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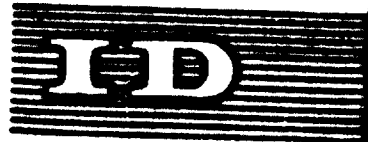
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ARGENTINA ✓

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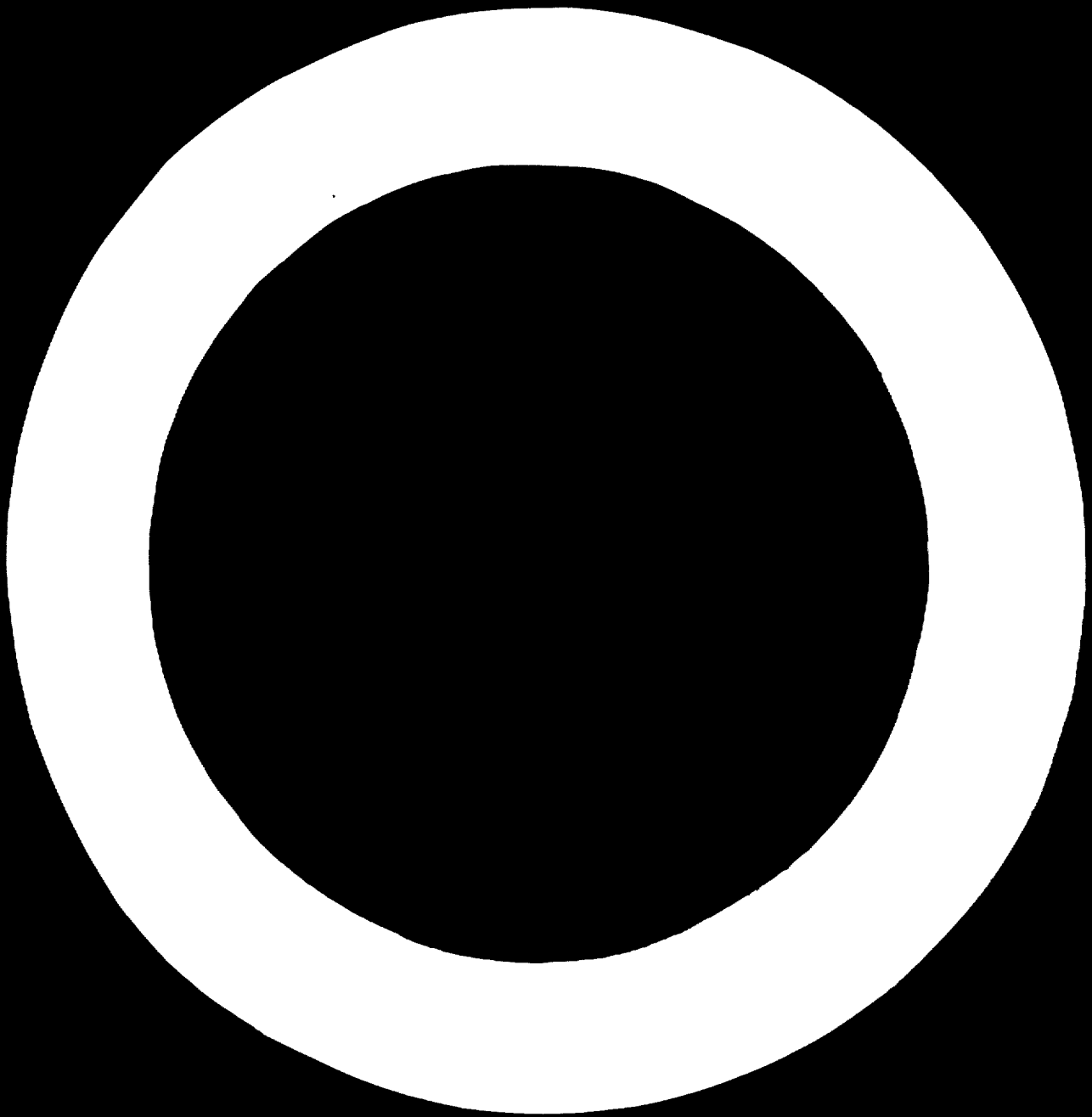
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Part I. Report prepared by

Darval José Palomo



SUMMARY

The northwestern region of Argentina (NOA) is described.

The information transmitted to industrialists can be classified as public and private:

Public

- (a) The National Development Council (CONADE), established to fix economic, social and industrial policies at the national level.
- (b) The country is divided into eight areas, in which CONADE has set up regional offices. The NOA regional office at present has eight development plans. The industrial plan is discussed in particular.
- (c) The NOA region is made up of five provinces, each of which has its development secretariat.

The offices transmit socio-economic information, but do not have adequate contact with medium-sized and small-scale industry. Information on industrial technology is transmitted through several specialized institutes with no central connexion, in particular the National Institute of Industrial Technology (INTI), the National Council of Science and Technology (CONACYT), the National Institute of Agricultural Technology (INTA) and the Rio Dulce Corporation (CRD).

Private

Information is transmitted through sectoral groupings such as various chambers of producers or industrial federations. General (including technological) information is transmitted by means of publications, bulletins, reviews and local or regional meetings or conferences.

Conclusions

- (1) There are no convenient means of obtaining information on markets or technology in neighbouring countries, which are of special interest.
- (2) The basic institutions do not transmit the precise data required to the bodies to which they are subordinate owing to inadequacies in implementation and organization.
- (3) There are no facilities for obtaining technological information in particular, owing to the inadequacy of contact between the specialized institutes and industrialists and because the latter's needs are not fully understood.

- (4) The urgency of development has called forth the establishment of development bodies which can be turned to, but no central information office or institute has been set up.
- (5) Private industrial activity has no constant and dynamic information channels reflecting the concern of those engaging in this activity owing to lack of economic resources for this work.
- (6) There should be a greater number of more realistic opportunities made possible by the presence of experts in specific regional development areas.

CHAPTER I

PLANNING AND ACTION FOR DEVELOPMENT

In the context of positive national legislation, concern for this matter was conclusively reflected by the approval of National Law No. 16,964, which was in fact entitled "National System of Planning and Action for Development".

One of the purposes of the law was to formulate national, regional and sectoral long and medium term plans, to supervise, evaluate and co-ordinate them and orient activity which is properly speaking in the private sphere towards achievement of development objectives.

The system comprises the National Development Council (CONADE) and its Secretariat. According to the law itself, the primary duty of the Secretariat is "to collect and evaluate background and other information required for the national planning process".

The Argentine Republic has an enormous territory (2,795,700 km² with more than 1,230,000 km² in the Antarctic) which is extremely diverse from all points of view - sociological, economic and geographical. For this reason, eight development regions were created under the regulations for implementing the law. These regions are:

- (1) Patagonia,
- (2) Comahue,
- (3) Cuyo,
- (4) Central,
- (5) Northeastern,
- (6) Northwestern,
- (7) Pampeana,
- (8) Metropolitan Area.

Under the Law, the main function of the regional development offices is to "compile and evaluate information concerning regional planning and programming tasks".

The above serves to indicate the definite and decisive value of information for any development plan or action.

It is from the outset clear that this information will embrace or comprise aspects which lie completely outside the industrial sphere, but it is equally true that development planning requires detailed and full information and knowledge of industry, present and prospective, in each and every one of its aspects. This assertion is best borne out by the thought that one of the main objectives for getting development under way or accelerating it is, precisely, the maximum and best possible industrialization.

