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INFORMATION AND DOCUMENTATION FOR DEVELOPMENT:
ANALYSIS AND PRESENTATION OF AN INVENTORY FOR A
LATIN AMERICAN COUNTRY

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INTRODUCTION

At the beginning of 1976, the Latin American Centre for Economic and Social Documentation of CEPAL (CLADES) contacted Latin American and Caribbean countries in order to invite them to take part in a project entitled "Inventory of Socio-Economic Information Units and Networks". The main purpose of this project was to carry out a diagnosis at the national and regional level to stimulate activities for the strengthening and integration of these services, which are indispensable in the handling of information for development.

This initiative, made possible through the sponsorship of the Canadian International Development Research Centre (IDRC), was warmly welcomed in practically all the countries concerned, all of which are member States of CEPAL, namely: Argentina, Barbados, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Chile, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, the Dominican Republic, Trinidad and Tobago, Uruguay and Venezuela.

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The present report presents the case of a Latin American country and seeks to illustrate how to approach the presentation of an inventory with a view to securing a change in information and documentation services for development. The report also provides a frame of reference for a discussion on the information problems of the country in question. We should like to emphasize that the document is of a preliminary nature, as it only indicates the general lines or trends of the functioning of the information units, on the basis of the statistical analysis of data obtained from a survey.

The interpretation of this information by those who have a detailed knowledge of the situation will enable a definitive diagnosis to be prepared. For this purpose this draft report is submitted for consideration to information users - planners, research workers, administrators, teachers, etc.; to specialists in the processing of information - librarians, documentalists, archivists, etc, and also

to those authorities who have the power of decision in matters concerning national information plans and policies.

Notwithstanding the provisional nature of this document, an analysis of the data has made it possible to identify, *inter alia*, the following problems and favourable aspects in this particular country. The main problems are:

- Lack of information services in key development fields, i.e., production and research.
- Information units operated by only one person, thus hindering effective attention to development needs.
- Inadequacy of bibliographical resources in areas directly connected with development.
- A tendency to diversification of subjects in areas which are eminently specialized.

Among favourable aspects the following may be mentioned:

- A general tendency to set up specialized units.
- The leading role played by the public sector in the establishment of information units.
- The rapid growth in the last decade of information units in the government field.

These results demonstrate the capacity of the inventory to indicate which are some of the main problems, where it is necessary to take action and who can carry out the action required. On this basis the authorities and specialists will be able to decide on the most suitable ways of solving priority information problems.

To assist the reader in locating these results and the bases on which they were reached, the layout of the present document is given below. It is divided into a main body and one annex. The main body comprises two chapters plus a section on final reflections. The first chapter contains some basic ideas on

information for development, the aims and scope of the project, the conception of the inventory as a catalyzing agent, and some comments of a methodological nature to facilitate its use. The second chapter presents the analysis and results of the inventory: an overall view of the situation as regards socio-economic information in the country; some leading aspects of the organization of information units; and finally the situation of the information services in relation to the different fields of socio-economic development. The main body concludes with an additional section which we have called "Final Reflections" and which identifies the projections of the inventory as an instrument of change and presents ideas on alternative action which could be taken.

Finally, Annex 1 contains statistical tables supporting the analysis presented in Chapter 2.

CHAPTER 1: INFORMATION AND DOCUMENTATION FOR DEVELOPMENT IN A LATIN AMERICAN COUNTRY: AN INVENTORY

1.1 Information for development: some basic ideas

The process of generating information is growing rapidly in the international field. This body of information, whether it be written, graphic or oral, quantitative (statistical data) or qualitative (ideas, concepts) must nevertheless be controlled and managed in order to be of use in the generation of new information in the innumerable decision-making processes which enable social and economic development activities to be promoted, assessed and modified at all levels.

Many nations, mainly those of the industrial world, have established machinery and institutions capable of handling and channelling this information, thus creating veritable nervous systems within government, business enterprises, universities, professional associations, and the machinery for disseminating information to the public in general. In addition, these developments have generally been accompanied by the formulation of national information policies and the allocation of vast resources to establish specialized institutions and to develop modern systems capable of meeting this challenge. This action has involved to a greater or lesser degree such groups of institutions as statistical services, communication media, libraries, archives, documentation centres, centres for the analysis of information, etc.

The Third World countries, and in particular those of Latin America and the Caribbean, are now becoming aware of the magnitude and seriousness of the problem, although there is still a noticeable lack of co-ordination in their information activities and policies. It is clear that much of the effort will have to concentrate on strengthening the institutions specializing in information, on rationalizing their exchanges, and on gradually establishing such institutions as are lacking. For the planning of these activities, however, there are only limited resources plus a knowledge of the experience of developed countries in this field, which calls for a high degree of inventiveness in adapting it to the social and cultural environment of each developing country.

The most noteworthy feature of the experience gained in the co-ordination of action and the formulation of policies on information - and one of the features most relevant and applicable to Third World countries - is the co-operation among institutions at the national, regional and international levels. Its logic is based on the fact that it has become impossible in recent decades for an institution or even a nation to assemble and process the mass of world information in any field of knowledge. Hence it is imperative to establish arrangements for the sharing of resources and services and to take an active part in the process of information transfer. A prominent place among these arrangements is occupied by co-operation agreements on the selection, acquisition, processing, storage and dissemination of information, which reach their greatest complexity in the information networks.

Another equally important idea which is worth stressing is that national or international information policies will be only partially effective if they continue to be based on a partial view of information whether it be regarded as information = statistics, information = documentation, or information = social communication. It is a fact that the different agents in the development process - planners, managers or businessmen, academics or the public in general - make use of various combinations of information to acquire knowledge about the facts of development, thus highlighting the need to adopt an integral view in formulating national information policies. This integral view has began to emerge in the form of institutions for the co-ordination of archives, libraries and documentation centres, in the rise of new techniques applicable in various information fields, and in the incorporation of new types of specialists in the field of information sciences.

Within this wide spectrum of problems relating to information for development, the CEPAL Latin American Centre for Economic and Social Documentation (CLADES) has formulated a strategy and programme of work centred on one of the aspects of information, namely, documentation, although fully aware of the importance and interaction of the other aspects - statistics and social communication.

The main interest of CLADES is in the strengthening and integration at the national and regional levels of a group of information units which it calls "information and documentation services". An information and documentation service is a specialized institution whose task is to select, compile, process, control and disseminate documents or information about the content and location of documents (bibliographical information) dealing with the social and economic aspects of development.

This broad concept of an information and documentation service includes libraries, documentation centres, centres for information analysis, institutional archives (press clippings, correspondence, contacts), etc., but excludes units responsible for information transfer, such as statistical data banks and data bases and press services. These latter units are nevertheless supported by information and documentation components, thus showing that information and documentation services as defined above not only constitute one of the basic supports of "information for development" by directly serving an important proportion of the needs of the users, but also coordinate and facilitate the operation of the other types of information units.

The integration of information and documentation services thus defined can be achieved through the exchange and rationalization of the resources and services of these units as required.

Finally, CLADES considers it important to strengthen those units which are of vital importance for the creation of an information network. It is evident that this and the above mentioned tasks must be approached by way of a combined and articulated set of information measures and policies.

1.2 Aims and scope of the project

For the organized promotion of the strengthening and integration of information and documentation services for development it is necessary to have a previous knowledge of the existence, location, capacity and functioning of these services. This knowledge can be obtained through an inventory or census, for which survey techniques are usually appropriate.

The present study, being part of a regional project, involved a survey of 24 countries all over Latin America and the Caribbean. In each country, especially those of large and medium size, information and documentation services are located in different cities, many of them very far apart. Moreover, the number of institutions involved in development is considerable, even in the relatively small countries. Normally each of them has one or more information and documentation services with some degree of organization.

For these reasons it was necessary to limit the scope of the inventory to a manageable size for the small CLADES research team and its national counterparts. Consequently, before embarking on the project "Inventory of Information Units in the Economic and Social Field", it was necessary to adopt working definitions for the terms "information units" and "economic and social field".

a. Information unit: This term is a more restrictive definition of "information and documentation service" which (i) includes only those libraries and documentation centres which have organized collections and sufficient staff to offer an information and documentation service, (ii) excludes institutional archives, (iii) excludes the information and documentation component of the statistical data banks, and (iv) excludes school and private libraries. Normally public libraries were also excluded, with the exception of national libraries or those which serve as such.

b. Economic and social field: This refers to the subject content of the collections of the information units, which is taken to (i) include socio-economic disciplines such as economy, sociology, law; (ii) include interdisciplinary development areas such as public health, the environment, and planning; (iii) exclude information units with collections specializing in exact and natural sciences (astronomy, mathematics) and general humane sciences (theology, philosophy), but (iv) include units specializing in technology (agronomy, engineering, medicine) whose collections generally contain information on socio-economic disciplines and interdisciplinary areas of development.

