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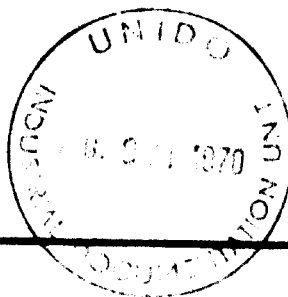
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Request to
the United Nations Development Programme (Special Fund)
from the Government of Thailand
for Assistance in the Establishment and Operation of
the Centre of Industrial Information and Studies

Bangkok,
October 1970

Id. 70-5899

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A. Summary Data

Country: Thailand

Title of the project: Centre of Industrial Information and Studies

Special Fund Allocation: US\$473,800

consisting of

Special Fund Contribution: US\$418,923

Government Contribution towards

local operating costs: US\$ 54,877

Government Contribution in kind US\$499,328

Duration of the project: three years

Co-operating Government Agency: Ministry of Industry, Industrial
Economics and Planning Division

B. Background Information

1. The intention of the Government to establish the Centre of Industrial Information and Studies is an outcome of the understanding that Thailand has achieved a certain stage in its industrial development at which rather crucial policy decisions will have to be made, and that reliable information is a fundamental requirement for such policy decisions. It is, therefore, desirable to outline as background information the major characteristics of the present stage of industrial development.

2. The economy of Thailand has developed rapidly during the last decade, and the manufacturing sector belongs to the most dynamic ones (average annual rate of growth between 1960 and 1968 was 12.7 per cent). While industry was rather negligible ten years ago, it contributes now over 15 percent to the GNP. Though the primary processing industries (rice, sugar and saw milling) are still the most important industries in terms of output and value added, a nucleus of modern industrial sector has been created as a result of the fast growth of durable consumer goods and intermediate goods (petroleum refinery, non-metallic minerals, etc.).

3. The rapid growth of industry has been the result of several beneficial factors (continuous balance of payments surpluses due to stable agricultural exports and inflow of foreign capital, monetary stability, development of industry-minded entrepreneurial class, cheap labour, etc.). However, it has been also influenced by an inward-looking, import substitution policy and by the investment promotion system.

It should be noted that a private market economy is the basic principle of the Government policy; it reflects itself, i.e., in the absence of a noticeable public sector in the industry. Yet the Government plays an active role in stimulating and directing industrial development. In 1954 the Promotion of Industrial Investment Act was passed; it sought to stimulate private investment in industry by guaranteeing freedom from nationalization and giving selected "important" firms exemptions from import taxes on raw materials and capital equipment and income tax exemption for the first five years of operation. Foreign investors were guaranteed the repatriation of capital and profits. Since 1959, when the Board of Investment was created to implement the Act, more than 500 industrial firms have been granted Promotion Certificates, out of which almost 400 started operations. The total investment in promoted industries during the decade cumulated to approximately US 300 million, two thirds coming from local investors and one third from foreign investors.

Almost equally important as incentives has been the assumption of protection against competition, which has been implied by granting a Promotion Certificate. It has been almost automatically expected by the firms that, once being promoted, they will also be sufficiently protected against import of competitive products; in most cases their expectations have been satisfied. The tariffs have ranged from 5 to 80 percent in addition to some quantitative restrictions on certain products. Most consumer goods and intermediate products produced locally are protected by tariffs of 40 - 60 percent while capital equipment and

raw materials not produced locally have tariffs of 5 - 15 percent. This level of tariffs secured the domestic market for domestic producers so that they were not compelled to approach the more difficult export market as long as the domestic market was sufficient.

Since the import substitution did not curtail imports (increased import of raw materials for domestic production) and the repatriation of foreign investors' profits is increasing, there exists now grave concern over the long-term development of the country's balance of payments situation; it is recognized that the country is at a cross-roads and that an export-oriented industrial development strategy with a set of consistent policy measures has to be formulated if successful industrial development is to be maintained. The new orientation of industrial policy should effect the incentives system, the tariff structure, licensing, etc. Business and corporate taxes also demand critical review.

1. In order to substantiate the formulation of industrial policy measures by objective knowledge of the economic structure data availability has to be improved. The same applies to industrial planning, which has been based so far on rather incomplete and sometimes contradictory data. It is felt that both for policy formulation and for industrial planning more data are needed than that which can be provided by an improved statistical service (for example, detailed information on the performance of promoted industries; data on endowments of selected branches with specific production factors such as skills, capital, etc.; calculation of aggregated parameters such as value added per worker; capital/output ratio, etc. for specific branches; capacity utilization; net balance of payments effects of investment in selected industries, etc.). These data are partly available, but inconsistent and scattered over many institutions; partly, they will have to be obtained by an improved reporting system. It should be noted in this context that the Factory Act 2512 (1969) requires all factories using machinery of two horse power or more or employing seven or more workers to obtain a license from the Ministry of Industry which must be renewed every three years; this can be utilized for collection of data.

5. While the lack of data and their analysis has been generally recognized, some Government bodies have been considering for some time the idea of establishing a Centre of Industrial Information and Studies with a data bank on industrial establishments as one of its units. The efforts in this direction have been facilitated by the adoption of standard industrial classification, which was elaborated with the assistance of a UNIDO expert. In the course of work of the UNIDO Advisory Mission on Industrial Planning (September, 1970) a consensus was reached with several Government and semi-public bodies that industrial data bank services should be established, which should be open to agencies dealing with industries and, partly, to private entrepreneurs as well.

C. Centre of Industrial Information and Studies

Objectives

1. The major objective of establishing the Centre is to have a central source of information on industry, on which various Governmental, semi-public and private bodies can draw, and which at the same time would make use of the available data for preparing studies needed for planning and policy-making activities of the Ministry of Industry and other bodies. At present, the data are collected by various bodies, such as:

Ministry of Industry: Industrial Register. This Register covers all industrial establishments employing more than seven workers or utilizing machinery with more than two horse power. Presently, about 50,000 industrial establishments are registered with the Ministry of Industry, out of which some 20,000 are rice mills. The data available on all these establishments are still rather incomplete which particularly holds true with regard to the smaller firms. As mentioned above, the recent (1969) Factory Act requires all the establishments subject to licensing to renew their licenses every third year.

Department of Labour: Annual Survey on Manpower and Employment. Based on street surveys in the Bangkok area, a list of all establishments employing more than ten workers is published each year. Establishments employing less than ten workers are also subject to the survey, but their listing is not complete.