It is impossible to plan action for development without full and precise industrial information. "The transfer of technology through industrial information is one of the pre-requisites for faster economic and industrial growth in developing countries".^{1/}

CHAPTER II

NORTHWESTERN REGION OF ARGENTINA (NOA)

The northwestern development region (NOA) comprises the following provinces:

<u>Name</u>	<u>Area</u>	<u>Inhabitants</u> ^{2/}
Catamarca	99,818 km ²	172,323
Jujuy	53,219 km ²	302,435
Salta	154,775 km ²	509,803
Santiago del Estero	135,254 km ²	495,419
Tucumán	22,524 km ²	765,962

The NOA regional office is located in the city of Salta, the capital of the province of the same name.

Since the activity and programming of these offices were only regional, it was necessary to set up a development programme secretariat in each province with status as a provincial ministry, although varying names have been adopted in the individual provinces.

It should be pointed out that NOA is engaged in the implementation of a project submitted to the United Nations Development Programme entitled "Industrial Development - Technical Co-operation Project". The general purpose of this project is to promote the industrial growth of the region in order thereby to contribute to the steady development of the national economy. A period of three years beginning with the start of operation has been established for its execution.

^{1/} From the Aide-Mémoire of this Seminar.

^{2/} National Census of the Population, Households and Housing, 1970, National Institute of Statistics and the Census of the Argentine Republic.

The project is an integral part of the regional development programme for the northwestern region of Argentina, known as NOA - General, which comprises the following projects:

- Geological/mining development,
- Forest inventory and development,
- Development of hydrological resources,
- Industrial development,
- Photo-interpretation,
- Community development,
- Transport and highway network infrastructure,
- Study of soil conservation and utilisation,
- Study of manpower conservation and utilisation,
- Agricultural development and marketing studies,
- Development of stock-breeding.

With specific reference to the industrial component, it should be pointed out that the project has been carried out on the basis of the provisions and recommendations contained in the macro-economic diagnostic study (1967) of the NOA initiated by the Federal Investment Council (CFI), and above all in the studies carried out under an agreement between the Directorate-General of Military Supplies (Dirección General de Fabricaciones Militares) (DGFMM) and the Federal Investment Council (CFI), known as the programme for the industrial development of the NOA.

The study of the NOA region is also closely related to projects in which the United Nations Development Programme (UNDP) has participated, such as geological and mineral exploration (ARG 12 and ARG 23), the groundwater research project in the NOA (ARG 3) and the regional rural development project (known as the Andean Programme) (ARG 12) at the regional/international level, in which there is Argentine participation in the form of activities in some parts of the region and the request for technical assistance in vocational training submitted by the Argentine Government to UNDP.

CHAPTER III

DIRECTORATE FOR STATISTICAL RESEARCH Santiago del Estero

By National law No. 28 of January 1968, the National Institute of Statistics and Censuses (INEC) was set up as part of the Secretariat of the National Development Council (CONADE).

In the structuring of the national statistical system, the relevant services of the provincial Governments were named as non-central statistical bodies.

In the province of Santiago del Estero, the Directorate of Statistics and Censuses was set up in 1950, and its name changed to the Directorate-General for Statistical Research and Censuses by Provincial Law No. 2273, which specified its functions, structure and means of obtaining and checking primary data, publications, educational activity and organization of staff. By Provincial Decree No. 846/68, Series B, its structure and operation were brought into line with provisions of the National Law referred to in the first paragraph of this chapter, and by Provincial Law No. 3516, the Directorate was placed under the authority of the Office of Development Advisory Services of the Office of the Governor.

The Directorate fixed the following as its minimum programme for completion in 1971:

- Price of goods from agriculture, stock-breeding and mining,
- Price of goods and services for end consumption,
- Price of building materials,
- Value of investments in national, provincial and municipal public works,
- Final permits and certificates granted,
- Statistics on the numbers of staff members and salaries in the national, provincial and municipal governments,
- National system of registers of industrial, commercial and service enterprises,
- Statistics of the urban, inter-urban and inter-departmental public passenger transport sector,
- Statistics on the automotive freight transport sector,
- Statistics on patents,
- National, agricultural and stock-breeding census (1969); special tabular requirements,
- Industrial census,
- Calculation of the gross domestic product of Santiago del Estero.

The publications plan of the Directorate for Research includes:

- Laws and decrees regulating statistical operations,
- Operation manual for statistical research,
- Minimum programme of activity,
- Statistical bulletin with provisional data of the national agricultural and stock-breeding census for 1969,

- Statistical bulletin containing the provisional results of the national census of the population, households and housing,
- Statistical bulletin on the population by sectors,
- Statistical bulletin of the roll of localities and districts in the province,
- Statistical bulletin on education in the province in national, provincial and municipal institutions.

CHAPTER IV

RIO DULCE CORPORATION

The Rio Dulce Corporation (CRD) was established in the province of Santiago del Estero in 1966 by Provincial Law No. 3363 with the primary objective of "promoting the agricultural and industrial development of the area of influence of the Rio Dulce and ensuring its economic expansion for the purpose of achieving a sustained and harmonious increase in the welfare of the community" (article 1).

(a) General background

The Rio Dulce project is taking place in an area of approximately 180,000 hectares. The objective of the project is to achieve integrated economic, social and cultural development of the community through an increase in and diversification, mechanization and industrialization of agricultural production. In order to do this, the problems which are currently keeping the area in a state of under-development must be solved.

The finance required for implementing the first phase was obtained through contributions from the Inter-American Development Bank (IDB), the Bank of the Argentine Nation, the government of the province of Santiago del Estero, and also the private sector and the semi-autonomous national and provincial bodies.

(b) Financial resources

<u>Source</u>		<u>US\$</u>	<u>Per cent</u>
<u>Foreign credit</u>	<u>Argentine counterpart</u>		
IDB	---	10,480,000	22.7
	Province	15,983,714	34.7
	National Government	14,190,000	30.8
	National Development Bank	3,400,000	7.4
	Provincial Bank	1,380,000	3.0
	Co-operatives	603,714	1.3
	Others	68,857	0.1
	Total	46,106,285	100.0

SUMMARY

<u>Foreign credit</u>	<u>Source</u>	<u>US\$</u>	<u>Per cent</u>
	<u>Argentine counterpart</u>		
IDB	- - -	10,480,000	22.7
	Argentina	35,626,285	77.3
	Total	46,106,285	100.0

(c) Outline of organization

A separate general organizational chart is appended (see annexes), but with regard to the industrial aspect, with which we are here concerned, special attention should be given to the Office of Economic Affairs.

This office is divided into four departments, namely the Industrial Department, the Marketing Department, the Agricultural Credits Department and the Department of Statistics and the Economy.

The Industrial Department is in turn sub-divided into the Industrial Engineering Division and the Project Engineering Division. The Market and Marketing Department is sub-divided into the Demand Research and Price Analysis Division and the Marketing Division.

The Project Engineering Division is responsible for the technical study of industry as regards processing and manufacturing as such.

The Industrial Engineering Division studies machinery, inputs and prices, and determines fixed capital and circulating capital, profitability and returns.

The Demand Research and Price Analysis Division is responsible for carrying out the research required to determine the latest situation with regard to changes in demand (amount, time, place and type) for products from the area.

The principal task of the Marketing Division is to analyse the structure and organization of marketing and its physical efficiency and to provide the services in this field which fall within the terms of reference of the Rio Dulce Corporation.

(d) Industrial pursuits

The "sustained and harmonious increase in the welfare of the community", which is the ultimate objective and goal of the CRD, cannot be achieved unless the infrastructures and conditions required for effective and up-to-date industrial programming are

present. This is realised not only by the profit resulting from the value added to products and by direct marketing, eliminating intermediate stages which increase prices, but also by the creation of larger stable sources of work which help to prevent an exodus on the part of a population strongly attracted to other areas of the country and by improved salaries and possibilities for a better life.