These limitations on the terms "information unit" and "economic and social field" restrict the study to a group of units whose role, although fundamental to the processes of decision-taking for development, is limited in that it does not cover all the needs of those processes. This group, although probably on the periphery of the information requirements of executives, researchers, and their advisers and assistants, nevertheless provides a starting point for future studies designed to cover the information units more directly linked with decision-making.

A final element regarding the scope of the inventory is the period when the survey of resources and services was carried out. The collection of data took place in 1976 and covers basically information applying to 1975.

1.3 The inventory as an instrument of change

Right from the start of the formulation of this project it was CLADES' intention to regard the inventory as a catalyzing instrument and promoter of change. This meant identifying and assessing different ways of organizing the project, in terms of their impact on each country. Consequently, an approach was adopted from the very start which went beyond the mere description and interpretation of the facts and was aimed at suggesting concrete action and policies in the field of information and documentation.

For this purpose, two fundamental aspects affecting the impact of the project were taken into account: (a) the conception of the end-products of the inventory (reports, directories) which would help to promote change, and (b) the procedure through which these products would be obtained.

As regards the question of procedures the potential impact of the project in its different phases was taken into account, and a model was chosen which aimed to maximize the involvement of the national institutions and specialists, not only in the discussion of the results and the formulation of action and policies on information and documentation, but also in the definition of the project and the collection of information.

In order to involve local institutions in the initial phases of the project, a plan of shared responsibility was followed which had been proposed in a background document previously submitted to the countries. ^{1/} There it was emphasized that the local collaboration should go far beyond mere administrative help and should on the contrary involve substantive and conceptual contributions from local professionals.

In the case of the planning of the end-products, too, the degree of national participation was taken into account, so that the institutions and persons involved in the problems and discussions would feel genuinely committed and involved. A strategy for the communication of the results of the inventory which made such participation possible was therefore evolved. ^{2/}

^{1/} CLADES: National Inventory of Socio-Economic Information Units - Possible scheme of distribution of responsibilities among the national sponsor institutions and CLADES. CLADES/PROY.REG/HIN/2.

^{2/} CLADES: The Inventory as an Instrument of Change: The Case of Development Information and Documentation Infrastructures in Latin America, CLADES/PROY. REG./MET./1, Santiago, Chile, October 1977.

This aspect, which we consider of vital importance, was approached in the light of two fundamental objectives: (i) to devise a diagnosis scheme which was basic and simple in terms of the quantity and quality of the constituent elements and (ii) to assemble these elements into sets of related material which, as well as being relevant to the diagnosis, would also be of interest to the development institutions concerned and would contribute to the possibility of promoting a change for a better in the situation.

In the light of these objectives, three "levels" of the information services to be subjected to diagnosis were conceived.

One level would be of an overall descriptive nature, that is, it would cover all the information units in the inventory. At this level, replies would be given to basic questions such as: "Where are the units geographically located?" "To what type of development institution do they belong?" "When were they established?" The reasons underlying the replies must be sought in very wide-ranging and varied factors deriving from the history of the economic and institutional development of the country. For the same reason, any change in their present situation is unlikely in the short and medium term, as it would require the formulation, implementation and co-ordination of sets of policies at the highest level.

Thus, for example, a change in the geographical location of the units requires sets of measures of a legal and economic type (affecting investment, income distribution, employment) which are proper to a regionalization plan. However, this type of diagnosis is essential as a frame of reference for the problem of information for development and as such will be of general interest.

A second level relates to the description of some aspects of the organization of information and documentation services. Here, replies are sought to the following questions: What is the size of the units? What is the speciality of their collections? What exchanges of information do the units carry out with other branches of the parent institution? What is the volume of the services provided? These aspects are mainly concerned with the potential and efficiency of the services, and would consequently give rise to a type of analysis which would be of interest mainly to directors of these services and the specialists who work in them. This angle of approach will also be of interest to institutions with national or sectorial coverage which are responsible for the co-ordination and promotion of cooperative activities in the information and documentation field.

Moreover, the possibilities of changing these basic aspects of the organization of the services could be more immediate, since it appears feasible to take medium-term action to improve the collections and services. Much of this work, however, will probably require co-operative effort among institutions of different nature, and certain difficulties may therefore be expected in harmonizing policies and procedures. Nevertheless, it is thought that this type of analysis is essential as a frame of reference for the preparation of horizontal strengthening policies, i.e., those which affect the totality of the information and documentation services in a country.

Finally, a third level of approach has been identified which is more complex in concept, more varied in description and more useful in action. It analyses the information service situation, by homogeneous groups sharing similar information needs, from four points of view: (i) fields of development (government, education and culture), (ii) sectors with different legal status (public sector, private sector), (iii) development agents (planners, researchers) and (iv) specialists in development problems (education, the environment).

For each of these points of view a diagnosis of the situation of corresponding information units will be made on the basis of questions such as: What services are at present available? In what fields do the collections specialize? What is the potential of the units in terms of staffing and the size of their collections? What access will the users have, through these units, to publications available in other branches of the parent institution?

This type of diagnosis, we believe, will be of great interest to development agents and institutions, since through it they will be able to place their information needs within a framework of units exceeding the capacity of the service they normally use. Moreover, the diagnosis will enable those responsible for the units to see their role in a wider context extending beyond the specific information needs of the institution they serve. Finally, the possibilities of introducing changes are greater on this level, since it directly involves the authorities of development institutions and requires their participation in the planning and implementation of policies.

On the basis of these three levels of diagnosis, the main results of the inventory are set out in the following chapter.

CHAPTER 2: INFORMATION AND DOCUMENTATION FOR DEVELOPMENT
IN A LATIN AMERICAN COUNTRY: ANALYSIS AND RESULTS

2.1 Information and documentation units: an overall view

Following the plan outlined in Chapter 1 (page 6), this section contains a descriptive analysis of all the information units in the inventory. This diagnosis is provided as a basic frame of reference for the problem "information for development" and is intended for the guidance of authorities and specialists of development institutions, information specialists, etc.

2.1.1 Development institutions and information

The institutions will be classified from two points of view: (i) their functional nature; and (ii) their legal nature.

In this section, for the sake of simplification, the term "institution" will be used to mean "the body which has the information unit under its administrative control".

The functional nature of the institutions in the development field signifies the type of contribution they make to the various facets and instances of the process of economic and social change. There is no need to emphasize the importance of this, since it constitutes the raison d'etre of the information units.

This aspect serves to classify the analysis according to the different fields of development. These fields have been grouped into five basic categories: Government, Education and Culture, Research, Production, and Services.

- i) "Government" comprises those institutions whose role is to regulate, orient and conduct the development process from a national viewpoint - ministries, centralized government bodies, municipalities, etc. - and it therefore includes all the administrative apparatus of the central government and the legislative and judicial powers.

- ii) "Education and Culture" includes those institutions responsible for disseminating knowledge of all kinds, whether through the training of human resources at different levels - universities, training institutes - or through the preservation of the cultural heritage, as in the case of the national library, national archives, museums, etc.
- iii) "Research" comprises those institutions responsible for producing new theoretical or applied knowledge - academic institutes, applied research centres, etc. - connected with development problems.
- iv) "Production" refers to those profit or non-profit-making institutions - agricultural, industrial or mining enterprises, etc. - which are engaged in the actual production of material goods: inputs, consumer articles, capital goods, etc.
- v) "Services" covers those profit or non-profit-making institutions - industrial associations, financial institutions, advisory bodies, transport and marketing enterprises, etc. - whose function is to provide all the supporting elements for the operations mentioned above, such as information, technical assistance, financial backing, etc.

Here a reference should be made to the definition of "functional nature" which was given in the questionnaires and which was wider than the present definition because of the difficulty of defining in advance the most representative functions of such bodies as development institutions, which are usually multi-functional. In order to simplify the classification, the categories have been broken down and organized so as to cover only the main function of the institution, excluding other functions and therefore other categories.

When the inventory of information units in our hypothetical country is analyzed, it displays a concentration of units in the fields of "government", "education and culture", and "services". Only 4 of the 31 units inventoried (13 per cent) belong to research and production, thus perhaps indicating that, if the sample is representative, these sections are insufficiently supplied with information units (Table 1)*. This does not mean that these sectors do not

* The tables mentioned in the text are given in Annex 1.

possess the necessary information for carrying out their work, but it does mean that the relevant documents are dispersed among the substantive units of the institutions, thus creating problems of lack of control of the documents, duplication in the different units, and ignorance of their existence in other parts of the institution.

