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THE INDUSTRIAL AND TECHNOLOGICAL INFORMATION BANK

An analytical review[1/]

by

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1/ The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

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Table of Contents

Introduction

The Industrial Development Board at its eleventh session (23 May - 6 June 1977) by Decision V(XI) on the "Establishment of an Industrial and Technological Information Bank" endorsed the proposals contained in chapters III and IV of the report of the Executive Director[1] to make the Bank operational through a pilot project to be undertaken during 1977-1978, which shall be complementary to the present information and advisory services of UNIDO[2].

By the same decision the Board requested the Executive Director to submit to the Board at its thirteenth session - which will be held from 24 April - 4 May 1979 - a report containing a detailed analysis of the experience gained, the costs of the pilot activities, and an assessment of results obtained, so that a decision may be taken by the Board on further action in this sphere.

The decision of the Industrial Development Board regarding the pilot operation of an Industrial and Technological Information Bank (INTIB) was endorsed by the General Assembly on 19 December 1977[3].

Although in its decision, the Industrial Development Board had not requested a full report on INTIB to be presented before its thirteenth session, at its twelfth session (16 - 27 May 1978) already some misgivings were expressed at the meagerness of advanced information in the Secretariat's report on that subject[4].

There might indeed arise a gap between the present pilot operation and an eventually institutionalized INTIB as the pilot operation - originally proposed for a period of 18 months from 1 July 1977 to 31 December 1978 - is running out before the decisions to be taken by the Board at its thirteenth session on further action in this sphere will come into force.

In order to gain time and to make available a survey of what had been done and with some proposals for further action, this report has been prepared as early and as concise as possible.

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1) Doc. ID/B/183, 12 April 1977

2) Report of the Industrial Development Board on the work of its eleventh session, Doc. ID/B/193, 15 June 1977, p.47

3) Doc. A/RES/32/178, 16 March 1978

4) Report of the IDB on the work of its twelfth session, Doc. ID/B/212, 6 June 1977, p.48

To avoid misunderstandings a short explanation of terms might be given - without going into semantics - which are used nearly on every page of this report. This regards mainly the word "information", which should in fact be used and be understood with a certain caution.

Strictly speaking a document, a study, abstracts or even a data collection cannot yet be considered as "information", it is first of all a stock of material, of knowledge and know-how laid down in written or otherwise recorded form, with the destination to be used if possible for information purposes.

Information is a proced re by which a supplier of information is transferring a message, some know-how or other type of "information" to some receiver or user. Generating and accumulating documents, studies, profiles, abstracts, etc. does not mean automatically to "establish an information bank". In many cases the result might just be the build-up of an archive or a documents centre, at the best the establishment of a databank for information purposes.

The word "information" should mainly be used for procedures and activities by which knowledge and know-how is in fact transferred to and received by such people in developing countries who can make proper use of them.

About the border-line between information and advice some remarks will be made later.

Part I

History and Development of INTIB

The mandate to utilize information services as an instrument to promote industrial development is as old as UNIDO. It would take too much space to quote in detail the various resolutions and decisions dealing with this subject[1].

Of special importance were the recommendations of the Ad Hoc Committee on long-range strategy for UNIDO[2], asking for more work to develop an effective information clearing-house programme, proposing that UNIDO should give priority in its information activities to assist developing countries in building up their own industrial information services and to enlarge available training facilities. The function of UNIDO as a clearing-house for industrial information should be primarily that of an intermediary rather than to store and retrieve information itself, to this effect, plugging into existing sources of information. As to information generated by the work of UNIDO itself an effective and rational system of storage and retrieval should be developed to ensure that the in-house capacity of UNIDO was properly utilized. UNIDO should also provide developing countries with information on existing appropriate technology for their own industrialization efforts, so as to enable them to make their own choice as to the technologies best suited to their economic and social conditions etc. This information should include: information on attempts to adapt technologies to local conditions, patent information, information coming from developing countries and so on.

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1) GA Res. 2152(XXI), 17 November 1966, describing the functions of UNIDO, part II/2 a/(IV): technological information, and II/2 b: information concerning various aspects of the process of industrialization.

Report of the expert group on the establishment of an advisory service for the supply of industrial equipment to developing countries, Doc. ID/WG.6/2, 24 November 1967 (information service on source of supply of industrial equipment).

Resolution ID/SCU/Res.1, section I, para 1(d) of the Special International Conference of UNIDO 1971, Doc. ID/SCU/Rev.1 (the establishment of an Information Clearing-House to provide industrial and relevant commercial information including information on technology).

2) Report and conclusions of the Ad Hoc Committee on long-range strategy for UNIDO, Doc. ID/B/142.

A survey of the implementation of these recommendations and proposals was given to the Permanent Committee at its third session (3 - 10 December 1973)[1].

The Second General Conference of UNIDO (Lima, March 1975) confirmed in the Lima Declaration and Plan of Action under the heading "Institutional Arrangements" that this report of the Ad Hoc Committee on long-range strategy for UNIDO[2] together with the resolutions of the sixth special session of the General Assembly and the present Declaration and Plan of Action shall form the basis for determining the role and activities of UNIDO[3].

No contradiction should be seen between this endorsement of the clearing-house function of UNIDO in the field of industrial and technological information on the one side and the proposal that "appropriate measures, including consideration of the establishment of an industrial and technological information bank should be taken to make available a greater flow to the developing countries of information permitting the proper selection of advanced technologies" [4].

Theoretically, no difficulties should have been created for a meaningful coexistence between the existing industrial information clearing-house service of UNIDO and the proposal to consider the establishment of an industrial and technological information bank.

The only new element in this last proposal was the idea of establishing a "bank", an idea which should have been examined mainly under technical and financial aspects it being obvious that the substantial issues were nearly identical to already approved and endorsed purposes of UNIDO's industrial information clearing-house.

Nevertheless, two years passed before practical proposals for a pilot operation of the bank have been submitted to the Board[5].

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1) Doc.ID/B/C.3/Inf.6, 12 November 1973

2) Doc.ID/B/142

3) Lima Declaration and Plan of Action, Part V, para 65a

4) Lima Declaration and Plan of Action, Part III, para 61k

5) Report by the Executive Director of UNIDO on the Establishment of an Industrial and Technological Information Bank, Doc.ID/B/183, 12 April 1977

Unfortunately, the reasons for this delay have to be reported, in some detail as the same reasons or their consequences are still determining the results of the pilot operation as well as the proposals for future action.

a) The first reaction to the proposal to consider the establishment of INTIB (Industrial and Technological Information Bank) was the intention to get a proper feasibility study made by an expert. Competent authority to do so was at this time (summer 1975) the Industrial Services and Institutions Division of UNIDO of which the Industrial Information Section was a part. In drafting terms of reference for a feasibility study it was said that the study should be undertaken in close co-operation and co-ordination with the clearing-house of industrial information, with the view that the proposed bank should be an integrated part of it.

b) Yet before an expert for this purpose was called upon, the Industrial Information Section, otherwise referred to at the time as the Clearing-House of Industrial Information, was heavily cut down in the course of the re-organization of UNIDO. Essential functions such as the training of information personnel, and the assistance to developing countries to build up their own information facilities were assigned to the Industrial Operations Division and three Professional Officers reassigned accordingly. Three other professionals previously assigned to the Industrial Inquiry Service were assigned to a new section for "Development and Transfer of Technology". Another Professional working for the Inquiry Service left UNIDO some months later and was not replaced either.
The Industrial Information Section itself became part of the newly established "International Centre for Industrial Studies", thus depleted from a full team of 13 professionals and 23 GS to 6 professionals and 10 GS.

c) The remainders of the Industrial Information Section - fully involved in keeping normal services running (Library, Publications and a reduced Inquiry Service) inspite of a reduced staff but of course on a reduced scale also, have not been in a position to influence the further development of "INTIB". In fact, the study on the feasibility of an INTIB-project was placed in the work-programme of the newly created Technology Section. The Management of the Centre for Industrial

Studies, at the time having originally advocated for some sort of non-specified but big-scale computerized data bank finally organized two meetings of nine consultants on the establishment of an INTIB and commissioned several study-missions by experts to study the feasibility of such a bank. On the basis of discussions at the two meetings in March and June 1976 and the findings of the consultants' field surveys carried out in April and May 1976, a report on the conclusions was presented to the Permanent Committee at its 8th Session in September 1976[1] and endorsed.

These conclusions have not been very helpful. None of them was positive as to the basic feasibility and usefulness of a computerized INTIB. As to the management of INTIB - which was to incorporate the Industrial Inquiry Service - three alternatives were envisaged: (a) semi-autonomous status within UNIDO with a special board to determine the policy of the Bank, (b) a holding-corporation which may become self supporting, with countries holding shares and (c) a UNIDO unit under the direction of the Executive Director. Similarly, four alternatives were proposed for the financing of INTIB (self supporting operation, funded by UNIDO's regular budget, funded partly by the regular budget and voluntary contributions, partly subsidized by UNIDO but with contributions from users).

As to the targets of the Bank the conclusions stressed that INTIB should add new inputs and provide improved information access, thereby strengthening existing information systems and services. Among the range of possible information and advisory services INTIB might provide technological information, information on the utilization of natural resources, on the utilization of wastes, on the experience in the acquisition of licenses or patent rights, on investment data, on the industrial application of energy, on equipment suppliers, research institutes, consultants, etc. and on industrial legislation.

In general, the Bank was to avoid duplication of existing information services.

For 1977, "pilot activities" were proposed involving the operation of the Bank "as a source of technological information" for specific areas on selected industrial sectors, the establishment of contacts and conclusion of agreements with existing information systems and the examination of the possible utilization of computers in data processing.

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1) Doc. ID/B/C.3/52, 3 August 1976

On 21 December 1976, the General Assembly adopted resolution 31/183 welcoming the report of the Executive Director on the creation of INTIB reflecting the conclusions and recommendations of the consultants and urging the Industrial Development Board to take early decisions .... towards making the Bank operational[1].

Then, in February 1977, another organizational change took place within UNIDO by which the section on Development and Transfer of Technology and the Industrial Information Section were de facto removed from the management of the International Centre for Industrial Studies and put under joint supervision under the new name "Technology Group".