The first efforts in this strongly agricultural area are being directed towards the promotion of industries such as:

- Factory for balanced foods,
- Alfalfa driers,
- Fruit and vegetable canneries,
- Sweet-meats factory,
- Industrial utilisation of cotton by-products,
- Industrial utilisation of citrus fruits (packing of citrus fruits, essential oils, marmalades, jellies and juices),
- Vegetable driers,
- Cold storage plants,
- Packing of fruits and vegetables.

However, the establishment of agro-industries was not the end of the story, since the vast area under the jurisdiction or influence of the Rio Dulce Corporation afforded another type of opportunities as a result of the presence of other kinds of products (wood, cows and goats and building materials) or activities which contribute substantially to any trading process.

Awareness of the fact that any industrial development requires a modern infrastructure base helping to provide all necessary services with the least expenditure in time and money gave rise to the idea of the establishment of an industrial estate for which 160 hectares were assigned following a technical selection process.

This system will serve to relocate industrial enterprises in search of better circumstances for their production and, with the help of a generous tax policy and promotion, to awaken interest for the setting up of new industrial enterprises in the industrial estate.

For example, the project covers the following:

- Foodstuffs,
- Electrical appliances,
- Aerated beverages,

- Meats and fats,
- Paper-board,
- Leathers and related products,
- Woods,
- Building materials,
- Metallurgy.

CHAPTER V

INDUSTRIAL ACTIVITY

One of the most serious problems facing the NOA region is the steady exodus reflected in the impersonal and conclusive statistical figures of censuses, which has the most alarming effect on the productive sector of the population. This is a consequence of the fact that the economic structure of the area does not make it possible to absorb all the labour coming onto the market as a result of natural population growth and of the mechanization of some agro-industrial activities.

Preliminary calculations show that, in order to alleviate the problems, 50,000 new jobs must be created to absorb the labour generated by the circumstances outlined, thereby checking emigration to areas of high urban concentration or the moist pampa zone.

The diagnosis of the industrial sector in the region indicates that industrial activity has been developed primarily in areas where certain existing natural resources - mainly agricultural ones and, to a lesser degree, mineral ones - are exploited and industrialised. It also indicates that, on the whole, the industrial enterprises which are registered do not meet the conditions for efficiency with regard to either size or technology, nor are they optimizing these in keeping with the requirements of modern industry.^{3/}

In view of all the above, the NOA, as an institution, has decided on the followings

^{3/} Preliminary diagnosis concerning the NOA, Federal Investment Council, 1967.

Purpose

- (1) To establish basic conditions making possible the required conversion of its primary economy into an industrialised economy on the basis of intensive exploitation of its natural resources;
- (2) To promote the establishment of the infrastructure required to enable industry to become the dynamic factor in the region in the medium and long-term.

General policies

- (1) The industrialisation process which will take place in the development areas will be aimed at making possible:
 - Satisfactory industrialisation of agricultural and stock-breeding production with a high degree of integration with the intensive-production agricultural and stock-breeding sectors and extensive-production stock-breeding sectors at costs in keeping with the competitive nature of the markets which the products concerned must enter;
 - Promotion of the establishment of manufacturing industries;
 - Consolidation of basic industry by integrating the mining and industrial processes which make possible maximum utilisation of existing resources;
 - Achievement of rational exploitation of forest products.

Directions

- (1) Industries intended to promote the development of agricultural and stock-breeding production:
 - (a) Food-packing industry,
 - (b) General processing of agricultural products,
 - (c) Products required for the mechanised working and settlement of rural areas,
 - (d) Refrigeration and milk industries.
- (2) Basic industrial production:
 - (a) On the basis of the Altos Hornos de Zapla (Zapla blast furnaces):
 - Light rolled products, flat and round,
 - Manufacture of tin-plate,
 - Clinker cement plant,
 - Manufacture and processing of castings.

- (b) Industries intended to promote the development of mining and mineral resources:
- Factory for sulphuric acid, sodium carbonate and sodium hydroxide, activated charcoal and expanded perlite,
 - Factory producing ammonia as a basis for fertilizers and insecticides,
 - Non-ferrous metallurgy,
 - Lime, cement and gypsum plants.
- (3) Other industrial enterprises of interest in the regional development process.

CHAPTER VI

CHANNELS OF INFORMATION

All the above remarks have served to draw what is, of course, a partial picture, based on very general background information, of the industrial problems of an enormous area of the country, and in particular the province of Santiago del Estero, the capital of which is the oldest city in the country and is justly known as the Mother of Cities.

The existing distortions and the sociological situations, which have been outlined make the conclusion unavoidable that if the phenomena described become accentuated and adequate technical and relevant solutions are not applied, the region and the province will increasingly drift into an outright marginal situation by comparison with the moist Argentine Pampa and the metropolitan area.

However, adequate technical and relevant solutions cannot be developed at will, for the pre-requisite of social change is anxiousness to initiate or lay the foundations for a real start towards effective and integral development of man in our environment, now and in the future.

The laws which have been mentioned and the creation of the institutes referred to have been no more than a reply to the vehement cries of reality.

As regards this area, the information which is currently supplied to industrial enterprises which are already established or are to be established is channelled primarily through the State bodies which have been mentioned. From a purely institutional point of view, and quite apart from considerations of quantity or facility of access, the following may be listed:

- (1) Organization of the National Development Council,
- (2) National Institute of Statistics and the Census,
- (3) Regional Development Office (NOA),
- (4) Office of Development Advisory Services of the Provincial Ministry of the Interior,
- (5) Directorate-General of Statistical Research and Censuses of the Province,
- (6) Office of Economic Affairs of the Rio Dulce Corporation.

This need for information has also been felt by private activity, although it is true that, in the NOA region, economic opportunities at the level of medium-sized and small-scale industry have made possible neither regular publications and bulletins nor the improvement of other media or forms of information to bring them up to the standard required specifically for the industrial sector.

Furthermore, it should be pointed out that all kinds of communications, e.g. from national sectoral markets, chambers of producers, commodity exchanges and associations, without forgetting, of course, the Argentine Industrial Union, which publishes its balance sheets and reports (1969-1970), a quarterly review (January - March 1971), general information service bulletins and its periodical, "Argentina Fabril", have been collected and made available by the chambers of industry and commerce.

The General Economic Confederation of the Argentine Republic distributes its technical and economic publications through its local branches.

Part II of the annotated provisional agenda for this Seminar specifically refers to "the flow of expertise", and Part IV mentions the "roster of consultants" as a component of UNIDO service.

I therefore think that it could be interesting to point out that, in its paper entitled "Industrial Development - Technical Co-operation Project" (already referred to), the NOA specifies a share of funds (UNDP contribution) for expert services and international consultants (US\$540,000), as shown in annex.

Exactly the same situation is found in the Rio Dulce Corporation, since in the contract concluded for financing by the Inter-American Development Bank (IDB), article 5, sections 5 and 12, allocate US\$200,000 to cover the expenditure entailed by contracting. FAO experts have also participated and, thanks to the concern and dynamic action of the United Nations Resident Representative, experts are now on the spot.

As an example, the sources of information normally used by the departments of the Rio Dulce Corporation for industrial research and analysis are listed below. The information was provided by the departments themselves and is divided by origin into provincial, national and international categories.

Provincial

- Publications of the Office of Development Advisory Services,
- Office of Agricultural and Stock-Breeding Estimates of Santiago del Estero (under the National Ministry of Agriculture and Stock-Breeding),
- Publications and information from the Directorate for Statistical Research and Censuses,

- Information supplied by the Directorate of Industry and Trade,
- The Foods Institute of Santiago del Estero,
- Provincial Directorate of Agriculture and Stock-Breeding,
- Territorial Directorate of the Provincial Police,
- Publications of CORSAG (Stock-Breeders Corporation of Santiago),
- Railway freight offices,
- Qualified information officers of the Farmers' Federation of Santiago del Estero,
- Information directly supplied by the co-operatives located in the Rio Dulce project area,
- Information directly supplied by the private enterprises located in the Rio Dulce project area,
- Publications and other information from the INTA (National Institute of Agricultural Technology) Experimental Station,
- Information from other offices and departments of CRD.

