ECLAC/CLADES
Economic Commission for Latin America and the Caribbean
Latin American Centre for Economic and Social Documentation

UNESCO/PGI
United Nations Educational, Scientic and Cultural Organization
General Information Programme

# BASIC PRINCIPLES FOR A REGIONAL PROGRAMME TO STRENGTHEN CO-OPERATION AMONG NATIONAL INFORMATION NETWORKS AND SYSTEMS FOR DEVELOPMENT IN LATIN AMERICA AND THE CARIBBEAN

## (INFOLAC)

Santiago, Chile

1986

BASIC PRINCIPLES FOR A REGIONAL PROGRAMME TO STRENGTHEN
CO-OPERATION AMONG NATIONAL INFORMATION NETWORKS AND
SYSTEMS FOR DEVELOPMENT IN LATIN AMERICA AND THE CARIBBEAN
(INFOLAC)

This document has been prepared by the Interim Secretariat for the
formulation of a Regional Information Programme, which is formed
by UNESCO/PGI and CEPAL/CLADES. It is being submitted for
consideration to the national institutions of the Latin American
and Caribbean countries and the regional and international bodies
which conduct information activities in the region.

Santiago, Chile, 1986

SUMMARY

## V. REGIONAL PROGRAMME AREAS

## PREFACE

This document provides background information and guidelines for use in formulating and promoting a regional programme for co-operation among existing national information networks and systems in Latin America and the Caribbean.

For greater ease of use, it has been divided into three parts:

   i) An <u>executive summary</u> of the main ideas presented in the document and an outline of the overall concept of the regional programme;

  ii) The <u>main body of the text,</u> in which the subject matter of the programme is discussed in greater detail, along with its possible operational modalities; and

 iii) A <u>series of annexes</u> which provide additional information about the topics dealt with in the main body of the text.

At this stage, the purpose of the document is to elicit a statement of opinion as to the validity of the principles it sets forth and an expression of institutions' interest in participating in specific areas. The report is being submitted to a very wide range of authorities and technical directors of national, regional and international institutions headquartered in Latin American and Caribbean countries which are promoting, participating or considering the possibility of participating in information networks and systems within the broad field of development.

The institutions which have prepared this proposal are aware of the fact that they are subjecting it to regional scrutiny at a time when it is not yet in final form. Moreover, the proposals set forth herein are not the only possible ways of promoting a Regional Programme. Nonetheless, it is hoped that this document, even in its present form, will help lead to the implementation of specific co-operative activities.

Finally, the authors wish to emphasize that any merits this document may have are primarily due to the generous assistance of the nearly 150 institutions, along with their respective directors, whose ideas, information and suggestions have made this proposal possible.

## 1. Introduction

This report provides basic background information regarding a regional programme for co-operation among national information networks and systems in Latin America and the Caribbean. Its contents are based on a painstaking process of prior consultation with institutions and specialists in the region and represent the latest advances in the efforts that are being made to put co-operative activities into practice in the region. (*)

The programme represents an attempt to open up a new dimension in the promotion of co-operation among institutions of the region which, whatever their nature or mission may be, are active in the area of information services and in the development of resources to support such services.

Taking the existing activities of national systems, national networks and regional networks as a starting point, an attempt is made to find ways of jointly addressing problems of common interest whose complexity or scope makes it difficult for any individual co-operation scheme to resolve theme.

Information networks and systems are co-operative inter-institutional schemes whose ultimate purpose is to organize and facilitate access to and utilization of, information resources at a lower cost than would be involved in an individual and isolated attempt to do so.

The Regional Programme has been designed to strengthen the links among information infrastructures which meet the information needs of a specialized segment of users within Latin American society. This segment is made up of decision-makers and of those responsible for preparing studies that will facilitate decision- making in such areas as scientific and technological research, economic and social planning, economic policy design, project execution and evaluation, and the management of development activities in general. Development as such is understood in a broad sense that encompasses its many economic, social, scientific, technological, political and cultural facets.

Co-operation among institutions which house information units or which direct an information network or system ultimately takes the form of joint action designed to lower operational costs and/or gain access to a greater volume of information than any one institution could handle on its own. The various types of resources made available as part of such co-operative efforts may include information resources, skilled specialists or operational staff, support equipment or infrastructures and even financial resources.

The creation and smooth operation of information networks and systems is an expensive and difficult undertaking in any area of development, as demonstrated by the experiences of all the schemes in existence or being created in Latin America and the Caribbean. How to lower their cost and how to increase their final impact on decision-making concerning national development are basic questions that the region must answer.

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(*) Consultation with national and regional istitutions were begun in response to a mandate issued by the first meeting of the Regional Group of Experts for the General Information Programme of UNESCO (Caracas, april 1982).

An adequate answer has thus far not been forthcoming from the limited co-operation efforts which have been made by information networks and systems in Latin America and the Caribbean. The current status of co-operation efforts in this regard is marked by:

- The lack of a regional forum for information concerning inter-institutional projects;

- The perpetuation of piecemeal information activities which lack a common framework;

- The absence of a multilateral focus on co-operation in response to the countries' interdependence;

- The loss of options as regards the development of national information infrastructures.

## 2. Regional Programme Objective

The programme's overall objective is "to strengthen the individual and joint autonomy and capabilities of the national institutions of Latin America and the Caribbean to create and operate mechanisms for organizing and providing access to information resources and to intensify its utilization in the formulation, execution, evaluation and management of their respective development plans, programmes, policies and activities."

It is aimed at all institutions, national or regional, whatever their legal status – be they governmental, non-governmental or inter-governmental – headquartered in any Latin American or Caribbean country which, within the framework of an information network or system, carry out or promote the development of specialized information services and/or the build-up of the resources needed to operate such services.

## 3. Areas of the Regional Programme

The programme concentrates on five major areas which were identified as priority issues on the basis of consultations carried out by UNESCO/PGI and ECLAC/CLADES (*)

The five areas designated as being of the highest priority were:

1) Information projects and programmes management: in response to insufficient national capabilities for designing information projects and programmes and obtaining financing from external sources and from their own institutions.

ii) Evaluation of modern information management technologies: in view of the runaway pace of technological change in the developed countries with respect to information processing and transmission which, if transferred to the region without any

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(*) The consultations were carried out on the basis of meetings and an exhaustive questionnaire sent to specialized units of national, regional and international institutions headquartered in nine countries of Latin America and the Caribbean: Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Jamaica, Peru and Venezuela. A total of 210 institutions took part in the consultations, more than 180 of which were national institutions.

prior evaluation, may have undesirable and irreversible consequences.

iii) Compatibilization, systematization and interconnection of non-numeric automated data bases: in response to the chaotic situation created by the existence of incompatible formats which hinder the exchange of information between the bibliographic data bases or the data bases on development resources and activities within various institutions in a single country or in different countries.

iv) Promotion of the use of services provided by information networks and systems: in view of the failure to take full advantage of the large investment which has been made in order to create information concentrations contained within existing networks and systems, which are extremely under-utilized at present.

v) Training of information specialists: in order to lessen the shortage of qualified personnel capable of assuming either leadership roles or the newly-emerging technical responsibilities associated with such networks and systems.

4. Modalities of programme action

The programme is designed to create links which will allow those institutions with the greatest technical experience in the field of information to share their know-how with more traditional information units in order to lift the latter out of their present stagnation.

This new dimension of co-operation would be given concrete expression by means of joint pilot projects which would address specific aspects of the five priority areas mentioned above (and which would thus constitute true "experimental laboratories" for the exchange of experiences) and by means of the operation of formal or informal networks and forums (i.e., networking) of either a specialized or general nature which would provide an opportunity for in-depth discussions of problems of common interest to such systems and networks.

Networking can be used as a means of planning, exchanging information, assessing information products, carrying out information operations and taking the administrative and co-ordinating action required for the autonomous development of information networks and systems.

5. Institutional framework

The proposed programme would cover a period of five years and would consist of a group of specific projects in the priority areas aimed at initiating a regional co-operation effort. Each specific project would be managed autonomously by a national or regional institution with experience in the area in question. The projects are seen as finite efforts which would be subject to periodic assessments and to a final evaluation to be carried out by a co-ordination mechanism that would be established for the exclusive purpose of participating in the overall co-management of the programme. The technical secretariat that would be set up in order to further the purposes of

the co-ordination mechanism would, in addition, to its other functions, assist national and regional institutions in designing joint projects. (*)

In accordance with its priorities and terms of reference, each institution would be able to decide whether or not it wishes to draw upon the experiences of other institutions by taking part in a project and would establish the inter-institutional agreements it deems appropriate. These agreements might relate to horizontal co-operation between national institutions or might be of a multilateral nature which links up a number of national and regional institutions.

All institutions which wish to take part would do so on an equal footing i.e., both as transmitters of know-how and as recipients of the know-how of other institutions.

The above gives rise to five basic corollaries:

i) The programme would not create new institutions, networks or systems. It would only open up new dimensions so that existing institutions, networks and systems may function better.

ii) The programme would primarily take action with respect to the interrelationships among existing infrastructures. It would neither cover nor take over the operations of such networks or systems, be they mission - oriented or disciplines - oriented towards specific efforts, inasmuch as this function is and will continue to be the responsibility of the institutions in charge of them.

iii) The programme is seen as a regional mechanism for developing projects designed to carry out joint activities rather than as a centralized planning institution which would decide what systems and networks in the region should be created, strengthened or discontinued.

iv) The programme's purpose would be to promote the creation of flexible mechanisms for a gradual harmonization of information programmes within each country so that a consistent demand profile for financial resources may be presented to external funding agencies. This would be done by providing increased access to information on the supply of technical and financial assistance and on related funding-seeking efforts of other institutions of the country or existing elsewhere in the region; all this without having to hinder each institution individual initiatives to secure bilateral funding. The quest for consistency and a better utilization of external sources by no means involves any attempt to exercise control over the bilateral aid provided by financial or technical assistance agencies.

v) Within the context of the programme, it is foreseen that the participation of national institutions would take various forms. The variety of national resources, experiences and priorities involved would necessarily entail a variety of different participatory profiles. Mechanisms are planned which would allow those countries which lag behind others in this field to carry out activities that would prepare them for full participation, while those countries

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(*) The guidelines for this co-ordinating mechanism will be defined and adopted by consensus at a forthcoming regional meeting of a broader scope which UNESCO/PGI and ECLAC/CLADES intend to convene at ECLAC headquarters in Santiago, Chile, in their capacity as members of the Interim Secretariat for the formulation of the Regional Co-operation Programme.

already having the necessary resources and experience could begin to participate in the programme forthwith.

The start-up of the programme is seen as a valuable opportunity for co-operation among development information networks and systems. Initiating such co-operation is an aspiration which government representatives and information specialists have repeatedly characterized as a central issue ever since the 1970s and one on which even greater emphasis has been placed in recent years. (*)

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(*) Examples include: the First Consultative Meeting on the Subregional Network for the Exchange of Information and Experiences in Science and Technology for Development in the Caribbean Region (CARSTIN), Port of Spain, December 1984; and the Conference on the Application of Science and Technology for the Development of Latin America and the Caribbean (CASTALAC II), Brasilia, August 1985.

## Main body of the text

## I. INTRODUCTION

### 1. Background

Interest in a co-operative effort among information networks and systems has arisen as a result of the economic forces which have constrained (sometimes severely) the operation of national systems and of individual information networks and units. The search for ways to share resources and benefits has taken on greater urgency as a result of major budgetary restrictions and the high cost of acquiring, processing, storing and distributing a body of information which is growing exponentially as the development process continues.

Since the 1970s explicit interest has been growing within the Latin American and Caribbean region in the possibility of co-operative actions on the part of institutions carrying out information activities in support of varios sectors and development efforts. A brief look at regional events as regards official bodies at the national or intergovernmental level and associations of information professionals testifies to their desire to pool their efforts. (See Annex 6).

There is evidence of sporadic co-operative achievements which, although still small in number and lacking a framework of concerted action, demonstrate that it is possible and beneficial to provide forums or meeting points for institutions willing to co-operate. Nevertheless, the prevailing trend seems to be for each national institution or regional body to try to resolve its own information problems for itself by seeking bilateral financial assistance or drawing upon its own resources. Generally speaking, such organizations have been reluctant to share experiences and resources with other institutions until a point is reached where, after the fact, they have seen that it is impossible to carry on with efforts which entail a high cost that can only be absorbed by means of the savings made possible by co-ordinated efforts. Unfortunately, by the time they reach this point they may already be too far along in the development of information systems having incompatible formats or computer systems or requiring different conceptual backgrounds from the personnel who operate them.

Finally, existing co-operative efforts have suffered from a certain degree of isolation. Institutions have tended to group together with other institutions of a similar legal status (governmental, non-governmental), a related organizational purpose (universities, banks, research centers) or which are in the same development sector (health, agriculture), etc. while lacking the adequate communication links not withstanding the multiplicity of common problems affecting the information systems and networks of which they are a part.

Up until 1982, intergovernmental regional meetings at the technical level (Mexico City, 1979; Santiago, 1981; San José, 1982) as well as those held with a view to concerted inter-institutional action (Lima, 1979; San José, 1980; Kingston, 1980) had stressed the dimension of co-operation and were contributing to the gradual formation of a consensus concerning regional co-operation. These and other meetings issued over 200 recommendations to governments, international bodies, etc., but unfortunately, very few of these recommendations could be implemented (UNESCO/PGI, 1982) (see annex 7). This naturally engendered a great deal of skepticism about the search for new ways to go beyond the stage of mere "intentions".

In view of this situation, it became necessary to break away from the schemes and methodologies being used in order . to achieve a greater institutional commitment to concrete acts of co-operation.

