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FINAL REPORT  
OF THE  
DOCPAL FIRST PHASE:  
CELADE/DOCPAL Foundation Building  
March 1976 - Feb. 1979

CELADE  
Santiago  
31 January 1980.

CELADE - SISTEMA DOC  
DOCUMENTACION  
SOBRE POBLACION EN  
AMERICA LATINA

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## I. INTRODUCTION

This narrative Final Report summarizes the objectives and activities of the First Phase of the Latin American Population Documentation System. DOCPAL, located in the Latin American Demographic Center (CELADE). The First Phase, which ended in February 1979, came to be known as the CELADE/DOCPAL<sup>1</sup> Foundation Building Phase since it was oriented towards enabling CELADE to create the means to provide the Latin American Region with the technical assistance, training and services that are being provided during the DOCPAL Country Population Documentation Development Second Phase.

Given the relationship between the two Phases, where relevant, the First Phase activities will be discussed in terms of CELADE/DOCPAL's experience during the first 10 months of the Second Phase (that is, through the end of 1979). Detailed information, particularly concerning technical aspects of the CELADE/DOCPAL System, will not be given here since these can be found in the many documents already available; a complete bibliography on DOCPAL, organized by topic and date is given in Appendix A.<sup>2</sup>

The First Phase covers the period from 23 March 1976, when the DOCPAL staff assembled to begin work as a team, through 28 February 1979. During this period the International Development Research Centre provided the funds to create DOCPAL and to cover a very high percentage of the costs of operation.<sup>4</sup> The IDRC grants and periods involved were:

<u>IDRC Grant</u>	<u>Period</u>
Initial Grant 3-P-75-0101	(6 Nov. 1975) <sup>3</sup> to 15 April 1978
Extension of Initial Grant	16 April 1978 to 30 June, 1978
Supplementary Grant 3-P-75-0101 (S2)	1 July 1978 to 28 Febr., 1979

1. Since units associated with DOCPAL are being set up in various country institutions, "CELADE/DOCPAL" will be used when referring to the regional-level unit of DOCPAL in CELADE.
2. Where relevant, the text of this Report will cite specific documents using the number of the document in the Bibliography.
3. Actual work as a team did not begin until 23 March 1976, although CELADE signed IDRC grant on 6 November 1975.
4. The remainder was provided from the UNFPA funded CELADE budget.

## II. DOCPAL LONG-TERM GOALS AND THE SPECIFIC OBJECTIVES

### The Long-Term Goals

The First Phase Proposal to IDRC (04)<sup>1</sup> defined a set of general objectives for the Phase, which, in reformulated form, have become the long-term goals of DOCPAL. These are to:

1. Enable the countries of Latin America and the Caribbean Region<sup>2</sup> to achieve bibliographic control over their published and unpublished population literature relevant to development and maximize the flow of this literature within each country, taking into account differing national characteristics and needs;
2. Improve the flow of this population literature among the countries of the Latin American Region;
3. Improve the flow of population documentation between Latin America and the rest of the World, participating in the Population Information Network (POPIN) approved by the United Nations Population Commission.

### Specific Objectives of the First Phase

As the long-term goals were too general to permit the specifications of concrete activities to achieve them, more specific objectives were defined. These objectives of the First Phase of CELADE/DOCPAL Foundation Building were to:

1. Develop population documentation processing capabilities in CELADE/DOCPAL;
2. Create and maintain a computerized regional CELADE/DOCPAL database;
3. Establish and maintain regional-level CELADE/DOCPAL services to country and international institutions and individual users;
4. Contribute to the development of an international population documentation system or network.

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1. Document (04) in the Bibliography in Appendix A.

2. For convenience the "Latin American and Caribbean Region" is called the "Latin American Region" or the "Region" in this and other DOCPAL documents.

### III. CHARACTERISTICS OF THE REGION AND THE DESIGN OF DOCPAL

The specific objectives, as well as the design criteria of the documentation system, were based on an analysis of the characteristics and requirements of Latin American institutions and individuals working with population information, and on a consideration of the regional role of CELADE and its capabilities and limitations in the field of population information.

#### Characteristics of the Region and the Role of CELADE

Country characteristics relevant to population documentation are outlined in Table 1.<sup>1</sup> These are based on the initial analysis of the situation given in the First Phase Proposal (04) and the understanding that was gained through First Phase visits by CELADE/DOCPAL staff to Bolivia, Brazil, Colombia, Costa Rica, Guatemala, Mexico, Panama, Peru and Venezuela. Details concerning particular design aspects are given in the bibliography documents (15), (17), (19) and (29).

Although it is considered to be of the highest priority that each country have direct access to its own population literature (Long-term Goal 1), the limitations of the country population information infrastructure listed in Table 1 explain why it was thought necessary first to build up the population documentation infrastructure at the regional level, thereby, moving immediately toward Long-term Goal 2, while creating the conditions for working toward the first goal.

