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CORIS APPLICATION FOR INFORMATION PROCESSING
ON FOREIGN COLLABORATIONS IN INDIA - A PLAN OF ACTION ,

MISSION REPORT

BY

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#### O. SUMMARY

This report is the result of the mission of two UNIDO consultants, who upon request of the Government of India, analyzed the possibility of applying UNIDO developed software /CORIS/ on information processing abstracted from technology transfer agreements, within the Ministry of Industry and Company Affairs. After having analized the present system on approval of foreign collaboration /Chapter 2/ it has been concluded that CORIS could be applied in India without major modifications of the software concerned and the existing information flows.

On this assumption detailed action plan has been prepared for the duration of seven months. As a principal prerequisit for the successful implementation of CORIS the nomination of an officer in charge is required. Particular attention has been given to the possible application of CORIS for monitoring implementation of foreign collaboration agreements /Chapter 4/.

#### **ABBREVIATIONS**

SIA - Secretariate for Industrial Approvals

DGTA - Directorate General for Technical Development

IL - Industrial Licensing Committee

FIB - Foreign Investment Board

SIA /FC
Section/ - Secretariate for Industrial Approvals /Foreign

Collaboration Section/

CG - Capital Goods /Main/ Committee

PAB - Project Approval Board

CSIR - Council of Scientific adm Industrial Research

DST - Department of Science and Technology

NRDC - National Research and Development Corporation

DC /SSI/ - Development Commission of Small Scale Industries

DID - Department of Industrial Development

NIC - National Information Centre

DCA - Department of Company Affairs

TEC - Technical Evaluation Committee

DEA - Department of Economic Affair: /Min. Finance/

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#### I. INTRODUCTION

#### 1.1. Background

With the development of more and more sophisticated information handling system, the gathering and analysis of data on industrial and technological activities are increasingly developed under computerized networks.

Aware of this trend, the Indian Government is now establishing within the Department of Industrial Development of the Ministry of Industry and Company Affairs a computerized information network aiming at <a href="inter-alia">inter-alia</a> collecting and monitoring data on industrial approvals, on production statistics in selected industries and on performance of public sector enterprises.

At the same time, conscious of the relevance of information abstracted on technology transfer agreements for the development of developing countries, UNIDO has developed TIES /Technology Information Exchange System/ which aims at the exchange of such information between developing countries, and CORIS /Computerized Registry Information System/ to enhance the capability of national technology transfer registries to handle information on technology transfer agreements. Within the framework of TIES UNIDO has developed CORIS /Computerized Registry Information System/ on technology transfer to handle this matter. CORIS has been developed to help registries on the evaluation of technology transfer agreements, on the generation of statistics on registrered agreements, on monitoring the implementation of such agreements, and to facilitate international exchange of information thru TIES, CORIS software is applicable to IBM, and IBM compatible personal computer.

Having recognized that CORIS may be an excellent basis for information system on foreign collaborations, as part of the before mentioned computerized network the Indian Government requested UNIDO's assistance in determining requirements for the use of CORIS for this purpose.

Before the present mission, a previous appraisal of the computerized processing of information on foreign collaboration was undertaken by Mr. J.F. Cramwinckel, of UNIDO Secretariate. His mission report has been an essential background document for the development of this mission.

<sup>-</sup> See J.F. Cramwinckel, "Some observations on computerized
processing of information..."

#### 1.2. Objectives

The main objective of the mission was to prepare a detailed action plan for the implementation of CORIS system adjusted to national Indian requirements, under the Department of Industrial Development of the Ministry of Industry and Company Affairs.

In persuing this objective full account has been taken of the programme for computerisation of data in the Ministry of Industry that is being developed at present.

However, given the existing scope of CORIS system we concentrated on issues dealing with technology transfer agreements, leaving aside /or only touching briefly/ other matters dealt with by the Secretariate of Industrial Approval /SIA/, industrial licensing and imports of capital goods - or by other bodies within the Ministry of Industry - e.g., Paper and Cement Directorates, Department of Company Affairs. Similarly, foreign investment projects will be approached only to the extent of their technology transfer effects.

An additional aspect of the mission was to provide advise on monitoring activities on technology transfer agreements, taking into consideration the importance of scrutinizing the effects of the implementation of technology transfer agreements as well as the feed-back between monitoring and evaluation/registration of such agreements.

#### 1.3. Meetings Held

For the accomplishment of the objectives of the mission and namely for the designing of an accurate plan of action various meetings were held with senior Government officials. Their collaboration and their keen interest on the matter have been of great help and are gratefully acknowleged.

