Technology-transfer-legislation-in-developing-countries

The impact of foreign technology on recipient countries and on the development of indigenous technological capability largely depends on the capacity for local absorption and adaptation thereof. In order to avoid increasing technological dependence, developing countries must have recourse to a selective approach in the acquisition of technology, and this approach should aim at enhancing their own technological potential. Moreover, technology has to be acquired in a way which is proper to secure the pursuance of the national development objectives. That is why some third world countries have enacted regulations with a view to controlling whether requirements pertaining to feasibility, adequacy and cost of technology, among others, are fulfilled, and to exclude or at least minimize restrictive conditions sought to be imposed by technology suppliers.

The objectives of technology transfer legislations in developing countries enlighten the differences between these regulations and antitrust laws of developed countries: whereas antitrust laws

aim at promoting competition, developing countries' legislations tend to exert a more general control upon technology transfer, so as to guarantee fair negotiation practices but also to ensure that acquisition of technology will strengthen national capabilities. Further, specific attention is devoted to licensing between local affiliates and foreign parent companies. These technology transfer regulations differ from one country to another. They sometimes contain very detailed provisions: on the other hand, some countries have enacted only flexible guidelines. In a general way, these regulations include the following items:

(a) A compulsory registration of agreements related to the acquisition of technology. These agreements are:

- Licences on industrial property rights (patents for inventions, trademarks, industrial models or drawings, trade names);
- Assignments of industrial property rights;
- Copyright licences that imply industrial exploitation;
- Transfer of know-how;
- Technical assistance contracts (show-how);
- Engineering contracts;
- Franchising contracts;
- Consultancy contracts;
- Management contracts;
- Joint-venture contracts.

Some agreements of minor importance may be excluded from the registration procedure (technical teaching or training provided by centres or companies to their workers or employees of affiliate corporations, for example).

(b) The competent agency is empowered to refuse registration of agreements which are not in accordance with the national development objectives; the economic, legal, and technical aspects of these agreements are taken into account. Registration will be denied when:

- The technology to be conveyed does not seem adequate, when it does not correspond to the priorities defined by the government policy, or when it could not be assimilated by the economy of the relevant country;
- The technology to be transferred is already available in the country;
- Its cost would constitute an excessive burden for the national economy or for the acquiring company, or when the price is out of proportion to the acquired technology; some countries have enacted very detailed regulations on the royalties to be paid. For example, as incentive for local production, Indian Guidelines for Industries provide that the percentage of royalty should not ordinarily exceed 5 per cent, that royalty has to be calculated on the basis of ex-factory selling price of the product net of excise duties minus the cost of standard bought out components and cost of imported components, and that lump-sum payments have to be in an acceptable proportion to the value of production;

- Excessive terms are established. For example, the Mexican law on the control and registration of the transfer of technology provides that in no case such terms may exceed 10 years, obligatory for the acquirer.

Furthermore, registration will be denied when restrictive provisions are included in the agreement; these restrictive provisions may be summarized as follows:

- Provisions under which limitations are imposed on the acquirer's technological research and development;
- The recipient is charged royalties on products which are not or no more entirely patented, or for the use of know-how which has entered into the public domain other than by the fault of the acquirer;
- The recipient is under the obligation to purchase goods (raw materials, tools, etc.) from a specific origin exclusively, when other sources exist in the national or international market;
- The acquirer is prohibited from using complementary technologies;
- The recipient is under the obligation to assign or grant a licence to the supplier, in connection with the innovations or improvements that are obtained by the acquirer, except when there is reciprocity or a benefit for the acquirer in the exchange of information;
- Resale or export restrictions;
- Price restrictions;
- Production volumes limitations;
- Clauses which restrict the use of the transferred technology after expiry of the agreement (the application of the national patent law being reserved);
- Provisions under which the recipient is requested not to contest the validity of the licensed patent, or of any of the patents of the supplier.

However, technology transfer regulations generally provide that exceptions be made if it is of benefit for the country.

(c) If registration is denied, the agreement is null and void; its fulfilment cannot be required before the national courts. Moreover, where foreign currency payments are subject to approval, no payment can be made abroad for the benefit of the technology supplier if the agreement is not registered.

(d) In many countries, the competent agency shall render a decision within a prescribed time (for Mexico it is 90 days); after the expiry of this term, the agreement shall be registered; such a rule avoids long-lasting uncertainties which would hamper the technology transfer process.

(e) The competent agency is also charged with monitoring the execution of the registered agreements. In some countries, annual reports have to be submitted to the agency.

(f) Some regulations provide penalties, usually fines, for non-compliance.