National

- Federal Investment Council - various publications and special reports,
- Vegetable market (Industrial and Trade Section) - daily bulletins,
- National potato market (Industrial and Trade Section) - daily bulletins,
- Official information from bodies in other provinces (especially directorates of trade),
- National fruit market (Industrial and Trade Section),
- Union of Cotton Growers' Co-operatives Ltd. (UCAL) - periodic information,
- Cereal exchanges - monthly and annual statistical bulletins,
- National Development Bank - market analyses for industrial products of agricultural and stock-breeding origin - various studies,
- Argentine Federation of Farmers' Co-operatives (FACA) - various publications and personal information,
- Argentine Farmers' Federation (FAA) - various publications,
- Dairy services (National Ministry of Agriculture and Stock-Breeding) - annual statistical review,
- National Meat Council - annual review and published news items,
- National Agricultural and Stock-breeding Census (1960) and preliminary figures for the 1969 census,
- National Ministry of Agriculture and Stock-breeding - estimates concerning numbers of cattle,
- Argentine Fruit Producers' Association - daily bulletins,
- Argentine Chamber of Agricultural Producers (CAPIA) - monthly publications,

- Chamber of Manufacturers of Balanced Foods (CAFAB) - quarterly information,
- Argentine Association of Alfalfa Driers - general information,
- National Census of the Population, Households and Housing, 1970,
- Distribution of Income and National Accounts in Argentina (CONADE - ECLA),
- National Plan for Development and Security, 1971-1975 (CONADE - CONASE) - copy attached,
- Oil Seeds and their Oils - statistics on production, industrial processing and export (National Seed Council),
- Technical reports prepared by marketing experts (INTA),
- Statistical nomenclature - Foreign Trade Yearbook (National Directorate of Statistics and Censuses),
- Manufacturing Industry - National Economic Census, 1964,
- Quarterly economic reports on industry - Ministry of Economic Affairs and Labour.

International

- Economic consultancy reports - Argentine embassies in various countries,
- Chambers of Commerce of foreign countries,
- Foreign private enterprises,
- European market - GATT International Trade Centre,
- Special LAFTA publications,
- International Standard Industrial Classification of all Economic Activities - United Nations,
- Secretariat of Foreign Trade - Office of Administration,
- Monthly Bulletin of Agricultural Economics and Statistics (FAO),
- Brokers, commission agents and exporters for agricultural products and their derivatives - Central American Common Market - special publications,
- Latin American Institute of Agricultural Marketing (IDMA) - special published courses.

CHAPTER VII

CONCLUSIONS

It should first of all be made clear that, in preparing this paper, the main consideration was first of all to describe the institutional organisation of government bodies through which it is possible to obtain access to sources of information on any aspect of industrial development.

This led, as a natural result of a logical train of ideas, to a description of their functions. The author has also described their structure and main tasks, with special emphasis, of course, on the aspect of the matter with which we are concerned.

In addition, this special emphasis does not refer solely to sectors or subject matter, but also to geographical confines, since in recent years the author's activity has been primarily concentrated in the region described.

Therefore, the conclusions drawn from experience are limited in accordance with the above. Given this fact, I would make the following comments:

- (1) The NOA region hopes to supplement and intensify its general and industrial development efforts in co-operation with neighbouring foreign communities (see annex showing location). The exchange of communications and information is severely limited, and there are no facilities for this exchange.

Hence, it would be advisable to establish some institutional service in this respect which, in addition to fulfilling the minimum requirements, should possess the utmost flexibility.

- (2) The data and figures used by high-level institutions come from the basic organizations, which do not have the necessary human, technical and financial resources.

A step forward has been the establishment by the Catholic University of the Province of Santiago del Estero (private) of the first computer and information institute, which is still in the pre-operative stage.

- (3) It is difficult to obtain information on industrial technology since the continuing and dynamic presence of the relevant institutes now in existence has not made itself felt in this enormous area of the Argentine Republic.
- (4) The urgency of overall development has made possible the establishment in recent years of organizations which are endeavouring to respond satisfactorily to the need for knowledge and information in the industrial sector.
- (5) The NOA as an institution, which is a body of CONADE, has channelled its attention to the industrial sphere, but has not decided to set up a department devoted specifically to all branches of industrial information. It would be interesting and desirable to establish a special system to fill this gap.
- (6) Private activity, which is auxiliary and supplementary in this task, has not been encouraged or promoted by State assistance, and a package of credit and budget measures aimed at promotion along these lines is therefore needed.
- (7) There should be a greater number of more realistic opportunities, made possible by the presence of experts and consultants in particular regional development areas.

Above and beyond the experience and knowledge being gained in this seminar with the healthy intention of taking them back to the respective communities to which the participants belong, there is another factor which should be emphasized. In addition this industrial information which will help us to break the inertia of socio-peripheral situations or to accelerate growth movement, we are learning about the very existence of our respective countries, and this is very important because in order to appreciate and respect each other, we must first know each other.

Industrial development, as the drive-shaft of progress, is indispensable, but must itself be adjusted to the technological conditions and circumstances found at present in the international community.

Development, not as an end, but as a means to sustained and constant improvement of the lot of human beings, does not find its aim or acme in the industrial sphere. All aspects of it go to make up a perfect whole; without cultural development we shall have no industrial development; without development of minimum conditions of life in the spheres of health, basic infrastructure services, education and housing, we shall have no industrial development.

We should be seriously concerned with the problem of markets, and in particular their purchasing power, whether in connexion with the standard of living achieved by the individuals making them up or with the number of those individuals. These ideas should find expression in increased co-operation among the Latin American countries. All types of integration machinery should be made more flexible; the formation of multi-national companies should be promoted when, from our own point of view, the capital situation makes this necessary. This can result in a supply or demand which is not fragmented by countries, but integrated into a large continental region which will in the end give us the strength of presence to take our place as equals in the forum of world marketing and industrialization.

NOA - INDUSTRIAL SECTORS

<u>Province</u>	<u>No. of establishments</u>	<u>Personnel</u>	<u>Value of production^{*/}</u> (thousands of pesos, law No. 18,188)
Catamarca	603	2,664	15,567
Jujuy	684	8,537	272,526
Salta	1,852	10,799	480,408
Santiago del Estero	1,306	5,621	59,098
Tucumán	<u>2,618</u>	<u>27,271</u>	<u>701,372</u>
TOTAL	<u>7,063</u>	<u>54,892</u>	<u>1,528,971</u>