National Statistical Office (NSO):

- 1964 Industrial Census
- Annual Survey of Industry (enterprise level). The latest available data are from the 1968 survey, which was quite incomplete.

Customs Department: Annual publication of import and export entries at the enterprise level. The coverage of all exporting and importing firms is almost complete.

Board of Investment, Bank of Thailand, Industrial Finance Corporation of Thailand: Many data on promoted firms are available, however, frequently only as estimates in the application forms.

Revenue Department: Annual collection of data on the enterprise level and monthly collection on the establishment level. These data are not at all used by other Government agencies. Presently, the Revenue Department is processing the 1965 annual revenue figures

To sum up, the data on industry presently available for governmental planning and private decision-making are far from sufficient with regard to both their amount and quality. In addition, various Government agencies are using different classifications resulting in inconsistencies.

2. In order to remedy this situation, it would be possible to plan new surveys or censuses which, unfortunately, are rather expensive and difficult to implement and process, and very often incomplete. Therefore, it seems to be more advantageous to use, wherever feasible for technical and legal reasons, routine administration and operational records, particularly those of the Ministry of Industry, Customs Department, Revenue Department, Labour Department and Board of Investment, Bank of Thailand and Industrial Finance Corporation of Thailand (IFCT), and to integrate them into a central data bank with a Central Register (a complete file of all establishments under coverage, with identification number, address, main activity and type of establishment) and Data Files, merging data extracted from various files and records, which implies coding of individual elements concerned.

As far as the coverage of the Central Register is concerned, it is intended to include only enterprises with ten and more workers. The 1964 Industrial Census revealed that these establishments represent two percent of the total number of workers and 40 percent of total industrial output; the percentage will have increased by now. Though it would be technically possible to have a register with all establishments

registered by the Ministry of Industry, the marginal benefit of this extended coverage would most probably be lower than the incremental costs, since the Government policy is anyhow directed towards larger firms. As far as the contents of the Data Files are concerned, it is understood that they should contain information on capacity, sales, inputs, production factors, cost structure, etc., but a detailed list will have to be defined according to the needs of users and availability of data in the course of establishing the Centre.

Structure and Functions of the Centre

3. The Centre will have three functional units:

- a) Data Bank
- b) Economic Studies Unit
- c) library

A description of their functions and staffing follows:

4. The Data Bank will be the core unit of the Centre. It will have the following functions:

- a) to study permanently the needs of various current and potential users for data on industrial establishments, separately considering the need for individual (elementary) data (especially for administration and operational purposes) and the need for aggregated data (for policy-making and planning purposes of agencies and for private decision-makers);
- b) to analyse sources of information (collection of all forms and questionnaires filled in by industries, review of the administrative records, analysis of all available data in terms of contents, accuracy, frequency of occurrence, etc.) and to organise the inflow of data into the Data Bank;
- c) to organise the processing of data;

- d) to disseminate data and promote the use of the Data Bank (evaluating actual inquiries, training the users applying case study approach, publishing regularly some data and instruction on possible uses of the Data Bank, etc.).

In order to perform the functions satisfactorily the unit will have to be staffed as follows:

- a) analysis of need for data: 1 economist
 1 statistician
- b) analysis of data sources: 1 economist
 2 statisticians
- c) organization of data 1 economist
 processing: 2 statisticians
 2 data processing specialists
- d) data dissemination and 1 economist
 promotion: 1 statistician
 1 editor

Thus, the Data Bank unit will have 13 professionals. However, it should be noted that the data processing itself (punching, storing, retrieval, etc.) will be carried out by the National Statistical Office, which has adequate facilities. Assuming that 50,000 establishments would submit once in three years up to 100 pieces of information, and estimating in addition a monthly inflow of some ten pieces of information on approximately 4,000 of the most important establishments, it is expected that processing of data for the Data Bank will require two or three key punch operators, one programmer, three punching machines, one verifier and approximately 20 hours computer time per month.

5. The Economic Studies Unit will utilize the data in the Data Bank in order to:

- a) undertake studies on the impact of certain policy measures (for example, net balance of payments effect of promoted industries, budget revenue impact of particular tax systems, impact of credit policy on cost and price structure in industry);
- b) undertake studies and calculate parameters for planning purposes (endowment of industries with specific factors of production, such as capital, selected skills, etc.; techno-economic characteristics of export-oriented industries; backward and forward linkages of selected industries to other industries and/or to agriculture; capacity utilization in selected industries, etc.);
- c) undertake studies for general use by agencies and private entrepreneurs, such as growth of demand for specific products (income elasticity, technical norms), profitability according to scale of production, etc.

The unit will have the following professional staff:

3 economists
2 econometricians
2 engineers
1 statistician

The functions and the staff composition of this Unit may be amended to respond to the needs of Government bodies at the time the Unit is established.

6. The library will consist of approximately 2,000 books and some periodicals, all dealing with industrial economics, econometrics, economic statistics, information systems and data banks and data processing. It will also keep all overall sectoral and regional studies and surveys of Thai economy and industry.

Staff: 1 documentation expert
1 librarian

Position of the Centre in the Institutional Set-up

The operation of the Centre will require close co-operation of agencies dealing with industrial development. The present institutional set-up is marked by a multiplicity of agencies which co-ordinate their policy and administrative actions through sub-committees to which the agencies delegate their representatives. The principal bodies dealing with industrial matters are the Ministry of Industry, the Board of Investment and the National Economic Development Board, which is in charge of overall planning. In addition, some important decisions effecting industrial policy lie with the Ministry of Economic Affairs, which is concerned with matters of trade, and with the Ministry of Finance (Customs Department, Revenue Department and the Office of Fiscal Policy). The Industrial Finance Corporation of Thailand, which is a semi-public financial institution, provides loans and credits to industry. The Association of Thai Industries has the function of a Chamber of Industry. Within the Applied Scientific Research Corporation of Thailand (ASRCT) there exists a Technological Research Institute and an Economic Evaluation Group which prepare and evaluate pre-investment studies.

The position of the Centre should be defined vis-a-vis both the potential users of information and the sources of data (institutions collecting and publishing data on industry are mentioned in Section C). Because of the co-ordinating function and with regard to the problem of confidentiality, the Centre should be attached to a Government body. In order to make the Centre and the Data Bank as much as possible user-oriented, the Government body concerned should belong to the main users of the Centre. Taking into account that the Ministry of Industry is directly involved in the preparation of the industrial component of the Development Plan, it is intended to attach the Centre to the Ministry. Another reason is that the Ministry registers all industrial firms according to the Factory Act (1969) and can thus easily be the administrator of the Central Register. The linkage of the Centre to the other agencies will be secured through their participation in the Management Board of the Centre.