CELADE is well situated to provide Latin American regional-level population documentation services since it is the agency designated to carry out the United Nations Regional Population Programme. CELADE's functions include the training of students in its graduate programmes, the undertaking of policy oriented investigations and the provision of technical assistance to the countries. These functions require information activities to be integrated with the substantive work of the Centre, thereby facilitating the acquisition and processing of the information and permitting easier access to national agencies.

An invaluable resource of CELADE was the large Giorgio Mortara collection of population documents from the Region, which provided an initial source of documents to enter the database. It also had wide experience with population census and survey data computer processing, software development and technical assistance.<sup>2</sup>

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1. The Tables are given in Appendix B.

2. See (08) for an outline of this experience and for an overview of the integrated activities (1976) of the Information Storage, Retrieval and Processing Division of CELADE, which include data processing, a population micro-data bank as well as DOCPAL. A more detailed and recent outline is given in "Sub-programme 6: Documentation and Data Processing" of the CELADE 1980-83 proposal submitted to the UNFPA (CELADE, 1979), pp. 99-129.

On the other hand, before DOCPAL began work in 1976, CELADE had no previous experience with computerized documentation systems, which permit international tape exchange (Long-term Goal 3), nor with the technical processing required for such systems, nor with manual variants compatible with computerized systems.

Hence, the initial concentration on the building of regional-level DOCPAL services in CELADE was not only a reasonable strategy from the point of view of the needs and conditions of the Region, but was also necessary to allow CELADE and the new DOCPAL staff to define procedures and accumulate the skills required for providing technical assistance and training to the countries so they could improve their internal population documentation infrastructures (Long-term Goal 1).

#### The Design of the CELADE/DOCPAL Technical System

As envisioned for DOCPAL during the Second Phase, it will have a Regional-level Nucleus (CELADE/DOCPAL) and various country DOCPAL Participating and Associated Centers (see (06) for further details). This is the "DOCPAL System" of loosely connected country centers plus the regional centre.

But, it is also convenient to view as an integrated system, the CELADE/DOCPAL computer programmes and other associated components that store, retrieve and process information. This latter set of inter-related documentation components is called the CELADE/DOCPAL Technical System (or the "Technical System" for short) to distinguish it from the DOCPAL System of documentation centers.

The criteria and decisions taken in the design of the Technical System are given in Table 2. These criteria were derived from an analysis of the goals and specific objectives and the regional characteristics outlined in Table 1, along with various practical considerations.

Given that CELADE had adequate computer access and programming infrastructure, two factors played important roles in the decision to computerize the database: the expected size of the database and the number of documents that were to be included in each issue of the journal. Based on the Kolbe report (03), the First Phase proposal (04) stated that there would be a total of around 8400 documents available from the 1970-75 period with approximately 1400 new items written each year. Hence, by the end of 1977, a total of 11,200 documents were expected to be available. A number this large could only be conveniently manipulated by computer.

The second factor that led to the computerization decision was the assumption that a total of 1400 documents would be included per year in the Journal, a number that <sup>was</sup> too large for manual production, given the type of indices required (see 5.a of Table 2).

As shown in the next Section, although the number of documents entered into the database fell short of the number expected, the quantity still was large enough to justify the computerized database.

#### IV. ACTIVITIES UNDERTAKEN TO ACHIEVE THE SPECIFIC OBJECTIVES OF THE FIRST PHASE

Outlines of the more important activities undertaken to achieve each of the specific objectives of the CELADE/DOCPAL First Phase are presented in Table 3a to 3d; each separate table refers to a different objective. An individual activity is only discussed in this Section if the activity has taken on a special importance during the Second Phase, or if there was a significant difference between the work anticipated in the First Phase Proposal (04) and that accomplished.

Although the grant letter was signed by CELADE on 6 November 1978, the staff could not assemble to begin work until 23 March 1976. During the intervening period the documentalists and other IDRC financed staff were recruited. There was some delay because two of the three documentalists were considered overqualified for their positions by United Nations rules; since the CELADE/DOCPAL technical system could never have been developed without staff of this level, the time lost in overcoming the objections was well spent.

#### Activities Involving Objective N° 1 to Develop Documentation Processing Capabilities in CELADE/DOCPAL

##### Design and Implementation of the Technical Processing System (Activity 1 in Table 3a)

While developing new capabilities in CELADE and creating the CELADE/DOCPAL technical system components and procedures, the basis was being created for the technical assistance and training that is now being provided to the countries on a regular basis in the Second Phase. Particularly important was the utilization of the UNISIST

Reference Manual in the design of the Worksheets ((14a)), (15)). During the Second Phase, this facilitated the production of a compatible non-computerized version of the Worksheets and retrieval system for manual systems to be used in most country institutions and made it possible to come quickly to agreement with CLADES<sup>1</sup> in late 1979 on a common Worksheet that will be used by both the CLADES computerized planning information system (INFOPLAN) and the DOCPAL System. This is of major importance since DOCPAL country participating units often will be located in the same units of Planning Ministries as INFOPLAN. Of course, the use of the UNISIST rules should also facilitate the eventual participation of the DOCPAL System in an international population documentation system (Objective N° 4).