#### A list of the officials met is provided below:

- MR. P. MURARI, Additional Secretary to the Government of India, Department of Industrial Development
- DIR. N. SESHAGIRI, Additional Secretary to the Government of India, and Executive Director, National Informatics Centre
- MR. P.R. LATEY, Secretary /Technical Development/ and Director of Directorate General for Technical Divelopment
- MR. Y.A. RAO, Director, Department of Industrial Development
- MR. M.P. RAVINDRA, Principal System Analist, National Informatics Centre /Charged of the Programme for Computerization of Data in the Ministry of Industry/
- MR. B.S.V. RAO, Deputy Director General Engineering, D.G.T.D.
- MR. J.S. RANA, Deputy Joint Secretary, Department of Industrial Development
- MR. M.E. MADHUSUDHAN, Industrial Advist, Management System Division, D.G.T.D.
- MR. SHIR KUMAR, Senior Analyst, Department of Industrial Development
- MR. K.C. DWIVEDI, Deputy Director, Management Information Division, D.G.T.D.

Meetings were also held with Dr. M. KAMAL HUSSEIN, UNIDO Senior Industrial Development Field Adviser /SIDFA/, on the objectives of the mission and on the suggested plan of action for implementation of CORIS system. This exchange of views has been fruitful and helpful for the final writing of the present mission report.

#### 2. BRIEF OUTLINE OF PRESENT SYSTEM

#### 2.1. Jutline of the SIA Activities

The Secretariat for Industrial Approvals, which is under the Department of Industrial Development, is the focal point for industrial undertakings to obtain various types of licences, including those for entering into technology transfer agreements. Broadly speaking there are three /3/ main types of approvals:

/i/ Industrial licenses, for setting up of industrial undertakings "thin the country, when investments are above 5 crores, at is 50 million rupees/; for investments between 5 crores and 35 lakhs /that is, 5 million rupees/ only a registration with D.G.T.D. is required; for small sized investments below 35 lakhs, authorization is granted by State Governments.

/ii/ Import of Capital Goods.

/iii/ Foreign collaboration, encompassing both technology transfer agreements and foreign investment projects. Foreign investment is sought to those sectors where internal capacity is not enough for the successful development of industrial undertakings and is generally limited to 40% of equity. When very sophisticated or fast-moving technologies are involved or when all the production is for export higher levels of foreign participation can be allowed.

Composite licenses involving more than one type of the approvals referred to above are also obtained through SIA.

#### There are four /4/ main approval committes:

1. Licensing Committee - Industrial Licenses

- 2. Capital Goods /Main/ Committee Capital Goods
- 3. Foreign Investment Board Foreign Collaborations
- 4. Project Approval Board Composite Licenses

For evaluation of, and comments on, specific aspects of the projects the SIA relies on a large network of bodies, which include <u>inter alia</u> the various Departments of the Ministry of Industry, the D.G.T.D., the Department of Science and Technology and the Administrative Ministry for the industry concerned. Comments from other Ministries /namely Commerce and Finance/ can also be required.

A summary flowchart of the system is presented in the next page  $^{1/}$  /FLOWCHART A/.

As pointed out before, this report will be mainly concerned with technology transfer agreements. Therefore a more in-depth analysis of the approval process of foreign collaborations, and especially of technology transfer agreements, is to be provided.

# 2.2. Approval of Technology Transfer Agreements and Information Flows Thereof

#### 2.2.1. Summary of Approval Process

The approval of technology imports and of the terms and conditions of technology transfer agreements in India is a complex process where several bodies at different levels are involved.

<sup>1/ -</sup> We thank Mr. M.E. Madhusudhan of D.G.T.D. for the valuable inputs for drawing this flowchart.

Two aspects are worth mentioning, as major features of the system:

#### /a/ The decentralisation of approval granting power

Only contracts with anticipated payments above 50 lakhs and/or involving foreign equity participation are submitted to the Foreign Investment Board; otherwise, the approval power rests with the Administrative Ministries. When the technology transfer agreement is a part of a new industrial project, it should be submitted to the Project Approval Board.

#### /b/ Relevance of Technical Aspects

Technical evaluation of the interest and usefulness of technology imports is given a strong emphasis. Unlike other countries where economic and legal issues are major concerns at the expense of technical matters, in India each proposal of technology transfer agreement is carefully evaluated on its technological merits. Key issues include the following: indigencus availability of the technology; its suitability for Indian needs; its degree of sophistication and the kind of inputs required; the capabilities of licensor and licensee for an effective transfer of knowledge, etc. Therefore, information systems to be designed should, to the extent possible, pay attention to those topics.