Management and Organisation

8. For policy management of the Centre a Management Board will be created. It will meet at least twice a year. The terms of reference of the Board will be:

- a) to evaluate the progress in establishing the Centre;
- b) to evaluate the activities of the Centre with specific regard to inter-agency co-operation;
- c) to give guidelines for the Work Programme of the Centre.

The Management Board will consist of the representatives of the following bodies:

Ministry of Industry

Applied Scientific Research Corporation of Thailand

Association of Thai Industries

Bank of Thailand

Industrial Finance Corporation of Thailand

Labour Department

Ministry of Economic Affairs

Ministry of Finance (Revenue Department and Customs Department)

National Economic Development Board

National Statistical Office

The Under-Secretary of State for Industry will be the Chairman of the Board; the Director of the Industrial Economics and Planning Division will act as Secretary General of the Board.

The Ministry of Industry will nominate the Director of the Centre, who will be responsible for the establishment and operation of the Centre.

9. The necessity of especially close co-operation with the National Statistical Office (NSO) should be mentioned here. NSO has sufficient computer facilities which will be used for processing data for the Data Bank. Punching of cards and tapes will also be done at the NSO because a pool of punching machines and key punch operators are available there.

10. Access to individual data will be limited to authorized agencies with processing of inquiries once a week.

Aggregated data will be provided according to the needs of the users either upon request or periodically.

Private users will be charged a nominal fee.

11. Most individual data collected by the administration is confidential; however, this does not mean that this data cannot be provided to other Government agencies. In fact, the law does not prevent, for instance, the Ministry of Industry from disseminating its data to the Revenue Department or to the Customs Department, and vice versa. Any confidential individual data which cannot be disseminated from its origin will be processed by the NSO into aggregate data.

Non-governmental administration and especially private investors will receive confidential data as aggregates provided the aggregation is sufficient to keep individual data confidential.

Location

12. The Centre will be located on the premises of the Ministry of Industry. In the initial period it will be located in the offices of the Industrial Economics and Planning Division. Later a separate building will be constructed on the site of the Ministry.

D. Implementation Programme of the Project

1. The objectives of the project are explained in Section C. However, the final objective as outlined in Section C can be achieved only in stages. Since the project involves close co-operation among several agencies, it always runs a risk of losing support and co-operation of some of them which may be detrimental to the whole project. The project should, therefore, be divided into several stages and every stage should be started only if the preceding one was completed and evaluated as satisfactory. In such a way possible waste of Government and UNIP(SF) funds would be prevented.

2. The implementation of the project is programmed for three years. However, it should be mentioned here that the whole project will be preceded by a pilot project of approximately one year, the experience from which will be decisive for final formulation of the main project. It should, therefore, be expected that the project as put forward now may require some amendments after the experience from the pilot project has been evaluated. However, basic changes are not expected. The pilot project will be undertaken with the assistance of UNIDO experts financed from SIS. It is assumed that the results and evaluation report will be available before preparing the Plan of Operation for the main project.

Pilot Project

1. As mentioned above, the purpose of the pilot project is to test the system of inter-agency co-operation in establishing and operating a data bank. At the same time, further immediate results should strengthen the interest of the agencies concerned in the project. Therefore, it was decided to take as the object of the pilot data bank the Promoted Industries. It is estimated that until now less than 400 firms with Promotion Certificates have started operation so that processing of data on them will involve no technical problems.

As far as implementation of this pilot project is concerned, it has to be started by creating a Management Board ^{1/} and nominating a Secretary General. Major steps to be performed will be as follows:

- a) Preparatory study (inventory and analysis of need for data, inventory and analysis of available data on promoted industries, concept of the register and flow of records)
Duration: 1 to 2 months
- b) Establishing the pilot data bank (punching the data on punched cards and tapes, processing, retrieval, statistical processing)
Duration: 3 to 4 months
- c) Experimental utilization and promotion, preparation of the report with evaluation of the pilot project and recommendations in regard to the major project.
Duration: 3 to 6 months.

The whole project will be undertaken by a team from the Ministry of Industry (2 economists, 2 statisticians) led by the Director of the Industrial Economics and Planning Division and assisted by two UNIDO Programming Data Experts (one for one year, one for two months, both financed under SIS).

Stages of the main Project

4. The project will be developed in stages, which applies first of all to the Data Bank unit. There will be the following stages in establishing the Data Bank:

- a) Inventory and analysis of the need for data on industry
(inventory of decision makers, stock-taking of decisions)

^{1/} It will have the same composition as the Management Board of the Centre.

being currently made), analysis of available data sources, analysis and classification of available data, outlining concept of the register and of flow of data/records)

Duration: 6 months

- b) Introducing the system of data provision (coding, changes of definitions and of administrative forms, flow of data/records), concept of the MIP-system

Duration: 12 months

- c) Establishment of the Data Bank (inflow of data, their processing and storing)

Duration: 12 months

- d) Experimental operation of the Data Bank (evaluation of inquiries, promotion by explaining possible uses, training of users applying case studies approach, issuing a regular publication)

Duration: 6 months

Establishment of the other two units is partly linked to the progress of developing the Data Bank since, for example, the Economic Studies Unit will depend very much on data collected in the Data Bank. For training purposes, however, and in order to assist in solving urgent policy and planning problems the establishment of the other units shall not wait until the Data Bank is fully operational.

5. The requirements for professionals, both local and UNDP/UNIDC experts, at each stage of the project and for all three units are shown in the Chart of Professional Staff of the Centre (see Appendix I).

E. Project Components

UNDP (SF) Assistance Requested

1. Experts

Six experts for a total duration of 144 man-months plus short-term consultants for 18 man-months are requested. Furthermore, two Associate Experts will be working with the team (12 man-months each).

