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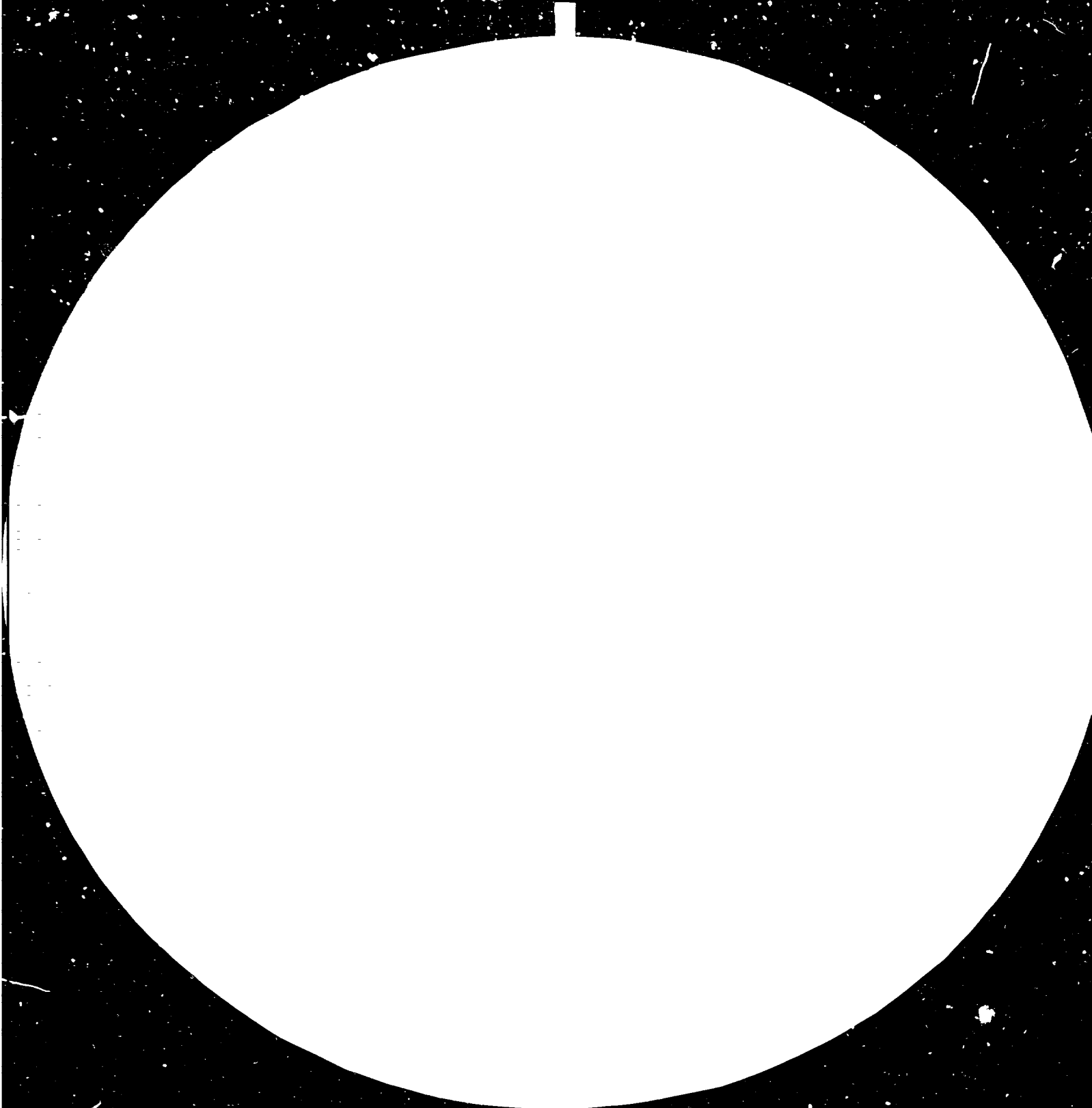

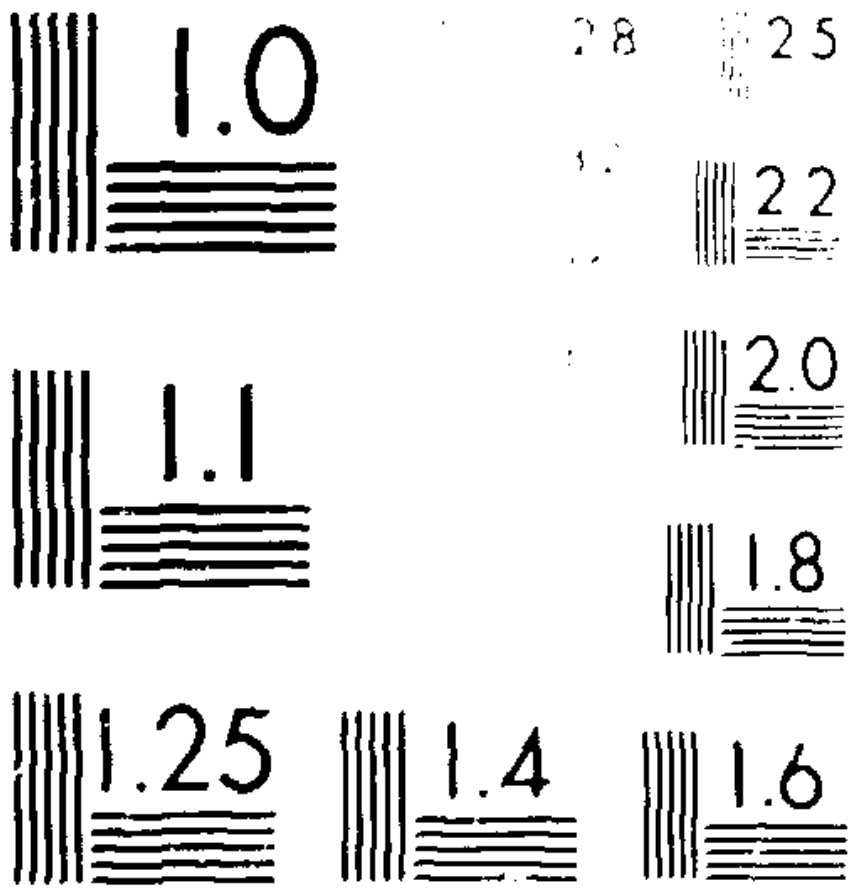
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TIES NEWSLETTER

TECHNOLOGICAL INFORMATION EXCHANGE SYSTEM

Issue Number 15

May 1982

12043

Dear Reader,

For some time now UNIDO's Technology Programme has been becoming more and more involved in the emerging technological advances and their implications for the developing countries, as you will see from one of the articles in this Newsletter which informs you about the present status of UNIDO's work in this area.

The objectives of this work is mainly to make the developing countries more aware of the potentials and limitations of the various technologies available through advice to policy makers in consideration of the conditions and capabilities prevailing. Naturally, we should also like to generate a co-operation between institutions and specialists actually working on projects concerning the emerging technologies which will prove mutually beneficial in many ways.

UNIDO would be happy to hear from you on this subject.

G.S. Gouri
Director
Division for Industrial Studies

UNIDO activities

UNIDO's Programme on Technological Advances

As reported in previous issues of the TIES Newsletter, UNIDO has established a major programme dealing with the implications of emerging technological advances for developing countries. The present article gives a brief outline of the objectives pursued by UNIDO and sketches the past, present and future activities related to this issue. UNIDO's programme on technological advances is part of the activities of UNIDO's Technology Programme and is interrelated with the Programme's activities in industrial information and technology transfer negotiation.