A flowchart of the approval process is presented on the next page  $^{1/}$  /FLOWCHART B/.

<sup>1/-</sup> This flowchart refers to agreements above 50 lakhs and which are not part of a new investment project.

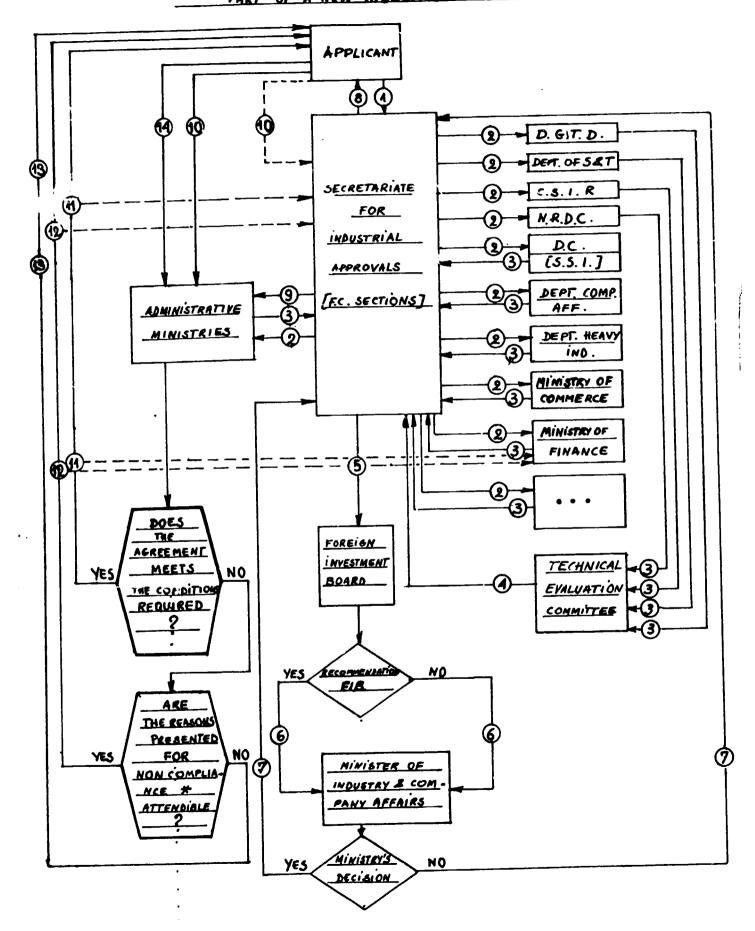
### FLOWCHART B

4.4

FLONGUART OF APPROVAL PROCESS FOR TECHNOLORY

TRANSFER AGREEMENTS ABOVE TO LAKHS AND NOT

PART OF A NEW INNESTMENT PROJECT.



#### STEPS OF APPROVAL PROCESS

#### /See Flowchart B/

- 1. Submission of application form
- 2. Forwarding of copies of the application form for comments on the various aspects of technology import
- 3. Comments of the various Governmental bodies /The existence of a Technical Evaluation Committee, where technical matters are dealt with, should be stressed. This Technical Evaluation Committee has representatives of the different Governmental departments dealing with technical issues - namely D.G.T.D., Department of Science and Technology, Council of Scientific and Industrial Research, National Research and Development Corporation. It seems that D.G.T.D. plays a central role on technical evaluation/.
- 4. Comments of Technical Evaluation Committee on the technology import concerned
- 5. Summary for consideration of the F.I.B. /This summary includes an abstract of relevant points of the application forms and the comments received by F.C. Section from the various departments/
- 6. Information to the Ministry of Industry and Company Affairs on the decision recommended by the F.I.B.
- 7. Information to SIA on the decision taken by the Minister of Industry and Company Affairs
- 8. Letter to the applicant conveying the decision on the technology import:
  - a/ Refusal, explaining the underlying reasons,
  - b/ Conditional Approval
- 9. Notification of the Administrative Ministry concerned on the decision taken