This change came about with the convocation of an <u>ad</u> <u>hoc</u> group of experts  by UNESCO/PGI in 1982 for the purpose of formulating a regional co-operation programme. The participating experts held  key  positions  in  national institutions, regional bodies and international agencies having information programmes. This group attempted to try out a new methodology already suggested at the San José meeting (1980), based on the formulation of ideas for specific regional projects which, in  the  experts'  opinion,  would  be  useful  to  the institutions  of  individual  countries and to the region as a whole. From that time onward, systematic consultations have been  carried  out  with  a  view  to formulating  a  regional programme.  Those consultations have culminated in this document (see annex 1).  (*)

## 2. <u>Co-operation among development information networks and</u>
<u>systems: a brief conceptual framework</u>

Information networks and systems are <u>co-operative</u> inter-institutional schemes whose ultimate purpose  is  to  <u>organize</u>  <u>and</u>  <u>facilitate</u>  <u>access</u>  <u>to,</u>  <u>and</u>  <u>the</u> <u>utilization</u>  <u>of</u>  <u>the</u>  <u>information</u>  <u>resource</u> at a lower cost than would be involved in an individual and isolated attempt to do so.

<u>Information</u> is regarded as an economic <u>resource</u> whose transformation into  an <u>input</u> for the intellectual processes of decision-making entails <u>costs,</u> which are usually much higher than is generally thought.

In order to be transformed into an  input,  information  must  be  accessible where  and  when  it  is needed and must be new and relevant to a given decision taken in response to a specific problem.  These requirements are  not  fulfilled at  random,  but instead require a deliberate selection of <u>existing</u> information, as well as its acquisition, processing and dissemination.  All  these  processes have  a  cost.  Obviously, the <u>investment</u> required in order to obtain, organize and provide access to information is wasted if such information is not  used  or if it contributes nothing to the decision-making process.

The basic principles of the Regional Programme  has  been  designed  to  help strengthen  the links among <u>information</u> <u>services</u> <u>infrastructures</u> which serve the information needs of a specialized segment  of  Latin American  society.   This segment  is  formed by a wide spectrum of decision-makers and of those in charge of preparing studies that will be used to  facilitate  decision-making  in  such areas  as  scientific  and technological research, development planning, project execution and assessment,  and  the  management  of  development  activities  in general.   Development  as  such is understood in a broad sense that encompasses áts many economic, social,  scientific,  technological,  political  and  cultural facets.

Information service infrastructures are made up of bodies that can  generally be referred to as "information units". They provide:  i) <u>documentary information</u> services designed to facilitate access to documents or to  data  concerning  the existence and content of documents (documentation centres, libraries, archives); and  ii)  <u>information services concerning development resources or    activities</u>

(specialists, research projects, development projects, events, institutions, data banks, data bases and other sources of information) which either provide direct access to data on such resources and activities or which <u>refer</u> the user to information sources capable of providing such data.

It is unlikely that, on an isolated basis, information units can meet all the needs of the community of users they serve, be they scientists, planners, politicians, managers or others. They therefore form <u>co-operation schemes</u> whose broadest expression takes the form of <u>information networks and systems.</u>

<u>Co-operation,</u> as the term indicates, is understood as a <u>joint operation</u> in which two or more institutions take part. In this case, such operations are carried out in order to:

   i) Exchange existing information resources;
  ii) Acquire new information resources;
 iii) Systematize and disseminate existing information; and
  iv) Develop the resources needed to exchange, acquire, systematize and disseminate information.

<u>Co-operation</u> ultimately takes place when an institution makes its resources available to another institution (whether these be information resources, skilled specialists or operational personnel, support equipment or infrastructures, or even financial resources) either in order to lower the cost of conducting information activities or, using the same amount of resources, in order to gain access to a larger volume of information than what it would be able to handle on its own.

Information networks within the Regional Programme are co-operative <u>institutional schemes</u> which permit an interrelationship to exist among <u>information units</u> whose purpose is an eminently <u>operational</u> one insofar as the production of information outputs and services is concerned. It should be noted that not all schemes within the region which fit this description are referred to as networks. For example, this category includes inter-institutional agreements concerning the joint production of a union catalogue of periodicals, of a bibliographic data base or of a data base concerning specialists.

Information systems, like networks, are regarded as co-operative institutional schemes that make an interrelationship among information units possible. Their purpose are, however, eminently <u>normative</u> as regards the use of standardized technical procedures for the processing of information resources and <u>formative</u> as regards the training, technical support and organization of human resources and of the equipment they operate in such information units. In this respect, consideration should also be given to national information systems which do not find it necessary to operate information services themselves but which do have to concern themselves with the horizontal components (research,

technological development, etc.) which support operational information units and networks as a group.  (*)

Finally, although information networks and systems concerned with statistics and news do indeed exist, they are not addressed by the Regional Programme insofar as the work they are doing to systematize information resources is concerned.

This is not to say that statistics or news are not a basic part of decision-making.  They constitute, together with bibliographic information and information on resources and activities for development, a key ingredient in providing the complete reply a user expects from a modern information service.

The paralell yet independ evolution of the processing, gathering, organization and systematization of news and numerical data compiled with the diversity of concepts, disciplines and methods on which they are based, suggest that they should be excluded at this stage. This however, would not prevent the Programme from including activities that would provide access to existing statistical and news collections and make the user aware of their availability.

## 3. Programme justification

The extent to which the region is willing or unwilling to carry out the Programme will be the result of a systematic examination of its possible advantages and disadvantages.

Arguments in favour of the proposal may be developed on the basis of the following question:  What would be the cost to the region of not carrying out the co-operation programme?

Part of the above-mentioned cost would reside' in the continuation of a situation marked by:

a) The absence of a regional forum in the field of information for
   discussion of problems of common interest;

b) The lack of a regional dimension in the design and execution
   of inter-institutional projects, without a common framework;

d) The failure to take a multilateral approach to co-operation
   in response to the countries' interdependence; and

e) The loss of options as regards the development of national
   information infrastructures.

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(*) One example of information systems at the international level is the World Information System for Science and Technology (UNISIST). Regional co-operative information schemes such as AGRINTER (IAIAS/CIDIA), LILACS (BIREME), INFOPLAN (ECLAC/ILPES/CLADES), DOCPAL (CELADE), REPIDISCA (CEPIS), etc., perform the functions of information systems and networks in the field of bibliographic information on agriculture, health, economic and social planning, population and sanitary engineering, respectively. A similar function is performed by the CARIS (FAO) and INFOTERRA (UNEP) schemes with respect to information on resources and institutions in the field of agricultural development and environmental protection (for an explanation of the above acronyms, see annex 5).

a) The absence of a regional forum would entail the perpetuation of the present situation, in which the desire to co-ordinate such programmes has found no other expression beyond a verbal one, while there has been little possibility of translating it into concrete action.

Rapid technological progress and the existence of incompatible methods for conducting information activities, by the year 2000, reach a point where it becomes impossible to take advantage of the investments that have gone into the creation of information centres and data bases because they will be unable to communicate with one another.

b) The absence of a regional outlook as regards information activities could help to exacerbate the region's lack of autonomy in its management of information resources vis-a-vis the industrialized countries. Each national and regional institution would, in this case, continue trying to solve its own information problems with its own resources and would negotiate on an individual basis (and perhaps from a less advantageous position) for access to external financing and to the information contained in the data bases of industrialized countries.

c) The perpetuation of the trend towards isolated or sporadic regional activities would necessarily involve a failure to optimize such efforts and a reduction of their potential impact. Independent regional programmes designed, for example, to evaluate modern technologies for handling information and to train human resources would miss the chance of benefiting from a cross-fertilization that could enrich each particular regional effort and increase its effectiveness.

d) The failure to take a multilateral approach to co-operation would involve ignoring the increasing degree of interdependence among the countries and the bodies they create, whether they are governmental or non-governmental. Basic ideas regarding the development of information systems are shared by a large percentage of specialists and directors of information services. If, however, the concrete expressions of these same ideas are scattered among various small-scale programmes promoted by national bodies, intergovernmental agencies, professional associations, etc. (thus failing to reach a critical mass), they will not be capable of producing as great an impact as a concerted effort would.

e) Finally, the loss of options as regards the development of information infrastructures which could benefit the countries of the region would be perpetuated. This is not to say, of course, that they could not develop information infrastructures in the absence of a guiding framework and thereby maintain the present situation. The lack of a regional programme would not prevent progress from being made in isolated instances, but it would mean that new dimensions within which the countries could use their imagination and creativity would be lacking.

## II. PROGRAMME OBJECTIVES


Based on the background information gathered during the course of consultations and in accordance with a methodology for the identification of priority areas (see annex 3), the objectives of the Regional Programme were determined.

### 1. Overall or Developmental Programme Objective

The development objective of the Co-operation Programme is:

"To strengthen the individual and joint autonomy of national institutions in Latin America and the Caribbean with respect to their management of information resources as a means of providing support for the formulation, execution, assessment and management of their respective economic, social, scientific, technological and cultural development plans, programmes and activities."

### 2. Specific Programme objectives

The specific objectives of the Co-operation Programme would be:

i) To develop information project and programme management capabilities of national institutions which co-ordinate national information systems and sectoral information networks and, through them, those of the operational information units belonging to such systems and networks.

ii) To step up evaluations of modern information management technologies and to promote the exchange of information gained from such evaluations among national institutions and regional bodies operating information networks and systems.

iii) To increase the degree of compatibility, systematization and interconnection of existing non-numeric daba bases both bibliographic data bases and data bases on development resources and activities of national institutions and regional bodies.

iv) To increase user's awareness of and familiarity with the applications of existing information services as well as forms and conditions of access to them.

v) To harmonize human resource training activities being carried out in the region and to establish a joint plan for training programmes whose content would support the activities of personnel required by the Regional Co-operation Programme.

## III. MODALITIES OF PROGRAMME ACTION


The Programme's general and specific objectives outline its overall content which, however, is as yet not sufficiently well-defined and perhaps too broad to provide an indication of the type of specific activities that it would involve. In order to ensure that the programme will have a consistent style and an identity of its own, criteria will have to be decided upon which can be used to determine when a given action, whether it be a project or an activity, can be promoted by means of the mechanisms which will be available for use by the Regional Programme. This section sets forth the requirements which such activities should fulfil in order for this to be possible.

There are three basic requirements which programme actions should meet.

* They should be horizontal in nature, i.e., they should
  concern aspects of the management of information resources
  which are valid for any given sector of information use.

* They should be carried out be means of inter-institutional
  networking.

* They should take the form of pilot project or activities,
  i.e., they should be undertaken with the express intention
  of experimentation and of seeking specific short- and medium-
  term results by means of a full utilization of previous
  experiences.

### 1.  Horizontal actions

In order to preserve the multi-institutionality and multiple subject focus of the Regional Programme only those actions will be considered which relate to aspects or problems that are common to information networks, systems and units as a whole.

In other words, this means that the programme would not favour, as a matter of principle, any one sector of application (e.g., agriculture, health, planning, etc.). Instead, stress would be placed on aspects of common interest such as those areas designated as high priority issues (e.g., information project management, training, compatibility and systematization issues, etc.).

### 2.  Activities resulting from inter-institutional networking

Programme activities should expressly incorporate inter-institutional networking; in this context, the term "networking" is understood in a broad sense which covers the personal interrelationships among the actors associated with national information infrastructures. Networking would make it possible to exchange experiences, assess the results of experiments and to work as a group in solving specific information problems.

What are the implications of making networking a requirement to be used as a criterion for determining what activities would constitute valid components of the Regional Programme?

Firstly, it would mean that programme activities should focus on the interrelationships among existing information infrastructures rather than on individual information infrastructures as such. Naturally, the strengthening of

such interrelationships will, albeit indirectly, strengthen the infrastructures *themselves as well.*

For example, a project to automate the documentation centre of institution X in sector S of country P1 would not be considered for inclusion in the Regional Programme if the project has been designed on an isolated basis, with no provision being made for link-ups with other institutions. If an institution, whatever its nature, is interested in promoting such a project, it can always take the necessary steps to obtain the financial resources it needs on its own. An example of a project in the field of automation which would, on the other hand, be of interest to the programme would be one in which institutions X joins with other institutions (whether they be related organizations in other sectors of country P1 or within the same sector in countries P2, P3 and P4) in order to carry out a joint assessment of technological options or to develop the corresponding computer programmes on a co-operative basis.

Secondly, the process of networking can be considered on the basis of the kinds of institutions it links, i.e., national or regional (international). Networks can be formed at the following levels: national/national, national/regional, regional/regional. Although all these levels are important, during its initial phases the programme should stress activities which interrelate the information networks, systems and units of national institutions.

Links between national institutions constitute the basic framework for co-operation within the region. It may well be that co-operation at other levels will be effective if and only if close bonds of co-operation exist within the countries and between related institutions in different countries.

Co-operation at the level of national institutions offers a wealth of possibilities.

Within a given country, the following co-operation possibilities exist:

- Co-operation among information units participating in an information network or different information networks;
- Co-operation among national centres which co-ordinate sectoral information networks and systems.

Attention should also be devoted to relations between countries. In this regard, the following possibilities may be considered:

- Co-operation among the co-ordinating institutions of national information systems;
- Co-operation among the co-ordinating institutions of sectoral networks.

Moreover, activities that would link only the co-ordinating centres for networks or systems of regional and international bodies would be considered only if they incorporate the national institutions belonging to such networks or systems. Otherwise, the result might be that the programme would be promoting inter-agency co-operation in the pure sense and would thus be running the risk of furthering only superstructural relations.

3. Pilot projects

Pilot projects or activities should have three major features:

1. They should have an experimental character;

2. Their duration and scale should be limited;
3. They should take advantage of existing capabilities.

No regional effort to cover areas in which there is little experience can prosper if no use is made of previous work in that area in order to learn about and gain familiarity with the problem situation that is to be changed.

Experimentation is a method of work whose main objective is to make it possible to learn about, assess, familiarize oneself with, gain experience about and acquire increasingly accurate knowledge about the problem situation. Another purpose of experimentation is to allow the institutions of the region to avoid embarking upon the adoption of concepts, technologies, procedures, etc., that have not been sufficiently tested.

The time-frame and scale of pilot projects are limited. It would hardly be possible at this stage to obtain a commitment from the institutions of the region as regards their participation over an extended period of time. Their difficult financial situation and the risks involved in overly ambitious long-term efforts will surely prompt decision-makers (including financing agencies) to opt for efforts aimed at producing more specific, obtainable results over shorter periods of time.