The legal nature, for its part, denotes the characteristic which enables the institutions to be classified according to their legal status, i.e., according to the type of legislation which governs them. Thus we can distinguish the following categories: "public sector", "private sector", "international agencies sector", and "mixed sector" (semi-public, bi-national, etc.).

In collecting information on the legal nature of the institutions in the questionnaires, the different categories were regarded as mutually exclusive. However, there were cases where it was difficult to classify the replies, the problem generally arising when the unit was created with the joint financial backing of institutions of different types. In this situation the unit was assigned to the category of the legal sector which provides the greater part of its financial support.

In the country under consideration, a large proportion (77 per cent) of the institutions with information units will be found in the "public sector". As there were very few cases in the remaining categories, these have been combined in one category entitled "other sectors" (Table 2).

It is interesting to analyze the characteristics of the institutions which have information units when their functional and legal nature are taken together. Thus, a very high proportion (71 per cent) of the units belonging to the "public sector" is concentrated in the fields of "government" and "education and culture", whereas the institutions belonging to "other sectors" are generally found (again in the proportion of 71 per cent) in the "services" area (Table 3). It is noteworthy that in "other sectors" there are no institutions having information units which deal with "research", and there is only one dealing with "education and culture".

2.1.2 Evolution of the information units

This aspect was studied by analyzing the age of the information units. Age is a factor potentially indicative of the experience and achievements of the

unit in the provision of information services. For an overall analysis its importance is considerable, since it makes it possible to identify information and documentation policies implicit in the institutional development of the country.

For the purpose of analysis, the age has been calculated from the date when the information unit was established, i.e., the date on which it was first legally constituted or on which it actually began to operate. In the case of units which have subsequently been reconstituted or which have been transferred to the administration of another institution, their date of origin has been regarded as the earliest date of their establishment. This criterion may result in a slight over-estimation of the age of some units.

In the present analysis a classification consisting of three mutually exclusive categories has been employed for all countries, namely: i) before 1960, ii) the 1960s (1961-1970), and iii) the 1970s (1971 onwards).

The results of the inventory show that information units are relatively recent, since only 30 per cent of them were set up before 1961. On the other hand, there is a noticeable increase in the rate of establishment of information units in the present decade. Thus, while in the 1960s approximately one information unit per year was established, this rate increased to 2.4 units per year in the 1970s (Table 4).

Furthermore, the pattern of establishment of information units in the different types of development institutions reveals some very interesting contrasts.

As regards fields of activity, the "education and culture" sector has the proportionally oldest units - about 60 per cent were established before 1961 - whereas those in the "government" sector are of recent appearance, since the majority (70 per cent) did not begin their operations before 1970.

Moreover, the different areas of activity display differences in the rate of creation of information units: growth in the "education and culture" sector has been maintained during the last decade, while that in the "services" sector has decreased. On the other hand, growth in the "government" sector shows a remarkable increase: whereas in the previous decade only one unit was created, seven have been set up so far in the present decade (Table 5). Consequently it is the "government" sector which has latterly shown greatest dynamism in strengthening its institutions with information units.

From the point of view of their legal nature, a very considerable increase in "other sectors" was apparent in the 1960s, with an average growth rate of one unit every two years. This rate is double that of the present decade and contrasts with the dynamic growth rate in the "public sector", which has attained a rate of over two information units per year in this decade, although it should be noted that in the 1960s "other sectors" showed a dynamism equal or superior to that displayed by the "public sector". (Table 6)

2.2 Information and documentation units: organizational aspects

This section deals with a second level of analysis (chapter I, page 6), also descriptive in nature and referring to information units as a whole. This diagnosis considers technical characteristics of the organization and functioning of the units, and as such may be of particular interest to the directors of these services and the specialists who work there. This angle of approach may also be useful to those institutions responsible for the co-ordination and promotion of activities in the information field.

2.2.1 The size of information units

The size of information units is assessed through the size of their staff and the size of the collection of books, non-conventional documents and periodicals.

The size of staff is a fundamental aspect, since it indicates the potential capacity for providing information and documentation services. Moreover, according to the modern conception of information, staff resources have come to be more important than the collection in terms of the effectiveness of the information services.

In this analysis, the size of the organization has been measured by the number of staff working in the unit, irrespective of their level of qualification. As an indicator a simple mutually exclusive classification was used composed of the following categories: i) units consisting of only one person, ii) units of two to four persons and iii) units of five or more persons.

In this connexion, three out of every four information units in the country under consideration tend to be of "medium" and "small" size, that is, with a staff of four or less. Among these the usual size is the "medium" (2-4 persons), which accounts for about 50 per cent of all units (Table 7).

The size of the collection, for its part, is important because it may be indicative of the units potential for the supply of information, on the assumption that larger collections will normally lead to a more complete and relevant supply of information on any particular theme. The size of the collection is also of interest because of its relation to other organizational aspects of the unit, such as the size of staff, since it makes it possible to identify certain tendencies in the organization of these services in the country.

The size of the collection is measured quantitatively, as it does not reflect the quality of the information contained therein. The collections have been classified under two headings: i) books and non-conventional documents and ii) periodicals. The term "non-conventional documents" denotes those which are of restricted issue and difficult to obtain, as they are normally not channelled through the publishing industry, e.g., pamphlets, theses, conference papers, etc.

The definition of ranges for each type of collection is difficult to establish with accuracy, since it depends on the average size and the size distribution of the collections existing in each country.

In the case which concerns us the following ranges will be used to represent large, medium-sized and small collections of books and non-conventional documents: i) over 10,000 items, ii) between 2,000 and 10,000 items, and iii) less than 2,000 volumes items. In this respect the results are similar to those concerning size of staff, in that small and medium-sized collections are most numerous, with the latter slightly predominating (Table 8).

Collections of periodicals, for their part, are classified as large, medium-sized and small in the present context according to whether they contain over 200 titles, between 70 and 200 titles, and less than 70 titles, respectively. Here, in contrast with the previous findings, the results of the inventory do not show a clear predominance of any of the given categories (Table 9).

2.2.2 The specialization of the collection

The specialization of the collection may be considered as indicating its capacity to provide information relevant to the various problems of development.

Specialization according to subject was established with the aid of a list of socio-economic subjects, by means of which the units were asked to assess the subject coverage of their documents and estimate the extent to which each subject was represented in their collection. The list included development sciences or disciplines - economics, sociology, law, etc. - and interdisciplinary development areas, such as public health, transport, the environment, etc. It should be stressed that all the units were classified from the point of view of these socio-economic subjects, irrespective of whether other extraneous subjects predominated in the unit. Consequently, those units of a scientific and technical nature, e.g., institutes for medical or engineering research, were classified solely in relation to the size of their collections in socio-economic subjects such as planning, economics, business enterprises, etc.

On this basis the information units were very broadly classified in accordance with their specialization, the indicator used being the distribution of subjects in the collection of books and non-conventional documents.

- i) Specialized: those whose collections in development disciplines or in development areas exceed 60 per cent of the whole.
- ii) Non-specialized: those whose collections are equally distributed among various development disciplines and/or areas.

On the basis of this classification, the inventory of the country in question suggests that a little over half the units (55 per cent) tend to be specialized, with collections on development areas predominating among these (Table 10).

It is interesting to note that the establishment of information units with differing degrees of specialization would seem to have occurred in response to the institutional changes which have taken place during the development process. This is noticeable in the gradual change in the predominating fields of specialization of the units. Thus, whereas the majority of the units specializing in disciplines (83 per cent) and the non-specialized units (78 per cent) were established

before 1970, practically all (80 per cent) of the units specializing in development areas were set up in the present decade (Table 11).

The analysis of the size of staff in units of differing specialities only reveals that the units specializing in development areas tend to be "small", since none of them have more than four staff members. The fact that about 40 per cent of the non-specialized units have only one staff-member, however, is unexpected for this type of unit (Table 12). Finally, the inventory shows a contrast between the size of the collections of books and non-conventional documents and that of periodicals for the different specialized categories of information units.

With regard to books and non-conventional documents, the following tendencies are observed: (i) 60 per cent of the units specializing in disciplines have "large" collections; (ii) a similar percentage of those specializing in development areas have "small" collections; (iii) 50 per cent of the non-specialized units have "medium-sized" collections. On the other hand, it is surprising to find that more than 35 per cent of the non-specialized units have collections of less than 2,000 volumes, since in Latin America these units generally belong to central university libraries with "large" collections (Table 13).