- 10. Submission of the text of the agreement, duly signed by the contracting parties /a copy should be sent to the Secretariate for Industrial Approvals/
- 11. Letter to the applicant stating that the agreement has been taken on record by the Administrative Ministry. Copies of this letter are also sent to:
  - Ministry of Finance /Department of Economic Affairs/ to inform the Bank of India that the agreement is accepted and payments stemming from it can take place
  - Secretariate for Industrial Approvals /F.C. Section/
- 12. Letter to the applicant informing that the text of the agreement failed to comply with such and such conditions of the letter of approval, but nevertheless the agreement will be taken on record /either due to the well-founded reasons for non compliance or due to the small relevance of non compliance aspects/. Copies of this letter should be sent to the Ministry of Finance /Department of Economic Affairs/ and to the Secretariate for Industrial Approvals/
- 13. Letter to the applicant stating that the agreement can not be taken on record due to failure in complying with specific conditions set down in the approval letter. The applicant has six months /subject to extension under some conditions/ for modifying the agreement in order to meet the conditions required.
- 14. Submission of a new text of the agreement. This implies a new scrutiny by the Administrative Ministry on the fulfilment of the conditions required /the flow is as after 10/. If the applicant does not submit a new text within 6 months or does not apply for extension of the submission period, the practical effect will be a rejection of the agreement.

#### 2.2.2. Information Flows

The specific characteristics of the evaluation process of technology inflow into India, through technology transfer agreements, have several implications from the information view point. Such implications should be fully taken into account for the implementation of CORIS system, since they require some adjustments to be made on this system.

The most relevant features of the present evaluation system on what information flows are concerned seem to be the following:

/i/ The decentralization of approval-granting power according to the characteristics of the technology transfer agreements concerned, implies a diversification of information flows whose connections and inter-linkages are to some extent weak or even lacking;

/ii/ Since the recording functions are ascribed to the various Administrative Ministries /according to the industrial sector where the technology is to be applied/ there is no single central agency charged of the registration, or recording, of all agreements entered into by Indian companies.

/iii/ The main specific information source for evaluation of the proposals for technology imports is the application form. The text of the agreement is submitted for approval only at a late stage of the evaluation process: after a decision on the desirability and terms of importing technology /from a technical standpoint/ has been taken.

/iv/ Application form for technology transfer agreements is the same than for foreign investment projects, since both are forms of foreign collaboration. However, this leads to the inclusion of several questions that only matter for foreign investment projects and are not relevant for the acquisition of technology by independent Indian firms.

/v/ The importance of technical evaluation implies that the gathering, analysis and dissemination of information on the availability, suitability and sophistication of technologies plays a key role on the overall information system. In this respect, D.G.T.D. as the central technical advisory body for the whole Ministry /and even for other Government agencies/ should be considered as a focal point on technical matters.

/vi/ Information collected from other bodies, either within or outside the Ministry of Industry and Company Affairs, through their comments on applications for technology imports could not be fully appreciated; it seems however, that its importance should not be neglected.

/vii/ Information flows between SIA - FC Section and Administrative Ministries should work properly, since they share, to some extent, the responsibility for contacts with applicants. Particular attention should be paid to the information by Administrative Ministries to SIA - FC Section and their taking on record. Information flows on abandoned technology imports application should be worked out as well.

#### 3. ACTION PLAN FOR IMPLEMENTATION OF CORIS

#### 3.1. Broad Outline

Computerized Registry Information System /CORIS/ is designed as a tool for strengthening the major functions of technology transfer registry /SIA/ by providing technical means for more efficient data collection, storage, processing and information dissemination as well as by providing interlinkages with other computerized information systems either national, regional or international. Its advantages are particularly well demonstrated in case of larger data collection with high density of information streams, which are difficult for manual handling. CORIS increases the speed of data processing, improves accuracy of information and provides a good base for non-routine data inquiries. The advantages of CORIS should be also seen in the context of a rapid computerization of many other relevant national, regional and international information systems. Thus the direct interflows of computerized information with relevant government institutions, technological information banks, investment promotion centres, investment and commercial banks, trade centres, INTIB and TIES could be ensured, reducing the time, efforts and costs of such operations. At the same time due to increase and enrichment of the data base at the SIA disposal it creates proper conditions for the improvement of the throughness and soundness of the decision making process.

#### 3.1.1. Nominating Officer in Charge of CORIS Implementation

The implementation of CORIS requires certain adjustments in the SIA information system and will definitely affect day-to-day of the whole Foreign Collaborations Sections personnel. In order to minimize possible disturbances during the first stage of implementation it is advised that for those acrivities associated with CORIS implementation the project-type organization will be adopted. The essence of such approach is that implementation of CORIS will be seen as a special project with its definite goals and time limits. This project should have its coordinator, i.e. officer in charge of implementation of the CORIS system. For such temporary post a senior level officer should be appointed, preferably having some experience in the area of information, documentation and computerization. Ideally such responsibilities should be given to the present or prospective Head of ID Unit /Information and Documentation Unit/. Obviously the process of implementation of CORIS should be carefully monitored by the member of management of the Secretariat for Industrial Approvals and therefore it is advisable that the co-ordinator should report directly to the mentioned above member of management of the SIA.