Finally, during this initial phase of the programme, pilot projects should be designed to overcome two shortcomings leading to the under-utilization of existing capabilities in the region:

- A lack of systematic knowledge concerning the current status and
  evolution of information systems, networks and institutions;
- A failure to take advantage of existing experiments, which takes
  the form of ongoing efforts to "re-invent the wheel" or to
  to start by seeking such knowledge outside the region despite
  the greater validity that local experiments may have.

It is therefore of the utmost importance to stress activities that will help us to learn where we stand and what we can do with what we have.

4.  Actions supported by the Programme

The activities comprising a regional programme may, in principle, cover a broad range of outputs and a wide variety of operational methods for producing them. Three major categories of activities can be considered:

- Projects for developing information resources, products and systems which provide solutions for specific information problems. These projects may be subdivided into adaptive projects (involving the transformation of existing information resources, outputs and systems) and development projects as such (involving the creation of new resources, outputs and systems).

- Background studies which systematically review and analyse information networks' and systems' present stage of evolution.

- Information science research projects, either pure (oriented towards the construction of theories and testing of information sciences hypotheses and laws) or applied (involving the solution of problems in connection with the design and/or management of information resources, outputs and systems).

During this initial phase, it is felt that the programme should place stress on adaptive projects and basic studies.

The above conclusion is based on the belief that present conditions are not conducive to research projects. For their part, development projects as such should only be undertaken once experience has been gained and adaptive projects have been successfully carried out.

Finally, possible operational methods for undertaking the activities of the programme should be considered. The following table has been prepared in order to illustrate that purpose.

| Type of programme action: | Operational modality: |
|---|---|
| Projects for adapting information resources | - Training of operational personnel<br>- Training of trainers<br>- Development of compatible technologies<br>- Development of format-conversion computer programmes |
| Projects for adapting information products and services | - Generation of experimental information services and outputs<br>- Information services concerning information activities |
| Projects for adapting information skills | - Strengthening of marketing capabilities<br>- Strengthening of project management capabilities |
| Background studies | - Inventory of experiences<br>- Assessment of experiences<br>- Diagnostic analyses |

# IV. INSTITUTIONAL FRAMEWORK

## 1. Participating institutions

The Regional Programme would include a broad range of participating institutions.

The Programme would welcome all national or regional istitutions headquartered in any country of Latin America and the Caribbean whatever their legal status (governmental, non-governmental, intergovernmental) and purpose (research, education, planning, production, development, etc.). The only requirement would be that, within the context of an information network of system, the institution carries out or promotes the development of specialized information services and/or the strengthening of the resources needed to operate such services.

## 2. Programme organization and administration

The Regional Co-operation Programme would be structured at two levels: i) projects in each priority area (virtually all the resources provided for the projects by the various institutions, acting either as executing agencies or financing sources, would be devoted to this programme level) and ii) programme co-ordination and promotion.

## 2.1 Projects by priority areas

This portion of the programme would be composed of the projects corresponding to each of the five priority areas (see chapter II). The projects would be designed to operate on a decentralized basis with the greatest possible autonomy within a framework of commonly-established basic guidelines. Each project could, in turn, be dealt with as a single project or as a group of integrated projects.

Projects would have a co-ordinating mechanism directed by a national or regional institution that would accept the corresponding responsibility and that would have been designated by consensus from among the institutions participating in the project. This institution would serve as a technical secretariat which would promote the co-ordination of the activities comprising the project.

The institution or institutions heading up each project would be responsible for:

- Designing and establishing the technical co-ordination mechanisms
  for the project;
- Designing and implementing the financial scheme for receiving
  contributions in cash or in kind, distributing funds to executing
  units, and monitoring the finance of each of the component
  projects.

This decentralized mode of operation would have the following advantages:

i) It would make it possible for the institutions to seek out the
   most appropriate organizational forms for use in the project,
   including the adoption of a financial scheme;

ii) It would expedite the commencement of projects in those areas in which the participating institutions have been identified and have reached agreement.

Since these projects would take the form of inter-institutional efforts, they would be carried out on the basis of agreements among the participating institutions (whether acting in the capacity of project co-ordinators, technical executing agencies or experimentors) (see annex 4).

Total decentralization, however, would entail the risk of launching five different regional efforts lacking any common direction. It is therefore necessary to include a mechanism for co-ordinating the activities of the Co-operation Programme based on a co-management scheme, i.e., to create a mechanism which would operate on the basis of consensus and mandate whose purpose would be to support and orient the activities towards the achievement of common objectives. This function is referred to as the Programme co-ordination and promotion.

## 2.2 Programme co-ordination and promotion

Programme co-ordination and promotion would be carried out by a technical secretariat made up of those national, regional or international institutions having a strong commitment as participants in the Programme and the ability to assume the responsibilities of co-ordination and promotion by virtue of their technical suitability, experience or possession of specialized human resources or infrastructure. (*)

The technical secretariat would have the main responsibility for the operation of the sixth components of the programme, which would be devoted to co-ordination and promotion.

At this stage it would be premature to discuss formal mechanisms for regional co-ordination of the programme, such as an executive council or committee, so long as definite commitments to participation on the part of national institutions or regional agencies have not yet been made.

To do so at this stage would be tantamount to building a superstructure over a void.

Once the content of the programme has been determined and the identity of the potential participants is known, it will then be possible to prepare a summary document for signature by institutions interested in participating in the projects and for those which, although they do not participate directly, wish to do so and believe that they will be able to fulfill the necessary requirements for participation within a reasonable period of time.

At that point, national institutions and regional bodies of all sorts could explore the possibility of forming a co-ordinating mechanism of a more formal type than the technical secretariat and, if they decide it is advisable, could study various alternatives for establishing such a mechanism.

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(*) Meanwhile, until such time as the programme has been established and its content has been determined, the duties of the technical secretariat would be conducted on an interim basis by UNESCO/PGI, ECLAC/CLADES and those institutions belonging to the follow-up group which express a desire to resume their active participation in the formulation of the Co-operation Programme in accordance with the responsibility they assumed at Caracas in 1982.

## 3. Legal framework

The Regional Co-operation Programme in the field of information is envisaged as a mechanism that would be constituted by the simple procedure of institutional agreements for the establishment of the projects and adherence to the general principles of the regional programme.

The agreements would have a maximum duration of five years and could be renewed if the signatory institutions deem it advisable.

Agreements could be signed by any national or regional institution undertaking information activities, regardless of its legal nature. There could, of course, be various participating institutions per country, with no limitations on their number or mission.

Within each project, a co-ordinating mechanism would be organized to help channel the contributions made by these institutions in accordance with the objectives of the project and of the Regional Programme.

## 4. Fund raising strategies

An effective financial management plan is a _sine qua non_ for the success of the Regional Programme. The countries which have thus far taken part in the design of the programme have expressed concern about the possibility of the administration of programme funding becoming overly bureaucratic and thus erecting an unnecessary barrier of controls between the institutions providing donations in cash or in kind and the ultimate recipients of those resources.

In addition, given the varied nature of the institutions that would be participating in the programme, it would not appear desirable to adopt unwieldy legal systems inasmuch as, in most cases, the legal status of the different participants in a given project would vary widely, as would their ability to make contributions in cash or in kind. It is hoped that leadership in obtaining funding as well as in organizing and executing each project would have a dynamism of its own. The decentralized management of the programme would provide for a differential dynamism as regards each of the areas and projects included in it. The idea would not then be to present the programme to donor or financing agencies as a pre-determined package, asking them to "take it or leave it"; instead, they should be able to freely choose those activities which they are interested in supporting in accordance with their own policies.

The presentation of the programme as a closed package would entail the centralized administration of funding for a programme whose content and activities are both multifaceted - an approach which could hinder or paralyze its execution and even cause the suspension of the Co-operation Programme as whole.

Decentralization at the project level is a mechanism (in combination with the choice to refrain from presenting the programme to financing agencies as a "package deal") would make it possible for the projects to adopt the simplest and most efficient financial scheme.

There are at least two non-exclusive alternative financial schemes between which the institutions participating in the projects could choose.

The first would be to create a trust fund which would be administered by the co-ordinating institution for each project. Financing agencies and participating institutions would be able to deposit their cash contributions in

this fund and make their non-cash contributions available through it.

The advantage of this type of mechanism is that it would not involve any intergovernmental or inter-agency mechanism at the regional level in a trusteeship role and, furthermore, would not prevent any institutions from participating because of their legal status.

Another option which would primarily be open to subprogrammes involving only governmental agencies and bodies of the United Nations system would be to use the mechanism of UNDP regional projects, which have a pre-established set of procedures.

The type of financial management schemes which would ultimately be adopted would be the result of a series of assessments and would depend upon the content and size of the project, the participating institutions and the areas of interest of potencial donors.

## 5.    Tentative plan for Programme implementation

The start-up of the Co-operation Programme would involve two phases:  a preparatory phase and a definitional phase.

The preparatory phase would include the following activities:

- Distributing this proposal and eliciting comments;

- Preparing a final version of the proposal for the Regional
  Programme;

- Holding a broad-based regional meeting at which participants could
  agree upon the bases and principles of the Programme.

These preparatory activities would tentatively be carried out during the period indicated below:

- Distributing this proposal and eliciting comments (July/
  September 1986)

The proposal will be distributed by the interim technical secretariat to a large number of authorities and specialists associated with national institutions and regional and international agencies concerned with the development of information systems and networks.

The interim secretariat plans to make use of conventional modes of communication (mail, telex) as well as to visit some countries in order to gain more accurate knowledge about preferred forms and possibilities of participation.

- Preparing a proposal in final form (October 1986)

This proposal will be reviewed in the light of the suggestions received.  It is expected that modifications will be made in the strategies and the contents of the subject areas based on the actual interest shown by regional institutions and bodies in participating in the programme.

- Regional meeting (November 1986 or April 1987)

Invitations to the meeting would be extended to representatives of national institutions which co-ordinate national information systems and sectoral information networks, regional and international bodies which co-ordinate networks and systems, and non-governmental regional associations within the field of information in Latin America and the Caribbean.

A statement of principles for the programme would be discussed and approved at the meeting, matters relating to programme administration and co-ordination would be defined and the participants would then proceed to declare the official commencement of the Co-operation Programme.

During the definitional phase of the programme, the following activities would be conducted:

- Detailed project design by latinamerican and caribbean consultants
  (with the assistance of the regional technical secretariat of the
  Programme, which would have been designated at the regional
  meeting);

- Submission to financing agencies of project proposals by
  participating institutions and/or their respective co-ordination
  mechanisms;

- Establishment of the mechanisms for administering each project's
  funds and for obtaining funds;

- Definition of the mechanisms to be used in linking and
  co-ordinating each project with the overall mechanism for
  co-ordinating and promoting the Regional Programme;

- Initiation of the projects;

- Preparation by the programme's technical secretariat of a summary
  document concerning the contents of the Co-operation Programme as
  defined by the sum total of its component projects to be signed
  by participant institutions.

## V.  REGIONAL PROGRAMME AREAS


Possible items for inclusion in each of the five  priority  areas  and  in  a sixth  area,  which  would  be devoted to programme co-ordination and promotion, will be set forth in this  chapter.   Although  this  outline  assumes  a  given structure  for  addressing  the  problems  identified  in each area, it is quite broad, flexible and open to suggestions from institutions expressing a desire to participate.

The contents of each area will be examined with reference  to  the  following aspects:

- A concise conceptual framework designed to define the limits of
  each area.

- An outline of the problems to be found within each area in the
  region.

- Possible objectives of the regional project(s) which may be
  designed in order to solve the problems of each area.

- Possible forms of institutional participation. (*)


## 1.   Information project and programme management

### 1.1  Conceptual framework

The  term  "information  project  and  programme management" is understood to refer to all those duties involved in the  planning,  co-ordination,  direction, procurement  of  resources  and  follow-up of  projects and programmes aimed at transforming, modernizing or creating  information  service  infrastructures  or developing resources to be used by such infrastructures.

This part of the programme would be designed to provide tools  of  a  general nature  whose  adoption  would  be  subject  to  the free choice of institutions wishing to experiment with and use them.  Its role would thus primarily be  that of a catalyst.

### 1.2  Problems

The following situation are to be found in Latin America:

i) A notable lack of information project design  capabilities  which  hinders the  development  of  the field of information and widens the gap with developed countries.

ii) A lack of learning capabilities and of  the  ability  to  build  upon  a recognition  of  past  mistakes due to the absence of mechanisms for information projects and programmes evaluation and follow-up (leading, in the long  run,  to professional stagnation and frustration).

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(*) More  detailed  information  is  provided in annex 4 concerning the general guidelines regarding the possible roles which institutions  could  play  in  the programme.

iii) A failure to take full advantage of external sources of financing.

iv) Deficient decision-making in connection with information projects and programmes stemming from a lack of information about the information which results in the implementation of activities that are not suited to the real needs and special conditions of each country.

## 1.3 Possible objectives

The overall objective of regional action in this area would be:

"To develop information project and programme management capabilities of national institutions which co-ordinate national information systems and sectoral information networks and, through them, those of the operational information units belonging to such systems and networks".

Possible specific objectives would be:

- To systematize and disseminate the theoretical and practical knowledge necessary in order to design, assess, obtain financing for and monitor information projects and programmes in sectoral information networks and national information systems.

- To organize groups of national experts to "formulate, assess, and negotiate financing for information projects and programmes" in the countries of the region and to arrange for appropriate interaction with financing agencies.

- To develop information systems on an experimental basis concerning information activities which support decision-making by the managerial staff of information projects and programmes in national information networks and systems.

## 1.4 Possible forms of participation

### Activities comprising a "Regional Project on Information Project and Programme Management" (tentative list).

- Training of personnel in information project management (seminars/workshops, assistantships, etc.)
- Training of trainers in information project management (seminar/workshops, assistantships, etc.)
- Preparation of teaching material.
- Formulation of methodological guidelines in order to design, assess and obtain financing for information projects.
- Formation of groups of national experts for project and programme management.
- Diagnostic and policy studies.
- Design of information support systems for information project management.
  - Bibliographic information systems concerning information project management.
  - Information systems concerning information resources, financing sources, institutions in the field of information, information specialists, information technology suppliers.
  - Information systems concerning in-progress information projects.
  - Information systems concerning the development of the information sector (indicators).
  - Other information systems.
- Regional meetings for the exchange of experiences.