At the interregional level, the Agreement relating to the Creation of an African Intellectual Property Organization, of 2 March 1977 (Bangui Agreement) provides that licensing agreements, assignments and transfers of registered trademarks or patents must be submitted, on pain of nullity, to the competent national authority for prior control and approval within the twelve months following their conclusion and before their insertion in the special register of the Organization, if they involve payments abroad or if they are granted to or obtained by natural or legal persons who are neither nationals nor residents on the national territory of one of the Member States. The control of these contracts consists of making sure that they do not contain any clauses which impose upon the acquirer restrictions not deriving from the rights conferred by the patent (respectively by registration of the mark) or which are not necessary for upholding such rights (Articles 31 Annex I and 30 Annex III of the Bangui Agreement). Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Congo, the Gabonese Republic, the Cote d'Ivoire, Mali, Mauritania, Niger, Senegal and Togo are now parties to the Bangui Agreement.

An administrative control of technology transfer is provided for in other multinational instruments, such as the Andean Pact (for some Latin American countries).

Technology transfer legislations certainly constitute a means to enhance the development of indigenous technology and effective absorption and adaptation of imported technology appropriate to national priorities and resources. Nevertheless, those legislations should be flexible so as to take into account the circumstances of each case. Even if rigid rules may be considered as legitimate with a view to securing the best terms for the recipient, it must be emphasized that technology suppliers may renounce investing in countries where their freedom of negotiation is restrained in an excessive fashion by inflexible regulations. Such a situation would hamper the flow of technology to developing countries. To be efficient, a legislation must be realistic; if not, its rules will be circumvented by one way or another, even if criminal sanctions are incurred by infringers. Over-regulation moreover involves another danger: the duration of registration procedures would be so lengthened that the technology transfer agencies could not render their decision within the prescribed time; and if such a term is not provided for in the legislation of the relevant country, the decision of registration - and consequently the acquisition of technology to be conveyed - would often be delayed, at the risks and expenses of the recipient, who may lose its technical head-start over competitors within the country and on foreign markets.

Unpackaging of technology

Technology transfer in packaged form relates to operations which do not involve any indigenous participation in the process of technology acquisitions; the supplier is charged with the feasibility and project studies, the installation and starting-up of manufacturing equipment, and even sometimes the management of the receiving enterprise, including marketing and distribution. An example of packaging is given by turn-key contracts. Such a form of technology transfer has been used in developing countries because of a lack of industrial experience, corporate skills and indigenous consulting firms. Its main drawback is that it increases the dependence on foreign capital, machinery and materials, and accordingly weakens the demand for indigenous goods and services, including domestic research and development.

Therefore, technology transfer policies should be directed towards a greater involvement of national firms in the industrialization process. In this context, unpacking means renouncing - to the most feasible extent - operations such as turn-key contracts, by having recourse as far as possible to indigenous firms in the acquisition and adaptation of technology. Domestic consulting firms should be charged or at least associated with the preparation of project studies. Civil construction and ancillary services should be provided by indigenous enterprises. As regards raw materials and goods (components, tools, etc.), preference should be given to those available or producible in the country. In so far as it is initially necessary to enter into management contracts with foreign agencies, the period of such contracts should be kept to a minimum and adequate training and association in management must be ensured.

In many developing countries, unpacking of technology has contributed to improving indigenous capabilities. Unpacking should play an important role when technology transfer agencies are scrutinizing technology transfer agreements.

Taxation, foreign-currency-control

In addition to technology transfer regulations, laws concerning tax, customs, foreign trade and other matters also affect the technology transfer agreements. In particular, the turnover and income taxes to be paid by both parties in their respective countries may reach a level that would make a profitable business impossible. However, many countries have concluded double taxation agreements that provide for reduction of the taxes that have to be paid by the parties to a licence agreement, either through deductions for the taxes that have been paid in the other country or through a division of the taxes paid between the two countries in question.

Moreover, some countries - Mexico, for example - have established fiscal incentives to promote research, development and the marketing of national technology. These incentives may consist of credits against taxes leviable on national firms which invest in equipment connected with the performance of activities of research and technological development. In many other countries - Indonesia, for example - royalties to be paid under technology transfer agreements by the acquirer may be considered to a certain extent as a legitimate item of expense to be deducted from the taxable income.

Legal provisions concerning foreign-exchange controls also vary widely. In most countries, the transfer of royalties is subject to permission, which sometimes is granted only after an examination of their adequacy. Other countries, including those with centrally planned economies, require advance permission for the technology transfer agreement itself because of their centralized systems of currency control. On the other hand, most Western countries have adopted an increasingly liberal approach, and currency controls now seem not to be carried out anymore as regards royalty under licence agreements.

Others

(a) UNCTAD draft international code of conduct on the transfer of technology

Since 1974, UNCTAD has been elaborating an international code of conduct on the transfer of technology which should be universally applicable.