#### 3.1.2. Establishment of the ID Unit

At a certain level of maturity of registry /SIA/ operations and sophistication of its information system, the need arises for the establishment of a nodal unit dealing with collecting, processing, disseminating and storaging information. At present such trend has been already reflected in some registries where functions associated with information handling have been assigned to one or more officers. The implementation of CORIS would definitely require strengthening the organizational framework for information handling. This can be achieved through establishing within the Secretariat for Industrial Approvals the Information and Documentation Unit /ID Unit/. Before reaching a final decision in that field following questions shall be resolved:

- -major functions of ID Unit within the SIA;
- -physical and human resources which might be allocated to the ID Unit;
- -internal organization of the ID Unit.

The basic principle which has to be born in mind while designing the organizational pattern of the ID Unit is the conceptual and functional unity of the manual and computerized information system. It would be therefore highly advisable that both systems be operated by the same unit. The final decision on the functions, size and internal organization of the ID Unit will depend on the specific conditions prevailing the SIA. This includes, inter alia:

- yearly agreements load;
- type of agreements registered;
- number of personnel employed;
- functions performed by the SIA /whether limited only to the registration or extended towards monitoring, advisory services, etc./;
- position of the SIA within the government institutions;
- internal organization of the SIA.

The above factors should be considered in a dynamic perspective having in mind final solution of the computerized in formation system on all activities of the SIA /industrial licences, import of capital goods adn foreign investments/.

The responsibilities of the ID Unit defined in its terms of reference will depend basically on the pattern of ID Unit chosen within the SIA. The major functions of the ID Unit can be defined as follows:

- Coalecting and filling of basic information from the companies applying for registration;

- supervising the flow of documents during the evaluation procedure;
- drafting and mailing documents in connection with the final registration;
- operating a central filling system;
- operating an internal library within the SIA;
- assisting officers of the SIA in obtaining additional data from outside sources;
- responding to the ad-hoc requests for information from the local companies, government institutions, etc;
- abstracting aggregated data for various publications and studies;
- elaborating, editing and disseminating of aggregated publications and studies;
- collecting and processing of monitoring reports;
- operating CORIS system;
- handling national and international exchange of information
   /both manual and computerized/.

Taking into consideration specific circumstances prevailing in the country the SIA may put major emphasis on some of the functions whereas leaving aside /at least for the time being/ other functions. The terms of reference presented above is by no means exhausting one and it can be supplemented by other functions which the SIA finds important for its operations.

3.1.3. The Modification and Adjustment of the Model Contract

Card and Other Relevant Documents to the Requirements

and Needs of the SIA

The Contract Card is being considered as the principal input for CORIS system. Taking into consideration the experience

Model Contract Card /see Annex I /. Before starting the implementation of the CORIS system the information content of the Model Contract Card should be carefully examined and adjusted to the SIA requirements and needs. As the result of the mission it has been recognized that the content of information of Model Contract Card in general suits the needs and requirements of the SIA and only slight changes will be required. Independently of that there is a need to adjust existing forms like Application Form Foreign Collaboration /General/, Application. Form Foreign Collaboration /NRI/ and Annual Progress Return FC /Proforma Report/ to the CORIS system requirements.

The revised version of the Model Contract Card will be necessary for guidelines preparation for CORIS software modification and adjustments so that it can suit the conditions and needs of the SIA.

#### 3.1.4. Defining Standard Rules for Information Flows

The establishment of ID Unit and the introduction of the principal input forms to CORIS system shall contribute to the improved efficiency of the internal information system thus contributing to the improved efficiency of the FC Sections of the SIA. The next step in that direction is the definition of standard rules and procedures with respect to handling information within the SIA and exchanging data with outside organizations and institutions. Naturally, in each country there are general rules and procedures with respect to handling documents and arranging information flows by the government agencies. The internal procedures for the SIA shall be based on those general rules but deal in more detailed manner with problems and issues specific for the SIA operations.

It is advised that the standard rules for handling information /both in the manual and computerized system/ be defined in the internal decree issued by the Head of the SIA.