With regard to periodicals, whereas the specialized units differ slightly from the tendencies mentioned in the previous statement, the non-specialized units reveal a completely different situation. Thus, study of the data reveals that: (i) the units "specializing in development areas" have "medium-sized" and "small" collections (80 per cent); (ii) the units "specializing in disciplines" possess on the whole large and medium-sized collections (about 70 per cent); (iii) 50 per cent of the non-specialized units have collections of over 200 titles (Table 14).

The predominant features of each category of specialization are summarized in the table given below, a study of which leads to the following conclusions:

- i) The great majority of information units "specializing in development areas" are of recent establishment, with "small" collections of books and non-conventional documents, and "small" and "medium-sized" collections of periodicals;

SUMMARY TABLE N° 1

FEATURES OF THE INFORMATION UNITS, CLASSIFIED
ACCORDING TO THE DEGREE OF SPECIALIZATION OF
THEIR COLLECTIONS

	Date of establishment	Size of staff	Size of their collections of books and non-conventional documents	Size of their collections of periodicals
Specializing in development areas	Recent (1971 onwards) (80%)	Small and medium-sized (less than 5 staff members) (100%)	Small (up to 2,000 volumes) (80%)	Small and medium-sized (up to 200 titles) (80%)
Specializing in disciplines	Early (before 1971) (83%)	*	Medium-sized and large (over 2,000 volumes) (100%)	*
Non-specialized	Early (before 1971) (79%)	*	Small and medium-sized (up to 10,000 volumes) (86%)	Large (over 200 titles) (50%)

* Indicates that the figures do not show a predominant pattern as regards this aspect.

- ii) The information units "specializing in disciplines" are almost all earlier than 1971 and have "large" and "medium-sized" collections of books and non-conventional documents;
- iii) The "non-specialized units" were mostly set up before 1971 and possess "small" and "medium-sized" collections of books and non-conventional documents and large collections of periodicals.

In short, there emerge two distinct patterns applicable to units of different specialities: (i) that of the units "specializing in disciplines" and the "non-specialized" units, most of which were set up before 1971 and have larger collections, and (ii) that of the units "specializing in development areas" which comprise the more recent and smaller units.

2.2.3 Integration into the information system of the institution

The development institutions within which the information units are located normally process a great variety of information. This is assembled, selected, processed, stored and disseminated in different departments of the same organization, such as the institution's archives, the statistical office, the publications office, the library, the documentation centre, etc. The sum total of these units constitutes what has here been called the "institutional information system". This system will be regarded as more or less "integrated" if communication to a greater or lesser degree is maintained between the different components of the system. It will be regarded as "not integrated" if there is little or no communication, with resulting duplication and overlapping in the information services which these units provide.

This aspect has been included in the diagnosis because it makes it possible to study, for example, its relation to the fields of development served by the units. Thus it is considered that the units serving the Government field should be more integrated in order to provide a range of information going beyond the merely bibliographic which is provided by libraries and documentation centres.

The degree of integration was measured through the links between the information unit, whether this be a library or a documentation centre, and other units existing in other branches of the institution, with special emphasis on the information unit's control of or access to the documents produced by the organization.

The degree of integration was then classified into three mutually exclusive categories: "full", "limited" or "non-existent", according to the degree of linkage with the internal files of the organization, irrespective of the formal or informal nature of this linkage.

With regard to this problem, this inventory suggests that the information units show little or no integration into the institutional information system, since two out of every three units show "limited" or "non-existent" integration (Table 15).

It is interesting, moreover, to note the influence of the year of establishment of the unit on its degree of integration into the institutional information system. In the first place, a clear tendency towards full integration is noticeable in the recently established units. Thus, while 7 out of 11 (63 per cent) recent units are fully integrated, this applies to only 12 per cent of those established before 1971. This might imply that it is not a process of maturity with the passage of time which tends to lead to the setting up of institutional information systems, but rather the influence of other factors present in the new units (Table 16).

An equally interesting pattern is seen in the relationship between the size of the information unit, as measured by the size of its staff, and its degree of integration into the institutional information system. On the one hand, this shows that units with only one staff member are on the whole "non-integrated" or have only "limited integration", while the other suggests that units with relatively large staffs (five staff members or more) also tend to show little integration. Thus, only one in 8 units and one in 7, respectively, show full integration into the institutional information system. In this hypothetical context there would seem to be an optimum size - between 2 and 4 staff members - favouring a greater degree of integration. This can be seen from the fact that more than half the units of this size - 7 out of 13 - reveal a full degree of integration (Table 17).

Finally, there is quite a clear relationship between the degree of specialization of the collections and the degree of integration into the institutional systems. The units with a full degree of integration tend to be specialized units, whereas those where integration is limited or non-existent tend to be non-specialized. Thus, 3 out of every 4 units with a "full degree of integration" are "specialized", whereas more than half of the units with little or no integration are "non-specialized" (Table 18).

Lastly, it is noticeable that the units "specializing in development areas" are concentrated equally at the two extremes of integration, i.e., "fully integrated" or "not integrated".

2.3 Development institutions and information and documentation units

Following the plan proposed in chapter 1 (page 7), we give below the third level of analysis, which refers to the situation of the information services in a Latin American country from the point of view of the information needs of two homogeneous groups, namely: (i) the group classified by fields of development activity (Government, Education and Culture, Research, Production, Services) and (ii) the grouping by legal sectors of the development institutions (Public Sector, Other Sectors).

2.3.1 Information and documentation for fields of development activity

With regard to size of staff, it is observed that the information units dealing with "education and culture" tend to have a "large" staff, while those dealing with "government" and with "services" tend to have a "medium-sized" or "small" staff. Thus, 75 per cent of the units in the "education and culture" field have 5 or more staff member, while 90 per cent of the "government" units and all the "services" units have fewer than 5 staff members.

The "production" and "research" fields of activity have been excluded from this analysis as they have only two information units each, thus precluding a valid statistical analysis.

It is significant that the highest percentages of units with only one staff member are "government" and "services", both of which register a proportion equal to or higher than 40 per cent, which seems too high in view of the fact that units with only one staff member are normally very limited in the services they can offer (Table 19).

A similar pattern is observed in the size of the collections of books and non-conventional documents. Thus, in "education and culture" all the units have "large" and "medium-sized" collections, whereas in "government" and "services" "small" and "medium-sized" collections predominate, accounting for 90 per cent and 78 per cent respectively (Table 20).

The position is different in the case of periodicals, where "government" is the only one which maintains a similar pattern to the above, with a preponderance of "medium-sized" and "small" collections (80 per cent). On the other hand, a very interesting feature of "education and culture" is the polarization of the units into either "large" or "small" collections. This would suggest the presence within this field of two types of units, in which periodicals fulfil a different role. In "services" also there is an unexpected change, since units with "small" and "medium-sized" collections of books and non-conventional documents possess "medium-sized" and "large" collections of periodicals (Table 21).

Analysis of the degree of specialization of the information units corresponding to different fields of development activity produced very clear results. The information units in the "government" field are mainly (60 per cent) "specialized in development areas", whereas in "education and culture" and "services" the "non-specialized units" clearly predominate, accounting for approximately 70 per cent in both cases.

This pattern was fully expected in "government" and "education and culture", but the predominance of "non-specialized units" in the "services" field was something of a surprise (Table 22).

A final interesting aspect of the information units serving the different fields of development activity is the volume of information and documentation services which they offer. This aspect makes it possible to gauge the amount of information support supplied by the units to the development institutions and agents and hence to compare the present supply of services with that which will be required for the planning of economic and social development.

In this inventory the volume of services has been measured from two points of view: that of "circulation", in the form of home loans or consultation in the reading rooms, and that of "reference services".^{1/} The size ranges for these services depend, as in the case of the collections, on the average size and its corresponding distribution in each country. In the present case, circulation is described as "high", "medium" or "low" according to the number of books made available weekly: i.e., over 250, between 101 and 250, and 100 or less, respectively. The volume of reference services for its part, is classified as "high", "medium" or "low" according to the number of enquiries dealt with weekly, i.e., over 200, between 51 and 200, or 50 or less, respectively.

^{1/} In the questionnaire used in the inventory, "reference services" included both the replies to short questions put by the users in the reading room and those requiring an exhaustive search for and selection of information.

In overall terms, the information units of the country in question reveal a polarization of levels of circulation. Thus, a considerable proportion of units (35.5 per cent) provide a weekly service of over 250 volumes, which at the same time 45.2 per cent provide a service of 100 volumes or less per week (Table 23).

On the other hand, the volume of reference services is distributed equally among the different categories, with a slight predominance (39.3 per cent) of the "high" volume category (Table 24).