Among other objectives, this code should facilitate the formulation, adoption and implementation of national policies, laws and regulations on the subject of transfer of technology. The code would specify restrictive practices from which parties to technology transfer transactions should refrain; it would also set forth responsibilities and obligations of parties to such transactions. However, controversies arose between industrialized and developing countries about the voluntary or binding nature of this code. Industrialized countries have repeatedly claimed that the codes of conduct on restrictive business practices and transfer of technology should only be guidelines for enterprises and should not create any legal rights or obligations for States or enterprises, whereas developing countries have expressed concern that mere guidelines would not satisfy their needs and consequently have supported "binding" or "legally enforceable" codes of conduct. Whatever the destiny of this draft code may be, its rules may help developing countries towards enacting their own technology transfer agreements inasmuch as its rules are considered appropriate and reasonable.

(b) Basic principles of the law of contracts

Various types of contracts may be involved in the technology transfer process, such as sales contracts, licence agreements and joint ventures. Each of these contracts has its own features and characteristics and accordingly carries various constraints for both parties. Although the rights and obligations of parties to such contracts depend on the applicable national law, some basic principles may be laid down.

Under common law, parties to a contract have a far-reaching autonomy in defining their rights and duties; the situation is quite different in developing countries which have enacted technology transfer regulations. Under common law, parties may for example choose the law which will govern the contract; on the other hand, developing countries' regulations generally provide that the law of the recipient country shall be applied to technology transfer agreements.

Among the basic principles which seem generally applicable, it is worth mentioning the following:

- Valid contracts must be implemented; parties shall not shirk their obligations deriving from a contract (pacta sunt servanda);
- The good faith principle is that no one shall misuse his rights in a way contrary to good faith; for example by circumventing legal rules with a view to evading an obligation;
- "He who comes to court must have clean hands" (nemo propriam turpitudinem allegans auditur).

The relationship of transfer of information to the transfer of technology

The following article is an abstract from a paper written by a UNIDO consultant, James E. Beverley, who is associate director for information services of the WASH project (Water and Sanitation for Health),* based at Arlington, Virginia, USA. The original full length paper was

presented at the 51st General Conference of the International Federation of Library Associations and Institutions (IFLA) held in Chicago last August.

The main chart on page 23 illustrates the major phases of the technology transfer process in the context of a national plan. The insert chart in the upper right outlines the role of information in the general problem-solving process, of which technology transfer is a special case, and it applies to each box on the major chart as indicated by the dotted lines.

The solid lines on the charts indicate flows of information and associated feedbacks. The relevance, adequacy and timeliness of information is a major factor in determining the success of every transfer of technology, yet this vital role of information transfer in the technology process is not widely recognized nor well understood. How information is used in each phase of the technology transfer process is briefly discussed below. The sequence of action from diagnosis through adaptation and application of information to resolve a given problem situation requires different skills ("know-how") and involves different types of information in each step. The correct diagnosis of a problem is the key element in the sequence. If the diagnosis is incorrect, all subsequent actions are irrelevant and wasted. You may have answers, but they won't help solve the problem at hand.

The development of diagnostic problem-solving skills requires education, training, and experience ("know-how") at all organizational levels - mechanics, clerks, supervisors, managers, and policy-makers. And at each level and for each problem, the diagnostician brings a distinct store of knowledge (information) to bear on the situation. It should be noted that the kind of information needed to properly diagnose a problem situation may be quite different from the kind of information needed to design a problem solution strategy and its alternatives (Step 2).

The person who designs the problem solution strategy may or may not be the same one who did the diagnosis and may or may not be inside the organization having the problem. And he depends on a different set of skills and information than the diagnostician. He must know how to solve the problem; what solutions are relevant, feasible, and appropriate; what specific information is required; where to go for it; and how to get it. After all, you do not want to suggest searching for an \$800,000 process if only \$100,000 is available for investment, or to encourage methods for manufacturing a \$5.00 product when the competitive price is \$2.00. This step also identifies, directly or indirectly, the information needs. This brings us to Step 3: Acquisition of information.

As powerful and complete as many information systems are, for many organizations they create their own kind of special problem - they make the acquisition of information too easy and too quick (albeit not too cheap). What happens is that too much information is acquired - more information than can be properly analyzed (Step 4) in relation to the capabilities and problem at hand. A good librarian in a fair sized information centre, with or without access to a "data bank", can generate more material than can be digested and analysed by a competent engineer, economist, or agronomist in a reasonable length of time.

The last action step in the problem solving sequence (Step 5), adaptation and application of information to resolve the problem situation, requires a special and relatively rare set of skills - "know-how". The prior steps of information acquisition and analysis can be considered "academic" or "theoretical" because they only involve dealing with words and concepts separated from the reality of the problem situation. The adaptation and application step is pragmatic in that it attempts to put information to work in the field, in the face of a specific problem, and tries to solve that problem. In the application of information, we relate and connect information with reality. The quality, relevance, and completeness of the solution cannot be better than the information supplied and the skills of the person who uses it.

