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THE LATIN AMERICAN POPULATION DOCUMENTATION SYSTEM (DOCPAL)
An Example of IDRC's Information Activities in Population

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INTRODUCTION

In the last twenty years, the resources of governments, universities, foundations, and other organizations have been directed more and more to the study of population problems. Governments have begun to adopt population policies and programs and to incorporate population parameters into their development planning.

Economic and social development and the improvement of the quality of life of the peoples of the world are the underlying principles of the World Population Plan of Action. To accomplish the Plan's objectives, available resources must be efficiently used. A prime resource is the multidisciplinary team distributed across the spectrum of the population field; demographers, social scientists, economists, physicians, statisticians and many others, who help design, implement and evaluate policies. Their work depends on their being able to utilize what is known in the field of population; this information and ways of making it available can be facilitated by new methods of information storage and retrieval.

Unfortunately, population data bases and documentation systems are a resource which has been sadly overlooked by many international aid organizations. The purpose of this paper is to present a brief overview of the efforts of the International Development Research Centre in this area by looking at the population activities of the Information Sciences Division and, in particular, at one of its projects, the Latin American Population Documentation System (DOCPAL).

IDRC

In 1970, the International Development Research Centre (IDRC) was created by an Act of the Parliament of Canada from whom it receives an annual grant. It has as its objectives to encourage, support and conduct research into the problems of the developing regions of the world and into the means for applying and adapting scientific, technical and other knowledge to the economic and social advancement of those regions. IDRC looks to developing-country researchers for producing detailed requests for funding, and puts the responsibility for funded projects clearly on their shoulders. This is seen as the best way to assist the developing regions to build up the research capabilities, the innovative skills, and the institutions required to solve their problems.

The IDRC has program divisions in Agriculture, Food and Nutrition Sciences, Health Sciences, Social Sciences and Human Resources, and Publications. In addition, it is one of the few international aid organizations to have a program division devoted to supporting information activities, the Information Sciences Division.

The effective access to information and acquisition and dissemination of information have become increasingly important as key elements in the development of many countries. Recognizing that policy makers, planners, managers, researchers and others have critical information needs that often are not met even though the information exists somewhere, the Information
Sciences Division has concerned itself with promoting international cooperation in the various fields of documentation that affect developing countries. It has sought to overcome the waste and duplication of effort in the information field and to help the developing countries build the human resources and acquire the skills that will enable them to overcome their state of information dependency. It has also directed its efforts towards the establishment of appropriate international databases and facilities for research related to the Centre’s other program areas, and is currently supporting information activities in agriculture, small and medium scale industry, mass communication, cartography, and health.

The IDRC and the Information Sciences Division are aware of and are funding research projects to study the many aspects of development recognized as being associated with population parameters. The concern is not only with the demographic variables but also with concomitant economic and social problems. Furthermore, not only is there an interest in research about population but also in information about population. Much of this information, however, is generated and accumulated in the industrialized nations, and information generated in the developing countries is more apt to reach these repositories than the countries who have the greatest and most immediate need. The flow of information within developing countries is scant, primarily because information resources and techniques are not readily available.

Because of the Information Sciences Division's interest in the development of systems and services to make better use of existing knowledge, it has taken great interest in the efforts to establish an international system for the storage and retrieval of information on population studies. These efforts were started independently in 1975 by the Committee for International Coordination of National Research in Demography (CICRED) in Paris and the East-West Center in Honolulu and coordinated at a meeting of population and information experts in Mexico City in September 1975. The meeting organized by CICRED and co-sponsored by the Population Division of the United Nations, the International Labour Office, and the International Committee for Social Science Information and Documentation (ICSSID), resulted in the establishment of a Technical Task Force (TTF) and an Interim Steering Committee (ISC) to study the feasibility of establishing a world-wide Population Information System (POPINS).