Dimensions

The question of technological advances has at least three important dimensions in relation to developing countries. First, the advances in traditional and well-established industries in different sectors require to be monitored in relation to decisions on local manufacture, the potential for export, the implications for other industries etc. Thus it will be necessary to monitor long-term technological trends ranging from traditional sectors, such as sugar or oils and fats, to relatively newer industries, such as machine tools and petrochemicals, so that conscious policy decisions can be taken on the technological route that a given country wishes to follow with reference to its conditions and objectives.

Second, emerging technological advances, for example, in microelectronics and biotechnology, are not only creating new industries but have wide implications for a number of other industries. The convergence of these technological advances itself produces an interaction, which again has implications for the pattern and rate of industrial production in developing countries. In other words, in planning for their industrial development and for achieving the Lima target, developing countries have to recognize that the present and coming decades are likely to witness substantial changes in production patterns owing to the expected interplay of the new technologies. These technologies have potential as well as limitations for developing countries and it should be part of the industrial and technological strategy of each developing country to see how it can tap the potential of the new technologies without being affected by their limitations.

The third dimension of technological advances relates to rising energy costs, which call for particular attention to be paid to energy-related industrial technologies, both for generating energy and for using it industrially.

Objectives

The programme was designed, in particular, to increase awareness through early identification and assessment and promote necessary action regarding:

(a) The potentials and limitations of the various technologies for the developing countries;

(b) The industrial and technological capabilities that the developing countries need in order to be able to avail themselves of such technologies where appropriate and feasible;

(c) The policy actions to be taken by the governments of developing countries.

In addition to studies, expert meetings and awareness bulletins, emphasis has been laid on:

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(a) Mobilizing the co-operation of individuals and institutions at the cutting edge of the technology; and

(b) Promoting national action by developing countries in terms of policies and programmes in accordance with their conditions and requirements;

(c) Provision of technical assistance as required by developing countries.

Activities have been developed within the framework of the foregoing considerations, bearing in mind the nature of the technological advances and the type of practical action that would be most effective in each case.

Genetic Engineering and Biotechnology

At an exchange of views on the implications of advances in genetic engineering for developing countries, in Vienna from 4 to 6 February 1981, leading scientists in the field of genetic engineering and biotechnology recommended the establishment of multi-disciplinary core technical groups at the national level in developing countries and the setting up of an international centre for genetic engineering and biotechnology to provide initial impetus and support to national efforts. Subsequently, a group of experts held discussions in 16 developing and developed countries on the basis of which a proposal was drawn up for the establishment of an international centre for genetic engineering and biotechnology, with detailed recommendations on its functions, work programme and organization.

Several Governments have expressed their interest in the establishment of and/or hosting the Centre. A conference of interested countries to establish the Centre is scheduled for October 1982. Preparatory work for the Conference has included (a) detailed elaboration by an expert mission of the physical and manpower facilities needed for the Centre; and (b) elaboration by specialists of important aspects of the Work Porgramme of the Centre for five years in the form of specific proposals such as on microbial recovery of petroleum residues; small-scale fermentation plants for developing countries; development and production of human and animal vaccines, etc.

Other activities include: an expert meeting on the development and production of animal vaccines, held at Stockholm in December 1981; national-level sensitisation meetings with officials, scientists and technologists and industry in India and Kuwait (January 1982) and Mexico (March 1982) as part of the technology perspectives programme; conduct of a case study on microbial leaching of copper ore in the Andean Pact; a proposal for upgrading traditional fermented foods in Africa and the issue of a quarterly bulletin, 'Genetic Engineering and Biotechnology Monitor'.

Microelectronics

In June 1981 a meeting of experts was organized on the implications of technological advances in micro-electronics for developing countries. The meeting emphasized the importance of actions at the national level relating to manufacture, industrial and other applications, software development and the formulation of a national micro-electronics strategy. Actions at the international level were also recommended, including a continuous monitoring of the trends observed and of their impact on various sectors and the development of pilot projects and programmes dealing with applications and software. An expert group meeting is to be held in June 1982 in Mexico, in co-operation with the Economic Commission for Latin America (ECLA), at which the implications of micro-electronic advances for Latin American countries will be analyzed and recommendations made for action.

Following the June 1981 meeting, in order to promote selective applications of micro-electronics and software development in developing countries, a small expert group meeting will be held in May 1982 followed by a mission of an expert team to selected developing countries to identify (a) selective applications which are feasible and suitable to developing countries and (b) institutions in selected developing countries who could participate in the promotion and development of the applications. Based on its findings, the mission is expected to draw up concrete programmes of action. Another important aspect which will be investigated by the mission is the feasibility of promoting the establishment of software houses in developing countries including the possibility of joint ventures between developed and developing countries.

Other activities in this field include: conduct of studies on selected aspects and country experiences; national-level workshop on microelectronics in Mexico; a pilot project for a rural development information system in the state of Karnataka in India; preparation of a paper identifying potentials and limitations of microprocessor application in Africa and suggesting a programme of action; issue of a quarterly 'Microelectronics Monitor', etc.

Information technology as embraced by the term 'informatics' and extending beyond data-bank systems and networks to industrial management tools and industrial processes is in a stage of dynamic growth, particularly through the use of microprocessors. UNIDO co-sponsored a conference on informatics and industrial development held in co-operation with the Irish National Board for Science and Technology and Trinity College, Dublin, in March 1981. The Conference highlighted the importance developing countries attach to information developments, which were of substantial consequence to current industrial development strategies. This subject will be amplified at the intergovernmental Conference on Strategies and Policies for Information (SPIN) 1983, to be held in Havana. The Conference is being organized by the Intergovernmental Bureau for Informatics (IBI) following adoption in June 1981 of the Declaration of Mexico on Informatics, Development and Peace. UNIDO will co-operate with IBI in the preparation of this event, addressing itself to: the industrial applications of informatics; informatics as a sector of industry per se and hence of relevance to INTIB; and informatics as a feature of industrial technologies in any sector of industry; a factor which has to be taken into account in the proper selection of advanced technology.

The impact of microelectronics has also been looked at from the point of view of restricting world industry. In this connection, two studies have been completed viz. (i) The impact of microelectronics on the international economic setting: the case of computer-aided design; and (ii) Restructuring World Industry in a period of crisis: an analysis of recent developments in the semiconductor industry.

Several technical assistance projects are being implemented in this field such as for manufacture of integrated circuits, computer-aided design, etc.

Lighter-than-Air Systems

In 1981 UNIDO initiated activities concerning lighter-than-air (LTA) technology systems. While the technology of airships was already being used several decades ago, current technological efforts have made it necessary, particularly in the face of rising energy costs, to examine the implications of LTA systems for developing countries. An expert meeting studied the question in October 1981 and came to the conclusion that the current state of technological development and the limited operational experience in that field pointed to the need for a gradual approach on the part of the developing countries. Activities recommended by the meeting were therefore limited to support for a pilot project under way in Peru, as a means of gaining experience in LTA technology, and issue of a publication that would analyse and disseminate information on LTA systems.

Seabed Mining

In view of the implications of advances in marine technologies and in particular of seabed mining technologies for developing countries, studies from the point of view of industrialization were initiated in this sector. The studies so far made are:

(1) Technologies for investigation and exploitation of seabed resources: the potential for developing countries;

(2) Ocean mining and developing countries: promises and dangers.