The information flows involved in the problem-solving sequence present very real dangers of sub-optimization within the information system. Given the rapidly expanding volume of scientific and technical information, which is being paralleled by the development of large-scale data banks and automated information retrieval and dissemination services, it is now relatively easy to drown people in a flood of information. More information can be acquired than can be properly analysed and effectively applied. The trap of sub-optimization of information acquisition must be avoided, since the basic objective of information systems is to solve problems by applying the appropriate information derived from the analysis.

A final observation: the effective and proper use of information is neither simple, nor obvious, nor widely practiced. Good information is necessary for sound decision-making. But, if the decision-making process itself is not well organized and understood by all concerned, even the best information will not be able to play its vital problem-solving role.

To summarize, we may say that the technology transfer process includes three kinds of transfer problems: transfer of information, transfer of know-how, and transfer of hardware. Each transfer problem has a different content and requires different methodologies that must be carefully integrated in the overall process. Technology transfer begins with the acquisition and transfer of information, either from the supply (production) side, or from the demand (user or market) side. The transfer of know-how, skills, and application information is necessary to establish production, marketing, utilization, and problem-solving capability in the individuals and institutions in the receiving country. Transfer of know-how is also necessary to create understanding, acceptance, motivation and effective operation and maintenance capability in the users of the hardware. Information and know-how are then used to adapt, transfer, make, market, use and maintain the hardware in completing the technology transfer process. Information and know-how can be considered the software side of the technology transfer equation with hardware on the other side. Both sides must be carefully co-ordinated and integrated if the technology transfer is to be successful over the long-term life-cycle of the hardware, institutions, and markets involved.

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Guide on guarantee and warranty provisions in technology transfer transactions

In continuation of the series of articles on individual guarantee and warranty provisions, we present hereunder an item dealing with spare parts.

We would welcome any comments our readers may have on the subject. These comments may be published in a future issue of the Newsletter, if desired.

Spare parts

(a) Purpose and function

Interruptions caused by the breakdown of certain parts of a plant must be reduced to the shortest time possible in order to limit the negative effects on productivity, turnover and cost efficiency. Therefore, from the recipient's point of view, the access to and availability of spare parts is a prerequisite for the continuous running of the plant and the satisfactory working of the technology, especially when the supplier is the major or sole source of various spare parts, the supply of which must be ensured at the time of the agreement.

The provisions of spare parts may be an important source of income for the supplier. The supplier may regard the technology transfer as a means for ensuring a recipient's dependence on him for spares for as long as possible. In such cases, payments for the provision of inputs over a number of years may easily outweigh the royalties paid for the technology itself. A survey of contracts shows that a guarantee to provide certain spare parts is often turned into a tie-in clause by the supplier, where the acquisition of additional goods is a condition for obtaining the technology itself. The recipient must therefore be aware that though such a provision looks like a guarantee, in reality it enables the supplier to enjoy a monopolistic position in the supply of spare parts. To avoid this situation the recipient should ensure that provision is made for possibly obtaining spare parts from a third source.

(b) Present legal situation and contractual practice

Most national laws are mainly concerned with negative aspects of the obligatory supply of components and spare parts, i.e. with tie-ins. They usually prohibit contractual clauses which oblige the recipient to acquire additional goods not needed or wanted from the supplier. Very few laws expressly stipulate that the recipient is entitled to obtain spare parts etc. if he requires them.

Illustrative clause

"The transferor shall, if the transferee so requires, continue to supply spare parts and raw materials for a period of up to five years following the termination of the agreement." (Zambia, Industrial Development Act 1977, Sect. 15 g)

Illustrative clause

"An indication that components, spare parts and services related to the technology concerned will be supplied at the request of the recipient of the technology as well as an indication of the terms governing the supply thereof." (Portugal, Technology Regulations, Art. 6.1.(d))

In contractual practice, different approaches are found. One approach is to specify all relevant intermediate products, spare parts etc. in great detail, to attach designs, documents etc., to identify the prospected quantity needed, to indicate sources of supply and in some cases even to prepare procurement documents. This is to enable the recipient to decide for himself where and when to purchase the items.

The following clause illustrates the case when the procurement of spare parts both of a proprietary, respectively a non-proprietary, nature is to be carried out by the supplier (contractor). Similar rules would also apply when the recipient purchases the spare parts himself.