- Other activities.

### Roles to be played within a regional project on information project management

- Regional project co-ordinator.
- Co-ordinator of a component activity of the Regional Project.
- Technical execution of a component activity.
- Conducting experimentation in a component activity.
- Supplier of services and logistical support for a component activity.

Each institution could participate in one or more of the component activities. (See annex 4).

## 2.    Evaluation of modern information management technologies

### 2.1 Conceptual framework

The term "modern information management technologies" is used to refer to the skills, know-how, methods, procedures and devices which help to increase the effectiveness and efficiency of each and every stage involved in the transfer of information. (*)

This field includes technologies for the processing, transmission and digital conversion of data, as well as for storing data on magnetic means, micro-reproduction and other forms of reprography.

The evaluation of information management technologies involves: selecting the technologies to be evaluated (e.g., computer programmes for handling data bases which operate on microcomputers); carrying out a systematic and objective process of testing and experimenting with a given technology under a variety of working conditions; making indicator-based performance estimates in accordance with pre-established criteria; issuing a technical report; distributing this information through previously established channels; and creating a documentary memory in which to store reports that are available for subsequent consultation.

### 2.2 Problems

There is no doubt a difference between the results of research on the performance of an information management technology under experimental conditions and its real performance under the variety of sociocultural and environmental conditions to be found in the region. The information generated from laboratory testing should therefore be supplemented by operational experience. Technologies which have proven to be most effective and efficient when used in a developed country often fail utterly when used in a developing country where environmental conditions are adverse or where skilled personnel are not available to operate or maintain them.

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(*) This includes the identification and selection, analysis, storage, processing and dissemination of information.

Isolated experiments in each and every one of the activities involved in evaluating technologies have been carried out in the region. Nonetheless, no systematic efforts to assess information management technologies appear to have been made.

During regional technical meetings held recently, the importance of carrying out such evaluations and experimentation has been emphasized, and it has been suggested that a systematic exchange of experiences concerning the use of microcomputers for bibliographic applications should be conducted, (*) as well as experimentation with teleconferencing systems. (**)

The existence of regional programmes for the evaluation of information management technologies in centres having experience in this field would provide decision-makers with a valuable source of sufficient information upon which to act. The output of such centres would be consolidated information. (***)

If no action is taken to evaluate modern information management technologies, however, a situation will be created in which the technology imported by the region may have an unsettling effect, may tend to promote a lack of communication among information systems and may result in a failure to utilize existing potential by encouraging the adoption of incorrect decisions about technology issues due to faulty or insufficient information.

## 2.3 Possible objectives

The overall objective of a regional activity in this area might be:

"To intensify up evaluations of modern information management technologies and to promote the exchange of information gained from such evaluations among national institutions and regional bodies operating information and systems."

Possible specific objectives would be:

- To encourage the specialized centres which are evaluating the information handling technologies in the region to produce and disseminate consolidated information concerning new technologies for non-numeric information processing, data transmission and reproduction.

- To support the exchange of experiences in the selection and utilization of modern information handling technologies among national and regional bodies in charge of information networks and systems.

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(*) Meeting on microcomputers and bibliographic information systems:  problems, experiences and projections, 24-27 April 1984.
(**) Expert meeting on the Design of a Regional Information System on Activities in the Information field, 10-14 June 1985.
(***) "Consolidation information" is understood to refer to "public knowledge specifically selected, analysed, evaluated and possibly restructured and repackaged for the purpose of serving some of the immediate decisions, problems and information needs of a defined clientele" ... (UNESCO/UNISIST, Tefko Saracevic and Judith Wood, "Consolidation of information", 1981).

- To provide those responsible for decision-making in regard to the technologies to be used in developing information systems with access to the results of technology evaluations conducted outside the region.

## 2.4 Possible forms of participation

### Specific activities comprising "Regional Project on the Evaluation of Modern Information Management Technologies" (*)

- Training of personnel in technology evaluation (seminars/workshops, assistantships, etc.)
- Training of trainers in information technology evaluations (seminars/workshops, etc.)
- Formulation of methodological guidelines in order to produce consolidated information.
- Preparation of technical material.
- Preparation and dissemination of consolidated information concerning the evaluation of information management technologies.
- Diagnostic and policy studies.
- Information systems concerning centres of advanced technology located outside the region.
- Regional meetings for the exchange of experiences.
- Other activities (to be specified).

### Roles to be played in a: "Regional project for the Evaluation of Modern Information Management Technologies"

- Regional Project co-ordinator.
- Co-ordinator of a component activity of the Regional Project.
- Technical execution of a component activity.
- Conducting experimentation in a component activity.
- Supplier of services and logistical support.

Each institution could partipate in one or more of the component activities. (See annex 4).

## 3. Compatibility, interconnection and systematization of automated non-numeric data bases

### 3.1 Conceptual framework

If "compatibility" is defined as the quality or property of information systems which permits them to exchange information outputs, expand the coverage of information search services through interconnection with other systems,and share the skills of their human resources and the capabilities of their equipment and computer programmes, then it is fully understandable why the countries which were consulted have assigned a high priority to this area.

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(*) In this area, the institutions should specify the technology or technologies to be the object of such activities: computer processing, data transmission, reprography.

This would be an effort to deal with what are essentially practical  problems which were identified in a recent UNISIST directive concerning the subject of compatibility; (*) The following questions help to illustrate these problems:

- Can all data bases be searched in the same way? (implies compatibility among the record formats and a single command language);

- Can a search strategy be transferred from one data base to another? (implies compatibility of vocabulary among data bases);

- Are all search results understandable to the user? (implies compatibility among the bibliographic records, printed out or displayed);

- Can outputs be merged and duplicates eliminated? (implies sufficient compatibility to be able to recognize duplicate citation);

- Can the user's terminal communicate with the computer? (compatibility in telecommunication conventions implies);

- Can be search outputs be stored in machine readable form by the user? (implies compatibility between output medium and the user's storage medium).


## 3.2  Problems

The isolation of information units and systems which may result  from  the limitation  or  absence  of  a  standardized  means of exchanging information is sufficient justification for undertaking activities in this area.

This situation is reaching dramatic proportions in the region,  as  testified to  by  the  fact that many institutions find it necessary to choose formats for the  processing  of  bibliographic  information  without  having  sufficient information  concerning the implications of their decision or of the appropriate technical counterpart units.  It is therefore not surprising that the  situation in  this respect is one of near chaos within some countries of the region and in the region as a whole.  (**).

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The problem posed by such options is becoming critical in many institutions, such as university libraries; since they are responsible for cataloguing large collections, it is desirable for them to use the same procedures as national libraries. However, their participation in regional and international information networks makes it necessary for them to maintain other formats that are better suited to specialized information centres.

Another aspect of this absence of compatibility relates to the application of controlled vocabularies which use different structures. This lessens the reliability of an exhaustive information search carried out on different information storage and retrieval systems; the accuracy of the responses received may be jeopardized by the application of different bibliographic classifications to the same subject matter or by the use of different criteria in the analysis of information.

This is the situation with respect to bibliographic information; as regards information on institutions, research projects, specialists or information experts, events, etc., there are a great many isolated systems using ad hoc formats and technologies. It thus comes as no surprise that the institutions of the region are not using existing resources due to their lack of knowledge about them.

This type of information is often pigeonholed, forming part of the bagage of knowledge handled by a single person, while other data of this nature are published sporadically by regional or international bodies which have financed a project of this sort. There is little standardization of formats and controlled vocabularies in this field.

If the problems posed by a lack of inter-system compatibility are not dealt with promptly and if the responsibility of failing to do so is shirked, then the resulting lack of information may seriously jeopardize the intellectual independence, creativity and identity of national communities and their use in furthering economic, scientific and technical development.

## 3.3 Possible objectives

The overall objective of a regional activity in this area might be:

"To increase the degree of compatibility, interconnection and systematization of existing non-numeric data bases (both bibliographic data bases and data bases on development resources and activities) of national institutions and regional bodies".

Possible specific objectives would be:

- To systematize and disseminate theoretical and practical knowledge concerning the main procedures, formats and tools for processing and communicating bibliographic information.

- To systematize and disseminate theoretical and practical knowledge concerning procedures, formats and tools for processing and communicating information on development resources and activities.

- To promote link-ups among national data bases and between them and regional and international data bases.

## 3.4 Possible forms of participation

Activities comprising a "Regional Project on the
Compatibility, Interconnection and Systematization of
Automated Non-Numeric Data Bases" (tentative list) (*)

- Training in the use of standardized formats (seminars/workshops,
  etc.)
- Training of trainers in the use of standardized formats (seminars/
  workshops, etc.)
- Training in the use of standardized terminologies.
- Training of trainers in the use of standardized terminologies.
- Preparation of teaching material.
- Formulation of methodological guidelines for the development
  of compatible formats, controlled vocabularies, etc.
- A comparative study of formats.
- A comparative study of terminologies.
- A comparative study of computer programmes for format conversion.
- Diagnostic and policy studies.
- Experiments in automated inter-system information exchange.
- Regional meetings for the exchange of experiences.
- Other activities.

Roles to be played in a "Regional Project on the Compatibility
Interconnection and Systematization of Automated Non-Numeric
Data Bases"

- Regional Project Co-ordinator.
- Co-ordinator of a component activity of the Regional Project.
- Technical execution of a component activity.
- Conducting experimentation in a component activity.
- Supplier of services and logistical support.

   *Each institution would be able to play similar or different roles in one or
more component activities (see annex 4).

## 4. Promotion of information services utilization

### 4.1 Conceptual framework

   Promoting the utilization of information services would involve a  number  of
activities targeted at both users and those responsible for managing information
services.  Users should  be  made  aware  of  the  availability  of  information
services, their potential, the means and costs of gaining access to them and the
speed with which such services  can  be  provided.   They  should  also  become
familiar  with  techniques  and  methods  for making a better use of information
services.  For their part, those responsible for the management  of  information
services  should  be aware, ahead of time, of the information needs of the users
they serve.  A balance or alignment between the supply and demand of information
services  can  only be achieved by means of combined action involving both users
and information service managers.

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(*) The type of data base in which a given institution is interested  should  be
indicated  (e.g.,  bibliographic, on institutions, on projects, etc.) as well as
the  sector  of  development  to  which  the  institution  corresponds  (e.g.,
agriculture, health, the environment, etc.).

A lack of knowledge about the important information which such services can provide leads to ill-informed decision-making whose negative consequences include the duplication of effort, the failure to take full advantage of available resources in research and experimental development, the acquisition of equipment and technology which are unsuited to actual conditions, etc.

## 4.2 Problems

The degree of which information services are utilized in the region can be gauged on the basis of the following verifiable facts.

- Information services which are not necessarily created in accordance with users' information needs and which have not been based on a study of users' habits as regards the acquisition of information.

- Users who are not accustomed to utilizing the information provided by information units and systems and, what is even worse, who have major difficulties in clearly specifying their information needs.

- The absence of studies on different ways of getting information to users with the required frequency, at a low cost, and in a form suited to their needs (consolidated information, referral information, texts, abstracts, etc.)

- The lack of planning for information services based on an exhaustive knowledge of the key component of any information system: the user.

The foregoing provides incontrovertible evidence of a situation of "disinformation", i.e., there has been a failure to bring the existing and accessible information together with those who need it to carry out responsibilities and perform duties linked to the development process. It is alarming to realize that technically efficient information services in which a great deal of professional effort and funds have been invested are not being utilized exhaustively by the very people for whom they were presumably created: information users.

A failure to deal with this situation when we are approaching the end of the twentieth century, when technologies exist which make it possible to eliminate obstacles that previously seemed insurmountable, would not only mean that we would be losing ground, but would also slow down or check development.

## 4.3 Possible objectives

The possible overall objective of regional action in this area would be:

"To increase users' awareness of and familiarily with the applications of existing information services as well as forms and conditions of access to them".

Possibles specific objectives which might be considered are:

- To determine the relationship between the supply of existing
  information services in the region and the needs for information
  created by the development process.

- To systematize and disseminate existing studies and experience
  in the region relating to the promotion and marketing of
  information services.

- To achieve a greater role for the user in the planning and design of information systems.

## 4.4 Possible forms of participation

Activities comprosing a "Regional Project to Promote the Utilization of Information Services" (tentative list)

- Personnel training.
- User training.
- Training of trainers in information marketing.
- Preparation of teaching material.
- Surveys on information utilization.
- Formulation of methodological guidelines on information utilization.
- Regional meetings.
- Diagnostic and policy studies.
- Experimental design of information systems to support the promotion of information service utilization.
- Design of information systems involving user participation.

Roles to be played in a "Regional Project to Promote the Utilization of Information Services"

- Regional Project Co-ordinator.
- Co-ordinator of a component sub-project of the Regional Project.
- Technical execution of a component of the project.
- Conducting experimentation.
- Supplier of services and logistic support.

Each institution would be able to play similar o different roles in one or more component activities (see annex 4).

## 5. Human resources training

## 5.1 Conceptual framework

The priority which the countries of the region have assigned to this area demonstrates their awareness of a problem which has not yet been resolved despite the many efforts that have being made for several decades now: the increase in the demand for skilled human resources for the development of information networks and systems.

The creation of schools and training centres at the university or professional level which specialize in library and information sciences has been, and still is, the most natural response to this need and, in fact, surveys and inventories show a number of such centres in Latin America that were created quite some time before the 1960s.

The inability of formal schemes of education to meet the changing and growing demand for information specialists has created a legitimate place for human resource training activities in the field of information as a supplementary mechanism.

The supplementary nature of such training makes it absolutely necessary to delineate, define and establish its scope of action as a complement of professional education. The purpose of these training activities, strictly speaking, is to prepare people to carry out a given activity, i.e., to perform

skilled functions in order to acquire specific capabilities for immediate application.