A proposal to hold an expert group meeting on the subject of developing industrial and technological capabilities of developing countries in this area has been under consideration in consultation with the Ocean Economics Branch of the United Nations, New York.

Other Areas

Studies have already been completed on long-term technological trends in the fields of machine tools and petrochemicals with special reference to their implications for developing countries. Studies in the fields of heavy electrical industry, telecommunications industry and the production of solar photovoltaic cells have been formulated as also a study on the implications of developing countries of advances in the production and use of materials and their substitutes. In addition, studies on the long-term technological trends in specific industrial sectors selected from among those covered by the System of Consultations are being planned. Ongoing work in this field in UNIDO includes iron and steel; capital goods and pharmaceuticals.

Documentation

As a background to the above-mentioned activities, a large amount of analytical documentation on technological advances has been prepared by leading experts, examining the subject from the point of view of the developing countries. The documentation covers the implications of genetic engineering for developing countries and the potential impact of microbiology on those countries, an overview of preliminary issues in the field of microelectronics, several technical papers on LTA technology systems, an analysis of the industrial and technological capabilities needed by developing countries for the detection, exploitation and use of seabed mineral resources, and technological perspectives in machine tools and petrochemicals. The study on machine tools provided an input for the preparation of documentation for the Consultation on the Capital Goods Industry, held in Brussels (Belgium), September 1981, and for the meeting on microelectronics referred to above. A bibliography of documents prepared by the UNIDO Technology Programme on the subject areas mentioned above is included in this issue of the TIES newsletter under the heading 'recent publications'.

Concluding Remarks

In regard to geographical coverage, references to countries and regions have been made under the respective subject areas. Some salient features may, however, be mentioned. As regards regions, there will be a microelectronics meeting for the ECLA region; a meeting planned in co-operation with the Asian Electronics Union for the ESCAP region; and inputs to the proposed congress of African scientists in co-operation with OAU and the UNCSTD. In countries, national-level consultations have been concerned with one or several sectors. In the case of Mexico, however, an integrated approach is being taken in an overall project for monitoring technological advances. In regard to the mobilization of institutional co-operation, in addition to such mobilization in the respective subject areas, a general scheme for mobilization of co-operation of member institutions of the International Federation of Institutes of Advanced Study is under preparation.

An International Forum on Technological Advances is planned for 1983/84 to review the activities and national implications requirements at a ministerial level and to elaborate further lines of action. The activities will also provide essential inputs to the Fourth General Conference of UNIDO scheduled for 1984.

Expert Group Meeting on Industrial Joint Ventures and Compensatory Agreements

On 22 and 23 March 1982 an expert group meeting was organized by UNIDO's Investment Co-operative Programme. The Technology Programme was represented by Mr. H.A. Janiszewski. The meeting was attended - in their personal capacities - by representatives of the following countries: Hong Kong, Thailand, Saudi Arabia, Kuwait, Nigeria, USA, UK, France, Federal Republic of Germany, Austria, Poland and Yugoslavia, and represented industrial development banks, ministries of industy and trade and institutions handling trade and investment.

The meeting discussed the following specific issues:

- UNIDO's advisory services specifically oriented towards joint ventures;
- UNIDO's programme of training specifically related to joint ventures;
- Organization and scope of information services supporting the above programmes;
- Compensatory agreements and other forms of partnership arrangements;
- Joint venture capital pools.

After intensive discussions over two days, the meeting reached the following main conclusions which are described briefly hereunder:

(1) The revised version of UNIDO's Manual on Joint Ventures (UNIDO publication No. ID/68) should, if possible include a detailed check list of the main contractual elements and wherever possible standard contracts drawn up.

(2) UNIDO's advisory services, (under the TAS scheme) should focus more on the pre-negotiation stages where inputs are of a more decisive nature.

(3) The training programmes in the transfer of technology and joint ventures were complemented, but suggestions were made towards improving their quality through exchanging material and a closer co-operation with training institutes outside the UN system.

UNIDO will be glad to supply a copy of the report of this meeting upon request, when it is published in a few weeks.

Investment Promotion Meeting - China

The Foreign Investment Commission of the Government of China and UNIDO have organized an investment promotion meeting in Guangzhou (Canton), China, from 7 to 11 June 1982 which will enable industrialists, banking institutions and business concerns to meet with the sponsors of industrial investment projects in China. The meeting's main objectives are the promotion of foreign industrial investment in China and the attraction of further inputs required for the implementation of specific industrial projects. Collaboration is particularly sought on joint ventures, industrial financing through medium- and long-term loans, the transfer of know-how and technology and access to foreign markets. It is intended that discussions will concentrate on specific investment projects rather than on general investment issues, of which there will be about 130 covering the 8 main sectors of industry. Since no feasibility studies have yet been carried out, foreign participants are invited to present their own proposals and discuss these with the Chinese counterparts. The 8 sectors covered are: Agro-industry, consisting mainly of dairy products; Textiles (such as silk weaving and dyeing); Leather products, including footwear; Chemicals, including carbon black, plastics, acetate cellulose and sensitized film; Building materials; Basic metal products, including iron and steel products, and non-ferrous metal products; Industrial machinery and equipment; Electric and electronic equipment, including integrated circuits.

In recent years the Government of China has been more relaxed in its co-operation with foreign countries, and in fact has actively promoted foreign investment on the basis of equality and mutual benefit. Over the past two years it has approved 40 joint-venture agreements, and has laid down a series of laws and regulations as well as incentive measures for co-operation agreements with foreign partners. A number of special economic zones have been estalbished around the country, including Shengzhen (Guangdong Province), and in view of the great variety of natural resources available in China, together with skilled labour, an expanding infrastructure and a growing domestic market, it is hoped to expand the scope of foreign investors and co-operation.

Similar investment promotion meetings will be held in Peru in November 1982.

Registry news

People's Republic of China

The State Import Export Commission, previously responsible for all matters related to technology transfer, has recently merged with the External Ministry for Economic Affairs. The ministry responsible for technology transfer matters is now called the Ministry of Foreign Trade and Economy.

Recent Legislation

Mexico

The Government of Mexico issued a new law on the registration of the transfer of technology and the use and exploitation of patents and trademarks. This law was published in the official paper of the Government of Mexico on 11 January 1982 and came into effect 30 calendar days after its publication. An unofficial translation from the Spanish text is reproduced hereunder for the benefit of our readers.

The basic provisions controlling or regulating the conditions under which the transfer of technology to Mexico may be contracted have not changed substantially.

However, the scope of the law and the approved criteria have been defined with more detail (article (2) and (3)) than in the preceding law. Of particular interest to our readers may be the chapters on causes to deny description and on sanctions, which enhances the legal position of the Registry as the executing agency for Mexico's technology transfer policy.

Mexico's New Law for Transfer of Technology Given; Penalties are Impressive Part

Chapter I - General provisions

Article 1

This law is of public order and social interest and its application corresponds to the Federal Executive through the Secretary of Patrimony and Industrial Development. Its object is the control and orientation of the transfer of technology as well as the format of indigenous sources of technology.

Article 2

For the effects of this law, there must be inscribed in the National Register of Transfer of Technology all the agreements, contracts and other acts which are expressed in documents that must have effect in national territory relative to:

(a) The concession of use or authorization to exploit marks;

(b) The concession of use or authorization to exploit patents of inventions or of improvements and of the certificates of invention;

(c) The concession of use or authorization to exploit industrial models and designs;

(d) The assignment of trademarks;

(e) The assignment of patents;

(f) The concession or authorization to use commercial names;

(g) The transmission of technical knowledge by means of plans, diagrams, models, instructives, formulations, specifications, formation and capacitation of personnel and other modalities;

(h) The technical assistance in any form it is rendered;

(i) The provision of basic or detailed engineering;

(j) Services of operation or administration of enterprises;

(k) Counselling, consulting and supervising services when furnished by foreign physical or juridical persons or their subsidiaries; independently of their domiciles;

(l) The concession of copyrights that imply industrial exploitation; and

(m) The computing programmes.