#### Integration of the Library Staff ( Activity 2 in Table 3a)

The integration of the CELADE Library staff into the CELADE/DOCPAL System and the physical unification of the two groups in the library area of the new building in July 1977 were fundamental in making CELADE/DOCPAL a viable organization (see (13)). After more than a year of work alone it was clear that the original DOCPAL staff<sup>2</sup> of 3 documentalists, a coordinator and 3 support staff was too small to create a complex technical system, input 250 to 300 documents a month, provide the regional-level services and carry out all the other necessary functions. The integration of the Library provided an additional 2 documentalists and 2 support staff and permitted CELADE/DOCPAL to improve greatly its regional-level services to CELADE, CEPAL and other Santiago students and staff. The latter improvement of local services has been fundamental in making DOCPAL widely known via CELADE technical assistance missions; it has also resulted in suggestions for the inclusion of population documentation units within many UNFPA country proposals by CELADE advisors on UNFPA missions. The integration also eliminated the costs of maintaining two identical document collections and eliminated the confusion of external users and suppliers of documents concerning with which of the two units of CELADE they should correspond. The integration of the Library with CELADE/DOCPAL was completed with the appointment in March 1978 of a documentalist, Betty Johnson, to be the Head of CELADE/DOCPAL. She replaced the coordinator of the Division, of which DOCPAL is a part, who had been in charge of DOCPAL in the absence of the Head.

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1. The Latin American Economic and Social Documentation Center (CLADES) is located within the UN Economic Commission for Latin America Secretariat (CEPAL).
  2. See Table 5 for a listing of all full-time staff members who have worked with CELADE/DOCPAL.



Adaptation, design and implementation of the Computer Processing Systems  
(Activity 3 on Table 3a)

The CELADE/DOCPAL database was computerized to handle conveniently a relatively large database and to permit high level computer technology to be used to prepare better manual tools for users presently lacking the capacity to benefit directly from computer technology.

Perhaps because CELADE has extensive previous experience with data processing and system development (although none with documentation database storage and retrieval), emphasis in CELADE/DOCPAL has always been placed upon the adaptation of the existing systems, or the development of new ones, to meet the requirements of DOCPAL, as opposed to the adaptation of the demands of DOCPAL to the software available (see (23) for an early appreciation of the DOCPAL needs). In the short-run, this orientation requires frequent system modifications, and more person-months of creative high-level programmers and system analysts, but in the longer run it also has allowed greater flexibility in changing circumstances and has resulted in products more suited to the needs of the Region and to the staff working in CELADE/DOCPAL.

After modification of the ISIS-DOS system<sup>1</sup> for use with video terminals (with assistance from the IDRC systems analyst, Robert Valantin) to permit easier manipulation of the large number of fields and lengthy informative abstract, it was found that the existing ISIS entry and correction facilities were complicating and delaying the work of the documentalists. For various reasons involving the human organization of the work, it should be easy to recall a record and add additional fields or make corrections. CELADE/DOCPAL enters information at the analytical-level; hence, much of the information, such as for each chapter of a book, is the same on each record; to save the time of the cataloguers and data entry operators the repeated information should be entered only once and then automatically duplicated in the other records.<sup>2</sup> As the ISIS system does not have these or many other desirable data entry and correction features that reduce the human inputs required, the CELENTY video terminal data entry and correction system was written which interfaces with ISIS (see (26) for further details).

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1. (23) explains the reason for selecting ISIS for CELADE/DOCPAL. It also outlines the original computer environment in the University of Chile (IBM 370/145 with a 1 megabyte of main memory) which CELADE worked until 1978 when the change was made to a IBM 370/148 computer with 1 megabyte at ECOM. All work at ECOM is done via a telecommunication link to ECOM.
  2. More efficient, but not possible without major changes in ISIS, would be to permit the intercommunication of records so that repeated information does not have to be duplicated in the database.

Another major system was developed to produce the journal DOCPAL Resúmenes entirely by computer in camera-ready form. This software took the ISIS system and SCRIPT text formatting system as a basis, but required many changes in ISIS and a large number of special programmes to overcome limitations of ISIS and meet the requirements of SCRIPT. Following the precept that this system must serve DOCPAL's needs rather than change these needs to fit the existing system, the Journal producing system has undergone many modifications and improvements to give a better product more rapidly and at lower cost.

Toward the end of the First Phase, the ISIS data base was interfaced with the Statistical Package for the Social Sciences (SPSS), which is used in CELADE for census and survey processing. This special use of SPSS allows the production of administrative statistics for the management of the database and for the analysis of the database information itself. The statistics are produced each time the database is updated. Table 4 is a simple example of the type of information that can be obtained.

Activities Involving Objective N° 2:  
Creation and Maintenance of the Computerized  
Database

Entry of Documents into the Collection and Database

(Activity 1 in Table 3b)

From Table 4, it can be seen that by the end of 1977 there were 3915 records in the database<sup>1</sup> and by the end of 1978 a total of 7350<sup>2</sup>. The 1977 figure is considerably below the 11,200 estimated in the First Phase Proposal (page 6 of (04)). Only by the end of 1979 did the number of records, 10,790, approach the 1977 estimation.