IDRC participated in the Honolulu and Mexico City meetings and the planning meeting of the ISC in January in New York City and members of the Information Sciences Division staff were represented on the Technical Task Force and the Interim Steering Committee. IDRC further supported this international effort by financing the final working sessions of the TTF and the ISC in Princeton and Washington. A report on this work was presented to the United Nations Population Commission at its nineteenth session in January 1977 and the basic orientation approved.
The next steps in this effort are still uncertain but one of the suggestions is the establishment of a network of national and regional centres. An example of a regional centre is the Latin American Population Documentation System (DOCPAL), located in the United Nations Latin American Demographic Centre (CELADE) in Santiago, which is one of the largest projects currently being supported by the Information Sciences Division in the area of population.

DOCPAL

As in most regions of the developing world, the circulation of population documentation among or within the countries of Latin America is very limited. Existing information is not known or readily available to users, few documents are formally published and there is little or no bibliographic control over the literature so that it is difficult for potential users to find and obtain what they need. Research and the implementation of policies and programs are therefore severely hindered.

In 1974, CELADE in Santiago, in coordination with the Latin American Social Sciences Council (CLACSO), submitted a proposal to the IDRC to develop a computerized documentation service for Latin America, initially on fertility but later to be expanded to cover all fields of population. This service was to provide bibliographies periodically and make copies of documents available through a clearinghouse. In order to explore those aspects that would decide whether this service should be established, how it should be established and how it should be related to international activities in the field of population information, the IDRC engaged the services of a consultant to visit CELADE. The consultant endorsed CELADE's proposal but recommended the expansion of the project to all aspects of population studies in Latin America at the outset and the installation of a computerized information retrieval system so that a machine-readable data base could be constructed and a variety of bibliographic services provided.

In late September 1975, the Executive Committee of the IDRC gave final approval for financial support to CELADE to establish and operate DOCPAL for two years. Because of the time involved in the recruitment of well trained staff, work did not actually begin until late March of 1976.

DOCPAL Objectives

The primary objective of DOCPAL is to make known and available existing documentation about population in Latin America with particular concern toward facilitating the formulation, implementation and evaluation of development policies involving population and the understanding of population factors and processes in Latin America. More specifically, DOCPAL will collect population-related documents written in or about the Latin American region since 1970 (estimated at around 11,000 by the end of 1977); will create secondary information (bibliographic descriptions, abstracts, key words) to facilitate the retrieval of these documents;
will produce secondary information sources such as demand searches and an abstract journal; and will make copies of original documents available to users on request whenever permitted by the producers of the documents. In carrying out these objectives, DOCPAL will cooperate with the efforts of other regional or interregional systems.

Approach Toward Meeting Objectives

a) Assumptions

DOCPAL has based its approach for meeting these objectives on the fact that no system at either the regional or the national levels previously existed in Latin America. It believes that documentation on population is not suitably or readily available even to those few institutions in the region, which have access to libraries, computers, and colleagues and institutions outside Latin America, and is almost inaccessible to those centres with inadequate or no library facilities, isolated from larger centres and staffed with personnel lacking advanced training in their own field or in information retrieval techniques. It also assumes that the majority of population institutions in the countries of Latin America are unable to establish their own documentation systems at present but could be part of a future decentralized system.

CELADE, as the organization now responsible for executing the United Nations Latin American Regional Population Program, and since 1958 having trained the majority of Latin Americans working in population and provided technical assistance to most countries of the region, is a logical starting point for developing a complex documentation system. DOCPAL will require different approaches for facilitating the use of the system because of the diversity in the resources of the national institutions and because CELADE, itself, requires a sophisticated system to more adequately assist it in meeting its training, technical assistance and research responsibilities.

b) Present Strategy

Since CELADE had no previous experience with a documentation system, in working towards its greater objectives of bringing under bibliographic control all relevant population material in Latin America, DOCPAL began its work by focusing on material readily available and for which the authors could be consulted – the 400 or so CELADE publications since 1970. Once these had been handled, DOCPAL enlarged its horizons and began to encompass the approximately 2000 non-CELADE publications currently held by the CELADE library. It shortly will begin active acquisition of new materials from the region, but before approaching the countries to ask for their publications or to promise assistance in obtaining information, DOCPAL wants to be able to show them what it can offer concretely; that is, it must show at least an experimental version of the abstract journal, sample searches, etc.