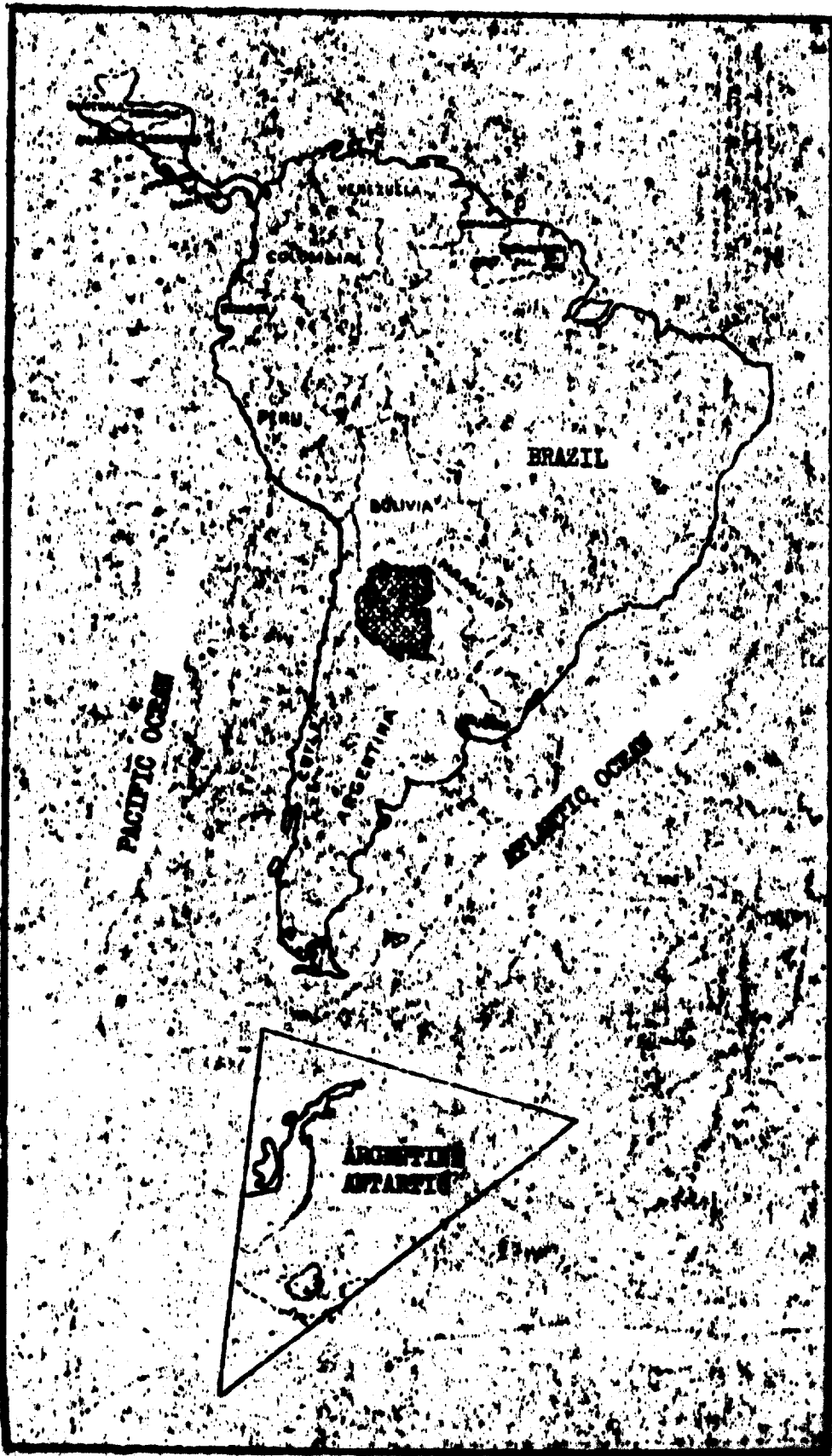
^{*/} At 1969 prices.

Source: National Economic Census, 1964.

GENERAL SUMMARY OF PROJECT COSTS
(in US\$)

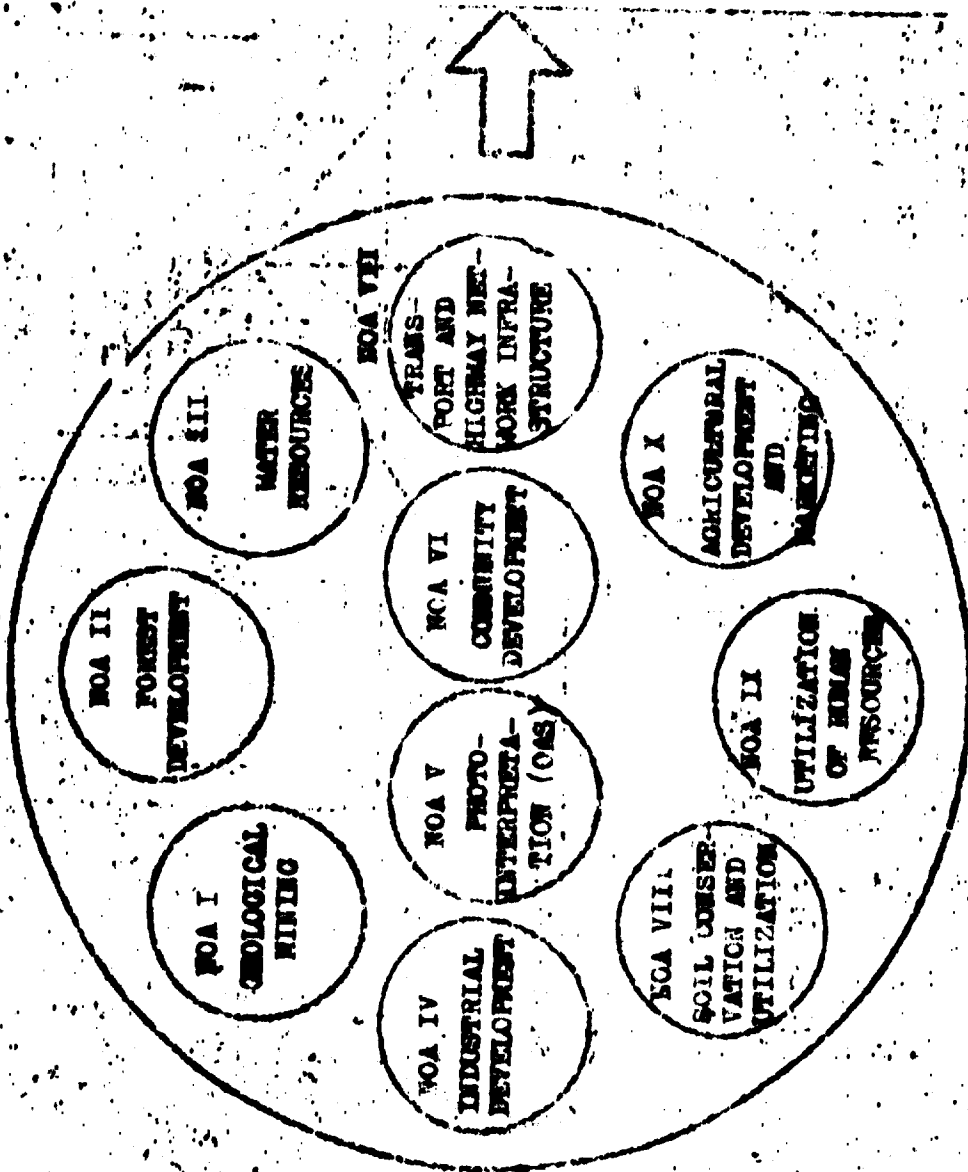
<u>Item</u>	<u>Contribution by the Government</u>	<u>Contribution by UNDP</u>	<u>Total costs</u>
International experts and consultants		540,000	
Counterpart personnel and national consultants	517,800		
Followships		116,000	
Fellowship stipends	100,000		
Secretariat and services	203,400		
Equipment	150,000	90,000	
Miscellaneous expenses		32,400	
Operating expenses	<u>50,000</u>	-----	-----
TOTAL PROJECT COSTS	1,021,200	778,400	1,799,600
Contribution for local expenses	81,000		
General expenses of the executing agency		85,624	
Direct UNDP expenses	-----	<u>5,000</u>	-----
TOTAL CONTRIBUTIONS	<u>1,102,200</u>	<u>869,024</u>	<u>1,971,224</u>

POSITION OF THE REGION WITH RESPECT
TO THE NEIGHBOURING COUNTRIES



OUTLINE OF THE NOA PROGRAMME
(General programme and sectoral projects)

1. PHILOSOPHY AND GENERAL ASPECTS OF NOA SECTORAL PROJECTS
2. OBJECTIVES OF NOA GENERAL:
 - I. Evaluation in the context of the general regional development plans for the Argentine Northwestern region, including the five provinces mentioned, of the main resources selected, with special emphasis on geological mining, forest, soil-science, hydro-geological and other aspects.
 - II. Analysis of opportunities for industrial development in relation to the assessment of resources in the region.
 - III. Definition of at least five specific general projects, in particular prefeasibility projects at the industrial branch or sub-branch and regional or provincial levels.
 - IV. Analysis of prospects for the supplementation, integration and expansion of the Altos Hornos de Zapla (Zapla blast furnaces) establishment.
 - V. Formulation of the bases for a programme for investment and the institutional adaptations required for facilitating the management of the credits required for the development of the region, with relation to the studies carried out and projects planned.