Illustrative clause

- "10.1 The contractor shall supply to the purchaser the following services in connection with the procurement of a two-year requirement of spare parts, for use from the period after successful completion of the Performance Guarantee Tests ...
- 10.1.1 The contractor shall submit a list of spare parts for the approval of the purchaser ...
- 10.1.2 Where spare parts of a proprietary nature are to be procured, the contractor shall obtain from the suppliers directly in the name of, and for, the purchaser a list of a two-year supply of spare parts as recommended by the supplier, for approval of the purchaser.
- 10.1.3 For all other spare parts, and for any other equipment to be purchased through the contractor, the contractor shall prepare bid documents on the basis of the technical specifications prepared by him and submit the same to the purchaser, for relevant approval, and shall issue the same to the vendors.
- 10.1.4 The contractor shall send the bid documents on behalf of the purchaser to the respective vendors listed in the vendors list (which list shall be previously agreed upon between the parties).
- 10.1.5 The contractor shall use its best endeavours to obtain from the vendors a minimum of three competitive offers." (UNIDO, PC 74, Art. 10, p. 125)

Another approach provides for the supply of the necessary spare parts or other goods directly from the supplier for a specified time. This is particularly important for inputs which are legally protected or which cannot be produced by the recipient himself. A two-year period as in illustrative clause is frequent, but it may also be far longer.

Illustrative clause

"The supplier guarantees the availability of spare parts for ten years from the date of commissioning of the equipment at reasonable prices to the owner." (Provision in a contract for the erection of a bottling plant in Africa)

The term "reasonable prices" may give rise to different interpretations. Some laws and contracts therefore state the requirement that the prices must

be "consonant with current world market prices" or "no less favourable than the price usually charged by the licensor or by other reliable sources for the same intermediates, and under comparable circumstances".

A third approach entitles - and obliges - the recipient to buy the equipment from the supplier, but the recipient is free to buy from other sources, if these are more competitive.

Illustrative clause

"The recipient will buy from the supplier, the components and spare parts which have to be imported. Nevertheless, the recipient will have the right to directly consult the usual sub-contractors of the supplier indicated on a list supplied by the latter. However it is agreed that when equal conditions prevail as to price and quality, preference will be given to the supplier." (Clause in a contract between two parties for a motor-vehicle assembly).

(c) Problems and possible solutions

Classification; identification of third sources. A pre-condition for any regulation of the supply of components and spare parts is to have a very clear picture of all the items needed and of their function such as normal maintenance, strategic and emergency spares. For this purpose it may be desirable to classify the various types of spare parts since special provisions may be made with respect to certain types of spare parts. Furthermore, the design, documentation, and quality requirements must be set out in detail, the projected demand must be calculated and the sources of supply must be identified, etc.

The identification of the supply sources is of the utmost importance to the recipient in order to purchase spare parts directly from a third source. He must therefore know who those source suppliers are and why they were chosen by the supplier. This information is valuable especially when it concerns items which tend to change technologically due to process and market developments. The information should be given by the supplier and such an obligation should be set down in the contract.

Availability of components and spare parts. On this basis, a decision can be taken on how to ensure the supply of these goods.

Just a simple obligation by the supplier to furnish any components or spare parts that the recipient may request, could create certain obstacles especially in cases where the supplier does not himself produce the relevant parts. The supplier may, for example, charge the recipient a handling fee which is higher than the cost price for spare parts obtained from a third source. This could be avoided if the recipient were to deal directly with the third source.

On the other hand, it is very important to the recipient that the supplier guarantees the availability of certain important spares or those that require special procurement procedures. If important spare parts are only available from the supplier, i.e. because they are legally protected or because the supplier is the most economical source, the contract should provide for the obligation of the supplier, at the request of the recipient, to furnish spare parts produced by the supplier which are necessary for operating the technology.

To obtain safe procurement at reasonable conditions it is important to scrutinize which parts

and components are to be obtained from the supplier, at the same time avoiding the inclusion of items which can be obtained from other sources.

For instance, some spare parts may be available from a number of sources under competitive conditions. It may also be that the recipient himself, at least after a certain time, will be able to produce the spare parts himself or that they are produced by companies in the recipient's country. Moreover, in certain cases standardised equipment can be procured for the replacement of old and worn-out items.

Conditions of supply - quantity and time. In principle, the quantity and delivery time of goods is determined by the recipient. If he is obliged to acquire a certain amount of spares which are supposed to cover requirements over a certain period of time according to the recommendations of the supplier, the recipient should be entitled to remit items which are found to be in excess of requirements within that period.

Freedom of choice. The recipient should protect himself against economic or technical changes, especially in long-term contracts for provision of spares. He may eventually be able to produce certain articles himself. Such spares may also be available from other sources of supply or it may be possible to replace them by other materials. The recipient should therefore insist on a provision which entitles him to produce spare parts, etc. himself or to buy them from alternative sources. The interests of the supplier may be taken into account by giving him preference when his prices are not above those of other suppliers.