It now seems evident that the estimated number of documents per year, 5600, even in the unlikely case of being able to obtain all of them - highly unlikely in an embryonic system - could never have been entered during the first two years with the original staff and equipment available and with the many other activities also underway.

It would appear from Table 4, that by 1978, the system had reached a figure of around 3400 documents per year for an average of around 285 per month, although this should go up as country DOCPAL participating centers begin to

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1. In the statistical system used to obtain Table 4 (see the previous section), the date of cataloguing is taken as the date of entry into the database.

2. And around 7500 at the end of the First Phase (February 1979).

function. By the end of the First Phase, 285 documents per month were fairly easily handled with little intervention from the international documentalists. However, it should be noted that since abstracts are made for all documents written since 1975, the amount of work and the cost is increasingly greater each year (the percentage of documents requiring abstracts in 1976-77, 1978 and 1979, were around 42, 67 and 77 percent, respectively).

The First Phase Proposal assumed that 1400 documents were being produced in or about the Region each year (page 6 of (04)). Table 4 shows that this is a minimum figure since by the end of 1979, the database had records on around 1300 documents written in 1976 or 1977, and 1670 written in 1978. Clearly these are minimum figures since the table also shows that during each year of collection many documents arrive from previous years.

Table 4 also appears to show that CELADE/DOCPAL may be improving its capacity to obtain documents soon after publication (412, 791 and 1023 documents were written and collected in 1977, 1978 and 1979, respectively) although this may also be due, in part, to an increasing total numbers of documents produced in each year.

In summary, CELADE/DOCPAL entered fewer documents than planned during the First Phase, but as a result of the foundations built during this Phase, it was able to locate <sup>for recent years</sup> more documents written per year than estimated.

#### Technical Processing of Documents for the Database

##### (Activity 2 in Table 3b)

Since the procedures involved in this activity are explained in (12), (14), (14a), and (15) of the bibliography, only the major problem of writing abstracts will be commented upon here. The analysis of the needs of the Region led to the conclusion that the provision of informative abstracts<sup>1</sup> to users is a key element of the CELADE/DOCPAL regional-level services since very many users do not have access to the original documents and may often be able to obtain sufficient information from informative abstracts to avoid the delays of requesting and receiving documents by mail from the Document Delivery Service.

However, it should be noted by others wishing to set up similar systems in developing countries, that locating abstractors from specialized fields like demography,

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1. The informative abstracts of DOCPAL include the page numbers of empirical information.

training them (14) and maintaining the quality level of the abstracts is extremely difficult. Persons in these fields with the ability to write are scarce and often are not willing to work for the amounts that they are paid. Hence, the documentalists must devote much time to correction and live with the fear that they may run out of suitable candidates to write abstracts.<sup>1</sup>

### Adaptation and Utilization of the "Multilingual Population Thesaurus"

(Activity 3 in Table 3b)

CELADE, as one of the two Spanish-speaking institutions participating in the working group on the Multilingual Population Thesaurus (the other was the Colegio de Mexico), sent the Coordinator of the Group, Jean Viet, extensive lists of potential descriptors, participated in the three meetings, and used preliminary versions to index all documents entering the CELADE/DOCPAL database. During the course of CELADE's preparations for the meetings of the Working Group and in an effort to insure the inclusion of all terms needed to meet Latin American needs, CELADE/DOCPAL worked closely with the CLADES group involved in the preparations of the new Macrothesaurus. This coordination of the population thesaurus with the Macrothesaurus has had important implications for the Second Phase work since the DOCPAL participating centers are often part of larger development and planning organizations which must index documents from a variety of fields.

Because the Thesaurus was initially a word list and lacked hierarchical structure, during the CELADE/DOCPAL First Phase the early indexing tended to use very broad categories. Another early problem affecting the consistency and correctness of the indexing was the insufficient number of scope notes, a problem that persists in the printed version of 1979. The detailed suggestions of CELADE/DOCPAL for the final version of the thesaurus, which were based on the characteristics and needs of the Region, were given in (19); the final printed version<sup>2</sup> of the thesaurus only took some<sub>of these</sub> suggestions into account.

### Activities Involving Objective N° 3 to

#### Establish and Maintain Regional-Level CELADE/DOCPAL Services

The provision of regional-level services, which cannot be provided without duplication at the national level, helped move toward improving the flow of information among the countries (Long-term Goal 2). Through the services, along with the other activities listed in Table 3c, CELADE/DOCPAL has come to be recognized in the Region

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1. Authors seldom write abstracts in Latin America, and when they do, the abstracts are usually not sufficiently informative for DOCPAL purposes.
  2. Multilingual Population Thesaurus. Paris, CICRED, 1979.

as an important source of technical assistance and training on population documentation in the Region. This has been fundamental in creating the conditions necessary for the DOCPAL country documentation development work being carried out in the Second Phase.