Analysis of the weekly volume of circulation in relation to fields of development discloses that the units serving "government" and "services" provide a low volume of circulation (50 per cent), whereas the units serving "education and culture" provide a high volume of circulation (87.5 per cent) (Table 25).

The monthly volume of reference enquiries, however, when compared with the circulation services, reveals a similar performance in both "government" and "education and culture", but the position is very different in "services", where the volume of reference enquiries is relatively high (Table 26).

The following Summary Table gives the most relevant characteristics of the information units, grouped according to the different fields of development activities.

The table shows that:

- i) The "government" units tend to be "medium-sized" or "small" in terms of personnel, with "small" or "medium-sized" collections of books and non-conventional documents and also of periodicals; they are generally "specialized in development areas" and "low" in volume of information services.
- ii) The "education and culture" units tend to have "large" staffs and "large" collections; they are generally "non-specialized" and have a "high" volume of information services.
- iii) The "services" units tend to have "medium-sized" or "small" staffs; they are basically "non-specialized" and have a "low" volume of circulation.

SUMMARY TABLE N° 2

FEATURES OF THE INFORMATION UNITS, CLASSIFIED
ACCORDING TO THE MAIN FIELD OF DEVELOPMENT
ACTIVITY OF THE INSTITUTION

	Size of staff	Size of collection of books and non-conventional documents	Size of collection of periodicals	Specialty of collection	Weekly volume of circulation	Weekly volume of references
Government	Small and medium-sized (less than 5 staff-members) (90%)	Small (up to 2,000 volumes) (50%)	Small and medium-sized (up to 200 titles) (80%)	Specializing in areas of development (60%)	Low (100 volumes or less) (50%)	Low (50 references or less) (50%)
Education and Culture	Large (5 staff members or more) (75%)	Medium-sized and large (over 2,000 volumes) (100%)	Large (over 200 titles) (50%)	Non-specialized (75%)	High (250 volumes or more) (87.5%)	High (more than 200 references) (63%)
Services	Small and medium-sized (less than 5 staff members) (100%)	*	*	Non-specialized (67%)	Low (100 volumes or less) (56%)	*

* Indicates that in this aspect the figures do not show a predominant pattern.

2.3.2 Information and documentation for the legal sectors of development

The different legal sectors were grouped, in our Latin American country, into two institutional categories, "public" sector and "other" sectors. This latter category was formed from a combination of the units in the national private sector, the international organizations sector, and the mixed sector, which taken separate were too few to allow for a percentage analysis.

With regard to the size of staff of the units in the different legal sectors it can be seen that, while the units in the Public Sector have mainly (46 per cent) "medium-sized" staffs i.e., between 2 and 4 staff members, the units in Other Sectors have mainly "medium-sized" and "small" staffs (86 per cent).

Moreover, it emerges that the number of units with only one staff member is greater in "Other Sectors" than in the "Public" Sector. From these two facts it would appear that the "Public" Sector has the greater potential in information and documentation services, from the point of view of staff resources (Table 27).

Comparative analysis of the "Public" Sector and the "other" Sector as regards the size of their collections of books and non-conventional documents gives results similar to those concerning size of staff. Generally speaking, there is a greater wealth of these bibliographical resources in the "Public" Sector (Table 28).

The situation is different, however, in the case of periodicals. Here it emerges that the "Public" Sector is not so markedly superior to the "Other" Sectors, whose units tend to have periodical collections of "medium" and "large" size (Table 29).

As regards information services, measured in this specific case by the monthly volume of circulation, no clear difference in pattern emerges between these two sectors, as the volumes of circulation in each case are relatively similar (Table 30).

Summary Table N° 3 depicts the characteristics mentioned in the analysis of the information units according to their legal nature.

This table shows that:

- i) The information units in the "Public" Sector tend to be "medium-sized" or "small" in size of staff and in their collections of books and non-conventional documents.
- ii) The units in the "Others" Sector tend to be "small" and "medium-sized" in staff resources and "small" in their collections of books and non-conventional documents.

Finally, in the light of this analysis and especially in view of its large number of units, it would appear that the "Public" Sector possesses a greater potential for providing information and documentation services than the "Other" Sectors: a fact which gives it a key role in the planning and implementation of national policies on information for development.

SUMMARY TABLE N° 3

FEATURES OF THE INFORMATION UNITS, CLASSIFIED
ACCORDING TO THE LEGAL SECTOR OF THE INSTITUTION

	Size of Staff	Size of Collection of books and non-conventional documents	Size of Collection of Periodicals
"Public" Sector	Small and medium-sized (Less than 5 staff members) (75%)	Small and medium-sized (up to 10,000 volumes) (79%)	*
"Others" Sector	Small and medium-sized (Less than 5 staff members) (86%)	Small (up to 2,000 volumes) (57%)	Medium-sized and large (over 70 titles) (80%)

* Indicates that in this aspect the figures do not show a predominant pattern.

SOME FINAL CONSIDERATIONS

This section contains some ideas on the projections of the inventory in the Latin American country which we have analyzed by way of example. It is CLADES' intention that these reflexions should serve as a basis for the discussion phase which will begin with the National Diagnostic Seminar and that they should form a frame of reference for the persons and institutions participating in the formulation, direction and implementation of the programmes for the development of the information and documentation services in the country.

First of all, we should like to give the usual warnings about this type of study. We refer to the caution which must be used in considering the conclusions and inferences which figure throughout the text. In effect, mention should be made of three limiting factors, in connexion with the validity of some of the aspects of the study, which were obvious from the very outset: (a) the coverage of the project in terms of the type of information units and their sectoral specialization; (b) the representativity of the sample in the context of the coverage adopted, and (c) the number of aspects or characteristics of the information units which were incorporated into the analysis.

In the first place, as explained in Chapter 1, the unit of analysis selected was the information and documentation service, leaving aside the statistical and social communication services. Furthermore, the information and documentation service analyzed did not include the archives or other units of the development institutions which normally handle information relevant to research or decision-taking. Thus the inventory concentrated exclusively on libraries and documentation centres.

Moreover, the socio-economic subject field used for the selection of these libraries and centres excluded books and material of a scientific and generally humanistic nature which might perfectly well have been included if a wider concept of economic and social development had been used. The reasons for the adoption of this restricted approach were mainly practical and administrative, as pointed out in Chapter 1.

A second limitation, less generalized than the first, relates to the sectoral representativity of the sample. Here the reservations do not refer to the overall representativity, which appears to be quite reasonable, but to possible

distortions in the sample which might mean that some sectors were not fully represented. The absence of an exhaustive list of units prevents us from assessing the magnitude of the possible distortions.

A final important limitation, though different in nature from the other two, lies in the fact that the number of aspects selected - approximately 10 out of 100 - represents only a small proportion of those included in the inventory. The decision to reduce the complexity of the analysis was due to reasons unconnected with the conceptual plan. Thus it was felt, on the one hand, that the simultaneous treatment of all the aspects was not feasible either in a report or at a discussion meeting and it was decided to leave the preparation of a more detailed analysis for future stages of the project. The inclusion of the remaining factors would also have involved a much longer time of preparation of the preliminary report, which would have appreciably delayed the submission of this document to the countries. CLADES is at present studying the possibility of sending the rest of the inventory results in the near future, together with an outline analytical procedure which would enable the local authorities and specialists to participate in the interpretation of the valuable information still pending.

The limitations implicit in the present report, however, do not affect the validity of some of the conclusions which have emerged in this phase of the analysis, nor should they hinder the initiation of action in this field. This need for action is clearly discernible against the background of a number of positive trends in the country which create a favourable situation for introducing the required changes.

Thus, in the face of some of the specific problems which have been identified - prevalence of units with only one staff member, paucity of collections relating to development areas, absence of information and documentation services supporting the Production and Services fields of development, etc., - some very positive factors may be noted. Among these is the existence of a relatively new group of information units which might present less resistance and opposition to change; the accelerated establishment of information units in the Government field of development, which reveals a favourable attitude on the part of the authorities towards solving the problem of information in this sector, and an increased trend towards specialization in recent years, which reveals a more general awareness of the new demands for information which development entails.

At the same time it should be noted that this action requires the participation not only of information specialists but also of development authorities and specialists since, within the modern concept of information, although nothing can be done without the information specialists, the delegation to them alone of responsibility for the design and selection of information systems might result in the failure of the latter to meet the specific requirements of the development institutions and agents.