<u>Designation and brief description</u>	<u>Duration of assignment in months</u>
<u>Industrial Programming Data/Project Manager</u> will be responsible for implementation of the project and co-ordination of the work of other experts; particularly, he will be advising on the establishment of the Data Bank.	36
<u>Industrial Programming Data/Electronic Data Processing</u> will formulate an EDP-system suitable for the Data Bank operations.	24
<u>Industrial Planner/Economist</u> will assist in establishing the Economic Studies Unit, undertake the economic analysis of industry using the data from Data Bank and advise on current planning and policy problems.	36
<u>Industrial Engineer</u> will assist in the interpretation of data from a technical (engineering) viewpoint.	24
<u>Economic Analysis/Econometrics</u> will assist in application of econometrics and statistical methods in the economic analysis of the industrial structure	18

<u>Documentation Expert/Librarian</u>	6
will assist in establishing the library, including documentation on Thai economy and industry.	
<u>Short-term Consultants</u>	18
to be specified in the course of implementation of the project;	
calculated at a proforma salary level of \$27,100 per year, the 162 man-months of expert services represent in total \$365,850.	
<u>Associate Expert/Programming Data</u>	12
will assist the Project Manager in collection and analysis of available data and in stock-taking of data needs.	
<u>Associate Expert/Documentation Expert</u>	12
will assist the Documentation Expert/Librarian in collecting and classifying available studies and reports on Thai economy and industry.	

Manning table for the experts is attached as Appendix II. Job description for the Project Manager is attached as Appendix V.

2. Fellowships

Fellowships for a period of six or twelve months each will be granted to selected professionals of the Centre in the following fields:

	Number	m/n
Data banks/data processing	4	24
Industrial economics/planning	4	30
Econometrics	1	12
Economic statistics/statistical methods	1	6
Documentation	<u>1</u>	<u>6</u>
	11	78

The whole fellowship programme represents \$42,000 (\$400 per month and \$1,000 for travel).

The training programme (fellowships) will be spread over the duration of the whole project, applying the principle that a counterpart should be granted a fellowship only after he had spent some time at the Centre. Tentative phasing of the fellowship programme is outlined in Appendix III.

Provision for other training facilities (attendance at meetings and seminars, visits of similar projects, etc.) in the amount of \$5,000.- is requested in addition to fellowships.

3. Equipment and Documentation

The following equipment and documentation is requested from the UNDP (SF):

a) Office equipment to include i.a.:

4 electric calculators	approx. \$	2,000
5 adding machines		1,000
1 duplicating machine		1,500
1 photo-copying machine		1,000
1 varityper		5,000
2 electric typewriters (English)		800
6 manual typewriters		1,500
other unspecified		<u>1,000</u>
	approx. \$	14,800

b) Data processing equipment ^{1/}

2 punching machines	approx. \$	8,000
1 varifier		<u>4,000</u>
	approx. \$	12,000

c) Books and periodicals

approx. 2,000 books and	approx. \$	10,000
100 periodicals		<u>2,000</u>
	approx. \$	12,000

^{1/} to be stationed at the National Statistical Office

The office equipment will be requisitioned gradually as the project develops. Data processing equipment should be supplied before the beginning of the third stage. Books and periodicals will be requisitioned at the beginning of the project.

4. Miscellaneous

Miscellaneous expenses will include two vehicles for the project experts, maintenance of the vehicles, stationery, postal charges and other items, estimated in total at US \$21,950.

Government Contribution

1. Personnel Services

A total number of 570 man-months of professional services will be provided by the Government according to the Manning table, which is attached as Appendix IV.

The total cost of professional personnel services amounts to 1,515,000 Baht. Increase in salaries is already implied in the applied salary scales (5,000 Baht monthly for the Director, 2,500 for other professionals).

The administrative personnel services will total 672 man-months, to be provided as follows:

<u>Designations</u>	<u>Number</u>	<u>Total man-months</u>
Secretaries	2	72
Statistical clerks	6	144
Typists	10	240
Translators	2	48
Clerks	2	48
Draftsmen	1	18
Other administrative personnel (accountants, procurement, etc.)	3	102
	<u>28</u>	<u>672</u>

With an average of 1,500 Baht salary per month the costs of this category of personnel represent 1,008,000 Baht.

Other auxiliary personnel services will amount to 360 man-months as follows:

<u>Designations</u>	<u>Number</u>	<u>Total man-months</u>
Machine operators	4	96
Drivers	4	96
Messengers	2	72
Other (cleaners, guards, etc.)	4	96
	14	360

The costs of these personnel services for the project duration are estimated at 360,000 Baht (1,000 Baht monthly salary/wages).

2. Training

The Government will continue paying full salary to every employee of the Centre who is on fellowship tour. In order to get first-hand knowledge of the decision-making process and data availability in agencies co-operating with the Data Bank, some of the professional employees of the Centre will be assigned from time to time to work (preferably on a part-time basis) in some of those agencies. Their salaries will be paid from the Centre budget.

3. Building and equipment

The Government will provide

a) Land and building for office accommodation

of international and local personnel

1,000 m2 land (at 2,500 Baht) 2,500,000

2,000 m2 floor space (at 1,500 Baht) 3,000,000

5,500,000

b) Office furniture and equipment	
10 desks @ 1,500	15,000
30 desks @ 1,000	30,000
15 typewriter desks @ 400	6,000
60 filing cabinets @ 850	51,000
60 shelves @ 400	24,000
6 typewriters @ 4,000	24,000
3 calculators @ 6,000	18,000
2 cars @ 80,000	160,000
20 air-conditioners @ 12,000	240,000
other unspecified	<u>50,000</u>
	618,000

c) Office supplies	
Stationery and supplies, incl. punched cards (400 pieces per 20 Baht) and tapes 1,000 Baht each	25,000
Other supplies	<u>175,000</u>
	200,000

4. Miscellaneous

Value of computer time ^{1/} (20 hours monthly @ 3,000 Baht) (20 x 3,000 x 18)	1,080,000
Other (travel in the country, etc.)	<u>120,000</u>
	1,200,000

F. Financial Data

This Section summarizes the flow of UNDP (SF) and Government expenditures. The break down of the expenditures by years is based on explicit or implicit indication of flow of costs of individual components as outlined in the prec. Section.

For conversion of Baht into dollars and vice versa the exchange rate of \$ = 20.83 Baht was applied.