Obviously, vocational training in this sense is not in competition with academic training. There may, however, be a need to draw on the teaching experience of academic centres in order to prepare its teaching staff. At the same time, this type of training may act as a stimulus for the incorporation of new course contents into academic programmes. However, it would neither address nor attempt to satisfy other needs such as ongoing education, updating of professional know-how or further methodological improvements.

## 5.2  Problems

Three situations exist as regards specialized human resource training in information sciences which cannot be ignored:

- The mounting number of unevaluated training experiments that have been carried out over more than 20 years by national, regional and international bodies.

- The large number of specific, unmet needs which have been reported in many surveys on human resource training in the field of information.

- New needs arising out of the initiation of the Regional Programme.

While neither jumping to conclusions nor embarking upon an analysis of the factors involved, it is clear that there is an urgent need for action in this area. Nonetheless, it would be unreasonable to expect the Regional Programme, by itself, to cover all the training needs which have been made known. The main thrust of this component is therefore envisioned as being the evaluation of the akin experiences which have taken place. Moreover, at this stage, its scope of operation is seen as being confined to activities aimed at meeting only the needs of the component(s) of the Co-operation Programme.

## 5.3  Possible objectives

One possible overall objective for regional action in the field of training would be:

"To harmonize human resource training activities being carried out in the region and to establish a joint plan for training programmes whose content would support the activities of personnel required by the Regional Co-operation Programme".

Possible specific objectives would be:

- To assess the experiences, methodologies and subject coverage of ongoing training programmes carried out in the region by national institutions, regional bodies and international agencies.

- To increase the service rendered to the region by existing banks of teaching materials, including the provision of access to the know-how and outputs which have been compiled, produced and utilized during the development of the Regional Cooperative Information Programme.

## 5.4 Possible forms of participation

### Activities comprising a "Regional Human Resources Training Project" (tentative list)

- Assessment of existing training programme.
- Design of information systems to support user training.
  - A bank of teaching materials.
  - Information systems on trainers.
- Regional meetings on traning.
- Training activities in areas covered by the Regional Programme (not included in preceding sections).
- Other activities.

### Roles to be played in a "Regional Human Resources Training Project"

- Regional Project Co-ordinator.
- Co-ordinator of a project component of the Regional Project.
- Technical execution of a component.
- Conducting experimentation.
- Supplier of services and logistical support (see annex 4).


## 6. Co-ordination and promotion of the Programme

## 6.1 Conceptual framework

This programme area is seen as a means of orienting action towards the achievement of the overall and specific objectives of the Regional Programme and of each of its component areas.

The co-ordination and promotion of the Co-operation Programme is necessary in order to harmonize and optimize the inter-relationships among the areas comprising it. Failing to consider the exact nature of these tasks and the functions they would fulfil would result in under-utilization of existing resources in the region.

The co-ordination of the programme would involve fostering and supporting: a systematic exchange of objective information concerning the formulation of plans and an assessment of the results of the activities undertaken by each of the institutions participating in the different areas of the programme; an open discussion of options; and decentralized decision-making.

An approach should be encouraged which would involve working among peers to establish inter-institutional agreements; these agreements, whether formal or informal, would be reached on a voluntary basis. The co-ordination of the programme should be a function of consensus and of shared responsibility by a group made up of the national institutions, regional bodies, and international agencies that are most deeply involved in the Co-operation Programme.

Programme promotion is seen as consisting of a series of activities to keep interest in the Regional Programme alive. it would involve an intensive effort to establish and maintain communication between the technical co-ordination mechanisms for the projects comprising the programme and the participants, as well as communications among the participants themselves. Since national institutions are, ultimately, the target group for the programme, it will have to be made known to a wide range of authorities, specialists, users, etc. Therefore, this programme area also involves promoting an awareness of the

importance of co-operative national efforts of a regional scope, in addition to the promotion of increased participation in the programme.

## 6.2 Problems

The region still has little experience in co-ordinating regional programmes in the field of information. Even at the national level, efforts to co-ordinate information activities have suffered from various flaws and weaknesses in a large percentage of the countries of the region. Generally speaking, no consensus has yet been reached regarding the functions of a national inter-institutional co-ordinating mechanism within the field of information. In those cases where such mechanisms have existed, they have frequently had to operate on an informal basis and, with some exceptions, without any express recognition from participating institutions.

A failure to provide for appropriate measures could also take place at the regional level. It is therefore necessary to design strategies for gradually providing the co-ordinating mechanism for the Co-operation Programme with a legitimate basis. The establishment of formal agreements is necessary but not enough in itself to achieve this end. The main basis for the legitimacy of such a co-ordination mechanism will be its achievement of a series of concrete results that demonstrate its effectiveness.

## 6.3 Possible objectives

The overall objective of the co-ordination and promotion component of the programme could be:

"To operate a decision-making mechanism which functions by consensus and which is designed to co-ordinate the joint operations of the areas covered by the Regional Co-operation Programme".

Possible specific objectives to be considered are:

- To develop and organize co-ordinating mechanisms for the Regional Programme.

- To take part in the periodic assessment and programming of the activities undertaken in the subject areas covered by the programme.

- To systematize the information generated by the programme and to conduct ongoing information activities concerning its accomplishments and problems.

## 6.4 Possible forms of participation

Activities involved in the "Co-ordination and Promotion of the Regional Programme" (tentative list).

- Diagnostic and policy studies.
- Design of information systems to support the co-ordination and promotion of the programme.
  - Regional Bulletin.
  - System for following-up on project components of the Regional Programme.
- Regional co-ordination meetings.
- Other activities.

<u>Roles to be played in the "Co-ordination and Promotion of</u>
<u>the Regional Programme</u>

- Co-ordinator of a co-ordination and promotion activity.
- Technical execution of a co-ordination and promotion activity.
- Supplier of services and logistical support for co-ordination and
  promotion (see annex 4).

# A N N E X E S

Annex 1

CHRONOLOGY OF THE FORMULATION OF THE BASIC PRINCIPLES
FOR THE REGIONAL PROGRAMME

April 1982: Meeting of the Ad-hoc Group of Experts convened by
UNESCO/PGI to establish a Regional Co-operation
Programme.

The meeting was attended by specialists from institutions which co-ordinate
national information systems, regional bodies which co-ordinate information
networks, non-governmental organizations and agencies which finance information
projects.

A total of 24 ideas for regional projects were formulated and the
participants adopted the concept of a regional "umbrella" project based on two
experiences at the international level regarding co-operative regional
programmes with a high degree of operational flexibility: the CARNEID project
(a successful effort in the field of educational innovation in the Caribbean)
and a project aimed at forming a scientific and technological information
network in Asia (ASTINFO), which was in the design stage at that time.

The experts' sole recommendation to UNESCO was to initiate the design of a
regional programme for co-operation in the field of information (INFOLAC), and
they delegated the responsibility for conducting preparatory and follow-up work
to a follow-up group formed by regional and international bodies: ECLAC/CDC,
ECLAC/CLADES, IDRC, FID/CLA, IFLA/LAC, OAS, SELA, UNESCO/PGI and UNESCO/OCR
(UNESCO/PGI, 1982).

April 1983: Meeting of the Follow-up Group.

The Follow-up Group met at Caracas one year after its establishment. The
participants decided to consult the countries, by means of a questionnaire to be
sent through the mail, about their opinion concerning the 24 project ideas
formulated by the experts.

May 1984: First consultation concerning the 24 regional project
ideas.

A total of 60 institutions in the region responded to the questionnaire. Of
that number, 12 were national bodies which co-ordinate information activities,
15 were national agencies which co-ordinate sectoral networks, 14 were regional
agencies and 19 were international bodies (see UNESCO/PGI and ECLAC/CLADES, June
1984).

June 1984: Analysis of the information gathered from the first
consultation.

ECLAC/CLADES and UNESCO/PGI designed a methodology for analysing the
institutions' responses to the questionnaire.

The final results consistently indicated that, of the 24 proposals, the
institutions placed the greatest emphasis on the two efforts which would have
the greatest multiplier effect as regards the co-ordination of information
activities in the region, namely:

Project 1)   Strengthening national mechanisms for co-ordinating
             information activities.

Project 2)   An information system concerning information activities
             in Latin America and the Caribbean.

July 1984:   Preparation of preliminary proposals concerning the
             two priority regional projects.

     The  next  logical step in the formulation of a co-operation programme was to
determine the specific content of the  two  priority  projects  and  to  specify
modalities of participation for national institutions and regional bodies.

     Based  on  the  statistical  results  of  the  first  consultation   process,
UNESCO/PGI  and  ECLAC/CLADES  prepared  two preliminary proposals which roughly
outlined the content, objectives and strategies of each of the priority projects
(UNESCO/PGI   and   ECLAC/CLADES,  July  1984).    These  proposals  were  widely
distributed at the same time that visits to  the  countries  were  organized  in
order to elicit comments and information directly from the institutions.

     Beginning at this time, UNESCO/PGI and ECLAC/CLADES assumed the duties of  an
interim  technical secretariat for the formulation of the co-operation programme
on an unofficial basis due to the fact that the other institutions belonging  to
the  follow-up  group  found that they were unable to provide the group with the
services of specialists capable of carrying out more detailed  consultations   in
the field.

October 1984:  Pilot consultation in Ecuador.

     The Interim Secretariat carried out a pilot national consultation in  Ecuador
which served as a basis for the questionnaires to be used in the other countries
at a later date.

     UNESCO/PGI subsequently carried out consultations in Brazil, Colombia,  Costa
Rica,  Jamaica  and Venezuela, while ECLAC/CLADES did so in Argentina, Chile and
Peru.  In each country they organized informational meetings  with  institutions
having some responsibility for the co-ordination of national information systems
and sectoral information networks in the countries (or which intended to  do   so
in  the  future) and with regional bodies headquartered in those countries which
were promoting or executing national information activities.

     On the questionnaire, each institution indicated the priority it assigned  to
the  future  development of the activities involved in each of the two projects,
as well as the type of co-operation it would be able to make available  in  each
case (UNESCO/PGI and ECLAC/CLADES, October 1984).

     The organization of national meetings among  the  co-ordinating  institutions
for  information systems and networks fostered and renewed a closer relationship
among national institutions.  Furthermore, in the  case  of  some  countries  it
resulted  in  the  preparation  of  an  analytical  document of major conceptual
importance both for the country itself  and  for  the  design  of  the  regional
proposal  (Brazil,  IBICT,  1985;   Chile.   CONICYT, 1985; Jamaica.  NACOLADS,
1985;  Venezuela.  IABN, 1985.)

<u>March 1985:</u> The processing and analysis of the data obtained
from the second regional consultation.

A total of 149 questionnaires were received on Project 1; 142 of the
respondents were national institutions and 7 were regional bodies. For Project
2, 115 responses were received; 98 of the questionnaires came from national
institutions and 17 from regional bodies.

Through CLADES, ECLAC assumed responsibility for the computer processing of
the questionnaire data as well as for the preliminary analysis of the
information that had been compiled and of its implications for the design of the
regional project.

<u>April 1985:</u> Meeting on the design of a regional information
system concerning information activities.

The results of consultations concerning Project 2 were submitted to a
regional meeting of experts whose purpose was to design a regional system
concerning information activities. It became clear at the meeting that the two
priority projects should be grouped within a single programme due to the
extremely close functional relationship between the two (ECLAC/CLADES and
UNESCO/PGI, June 1985). (*)

<u>August 1985:</u> Meeting of CASTALAC II

The Second Conference of Ministers Responsible for the Application of Science
and Technology to the Development of Latin America and the Caribbean (CASTALAC
II) was convened by UNESCO and held at Brasilia from 20 to 26 August 1985. This
meeting set a precedent of political receptiveness to the presentation of this
proposal. The Ministers attending the meeting recommended, on behalf of their
countries, the implementation of a co-operation programme for the exchange of
information and experience in science and technology for development in Latin
America and the Caribbean.

The government authorities attending the meeting also stressed the need to
strengthen co-operation mechanisms in the field of information and underscored
the importance which the countries of the region attribute to such mechanisms as
key elements for effective participation in national or regional information
programmes and projects.

<u>November 1985:</u> Preparation of the first draft of the Regional
Proposal.

UNESCO/PGI and ECLAC/CLADES specialists met at Santiago, where they completed
processing the data concerning Project 1 which had been compiled during the
second regional consultation and prepared a first draft of the proposal for the
Regional Co-operation Programme.

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(*) The activities suggested for inclusion in Project 2 at the regional meeting
have now been distributed among various areas of the Co-operation Programme (see
Area 1, Objective 3; and Area 6, Objective 3).

<u>December 1985:</u> Discussion of the first draft of the Proposal.

The first draft of the regional proposal was discussed with a sample group of specialists from national, regional and international bodies. The document was sent to UNESCO/PGI (Paris) for comments and general approval.

<u>March 1986:</u> Arrangements for the procurement of funding for the definitional phase of the Programme.

The UNDP Regional office was contacted by UNESCO/PGI with a view to obtaining the financial resources needed to contract Latin American and Caribbean consultants to design the project components of the regional programme. (Request for preparatory assistance).

<u>June 1986:</u> Preparation of this proposal.

This proposal was written and distribution lists and letters were prepared.