After long discussions and with the temporary participation of staff members and consultants, proposals for a pilot operation of INTIB were formulated. A report of the Executive Director of UNIDO on the establishment of INTIB was discussed and endorsed by the Industrial Development Board at its eleventh session (23 May - 6 June 1977)[2].

This report has two different and to some extent even contradictory faces. While Parts III and IV outline a rather modest programme for the pilot operation, a broad, ambitious and possibly even controversial programme is shown up under Part II "Outline of the scope of work of the Bank". The contrast between the two "programmes" can only be understood if enough attention is paid to the remark that the Bank in its initial phase of operation was to be approached from a somewhat pragmatic standpoint, considering the limited resources available to UNIDO at present and the need to accumulate the required experience and to test its actual operations to determine their usefulness[3].

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1) Res. 31/183, 21 December 1976

2) Doc. ID/B/183, 12 April 1977

3) ID/B/183, para 13

The Scope of Work of the Bank

To understand the full range of the "INTIB"-concept, a summary will be given in the following of the text published under Part II of Document ID/B/183, from 12 April 1977.

a) The need for the establishment of the Bank is once more reaffirmed not only to facilitate international co-operation in general, but also to further co-operation among developing countries in industrial and technological matters (para 15).

b) The Bank should be concerned primarily with the selective processing of technological information, thereby providing the developing countries with a basis for making decisions (para 16).

c) The Bank will draw on technological information within the house and from external sources. As a first step it will mobilize information within UNIDO (available in the reports of experts, consultants, staff missions and expert group meetings, UNIDO research and studies, information obtained through the Industrial Inquiry Service, journals and library documentation). As regards external sources of information, the Bank will try not to duplicate the work of existing information sources, but will establish a system for collecting relevant information when required. The handling of information will include its processing, classification, indexing and abstracting and the development of appropriate storage and retrieval systems, including microfiche and, eventually, computerized systems (para 20).

d) The Bank will not only collect technological information but will also assess it. This is to be considered as an essential function since the effectiveness of information depends on its assessment and its suitability for application. The Bank will not duplicate the existing services nor confine itself to the normal documentation or abstracting services. - The Bank will not be a mere or a mechanical dispenser of information but an active component of the work of UNIDO with emphasis on providing access to information, its analysis and synthesis, and with the capability of UNIDO of giving on-site technical advice to assist the recipient in the effective application of information (paras 16, 17, 19).

e) As said earlier, the information collected will be assessed by the Bank. This will also include in selected cases on-site advice on request which will be provided within the limits of the resources available by UNIDO technical staff or outside specialists (para 21).

f) The Bank's activities may take many forms and will include the preparation of document lists, technological profiles, guides to information sources and special documentation on areas such as choice of equipment, licenses and patents and on specific industrial sectors or products.

g) The Bank's activities will be determined by the level and magnitude of requirements of the developing countries (governments, organizations and institutions, manufacturers, etc.) and they could range from merely answering an inquiry to assessment and on site advice as appropriate (para 22 ff).

h) Finally it is once more explained that the services rendered by the Bank will assist in the decision-making process, enhance local capabilities to take with particular attention to technological choices, etc. The operation of the Bank will reflect an integrated effort of the whole of UNIDO and should be regarded as an integral part of certain important activities of UNIDO, such as the Action on Appropriate Industrial Technology, sectoral consultation meetings and operational programmes which will be provided with an adequate information base.

The chapter on the scope of work of the Bank closes with the remark that in its initial phase the Bank will draw upon the accumulated industrial and technological knowledge within UNIDO as its initial "capital stock" (Industrial Development Abstracts, Roster of Consultants, Guides to Information Sources, Industrial Inquiry Service, technical publications). These and other outside sources of information could be integrated into the work of the Bank (paras 28-29), which would require streamlining procedures and responsibilities as well as updating available information.

Reading attentively the chapter on the scope of the work of the Bank one may realize that the content of a project which still is called to be the industrial and technological information bank (INTIB) has been considerably enlarged. Being still complementary to the "traditional" information and advisory services of UNIDO, INTIB would in future become a project of a new dimension trying to cover as a bridge the technological gap between developing and developed countries adding assessment and advice to technological information.

The Proposals for a Pilot Operation of the Bank

Having outlined in chapter II a general perspective of the "Bank" the Executive Director in chapter III of its report to the Board[1] suggested to undertake a pilot operation of the Bank for a period of 18 months from 1 July 1977 to 31 December 1978 with limited targets.

(a) The pilot operation should limit itself to start with selected aspects of information related to the following four sectors: iron and steel, fertilizers, agro-industries and agricultural machinery

(b) During the pilot operation the Bank would not be in a position to serve individuals or specific firms but would confine itself to serve selected institutions in developing countries including governments, technological institutions and centres, etc.

(c) The pilot activities which should be undertaken are:

1. The collection of in-house information - mobilizing and organizing in-house information and the systematic expansion of this information in the four sectors chosen for the pilot activity;
2. Collecting selected information from external sources - negotiations with international sources;
3. The development of co-operative programmes with other UN agencies and intergovernmental organizations - creating a network of information for the identification and selection of technologies through joint action with UN agencies and other international and national institutions;
4. Establishing interlinks between the Bank and the users in developing countries, including a continuous appraisal of their information requirements;
5. The preparation of technological information profiles and manuals in the sectors chosen for the pilot operation and their dissemination;
6. Building up a stock of technological information in the four chosen sectors and processing it for selection purposes;
7. Identifying and utilizing technological sources and capabilities available in developing countries;

[1] ID/B/183

8. Evaluating the pilot activities at the end of the second year of operation - continuous assessment and evaluating of the proposed activities would be an integral part of the pilot operation with the aim of preparing an evaluation report at the end of the 18 months period of work.
This evaluation will serve to orient the future work of the Bank for its full-scale operation.

In the initial phase of the Bank's operation the information requirements of other centres and areas will continue to be met by the existing Industrial Inquiry Service and other information activities.

The report finally mentions that the successful implementation of a pilot operation will depend primarily on the available resources and on the number and complexity of requests from the developing countries. The financial requirements of the pilot operation have been defined in the order of $290,000. In addition, the management of the Bank's activities from its initial operation would require the addition of two professional information officers and two GS staff in 1977, one P-post and two GS staff in 1978.

Financial requirements for electronic data processing have not been included in these figures.

The Pilot Operation Reflected in the Work Programme 1978/79

For the purpose of implementing the pilot INTIB project the proposed activities which by their nature were more or less all in the purview of the Industrial Information Section were assigned and integrated in the various projects of this section. In the work programme for 1978/79 of the "Technology Group"[1] the projects TECH-10 to TECH-15 including some INTIB activities are part of the Industrial Information Programme.

Project TECH-10 includes the following specific INTIB activities:

Identifying, connecting with and drawing on sources of industrial and technological information, - drawing on computerized technological data banks, on specialized information material developed in research and consulting institutes, on patent information from WIPO/INPADOC collection, and

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[1] UNIDO/ICIS.63, 5 April 1978

identifying and drawing on sources of technological information available in developing countries.

These specific INTIB activities are part of the project which otherwise mainly includes ongoing traditional activities in the area of industrial information such as

the network of correspondents, the roster of consultants, the Guides to Information Sources and the utilization of the Library as a source of information.

In a similar way, project TECH-11 is mainly devoted to the traditional work of "mobilizing and organizing in-house information mainly through the Industrial Development Abstracts, processing and reader service (SDI) in the Library, country files, and has also been complemented by some new activities such as scanning and organizing information material with particular relevance to INTIB purposes.

Project TECH-12 ("Information analysis and processing") includes inter alia project compenents of a continuing character such as the UNIDO Newsletter and other publications, the "subject files", the SDI service and in general the processing of information material from in-house and outside sources for the purpose of answering inquiries addressed to INTIB and the Inquiry Service.

As a complementary INTIB activity "preparing of technological profiles" in the four chosen sectors of INTIB is added to the components of this project.

Also project TECH-13 ("Information User Linkages") including the publication of the UNIDO Newsletter oriented "to constitute the principal industrial and technological information bank medium" and its mailing list, was somewhat adapted to fit into the INTIB pilot programme by adding "establishing interlinks with users appraising their requirements".

The only project devoted exclusively to INTIB is project TECH-15:

"INTIB co-ordination, extension and evaluation" with the objective "to co-ordinate INTIB activities as a component to existing information and advisory services, to bridge a 6 months period between the end of the pilot operation (31 December 1978) and IDB's decision at its May/June 1979 session on its continuance, and to evaluate the operation and report to IDB".

The work plan includes in detail

(a) co-ordination of INTIB activities
(b) continuing for six months into 1979 INTIB operations as per details under projects TECH-10 to TECH-13
(c) holding an evaluation meeting of experts in February 1979
(d) reporting on INTIB operations and formulating recommendations to IDB.

The Work Programme 1978/79 thus covers more or less all pilot activities which have been endorsed by the IDB in May 1978. A total of $88.000 in 1978 for consultants of $113.000 in 1979 mainly for the 6 months continuation of INTIB was requested in the programme.

The fact, that reference on INTIB is only included in projects of the Industrial Information Section may be somewhat confusing. As it was mentioned earlier and outlined in the chapter on the scope of INTIB the operation of the "Bank" should be regarded as an integral part of certain other important activities of UNIDO also, not belonging to the Industrial Information Services.

A survey on activities undertaken in order to implement the programme of the pilot operation of the bank must therefore deal mainly but not exclusively with the activities of UNIDO's Industrial Information Section related to and sometimes identical with the INTIB-programme.

Part II

A Survey of Information Activities related to INTIB's Pilot Operation

The period set for the pilot operation of INTIB is nearing to its end. It might therefore be suitable to start with an effort to report and to assess according to point 8 of the list of pilot activities what has been achieved.

This is not easy as the development of the INTIB project, as explained in Part I, covered some years and was rather complicated, affected inter alia by the interference of structural changes within UNIDO, by the lack of staff familiar with the techniques of modern information systems and by some misunderstandings due to conflicts between good intentions, hopes and realities.

The main misunderstanding was perhaps the way by which the establishment of an "industrial and technological information bank" was approached during the first two years after Lima leaving completely aside the fact that UNIDO had already formally established an "Industrial Information Clearing House" some years ago, an activity with a rather successful record of performance highly recommended by the ad hoc Committee on long-range strategy for UNIDO and as such endorsed by the Lima Conference as one of the basic facts determining the role and activities of UNIDO [1].