How do we envisage this participation of the development agents?
We see it on different levels:

1. In their capacity to define their specific information needs and to contrast them with the information services available in the country.
2. In their capacity to incorporate their specific information needs into the choice and design of systems and the formulation of policies to strengthen and integrate the information units.
3. In their capacity to implement information policies and correlate them with other development policies such as those relating to education, scientific and technological research, agricultural and industrial investment, etc.
4. In their capacity to reconcile international technical and financial assistance with national information policy.
5. In their capacity to negotiate national participation in international networks or systems of information.

To carry out these actions, which can only be implemented by national participants, we envisage three closely-linked operations: (i) to establish priorities among the problems mentioned in accordance with the objectives and historical features of the country itself, (ii) to find and assess alternative solutions for these priority problems, (iii) to work out policies and concrete projects for action and, at the same time, (iv) to identify sources of finance and technical assistance, both internal and external, for implementing these decisions. These examples hold good, of course, whatever the approach adopted to surmount these problems: whether it be national, at the level of regions within the country, or sectoral.

Let us suppose, by way of example, that the Public Sector takes an interest in the problem of the large number of units with only one staff member and weighs alternative policies to remedy this situation, since it considers this a factor limiting the efficacy of the information services. In this case the following alternatives might be considered: (i) to increase the staff of the unit, (ii) to divert some of the duties to other administrative branches of the institutions (e.g., participation of development specialists in document analysis), (iii) to provide the existing personnel with techniques for the better administration of their unit, (iv) to modify the rules governing the recruitment and promotion of personnel, etc.

Finally, we should like to conclude this document with some comments on what has already been achieved in this country. Our original aims were to publicize and create awareness of the problem of information for development, to promote widespread participation leading to relevant conclusions in the context of the national situation, and to stimulate and orient concrete action in this field. All this, of course, was planned on the assumption that real and reliable knowledge could be obtained of the situation of the information units for development, with the object, subsequently, of communicating it and placing it at the service of the country.

In the present phase we consider that the project has produced positive results which far outweigh its limitations. To date it is possible to point to important achievements, as well as other aspects which provide a challenge for the future. Among the achievements the following can be mentioned: (i) a greater knowledge of the situation of information and documentation services, (ii) the large-scale participation of information specialists and development agents in the planning of the inventory and the collection of data; and (iii) the presentation of an integrated approach to information problems.

Among the points which might be considered as challenges are the following: (i) securing a change in attitudes and ideas about the information problem in Latin America; (ii) intensification of fruitful dialogues among those connected with this problem; and (iii) above all, action to strengthen the information and documentation services and to equate them to development needs.

Without minimizing the importance of international collaboration in the information field, we nevertheless believe, that an effective response to these challenges will depend in great measure on the active participation and creative

contribution of national elements, consisting of information authorities, users and specialists, who will need to exercise leadership in future stages in order to ensure continuity of the efforts to solve the complex problem of information for development.

STATISTICAL TABLES

TABLE 1

DISTRIBUTION OF INFORMATION UNITS BY FIELD OF DEVELOPMENT ACTIVITY OF THE INSTITUTION

	Number of Units (%)	
Government	10	(32.2)
Education and Culture	8	(25.8)
Research	2	(6.5)
Production	2	(6.5)
Services	9	(29.0)
TOTAL	31	(100.0)

- The fields of "government", "education and culture" and "services" account for practically all the information units (87 per cent).
- The "research" and "production" fields have only two units each, so they are not taken into account in the analysis.

TABLE 2

DISTRIBUTION OF INFORMATION UNITS BY
LEGAL STATUS OF THE INSTITUTION.

	Number of Units	(%)
Public Sector	24	(77.4)
Other Sectors	7	(22.6)
TOTAL	31	(100.0)

The sample shows that 3 out of every 4 units are in the "public sector", so that for analytical purposes the small percentages for other sectors were lumped together in one category.

TABLE 3

DISTRIBUTION OF INFORMATION UNITS BY LEGAL STATUS
AND FIELD OF DEVELOPMENT ACTIVITY OF THE INSTITUTION

	Public Sector	Other Sectors	Total
Government	10 (41.6)	0 (0.0)	10 (32.2)
Education and culture	7 (29.2)	1 (14.3)	8 (25.8)
Research	2 (8.3)	0 (0.0)	2 (6.5)
Production	1 (4.2)	1 (14.3)	2 (6.5)
Services	4 (16.7)	5 (71.4)	9 (29.0)
TOTAL	24 (100.0)	7 (100.0)	31 (100.0)

- Of the total number of the "public sector" units, 70.9 per cent of the institutions to which they belong are engaged in the fields of "government" and "education and culture" (41.6 per cent and 29.2 per cent, respectively).
- Those in other sectors, on the other hand, belong for the most part to institutions engaged in "services" (71.4 per cent).

TABLE 4

DISTRIBUTION OF INFORMATION UNITS BY AGE

	Number of Units	(%)
Before 1961	9	(30.0)
Between 1961 and 1970	9	(30.0)
Since 1970	12	(40.0)
TOTAL	30	(100.0)

- The information units in the socio-economic field have been established fairly recently; only 30 per cent were set up before 1961.

- The establishment of units has been stepped up in the past decade; 40 per cent have been set up since 1970.

TABLE 5

DISTRIBUTION OF INFORMATION UNITS BY FIELD OF
DEVELOPMENT ACTIVITY OF THE INSTITUTION AND AGE

	Government	Education and Culture	Research	Production	Services	Total
Before 1961	2 (20.0)	4 (57.1)	2 (100.0)	0 (0.0)	1 (11.1)	9 (30.0)
Between 1961 and 1970	1 (10.0)	2 (28.6)	0 (0.0)	0 (0.0)	6 (66.7)	9 (30.0)
Since 1970	7 (70.0)	1 (14.3)	0 (0.0)	2 (100.0)	2 (22.2)	12 (40.0)
TOTAL	10 (100.0)	7 (100.0)	2 (100.0)	2 (100.0)	9 (100.0)	30 (100.0)

- The units in the field of "education and culture" are proportionally the oldest (57.1 per cent were established before 1961).
- The majority of those belonging to "services" institutions were set up during the decade 1961-1970 (66.7 per cent).
- The "government" units were established more recently (70 per cent since 1970).

TABLE 6

DISTRIBUTION OF INFORMATION UNITS BY LEGAL
STATUS OF INSTITUTION AND AGE

	Public Sector	Other Sectors	Total
Before 1961	8 (34.8)	1 (14.3)	9 (30.0)
Between 1961 and 1970	4 (17.4)	5 (71.4)	9 (30.0)
Since 1970	11 (47.8)	1 (14.3)	12 (40.0)
TOTAL	23 (100.0)	7 (100.0)	30 (100.0)

- The decade 1961-1970 is the period when most units were established in "other sectors" (71.4 per cent).
- 65.2 percent of the "public sector" information units were set up either after 1961 and specially since 1970 (47.8 per cent).

TABLE 7

DISTRIBUTION OF INFORMATION UNITS BY SIZE OF STAFF

	Number of Units (%)	
Large (5 or more staff members)	7	(22.6)
Medium (2 to 4 staff members)	14	(45.2)
Small (1 staff member only)	10	(32.2)
TOTAL	31	(100.0)

- Only about 1 out of every 4 information units has 5 or more staff members.
- The predominant size of staff is between 2 and 4 staff members.

TABLE 8

DISTRIBUTION OF INFORMATION UNITS BY SIZE
COLLECTION OF NON-CONVENTIONAL BOOKS AND DOCUMENTS

	Number of Units (%)	
Large Collections (10,001 or more)	7	(22.6)
Medium-sized Collections (2,001 - 10,000)	13	(41.9)
Small Collections (2,000 or less)	11	(35.5)
TOTAL	31	(100.0)

- Only 22.6 per cent of the units have collections of less than 10,000 volumes.
- Most of the collections are medium-sized (4 out of every 10 units have collections ranging from 2,001 to 10,000 volumes).

TABLE 9

DISTRIBUTION OF INFORMATION UNITS BY SIZE OF
COLLECTION OF PERIODICALS

	Number of Units (%)	
Large Collections (over 200 titles)	12	(38.7)
Medium-sized Collections (71 - 200 titles)	9	(29.0)
Small collections (1 - 70 titles)	10	(32.3)
TOTALS	31	(100.0)

- The collections of periodicals are evenly distributed among the different sizes.
- The "large" collections predominate slightly.

TABLE 10

DISTRIBUTION OF INFORMATION UNITS BY TYPE OF
SPECIALIZATION

	Number of Units	(%)
Specializing in areas of development	10	(32.2)
Specializing in disciplines	7	(22.6)
Diversified	14	(45.2)
TOTAL	31	(100.0)

- Of the total number of units included in the survey, 14 (45.2%) have "diversified" collections in the socio-economic field.
- Of every 10 specialized information units, 6 specialize in "areas of development" and the remaining 4 in "disciplines".