1/ to be provided by the National Statistical office free of charge

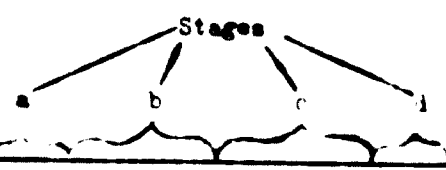
UNEP(SF) Expenditures (in US\$)

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Total</u>
Experts	81,300	149,050	135,500	365,850
Training				
a) Fellowships	6,800	17,600	22,800	42,200
b) Other	1,000	2,000	2,000	5,000
Equipment				
a) Offices	1,000	1,000	5,800	14,900
b) Data processing		12,000		12,000
c) Books	2,000	8,000	2,000	12,000
Miscellaneous	6,000	8,000	7,950	29,950
	<u>101,100</u>	<u>195,650</u>	<u>177,050</u>	<u>473,800</u>

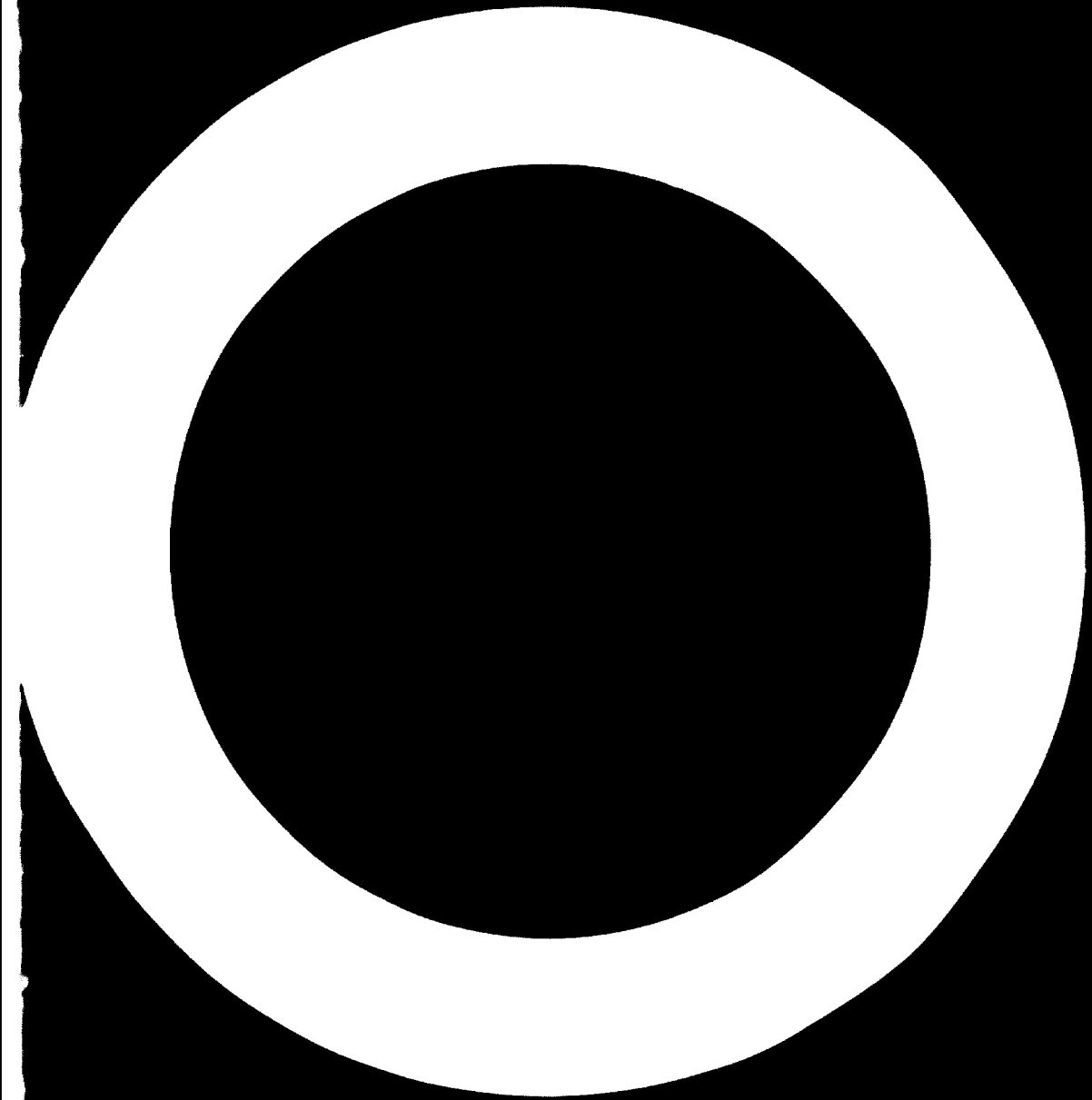
Government Expenditures (in Baht)

Personnel				
a) Professional	315,000	525,000	675,000	1,515,000
b) Administrative	225,000	360,000	423,000	1,008,000
c) Auxiliary	80,000	120,000	160,000	360,000
Buildings and Equipment				
a) Land and buildings		3,500,000	2,000,000	5,500,000
b) Office equipment	50,000	350,000	218,000	618,000
c) Office supplies	40,000	70,000	90,000	200,000
Miscellaneous	30,000	370,000	800,000	1,200,000
	<u>740,000</u>	<u>5,295,000</u>	<u>4,366,000</u>	<u>10,401,000</u>
(in US\$)	35,520	254,200	209,608	499,328