It was equally left aside that the proposed information bank could never be expected to be more than an effort to broaden and to expand the activities of the "Clearing-house". Some ideas that a computerized data bank could be established covering "technology" quickly disappeared once it was recognized that such a "Bank" could never be financed.

Under these circumstances one may even argue that the term "information bank" as well as the INTIB abbreviation itself is a misunderstanding. The enumeration of activities to be undertaken at the pilot operation of the "bank" is clearly indicating that only some of these activities can be subsumed under a "banking" function.

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1) Lima Declaration and Plan of Action, para 65 (a)

There is no doubt that one could consider UNIDO as a whole to be a bank of information material, a depository of knowledge and know-how, generated and accumulated by various activities of UNIDO during the last 11 years, unfortunately not fully organized systematically, so that a proper retrieval of documentation needed for information purposes is not always guaranteed.

However, UNIDO can never expect to cover all information needs through its own accumulated stock of knowledge, documented or not. The banking function of UNIDO will therefore always need to be supplemented by the clearing-house function which should allow to provide to developing countries an access to additional information, accumulated and stored in more than 600 data and information bases and in many other institutions all over the world.

In dealing with UNIDO's participation in the general network of information systems and services throughout the UN one should therefore continue to use the INDIS symbol for UNIDO's Industrial Informations System marking activities, of which INTIB is one complementary function to several other functions in the area of Industrial Information.

It was therefore logical to amalgamate in the work programme 1978/79 most of the activities foreseen for the Pilot Operation of the Bank with the current activities of UNIDO's Industrial Information Section to whom they belong.

It could have been expected that additional functions and incentives might have given to the Information Services a new impulse and a new dimension of motivation.

Unfortunately, the two main conditions for successful implementation of the pilot operation, namely adequate resources and a growing number and complexity of requests did not fully materialize.

As the programme for the pilot operation of the bank covers practically all activities which have been undertaken in the past

by the "clearing-house", a survey and assessment on the pilot activities will equally cover all or most activities of the "clearing-house", trying to identify however in all cases the contribution and to highlight achievements that come under the INTIB concept through new impulses and incentives.

Notwithstanding the rather formalistic enumeration of the various activities in the programme of the pilot operation[1] as well as in the work programme projects TECH-10 to 15 the report will classify all the various activities under the following three (or four) headings:

1. The establishment of links between UNIDO's services in the area of industrial and technological information with users in developing countries and a continuous appraisal of their information requirements.

2. Mobilization and organization of in-house information, the systematic expansion of this information including the preparation of technological information profiles and manuals, the build-up of a stock of technological information and processing it for selection purposes.

3. Collecting selected information from external sources, negotiations with international sources and the development of co-operative programmes with other UN agencies etc., identification and utilizing especially technological sources and capabilities in developing countries.

4. Publications of Guides to Industrial Information Sources as a special service.

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[1] ID/B/183, para 34

1. Establishing links between UNIDO and the Users of Information

In his report on the establishment of an industrial and technological information bank the Executive Director underlined in para 33 that the successful implementation of the pilot operation will depend primarily on the available resources and on the number and complexity of requests from the developing countries.

The establishment of interlinks between an information service and the users in developing countries and the continuous appraisal of their information requirements is indeed the most important point affecting the idea of INTIB as well as the Information Clearing House.

Most other activities can only be justified if they correspond to the requirements of users.

Less than 18 months after the pilot operation of the "Bank" was inaugurated at least on paper the response of "users" specific to INTIB services is still insignificant. Nothing else could have been expected in such a short time.

Under these circumstances the attempt to identify users and their requirements still is limited to the experiences made with the "traditional" activities undertaken by the Industrial Information Services, the "Newsletter" and the "Inquiry Service", services which both have succeeded in establishing close links to many thousand users in developing countries at every level of planning or operational concern and in every sector of industry.

THE UNIDO NEWSLETTER

The Newsletter is a small 8 pages monthly publication reporting on major UNIDO events, developments and publications including regular columns on experts post vacancies for which candidates are needed, industrial opportunities, information on resources sought by entrepreneurs in developing countries and resources available from throughout the world as well as reports on important industrial inquiries received and processed by the Inquiry Service.

A further column "interlink" provides information on selected new technologies evolved or adapted in developing countries.

UNIDO Newsletter is mailed to about 25000 subscribers free of charge, of which about 14000 in more than hundred developing countries. Most subscribers are in India (1231) followed by Egypt (479), Colombia (478) and Philippines (475). About 8000 copies are sent to industrialized countries, about 3000 to socialist countries.

By type of subscribers 3500 copies are distributed to industrial enterprises, 2900 to consultants, 1800 to engineering organizations, 1150 to banks and financial institutions, 2500 to research centres, etc., 1250 are sent to information centres, 1400 to trade publications, 2500 to Chambers, manufacturers' organizations, trade Centres, etc., about 7000 are destinated to Governments, Government Departments, UN and other international organizations.

The Newsletter is published in 5 languages (English, French, Spanish, Russian and Arab). The secret of its success is the fact, that the Newsletter was published regularly and without interruption since early 1967 (the October 1978 issue bears the number 126). There is possibly no other UNIDO activity with such a feedback as the Newsletter.

In 1977, 5300 letters - all requiring some kind of action in reply - were received from subscribers.

The Newsletter staff (only one professional and two GS) handled 1604 letters concerning "Industrial Opportunities", of which about 60% from developing countries, processed 2092 requests for 10148 copies of documents and publications (75% from developing countries), 917 requests were made for items appearing in the Industrial Inquiries column (100% from developing countries), 101 letters related to Interlink (95% from developing countries), 223 answers came for "experts wanted".

As the staff of the Inquiry Service was no more in a position to handle the incoming and rapidly growing numbers of requests related to Industrial Inquiries, the number of published items had deliberately to be reduced drastically.

The Newsletter is a major success-story of UNIDO however widely unknown and under-valued within UNIDO. There are many reasons for the success:

a) contrary to other UNIDO publications, the Newsletter was issued regularly over more than 10 years to a continuously growing, however controlled number of subscribers;

b) the Newsletter is small in format and size. It's therefore readable even for busy people. The Newsletter renounces to pretentious articles and philosophies. It's a very concise publication;

c) the Newsletter motivates for action and response. The careful handling of letters and requests has created an atmosphere of confidence and reliability still enforced by the fact that the same responsible editor has been on work for years and did not change every two or three years as usual in UN.

The Newsletter provides therefore a solid basis to establish an interlink between UNIDO or the "Bank" and potential users in developing countries provided that still more care could be devoted to the feedback and the correspondence with subscribers. Within 2 - 3 years many thousand people could be identified and classified by their profession and their needs to become a potential clientele for the Bank and other UNIDO services.

The computerized mailing list established for the Newsletter - the only one in UNIDO - is equally used for selected distribution of the UNIDO publications, studies, manuals, etc.

THE INDUSTRIAL INQUIRY SERVICE

The Industrial Inquiry Service, operational since 1968, represents a major line of communication and transfer of information and know-how between developing and industrialized countries through the intermediary of UNIDO. A similar service working at the Secretariat of the Organization for Economic Co-operation and Development (OECD) in Paris was closed down on 31 December 1972, leaving UNIDO's Inquiry Service as the only service run by an international organization specialized in information for industry.

The Inquiry Service was from it's inception open to answer all questions relating to the field of industry coming from governments, government agencies, chambers of industry, industrial enterprise, etc. in developing countries, including technical as well as economic questions.

As only part of the inquiries could be answered by UNIDO staff itself, a network of correspondents was established including at the time more than 400 organizations, institutions, enterprises, experts and others mostly in developed countries, prepared to act as a source of information offering their services - some even free of charge - to answer the inquiries transmitted to them. About 40 of them have been under formal permanent contracts with UNIDO.

The number of inquiries starting with 125 inquiries in 1968 reached its maximum in 1973 with 2383 inquiries. In addition about 1150 "second hand" requests for information were answered. "Second hand" requests stands for such requests which have not been sent spontanuously but stimulated by and referring to the Industrial Inquiries column in the UNIDO Newsletter.

Since 1975, the number of inquiries went temporarily down. In 1976, 1876, in 1977 only 1386 inquiries have been answered. 1431 "second hand" requests based on Newsletter publications were processed in 1976, 930 only in 1977 due to a deliberate cut in Newsletter-publications. In 1978, a considerable rise in the number of inquiries can again be noted.

Another important aspect is the decline in the number of inquiries which are forwarded to outside correspondents for processing. While in 1973 still 68% of all inquiries have been answered with the assistance of outside sources, the network of correspondents, this percentage went down to 38% in 1977. The rest - 62% of all inquiries have been answered out of material which was collected, indexed and stored by the Inquiry Service during the last 10 years - mainly based on previous inquiries. In 1978, the relation has again changed to 50:50.

In answering more inquiries on the base of available in-house information the Inquiry Service is supported and assisted by staff-members from substantive sections. This is another reason for the growing in-house capacity to deal with the requirements of users in developing countries.

Still many hundreds major and complicated, mostly technical inquiries are met yearly with tailor-made answers and with the co-operation of outside sources of information. The latest trends are towards a major participation of outside sources as the staff in charge of this service was considerably reduced since 1975, just at a moment where more inquiries than ever should have resulted in a reinforcement.

Inspite of this the 3300 inquiries answered during the years 1976 - 1977 are still representing another major link between UNIDO and customers in developing countries providing clear indications about the type of people who need information and the type of information requested.

Major customers of the Inquiry Service were India (830), Turkey (203), Peru (195), West-Indies (179), Sri Lanka (186) and El Salvador (106). It is remarkable, that some more advanced countries such as Brazil, Venezuela, Iran and Israel do not appear on this list of major customers.

As to the branches of industry - subject of most inquiries - the list includes chemical industries with 682 inquiries, food-processing (501), engineering (488), light industries (416), followed by metallurgy, packaging, pulp and paper[1)].

About one third of all inquiries comes from enterprises and potential entrepreneurs in developing countries. A considerable increase can be noted for inquiries through UNIDO's field advisers, UNIDO-experts, government agencies, information centres, development banks and international organizations.

To meet recurrent demand in some specialized branches such as food-processing, animal feed, home textiles, etc. an experiment was started recently to order some pre-fabricated small feasibility studies from consulting firms in developed and developing countries to meet potential inquiries without any delay.