TABLE 11

DISTRIBUTION OF INFORMATION UNITS BY TYPE OF
SPECIALIZATION AND AGE

	Specializing in areas of development	Specializing in disciplines	Diversified	Total
Before 1961	2 (20.0)	2 (33.3)	5 (35.7)	9 (30.0)
Between 1961 and 1970	0 (0.0)	3 (50.0)	6 (42.9)	9 (30.0)
Since 1970	8 (80.0)	1 (16.7)	3 (21.4)	12 (40.0)
TOTAL	10 (100.0)	6 (100.0)	14 (100.0)	30 (100.0)

- Most of the units "specializing in areas of development" (80 per cent) have been set up since 1971.
- In contrast, the great majority of those "specializing in disciplines" (83.3 per cent) and of the "diversified" units (78.6 per cent) were set up before 1970.

TABLE 12

DISTRIBUTION OF INFORMATION UNITS BY TYPE OF
SPECIALIZATION AND SIZE OF STAFF

	Specializing in areas of development	Specializing in disciplines	Diversified	Total
Large (5 or more staff members)	0 (0.0)	3 (42.8)	4 (28.6)	7 (22.6)
Medium (2 to 4 staff members)	7 (70.0)	2 (28.6)	5 (35.7)	14 (45.2)
Small (1 staff member only)	3 (30.0)	2 (28.6)	5 (35.7)	10 (32.2)
TOTAL	10 (100.0)	7 (100.0)	14 (100.0)	31 (100.0)

- The units specializing in areas of development are relatively "small" (none has more than 4 staff members).
- As regards the other two types, the distribution by size of staff is fairly even.

TABLE 13

DISTRIBUTION OF INFORMATION UNITS BY TYPE OF
SPECIALIZATION AND SIZE OF COLLECTION OF NON-
CONVENTIONAL BOOKS AND DOCUMENTS

	Specializing in areas of development	Specializing in disciplines	Diversified	Total
Large Collections (over 10,000)	1 (10.0)	4 (57.1)	2 (14.3)	7 (22.6)
Medium-sized Collections (2,001 - 10,000)	3 (30.0)	3 (42.9)	7 (50.0)	13 (41.9)
Small Collections (2,000 or less)	6 (60.0)	0 (0.0)	5 (35.7)	11 (35.5)
TOTAL	10 (100.0)	7 (100.0)	14 (100.0)	31 (100.0)

- The total number of units "specializing in disciplines" have "large" or "medium-sized" collections.
- Half of the "diversified" units have "medium-sized" collections.
- 6 out of every 10 units "specializing in areas of development" have "small" collections.

TABLE 14

DISTRIBUTION OF INFORMATION UNITS BY TYPE OF
SPECIALIZATION AND SIZE OF COLLECTION OF PERIODICALS

	Specializing in areas of development	Specializing in disciplines	Diversified	Total
Large Collections (over 200 titles)	2 (20.0)	3 (42.8)	7 (50.0)	12 (38.7)
Medium-sized Collections (71 - 200 titles)	4 (40.0)	2 (28.6)	3 (21.4)	9 (29.0)
Small Collections (1 - 70 titles)	4 (40.0)	2 (28.6)	4 (28.6)	10 (32.3)
TOTAL	10 (100.0)	7 (100.0)	14 (100.0)	31 (100.0)

- Most of the units "specializing in areas of development" (80 per cent) have "medium-sized" and "small" collections of periodicals.
- The "diversified" information units and units "specializing in disciplines", on the other hand, usually have "large" collections (50 per cent and 42.9 per cent, respectively).

TABLE 15

DISTRIBUTION OF INFORMATION UNITS BY THEIR DEGREE OF
INTEGRATION IN INSTITUTIONAL INFORMATION SYSTEMS

	Number of Units (%)	
Full integration	9	(32.1)
Limited integration	9	(32.1)
No integration	10	(35.8)
TOTAL	28	(100.0)

64.2 per cent of the socio-economic information units are in some degree integrated in institutional information systems.

TABLE 16

DISTRIBUTION OF INFORMATION UNITS BY DEGREE
OF INSTITUTIONAL INTEGRATION AND AGE

	Full integration	Limited integration	No integration	Total
Before 1961	1 (11.1)	3 (33.3)	3 (33.3)	7 (25.9)
Between 1961 and 1970	1 (11.1)	5 (55.6)	3 (33.3)	9 (33.3)
Since 1970	7 (77.8)	1 (11.1)	3 (33.3)	11 (40.7)
TOTAL	9 (100.0)	9 (100.0)	9 (100.0)	27 (100.0)

- The great majority (77.8 per cent) of the information units which are "fully integrated" in an institutional information system have been set up since 1970.
- 55.6 per cent of those with a "limited degree of integration" were set up in the 1960s.

TABLE 17

DISTRIBUTION OF INFORMATION UNITS BY DEGREE OF
INSTITUTIONAL INTEGRATION AND SIZE OF STAFF

	Full integration	Limited integration	No integration	Total
Large (5 or more staff members)	1 (11.1)	4 (44.4)	2 (20.0)	7 (25.0)
Medium (2 to 4 staff members)	7 (77.8)	2 (22.2)	4 (40.0)	13 (46.4)
Small (1 staff member only)	1 (11.1)	3 (33.3)	4 (40.0)	8 (28.6)
TOTAL	9 (100.0)	9 (100.0)	10 (100.0)	28 (100.0)

- 3 out of every 4 information units with "full institutional integration" have between 2 and 4 staff members.
- Among the units with "limited integration", those with more staff members predominate (44.4 per cent have 5 or more).
- Those where there is no integration are primarily smaller information units.

TABLE 18

DISTRIBUTION OF INFORMATION UNITS BY DEGREE OF
INSTITUTIONAL INTEGRATION AND SPECIALIZATION

	Full integration	Limited integration	No integration	Total
Specializing in areas of development	5 (55.6)	0 (0.0)	4 (40.0)	9 (32.1)
Specializing in disciplines	2 (22.2)	3 (33.3)	2 (20.0)	7 (25.0)
Diversified	2 (22.2)	6 (66.7)	4 (40.0)	12 (42.9)
TOTAL	9 (100.0)	9 (100.0)	10 (100.0)	28 (100.0)

- 55.6 per cent of the units with a high degree of institutional integration specialize in areas of development.
- Two-thirds of the units with "limited integration" have "diversified collections".

TABLE 19

DISTRIBUTION OF INFORMATION UNITS BY FIELD OF
DEVELOPMENT ACTIVITY OF THE INSTITUTION AND SIZE OF STAFF

	Government	Education and Culture	Research	Production	Services	Total
Large (15 or more staff members)	1 (10.0)	6 (75.0)	0 (0.0)	0 (0.0)	0 (0.0)	7 (22.6)
Medium (2 to 4 staff members)	5 (50.0)	1 (12.5)	1 (50.0)	2 (100.0)	5 (55.6)	14 (45.2)
Small (1 staff member only)	4 (40.0)	1 (12.5)	1 (50.0)	0 (0.0)	4 (44.4)	10 (32.2)
TOTAL	10 (100.0)	8 (100.0)	2 (100.0)	2 (100.0)	9 (100.0)	31 (100.0)

- 75 per cent of the units in the "education and culture" field have 5 staff members or more.
- All the "services" units and 90 per cent of the "government" units, on the other hand, have less than 5 staff members.

TABLE 20

DISTRIBUTION OF INFORMATION UNITS BY FIELD OF
DEVELOPMENT ACTIVITY OF THE INSTITUTION AND THE SIZE
OF COLLECTION OF NON-CONVENTIONAL BOOKS AND DOCUMENTS

	Government	Education and Culture	Research	Production	Services	Total
Large (over 10,000 volumes)	1 (10.0)	4 (50.0)	0 (0.0)	0 (0.0)	2 (22.2)	7 (22.6)
Medium (2,001 - 10,000 volumes)	4 (40.0)	4 (50.0)	1 (50.0)	1 (50.0)	3 (33.3)	13 (41.9)
Small (2,000 volumes or less)	5 (50.0)	0 (0.0)	1 (50.0)	1 (50.0)	4 (44.5)	11 (35.5)
TOTAL	10 (100.0)	8 (100.0)	2 (100.0)	2 (100.0)	9 (100.0)	31 (100.0)

- Most of the units in the fields of "government" and "services" have "small" and "medium-sized" collections (90 per cent and 77.8 per cent, respectively).
- Those in the "education and culture" field, in contrast, have "large" and "medium-sized" collections only.