Appendix I: Chart of Professional Staff of the Centre

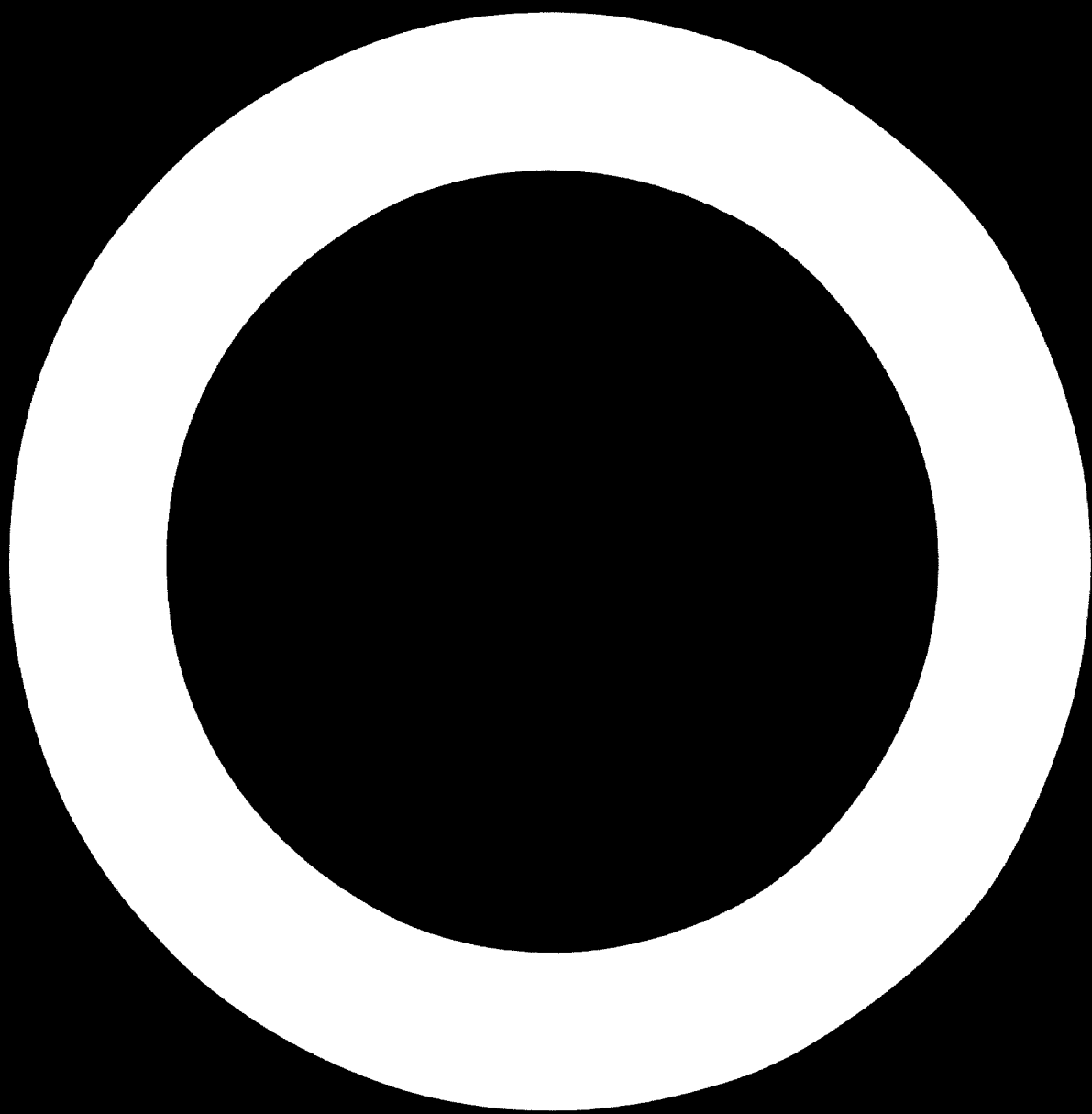


Unit	Professionals	1972	1973	1974	Total n/m		
DATA BANK	LOCAL	Director				35	
		Economists (4)				27	
		Statisticians (6)	A				22
			B				22
	C					30	
	D					30	
	Data Processing (2)	A				35	
		B				36	
		C				36	
		D				30	
Editor (1)	E				15		
	F				15		
UNIP	Project Manager				36		
	Associate Expert Programming Data (EIP)				(12) 24		
ECONOMIC STUDIES	LOCAL	Economists (3)				35	
		Engineers (2)	A			30	
			B			6	
			C			24	
	Econometricians (2)	A				6	
		B				18	
	Statistician	A				18	
UNIP	Economist				36		
LIBRARY	LOCAL	Engineer				24	
		Econometrician				15	
	UNIP	Librarian				24	
Documentation Expert					30		
	UNIP	Documentation Expert				6	
Associate Expert					(12)		



Appendix II: Manning Table - Experts

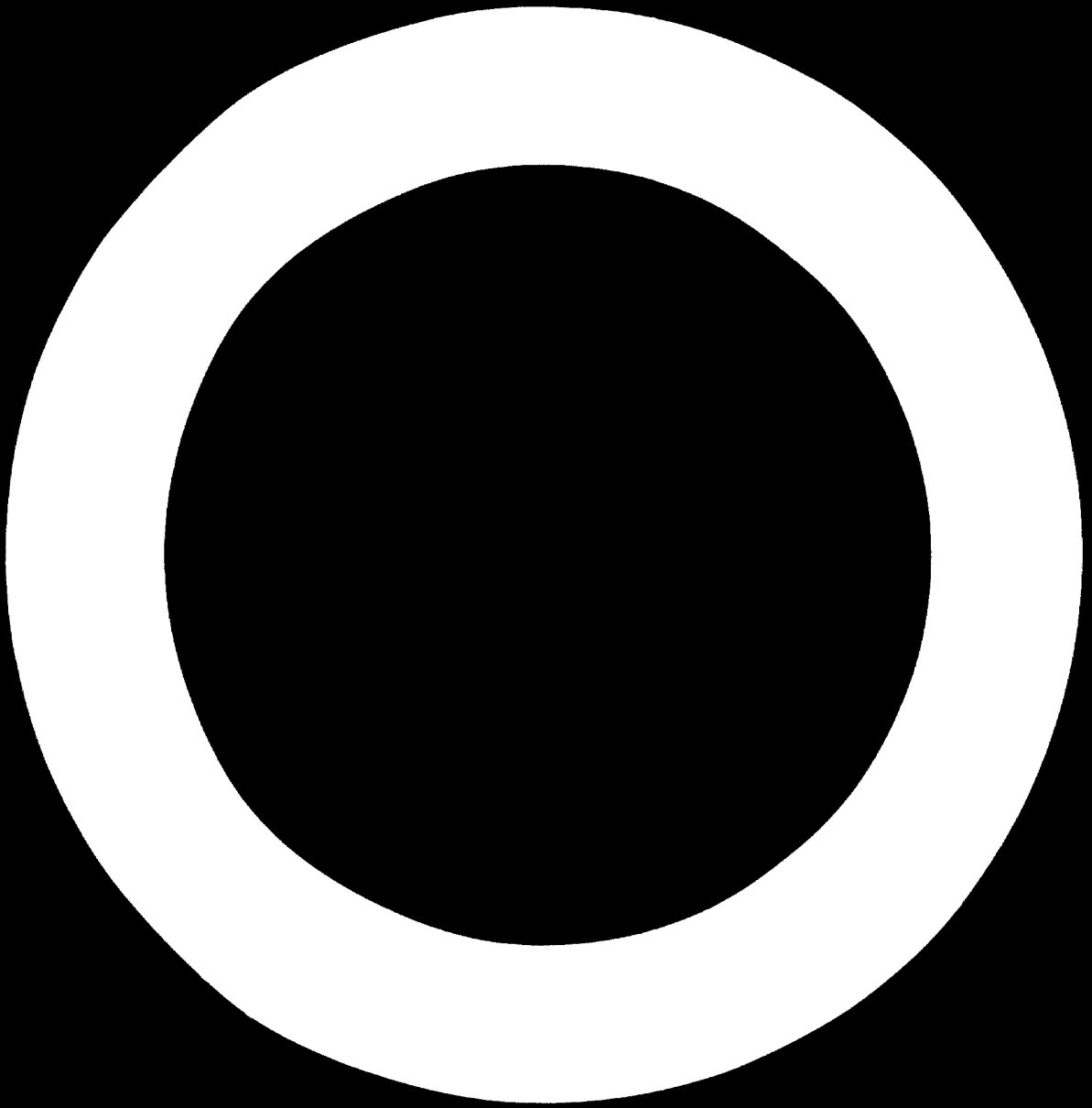
	<u>Total m/m</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Costs (in \$)</u>
Industrial Programming Data/ Project Manager	36	12	12	12	81,300
Industrial Programming Data/SEP	24	6	12	6	54,200
Industrial Planner/Economist	36	12	12	12	81,300
Industrial Engineer	24		12	12	54,200
Industrial Planner/ Econometrician	18		6	12	40,650
Documentation Expert/Librarian	6		6		13,550
Short-term Consultants	18	6	6	6	40,650
Total	162	36	54	60	
Costs (in \$)		81,300	149,050	135,500	365,850
Associate Expert/ Programming Data	12	6	6	-	-
Associate Expert/ Documentation	12	6	6	-	-