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1) As to the four branches of industry chosen for the pilot operation of INTIB only 369 inquiries have been registered in 1976/77 - slightly more than 11% of the total.

The Industrial Inquiry Service is one of the most remarkable services rendered by UNIDO to developing countries. In fact, the many thousands of inquiries which have been answered - still most of them with the assistance of high qualified outside specialists and institutions - are to be considered equal to thousands of mini-projects of technical assistance.

But the Inquiry Service is also serving UNIDO. In classifying and storing the files of inquiries a capital stock of specialized know-how was compiled which in addition to other information generated and accumulated by UNIDO has become an essential basis for any Information Bank function.

The list of inquirers and an assessment of their requirements certainly provides valuable indications as to a possible future demand to INTIB. The value of such lists consists in providing a view of reality far from theoretical expectations.

The Inquiry Service is in some danger. Even 2400 inquiries per year cannot be handled by two or even 3 staff members, especially if an inquiry requires the consultation with outside experts or institutions. The quality of this service is essential for the reputation of UNIDO. It may be better to strengthen existing services than to sacrifice them to new and vague ideas.

2. Mobilizing and Organizing In-House Information

The first, the fifth and the sixth point in the list of activities which were included in the pilot operation of INTIB are all concerning the same main aspects: to improve the real "banking" function of UNIDO in terms of providing a documentation basis for its information function. For this purpose the stock of accumulated in-house information, generated by UNIDO, should be mobilized, organized and systematically expanded, especially in the four sectors chosen for the pilot activity. For these sectors also technical information profiles and manuals were to be prepared and diesseminated, to build up a stock of technological information processed for selection purposes.

The idea, to consider UNIDO as a depositary of know-how and information material and as a generator of more and better and targetted information is surely a step in the right direction under conditions, first, that the stock of knowledge is sufficiently organized to allow a quick retrieval at any moment and second, that measures are taken to eliminate outdated and obsolete material.

Main sources of potential in-house information are printed papers, documents, expert and staff reports, studies, conference papers and computerized abstracts of all such papers, project files and the files compiled by the Inquiry Service, the collection of books and periodicals kept by the Library and by various substantive sections, country and subject files prepared by the Industrial Information Section, a roster of consultants, etc. This list may still be incomplete.

Another source of information is the staff of UNIDO itself, the many experts which joined UNIDO in the course of the years including some of the elder generation who have kept in their memory the results and experiences of major meetings and projects of past years.

However, this stock of knowledge, know-how and experience, the real "capital stock" of UNIDO as an information bank is not fully organized and to some extent not updated and not easily accessible. A statement on the value of this capital is nearly impossible. Some parts of it are certainly depreciated to zero.

A complete analysis of UNIDO's capital stock is not possible. Some identifiable activities should therefore be reported illustrating some efforts of UNIDO and some of their results.

UNIDO Documents List

The documents list issued yearly[1] and throughout the year regularly amended by supplementary lists gives a good review over all official documents prepared by or for UNIDO. The list includes a list of major studies and reports (about 220), of recurrent publications and series, of all documents prepared for or by the Industrial Development Board (about 450), the Permanent Committee, the International Symposiums, the Special International Conference of UNIDO 1971, the Second General Conference Lima 1975 and many thousands of documents prepared for or by a total of 246 meetings (expert working groups, workshops and seminars).

To give an example: for the Third International Symposium on the Iron and Steel Industry alone, held in Brasilia in October 1973, 119 papers have been prepared and are reported in the documents list. The documents list also includes a rough subject index to major studies and reports to the documents issued for conferences, expert working groups, workshops and seminars, allowing to find out which documents and other papers are available for instance within the four areas chosen for the pilot operation of INTIB. If one is careful enough, he might find out that a considerable number of all kind of papers have been issued in each of the four areas.

The papers themselves can be found in the Library (many of the documents are reproduced on microfiche), in the "Reference Library" (Conferences Services) or with "Documents Distribution", as far as they are not out of stock.

Of course, the documents list does not include all the papers generated by or for UNIDO. Some of them (especially expert reports and divisional papers) may be identified in the "Industrial Development Abstracts", some others in the files of the "Inquiry Service" or simply in the shelves of substantive sections.

The documents list is an impressive document. But too much research work would be necessary to bring the list in such an order as to be used for day to day work.

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[1] Last edition: Cumulative List for the period 1 January 1967 to 31 December 1977, printed in March 1978 with a circulation of 3600 copies, Doc.No. ID/SER.G/114

Industrial Development Abstracts

As early as 1971, it was recognized that the enormous stock of documented knowledge and know-how accumulated in UNIDO through the work of its professional staff, consultants and experts in the field, might be wasted, forgotten and lost if it would not be possible to establish a system by which all documents, reports and studies could be stored in such a way that an easy retrieval would be possible. The system got the name INDIS (Industrial Information System) and worked from its inception on the basis of computerized data storage and retrieval but providing also a way to find any wanted document in traditionally printed publications.

The system consists of three separate processes:

1. The elaboration of a Thesaurus to Industrial Development Terms comprising selected key words or "descriptors" - at present about 2100 - to be used in the process of indexing UNIDO documents. All descriptors have to be located within a system of classification and its different sections. The system of classification is flexible, allowing for addition of new terms whenever necessary. A particular effort was made to ensure compatibility between the descriptors in the UNIDO Thesaurus and those of the "Macrothesaurus" elaborated by OECD which is basic to many international information systems. This compatibility allows INDIS to become part of the UNITED NATIONS INFORMATION SYSTEMS AND SERVICES (ISIS), now operated at the International Computer Center in Geneva.

2. The "abstracting" of all documents, reports, studies, etc. by authors and source, using descriptors (keywords) applicable for identification of the subject covered in the text, and the numbering of each abstract in a machine readable form.

3. The elaboration of cumulative indexes showing for each subject descriptor (keyword) the access numbers and titles of relevant abstracts. Since the first printed issue of "Industrial Development Abstracts" in 1972 a total of 8400 UNIDO generated documents have been abstracted and stored on computer tape as well as included in fully indexed printed editions, of which 7000 are already shown in the cumulative index.

This allows for instance to identify under the keyword "Agricultural Machinery" 53 abstracts of documents, etc., dealing with this subject. As the index provides not only the number but also the title of each abstract it is possible to identify within a relative short time the abstracts and in a second process the original document relevant for the user. For the purpose of inventarizing more detailed information on several technologies compiled in one volume of a publication the abstracts will also give coverage to individual parts of such publications whenever this seems indicated.

The INDIS-system is surely a successful operation. It serves yet as a model for other UN organization. It is under the given circumstances the cheapest and simplest system for storing and retrieving the stock of documentation accumulated in UNIDO.

The UNIDO Industrial Development Abstracts are subscribed to and used by hundreds of institutes in developing countries. Their use is reflected i.a. in the many requests for UNIDO documents based on the "Abstracts". The abstracts are currently available also for computerized retrieval at UNIDO, in Geneva, Cairo (IDCAS) and Ottawa (IDRC).

Substantive Files kept by the Inquiry Service

The Inquiry Service has since its inception established a filing system serving not only as a register of incoming and outgoing correspondence but mainly as a stock of substantive information. This is reflected in the answers to inquirers and/or in the comments of outside correspondents made for the purpose to answer questions.

The files now also representing a considerable stock of industrial and technological knowledge - are also classified using the keywords of the Abstract Services.

As an experiment 120 of these files - about 1% of the total - have been indexed, abstracted and included in the "Industrial Development Abstracts". The experiment was not followed due to lack of staff and funds for the purpose.

While the idea by itself was good, it is deplorable that the "capital stock" of UNIDO, its accumulated know-how is so much split-up in various sections of the house thereby reducing considerably its value. The plan to establish a documentation centre for the whole of UNIDO where all documents are classified and indexed within a common system which would

allow the retrieval of complete printouts, was never pursued and will finally be dropped once the Library of UNIDO, which in fact is at least partly a documentation centre, also will stop to be an UNIDO unit. It would be advisable in particular for INTIB purposes that the matter be properly looked into.

The Roster of Consultants

The roster of consultants was established in 1969. The idea behind this project was to keep a register of consultants and consulting bureaus in developing and in developed countries indicating not only names and addresses but providing inter alia special information on previous activities and experiences especially in developing countries. In future, special information should be added on eventual technological experiences.

It was believed that the roster could provide valuable information and would help to strengthen local consultancy in developing countries.

Data on about 1600 consulting firms of which only about 10% from developing countries have been collected and are stored on computer tape.

Unfortunately, the further build-up of the roster was slowed down due to lack of staff. At present, new consultants are only included in the roster if they apply for it.

An old plan to merge the roster of consultants collected by the Industrial Information Unit with the roster of consultants kept - of course for different purposes - at the Purchase and Contracts Services Section was never implemented.

Country and Subject Files

In order to be in a position to provide staff members in UNIDO (and possibly also UNIDO experts in the Field) with some specialized information needed for their day to day work a S.D.I. (Selective Dissemination of Information) service was established as a kind of subactivity of the Library. The material for this service was taken from periodicals, casual publications, inofficial (divisional) UNIDO reports, reports and documents of other international or national organizations, etc. and distributed to interested staff members in the form of photocopies or original clippings, etc. Parallel to this activity and fed by more or less the same material country and subject files have been established which developed into a valuable stock and source

of complementary information mostly used by UNIDO staff itself. Subject files thus developed, using the same classification system as the Thesaurus and the Inquiry Service could usefully complement UNIDO's access to technological know-how also for INTIB purposes.

Library and other Stock of Information Material

One cannot close a report on the stock of industrial and technological information generated and accumulated by and within UNIDO without considering the Library of UNIDO and the many small reference-libraries which are kept inofficially in various units of UNIDO.

In fact, the UNIDO Library is to a certain degree not only a depository for books, printed documents and journals but to some extent an integral part of UNIDO's information services in keeping an excellent collection of reference books, catalogues and directories which for the organization itself and its information services is something very much needed and used.

The Library of UNIDO must therefore be mentioned as a part of the possible capital stock of the "Bank".

This applies equally to various sections in UNIDO which succeeded to build up their own collections of documents, publications and books on different substantive subjects. It is of course not possible to evaluate their usefulness.