PERCENTAGE DISTRIBUTION OF THE POPULATION AND OCCUPATION IN INDUSTRY

DISTRICT	1939		1948		1960	
	Population in industry	Occupation in industry	Population in industry	Occupation in industry	Population in industry	Occupation in industry
Capital	19.0	44.2	18.7	41.0	14.8	20.9
Buenos Aires	27.0	26.5	26.7	31.4	33.6	45.6
Corrientes, Chaco, Santiago del Estero, Mendoza, Tucumán	16.9	7.5	16.6	7.8	15.8	9.4
Rest of the country	11.5	6.1	13.0	5.0	13.5	6.5

FLUCTUATIONS IN THE GROWTH OF THE URBAN POPULATION AND OCCUPATION IN INDUSTRY

DISTRICT	Percentage fluctuations registered in:			
	Urban population		Rural population	
	1947	1960	1948	1960
Total for the country	138.9	45.3	191.9	57.9
Federal capital	89.2	4.3	222.4	17.3
Buenos Aires	171.3	88.8	274.9	132.7
Catamarca	191.4	49.2	11.1	115.3
Jujuy	308.8	93.7	20.8	165.9
Salta	276.7	96.8	113.8	98.7
Santiago del Estero	236.0	36.0	81.3	118.2
Tucumán	97.2	40.6	77.0	81.7

These two tables reflect the continuing absorption of industrial enterprises and population by the provinces of Buenos Aires at the expense of the central regions.

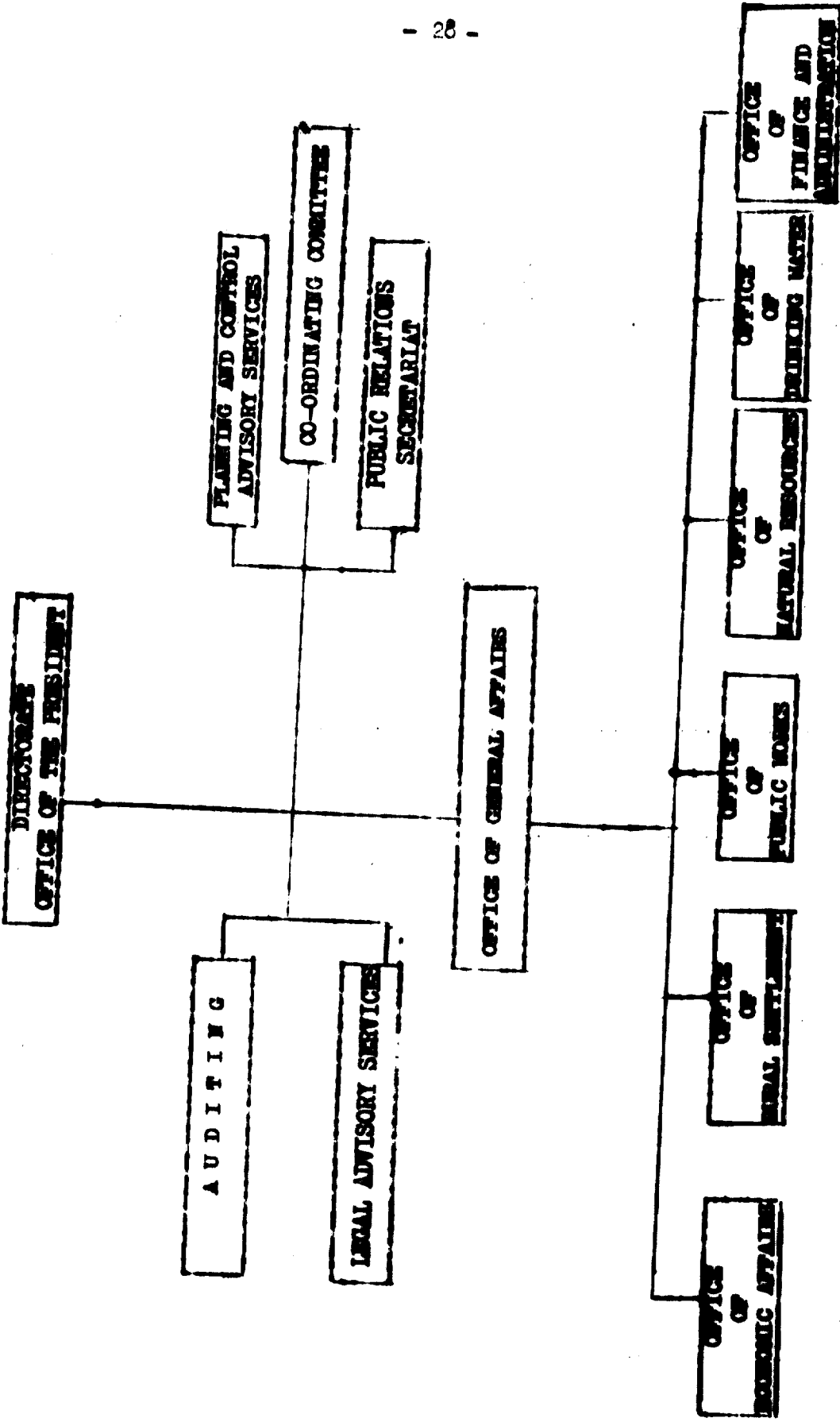
NOA - INDUSTRIAL SECTOR

PROVINCE	No. of enterprises	Personnel	Value of production (thousands of pesos, Law No. 18,188)
Catamarca	603	2,664	15,567
Jujuy	684	8,537	272,526
Salta	1,852	10,799	480,488
Santiago del Estero	1,306	5,621	59,098
Tucumán	2,618	27,271	791,372
TOTAL	7,063	54,892	1,588,971