Article 3

Not included among the acts, agreements and contracts that must be inscribed in the National Register of Transfer of Technology are those that refer to:

I. The interment of foreign technicians for the installation of factories or machinery or to make repairs;

II. The provision of designs, catalogues or counselling in general that one acquired with the machinery or equipments and are necessary for their installation if and when it does not imply the obligation to make subsequent payments;

III. The assistance in repairs or emergencies if and when they derive from some act, agreement or contract that has been previously registered;

IV. The teaching or technical capacitation furnished by institutions of learning, by centres of personnel capacitation or by the enterprises to its workers;

V. The industrial exploitation of copyrights relative to editorials, cinematographic, recording, radio and television branches; and

VI. The international agreements for technical co-operation executed between governments.

Article 4

The operation of inbond enterprises shall be ruled by the provision of this law and other legal or regulatory provision that may apply to them.

Article 5

The following are obligated to request the inscription of the acts, agreements of contracts to which article 2 refers, when they be parties or beneficiaries to them;

I. Mexican physical or juridical persons;

II. Decentralized entities and enterprises with state participation;

III. Foreigners residing in Mexico and physical or juridical foreign persons established in the country;

IV. Agencies or branches of foreign enterprises, established in the Mexican Republic; and

V. The physical or juridical foreign persons that although do not reside or are established in the country carry out acts, agreements or contracts that have effect in the Mexican Republic.

Article 6

It shall be necessary to show the certificate of the National Register of Transfer of Technology to enjoy, in its cases, of the

benefits stimulated, assistance or facilities established in the Plans and Programmes of the Federal Government or in other legal provisions or regulations granting them, for the establishment or enlargement of industrial enterprises or for the establishment of commercial centres, in the border area and in the free zones or perimeters of the country or for the approval of manufacturing programme to those subjects that being obligated to do so have not inscribed in the National Register of Transfer of Technology, the acts agreements and contracts or to which article 2 refers.

Article 7

The acts, agreements or contracts to which article 2 of this law refers, shall be ruled by the Mexican laws or by the treatives and international agreements of which Mexico may be partly to and which are applicable to the case.

Chapter II - Of the national register of transfer of technology and the registration procedure

Article 8

The National Register of Transfer of Technology created by the Law on the Registration of the Transfer of Technology and the Use and Exploitation of Patents and Trademarks of 28 December 1972, subsists and shall be in the charge of the Secretary of Patrimony and Industrial Development. The National Counsel of Science and Technology and the National Polytechnic Institute shall be organs of consultation in the terms of the law that created them. In the same manner the Secretary of Patrimony and Industrial Development may consult all such public or private entities national or foreign that carry out technological activities of technological development and investigation. The regulations shall determine the organization of the Registry and shall establish the form and terms in which it shall carry out its functions.

Article 9

In relation to the present law the Secretary of Patrimony and Industrial Development shall have the following faculties:

I. To resolve in the terms of this law on the conditions in which the inscription of the acts, agreements or contracts presented before it, shall be admitted or rejected;

II. Set the policies according to which the technological transfer must be regulated or admitted in the Mexican Republic in accordance to the following criteria:

(a) Adequately orient the technological selection;

(b) Determine the maximum limits of payments according to the lowest price of the available alternative at world levels in the interest of Mexico;

(c) Increment and diversify the production of prioritary goods and activities;

(d) Promote the process of assimilation and adaptation of the acquired technology;

(e) Compensate payments through export and/or import substitutions;

(f) Contractually orient investigation and technological development;

(g) Foster the acquisition of innovative technology;

(h) Promote the progressive reorientation of the technological demand toward internal sources and foment the export of national technology.

III. Establish the adequate mecharism for the correct evaluation of the acts, agreements or contracts it may examine, being able for such purpose, to request the information deemed necessary;

IV. Promote the national technological development through mechanism of industrial policy;

V. Cancel the inscription of the acts, agreements or contracts to which article 2 refers when they are modified or altered contradicting the provisions of this law;

VI. To verify, at any time the compliance of the provision of this law;

VII. Require and verify any other information deemed pertinent for the exercise of the attributions that have been conferred to it by this law; and

VIII. Any others granted by the laws.

Article 10

The documents that contain the acts, agreements or contracts to which the second article refers must be presented to the Secretary of Patrimony and Industrial Development for their inscription in the National Register of Transfer of Technology within 60 business days following the date of their execution. In the event of their presentation within such a term and if they are acceptable, the inscription shall be effective as of the date of their execution. After this term expires the inscription will only be effective from the date of their filing. Likewise, there must be presented for their registration under the terms mentioned above, the amendments incorporated in the acts, agreements or contracts to which article 2 refers. When the parties terminate the acts, agreements or contracts before the date agreed they must give notice to the Secretary of Patrimony and Industrial Development within the same 60-business-day term from the date of termination.

Article 11

The acts, agreements of contracts to which the article 2 refers, as well as their amendments that have not been inscribed in the

National Register of Transfer and Technology shall be null and void and cannot be enforced before any authority and their compliance cannot be demanded before any national court. The acts, agreements and contracts whose inscription were to have been cancelled by the Secretary of Patrimony and Industrial Development will also be null and void compliance cannot be demanded before the national courts.

Article 12

The Secretary of Patrimony and Industrial Development must resolve on the registrability or irregistrability in the National Register of Transfer of Technology with the 90 business days following that on which the documents with the acts, agreements or contracts to which the second article refers, are filed. Once this term expires without a resolution being issued the act, agreement or contract in question must be inscribed in the National Register of Transfer of Technology.

Article 13

The persons that consider themselves to be affected by the resolutions issued by the Secretary of Patrimony and Industrial Development may request, within the 15 business days following that on which the notification thereof becomes effective in the terms of the Federal Code of Civil Procedure, the reconsideration of such resolutions attaching the elements of proof they may deem pertinent. Said recourse must be filed in writing before the same secretary, who may give addition the elements of proof it deems necessary to better resolving. The evidence submitted and admitted shall be examined in a term of no more than 30 business days. Once the evidences have been examined a resolution shall be issued within a term not to exceed 60 business days. Once this term has lapsed without a resolution the reconsideration shall be ruled in favour of the appellant. The term to file the recourse of reconsideration shall be unextendible.

Article 14

The official personnel that intervenes in the various procedures relative to the National Register of Transfer of Technology shall be obligated to maintain absolute reservation regarding the technological information on the processes or products subject matter of the acts, agreements or contracts that must be registered. Said reserve does not include those cases of information that are of public domain according to other laws of regulations or that are requested by a competent judicial authority.