Duration. The recipient needs maintenance and spare parts as long as the technology is being operated. He has therefore to ensure that especially critical items can be obtained during this period. This is particularly relevant when the supplier or a third person is the only or the most advantageous source for certain parts of equipment. The production of the recipient could be badly affected when the supplier ceases to produce the item, changes the design or transfers the production rights to a third party who is less willing to supply the recipient. For these items, long-term supply contracts or the right of access to production drawings and relevant machines is essential.

Even when equipment is available from a variety of suppliers, the provision of maintenance spare parts by the supplier of the main technology may greatly facilitate overcoming start-up and maintenance difficulties during the initial stage of the technology's operation. A two-year period from the time of commissioning is frequent, but it may also be for a longer period.

Illustrative clause

"In respect of any equipment acquired by the licensee from the licensor ... the licensor shall continue to be obliged to maintain, replace or repair such equipment or parts thereof for a period of five years after the acceptance of the equipment."

Pricing. As mentioned before, the supply of components and spares is an important source of income for the supplier; the prices charged are a decisive element of the overall cost of operating the technology. This of course holds particularly true when the recipient is obliged to purchase a number of items from the supplier. In India, public enterprises are instructed to proceed as follows:

Illustrative case

Where, however, it is unavoidable to agree to channelise procurement of equipment through the collaborators, ministries/undertakings as far as possible should not agree to pay prices which are higher than the world market prices as tested through global tenders or through consultants or otherwise by comparison with the prices of similar or near similar items supplied by the same collaborator to other parties in India and abroad. The prices to be charged for the equipment, components and stores should not be left to the collaborators. Right to procure components/equipment directly from the concerned supplier ought to be provided in the agreement in case the prices quoted by each suppliers are lower than those quoted by the collaborators. The enterprises should examine carefully this aspect and resist any attempt by the foreign collaborator to supply equipment/materials at higher prices than the global tender prices.

The above illustrative case does not define world market prices in a precise manner. It may be preferable to include transportation costs to the recipient's country. This will also make comparable goods produced in the home market more competitive.

Since the procurement obligation may cover a long period, the price formula must allow for some flexibility to be able to reflect economic and technological changes. At the same time, it must contain safeguards against excessive pricing. The two methods most commonly used are a reference to world market prices or a reference to the prices charged by the supplier to other purchasers. But even these references may create problems: it may be difficult to determine world market prices, especially when the respective goods are not sold in large quantities or when world market prices show differences according to the various circumstances of the individual case. It may also be difficult to find out the actual prices charged by the supplier to third parties, especially if hidden rebates and other price reductions are practised in the relevant sector of industry.

Corrective action. Spare parts may not be considered as part of the main technology covered by the contract. Therefore the contract should clearly specify the rules to be followed when these items show faults, when they are not delivered in time, etc. The contract should also clarify the effect of delayed delivery or faults of spares, etc. on guarantee periods and the like. In most cases, a reference to other parts of the contract is sufficient. Often, the analogous application of the provisions concerning mechanical guarantees may prove to be adequate.

Alternatives. The need for a provision on components and spare parts depends on the type of technology, the general market situation, i.e. availability of the goods from other sources, and the technical capabilities of the recipient. If the recipient is not dependent on the supplier for such goods, a clear prohibition of the obligation to purchase spare parts from the supplier may be one solution. The omission of a provision on spare parts may only be viable in some cases. At the least, a detailed specification of all the intermediate products and spares needed should be part of the general documentation. When the recipient needs inputs, the supplier may also be involved through some kind of technical assistance; he could assist in the procurement of the inputs, by

providing information about the sources of supply and the prices thereof, by preparing tender documents and by assisting in the evaluation of offers. He could also be charged with the operation and/or maintenance of the plant for a certain period, including the procurement of spare parts etc.

In some cases, the supplier may guarantee the access to certain spare parts or other goods for a defined time. If he stops to produce those spare parts himself before the end of that period he may be obliged to transmit all relevant know-how and possibly all machines etc. to enable the recipient to produce those spare parts etc. himself.

(d) Check-list

1. Clarification of objectives: unpackaging
2. Specification of relevant items
 - List of items
 - Designs and documentation
 - Quality requirements
 - Projected quantity requirements
 - Sources of supply
3. Availability
 - Sources of supply
 - Legal or factual monopoly by the supplier
 - General market situation
 - Quality, quantity and price of goods from other sources
 - Separate lists/differentiation as to availability
4. Quantity
 - Quantity needed for specified time periods
 - Remittance of excess quantities purchased
5. Time of delivery
6. Freedom of choice
 - Obligation to purchase vs. option to purchase
 - Obligation to supply vs. option to supply
 - Adaptation to changing conditions
 - Criteria for preferential treatment of supplier
 - Price
 - Price offered to other recipients
 - Right to supply at the price of the cheapest bidder
7. Duration
 - Start-off period
 - Defined time after start-off
 - One or two years
 - Until expiry of last guarantee
 - Period equivalent to the normal lifetime of the technology
8. Pricing
 - Firm price
 - Firm price and indexation
 - Consonant with world market prices
 - Consonant with prices charged from other recipients
 - Cost reimbursement formula