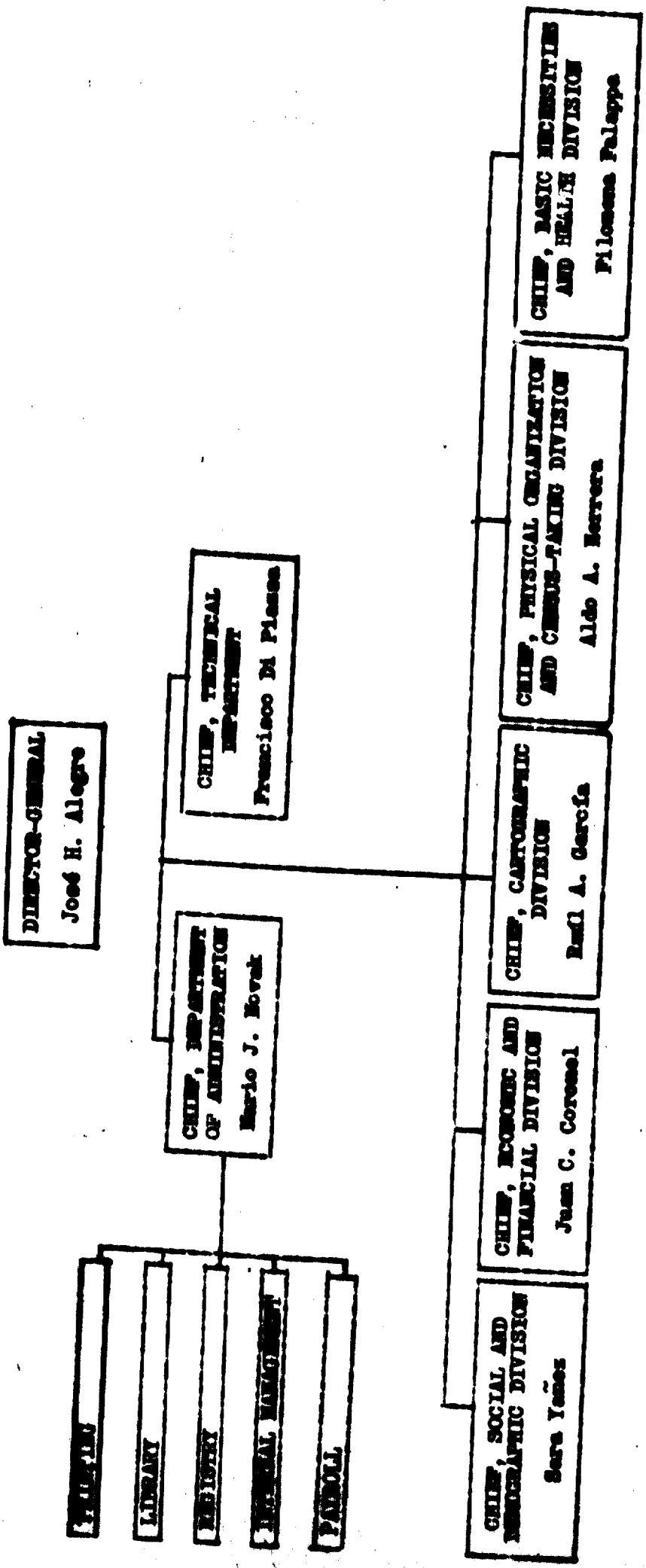
y at 1969 prices.

Source: National Economic Census, 1964

ORGANIZATIONAL CHART OF CBO



**ORGANIZATIONAL CHART
INSTITUTE-GENERAL OF STATISTICAL RESEARCH AND CENSUSES**



GENERAL SUMMARY OF PROJECT COSTS
(in US\$)

ITEM	CONTRIBUTION BY THE GOVERNMENT	CONTRIBUTION BY UNDP	TOTAL COSTS
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Part II. Report prepared by

Ivonne Allard de Guendot

Until some time ago, there was considered to be a direct relationship between the information explosion and, as a consequence of that explosion, the growing need for and justification of the existence of documentation centres.

Although only a short period has elapsed since that time, this reasoning is no longer current. Let us see why. If information can be defined as a resource for eliminating uncertainty and facilitating decision-making, then the problem to be solved, the problem-solving capacity of the individual taking the decision and the information available are inter-related factors which demonstrate the value of information.

In order to cope with a task, launch a new product in the consumer market or initiate a study on a specific subject, the first step - preliminary to any planning - consists in making an exhaustive study of all that has been done with regard to the subject. In this connexion, the greatest amount of information possible is an indispensable raw material and having it is an essential factor.

However, both large-scale indiscriminate accumulation and lack of information result in negative effects. Information must have two minimum qualities: it must be timely and adequate. And although it is true that the final evaluation is the sole responsibility of the individual taking a decision, the information is the result of preliminary work.

Social, political, economic and technological changes are complex processes revolving around ideas, experiences, knowledge and inventions of human beings, which are frequently promoted or stimulated by the search for responses to the desires and expectations which are constantly arising, increasing in number and becoming more urgent.

The spontaneous and intuitive gravitation of select groups was made possible in earlier times by the structural simplicity and small scale of environments. Today, the highly complex "situational reality" in which individuals and groups lead their lives permits this type of work to be done only by those who, in addition to having a clear understanding of the general frame of reference, are able to interpret the indices and variables relating to their own field and its standards of behaviour.

On the whole, access to this knowledge calls for a highly sophisticated organisation with regard to information and its processing and evaluation, the taking of decisions and maintenance of the flow of information, and there is no other way to achieve success concerning planning, programming, execution and the correctness of the changes in the proposed ideal objectives suggested by results.

Now, when we speak of industrial information, we do not, from our point of view, mean the impersonal provision - on demand - of data or informational references. Industrial information is the complete integrated effort to help the industrialist improve execution or performance, to the benefit of ability and quality, in other words, of development.

The National Institute of Industrial Technology (INTI) is a semi-autonomous body of the Secretariat of State for Industry, the purpose of which is to perform research of a technological nature and to provide technical assistance services. It serves entrepreneurial activity, both governmental and private.

The activities of this Institute revolve around two focal points: on the one hand, a group of central laboratories which provide services to industry in the three fields of chemistry, physics and testing of metal and other building materials and, on the other hand, a system of bodies connected with INTI and designated by law as research centres, in which industrial enterprises, universities or government agencies participate to carry out specific research or service programmes of use to industry.

As regards these centres, INTI contributes the use of its facilities, such as premises, equipment and laboratories and also makes a financial contribution which, in general, matches the contribution of the other party. An agreement lays down the specific programme of studies, the duration of existence of the centre, its administration, etc.

At the present time, INTI has more than 20 research centres operating, dealing with many branches of technology, whose activities range from basic research on subjects closely related to industrial applications to the direct provision of advice or information to enterprises on specific matters. They endeavour to promote the establishment of technology suited to policies of innovation in the industrial sector.

The more than 1,000 papers published by the Institute's professional staff members, its own publications and the existence of the Documentary Research Centre show how much importance the Institute attaches to the bibliographical sector.

As INTI was aware of the importance of documentary information for the best technical research in connexion with development, in the mid-1960s it promoted the establishment of the Documentary Research Centre (CID), with strong support from the Argentine Industrial Union and a group of chambers. It was decided that the primary task of CID would be to assist the technical personnel working in the central INTI

laboratories in Miguelote, the research centres in the DITI system and industry in general in meeting their requirements concerning the resources afforded by science and technology.

For purposes of providing the information required by industry, CID has a library specializing in various branches of technology which comprises:

- Analytical bibliographies which make it possible to locate information on specific subjects (e.g.: Chemical Abstracts, Bulletin Signalétique, Engineering Index, Plastic Abstracts, etc.); a large collection of national and foreign standards including IRAM, DIN, ASTM and other standards; general reference works, etc.;
- A large number of periodicals on applications in the industrial field regarded as the fullest collection of titles in the country; special mention is deserved by those dealing with engineering, metallurgy, textiles, foods and chemistry in general, and analytical chemistry in particular (including reviews in this field from all over the world).

All this documentation of course calls for continuous processing and classification work. There has recently been experimentation with a system for preparing information for subsequent selection by automated processes. In 1970, study was begun of the possibility of using the IBM 1130 computer at the Research Centre for Mathematical Techniques as Applied to Company Management (CITSADE), which is part of the DITI system, in a joint programme under which a model was developed which could meet the following requirements:

- (a) Indexing of the items to be filed,
- (b) Non-automated designation of key words making it possible to retrieve documents later,
- (c) Provision of a list of all key words, known as the system dictionary, to guide the search for documents,
- (d) Possibility of planning the search for documents meeting certain conditions,
- (e) Possibility of obtaining identification numbers and, possibly a list of the key words contained in the documents, abstracts of them, the author, publisher, etc.,
- (f) Possibility of keeping the system in the main library up to date with regard to additions and removals.