Chapter III - Of the causes to deny inscription

Article 15

The Secretary of Patrimony and Industrial Development shall not inscribe the acts, agreements or contracts to which article 2 of this law refers, in the following cases:

I. When they include clauses whereby the supplier is allowed to regulate or intervene directly or indirectly in the administration of the technology recipient;

II. When the obligation to assign or license onerously or gratuitously to the technology supplier patents, trademarks innovations or improvements obtained by the recipient is established; except in such cases where there exists reciprocity or benefit for the purchaser in the exchange of information;

III. When limitations to the technological development or investigation of the purchaser are imposed;

IV. When there is established the obligation to acquire equipment, tools, parts or raw materials exclusively from a certain source and there exist other alternatives of supply in the natinal or international markets;

V. When export of the goods or services manufactured by the purchaser is prohibited or limited in a manner contrary to the interests of the country;

VI. When the use of complementary technologies is prohibited;

VII. When there is established the obligation to sell to an exclusive client the goods manufactured by the purchaser;

VIII. When the recipient is obligated to utilize in a permanent form personnel designated by the supplier of the technology;

IX. When the volume of production are limited or sales or resale prices are imposed for the national production or for the exports of the technology purchaser;

X. When the purchaser is obligated to execute exclusive sales or representation contracts with the supplier of the technology unless it refers to exports the purchaser accepts and it is proved to the satisfaction of the Secretary of Patrimony and Industrial Development that the supplier has the adequate mechanism of distribution or enjoys the necessary commercial prestige to carry out, in better conditions than the purchaser, the commercialization of the products;

XI. When the purchaser is obligated to maintain in secrecy the technical information furnished by the supplier beyond the duration of the acts, agreements or contracts or the terms established by applicable laws; and

XII. When it is not estblished in an express manner that the supplier will assume the responsibility in case that industrial property rights of third parties are infringed;

XIII. When the supplier does not guarantee the quality and results of the contracted technology.

Article 16

The acts, agreements and contracts to which the second article refers will also not be registered in the following cases:

I. When their object is the transfer of technology from abroad and it is found available in the country;

II. When the retribution does not relate to the technology acquired or constitutes an unjustifiable or excessive burden to the national economy of the acquiring enterprise;

III. When excessive duration terms are established. In no event shall such terms exceed 10 years obligatory to the acquiring party; and

IV. When the samination or the resolution of the law suits, that may originate from the interpretation or compliance of the acts, agreements or contracts; is submitted to foreign courts except the cases of export of national technology or of express submission to private international arbitration if and when the arbiter applies Mexican law substantively to the controversy, according to the international treaties on the matter, subscribed by Mexico.

Article 17

In the cases considered in the two preceding articles the Secretary of Patrimony and Industrial Development through the National Register of Transfer of Technology shall determine, according to its criteria, those situations susceptible of exception obeying circumstances of benefit to the country.

Chapter IV - Of the sanctions

Article 18

The person who deceitfully furnishes false data in declarations, with the purpose of inscribing the act, agreement or contract in question shall be subject to a fine up the amount of the operation or up to 10,000 times the general minimum wage for the Federal District, if the transaction were not quantifiable.

Article 19

When there exists an act, agreement or contract that being registrable is not submitted to the Secretary of Patrimony and Industrial Development for its inscription in the National Register of Transfer of Technology there shall be imposed a fine up to the amount of the agreed transaction or up to 10,000 times, the general minimum wage for the Federal District, in its opinion, depending on the seriousness of the violation. An equal sanction shall be imposed in those cases where once the act, agreement or contract is inscribed, the modification to the conditions in which it originally was inscribed are not notified to the mentioned Secretary.

Article 20

A fine of up to 5,000 times the general minimum wage in the Federal District shall be imposed, in such cases where, Federal without justified cause the parties to the acts, agreements or contracts regulated by the second article refuse to furnish information relative to the faculties conferred by this law upon the Secretary of Patrimony and Industrial Development.

Article 21

The imposition of the administrative sanctions that may apply shall be done without prejudice that due compliance of the law, payment of the respective fees, the accrued fees in its case and the penalties that may correspond to the judicial authorities to impose when there is incurred a penal responsibility are demanded.

Article 22

In the case provided for in Article 14, infringers shall be subject to a fine up to 500 times the general minimum wages in the Federal District and removal from office, without prejudice of the applicable criminal sanctions.

Article 23

In each of the infractions indicated in this law the corresponding penalties shall be imposed according to the following rules:

I. The Secretary of Patrimony and Industrial Development when imposing the penalty shall take into account the importance of the infraction, the condition of the infringer and the degree of participation in such act as well as avoidance of fraudulent practices that cause said authority to avoid the correct evaluation of the terms of such acts, agreements or contracts submitted for its study and inscription;

II. The administrative authority must grant the right of hearing to the interested parties and when it issues its resolution it must be according to the legal provisions in force;

III. When there are several respondible parties each one shall pay the fine that have been individually imposed;

IV. When by an act or an omission various legal provisions of this law are infringed only that which corresponds to the more serious infringement shall be imposed;

V. When it is deemed that the infringement is light and it has not had as its consequence the incompliance of the provisions of this law or its regulations the minimum penalty that corresponds shall be imposed warning the infringer or infringers that in the event of reincidence they will not be allowed to apply for the benefits of this insert;

VI. When a legal or regulatory provision that corresponds to the acts or contracts that are included in public notarial instruments or minutes before a commercial officer are not compiled with, the sanction shall be imposed solely in the notaries or commerce officials and the grantors shall only be obligated to comply with the omitted provisions. If the infraction were to be done through the

inexactitude or falseness of the information provided by the interested parties to the notary or commerce official the sanction shall be applied then to the interested parties themselves.

Chapter V - Of the recourse of revocation

Article 24

In every instance the interested parties shall have the right to be heard to object to the penalties that are imposed. The responsible authority shall resolve on such objections in a term of 15 days counted from the date of their filing.

If the corresponding recourse is not filed within a term of 15 days the penalty shall stand firm and may not be appealed before any other authority.

Transitory Articles

First - The present law shall be in force 30 natural days following the date of its publication in the Official Daily of the Federation.

Second - The law on the Registration of the Transfer of Technology and the Use and Exploitation of Patent and Trademarks of December 28, 1972, is abrogated.

Third - The parties to the acts, agreements or contracts inscribed before the National Register of Transfer of Technology under the law hereby abrogated may submit, with the prior consent of the parties thereto, to the protection of this law in whatever benefits them.

Fourth - With regard to application files in process, the interested parties may submit to the present law or conclude them in the terms of the former law.

Mexico, D.F. December 29, 1981.

Published in the Official Daily of the Federation of Monday, January 11, 1982.

Recent legislation

Saudi Arabia

The Kingdom of Saudi Arabia has recently indicated their interest in UNIDO's activities related to TIES. The Foreign Capital Investment Committee of the Ministry of Industry and Electricity has been the focal point in Saudi Arabia in relation to foreign investment policy matters. The activities of this committee are regulated by the Foreign Capital Investment Law, which is reproduced here for the benefit of our readers.

Foreign Capital Investment Law - Promulgated by Royal Decree No. M/4 of 2.2.1399 A.H.

Article 1

For the purposes of this Law, Foreign Capital shall mean any coins, currency notes, securities, machinery, equipment, spare parts, raw materials, products, transportation facilities and intangible rights, such as patents, trade marks and similar assets, where such capital is owned either by a natural person who is not of Saudi Arabian nationality or by a corporate person whose capital shareholders are not all of Saudi Arabian nationality.

Article 2

Without violation to the provisions of other laws in force, Foreign Capital Investment requires a licence issued by the Minister of Industry and Electricity following the recommendation of the Foreign Investment Committee, provided that the following two conditions are fulfilled:

(a) The Foreign Capital shall be invested in development projects which, for the purposes of this Law, do not include petroleum and mineral extraction projects;

(b) The investment shall be accompanied by foreign technical know-how and expertise.