9. Corrective action

- Specific regulations
- Exemption from some of the general regulations
- Reference to the general contract regulations, especially those governing equipment

Technology Consultancy Services (CTCS) network

ID/WG.461/8 Report

Expert Group Meeting on Timber Construction
Vienna, Austria, 2-6 December 1985

ID/WG.447/14 Timber preservation standards

Informal UNIDO/WHO/UNEP Working Group on Biotechnology Safety
Vienna, Austria, 27-29 January 1986

ID/WG.463/1 Safety guidelines and procedures for bioscience-based industry and other applied microbiology

10. Alternatives

- Mere prohibition of tie-ins
- Omission
- Technical assistance provision
- Transmission of all relevant information to enable recipient to produce the respective item himself

ID/JG.463/2 Biosafety guidelines for manufacture of vaccines and biologicals

11. Legal requirements

- Prohibition of tie-in provisions
- Restrictions on importation
- Obligation to provide inputs

ID/WG.463/3 Report

Third Consultation on the Agricultural Machinery Industry
Belgrade, Yugoslavia, 29 September - 3 October 1986

ID/WG.462/1 Technological dependency and choice of pumping technologies for irrigation systems

RECENT PUBLICATIONS

ID/340 (ID/WG.448/6) Third Consultation on the Petrochemical Industry. Vienna, Austria, 2-6 December 1985. Report

ID/334 (85.II.B.9) International comparative advantage in manufacturing. (ISBN 92-1-106210-1)

ID/SER.M/16 (85.II.B.10) Industry and development No.16 (ISBN 92-1-106213-6) (ISSN 0250-7935)

Subregional Follow-up Meeting on the Initial Integrated Industrial Promotion Programme within the Framework of the Industrial Development Decade for Africa
Bujumbura, Burundi, 8-10 January 1986

ID/WG.456/3/ Rev.1 Revised integrated industrial promotion programme for the Central African subregion

Fourth Consultation on the Iron and Steel Industry
Vienna, Austria, 9-13 June 1986

ID/WG.458/11 Issue paper I. The iron and steel industry: present situation, prospects and the need for more integrated development of the iron and steel and capital goods industries

ID/WG.458/12 Issue paper II. The mastering of the technology and development of the iron and steel industry in developing countries

ID/WG.458/13 Issue paper III. Financial situation and perspectives of the iron and steel industry

Workshop on Technological Services Delivery System (TEBS)
Vienna, Austria, 10-13 December 1985

ID/WG.461/1 Technological Services Delivery System (TSDS) issues

ID/WG.461/2 Description of the organization and work of the Caribbean

Readers may be interested in another of the UNIDO Technology Programmes regularly appearing publications - Advances in Materials Technology: Monitor.

In each issue of this series, a selected material or group of materials is featured and an expert assessment made on the technological trends in that field. In addition, other relevant information of interest to developing countries will be provided. In this manner, over a cycle of several issues, materials relevant to developing countries could be covered and a state-of-the-art assessment made, hopefully every two years.

The first issue was devoted to steel and dealt in particular with high strength, low alloy (HSLA) steels; the second was devoted to new ceramics, also known as fine ceramics, high-performance ceramics and advanced ceramics; the third dealt with fibre optics; the fourth with powder metallurgy; and the fifth is devoted to composites. The next one in this series will cover aluminium and aluminium alloys.

MEETINGS

3-4 June. 8th Meeting of the Inter-Agency Working Group on the Education and Training of Technical Personnel (LAWGETTP). (UNIDO Meeting), Vienna, VIC, C0434, (CND059).

9-13 June. Fourth Consultation on the Iron and Steel Industry. (UNIDO Meeting), Vienna, VIC Boardroom, Conf. Rm. I, II, (CND036).

16-20 June. Workshop on industrial financing activities of Islamic banks. (UNIDO Meeting), Vienna, VIC, Conf. Rm. VII, (CND039).

16 June - 11 July. United Nations Commission on International Trade Law, 19th Session. New York, USA, (CNU038).

18-20 June. Preparatory Committee on the Establishment of the International Centre for Genetic Engineering and Biotechnology, eighth session. (UNIDO Meeting), Vienna, VIC, Conf. Em. III, (CND054).

23-27 June. Regional Expert Group Meeting on Human Resources Development for Industrial Maintenance in Africa. (UNIDO Meeting), Nairobi, Kenya, (CND035).