Studies, Profiles, Manuals and Similar Publications

UNIDO always has been a generator of printed publications for the purpose to provide information, instruction and advice to developing countries not obtainable from other sources. It could therefore be expected that the specific point of the programme for the pilot activities of INTIB, urging the preparation and dissemination of profiles and manuals in the four sectors chosen for the pilot activities would be implemented to a much higher degree than other suggestions in the programme which have proved to need much more time. The following list is only an example of recent activities.

Iron and steel: Four technological profiles on the iron and steel industry - steel making, iron making, steel casting, sintering and pelletization - have been written by an expert and printed. Another expert provided abstracts of these "profiles", submitted recommendations for the all out compilation of data in this field and suggested the subscription and the processing of over hundred additional journals. A third expert worked on drafting proposals for inter-action with users.

Fertilizers: Two experts were put in charge of writing technological profiles on phosphatic and nitrogenous fertilizers, which will be printed soon. The International Fertilizer Development Corporation acting as an UNIDO consultant will update the "Fertilizer Manual", a former UNIDO publication.

Agro-Industries: An expert wrote profiles for certain fruit-juices, -abstracts and flow diagrams from available books and supplied photocopies from some other publications.
The French "Société pour l'étude et le dévéloppement de l'industrie, de l'agriculture et du commerce" (SEDIAC) in Paris, acting as a consultant for INTIB, wrote two technical studies on "Industrial Processing of Cotton Seed" and on "Industrial Processing of Ground-Nuts". Both studies have been printed.
A study elaborated by another INTIB consultant identified the information needs in this field of Andean Pact Countries.

Agricultural Machinery and Equipment: An INTIB consultant was in charge to prepare the field of activities to be covered in the pilot programme of INTIB, inter alia to advise on the approach, contents and preparation of 5 "profiles", to draft questionnaires, and letters, to identify manufacturing firms in developing countries, etc.
Other consultants have been in charge to produce two studies on well drilling equipment, a manufacturing profile on hand tools, to propose and to organize information (card index), etc.

For the work of all these consultants a total amount of $128.000 was spent.

In order to avoid misunderstandings it should be explained that the mandate to prepare "technological profiles" and similar publications was given to UNIDO's Industrial Information Section only in the context of new INTIB operations and the respective consultant-funds allocated in the work programme. Normally, this type of publications was to be commissioned by the substantive sections or by the International Centre of Industrial Studies.

3. Collecting Outside Information

However important the stock of information, knowledge and know-how within UNIDO may be, UNIDO will never be in a position to renounce to additional information provided by external sources. It was therefore stated in the programme for the pilot operation of INTIB to "collect selected information from external sources", to negotiate with such international sources and to develop co-operative programmes with other UN agencies, etc. Technological sources and capabilities in developing countries should especially be identified and utilized.

Efforts to identify external sources of industrial and technological information and to co-operate with them for the benefit of UNIDO's Industrial Inquiry Service have started immediately after 1967.

The Network of Correspondents

With a minimum of financial resources it has been possible to establish a network of correspondents including individual experts, scientific and industrial institutions and institutes, governments, trade and technology agencies, etc. which have been prepared to enter into contractual relations with UNIDO to deliver on request processed information and answers to incoming inquiries.

The network was mainly established as an instrument to enable the Inquiry Service to answer even complicated technological questions and worked generally to the full satisfaction of all parties concerned.

The network of correspondents consists of more than 400 individuals, institutions and organizations, of which about 5 - 10% from developing countries. Formal contracts have not been concluded with all the correspondents, many of them, especially government agencies, being prepared to co-operate free of charge. About 40 to 50 correspondents could however be classified as "permanent correspondents" being under contract and paid lump sums for their services or variable amounts for each inquiry. The financial resources which have been available for this service have always been very modest. A maximum of about $40.000 per annum have been spent for several hundred inquiries, an average of $60 to $100, a maximum of $250 per question.

The network of correspondents and its working system was based on the assumption that UNIDO should collect information material from external sources only if required and only for a limited purpose.

This principle should be maintained for INTIB also. Collecting information which is not wanted for immediate use would build up stocks of data and information material which could not be classified and stored properly.

Information on Appropriate Choice of Equipment (ACE)

The same principle was also the reason for giving up in 1974 a very ambitious project in this field, namely to collect mostly from outside sources and to develop as part of the Industrial Inquiry Service, documentation for a specialized data bank, including data on various types of industrial equipment, such as machine-tools, textile machinery, etc. The idea behind this activity was to provide better information to developing countries showing alternatives for the selection and the purchase of industrial equipment.

The idea was given up as UNIDO had to realize that such kind of data bank even if it would be limited to 4 - 5 prototypes of each item of equipment would surpass by far the human and financial capacities of UNIDO.

What remained were two special projects, the one as an attempt to establish a referral service for technical equipment, the second to provide better - if possible full - information on industrial equipment produced in developing countries and on technologies from developing countries. The purpose of this project was to encourage the transfer of technology and the trade of industrial equipment among developing countries.

To support this project four series of publications have been started late in 1974 supplying information on "Industrial Equipment from developing countries" (ACE/E No.1-3), "Technologies from developing countries" (ACE/T No.1-3), "Comparable equipment and technologies from developing countries" (ACE/CET No.1) and "Recycling Technologies" (ACE/RT No.1-3).

These publications supplying the type of "assessed" information which may be better understood in developing countries have been discontinued after the first three issues end of 1975 when the responsible staff members in the Industrial Information Section were transferred to a newly established unit on "Development and Transfer of Technology".

The ideas behind these publications have hence been resumed in the "Development and Transfer of Technolcgy Series" published by the competent unit.No.7 of this series deals especially with various technologies from developing countries.

Patent Information

As a special effort to satisfy the suggestions included in the INTIB pilot operation programme and assuming that within the area of technological information the need for information on patented proprietary technologies and techniques might considerably increase, negotiations have taken place with the scope to arrange a network of co-operation between UNIDO, the World Intellectual Property Organization (WIPO), the Austrian Patent Office and INPADOC, an International Patent Documentation Centre in Vienna. An agreement will be signed before 1979 by which UNIDO will get on request not only information on existing patents and the geographical extension of protection but also abstracts on specific patents and full patents-scripts as well as access to so called "state of the art search programmes"supplying information on groups of patents in a specific branch of industry which has hitherto been carried out by the Austrian Patent Office in co-operation with WIPO only.

INPADOC was already in the past a partner of UNIDO's Inquiry Service as one of its "correspondents" and useful source of information material contained in the accumulation of patent-literature of which they are depositories.

Other Information from External Sources

Apart from cases where specific outside information is requested and from projects which are based on such outside information,it would be unrealistic to negotiate in advance of demand the supply of additional information with the large variety of international sources. There are of course hundreds of international sources of information, including more than 600 specialized computerized data bases, abstract services, etc. There is again a great number of information services providing different programmes such as for instance the "Orbit", SDC Search Service, a division of System Development Corporation, with offices in USA, Canada and England, offering over 40 services including f.i. "Chemcon", a world-wide coverage of chemical sciences literature from over 12.000 journals, patents from 26 countries, government research reports, etc. corresponding to "Chemical Abstracts Condensates" and prepared by "Chemical Abstracts Service", Columbus (Ohio). The size of this service includes 312.000 records per year. Other services: "Compendex" corresponding to "Engineering Index Monthly", 84.000 records per year, "FSTA", corresponding to printed "Food Science and Technology Abstracts", 17.000 records per year, etc. etc.

This is to demonstrate that the only action possible under the present situation is to identify as many international information sources as possible and to get some experience through tentative trial-services in order to get an idea about their offers and their costs. As long as there are only relatively few requests for informations it would be nonsense to start negotiations or to subscribe to these kind of information sources.

One has to realize that the acquisition of additional information from outside sources requires in all cases the establishment of a system for storage and retrieval of this information material such as will be the case in the two major projects which strictly speaking are not "information" projects but will generate as a by-product an enormous amount of information which justifies their inclusion in a report about INTIB activities.

Technological Information Exchange System (TIES)

A major project to collect at UNIDO additional information from developing countries and to make it available to other developing countries is the "Technological Information Exchange System" (TIES) which is developed and implemented elsewhere within the "Technology Group".

The project is based on the assumption that many developing countries have already started to collect systematically pertinent information on contracts and agreements regarding the transfer of technologies into their country and that these countries are prepared to participate in a system organizing the exchange of such information among developing countries equally prepared to do the same.

UNIDO would act as the collecting and focal point, establishing a computerized data bank to store the information received by participating countries in order to allow as requested retrieval and dissemination within the group of participants in this exchange system.

An evaluation of this important project through this report which should evaluate first of all "INTIB"-activities has to be limited to such aspects of the project which are related to INTIB.

1. There is no doubt that TIES will generate a new and valuable stock of information thereby strengthening the capacity of developing countries to negotiate their acquisition of technology. It relates to INTIB to the extent that it serves the technology

selection process with indications of costs and conditions. This stock of information should of course be made available not only for a limited number of developing countries.

2. The information accumulated in TIES will consist mostly of commercial information. Once established it would add to the value of the data bank if some technological information could be added for instance by providing indications on patents and other kinds of proprietary technology related to the various contracts and agreements.

3. As the stock of information accumulated in UNIDO should be organized in such a way as to allow its easy utilization, the classification system adopted for TIES,"International Standard Industrial Classification" (ISIC),should be made compatible with the classification system used by other major stocks of information compiled in UNIDO (Documents List, Industrial Development Abstracts), utilizing a different system of classification (UNIDO-Thesaurus). This is merely a technical problem which can be solved.

Collection and Assessment of Feasibility Studies

An other major project still in the phase of initial discussion is based on the fact that many if not most feasibility studies which have been written during so many years as an essential component of the traditional type of technical assistance are deteriorating into oblivion in the archives and national offices of the developing countries and of international organizations.

Most feasibility studies produced by UNIDO experts are in fact buried in project files or continue at best to exist as an index number and an abstract.

Only a small percentage of them have been followed up by action. It is well known that sometimes even several feasibility studies have been produced for one and the same project, without visible results.

Out of this situation the idea was borne to establish UNIDO as something like a clearing house of feasibility studies, where developing countries could deposit feasibility studies and not only those for which UNIDO was responsible and request an evaluation of them by UNIDO, an evaluation where more than one study is dealing with the same

subject - result in some comparison of differing statements and stipulations to allow the proper selection of the best possible way to be followed.