Design and Production of the Journal "DOCPAL Resúmenes"

(Activity 1 of Table 3c)

The most important CELADE/DOCPAL regional-level service is the journal "Latin American Population Abstracts", which is known by its Spanish short-title, "DOCPAL Resúmenes". The logic of the user-oriented design is given in document (17), which also explains the organization of the various indices and lists. As noted earlier, the computerization of the Journal, produced in camera-ready form, allows the construction of indices and lists, which make browsing and the search for information easier for the user, but which have underlying complex orderings and relationships that can only be generated feasibly with a computer.

The First Phase Proposal (04) stated that the biannual publication would contain 1400 documents per year and that the first issue would be ready around 9 months after commencing work (June 1976, if work had begun in November 1975). In fact, the first issue appeared in June, 1977, around 15 months after beginning work at the end of March 1976, and it contained 326 abstracts. Since then, as seen from Table 3c, the Journal has been produced as planned, every 6 months, but not until the second year volume did the yearly total of abstracts approach the estimated 1400 per year.<sup>1</sup>

The delay in the first issue and the reduced number of abstracts in the first volume (826 vs. 1400 estimated) were the result of seriously underestimating the complexity of designing, programming and producing the first issues of a completely computerized journal without any previous experience in such work. Not only were the technical difficulties very great, but the inflexible behaviour of the computer revealed innumerable "fatal" errors in records entered early into the database, errors which would have gone unnoticed had the work been done manually. By the completion of the fourth issue, at the end of the First Phase, the Journal production had become fairly routine. Without the computerization it would be impossible to produce the complex indices and, with the available staff, manually type and check every six months the equivalent of a normal sized book of around 770 pages or a single-spaced typewritten manuscript of around 870 pages.

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1. The third year volume (1979) contains a total of 1486 abstracts.

Provision of On-line Demand Searches (Activity 2 in Table 3c)

On-line ISIS searches of the database in CELADE became available in July 1977 via IBM 3270 video terminals. By creating a special minimal version of the DOS operating system, that CELADE was permitted to use at any hour, it was possible to provide on-line searches all day: for this reason CELADE/DOCPAL worked with the ISIS-DOS version, since the more convenient OS versions of ISIS would only have been available during the limited hours when the computer center provided the OS operating system.

In 1977 only around 30 searches (excluding demonstrations) were made, but by 1978 the number was around 100, and in 1979, which includes 10 months of the Second Phase, the total was 350. Of course, the existence of the Journal reduces the need for demand searches (as it also helps reduce the requests for document copies through the provision of informative abstracts).

Activities Involving Objective N° 4 to  
Contribute to the Development of an International Population  
Documentation Network

Document (29) outlines the benefits that would be expected to accrue to the Latin American Region from the exchange of population literature with other Regions. To contribute toward the development of the mechanisms and organization that would be necessary for such exchange, CELADE/DOCPAL was involved during the First Phase in activities (see Table 3d) at three different levels:

- a). The international policy making level, such as participation in the POPINS Interim Steering Committee and the POPINS Technical Task Force; and attendance at the United Nations Population Commission Meeting<sup>1</sup> when the Population Information Network (POPIN) concept was approved and the formation of a Coordination Unit recommended.
- b). Bi-lateral cooperation, such as the technical assistance mission to Ghana, with an IDRC staff member (Frances Delaney) to help design the African PIDSA System so that it would be compatible with DOCPAL while serving African needs and conditions; and discussions with Population Index, POPINFORM, ESCAP and other population documentation<sup>systems or</sup> units.

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1. CELADE (and CEPAL) were officially represented by CELADE's Deputy Director. The Coordinator of the CELADE Programme, which includes DOCPAL, was also present.

- c). Technical aspects, such as the use of the UNISIST Reference Manual and the Multilingual Thesaurus in the CELADE/DOCPAL technical processing; the participation in the Multilingual Population Thesaurus Working Group; hosting a population database compatibility meeting; and development of a computer programme to convert from the DOCPAL-ISIS to UNISIST tape format.

While it is hoped that CELADE/DOCPAL made significant contributions at the first two of these levels, it is at the third level that the commitment to international compatibility is perhaps most clearly demonstrated by the development of the entire technical system around the UNISIST rules and the Multilingual Thesaurus, since these seem to be the most likely tools of a - and as yet potential - world wide network.

Although the emphasis during the First Phase was placed on the importance of being ready for the exchange of information within the field of population, the experience of the past year and a half (including ten months of the Second Phase) has shown that perhaps of more immediate importance for the Region is the relation of population information within the larger context of development literature including various aspects of planning. That is, many national groups using population information are now part of larger organizations such as Planning Offices or work with other areas of information as well. In such circumstances, the specialized population documentation vocabulary required for indexing must be compatible with the vocabulary used for indexing planning and other development literature. In addition, the modern manual, or computerized, storage and retrieval techniques introduced for population documentation must be suitable for use in related fields.

The technical decisions that were to allow CELADE/DOCPAL to anticipate a possible future international population documentation network have greatly facilitated CELADE/DOCPAL's work in national planning offices and other similar agencies.

#### V. CONCLUSIONS

It is evident that an overall evaluation of the First Phase must be made from two perspectives: the extent to which the specific objectives of the Foundation Building Phase were achieved, and, the extent<sup>to</sup> which these objectives and the work accomplished serve as a basis for successfully carrying out the Country Population Documentation Development Second Phase.