Appendix III: Fellowships

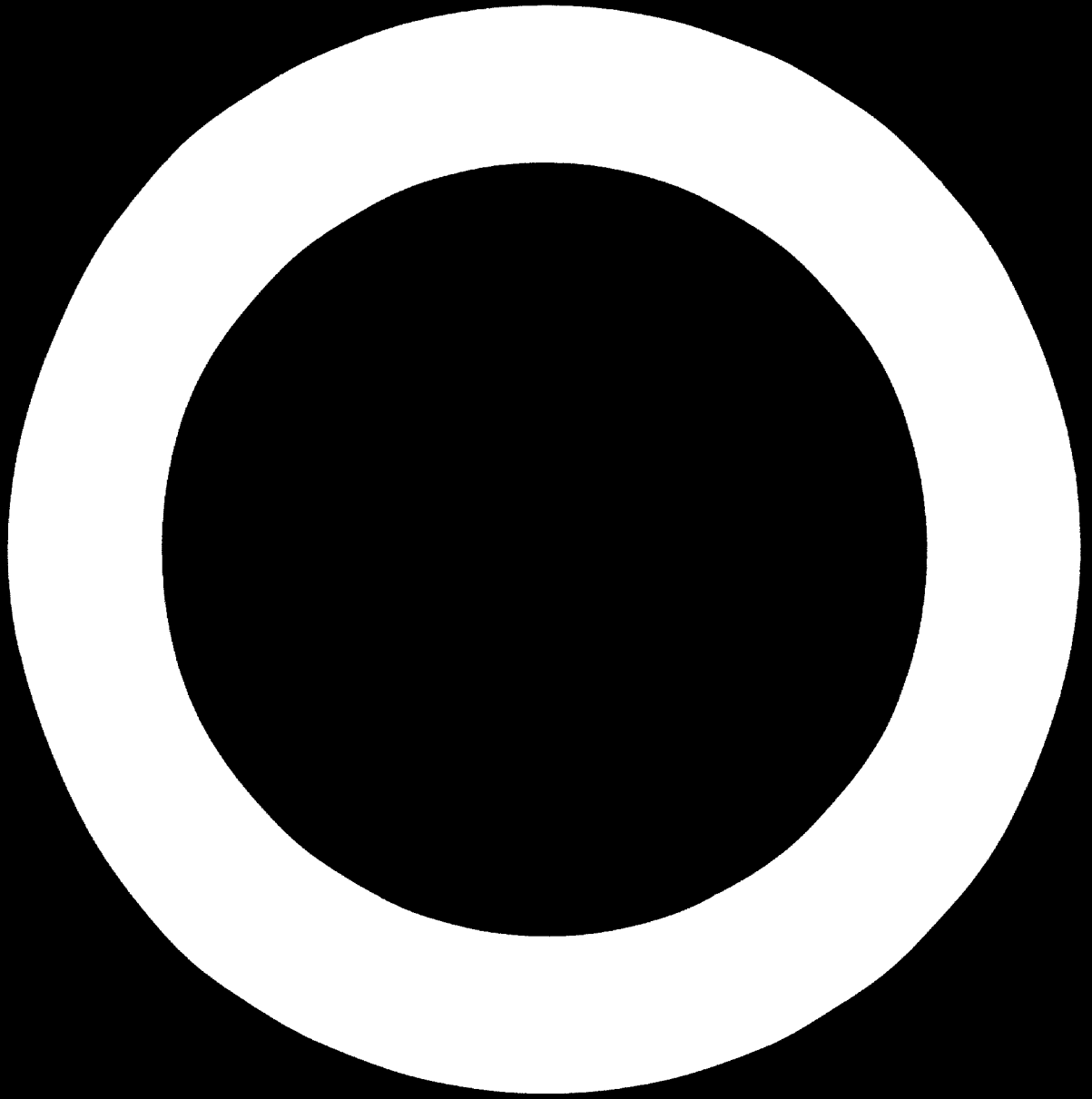
	<u>Number</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Total</u> <u>N/A</u>	<u>Costs</u> <u>(in \$)</u>
Data Banks/Data Processing	4	6	6	6 + 6	24	13,600
Industrial Economics/Planning	4	6	12	6 + 6	30	16,000
Econometrics	1			12	12	5,800
Economic Statistics Statistical Methods				6	6	3,400
Documentation	1		6		6	3,400
TOTAL	11	12	24	42	78	
Costs (in \$)		6,800	12,600	22,800		42,200

The costs include \$400 fellowship monthly plus \$1,000 for travel.