## 3.1.5. Selection and Acquisition of Microcomputer for

#### **CORIS System**

Before reaching final decision on the acquisition of microcomputer suitable for CORIS a careful analysis has to be made of the existing options in that field. Following elements should be taken into consideration:

- principal requirements with respect to the hardware resulting from the overall characteristics of the CORIS system;
- availability of informatics equipment on the local market, its characteristics, conditions for purchase, service, etc.;
- general rules for the acquisition of informatics equipment by the government institutions in India;
- recommendations made by UNIDO Secretariat and those made 'yy UNIDO experts.

The acquisition and installation of microcomputer represents the final step in the establishment human, technical and organizational framework for the effective implementation of CORIS system.

#### 3.2. Detailed Action Plan

NO	ACTIVITIES DESCRIPTION	TIME	INPUTS	OUTPUTS	REMARKS
3.2.1	Decision on implementation of CORIS system	0	Management of the De- partment of Industrial Development	Start-up of the Pro- ject	
3.2.2	Nomination of officer in charge of the implementation of CORIS system	0	Management of the Sec- retariat for Industrial	Officer in charge of the implementation of	
į	within SIA Foreign Collaborations	!	Approvals	CORIS system	
3.2.3.	Preparatory works on establishment of the ID Unit within SIA: - major functions of ID Unit - position of the ID Unit within SIA - physical and human resources	0·plus 2 mornths	ORIS officer in charge under supervision and with approval of the Management of the Secretariat for In- dustrial Approvals	Detailed functional concept of ID Unit organization and activities	
	which should be allocated to the ID Unit - internal organization of the ID Unit - terms of reference for the ID Unit		usu iai <sub>M</sub> arwais		
3.2.4.	The modification and adjustment	0 puls 3	CORIS officer in charge		
	of the Summary Card /Contract Card/ and other relevant docu-	morius	with assistance of UNIDO consultant /4	to the SIA needs and requirements.	
	ments to the requirements and	•	weeks/	- Summary Card	
	needs of the SIA and selection		,	- Application Form	
	of the microcomputer.			FC /Gen/	
	- Summary Card /Contract Card/			- Application Form	
	- Application Form FC /Gen/			FC /NRI/	
	- Application Form FC /NRI/			- Proforma Report	
	- Annual Progress Returns FC	ļ		Selected type and con-	
	- Selection of microcomputer			figuration of micro-	
3.2.5.	Guidelines preparation for CORIS	1	UNIDO consultant	computer Prepared detailed	
	software modification and adjust-			guidelines for CORIS	
	ments to the SIA needs based on	1		software modification	
	the outputs of point 3.2.4.	}		and adjustment to	
				the SIA needs	
3.2.6.	Defining standard rules for in-	C plus 4		Approved standard rules	
	formation on TT agreements flows	manths	1	for information /docu-	
	within the SIA in CORIS system environment	l		ments/on TT agreements	
3.2.7.		0 plus 4		flows within the SIA	
3.2./.	microcomputers	months	CORIS officer in char-	Microcomputer ordered	
3.2.8.	<u>-</u>	0 plus 5	_	Start-up of the ID Unit activities	
3.2.9.	Preparation of Summary Cards	to be es-		Set of filled in Sum -	
	/filled in/ based on approved		with support of consul-	mary Cards for the pe-	
	conditionally approved and rejected TT agreements for the period of last five years /1981-1985/	on possible conditions	ting company if nexessa -ry	riod of 1981–1985	
3.2.10.	1	O plus 6 months	Foreign Trade Data Cen- tre, Warsaw, Poland, on agreed with UNIDO bases	Modified and adjusted to SIA needs CORIS software	
3.2.11.	Delivery of CORIS software to the SIA	O plus 6,5 months	UNIDO Secretariat	CORIS software ready for use delivered to the SIA	

	T			
3.2.12.	Installation of the microcomputer	0 plus 6,5	CORIS officer in charge	Microcomputer installed
3.2.13.	Implementation of CORIS system including training of operators and wers of SIA CORIS SYSTEM	0 PLUS 7 months	ID Unit staff with assistance of UNIDO consultant /4 weeks/	OORIS system implemented and operators and users of SIA. OORIS system trained

#### 4. MONITORING ACTIVITIES

Monitoring activities developed by the Ministry of Industry and Company Affairs can be classified under two /2/ categories:

/i/ Monthly Production Reports
/ii/ Annual Progress Return /FC/

#### 4.1. Monthly Production Reports

This is the main monitoring system on the activity of industrial undertakings in India. However, it is not deemed to monitor the implementation of specific technology imports.