From this Report, it would appear that the specific objectives generally have been met, although full scale operation was not as instantaneous as planned in the First Phase proposal (04) because the magnitude and complexity of the work involved in creating and operating the technical system and other components of CELADE/DOCPAL were far greater than initially imagined. But as a result of what was finally accomplished, the Latin American Region, which previously had no regional-level population documentation infrastructure, now has such services, which in turn seem to be helping to generate an interest in many countries to have better services at the level of individual institutions, and in some cases, at the national level. In the process of working out the many problems encountered organizing and maintaining these services, CELADE/DOCPAL developed a flexible technical system and obtained experience that can be transferred to country institutions and adapted to their requirements and conditions.

Consequently, by the end of the First Phase, CELADE was able to stimulate country interest in improving their own population documentation resources and was able, and expected, to provide the technical assistance, training and techniques to help the countries succeed.

Thus, the work of the First Phase seems to have created a basis for the achieving the objectives of the Second Phase.



APPENDIX A: DOCPAL Bibliography.

APPENDIX A

DOCPAL BIBLIOGRAPHY

ordered by topic and date:

1973 to February 1978

A. PROPOSALS TO IDRC AND RELATED DOCUMENTS

- (01) Conning, Arthur M. 1973. A Modest Proposal for a Computerized Latin American Fertility Bibliography and Clearinghouse. Santiago. CELADE (11 May, 1973).
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- (03) Kolbe, Helen. 1975. Report to IDRC and CELADE on Consultancy Regarding the Proposed Establishment of a Latin American Fertility Documentation Service. Washington (10 Jan. 1975).
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- (05) Conning, Arthur, 1977. DOCPAL Phase Two: Taking DOCPAL to the Countries (Ideas for New and Extended Activities in 1978 and 1979). (16 Nov. 1977).
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B. REPORTS AND GENERAL DESCRIPTIONS OF DOCPAL (see also: Technical Aspects of DOCPAL, Systems Outlines and Manuals)

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**APPENDIX B: Tables.**

Characteristics of the Latin American Region  
Relevant to the Definition of the Specific Objectives and  
DOCPAL Design

1. The number of demographers and others working specifically in population is relatively small, but a much larger number of persons from many other fields related to development require, sporadically, population information for their work.
2. The intensity of interest in population varies from country to country and often differs according to the specific population field concerned and how it is considered to relate to development. There is usually no single obvious national agency to which users would naturally look for population documentation, and many agencies may have, or wish to use, population documentation that is part of a larger collection of material relevant to development.
3. The majority of national institutions working in population are "poorly endowed" with respect to population documentation, in the sense that:
  - a). Population documentation users and providers (such as librarians) are unaccustomed to use information sources as abstract journals, etc.
  - b). Users and librarians normally read only in their own language (fortunately in the majority of the countries, it is the same language, Spanish).
  - c). Users are often quite isolated from new population literature so that it is difficult for them to keep up to date in their fields.
  - d). Access to libraries with national or international population information is limited or non-existent.
  - e). Few or no librarians are available to assist information users.
  - f). Access to computer and/or programming is very limited and their use for documentation is non-existent.
  - g). Financial resources are very limited for improving population documentation infrastructure.
4. A smaller number of institutions are relatively "well-endowed" (that is, they have the resources listed (see point 3) as missing in the "poorly endowed" centers).
5. There are few permanent specialized population journals in the Region and their circulation is low. Most documents written are not formally published and produced in small quantities; they enter few libraries even in their own countries and are not normally included in international abstract journals.
6. With the exception of the larger countries, most of the countries probably produce no more than 100 population documents per year. Nonetheless, because there are a large number of countries, the total volume produced is between 1500 and 2000 per year (see the text on Activities Involving Objective N° 2 for a discussion of the volume of materials).