The results of such evaluation presented in abstracted form should be supplied not only to the governments as an answer to their requests, but should also be introduced into UNIDO activities in the field of investment-promotion.

As a by-product a collection of feasibility studies would be established and be at the disposal of respective demands for information, Here again an evaluation of the project has to be strictly limited to the aspects which could affect the INTIB project. Insofar, the vision that UNIDO might become a collecting point for thousands of feasibility studies in abstracted form would add an important information material to the stock of knowledge already available - but hitherto limited mainly to feasibility studies produced by UNIDO experts.

As in the other cases care should be taken to classify the new material in such a way as to being easily retrievable and to be compatible with existing stocks of information.

To finalize a report on the activities of UNIDO's Information Service under the aspect of the pilot programme for the INTIB project one has to mention a rather important and successful project which is neither an activity to improve and expand UNIDO's own stock of information nor the result of collecting information from external sources:

4. The Guides to Information Sources

This is one of the most successful publications of UNIDO. Its purpose is to inform developing countries, governments and government agencies, institutions and organizations, enterprises and individuals on where they may usefully turn to for all kind of information. With this in mind the "guides" are a real contribution to the capacity of people in developing countries to help themselves. The selection of suitable information sources, books, periodicals, institutions, etc. is a major step towards an improvement of self-reliance in other fields, too.

The guides provide information on trade and research organizations, special information services, directories, statistics and marketing, handbooks and manuals, current periodicals, abstract services, etc., all of them with addresses and mostly with a short description.

Since the first guide (meat processing industry) was issued in 1972, 30 guides covering 30 branches of industry (including iron and steel industry, fertilizer industry and agricultural implements and machinery industry) have been issued. Whereas the first 10 guides were distributed free of charge, they are now sold through the UN sales organization. Five guides are already out of stock and had to be revised and reprinted.

The present circulation of each guide are 6.000 copies, a recognized UN-bestseller.

Exact figures on the sales are not available since the guides are sold through UN sales offices in New York and Geneva and through authorized bookstores on which UNIDO has to depend for its own publications. There is no doubt however that the guides sold for $4 each are a financial success also.

The publication of the "Guides to Information Sources" and their wide circulation will lead to long-term results which may even affect other services of UNIDO.

As the Guides offer a wide range of information sources in developed and in developing countries it might well be that new and additional ways to get information are shown up and are used by former "clients" of other information services and organizations. But this result should be accepted as a success of UNIDO.

Before concluding Part II of this report it may once more be repeated that the programme of activities to be undertaken under the pilot operation of INTIB was a limited one referring more or less exclusively to activities in the area of information.

Obviously, this programme could not be expected to be fully implemented within 18 months. As a first step - and taking into consideration the discussions and decisions by the Industrial Development Board, stating that INTIP should be complementary and should not duplicate existing information activities, one had therefore to carry out some sort of stock-taking exercise first and to co-ordinate the results of such an exercise with the targets of the pilot operation.

Hence the survey of activities under Part II by which the programme for the pilot operation might be somehow translated into the reality of current activities.

In this way it might be easier to further develop even a major "INTIB"-project of which information will be a major component anyhow.

Part III

An Attempt to Assess INTIB's Pilot Operation

The consultant, who is requested to undertake a survey and an assessment of actions taken under the pilot operation of INTIB, finds himself in a difficult position.

He may be tempted to limit himself on a pilot operation of INTIB as defined and endorsed by the Board's decision on the establishment of an industrial and technological information bank and as reflected in the work programme of the Industrial Information Section.

This may facilitate his task and would allow him to be satisfied with the survey of activities under Part II of his report, being related to the programme of the pilot operation as listed in para 34 of document ID/B/193.

Such a survey is much the more necessary, as the impression was created at some time that the work of the Clearing-house of Industrial Information since 1970 was more or less forgotten or undervalued in developing the INTIB concept.

Such an attitude - to limit the report on information activities - would however overlook important developments during the period of "pilot operation" which would render questionable the assumption that INTIB is more or less some activity to "establish a system of storing information within UNIDO and linking it to the information available from internal and external sources", as stated in the discussion in the Board.

1. The two Aspects of INTIB

The wording of the programme for the pilot operation, giving in the first instance the impression to deal mainly with "information" and therefore logically considered as a complement of existing Industrial Information Services, does not reflect the full aspect of "INTIB".

Coming back to Part II of the report on the Establishment of an Industrial and Technological Information Bank[1)] dealing with the scope of work of the bank, one may recall that the bank should not only collect and disseminate information but also assess the information and that this would also include in selected cases on-site advice and consultancy.

[1)] see page 8 - 9

It is obvious that under these circumstances the impression could arise that really two INTIBs are in the process of development, of which the first is an information activity, meant to complement and to enlarge the existing information services of UNIDO, while the second represents much more a new type of technical assistance.

This impression is even confirmed by some activities and by the wording of some letters and announcements made during the last year in an effort to promote "INTIB".

In a circular letter dated 20 October 1977 and addressed to more than 200 organizations and institutions interested in iron and steel the establishment of INTIB and the start of the pilot operation were announced. The letter continues saying that "the activities of iron and steel sector of the bank broadly comprise

a) Industrial Inquiry and Information Services;
b) Technical Advisory Services, dealing with selection and assessment of technologies"

and again: "We look forward to hearing from you in order to effectively build up a bridge across which UNIDO could provide its technological information/advisory/consultancy services in the iron and steel sector...".

More or less the same is stated in an "Overview of Activities of Organs, Organizations and Programmes of the United Nations System"[1]:

> "The Information Bank will be chiefly concerned with the selective processing and assessment of technological information, in order to provide a basis for making decisions; the information services of the Bank will be complemented by advisory and extension services ...".

In the recently published "Directory of United Nations Information Systems and Services", the "Industrial and Technological Information Bank" is also mentioned with the objective to "select, process and assess technological information .... in order to provide decision makers in developing countries with a reliable and comprehensive basis for making appropriate technology selection at the planning stage of new investments in industrial development"[2].

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1) Report prepared jointly by the Secretary General of the UN Conference on Science and Technology for Development and the Administrative Committee on Co-ordination, Doc.No.A/Conf.81/PC/19(Part I) of 31 July 1978, p.22

2) Directory of United Nations Information Systems and Services, IOB, Geneva, 1978, page 54-57

A further example of possible additional activities envisaged by INTIB is the recent mission of a staff member of the Technology Group to Venezuela on request and at the expense of the CIEPE (Centro de Investigaciones del Estado para la Producción Experimental Agroindustrial). The request was made in order to get a professional evaluation of present and planned operations of the Centre and to get recommendations for the future. In this and in similar cases links between UNIDO and institutions in developing countries fitting into the larger INTIB concept could be established, whereby these institutions might even develop into valuable sources of information also.

Similar contacts have been established to assist in the preparation of a planned Network of Technological Information in Latin America (RITLA), a project within the "Economic System of Latin America".

Another exploratory mission by a team of 3 experts took place, within the pilot operation of INTIB, for the establishment of information and consultancy services for the Andean Pact Countries in the field of food-industry. The team should inter alia discuss the existing demands for information and consulting and explore the supply potential. Attention should be given to possible links and channels of communication between INTIB and the area in both directions, i.e. as potential users and as suppliers of information. The recommendations made as a result of this mission are showing the very broad field of possible co-operation, surpassing by far the capacities of an information service and even of a "normal" advisory service.

The publicity made for "INTIB" and the results of some missions which were not backstopped by the Industrial Information Section, but which have been undertaken under the "INTIB" label are examples for a trend towards INTIB-activities or INTIB-projects which are going beyond the notion of information activities.

Nobody can of course contest the necessity for advisory services and consultancy in many developing countries. UNIDO's assistance in providing technological - and other - advice will be highly appreciated especially if these services will be supplied beyond the normal UNDP-financed technical assistance. It might however be somehow confusing and misleading that for this type of assistance the "INTIB" label is used, which has a different meaning and it may even be dangerous to wipe out a clear cut borderline between information and advice, including "assessed" information and "consultancy". There are many reasons to keep information and advice as two different types of assistance.

Main reasons are the interests of "users" themselves. They should have the right to ask for information or for advice and nobody should be entitled to give them advice if they want information. In establishing the principle that "the effectiveness of information depends on its assessment" and that therefore "the Bank will not only collect technological information but will also assess it" the impression might be created that UNIDO wants to establish something like a tutelage. This should be avoided.

The customers of UNIDO's Information Services - still several thousand people per year - must be persuaded, that they are getting unbiased, unmanipulated and unassessed information.

This does not mean that advice should be excluded. But the customer should have the right to formulate his request accordingly.

It should also be taken into consideration that advice and consultancy mean responsibility and that careful examination of each case would be necessary - often on-site - before advice can be formulated. The same information can be supplied several times if the request for information has the same objective. Advice will in most cases have an individual character designed for a specific case and not reproducable automatically.

Another point is that an information officer does not need to be an expert. He should know were to find the information required, how to retrieve it, to make sure that the source of information is normally reliable and that the information is correctly reproduced.

An assessment of information and advice needs expertise, needs weighing a given situation. UNIDO should realize that the kind of assistance which is offered by its "enlarged" INTIB-service may be very much time consuming, needs experts, investigation, often personal contacts to the "client". If in fact the promotion of this service would result in many requests, the limits of UNIDO's present capacity may be attained soon.

The time factor is also important. An information service must be able to answer 100 - 200 inquiries within a month. Projects dealing with technological advisory services may need several men/months to be implemented.

Still UNIDO is far away from reaching this point and theoretically the pilot operation of INTIB will end in some weeks.

Summarizing the present situation one has to realize that "INTIB" stands at this moment for two different types of services, both needed and both justifiable as to their substance, both considering themselves as a bridge between UNIDO and potential customers in developing countries.

For the first type of services - related to information - the name INTIB might be correct, for advisory service "INTIB" is misleading, because for an information service the stock of information material and the possibility to collect information is most important, contrary to advisory services where the professional qualification of the adviser plays the predominant role.

The coexistence of two different aspects of INTIB has to be taken into account in all efforts to assess INTIB's pilot operation.