INSTITUTIONS WHICH PARTICIPATED IN THE CONSULTATIONS
CONCERNING PRIORITY REGIONAL PROJECTS (*)

## 1. NATIONAL INSTITUTIONS

### ARGENTINA

Asociación de Bibliotecas Biomédicas de Argentina   Buenos Aires

Centro de Estudios de Estado y Sociedad
  Red de Bibliotecas en Ciencias Sociales
  CEDES                                            Buenos Aires

Comisión Nacional de Energia Atómica
  CNEA                          INIS               Buenos Aires

Consejo Federal de Inversiones
  CFI                           INFOPLAN           Buenos Aires

Consejo Nacional de Investigaciones Cientificas y Técnicas
  CONICET                                          Buenos Aires

Consejo Nacional de Investigaciones Cientificas y Técnicas
  Centro Argentino de Información Científica y Tecnológica
  CONICET/CAICYT               FID UNISIST         Buehos Aires

Consejo Nacional de Investigaciones Cientificas y Técnicas
  Centro Regional de Investigaciones Cientificas y Técnicas
  CONICET/CRICYT                                   Mendoza

Fundación José Maria Aragón    FID                 Buenos Aires

Instituto Nacional de Ciencia y Técnicas Hidricas
  Centro Argentino de Referencia en Ingenieria Sanitaria
  y Ciencias del Ambiente
  INCYTH                       REPIDISCA     .     Buenos Aires

Instituto Nacional de Ciencia y Técnicas Hidricas
  INCYTH                                           Buenos Aires

Instituto Nacional de Tecnologia Industrial
  INTI                                             Buenos Aires

Junta de Bibliotecas Universitarias Nacionales Argentinas
  JUBIUNA                                          Buenos Aires

Ministerio de Educación y Justicia
  Centro Nacional de Información, Documentación y
  Tecnologia Educativa                             Buenos Aires

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(*) The list includes all the institutions which took part in the meetings
organized in their respective countries. The acronyms appearing on the final
line of each entry following the acronym of the institution in question (e.g.,
INIS, INFOPLAN ...) correspond to information systems and networks and other
co-operative schemes in which the institution participates.

Proyecto de un Sistema Nacional de Información
  Cientifica y Tecnológica
  CONICET/CAICYT                                        Buenos Aires

Secretaria de Ciencia y Técnica                        Buenos Aires

Secretaria de Planificación
                    INFOPLAN                            Buenos Aires

Secretaria de Vivienda y Ordenamiento Ambiental
                    INFOTERRA                           Buenos Aires

Sistema Nacional de Informática Juridica               Buenos Aires

Universidad de Buenos Aires
  Facultad de Agronomia
  UBA                    AGRINTER CARIS                 Buenos Aires

BRAZIL

Biblioteca Nacional                                    Rio de Janeiro

Centro de Documentacao e Informática
  Laboratorio de Computacao Cientifica
  CEDIN                                                 Rio de Janeiro

Comissao Nacional de Energia Nuclear
  CNEN                    INIS                          Rio de Janeiro

Conselho Nacional de Pesquisas
  Instituto Brasileiro de Informacao em Ciencia e Tecnologia
  CNPq/IBICT              UNISIST FID                    Brasilia

Departamento Nacional de Producao Mineral
  DNPM                                                  Brasilia

Empresa de Telecomunicacoes do Brasil
  Centro de Pesquisas e Desenvolvimento
  TELEBRAS                                              Campinas

Financiadora de Estudos e Projetos
  FINEP                                                 Rio de Janeiro

Fundacao Analisis Estadual de Dados
  SEADE                   DOCPAL                         Sao Paulo

Fundacao Osvaldo Cruz
  FIOCRUZ                                               Rio de Janeiro

Instituto de Pesquisas Tecnológicas do Estado de Sao Paulo
  IPT                                                   Sao Paulo

Instituto de Planejamento Económico e Social
  Centro de Documentación
  IPEA/IPLAN              INFOPLAN                        Brasilia

Instituto Nacional de Estudos e Pesquisas Educacionais
  INEP                                                  Brasilia

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Instituto Nacional de Tecnologia
  INT                                                   Rio de Janeiro

Ministerio de Agricultura
  Centro Nacional de Informacao e Documentacao Agricola
  CENAGRI                        AGRINTER             Brasilia

Ministerio das Relacoes Exteriores
  DCTEC                 ccn (*) SICTEX                 Brasilia

Museu Paranaense Emilio Goeldi
  MPEG                  ccn (*) INFORMAM               Belem

Secretaria Especial do Meio Ambiente
  Coordinacao de Organizacao e Sistemas
  SEMA                          INFOTERRA              Brasilia

Secretaria de Tecnologia Industrial
  STI                                                  Brasilia

Universidade Federal de Paraiba
  UFPB                                                 Joao Pessoa

Universidade Federal Rio Grande do Sul
  UFRGS                                                Porto Alegre

Universidade de Sao Paulo
  Facultade de Arquitectura e Urbanismo
  USP                                                  Sao Paulo
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## CHILE

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Armada de Chile
  Instituto Hidrográfico
  Centro Nacional de Datos Oceanográficos              Valparaiso

Banco Central de Chile                                 Santiago

Centro de Investigación Minera y Metalúrgica
  CIMM                                                 Santiago

Colegio de Bibliotecarios de Chile                     Santiago

Comisión Nacional de Investigación Cientifica
  y Tecnológica
  Centro Nacional de Información y Documentación
  CONICYT/CENID                 UNISIST INFOTERRA FID   Santiago

Congreso Nacional
  Biblioteca                                           Santiago

Dirección de Bibliotecas, Archivos y Museos
  Biblioteca Nacional                                  Santiago
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(*) ccn:  National network co-ordinating centre

Dirección de Bibliotecas, Archivos y Museos
  Archivo Nacional                                        Santiago

Dirección de Biblitecas, Archivos y Museos
  Coordinación Nacional de Bibliotecas Públicas           Santiago

Dirección de Bibliotecas, Archivos y Museos              Valparaiso

Empresa Nacional de Telecomunicaciones
  ENTEL-Chile                    SAITEL                   Santiago

Instituto de Investigaciones Tecnológicas
  INTEC Chile                                             Santiago

Instituto Nacional de Investigaciones Agropecuarias
  Estación Experimental "La Platina"
  INIA                           AGRINTER                 Santiago

Instituto Profesional de Santiago
  Escuela de Bibliotecología                              Santiago

Ministerio de Educación
  Centro de Perfeccionamiento, Experim. e Investig.
  Pedagógicas
  MINEDUC/CPEIP                                           Santiago

Ministerio de la Vivienda y Urbanismo
  MINVU                                                   Santiago

Oficina de Planificación Nacional
  ODEPLAN                                                 Santiago

Pontificia Universidad Católica de Chile
  Sistema de Bibliotecas
  PUC                                                     Santiago

Universidad Austral
  Biblioteca Central                                      Valdivia

Universidad de Chile
  Centro de Información y Referencia en Inp.
  Sanitaria y C. del Ambiente
  CIRISCA                        REPIDISCA                Santiago

Universidad de Chile
  Programa de Investigación en Energia
  PRIEN                                                   Santiago

Universidad de Chile
  Facultad de Medicina           BIREME                   Santiago

Universidad de Chile
  Pro-Rectoria. Dirección General Académica y Estudiantil
  Depto. de Investigación y Bibliotecas                   Santiago

Universidad de Chile
  Pro-Rectoria.  Servicio de Sistemas de Información      Santiago

Universidad de Concepción                                 Concepción

| | | |
|---|---|---|
| Universidad del Norte | | Antofagasta |
| Universidad Federico Santa María<br>    UTFSM | | Valparaiso |
| Universidad de La Serena | | La Serena |
| Universidad de Valparaiso<br>    Departamento de Bibliotecología | | Valparaiso |

## COLOMBIA

| | | |
|---|---|---|
| COLCULTURA | | Bogotá |
| Departamento Nacional de Planeación<br>    DNP | INFOPLAN | Bogotá |
| ECOPETROL | SIELA | Bogotá |
| Fondo Colombiano de Investigaciones Científicas<br>    COLCIENCIAS | UNISIST | Bogotá |
| ICA/BAC | | Bogotá |
| Instituto Nacional de los Recursos Naturales Renovables<br>    y del Ambiente<br>    INDERENA | INFOTERRA | Bogotá |
| Instituto Colombiano de Fomento de la Educación Superior<br>    ICFES | FID | Bogotá |
| Ministerio de Educación Nacional | | Bogotá |
| Ministerio de Salud Pública | | Bogotá |
| Pontificia Universidad Javeriana<br>    Departamento de Bibliotecología | | Bogotá |
| Universidad de Antioquia<br>    Escuela Interamericana de Bibliotecología | | Medellin |
| Universidad de La Salle<br>    Facultad de Bibliotecología y Archivística | | Bogotá |

## COSTA RICA

| | | |
|---|---|---|
| Archivo Nacional | | San José |
| Biblioteca Nacional | | San José |
| Caja Costarricense de Seguro Social | | San José |
| Centro de Promoción de Exportaciones<br>    CENPRO | RELIC | San José |

Consejo Nacional de Investigaciones Científicas y
  Tecnológicas
  Departamento de Información y Documentación
  CONICIT                    FID UNISIST            San José

Instituto Tecnológico de Costa Rica
  Centro de Información Tecnológica San José       Cartago

Ministerio de Industria, Energía y Minas
  Centro de Información Industrial                 San José

Ministerio de Planificación
  MIDEPLAN                   INFOPLAN              San José

SEPSA                        AGRINTER              San José

Universidad de Costa Rica                          San José

Universidad de Costa Rica
  Facultad de Educación                            San José

Universidad Estatal a Distancia                    San José

Universidad Nacional                               San José


ECUADOR

Asociación Ecuatoriana de Bibliotecarios          Quito

Consejo Nacional de Ciencia y Tecnología
  CONACYT                    UNISIST               Quito

Consejo Nacional de Desarrollo
  CONADE                     INFOPLAN              Quito

Corporación Estatal Petrolera Ecuatoriana
  CEPE                       FID                   Quito

Diario El Comercio                                 Quito

Instituto Ecuatoriano de Reforma Agraria
  IERAC                                            Quito

Instituto Nacional de Energía
  INE                        SIELA                 Quito

Instituto Ecuatoriano de Obras Sanitarias          Quito

Junta Nacional de la Vivienda                      Quito

Ministerio de Agricultura y Ganadería              Quito

Ministerio de Recursos Naturales y Energéticos     Quito

Ministerio de Industria y Comercio                 Quito

Ministerio de Trabajo y Recursos Humanos           Quito

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| Ministerio de Obras Públicas | | Quito |
| Presidencia de la República<br>Grupo de Coordinación del Desarrollo<br>Administrativo | | Quito |
| Procuraduria General del Estado<br>Departamento de Prevención del Uso Indebido<br>de Drogas | | Quito |
| Pontificia Universidad Católica | | Quito |
| Universidad de Guayaquil | | Guayaquil |
| Universidad Central del Ecuador<br>Facultad de Ciencias Médicas<br>UCE | BIREME | Quito |

## JAMAICA

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|---|---|---|
| College of Arts, Science and Technology Library | | Kingston |
| Jamaica Archives and Records Department<br>JARD | | Kingston |
| Jamaica Library Service | | Kingston |
| Ministry of Agriculture | AGRINTER | Kingston |
| Ministry of Mining and Natural Resources | | Kingston |
| National Library of Jamaica | | Kingston |
| National Resources Conservation Department<br>NRCD | INFOTERRA | Kingston |
| Office of the Prime Minister<br>Nacional Council on Libraries, Archives  Documentation<br>Services<br>OPM/NACOLADS | UNISIST | Kingston |
| Planning Institute of Jamaica | CARISPLAN | Kingston |
| Scientific Research Council<br>Technical Information Division | | Kingston |
| Supreme Court | | Kingston |
| University of the West Indies | | Kingston |

## PERU

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| Banco Minero del Perú | RIALIDE | Lima |
| Banco Central de Reserva | RIALIDE | Lima |
| Biblioteca Nacional | | Lima |

| CPTSA | | Lima |
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Escuela Superior de Administración Pública
ESAP                          Red CLAD                Lima

Instituto Nacional de Desarrollo                     Lima

Instituto Nacional de Investigación y Promoción
   Agropecuaria
   INIPA/OCT                                          Lima

Instituto Nacional de Investigación y Desarrollo
   de la Educación
   Centro Nacional de Documentación e Información
   Educacional
   INIDE/CENDIE              REDUC                     Lima

Instituto Nacional de Investigación y Normalización-
   en Vivienda
   ININVI                                             Lima

Instituto Nacional de Investigación en Telecomunicaciones
   INICTEL                   SAITEL                    Lima

Instituto de Investigación Tecnológica Industrial
   y de Normas Técnicas
   ITINTEC                                            Lima

Universidad Nacional Agraria
   Biblioteca Agrícola Nacional AGRINTER AIBDA        Lima

Universidad Peruana Cayetano Heredia
                            LILACS                    Lima

## VENEZUELA

Asociación Interamericana de Bibliotecarios Agrícolas.
   Sección Venezolana
   AIBDA/Venezuela           AIBDA                     Maracay

Banco del Libro                                       Caracas

Congreso de la República
   Servicio de Información Documental Automatizada
   SIDA                                               Caracas

Consejo Nacional de Investigaciones Científicas y
   Tecnológicas
   Dirección de Información Científica y Tecnológica
   CONICIT                   UNISIST                   Caracas

Corporación de Petróleos de Venezuela S.A.
   CORPOVEN                                            Caracas

Fundación para el Desarrollo de la Región Centro
   Occidental
   FUDECO                    FID                       Caracas

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Instituto Autónomo Biblioteca Nacional
  Centro de Documentación en Ciencias de la Infor-
  mación y Bibliotecología
  IABN/CENDINBI                                        Caracas

Instituto Autónomo Biblioteca Nacional Simón Bolívar
  IABNSB                                               Caracas

Instituto Autónomo Biblioteca Nacional Simón Bolívar
  Biblioteca Pública del Estado
  IABNSB                                               Maracaibo

Instituto de Comercio Exterior
  ICE                        RELIC                     Caracas

Instituto de Estudios Superiores de Administración
  IESA                                                 Caracas

Instituto Venezolano de Investigaciones Científicas
  IVIC                                                 Caracas

Ministerio de Educación                                Caracas

Oficina Central de Coordinación y Planificación
  de la Presidencia
  CORDIPLAN                  INFOPLAN                   Caracas

Universidad Central de Venezuela
  UCV                                                  Caracas

Universidad Central de Venezuela
  Facultad de Agronomía
  UCV                                                  Caracas

Universidad Central de Venezuela
  Facultad de Ciencias Médicas
  UCV                        BIREME                    Caracas

Universidad Central de Venezuela
  Instituto de Investigaciones Económicas y Sociales
  UCV               ccn (*) REDINSE                    Caracas

Universidad de Los Andes
  ULA                                                  Mérida