Outline of the CELADE/DOCPAL  
Technical System

1. A document is considered to be within the CELADE/DOCPAL scope if the document is:
  - a). Concerned with population or population related topics (see the back cover of the DOCPAL Resúmenes Journal for the list of topics).
  - b). Written in or about Latin America (see the inside back cover of DOCPAL Resúmenes for the list of the countries of Latin America and the Caribbean).
  - c). Written since 1970.
  - d). Written in any language (although in practice the main languages of the Region - (Spanish, Portuguese, English and French) - are given preference).
  - e). Published or unpublished (but excluding ephemeral materials like newspaper clippings).
2. The records containing information on documents are in a computerized database and the computer programme system used to store and retrieve the information is ISIS (DOS version obtained from IDRC and adapted to meet CELADE/DOCPAL needs and computer environment). (See (20) to (25) for details).
3. Records are normally entered in the database at the analytical level as well as the monographic level; that is, a separate record is entered for each chapter of a book as well as for the book as a whole (see (14) for details).
4. The records in the database:
  - a). Are indexed in Spanish using the Spanish edition of the "Multilingual Population Thesaurus" (CICRED, Paris, 1979).
  - b). Have an informative abstract written in Spanish (if the document was written since 1975; documents from 1970-74 are only indexed since they are not included in the abstract journal).
  - c). Follow the norms for bibliographic description of the "UNISIST Reference Manual for Machine-readable Bibliographic Description" (UNESCO, Paris, 1974) in order to facilitate eventual international exchange of data tapes (the fields included in the DOCPAL record are given in (14) and (27)). Each data element is entered in a separate field to facilitate checking and data manipulation.
  - d). Are entered via Worksheets that were designed to permit adaptation to manual systems (which will be used in many country institutions; the adaptation was done during the Second Phase work).
5. CELADE/DOCPAL provides three basic regional-level services:
  - a). The Journal DOCPAL Resúmenes ("Latin American Population Abstracts") is:
    1. Written in Spanish (abstracts, indexes, etc.), but has English translation of titles.
    2. Organized both to assist investigators to keep up to date in their population specialities and to simplify the search for specific information by untrained users.
    3. Computer produced, in camera-ready form, for easy publication and to permit the production of indexes specially constructed to facilitate their use in both poorly and well-endowed centers.
  - b). Demand searches of the database, on-line, for users requiring retrievals from the entire database.
  - c). Document delivery service (when permitted), on request.

SUMMARY OF ACTIVITIES UNDERTAKEN TO ACHIEVE FIRST PHASE  
OBJECTIVE N° 1 TO:

Develop Population Documentation Processing Capabilities  
in CELADE/DOCPAL

1. Design and implementation of the technical processing system:
  - a). Design of input worksheets in accordance with the UNISIST Reference Manual, adapted for DOCPAL needs and conditions.
  - b). Writing and up-dating of the Worksheet Manual.
  - c). Organization of the technical processing.
  - d). Training of part-time abstractor/indexers.
2. Integration of the CELADE Library staff into CELADE/DOCPAL (July 1977);
  - a). Consultancy on integration (Betty Johnson) April/May 1977.
3. Adaptation, design and implementation of the computer storage, retrieval and processing systems:
  - a). Implementation of ISIS-DOS on-line (with assistance from an IDRC consultant, July-August, 1976).
  - b). Modification of ISIS-DOS and the DOS operating system to permit on-line searching on an IBM video terminal.
  - c). IBM terminals and printer installed in CELADE, May 1977.
  - d). Design and development of the CELENTY on-line video terminal input and correction system which interfaces with ISIS.
  - e). Development and adaptation of programmes generating the entire abstract Journal in camera-ready form from the ISIS DOCPAL database.
  - f). Papers written for ISIS NEWSLETTER.
  - g). Production of system statistics via an interface between ISIS and the SPSS tabulation system.



Table 3b

SUMMARY OF THE ACTIVITIES TO ACHIEVE FIRST PHASE OBJECTIVE N° 2:

Create and Maintain a Computerized Regional CELADE/DOCPAL Database

1. Integration of the CELADE Giorgio Mortara collection with the CELADE/DOCPAL collection and continuous acquisition of new documents.
2. Technical processing of documents for the database (bibliographic description, informative abstract, indexing, etc. for entry into the database. As of February 1979, the database had around 7500 documents, increasing, on average, 285 documents per month.
3. Organization and maintenance of the hard-copy document file.
4. Adaptation and utilization of the "Multilingual Population Thesaurus".
  - a). Participation in the three international working meetings on the thesaurus. (June 1976; January 1977; May 1978).
  - b). Maintenance of the Spanish version (addition of new terms; coordination with the Macrothesaurus).

SUMMARY OF THE ACTIVITIES TO ACHIEVE FIRST PHASE OBJECTIVE

N° 3 TO:

Establish and Maintain Regional-level CELADE/DOCPAL Services

1. Design and production of the bi-annual Journal, "DOCPAL Resúmenes sobre Población en América Latina". (Latin American Population Abstracts).

Vol. 1, N° 1 (June 1977)	326 doc.
Vol. 2, N° 2 (Dec. 1977)	500 doc.
Vol. 2, N° 1 (June 1978)	613 doc.
Vol. 2, N° 2 (Dec. 1978)	720 doc.
2. Provision of on-line demand searches of the entire DOCPAL database for staff and students, and by mail for external users.
3. Document delivery service providing copies of the original documents, on request, when permitted.
4. Technical assistance missions to:
  - a. CCRP, Colombia
  - b. FUDAL, Argentina
5. In-service training of national staff in CELADE/DOCPAL (Colombia, Argentina, Peru, Chile, Bolivia: total 10 persons).
6. Visits to discuss DOCPAL with institutions in Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Guatemala, Mexico, Paraguay, Peru and Venezuela.
7. Services for CELADE, CEPAL and Santiago users.
8. Promotional Activities:
  - a. Design of the DOCPAL logo and its incorporation into the abstract journal cover design.
  - b. DOCPAL poster.
  - c. Exhibition of the first issue of "DOCPAL Resúmenes" at the General Conference of the International Union for the Scientific Study of Population (IUSSP), Mexico, August 1977.
  - d. Various papers for conferences, etc.