The overall system comprises two sub-systems: one concerning the library, its establishment and additions and removals, and the other concerning the retrieval of material with simultaneous satisfaction of the conditions specified.

The model developed is being used with positive results with regard not only to documentation, but also to other information requirements of the Institute.

As regards the external services provided by CID, members of enterprises, industrialists and chambers have access to:

- Bibliographical research,
- Special bibliographies,
- Translations,
- Standards,
- Photocopies,
- Microforms,
- Copies of patents,
- Manufacturers' specifications.

Thus, CID does not confine itself to providing the personnel of IFTI with the material which it possesses or can obtain through inter-library loan, for its services reach beyond the frontiers of the country, to the extent of supplying the user with any bibliography which can be found abroad, obtaining the microfiche or microfilm for him, enlarging it and, if necessary, translating its contents. CID has a reprography laboratory for making photocopies or enlarging microforms which is equipped with the following: Fotokopist, Microfilm Argentina, fixed-focus enlarger, Xerox, J.H. Mullens Microfiche, "filmsort 2000" process-camera A-0 (3M), microfilm machine sixteen (3M), printing reader 400 B 75 AB (3M), printing reader 400 C 75 ARLT (3M), two office-size offset printing presses and a four-up offset printing press.

The association of CID with the International Federation for Documentation (The Hague), American Documentation (United States of America), ASLIB (United Kingdom), the Asociación de Bibliotecas Científicas y Técnicas (Argentina) and its close contact with the Conseil National de la Recherche Scientifique (France), the Japan Information Centre (Japan), the National Lending Library (United Kingdom), the Library of Congress (United States of America), the Patronato Juan de la Cierva, OECD, the Bibliothek der Technischen Hochschule, the International Patent Institute, the Society of Automotive Engineers and the Technical Association of the Pulp and Paper Industry enable it to gain access to their publications and to make any inquiry, the beneficiary of which will of course be the user.

One of its aims is to investigate the problem of the lack of information for Argentine industry. For this purpose, it has encouraged and continues to encourage the conclusion of agreements at the institution or managerial level in order to make this information more accessible.

Special mention should be made of the work done by CID in organizing, operating, and starting up the libraries of the research centres in the INTI system. These centres can, on payment of 5 per cent of their annual budget, receive specific material relating to their research. By organizing this bibliographical material, CID fulfils the functions of central library with regard to secondary libraries set up in the centres.

Some of the bodies with which it maintains reciprocity of services are:

- The Association of Textile Chemists and Colourists,
- The National Atomic Energy Commission,
- The Trade Chamber of the Chemical Industry,
- The Dairy Industry Centre,
- The Textile Research Centre,
- The State-owned Oil Deposits (Yacimientos Petroliferos Fiscales).

Special mention should be made of the work which has been done since April 1970 at the Argentine Engineering Centre (CAI), where a team composed of professionals and assistants has re-organized the INTI/CAI Information Service, which belongs to the INTI system.

CID encourages its personnel to keep their training up to date by attending post-graduate courses.

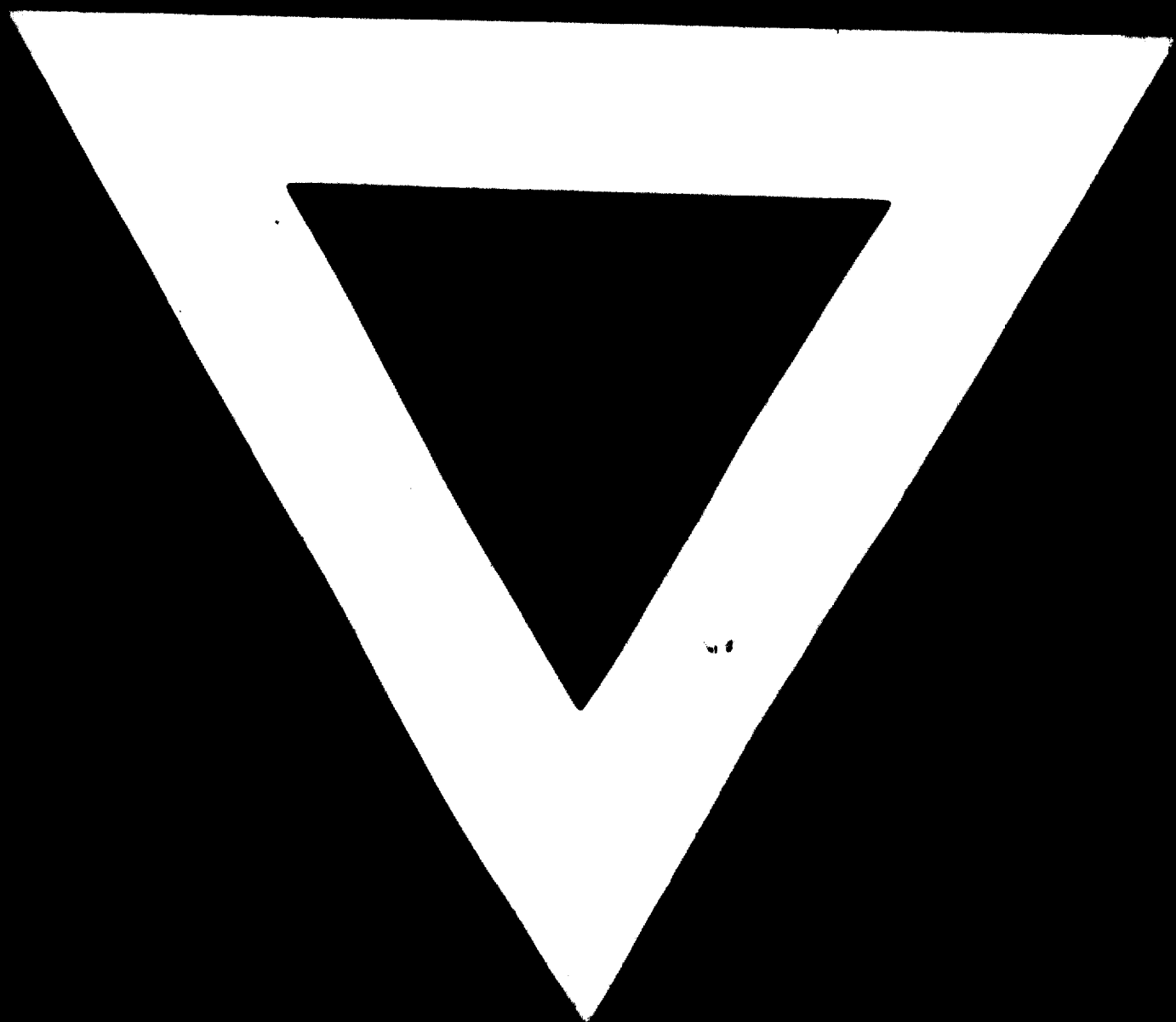
Of the research work carried out, mention should be made of the study of a system of faceted classification and the adaptation of an optical coincidence system, as applied at the present time to textile industry subjects.

Before concluding, we should like to point out that INTI can be considered as a model for technological information in Argentina because:

- (a) The Institute carried out technological research, in other words it generates technological information;
- (b) The Institute maintains direct links with industry through its information service and its technical assistance activities;
- (c) The Institute is linked with the Argentine Industrial Chambers, and, through them, with the whole range of national industries.

All the work we have thus far accomplished and intend in future to expand has, like any undertaking, a material aim, but we must not forget that, if at the same time a spirit of service and awareness of being useful are maintained, it is possible frequently and purposely to depart from orthodox methods in order to achieve greater speed and flexibility so as to ensure that our users derive the greatest profit possible from our services.





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