Universidad Simón Bolívar                              Caracas

Universidad de Zulia
  Facultad de Ingeniería                               Maracaibo
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(*) ccn:  National network co-ordinating centre

## 2. INTERNATIONAL AGENCIES AND NATIONAL BODIES OF A REGIONAL SCOPE (*)

Association of Telecommunications Enterprises
Co-ordinating Centre
ASETA                           rcc (**) SAITEL            Quito

The Book Bank                   rcc PILI                  Caracas

International Centre of Superior Studies in Communication
for Latin America
CIESPAL                                                   Quito

Education Research and Development Centre
Education Network for Latin America and the Caribbean
CIDE                            rcc REDUC                 Santiago

International Centre on Migration
Centre for Information on Migration in Latin America
CIM                             rcc CIMAL                 Santiago

Latin American Development Administration Centre
CLAD                            rcc Red CLAD              Caracas

Latin American Demographic Centre
Latin American Population Documentation System
CELADE/DOCPAL                   rcc DOCPAL                Santiago

Latin American and Caribbean Regional Book Promotion
Centre
CERLALC                                                   Bogotá

Economic Commission for Latin America and the Caribbean
Latin American Centre for Economic and
Social Documentation
ECLAC/CLADES                    rcc INFOPLAN              Santiago

Central American Higher University Council
CSUCA                                                     San José

Pan-American Federation of Colleges of Medicine
FEPAFEM                                                   Caracas

Latin American Faculty of Social Sciences
FLACSO                                                    Quito

Inter-American Institute for Agricultural Sciences
IAIAS                                                     Bogotá

Inter-American Institute for Co-operation in
Agriculture
IAIAS/CIDIA                     rcc AGRINTER              Coronado

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(*) The following titles are not necessarily official translations from the spanish.
(**) rcc:  Regional co-ordinating centre

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Latin American Institute for Transnational Studies
    ILET                        rcc RRI   INTERDOC      Santiago

Latin American Iron and Steel Institute
    ILAFA                       ILAFA Network           Santiago

United Nations Latin American Institute for the Prevention
    of Crime and the Treatment of Offenders
    ILANUD                      ILANUD Network          San José

Organization of American States
    Pre-investment Information Centre for Latin America
    and the Caribbean
    OAS/CIP                                             Quito

United Nations Educational, Scientific and Cultural
    Organization
    Regional Office of Education for Latin America
    and the Caribbean
    UNESCO                                              Santiago

United Nations Educational, Scientific and Cultural
    Organization
    General Information Programme
    UNESCO/PGI                  rcc UNISIST             Caracas

Latin American Energy Organization
    OLADE                       rcc SIELA               Quito

Pan-American Health Organization
    Regional Library of Medicine
    PAHO/BIREME                 rcc LILACS              Sao Paulo

United Nations Development Programme
    PNUD                                                Quito

Latin American Commercial Information Network Project
    UNCTAD                      rcc RELIC               Lima

University of the West Indies
    Department of Library Studies                       Kingston
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## Annex 3

## METHODOLOGY FOR DELINEATING PRIORITY AREAS TO BE
## COVERED BY THE PROGRAMME

1. Possible areas for action by co-ordinating institutions and
   bodies of information networks and systems

   The guidelines proposed by UNESCO/PGI for determining the level of
development of UNISIST national co-ordination mechanisms include a list of
nearly 50 types of activities in which such mechanisms may be involved. These
activities can be grouped into three broad functional categories:

   i) <u>Co-ordination mechanism management activities</u>
      (15 areas)

1. Diagnostic analysis of the
   network or system

2. Objectives of the network
   or system

3. Functions of the network
   or system

4. Legal provisions furnishing
   the basis for the existence
   of the network or system

5. Information policies of the
   network or system

6. Integration of the network's
   or system's information
   policies with those of the
   sector which it supports

7. Plans, programmes and projects
   for the development of the
   network or system

8. Evaluation and follow-up of
   the plans, programmes and
   projects

9. Activities aimed at obtaining
   funding from other national
   institution(s) in charge of the
   network or system

10. Activities aimed at obtaining
    funding from other national
    institutions

11. Activities aimed at obtaining
    funding from outside
    institutions

12. Schemes for promoting the
    activities of the network
    or system

13. Co-ordination meetings of the
    network or system

14. Committee or group meetings
    for the purpose of carrying
    out specific activities of
    the network or system

15. Co-ordination of international
    technical and financial
    assistance for the development
    of the network or system

ii) <u>Operational activities designed to provide technical support</u>
<u>for components of the co-ordination mechanism</u> (21 areas)

16. Training of information
specialists (short courses,
assistantships)

    a) Professionals
    b) Para-professionals

17. Education of information
specialists (programmes
leading to diplomas or
degrees)

    a) Professionals
    b) Para-professionals

18. Technical advisory services
for information units of the
network or system

19. The study, adaptation and
dissemination of common rules
and procedures for handling
information

    a) Manuals on information
       processing
    b) Vocabularies, coding
       systems

20. Applied research and studies
on:

    a) Information identification
       and selection
    b) Information analysis
    c) Information processing
    d) Information storage
    e) Information dissemination
    f) Information utilization
    g) Information generation

21. Evaluation of new information
management technologies

    a) Data processing
    b) Data transmission
    c) Reprography

22. Promotion of information use

    a) Training of users
    b) Promotion scmenes
       (demonstrations)

23. Support for the publication
of existing information

24. Support for the dissemination
of existing information


iii) <u>Operational information handling activities sponsored or</u>
<u>carried out by the co-ordination mechanism 1</u> (12 areas)

25. Operational information management activities

    a) Document delivery services
    b) Inter-library loans
    c) Union catalogue of
       periodicals
    d) Union catalogue of theses
    e) Union catalogue of monographs
    f) Union catalogue of patents
    g) Operation of bibliographic
       data bases
    h) Operation of data bases
       concerning research and
       development projects I  D

    i) Operation of data bases
       concerning information
       units
    j) Operation of data bases
       on specialists
    k) Operation of data bases
       concerning events
    l) Services providing access
       to external data bases


2. Indicators for determining priority areas

    Each of the institutions that was consulted was asked to consider the
above-mentioned areas and to give the following information regarding each one
on a questionnaire:

i) The present status of the institution's work in relation to
      the area in question;
  ii) The priority assigned by the institution to the development
      of the area;
 iii) The type of assistance which the institution would need
      to receive from the Regional Project in order to strengthen
      its activities in the area in question; and
  iv) The type of co-operation which the institution would be in a
      a position to make available with respect to the area in
      question.

   Based  on  the  processed data, it was decided that a single indicator of the
country's "interest in and willingness to" participate in the  programme  should
be used.

   A country was considered to have demonstrated "interest in and willingness to
participate"  in  one of the areas covered by the programme if it fulfilled both
of the following two requirements:

   i) Over one-third of the national institutions surveyed in the
      country assigned a high priority to the activity and,
      also. felt that the activity in question was insufficiently
      developed, at the planning stage or at an initial stage of
      development.

  ii) The institutions fulfilling the above condition also wished
      to receive one or more of the following items from the
      Regional Programme: technical assistance and/or training and/or
      methodological documents and/or organization of meetings and/or
      equipment.

   The first requirement involves emphasizing those areas in which  there  is  a
need  to  develop  new  activities  and excluding those areas from the programme
which, whatever their priority, are regarded as being at an  adequate  stage  of
development  or in which activities had not been provided for at the time of the
consultation.

   The second requirement is essential in order to  ensure  that  the  resources
needed in the new areas are accurately communicated to the Regional programme by
the country and are not being regarded as a matter to be dealt with internally.

3. The sample

   The sample which was analysed was made up of 142 national institutions  which
co-ordinate national information systems and sectoral information networks.

   The make-up of the sample group as regards the main work being  done  by  the
institutions in the field of information was as follows:

| Type of institution | Number of instituions |
|---|---|
| Co-ordinators of national information systems (UNISIST) | 8 |
| Co-ordinator of national library and public library systems | 5 |
| Co-ordinators of sectoral networks | 74 |
| Institutions with the potential to co-ordinate sectoral networks | 38 |
| Other (professional associations, etc.) | 17 |
| Total | 142 |

The make-up of the sample group as regards the institutions' country of origin was:

| Country | Number of institutions |
|---|---|
| Argentina | 18 |
| Brazil | 19 |
| Colombia | 12 |
| Costa Rica | 15 |
| Chile | 19 |
| Ecuador | 18 |
| Jamaica | 11 |
| Perú | 11 |
| Venezuela | 19 |
| Total | 142 |

The reader should note that the information service infrastructures existing in these countries as of 1980 represented approximately 70% of the total number of information units in existence in Latin America and the Caribbean (see ECLAC/CLADES, 1981).

## 4. Overall results

In designing the proposal, priorities areas were identified solely on the basis of the indicator described in section 2.

The table shown on the following page includes all the programme areas in which four or more countries indicated "interest in and a willingness to" participate. The areas are listed by functional group and in descending order as regards the indicator.

This procedure allowed the areas under consideration to be narrowed down to only 16.

## 5. Identification of priority areas

The 16 priority areas were grouped into five major categories of related subject areas to form the Regional Co-operation Programme.

SUMMARY OF THE RESULTS OF THE REGIONAL CONSULTATION

| Functional group | Areas | Total number and identity of countries interested in participating | |
|---|---|---|---|
| Management of the sectoral network and/or national system | Obtaining external financial resources | 5 | ARG COL CRI CHI JAM VEN |
| | Obtaining resources from the co-ordinating institution | 4 | ARG BRA CRI VEN |
| | Evaluation and follow-up of plans, programmes and projects | 4 | ARGN BRA COL CHI |
| | Integration of information policies with sectoral policies | 4 | ARGN BRA CHI VEN |
| | Schemes for promoting the network or system | 4 | ARG BRA JAM VEN |
| Technical support for components of the sectoral information network and/or national information system | Training of professionals | 7 | COL CRI CHI ECU JAM PER VEN |
| | Training of users | 6 | ARG BRA COL CRI CHI VEN |
| | Information dissemination: Research and development | 5 | ARG COL CRI JAM VEN |
| | Evaluation of information management technologies | 5 | ARG COL CRI JAM VEN |
| | Evaluation of information transmission technologies | 5 | ARG COL CRI JAM VEN |
| | Training of para-professionals | 4 | COL CRI JAM VEN |
| | Schemes for promoting information use | 4 | ARG BRA COL VEN |
| | Information use: Research and Development | 4 | ARG COL CRI VEN |
| | Generation of information: Research and development | 4 | ARG COL CRI VEN |
| | Study and adaptation of information processing manuals | 4 | COL CRI CHI VEN |
| Operational activities relating to information management in sectoral inform. network and/or the national inform. system | Creation of bibliographic data bases | 5 | ARG COL CRI JAM VEN |

Apparently contradictory results were obtained for the functional group of "system and/or network management".

The areas entitled "co-ordination and follow-up of plans, programmes and projects" for each information network or system and "obtaining (external and internal) financial resources: were ranked the highest. However, indicators for those aspects relating to information policies and plans for networks and systems had much lower interest values (diagnostic analyses, objectives, functions, legal provisions and the design of information policies).

These results were interpreted as a clear indication that national institutions were taking a pragmatic approach which led them to show greater interest in furthering "project and programme" management than in other aspect of information planning.

From the standpoint of "information projects", the data can be considered from a different angle. For example, the integration of information policies with the development policies of each sectoral system or network (science and technology, agriculture) could be addressed during the phase of information project evaluation rather than as an activity in its own right. Similarly, the promotion of a co-ordination mechanism for a network or system can be carried out as part of the projects which are furthered by each co-ordination mechanism rather than as a separate activity.

Under the first priority area ("information project and programme management"), it is thus possible to group such aspects as: the procurement of funding; design, evaluation and follow-up techniques; the harmonization of projects and programmes with sectoral development policies; and the promotion of such projects and programmes.

The functional group of technical support encompasses many areas which were assigned a high priority. A second area in which institutions would have a great deal of interest would therefore be the "training of specialized human resources" at both the professional and non-professional levels.

A third area would include all those aspects relating to the interphase between networks and systems and their users. This area, which could be referred to as "promotion of the utilization of information services" would encompass "training of users", "schemes for promoting information use" and research on the "dissemination, utilization and generation of information"

A fourth area could consist of the "evaluation of information tecnologies" and would include both data processing and data transmission.

In the functional group of information management, the creation of bibliographic data bases was clearly stressed. This area, in combination with the study and adaptation of information processing manuals (from the preceding functional group), form a fifth priority area which may be designated as the "compatibility and systematization of non-numeric data bases".

Annex 4

## GUIDELINES FOR DEFINING THE NATURE OF INSTITUTIONAL
## PARTICIPATION IN PROJECTS OF THE REGIONAL PROGRAMME

The national institutions and regional bodies which co-ordinate information networks and systems in the region have varying capabilities, both real and potential, as regards the contributions they can supply in the form of experience, resources, equipment and technology and as regards their demand for some of these items for use in developing the areas covered by the programme.

The guidelines set forth below are designed to assist institutions in specifying the extent to which they are or are not interested in participating in particular aspects of the six areas discussed in the proposal. In keeping with the spirit of this document, the guidelines are put forward as suggestions which are open to change and comments, not as strict rules which must be obeyed.

The guidelines require a prior assessment from participating institutions of their technical capabilities, political position, and their supply of specialized resources and equipment, as well as of what they are lacking and would need in order to take part in the activities of information networks and systems or in order to assume the responsibility of co-ordinating such networks or systems.

An objective self-evaluation of this sort will allow the institutions to determine the contributions they can make to one or all of the areas covered by the programme as well as the demands they will make of them. Furthermore, it will enable them to define the role and the rights and duties which they are in a position to assume in these areas.

The ways in which the institutions participate will depend upon the amount of experience they have gained in co-ordinating, providing technical advisory services, and organizing information networks and systems, as well as upon the responsibilities they are willing to assume in supplying or in receiving technical and/or financial assistance within the areas covered by the programme.