SUMMARY OF THE ACTIVITIES TO ACHIEVE FIRST PHASE OBJECTIVE N° 4 TO  
Contribute to the Development of an International Population  
Documentation System or Network

1. Participation on the POPINS Interim Steering Committee.
2. Participation on the POPINS Technical Task Force.
3. Attendance at the UN Population Commission meeting, New York, January-February, 1979, during the POPIN discussions.
4. Technical assistance mission to assist in the design of the "Population Information and Documentation System for Africa" (PIDSA), located in the UN Regional Institute for Population Studies, Accra, Ghana.
5. Hosted meeting on population database compatibility with Population Index and PIDSA (CELADE, Santiago, 3-7 July, 1978).
6. Visits to discuss DOCPAL with specialists and potential users in Princeton, New York, Washington, North Carolina.
7. Use of the UNISIST Reference Manual norms (see also Activity 1 of Table 3a).
  - a). Various visits to the UNISIST London Centre.
8. Participation in the Multilingual Population Thesaurus Working Group and the use of the thesaurus for indexing (see also Activity 4 of Table 3c).

The Entry of Records into the CELADE/DOCPAL Database  
by Date of Cataloguing and Date of Publication

Year of "Publication" <sup>c/</sup>	Year of Cataloguing				Total	TOTAL
	1976	1977	1978	1979		
1970			218	135		
1971			205	122		
1972		2282 <sup>a/</sup>	232	149		4202
1973			232	162		
1974			244	221		
<hr/>						
1975	137	437	418	234	1226	
1976	79	568	446	224	1317	
1977	0	412	649	291	1352	6585
1978	0	0	791	879	1670	6582
1979 <sup>b/</sup>	0	0	0	1023 <sup>a/</sup>	<del>1020</del> <sup>a/</sup> 1023	
<hr/>						
TOTAL	3915		3435	3440		10790
		7350				

Source: CELADE/DOCPAL statistics from ISIS-SPSS interface. Date of updating database: 18 Dec. 1979; Date statistics produced: 3 Jan. 1980.

- Notes:
- a) Information on the individual years of cataloguing and publication are not available for these records (all records for which information was missing were also assumed to be in this cell).
  - b) Note that the last month of 1979 was incomplete since the update of the database was done on 18 Dec. 1979.
  - c) Documents written since 1975 all have abstracts and indexing; those written between 1970-1974 have only indexing.

CELADE/DOCPAL FULL-TIME<sup>1/</sup> STAFF: March 1976-February 1979

Before and After Integration of the CELADE Library

(names underlined were financed by IDRC funds)

<u>Period</u>	<u>Head</u>	<u>Documentalists</u>	<u>Junior Documentalists</u>	<u>Data Entry<sup>2/</sup></u>	<u>Support Staff<sup>4/</sup></u>	<u>Analysts and/or Programmers</u>
Start-up 3/76-6/77	(A. Conning) <sup>3/</sup>	<u>S. Acuña</u> <u>T. Iglesias</u>	<u>M. Núñez</u>	<u>O. Berner</u> <u>M. I. González</u>	<u>X. Castillo</u>	<u>A. Packer<sup>5/</sup></u>
After inte- gration of CELADE Libr. a. 7/77-2/78	(A. Conning) <sup>3/</sup>	<u>S. Acuña</u> <u>T. Iglesias</u>	<u>R. Caro</u>	<u>O. Berner</u>	<u>X. Castillo</u>	<u>A. Packer<sup>5/</sup></u>
			<u>V. Nadal</u> <u>M. Núñez</u> <u>M. C. Sateler</u>	<u>M. I. González</u>	<u>A. Jones</u> <u>A. Rahmer</u>	
b. 3/78-2/79	B. Johnson	<u>S. Acuña</u> <u>T. Iglesias</u>	<u>V. Nadal</u> <u>M. Núñez</u> <u>M. C. Sateler</u>	<u>O. Berner</u> <u>M. I. González</u>	<u>A. Jones</u> <u>C. Kirby</u> <u>A. Rahmer</u>	<u>A. Packer</u> <u>N. Piro<sup>6/</sup></u>

1/ In addition to the names shown in the table, various CELADE population experts and locally recruited staff (programmers, secretaries, Xerox operator, clerks, publication personnel, drivers, etc.) contributed time to DOCPAL.

2/ The data-entry operators worked as secretaries when necessary, particularly in the start-up period.

3/ A. Conning, Coordinator of the CELADE Population Information Division (INFOPAL) of which DOCPAL is a part, devoted the equivalent of around two-thirds of his time to CELADE/DOCPAL in the absence of a full-time Head. His secretary, B. Donoso, also spent a large percentage of her time.

4/ During the periods indicated, C. Cayuela, who is responsible for administrative aspects of the CELADE Data Bank, assisted CELADE/DOCPAL in a wide variety of support activities.

5/ Extensively assisted by Pedro Sust and Nelson Piro who helped program the CELENTY data entry system and the computerization of the Journal.

6/ In July 1978, A. Packer ceased to work full time on CELADE/DOCPAL and was replaced by N. Piro. A. Packer continued to devote part of his time to DOCPAL.