23-27 June. Workshop on the development of the machine tool industry in Asian countries and the possibilities of TCIC to LDCs of the ESCAP

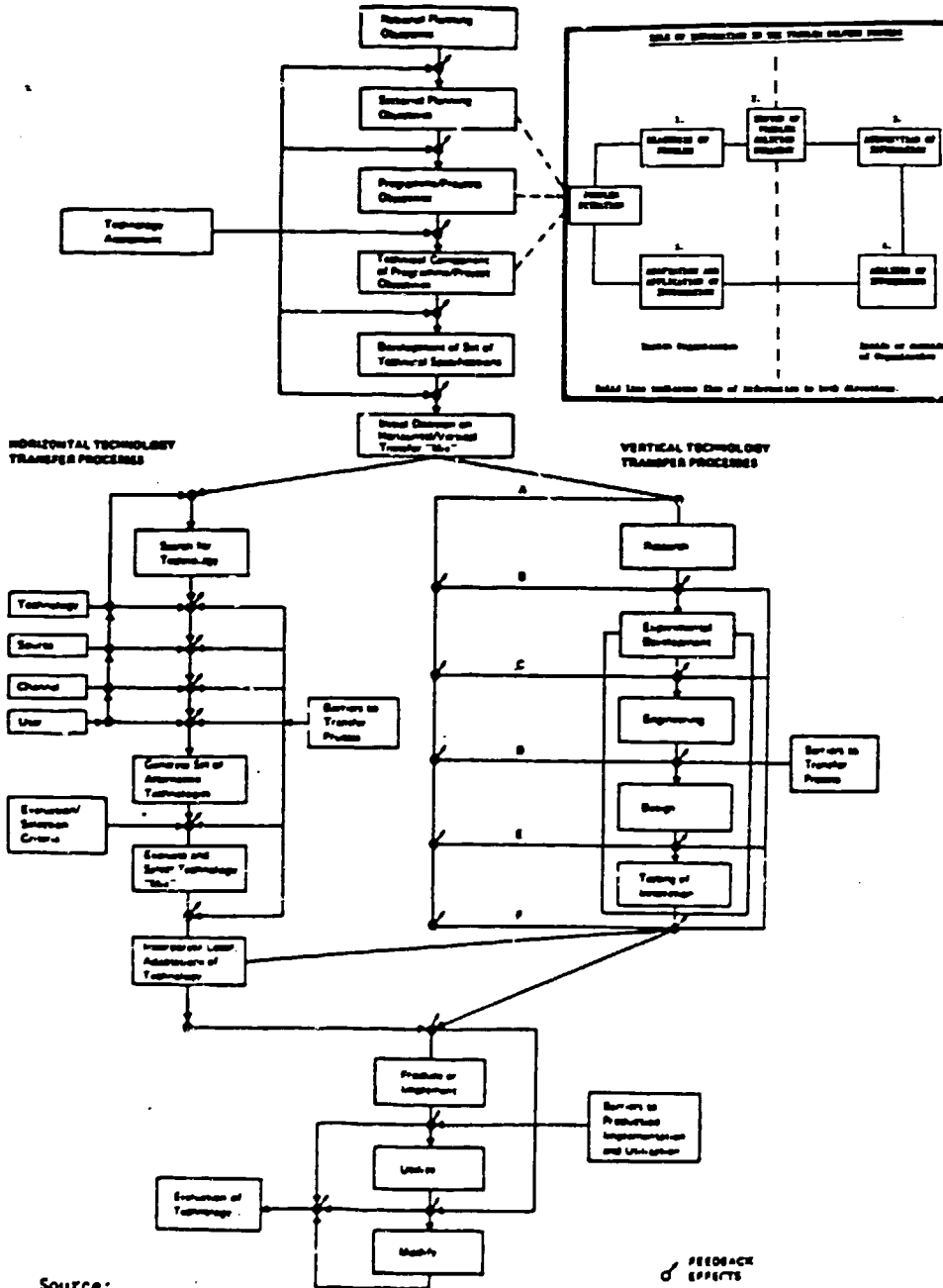
region. (UNIDO Meeting), Manila, Philippines, (CND055).

7-10 July. Third Expert Group Meeting on the capital goods industry in Latin America. (UNIDO Meeting), Santiago, Chile, (CND056).

28 July - 2 August. Eighth International Conference of Input-Output Techniques. (UNIDO Meeting), Sapporo, Japan, (CND044).

29 September - 3 October. Investment Promotion Meeting for Indonesia. (UNIDO Meeting), Jakarta, Indonesia, (CND048).

Interrelationships Between Horizontal and Vertical Technology Transfers and the National Planning Process



Source:

Unesco (1977). Science and Technology in the Development of the Arab States. Paris, page 147.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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