If they choose to take part in a project in one of these subject areas, the institutions will need to choose the role(s) they are going to play from among the following categories:

- Project co-ordinator
- Technical execution
- Conducting experimentation
- Supplier of services and/or statistical support

An institution's decision to choose one or more of these categories will depend on what knowledge it has acquired about the following aspects: the functions of each role; a self-evaluation as regards the extent to which the institution fulfills the minimum requirements for assuming a given role; the contributions which the institution is expected to make to the programme if it is to play a given role (these contributions may be divided into essential and desirable contributions); and the demands for resources which the institution expects to make on the Regional Programme.

In the following section, each role's characteristics are analysed.

### 1.2.1 Project Co-ordinator

The co-ordinator of a project component of the programme would have to perform the following functions:

- Co-ordinating the area of the project;
- Co-ordinating a project component of the area in question;
- Convening and co-ordinating regional or national meetings of experts or co-ordination meetings in connection with the the project or project component;
- Co-ordinating specific activities, seminars, workshops, studies, assessments, research projects, pilot programmes, etc.

The minimum requirements of an institution that is to assume the role of project co-ordinator or project component co-ordinator would be:

- Substantive knowledge of the subject area (this would involve having technical and technical/administrative personnel who specialize in the subject and who have sufficient experience and rank to co-ordinate studies, assessments, experimental research and development, etc.);
- Experience in co-ordinating, executing and managing national and regional information projects;
- Authorship of theoretical and methodological papers;
- The capability to convene national and regional meetings.

### Essential contributions:

- Man/hours of the co-ordinator;
- Man/hours of a technical assistant;
- Access to an appropriate communications infrastructure (telephone, telex, postal service);
- A basic administrative infrastructure.

### Desirable contributions:

- Access to an adequate infrastructure of conference rooms, meetings and simultaneous interpretation services;
- Access to an efficient infrastructure for the publication, duplication, translation and distribution of documents.

The demands which a co-ordinating institution can be expected to make may be of many different types. Primarily, it is expected that the institution would request resources to enable it to send personal to visit the sites of the projects or activities involved in the project, to carry out consultations with financing agencies and to organize regional meetings of experts.

### 1.2.2 Technical execution

Thsi role would, inter alia, involve the following functions:

- Supplying technical assistance;
- Training human resources;
- Evaluating information technologies (in the case of area 2);
- Operating computer programmes which are applicable to bibliographic or functionally related information systems;
- Preparing methodological papers;

- Processing documentation generated by pilot projects carried out
  in programme areas, etc.

The minimum requirements for assuming the role of technical execution would be:

- Relevant experience in the administration of information networks
  and systems;
- Experience in evaluating information technologies and in computer
  programme facilities;
- Experience in teaching methodologies and techniques;
- Experience in national or regional information project execution
  and management;
- Authorship of methodological papers;
- Provision of computer infrastructure (hardware and software)
  and specialized human resources to carry out human resource
  training and to develop data bases using the information
  generated by projects and pilot programmes in the areas in
  question.

The essential contributions of an institution responsible for technical execution would be:

- Man/hours of at least one highly-qualified specialist in the
  area (ideally, such a specialist would form part of a creative
  working team within the institution);
- The infrastructure necessary for the preparation of documents
  and basic administration;
- An infrastructure of modern equipment and technology (in the
  case of area 2).

Desirable contributions would be:

- Organized collections of documents concerning the area in
  question;
- Access to adequate communication infrastructures.

Expected demand

Institutions assuming this role might request technical personnel capable of executing the activities in question; computer, audiovisual and office materials; resources for organizing small- scale consultative meetings in the country where they are headquartered; and resources for travel or for meetings of experts.

1.2.3 Conducting experimentation

This role could be assumed by all those institutions not co-ordinating or directing subprogrammes or projects which wish to share their experience and to apply the methodologies that are developed in pilot projects or on a small scale within their own institution, or which wish to foster experimentation with such methodologies by subsidiary institutions within their field of action.

the functions to be performed would be:

- Conducting pilot projects;
- Participating in meetings of experts which would be held in
  order to allow the institutions to share their experiences;
- Defining their personnel training needs;

- Taking part in courses and seminars for trainers.

The minimum requirements would be:

- A minimum of experience in the subject matter;
- A stable body of technical staff capable of absorbing the information provided at meetings or seminar/workshops.

The essential contribution would be the salaries which the institution would pay its personnel so that they could attend events provided for in the subprogramme.

The demands which might be made could be of many different types but they would be modest (funds for the travel required in order to attend programme events, special materials and equipment for conducting pilot projects, etc.).

1.2.4 General remarks

The requirements applying to institutions offering to contribute to the programme relate, generally speaking, to the minimum level of capabilities they would need to perform any of the functions described above within the programme areas. This therefore means that they may choose to perform one or another function in a given area according to the amount of experience, human resources and equipment which they have. For example, an institution may serve as the co-ordinator for one activity in a given area and may undertake the technical execution of another. Similarly, an institution may supply assistance in one area and receive it another.

The activities in the programme areas will thus be conducted by means of the joint and complementary efforts of the institutions among which the various responsibilities have been distributed, based on joint, voluntary decisions which will be freely expressed and undertaken.

Those institutions which have more should give more; however, it is equally true that those institutions which receive more will, in turn, provide an opportunity to carry out experiments in the field, without which it would be impossible to test or prove the effectiveness of the Regional Co-operation Programme and the potential of national or regional institutions in the field of information to contribute to the development of their countries and of the region.

ACRONYMS OF REGIONAL AND INTERNATIONAL INSTITUTIONS AND
INFORMATION SYSTEMS AND NETWORKS OPERATING IN
LATIN AMERICA AND THE CARIBBEAN


**Regional and international institutions active in the field
of information** (*)


| | |
|---|---|
| ALIDE | : Latin American Association of Finance and Development Institutions |
| BIREME | : Regional Library of Medicine |
| CELADE | : Latin American Demographic Centre |
| CDC | : Caribbean Documentation Centre |
| CEPIS | : Pan-American Centre for Sanitary Engineering and Environmental Sciences |
| CERLALC | : Regional Book Promotion Centre for Latin America and the Caribbean |
| CIDIA | : Inter-American Centre for Agricultural Documentation and Information |
| IDRC | : International Development Research Centre |
| CLAD | : Latin American Development Administration Centre |
| CLADES | : Latin American Centre for Economic and Social Documentation |
| CREALC | : Regional Centre for Latin America and the Caribbean of the Intergovernmental Bureau of Informatics |
| ECLAC | : Economic Commission for Latin America and the Caribbean |
| FID/CLA | : International Documentation Federation/Latin American Commission |
| IBI | : International Bureau for Informatics |
| IFLA/LAC | : International Federation of Library Associations and Institutions/Latin America and the Caribbean |
| ICAP | : Central American Institute of Public Administration |
| IAIAS | : Inter-American Institute for Agricultural Sciences |

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(*) The following titles are not necessarily official translations from the
Spanish.

| | |
|---|---|
| OCR | : Office of the UNESCO Co-ordinator for Latin America and the Caribbean |
| OAS | : Organization of American States |
| PGI | : General Information Programme (UNESCO) |
| UNEP | : United Nations Environment Programme |
| SELA | : Latin American Economic System |
| UNESCO | : United Nations Educational, Scientific and Cultural Organization |

## Information systems and networks (*)

| | |
|---|---|
| AGRINTER | : Inter-American Information System for the Agricultural Sciences |
| AIBDA | : Inter-American Association of Agricultural Libraries |
| CARISPLAN | : Caribbean Planning Information System (INFOPLAN/ Caribbean) |
| CIMAL | : Latin American Information Network on Migration |
| DEVSIS | : Development Sciences Information System |
| DOCPAL | : Latin American Documentation System on Population |
| INFOLAC | : Regional Programme for Strengthening Co-operation among National Development Information Networks and Systems in Latin America and the Caribbean |
| INFOPLAN | : Information System for Planning |
| INFOTERRA | : International Consultative System Cocerning Environmental Information Sources |
| INIS | : International Nuclear Information System |
| INTERDOC | : Worldwide Network of Non-Governmental Organizations |
| LILACS | : Latin American Health Information Network |
| PILI | : Regional Information Network on Childre's Literature |
| REDUC | : Latin American Network on Documentation in Education |
| RELIC | : Latin American Commercial Information Network |

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(*) The following titles are not necessarily official translations from the Spanish.

REPIDISCA         : Pan-American Information and Documentation Network
                    in the Field of Sanitary Engineering and
                    Environmental Sciences

RIALIDE           : Development Banking Information Network

RITLA             : Inter-American Technological Information Network

SAIT              : Andean Technological Information System

SAITEL            : Andean Telecommunications Information System

SIELA             : Latin American Energy Information System

UNISIST           : Intergovernmental Programme for Co-operation in the
                    Field of Scientific and Technological Information

REGIONAL MEETINGS ON INFORMATION ACTIVITIES CONVENED
WITHIN THE FRAMEWORK OF INTER-INSTITUTIONAL CO-OPERATION
1975-1985 (*)


1975  Latin American Seminar for Information Service and Systems
      Administrators, Mexico City, Mexico, Augusto 1975.
      Convened by CONACYT/Mexico and UNESCO.

1977  Regional Meeting of Experts in Library Sciences and
      Documentalists of the Caribbean, Port-of-Spain, Trinidad and
      Tobago, November-December 1977. Convened by UNESCO and ECLAC.

1978  Regional Seminar on Indexing Languages in Science and Technology,
      Buenos Aires, Argentina, August 1977.  Convened by CAICYT/
      Argentina and UNESCO.

1978  Latin American Conference on Scientific and Technological
      Information and Documentation (REUNIBER-78), Madrid, Spain,
      11-15 September 1978.  Convened by the National Centre for
      Scientific Information and Documentation of Spain and
      UNESCO/PGI.

1979  Regional Seminar on National and International Strategies for
      the Development of Information Network and Services in Central
      and South America, Bogotá, Colombia, 19-22 February 1979.
      Convened by IDF/CLA, UNESCO and COLCIENCIAS.

1979  Regional Seminar on Scientific and Technological Information
      Transfer Techniques in Latin America and the Caribbean, Mexico
      City, Mexico, June 1979.  Convened by UNESCO and CONACYT/
      Mexico.

1979  First UNISIST Meeting on Regional Co-operation in Information
      Policies and Planning for Development in Latin America and the
      Caribbean, Lima, Peru, October 1979.  Convened by UNESCO and
      the National Council for Scientific Research of Peru.

1979  Regional Seminar on Intellectual Property for Latin America and
      the Caribbean, Buenos Aires, Argentina, 5-9 November 1979.
      Convened by UNESCO on behalf of the Ministry of Justice of
      Argentina and the World Intellectual Property Organization.

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*) The following titles are not  necessarily official  translations  from  the
panish.

1980    Inter-Agency Consultative Meeting on Scientific and Technological
        Information Activities in Latin America and the Caribbean,
        San Jose, Costa Rica. 21-25 april 1980.   Convened by UNESCO/PGI.

1980    Consultative Meeting on the Co-ordinated Development of National
        Information Systems in the Caribbean Region, Kingston, Jamaica,
        19-23 May 1980. Convened by UNESCO/PGI.

1980    Inter-Agency Meeting for Joint Subject Programming of
        Environmental Information Systems, Lima, Peru, 16-18 June 1980.
        Convened by UNEP/ROLAC.

1980    Regional Seminar for Scientific Publishers of Latin America,
        Buenos Aires, Argentina, 20-24 October 1984.   Convened by
        CAICYT/Argentina and UNESCO.

1980    First Latin American Seminar on serial Publication Control,
        Mexico City, Mexico, 24-28 November 1980.   Convened by
        UNESCO and the Bibliographic Research Institute/National
        Library of Mexico.

1981    Latin American Symposium for Information Specialists and Human
        Resource Development Planning in the Field of Information,
        San José, Costa Rica, 2-6 February 1981.   Convened by the
        Central American University Confederation and UNESCO/PGI.

1981    Technical Meeting on Terminology for Development, the OECD
        Macrothesaurus, Santiago, Chile, 1-3 July 1981.   Convened
        by ECLAC/CLADES.

1981    Regional Seminar on Methodologies for Evaluating Information
        Infrastructures and Related Experiences in Latin America and
        the Caribbean, Santiago, Chile, 30 September-2 October 1981.
        Convened by ECLAC/CLADES and UNESCO/PGI.

1981    First Co-ordination Meeting of the Project on Scientific and
        Technological Information Systems and Services, Santiago,
        Chile, 9-12 November 1981.   Convened by CONICYT/Chile and
        the General Secretariat of the Organization of American
        States.

1981    Second Latin American Conference on Scientific and Technological
        Information and Documentation (REUNIBER II), Buenos Aires,
        Argentina, 16-20 November 1981. Convened by CAICYT/Argentina,
        ICYT/España and UNESCO.

1981    Second Regional Meeting on Information Systems for Co-operation
        (co-ordination of environmental affairs), Santiago, Chile,
        9-11 December 1981.   Convened by UNEP/ROLAC and ECLAC/CLADES.

1982    Meeting of the Regional Group of Experts for the General
        Information Programme in Latin America and the Caribbean,
        Caracas, Venezuela, 19-23 April 1982.   Convened by ECLAC/CLADES
        and UNESCO/PGI.

1982    Regional Seminar on Bibliographic Exchange, Buenos Aires,
        Argentina, 6-7 December 1982.   Convened by CAICYT/Argentina
        and IDF/CLA.

1983 Second Meeting of the Regional Ad-Hoc Group of Experts for the General Information Programme in Latin America and the Caribbean; First Meeting of the Follow-up Group, Caracas, Venezuela, April 1983.

1984 Meeting on Microcomputers and Bibliographic Information Systems in Latin America: Problems, Experiences and Projections, Santiago, Chile, April 1984. Sponsored by ECLAC/CLADES and UNESCO/PGI.

1984 First Consultative Meeting for the Exchange of Information and Experience in the Field of Science and Technology for Development in the Caribbean Region (CARSTIN), Port-of-Spain, Trinidad and Tobago, 12-14 December 1984. Sponsored by UNESCO.

1985 Meeting of Experts on the Design of a Regional Information System on Information Activities, Santiago, Chile, June 1985.

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