2. Results and Experiences

The presentation of various activities under Part II of this report may provide very much the impression that still the "traditional" activities of the Clearing-house of Industrial Information are the backbone of UNIDO's activities in the field of industrial and technical information.

New elements and initiatives related explicitly to "INTIB" are still rather modest, limited to some efforts to promote the INTIB concept, to establish contacts with potential users and to learn about their requirements, to prepare some additional information material in the four areas chosen for the pilot operation (technological profiles, studies, manuals, etc.). New sources of information might be made accessible through negotiations with WIPO/INPADOC, in expanding the TIES project, through the action to assess feasibility studies and through the exploration of additional sources of information throughout the world. A problem which still is unsolved is the disclosure of information sources in developing countries and the establishment of an organized exchange of information with and among them.

The response from outside, from potential users in developing countries is unsatisfactory low in spite of much publicity for INTIB done through the channels of UNIDO Newsletter, other UN-publications, circular letters, questionnaires, etc. reporting on INTIB. The promotion compaign has resulted in numerous articles and news-items in international professional journals, but this is not what primarily was wanted.

There are several reasons for this situation. One should first remember that in the report of the Executive Director itself it was stated that "the successful implementation of a pilot operation will depend primarily on the available resources and on the number and complexity of requests from the developing countries"[1].

One should have calculated in advance that both conditions could not be fulfilled within the short period of time between the decision of the Board on 6 June 1977, the start of the "pilot operation" on 1 July 1977 and its termination on 31 December 1978.

Nobody - knowing the financial procedures in the UN and the hesitation to allot new personnel - could have expected that the requests made in Part IV of the Executive Director's report for additonal $150.000 in 1978, two professional officers in 1977 and one professional officer in 1978 would be realized.

In the "Proposed Programme Budget for 1978/79"[2] for the United Nations it was estimated that the Industrial Information Section (mentioned not very correctly under the heading "Dissemination of industrial information") should have for 1978 and 1979 108 professional m/m of which 48 for "library services", 12 for "publication of periodicals and Guides to Information Sources" and 48 for the "Industrial Information Clearing-house".

In addition, 45 professional m/m for 1978 and 51 m/m for 1979 have been included for "Establishment of an industrial and technological information bank" within the proposed budget for "Development and Transfer of Technology".

Since then, nearly all activities related to the pilot operation of INTIB have been included in the work programme of the Industrial Information Section[3] but without any sensible staff reinforcement. In addition to the original 108 professional m/m only one professional on a short-term contract for 11 months was allocated to the section.

Consequently, staff members of the already understaffed Industrial Information Section have been charged to care about special INTIB activities concerning the four branches of industry chosen for the pilot operation and to be responsible for backstopping the answers to questionnaires and the reactions to other promotion-activities.

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1) ID/B/183, para 33

2) Vol.II, Supplement No.6(A/32/6)

3) Work Programme for 1978/79, UNIDO/ICIS.83, 5 April 1978

For them this was not only an additoonal duty to their normal work, but also an unusual work which normally should have been undertaken by specialists in the area of the four branches.

The funds required for INTIB's pilot operation have obviously been incorporated in the general appropriation so that no specific allocation was made for INTIB. However, enough funds were available to finance some additonal publications, studies and consultant services as mentioned under Part II of this report.

But this cannot be a solution. For the various activities proposed in the programme for pilot operations qualified permanent staff members are required in addition to outside consultancy. This is even more valid if the "second aspect" of INTIB would be implemented.

To provide only one example:

A detailed questionnaire was sent out to 2663 manufacturers of agricultural machinery and equipment in 75 developing countries to get informations on their production and on their requirements. 419 replies were received. Even if this result - 15% response - might be considered as unsatisfactory, evaluation and backstopping of 419 replies alone with a wide spread range of requirements needs a considerable work on various levels. If UNIDO will not be in a position to react properly - the whole action should never have been started[1)].

The problem is not to start the establishment of links with potential users and to appraise their requirements in sending out letters, offers, questionnaires, etc. The difficulty begins once the action has success and the replies and requests are dropping in. You cannot examine carefully 419 replies just as a sideline of a normal working day, not to speak about necessary action to be organized to implement requests.

It would therefore have been advisable to appoint a full time staff member (professional) with some experience for each of the four branches of industry chosen for the pilot operation and not to charge four staff members of the Industrial Information Section to do the job in addition to their normal work.

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1) For details see "Report on pilot activity of INTIB relating to Agricultural Machinery and Implements" by Sir John Palmer

But it is not only a staff problem which is getting heavy in the case when promotion activities have been successful and when "number and complexity of requests from developing countries" are providing a starting point for further action.

There are some more reasons for the slow pace of getting results:

The time-table was just unrealistic. One should have remembered the experiences made with UNIDO itself and with the Inquiry Service. Both needed years to get known and to receive a considerable number of project-requests through UNDP or of direct inquiries. A new organization, a new service need time to become familiar to potential customers and clients. A pilot operation of 18 months is much too short to give any indications of the requirements. The poor response to the offer of INTIB services or to questionnaires should therefore not be taken very serious.

It should also be recognized that for potential customers in developing countries a new service might be at first somehow confusing as they got used in the past to address themselves for technical assistance to UNDP, for information to UNIDO's Inquiry Service. They might need more information about the additional opportunities offered by INTIB.

Finally, UNIDO should realize that during the last twenty years some significant changes have taken place in the field of technical assistance in general. There are several developing countries were local industrial and technological capacities have been developed, where institutions have been established which are quite capable to inform and to advise their country-men. UNIDO is also not the only organization offering information, advice and consultancy. Some industrialized countries and their big enterprises are trying hard to build up a network of local agencies for trade and market promotion. They all have realized that an essential condition for their success is the additional supply of information and advice if they want to sell their technologies and their equipment.

Perhaps the choice of the four special branches of industry for the pilot operation was also not the most appropriate. The experience of the Inquiry Service shows that information is mainly requested in the fields of the chemical industry, food processing, light industries, building materials, pulp and paper, etc. The reason might be, that the customers

of UNIDO's information services are mostly medium and small industries. The iron and steel industry and the fertilizer industry are mainly within the public sector, which has other possibilities to get informations, especially if the problem in the establishment of factories is not so much technology but financing.

In any case: 18 months after the decision by the Board to endorse a pilot operation of INTIB no spectacular results could have been expected. In the information business the situation is similar to many other branches: you have to take a considerable risk of initial investments, bearing fruits only several years later.

Circular letters, questionnaires and publications alone are not the most appropriate instruments for the said purpose. Personal contacts might be the best method and one should consider a better co-operation of UNIDO's field advisers in contacting potential users of I. I. - services - and potential suppliers of local information. These contacts should include local institutions such as chambers of industry, manufacturers' associations, research and information centres, local consultant offices, institutions which normally are themselves in permanent contact with medium and small industries.

On the higher level - as far as big enterprises and the public sector of industries, interregional institutions, etc. are concerned - missions from UNIDO-Headquarters or contacts on the level of SIDFA's are appropriate.

A special problem in this context is the establishment of links not only to potential users but also to potential suppliers of information in developing countries.

The appointment of permanent correspondents at least in such countries which are on the way to develop own technologies, would be desirable. A practical way to arrive at results would be the resumption of regional training-seminars for industrial information officers, which have been held with good results until the training activities have been transferred from the Industrial Information Section to IPD.

UNIDO should beware to develop INTIB into a mere "technological" information or advisory service. Already the tendency is evident to omit in the publicity for INTIB the word "industrial". This may lead into a wrong direction. UNIDO's potential customers are governments, institutions, enterprises and even individuals which need assistance in establishing or improving industries. As important as may be information and advice on technology, on techniques and equipment, technology cannot

be considered isolated from many other aspects of industrialization, such as labor, public utilities, management, markets, etc. etc.

This may be concluded from attempts to identify the requirements of potential users through questionnaires or individual letters.

The list of general requests made for instance by the 41 manufacturers of agricultural machinery in developing countries who replied the questionnaire, included requests for information on new markets and sales outlets, new designs of implements and equipment, new techniques as well as new materials, information on other companies who might be interested in manufacturing their products under license and finally requests for training (artisan training, management and marketing training).

Another example from practical experience:

A letter recently received from an UNIDO expert assisting the Andean Group Secretariat to implement the Andean Group Petrochemical Programme is typical. He writes: "Technical and economic information on petrochemicals is badly needed and unbelievably difficult to obtain in Lima. Whatever information is finally received is usually outdated and incomplete. Considerable amounts of money are spent by the Andean Group Secretariat and the Andean Countries in trying to get the information which is required. So far I have not come across any satisfactory source of information that meets the desired requisites. Therefore, I am attaching a set of suggestions on how the proposed Information Bank you are setting up can help satisfy this need for information on petrochemicals".

The required information includes market data (production, imports, exports, consumption), existing plant capacities, investment data, location factors, matrix of inputs (unit raw material consumption, utilities, labor, etc.), price information, overhead, sales and administrative costs, transportation costs, cost of commercialization, suppliers of process know-hows, access to know-how, qualified andean engineering companies, qualified andean petrochemical equipment manufacturers, sources of financing.

The writer finally makes some additional valuable suggestions regarding the UNIDO Information Bank.

These remarks have one common objective: to show that whatever activities INTIB will finally include, the door of UNIDO must remain wide

open for all requirements. UNIDO must know that there will be, as in the past, per year 2000 to 3000 requests for information relating to all branches of industry and to all aspects of industrialization, and there will surely be requests for "assessed" information, advice and consultancy, once potential users of this service have been informed accordingly and have been convinced that UNIDO might satisfy their needs.

Parallel to the big variety of requirements the organizational flexibility within UNIDO should therefore be maintained so to allow an appropriate and reliable response to all requirements.

Contrary to the most important component of INTIB's pilot operation, the establishment of links to potential users and the appraisal of their requirements, a component where quick results could not be expected, some more activities should have been undertaken to "mobilize and organize" and to"expand systematically" in-house information.

In fact, the stock of material for information purposes and in general the "capital" of knowledge and know-how generated by and accumulated in UNIDO - the basis for information and to some extent for advice also - is scattered all over the house and there is perhaps nobody having a general view on what is available and what is lacking.

Obviously not much was done insofar with respect to this part of the pilot operation programme during the last 18 months, with the exception, that a number of new publications, profiles and studies has been added to the stock of in-house information material.