Article 3

Development projects shall be determined by a resolution from the Minister of Industry and Electricity following the recommendations of the Foreign Investment Committee within the guidelines of the Development Plan.

Article 4

A committee called "The Foreign Capital Investment Committee" shall be set-up in the Ministry of Industry and Electricity. The committee shall be composed of the following members:

- The Deputy Minister of Industry and Electricity, or his substitute (in the event of his absence) to act as Chairman;
- A representative from Ministry of Planning;
- A representative from the Ministry of Finance and National Economy;
- A representative from the Ministry of Agriculture and Water;
- A representative from the Ministry of Petroleum and Mineral Resources;
- A representative from the Ministry of Commerce.

None of the representatives for the membership of the committee shall rank lower than the tenth grade. The Director of the Foreign Investment Bureau at the Ministry of Industry and Electricity shall act as Secretary to the Committee and the Minister of Industry and Electricity shall appoint a legal advisor for the committee. The committee may, at its own discretion, call on certain experts during the discussion of certain subjects, but these experts shall have no voting right. The meetings of the committee shall be valid only if attended by at least four members

including the Chairman; and the committee's deliberations shall be confidential. The resolutions of the committee shall be adopted by a majority of attending votes. In case of a tie, the Chairman shall have a casting vote. However, the committee's resolutions shall not become final unless approved and ratified by the Minister of Industry and Electricity.

Article 5

The Committee, referred to in Article 4, shall have the following tasks:

(a) To propose the projects that will be classified as development projects;

(b) To consider Foreign Investment applications;

(c) To examine any complaints or claims submitted by foreign investors or other parties concerned arising out of questions governed by this Law; and to submit its recommendations on these matters to the competent authorities;

(d) To recommend penalties which, in the opinion of the committee, should be imposed on any project violating the provisions of this Law;

(e) To draft rules of procedure for the implementation of this Law;

(f) To consider matters, referred to the Committee by the Minister of Industry and Electricity, concerning the provisions of this Law.

Article 6

The Foreign Capital Investment Bureau at the Ministry of Industry and Electricity shall supply all necessary information, clarifications and statistical data to any foreign applicant who desires to invest capital in the Kingdom. The Bureau shall also facilitate and complete necessary formalities pertaining to licensed Foreign Investments. The Ministry of Foreign Affairs and the Ministry of Interior shall grant to investors licensed in accordance with this Law, their employees and workers entry and exit visas and residence permits.

Article 7

Foreign Capital which has fulfilled the conditions provided for in this Law shall have the following privileges:

(a) Privileges enjoyed by national capital under the Law for the Protection and Promotion of National Industries in respect to industrial projects only;

(b) Exemption from Income Tax and Company Tax for a period of ten years to any industrial or agricultural projects, having Foreign Capital. Other Projects shall be exempted from such taxes for a period of five years.

The projects which enjoy exemption at the time of the implementation of this Law shall benefit from the provisions of exemption mentioned in this sub-clause.

The pre-requisite for any tax exemption is that Saudi Capital shall not be less than twenty five percent of the total capital of the project and that such percentage shall be maintained throughout the period of exemption.

For industrial projects the period of exemption shall start as of the date of the commencement of production and for other projects from the start of activities.

This last sub-clause may be amended by a resolution by the Council of Ministers.

(c) Ownership of any real estate required by Foreign Investment projects in accordance with the Law for Non-Saudi Ownership of Real Estate.

Article 8

Without violation to the provisions herein, projects benefitting from the provisions of this Law shall be subject to the Labor Law, the Law for Social Insurance and other Laws in force in the Kingdom.

Article 9

The provisions of this Law shall not apply to the projects in which Foreign Capital is invested in the following cases:

(a) If the project was legally in existence prior to the implementation of this Law; however, the operation of such projects or any increase in their capital shall be subject to the provisions of this Law;

(b) If the project is authorized to operate in the Kingdom by virtue of special laws or agreements.

Article 10

Any project licensed under this Law, violating the provisions herein, shall be warned by the Minister of Industry and Electricity to abide by these provisions within a period to be specified by the Minister. Should such project not comply with the said warning, the Minister may, following a recommendation by the Foreign Investment Committee, withdraw the licence granted to that project or order its final liquidation and closure.

Following a recommendation by the said committee, the Minister may, in lieu of withdrawing the licence, deprive such project of all or part of the privileges provided under this Law.

However, parties concerned may appeal to the Board of Grievances against the Minister's decision imposing such penalty within thirty days as of the date on which the decision has been officially notified.

The verdict of the Board of Grievances shall be final and binding.

Article 11

The rules of procedure for the implementation of this Law shall be issued by the Minister of Industry and Electricity and shall be published in the Official Gazette.

Article 12

This Law shall be published in the Official Gazette and shall become effective thirty days after the date of its publication. The Foreign Capital Investment Law promulgated by the Royal Decree No. 35 dated 11.10.1383 A.H. shall be superseded as of the date this Law is put into effect.

Spain

Ministry of Industry and Energy - General Directorate of Industrial Innovation and Technology

Summary of the Figures for the Registry of Transfer of Technology for 1981

1. Summary:

In 1981 the Spanish Registry approved 813 dossiers, 599 of which were new contracts and 214 extensions of contracts already in force.

The new contracts can be divided up as follows:

- 345 for technological assistance and technological services entailing a one-off payment of 15,620 million pesetas. Apart from one exceptional contract the average payment per contract is 40 million pesetas.

- 254 for manufacturing licenses (which may also include a few technical assistance grants) implying average annual payments of 2,066 million pesetas for their duration, i.e. an average of 8 million pesetas per contract per year of validity (contracts are usually approved for five years although some may be granted for a shorter period. Once this period has elapsed the companies request the appropriate extension which in the vast majority of cases is granted for a maximum of a further five years).

2. Comparison with 1980:

1981 saw a slight fall with respect to the previous year, in the number of licensing contracts approved, whilst average payments remained more or less at the same level.

The number of technical assistance contracts increased slightly, whereas there was a much more marked increase in payments for contracts approved in 1980, which can probably be put down to large investment projects in the Water, Gas and Electricity and Electronic Equipment sectors.

As regards the countries providing the technology, there was no significant change as far as licensing contracts were concerned, whilst payments for technical assistance and services from France, Federal Republic of Germany and Great Britain rose.

3. Background statistics:

The tables appended on the last page of this Newsletter show the distribution of new contracts approved in 1981 according to sector and country of origin.

These statistics do not include any figures for the number of extensions or payments for them.

Argentina

Secretary of State for Industrial Development - National Institute for Industrial Technology
Headquarters: Leandro N. Alem 1067
5th, 6th and 7th floors,
1001 Buenos Aires,
Argentina

Comments on the Application of Law No. 22,426 (1-4-81 to 31-12-81) in Argentina

The present Law on the Transfer of Technology (No. 22,426) came into force on 1 April 1981.

It differs from the previous law because of its relatively liberal framework, which contains no provision for any kind of restriction between independent contracting parties.

The results in general (number of agreements recorded and total estimated amounts to be paid) and in particular concerning price and duration of contracts are set forth below.

Number of agreements recorded and registered and estimated total amounts to be paid

For the purpose of comparing the 1981 information details are given of the number of agreements registered and recorded and the total estimated amounts paid during the contractual period for the past six years at the end of this Newsletter.