Monthly production reports should be submitted by all companies licensed/registered to undertake industrial activities in designated sectors and not just by firms engaged in technology imports. Collection and analysis of data are performed by D.G. T.D.

The major objectives of this system include the following:

- identification of production trends in the various industries

and regions,

- comparison between actual and targeted production /according to Development Plans/,
- estimation of capacity requirements,
- identification of the main bottlenecks responsible for unsatisfactory production.

Not-withstanding the remarks presented above on 'ts objectives, it is considered that this system can be useful, to some extent, to monitor the implementation of technology transfer agreements, mainly for cases when company's production is largely based on imported technologies under existing contracts. Therefore, adequate linkages between this system and the annual progress return /FC/ scheme should be established 1/.

#### 4.2. Annual Progress Peturn Proforma /FC/

When conditional approval for entering into a technology transfer agreement is granted by FIB, an annual progress return proforma for submission of annual data on the implementation of the agreement is annexed to the letter of approval.

Copies of such annual progress return proforma /APRP/, duly filled in by the Indian firm should be forwarded by 31st January each year to the following authorities:

- Administrative Ministry concerned
- D.G.T.D.
- SIA /Foreign Collaboration II Section/
- Ministry of Finance /DEA/

<sup>1/ -</sup> A question to be asked is whether this monthly reports are not seen by companies as an excessive work load, thereby reducing both the percentage of replies and their reliability. Although taking into account that companies are obliged to produce most of monthly data inquired for other purposes, it seems that ways of easening the system should be considered. A possibility would be the selection of a sample of companies /or sectors/ for monthly scrutiny while all the others could inquire on a quarterly basis.

This APRP is intended to constitute a progress report on the development of the contract during the previous calendar year. It includes information on various subjects of either economic or technical nature. By and large it addresses to the following aspects 1/:

- identification of the parties and products involved
- nature of the agreement
- capital investment
- licensed and actual capacity
- annual production
- annual payments
- annual exports
- employment and training
- arrangements for R and D
- duration of the agreement

It seems however, that most companies do not send these annual proformas. This means that the system is not really working at present.

Specific analysis of the implementation of technology transfer agreements seems to be undertaken only in connection with requests for renewal. When the parties apply for renewal, a close examination of the efforts developed by the Indian company for assimilating and mastering contractual technologies is performed by the Administrative Ministry in cha ge of the industry concerned.

<sup>1/
-</sup> A copy of the proforma is included as Annex II to this
Report

#### 4.3. Some Comments on Monitoring

Monitoring of technology transfer agreements at both micro and macro level is an essential mechanism to ascertain the real terms and conditions under which technology is being acquired and to identify the steps taken towards an effective technology transfer, that is, the assimilation and later development of technologies imported. Monitoring will be paramount for identifying shortcomings and bottlenecks in technology imports and to design the appropriate policies for solving, to the extent possible, such problems.

CORIS system already incorporates a mechanism for analysing information on the implementation of the contracts and to compare it with expectations.

Since an action plan has been designed for the implementation of CORIS system in India it seems that one should profit from this opportunity for giving a new impetus to monitoring activities. Furthermore, the seeds for undertaking monitoring activities on technology transfer agreements already exist in the present annual progress return proforma.

The following preliminary suggestions are therefore put forward:

- /i/ Establishment of a monitoring system on technology transfer agreements in accordance with CORIS guidelines, adapted to Indian needs, based on the existing APRP.
- /ii/ The APRP should be "revitalized" in two ways:

- Modifying its contents taking into account CORIS guidelines and, to the extent possible, monthly production reports. A comparison between APRP and CORIS Contract Card Actual Project Data has been worked out in Annex III. It can be concluded that the adjustments required are not of great significance: they concern mainly the inclusion of information on net sales, total imports, profits and training in India; data on employment and on yearly payments should be slightly changed.
- Encouraging companies to provide adequate and timely replies.

/iii/ Identification of the most suited location for monitoring within the Ministry of Industry, taking into account both CORIS requirements the need for contacts with firms for deeper analysis of some contracts, monthly production reports and the capabilities of D.G.T.D. for monitoring technical aspects.

/iv/ Analysis of the possibility of getting financial data on effective payments provided by teh Bank of India.

/v/ Implementation of monitoring should be carefully deve - loped, in order that data collected from companies should be effectively analysed in accordance with the system's objectives. A step-by-step approach - on a sectoral basis, for instance - could be envisaged.

The suggestion provided should be seen only as a first approach to the matter. A deeper analysis of monitoring objectives has to be worked out, so that an effective and useful system - and not a mere data-colelcting-device - could be established.