It may be assumed that this was not the main target of the programme.

Mobilizing and organizing in-house information would mainly consist in

(a) establishing a central documentation for UNIDO. This does not mean, that all the books, reports, documents, studies, profiles, etc. would be physically stored in a document centre. What should be done is to establish a center-point where everything has to be presented in order to be registered, classified, indexed and abstracted. All abstracts would be put on computer tape so that at any moment the full "stock" of material concerning a specific matter could be identified, retrieved and made available to users.

The Industrial Development Abstracts[1] could serve as the basis of this action. Including the material which hitherto was not abstracted would probably cause an increase in size and workload of about 50 %.
The best occasion for such action would be next summer, when the new premises of UNIDO will be inaugurated. The establishment of such central documentation would practically allow for a stock-taking exercise as the basis for future policies.

(b) reviving the former publications committee, which had to approve all contracts by which consultants etc. are commissioned to produce new studies, profiles, etc. The secretary of this committee should be in charge to examine the availability of former publications to make sure that no duplication will take place anymore. This action could mean some kind of control of the continuously growing stock of publications.

(c) parallel to the control of new publications the secretary of the publications committee could be responsible for eliminating outdated and obsolete material.
The final organization of the stock of in-house information material should be decided on the basis of proposals and after consultation with a competent consulting-firm specialized in management information systems.

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Efforts to"collect selected information from external sources", as suggested equally for INTIB's pilot activities, have also been affected. by the lack of time. Unless more information is available on the requirements of potential users of the bank, the collection of additional information material might be premature, especially as such an effort might also need additional funds and personnel.

For the type and size of presently incoming inquiries the "network of correspondents" as established in the past, together with the stock of in-house information seems to be sufficient, if and when close co-operation with substantive officers in other divisions of UNIDO is possible.

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1) see page 25

In this field the results of the pilot activities are therefore also not very spectacular - with the exception of successful negotiations to expand UNIDO's access to patent information.

However, first contacts have been established to various existing external information bases and services and details were collected on conditions and use of such services. In this respect the establishment of a common library service with IAEA in the new premises may give the opportunity of a better access to some computerized information services subscribed already by IAEA.

An unsolved problem is still, as already mentioned earlier, how it could be made possible to collect systematically informations - from developing countries, especially information on domestic technologies and on locally produced equipment. The collection of such information from developing countries is difficult as most of these countries have no access to publicity through journals, prospects, etc.

This problem can only be solved by appointing "correspondents" in these countries or through contractual arrangements with local newspapers.

3. Conclusions and Proposals

I think that the consultant who is requested not only to report but also to develop suggestions for future action should for this purpose step out of a certain anonymity covering necessarily such parts of his report which relate to some identifiable facts.

May I therefore in the following short paragraphs formulate some conclusions and proposals corresponding to my personal impressions and views.

1. I am still convinced that para 61(k) of the Lima Declaration and Plan of Action, proposing measures, "including consideration of the establishment of an industrial and technological information bank, to be taken to make available a greater flow to the developing countries of information permitting the proper selection of advanced technologies", did not envisage something spectacularly new, but merely meant to improve in a certain direction and to enlarge the Industrial Information Clearing-house of UNIDO being indirectly recognized as one of the basic activities determining the role of UNIDO by para 65(a) of the same document.

2. Within the following years the "industrial and technological information bank" for which the abbreviation "INTIB" was adopted long before even a first step towards implementation was done, became some sort of a "disputed area" within the house. Finally, "INTIB" together with UNIDO's Industrial Information Services and the section for the "Development and Transfer of Technology" was included in a "Technology Group" which in my personal opinion could create another misunderstanding, namely to make believe that INTIB and the Information Services are only or mainly technology-oriented.

3. Finally, in June 1 77 based on proposals of a report by the Executive Director on the "establishment of an industrial and technological information bank" the Industrial Development Board by its decision I/XI endorsed the proposals to make the "Bank" operational through a pilot project to be undertaken during 1977-1978 which should be complementary to the present information and advisory services of UNIDO. And this was probably a third source of misunderstandings because in the discussions the role of INTIB was perhaps too much identified with that of an appendix to the Industrial Information Service alone, forgetting more or less that such a service have been operational for years. In the report of the Board it is said that "the Bank should not duplicate the work of existing information sources but establish a system of storing information (generated) within UNIDO and linking it to the information available from internal and external sources. Obviously, for the purposes of the pilot operation the character of INTIB as an "information bank" was strongly maintained. Perhaps, not enough attention was paid by the Board to the ulterior intentions as laid down in Part II of the report of the Executive Director.

4. The quantitative results of the "pilot operation" are not fully satisfactory. But nothing more could have been expected in view of the shortage of staff and time. However, a widespread promotion campaign was started, offering a programme of information and advisory services by INTIB. It became clear that the INTIB-label would cover not only information services or an information bank but also advisory services and consultancy which might be misleading as INTIB originally was used for "industrial and technological information bank".

5. I was wondering in all the discussions in this context

a) that - as already indicated - the role of UNIDO's Industrial Information Services which did a successful work for more than 1 years, a work fitting without any problem and fully into the concept of an industrial and technological information bank was obviously unknown or deliberately devalued. Hence the effort to report extensively on these activities in relation with I.I.B. under Part II of this report.

b) that the role of other than technological information and advice was obviously plaid down considerably thus preempting the results of an appraisal of requirements,

c) that finally no clear borderline between information and advice is drawn, that even the value of simple information is mostly denied, which is a danger for the spirit of impartiality to which international organizations are committed.

6. Under these conditions I feel indeed embarrassed to formulate specific proposals for the future "IIPIB" action, with the exception of those which have been included in previous chapters of this report.

In fact, such proposals could be very simple:

a) to establish an industrial and technological information bank mobilizing and organizing the full stock of available in-house information material and collecting additional information from external sources as far as required.

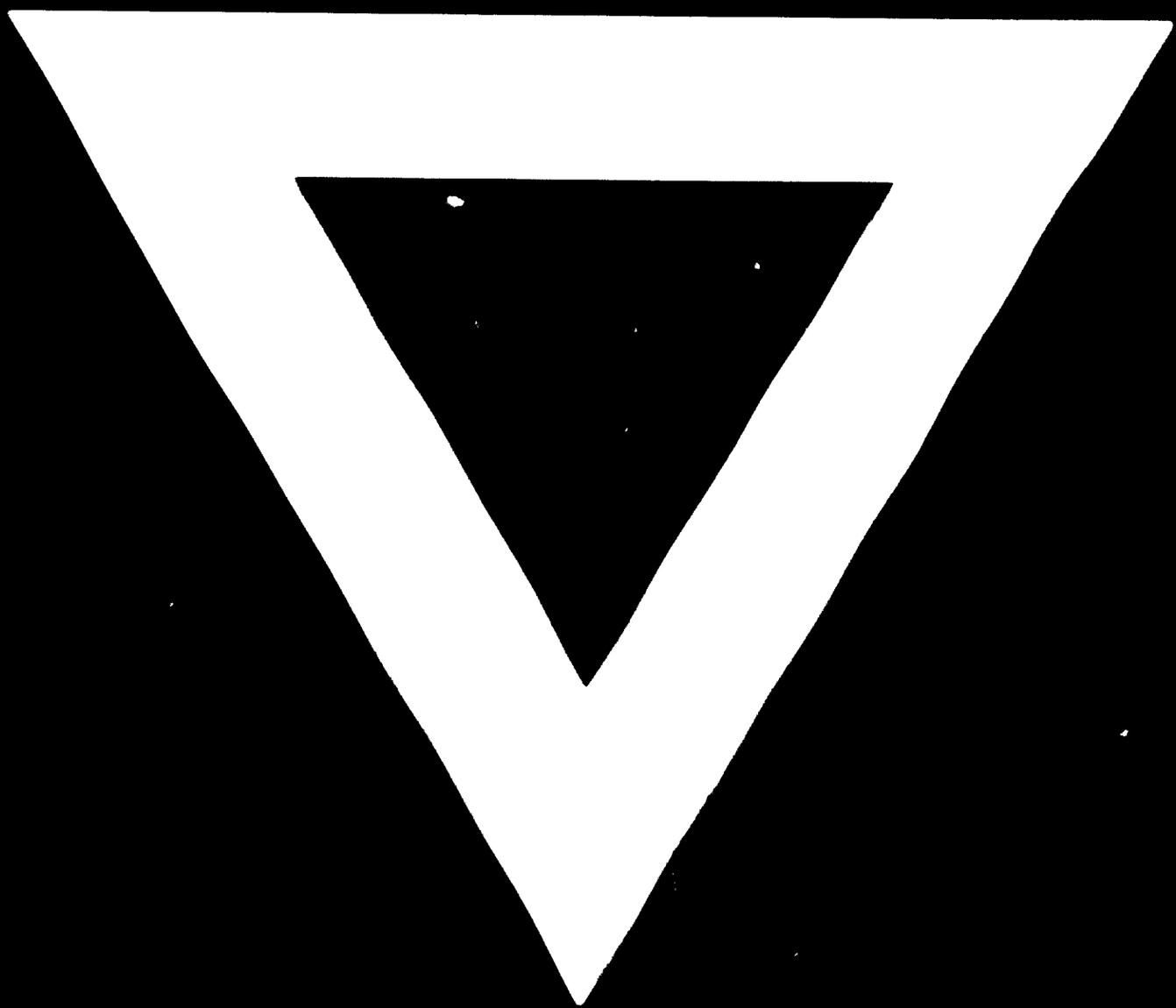
b) to utilize the full "capital stock" of the "Bank" in order to supply developing countries
aa) with information services
bb) with advisory services and consultancy
as requested by them and making the best possible use of already existing services.

c) to start or to continue a common effort to both services to promote their offers, to enlarge the links with potential users and to appraise their requirements and needs.

All this, of course, would need staff, funds and time. A clear programme for both services as well for their "common" facilities would create no problems for their coexistence and would guarantee a maximum of efficiency in the interest of developing countries.

7. I understand that this report as an "analytical review of INTIB activities" will be discussed by a group of experts in January 1979 to evaluate the activities and to draw up guideline recommendations for the form, scope, operation, management and costing of the future activities of INTIB. The results of this meeting will be the basis of a report to be submitted to the Industrial Development Board at its 13th sessions.

B-106



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