It may be noted that the annual number of registrations is increasing and the trend has become more stable over the past three years. The number of agreements (recorded and registered) in 1981 conforms with this trend. In the first quarter of the year 109 contracts were registered, with an estimated amount to be paid of $US 278,552,457; and under Law No. 22,426, 419 agreements were recorded and registered for an amount of $US 301,241,770. This means that Law No. 22,426 has not resulted in an undue unreasonable increase in the number of agreements recorded (and/or registered).

As far as the estimated total amounts to be paid are concerned, these too show progressive increase. With regard to 1981, the relative reduction in the amounts may be due to the sharp devaluation of the peso, while the $US 581.8 million for 1980 represents a smaller figure in real terms as a result of the overvaluation of our currency.

Taking the three above-mentioned years, on the basis of independent and joint contracting parties are shown in a table on the last page of this Newsletter.

The agreements registered and recorded in the first quarter numbered 109, of which 26 (24 per cent) were signed by joint enterprises with an estimated payment of $US 89,774,616 (32 per cent of the quarter). Since Law No. 22,426 came into force, 419 agreements have been registered, 32 (8 per cent) signed by joint entities, to an amount of $US 62,451,472 (21 per cent) compared with $US 301,241,770 for the rest of the year.

The total amounts for the first quarter are almost the same as the total agreed for the other three quarters; this is due to the considerable major impact of two agreements for the purchase of technology by the public sector. The two together involve an estimated payment of $US 123 million - 44 per cent of the quarter and 21 per cent of the year.

Royalties and Duration

The average royalties agreed for the years 1979, 1980, 1981 are as follows:

Year 1979.	3.49%	
Year 1980:	3.4%	
Year 1981:	3.6%	1st quarter
	3.9%	Law No. 21,617
		Law No. 22,426

Following Law No. 22,426, the average royalty rate has risen, as a result of the cases indicated below, which exceed the 5 per cent limit stipulated by Law No. 21,617.

1 agreement:	Royalty	rate	35%
2 agreements:	"	"	10%
1 agreement:	"	"	9%
1 agreement:	"	"	8%
3 agreements:	"	"	7%
5 agreements:	"	"	6%
1 agreement:	"	"	6.5%
1 agreement:	"	"	5.5%
Total 15 agreements			

The 15 agreements represent 4% of those recorded as from 1.4.81, 50% of which provide for royalties and the remaining half for fixed amounts.

Extension of their contractual period occurs more frequently than in the case of royalties and 41 agreements (10%) have a validity period of over five years (the limit under the former law). These are as follows:

2 agreements:	52 years
7 agreements:	15 years
1 agreement:	11 years
27 agreements:	10 years
1 agreement:	9 years
1 agreement:	8 years
2 agreements:	7 years
Total 41 agreements	

It will be seen that there are two agreements with 52 years' validity, which is highly unusual. These two agreements apply to the same enterprise and have retroactive validity.

There are also agreements (14%) of indefinite duration, in respect of technical services, the majority of them providing for a fixed amount, thus eliminating the indeterminate factor. There are only two cases of royalties being agreed for an indeterminate period.

A study has been made of the highest royalty rates and extension of duration; but there are other topics to be considered, such as: limitation of exports, retroactivity of terms, exchange risks, and so forth, on which studies will be started after 1982.

To sum up, it may be concluded that under Law No. 22,426, the average registration of agreements continues, with a fairly low percentage of rises in royalty rates, although a growing tendency to extend the period of agreements may be observed.

Information on Offers of Foreign Technology

This new venture under Law No. 22,426 has not yet achieved wide circulation since the system is still in the process of being introduced. This may be the reason why industry is as yet making little use of the system - an average of one consultation per month.

Calendar of meetings

1. Third Consultation on the Iron and Steel Industry, 13 - 17 September 1982, Caracas, Venezuela.

2. First Consultation on Industrial Financing, 18 - 22 October 1982, Madrid, Spain.

3. Investment Forum, 25 - 27 October 1982, Santiago de Chile, Chile.

4. Dakar Investors' Forum, from 24 to 27 November 1982, Dakar, Senegal.

5. Investment Promotion Meeting for Peru, November 1982, Lima, Peru.

6. Ad Hoc Panel on Contractual Arrangements for the Transfer of Technology in the Pharmaceutical Industry, beginning December (tentative), Vienna, VIC.

7. Consultative Group on Appropriate Industrial Technology (COGAIT) IV: Expert Group Meeting on Advanced Technologies, date to be determined, Vienna, VIC.

8. Expert Group Meeting on Guidelines for Technology Plans and Policy, date to be determined, place to be determined.

9. Expert Group Meeting on Long-term Arrangements for the Development of a Petrochemical Industry in Developing Countries, date to be determined, Vienna, VIC.

10. Expert Group Meeting on Licensing Agreements in the Petrochemical Industry, date to be determined, Vienna, VIC.

Recent publications

Genetic Engineering

Genetic Engineering and Biotechnology Monitor. A quarterly newsletter.

UNIDO/IS.260 Genetic Engineering: The Technology and its Implications. Prepared by Professor S.A. Narang.

G.E.4 Genetic Engineering and its Implications for Developing Countries: Some Preliminary Issues for Action. Prepared by the UNIDO Secretariat.

G.E.5 Patentability of the Micro-Organisms and Implications in the Developing Countries. Prepared by the UNIDO Secretariat.

CRP.1 Chemical Feedstocks from Renewable Resources in Developing Countries. Prepared by Dr. J. Hollo.

CRP.2 What can modern biology bring to Developing Countries? Prepared by Professor A.I. Bukhari.

UNIDO/IS.254 The Establishment of an International Centre for Genetic Engineering and Biotechnology (ICGEB). Report of a Group of Experts.

UNIDO/IS.259 Report on Exchange of Views with Experts on the Implications of Advances in Genetic Engineering for Developing Countries, 4 - 5 February 1981.

UNIDO/IS.261 The Potential Impact of Microbiology on Developing Countries. Prepared by Professor Carl-Göran Heden.

UNIDO/IS.269 The Impact of Genetic Engineering on Industry. Prepared by the UNIDO Technology Programme.

UNIDO/IS.270/Rev.1 Elements of Some National Policies for Bio-technology. Note by the secretariat of UNIDO.

UNIDO/IS.271 Centres for Production of Enzymes. Prepared by Sheikh Riazuddin.

UNIDO/IS.272 Commercialization of Genetic Engineering Technologies: Some Considerations. Prepared by the UNIDO Technology Programme.

UNIDO/IS.273 The Potential of Genetic Manipulation for the Development of Vaccines Against Animal Diseases in Developing Countries. Prepared by Sir William Henderson.

Microelectronics

UNIDO/IS.246 and Corr.1 Implications of Microelectronics for Developing Countries: A Preliminary Overview of Issues. Prepared by the UNIDO Secretariat.

ME 2 Application of Microelectronics for Development: Issues for Consideration. Prepared by Dr. Sang Joon Hahn.

B.P.1 Future of Electronics and Technology Transfer. Prepared by Professor K.V. Ramanathan.

B.P.2 Large-Scale Integration: Intercontinental aspects. Prepared by Dr. Ian M. Mackintosh.

B.P.3 An Overview of the Electronics Industry in Europe. Prepared by Dr. Ian M. Mackintosh.

B.P.4 From the Second to the Third Industrial Revolution. Prepared by Mr. Gérard Lafay.

B.P.5 Semiconductor Industry and R+D in India. Prepared by Professor K.V. Ramanathan.

B.P.6 Policy and Planning of Computer Education. Prepared by Prof. Shigeichi Moriguchi.

B.P.7 Experiences around University Computer Centers. Prepared by Professor Shigeichi Moriguchi.