TABLE 21

DISTRIBUTION OF INFORMATION UNITS BY FIELD OF
DEVELOPMENT ACTIVITY OF THE INSTITUTION AND
SIZE OF COLLECTION OF PERIODICALS

	Government	Education and Culture	Research	Production	Services	Total
Large (over 200 titles)	2 (20.0)	4 (50.0)	1 (50.0)	1 (50.0)	4 (44.5)	12 (38.7)
Medium (71 - 200 titles)	4 (40.0)	1 (12.5)	0 (0.0)	1 (50.0)	3 (33.3)	9 (29.0)
Small (80 titles or less)	4 (40.0)	3 (37.5)	1 (50.0)	0 (0.0)	2 (22.2)	10 (32.3)
TOTAL	10 (100.0)	8 (100.0)	2 (100.0)	2 (100.0)	9 (100.0)	31 (100.0)

- The units in the "government" field of activities usually have "medium-sized" and "small" collections (80 per cent).
- The "services" units normally have "large" and "medium-sized" collections (77.8 per cent).
- The units in the "education and culture" field show a contrasting situation, half of them possessing "large" collections and a considerable proportion (37.5 per cent) "small" collections.

TABLE 22

**DISTRIBUTION OF INFORMATION UNITS BY FIELD OF
DEVELOPMENT ACTIVITY OF THE INSTITUTION AND
DEGREE OF SPECIALIZATION**

	Government	Education and Culture	Research	Production	Services	Total
Specializing in areas of development	6 (60.0)	0 (0.0)	2 (100.0)	1 (50.0)	1 (11.1)	10 (32.2)
Specializing in disciplines	3 (30.0)	2 (25.0)	0 (0.0)	0 (0.0)	2 (22.2)	7 (22.6)
Diversified	1 (10.0)	6 (75.0)	0 (0.0)	1 (50.0)	6 (66.7)	14 (45.2)
TOTAL	10 (100.0)	8 (100.0)	2 (100.0)	2 (100.0)	9 (100.0)	31 (100.0)

- The information units in "government" institutions are nearly all specialized (90 per cent), two-thirds of them "specializing in areas of development".
- In the fields of "education and culture" and "services", in contrast, units not specializing in any particular area predominate (75 per cent and 67 per cent, respectively).

TABLE 23

DISTRIBUTION OF INFORMATION UNITS BY WEEKLY
VOLUME OF CIRCULATION

	Number of Units (%)	
High (over 250 volumes)	11	(35.5)
Medium (101 - 250 volumes)	6	(19.3)
Low (100 volumes or less)	14	(45.2)
TOTAL	31	(100.0)

- The information units are seen to be concentrated in the "high" and "low" categories (35.5 per cent and 45.2 per cent, respectively).

TABLE 24

DISTRIBUTION OF INFORMATION UNITS BY MONTHLY VOLUME OF
REFERENCE SERVICES

	Number of Units (%)	
High (over 200 consultations)	11	(39.3)
Medium (51 - 200 consultations)	9	(32.1)
Low (50 consultations or less)	8	(28.6)
TOTAL	28	(100.0)

A fairly even distribution is noted, with a slight predominance of reference services in the "high" category (39.3 per cent).

TABLE 25

DISTRIBUTION OF INFORMATION UNITS BY FIELD OF ACTIVITY
OF THE INSTITUTION AND WEEKLY VOLUME OF CIRCULATION

	Government	Education and Culture	Research	Production	Services	Total
High (over 250)	2 (20.0)	7 (87.5)	0 (0.0)	0 (0.0)	2 (22.2)	11 (35.5)
Medium (101 - 250)	3 (30.0)	0 (0.0)	1 (50.0)	0 (0.0)	2 (22.2)	6 (19.3)
Low (100 or less)	5 (50.0)	1 (12.5)	1 (50.0)	2 (100.0)	5 (55.6)	14 (45.2)
TOTAL	10 (100.0)	8 (100.0)	2 (100.0)	2 (100.0)	9 (100.0)	31 (100.0)

- The units in the "education and culture" field have the highest circulation (87.5 per cent, or more than 250 loans per week).
- Half of the "government" units and 55.6 per cent of the "services" units have a circulation of 100 documents a week or less.

TABLE 26

DISTRIBUTION OF INFORMATION UNITS BY FIELD OF ACTIVITY
OF THE INSTITUTION AND MONTHLY VOLUME OF REFERENCE ENQUIRIES

	Government	Education and Culture	Research	Production	Services	Total
High (over 200)	1 (12.5)	5 (62.5)	1 (100.0)	0 (0.0)	4 (44.4)	11 (39.3)
Medium (51 - 200)	3 (37.5)	3 (37.5)	0 (0.0)	0 (0.0)	3 (33.3)	9 (32.1)
Low (50 or less)	4 (50.0)	0 (0.0)	0 (0.0)	2 (100.0)	2 (22.2)	8 (28.6)
TOTAL	8 (100.0)	8 (100.0)	1 (100.0)	2 (100.0)	9 (100.0)	28 (100.0)

- 62.5 per cent of the units in the "education and culture" field have a monthly volume of over 200 reference queries.
- Half of the "government" units solved a monthly volume of 50 reference queries or less.

TABLE 27

DISTRIBUTION OF INFORMATION UNITS BY LEGAL STATUS
OF THE INSTITUTION AND SIZE OF STAFF

	Public Sector	Other Sectors	Total
Large (5 or more staff members)	6 (25.0)	1 (14.3)	7 (22.6)
Medium-sized (2 to 4 staff members)	11 (45.8)	3 (42.9)	14 (45.2)
Small (1 staff member only)	7 (29.2)	3 (42.9)	10 (32.3)
TOTALS	24 (100.0)	7 (100.0)	31 (100.0)

- Units with less than 5 staff members predominate in both these sectors (75 per cent in the "public sector" and 85.8 percent in "other" sectors).

TABLE 28

DISTRIBUTION OF INFORMATION UNITS BY LEGAL STATUS
OF THE INSTITUTION AND SIZE OF COLLECTION OF NON-
CONVENTIONAL BOOKS AND DOCUMENTS

	Public Sector	Other Sectors	Total
Large Collections (10,001 or more)	5 (20.8)	2 (28.6)	7 (22.6)
Medium-sized Collections (2,001 - 10,000)	12 (50.0)	1 (14.3)	13 (41.9)
Small Collections (2,000 or less)	7 (29.2)	4 (57.1)	11 (35.5)
TOTAL	24 (100.0)	7 (100.0)	31 (100.0)

- Half of the "public sector" units have "medium-sized" collections of non-conventional books and documents.
- In "other" sectors, in contrast, a little over half (57.1 per cent) have "small" collections.

TABLE 29

DISTRIBUTION OF INFORMATION UNITS BY LEGAL STATUS OF
THE INSTITUTION AND SIZE OF COLLECTION OF PERIODICALS

	Public Sector	Other Sectors	Total
Large Collections (201 and over)	9 (37.5)	3 (42.9)	12 (38.7)
Medium-sized Collections (71 - 200)	6 (25.0)	3 (42.9)	9 (29.0)
Small Collections (1 - 70)	9 (37.5)	1 (14.2)	10 (32.3)
TOTAL	24 (100.0)	7 (100.0)	31 (100.0)

- The units in "other" sectors predominate (85.8 per cent) with "large" and "medium-sized" collections of periodicals.
- In the "public sector" units, in contrast, there is no clear predominance of any category.

TABLE 30

DISTRIBUTION OF INFORMATION UNITS BY LEGAL STATUS OF
THE INSTITUTION AND WEEKLY VOLUME OF CIRCULATION

	Public Sector	Other Sectors	Total
High (over 250 volumes)	9 (37.5)	2 (28.6)	11 (35.5)
Medium-sized (101 - 250 volumes)	5 (20.8)	1 (14.3)	6 (19.4)
Low (100 volumes or less)	10 (41.7)	4 (57.2)	14 (45.1)
TOTAL	24 (100.0)	7 (100.0)	31 (100.0)

- 42 per cent of the "public sector" information units have a circulation of less than 100, and 38 per cent a circulation of over 250 weekly loans for consultation on the spot or at home.
- 57 per cent of the units in "other" sectors have a "low" circulation.
- In the middle ranges (between 100 and 250) the proportions are evenly divided between the "public sector" and "other" sectors (20.8 per cent and 14.3 per cent, respectively).
- The "public sector" includes the highest proportion (37.5 per cent) of the information units with a circulation of over 250 loans a week for consultation in the reference room or at home.
- 28.6 per cent of the information units in "other" sectors have a "high" circulation.