Appendix IV: Manning Table - Counterparts

		Total m/m	1972	1973	1974	Costs (in Ruhs)
Director		36	12	12	12	120,000
Economists (4)	A	36	12	12	12	90,000
	B	36	12	12	12	90,000
	C	36		12	12	75,000
	D	6			6	15,000
Statisticians (6)	A	36	12	12	12	90,000
	B	36	12	12	12	90,000
	C	36	12	12	12	90,000
	D	6	6	12	12	75,000
	E	18		6	12	45,000
	F	6			6	15,000
Data Processing (2)	A	30	6	12	12	75,000
	B	18		6	12	45,000
Editor		6			6	15,000
Economists (3)	A	36	12	12	12	90,000
	B	30	6	12	12	75,000
	C	6			6	15,000
Engineers (2)	A	24		12	12	60,000
	B	6			6	15,000
Econometricians (2)	A	18		6	12	45,000
	B	18		6	12	45,000
Statistician		18		6	12	45,000
Librarian		24		12	12	60,000
Documentation Expert		30	6	12	12	75,000
TOTAL		570	114	198	258	
Costs (in Ruhs)			277,000	525,000	675,000	1,515,000



Appendix V

Request from the Government of Thailand

JOB DESCRIPTION

(UNDP/SF)

- Post title:** Industrial Programming Data Expert (Project Manager)
- Durations:** One year, with possibility of extension up to three years
- Duty station:** Bangkok
- Purpose:** The Ministry of Industry plans to establish a Centre of Industrial Information and Studies, the core of which will be a Data Bank Unit. The expert should assist in the establishment and operation of the Centre. At the same time he should act as Project Manager of assistance provided to the Centre by UNDP(SF).
- Duties:** The expert will be expected to:
1. Advise on inventory and analysis of the need for data on industrial establishments with ten workers and more, particularly on:
 - a) need of agencies dealing with industrial firms for elementary data (primarily for administrative and operational purposes);
 - b) need of Government agencies (for planning and policy-making purposes) and of private decision-makers for aggregated data.

The Expert should define priorities among the needs and indicate further potential uses of data;
 2. Advise on inventory and analysis of available data on the above mentioned industrial establishments (collection of all forms and questionnaires being filled in by industrial establishments; enumeration and description of administrative and operational records on those establishments; description of each datum in terms of contents, accuracy, frequency of collection, classification in regard to possible coding and system of storing; classification of individual data by confidentiality);
 3. Advise on the concept of the information system, taking into account the experience gained during the pilot project. Particular attention should be paid to the establishment of a register, to the integration of available records with the register, to a flow chart of data records and to a system of storing and processing data;

4. Assist in building up the data bank (supervision and evaluation of actual inflow of data and of their processing, determining procedures and frequency of inquiries processing, especially for individual data and for statistical tabulation);
5. Advise on utilization of the data bank and on the promotion of its services (evaluation of inquiries submitted to the Centre; training the users applying core study approach; publishing regularly some data, research studies and information on possible uses of the data bank);

As Project Manager, the expert will be expected to:

1. Prepare and supervise the provision of the UNIDO/UNDP(SF) assistance to the Centre (experts, fellowships, some equipment and books);
2. Co-ordinate the work of experts;
3. Report to the Executing Agency (UNIDC) about the progress of the project.

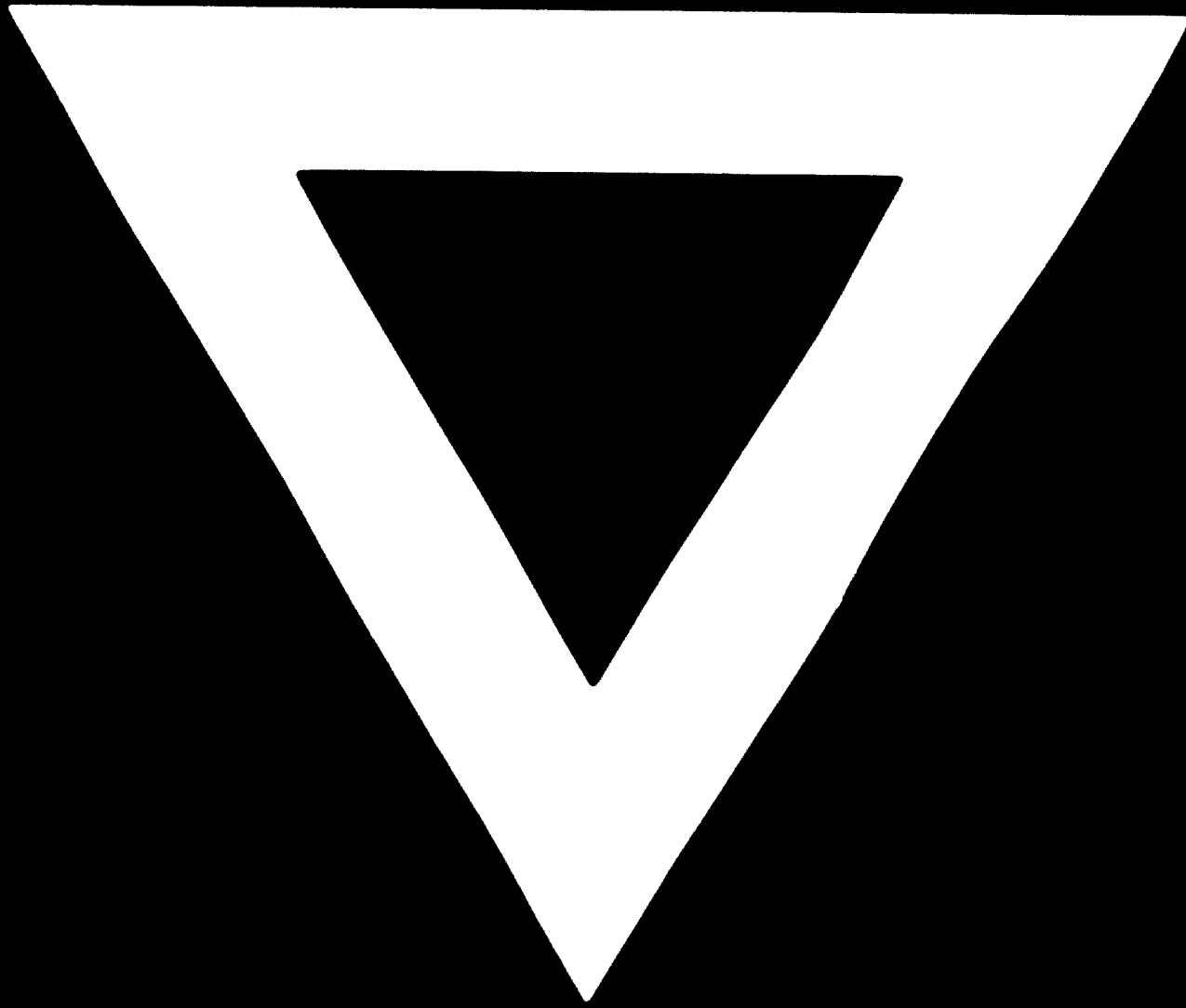
Qualifications:

An industrial statistician/economist experienced in establishing data banks for industry and, if possible, in industrial planning. Managerial abilities would be an additional asset.

Language:

English





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