B.P.8 The Software Market - Conditioning Factors and Possible Future Trends. An Analysis Undertaken from a Third World Perspective. Prepared by Mr. Dieter Ernst.

B.P.9 Potential Application of Computer Conferencing in Less Developed Countries. Prepared by Professor Carl-Göran Heden.

B.P.10 Implications of Microelectronics in Developing Countries. Prepared by Dr. Mohammad Aslam.

B.P.11 Microelectronics and Employment. Prepared by Professor Ernest Braun.

B.P.12 Futures with Microelectronics. Prepared by Professor Ernest Braun.

B.P.13 Implications of Technological Advances in Microelectronics for Developing Countries: A Suggested Programme of Policy Studies and Action. Prepared by Mr. Dieter Ernst, Mr. Kurt Hoffman, Mr. Raphael Kaplinsky, Mr. Juan Rada and Mr. Howard Rush.

UNIDO/IS.230 Technological Perspectives in Machine Tool Industry with Special Reference to Microelectronics Applications. Prepared by Mr. S.M. Patil.

UNIDO/IS.242/Rev.1 and Corr.1 Report on Exchange of Views with Experts on the Implications of Technological Advances in Microelectronics for Developing Countries, Vienna, Austria, 10 - 12 June 1981.

Technology Perspective of Microelectronics in the Coming Decade and its Implications for Developing Countries. Prepared by Dr. Sang Joon Hahn.

Field Survey Report on the Microelectronics Industry in Selected Developed and Developing Countries. Prepared by Dr. Sang Joon Hahn.

Microelectronics Monitor. A quarterly newsletter.

Lighter-Than-Air (LTA) Systems Technology

LTA-3 Implications of LTA Technologies for Developing Countries: Some Issues for Consideration. Prepared by the UNIDO Secretariat.

ID/WG.367/1 General Applications and Limitations of LTAs. Prepared by Mr. G. Cahn-Hidalgo.

ID/WG.367/2 Potential Cases for LTA Uses. Prepared by Mr. G. Cahn-Hidalgo.

ID/WG.367/3 Application of Lighter-Than-Air Technology in Developing Countries. Prepared by Mr. Ashford, Mr. Levitt, Mr. Nebiker and Mr. Rappoport.

ID/WG.367/4 Helium - Rarer than Thought. Prepared by Mr. H. Grieco.

ID/WG.367/5 Current LTA Technology Developments. Prepared by Mr. N. Mayer.

ID/WG.367/6 The Airship: Past, Present and Possible Future. Prepared by Mr. A. Dolman.

ID/WG.367/7 Lighter-than-Air Transport Systems. Background paper submitted by the Arab Republic of Egypt.

ID/WG.367/8 Report of Expert Group Meeting on the Implications of Technological Advances in Lighter-than-Air Systems Technology for Developing Countries, Vienna, Austria, from 19 to 22 October 1981.

Seabed Resources

UNIDO/IS.257 Technologies for Investigation and Exploitation of Seabed Resources. The Potential for Developing Countries. Prepared by Mr. David A. Ross.

Ocean Mining and Developing Countries: Promises and Dangers. Prepared by Ms. E. Mann Borgese.

Machine Tools

UNIDO/IS.226 Technological Perspectives in Machine Tool Industry and their Implications for Developing Countries. Summary. Prepared by Dr. S.M. Patil.

UNIDO/IS.230 Technological Perspectives in Machine Tool Industry with Special Reference to Microelectronics Applications. Prepared by Dr. S.M. Patil.

Petrochemicals

Perspectives, Parameters and Options in Emergent Petrochemicals Technology: Implications to Developing Countries. Draft Summary. Prepared by Mr. V.R.S. Arni.

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The following tables refer to articles contained in this Newsletter:

Spain - Payments Relating to Contracts Registered in 1981 - Classification According to Sectors of the Economy

Sectors	LICENCES		TECHNICAL ASSISTANCE	
	No. of Contracts	Annual payments (millions of Pesetas)	No. of Contracts	One-off Payments (millions of Pesetas)
0. Agriculture	8	32,33	2	6,03
1. Extraction industries	-	-	16	102,64
2. Food industries	11	82,95	8	143,50
3. Textiles, leather and clothing	13	60,41	8	46,07
4. Paper and graphic arts industry	3	37,30	3	23,70
5. Chemical industry	64	654,25	35	1.138,08
6. Metal products and machinery	-	-	4	71,94
7. Basic metal industry	2	8,52	28	195,62
8. Metal and products and machinery	93	610,97	41	692,11
9. Electric and electronic equipment	20	217,96	25	3.201,29
10. Transport equipment	33	329,09	31	5.523,39
11. Other manufactured goods	1	2,50	3	23,83
12. Water, gas and electricity	-	-	111	3.575,86
13. Construction industry	3	13,84	9	236,73
14. Services	3	15,88	21	639,39
TOTAL	254	2.066,00	345	15.620,18

Spain

Ministry of Industry and Energy
General Directorate of Industrial Innovation and Technology

Classification of Contracts Registered in 1981 (First Registration) According to the Countries of those Companies or Entities Providing the Technology (Millions of Pesetas)

	No. of Contracts	Payments (annual average)	No. of Contracts	Total Payments
Federal Republic of Germany	54	297,9	74	5.744,8
France	46	345,7	50	3.467,2
Italy	19	125,3	16	236,1
Netherlands	7	272,3	10	285,9
Great Britain	19	128,0	44	1.222,3
Other EEC	5	24,4	28	248,9
TOTAL EEC	150	1.193,6	222	11.205,2
Sweden	9	62,3	3	20,6
Norway	2	14,6	1	4,0
Switzerland	26	167,7	26	297,7
Austria	2	18,2	3	7,6
Other European (non-EEC)	8	33,2	9	78,8
TOTAL non-EEC	47	296,0	42	408,7
TOTAL Europe	197	1.489,6	264	11.613,9
USA	38	455,5	63	3.587,1
Japan	10	55,1	8	237,4
Canada	1	8,7	2	23,0
Mexico	1	17,5	4	122,1
Others America	3	15,7	2	27,6
Others	4	23,9	2	9,1
TOTAL America and Asia	57	576,4	81	4.006,3
OVERALL TOTAL	254	2.066,0	345	15.620,2

Argentina - Estimated Total Amounts Paid as against Number of Contracts

Enterprises	1979		1980		1981	
	% of No. of Contracts	% of Estimated Amounts	% of No. of Contracts	% of Estimated Amounts	% of No. of Contracts	% of Estimated Amounts
Independent 49%	82	65	74	51	89	74
Joint 49%	18	34	26	49	11	26

1981	1st Quarter Law 21.617		Last 3 Quarters Law 22.426	
	% of No. of Contracts	% of Estimated Amounts	% of No. of Contracts	% of Estimated Amounts
Independent 49%	76	68	92	79
Joint 49%	24	32	8	21

Argentina - Number of Registered Agreements and Estimated Total Amounts Paid

Year	No. of Contracts	+ % Base 1976	+ Compared with Previous Year	Estimated Total Amount to be Paid in US$	+ Base 1976	Compared with Previous Year
1976	116			32.047.659		
1977	120	3.5	3.5	34.939.695	9.0	9.0
1978	323	178.4	169.2	157.934.176	392.8	352.0
1979	510	339.7	57.9	321.496.806	903.2	103.5
1980	495	326.7	- 2.9	581.850.469	1.715.6	80.9
1981	528	355.2	6.7	579.894.227	1.709.5	- 0.3