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#### ANNEX II

#### ANNUAL PROGRESS RETURN

#### PROFORMA

- 1. Name of the Indian Company:
- 2. Name of the foreign collaborator with the name of the country:
- 3. Names of products being /i/ manufactured by the company /ii/ under foreign collaboration/ /iii/ as subsidiary of foreign firm: /iv/
- 4. Name of the Industrial Unit and its location /District and State/:
- 5. Nature of agreement-Financial Collaboration/Financial-cumtechnical/ Technical:
- 6. Capital Investment
  - /a/ Total equity investment;
  - /b/ Amount of foreign equity investment;
  - /c/ Percentage of foreign capital to total capital:
- 7. Total licensed capacity/approved capacity /for each item mentioned in Column 3 above/.
- 8. Total capacity actually installed: /for each item mentioned in Column 3 above/.
- 9. Annual production of the above from beginning up-to-date

10. Annual requirement of raw materials /for each item/ imported/indigenous:

Item Quantity Value

Quantity

Value

Item

11. Royalty, if any paid to the foreign collaborator:

> /a/ Rate of royalty approved and basis of calculation; /i/ Internal Sales;

/ii/ Exports;

/b/ Royalty paid so far year-wise:

12. Lumpsum payments to the foreign collaborator including free shares, if any:

/a/ Total payment envisaged in the
 agreement:

/i/ Technical know-how:

/ii/ Engineering fee:

/iii/ Amount of free shares:

/iv/ Any other payment:

/to be specified/

/b/ Payments /already made year-wise/;

13. Dividends:

Dividends already remitted/due for remittance on the foreign share-holding year-wise:

- 14. Actual exports made by the Company so far as this collaboration is concerned year-wise/ Item Quantity Value
- 15. Technicians:

/i/ Number of foreigners employed as on

1.1.1969

/a/ Technicians:

/b/ Others

/ii/ Number of Indian trained abroad
/year-wise/ Duration:

- 16. Reference No. and Date of Government's approval of the Initial agreement:
- 17. Period of agreement:
- 18. Date of expiry of the initial agreement
- 19. Renewal if any,

/a/ period for whih renewal accorded;

/b/ reasons for according renewal;

/c/ date on which the agreement will finally expire:

20. Arrangements for research/Development made during after the expiry of the agreement.

#### ANNEX III

#### **ANNEX**

# ANNUAL PROGRESS RETURN PROFORMA AND CORIS CONTRACT CARD ACTUAL PROJECT DATA A COMPARISON

#### a/ PROJECT DATA NOT INCLUDED IN THE APRP

\* NET SALES

This is a major consideration in the implementation of the agreements. Its inclusion in the APRP is therefore strongly recommended

\* IMPORTS

APRP only tackles data on the imports of raw materials. Other imports are not considered. It is suggested that data on

- total imports

- raw materials imported /§10/ should be asked from companies

**x** EMPLOYMENT

A different breakdown of employment should be worked out. Co-ordination with the application form is suggested. Furthermore, additional employment generated from the project should be incorporated

**■ PROFIT BEFORE TAX** 

The present APRP only demands data on dividends paid to the technology owner. Collection of data on overall profit can be helpful, namely for the computation of LSEA and other economic evaluation indexes

NUMBER OF PERSONS
TRAINED /AT HOME/

The APRP only requires information on Indian people trained abroad /§ 15 ii/. However, local training programmes could be of major relevance for the assimilation of the technology

**X** YEARLY PAYMENTS

It is to be recalled however, that yearly payments can be easily derived from the APRP making § 11 /b/ Royalty + § 12 /b//Lump Sum/ + § 13 /Dividends due to free shares got from the contract/

Actual payments for technical assistance, /honoraries, technician fees/ are not included in APRP. Therefore, some rearranging of these issues could be developed, taking into account the application form and the characteristics of technology payments most commonly used by Indian firms

### b/ APRP DATA NOT INCLUDED IN CONTRACT CARDS 1/ /CORIS STANDARD/

- \* Location of Manufacturing Unit /94/
- Capital Investment /§6/
- ▼ Total Licensed/Approved Capacity /§7/
- \* Total Capacity Installed /§8/

provisional/expected installed capacity is sought under TIES system

However, information on

m Dividends /§ 13/

Only dividends remmited to the licensor due to the agreement are considered in contract card /project data/. They are not separately shown

■ R and D Arrangements /§ 20/

The contract card only provides data on R and D expenditures

 $<sup>^{1/}</sup>$  - Main aspects. Details have not been considered.