During the first year of work it also had to focus its attention on developing the input system within CELADE before becoming involved in any decentralized activities. Decentralization, however, will be an eventual aim with various approaches to be utilized depending on the country situation and requirements. Although DOCPAL employs relatively sophisticated computer and documentation technology, an attempt is being made to design the outputs
of DOCPAL so that users will not have to depend on local documentalists and computers because of the scarcity of such personnel and equipment in Latin American institutions.

DOCPAL Features

a) Scope

DOCPAL has as its subject scope the broad field of population. This includes the formal demographic aspects of population, population fields related to social and economic development, and population policy and programs. It encompasses the areas of mortality and morbidity, fertility, migration, population growth, composition, spatial distribution, economically active population, nuptiality, family, and the estimation of population needs (housing, etc.), but excludes materials on fertility and mortality that are clinically-oriented and papers that are not directly related to population even though they may be highly relevant. It is felt that these excluded subjects fall within the scope of other Latin American systems either in existence or proposed (BIREME Regional Medical Library, Sao Paulo, Brasil) and DEVSIS (proposed International Information System for the Development Sciences).

DOCPAL includes in its geographic coverage the 27 member countries of the Economic Commission for Latin America (ECLA) and its two associate members (Belize and Associated States of the West Indies).

b) ISIS

All the secondary information produced by DOCPAL is presently stored on the computer of the University of Chile via ISIS (Integrated Set of Information Systems), originally developed by the International Labour Office. This system, only one of many bibliographic data base management systems available, is proving to be well-suited to the needs of those developing-country institutions that can make the move to computer-based systems. It is used extensively in Mexico and is presently being considered by Kuwait and the Philippines. With the United Nations Economic Commission for Latin America in Santiago and several other international organizations also using ISIS, it provides obvious scope for compatibility.

To meet DOCPAL's needs, CELADE has developed or adapted a number of interface programs to use with ISIS for the storing, updating, and editing of bibliographic materials. Various of the ISIS programs have been modified to meet special DOCPAL needs; IDRC, which also uses ISIS, provided some technical assistance in making required modifications, especially in the use of the teleprocessing mode at CELADE.
c) Abstract Journal

Perhaps the most important product reaching the widest audience will be the Spanish language journal: DOCPAL Latin American Population Abstracts. To minimize costs and permit rapid production of the journal, the computer output, in upper and lower case, of the information stored in ISIS, after being suitably composed in double columns via an interface text-editing program, will be directly photocopied for offset printing. The journal will present Spanish-language abstracts but the titles will be written in the original language, Spanish and English. The abstracts, written by locally recruited professionals in the relevant disciplines, will be informative and up to 400 words in length. Each abstract will begin with a one-sentence objective which should facilitate rapid browsing in the journal and can be separated from the rest of the abstract during on-line searching.

The journal consists of four indices: the "Literature Review", subject, geographical and author indices. The Literature Review index is the only one which includes all the information on each document: bibliographic description, abstract, subject index terms, countries under which the document is listed in the geographical index, period covered by the empirical data, etc. It also has a sequentially assigned abstract number that is unique to the document and the number for requesting the document from the DOCPAL Master File of documents. The index is organized in terms of the eleven major areas into which DOCPAL has divided the field of population (i.e., migration, fertility, mortality, etc.); within each area the documents are grouped by topics such as data collection, tendencies, policies, plans and programs, social and economic interrelationships, etc. A document may be given under more than one area and topic, but complete information appears only the first time. The Literature Review is primarily designed to permit workers in the field of population to keep up to date with the literature by rapidly perusing the specialties in which they are interested; it is not designed for searching, per se.

A person from another field other than population needing particular population information, or a population specialist requiring highly specific information, normally will utilize the detailed subject index for making the search. This second index using Spanish language descriptors from the multilingual thesaurus (see below) will enable a user to search for documents treating specific subjects. The title and countries treated in the document will be given each time a document is cited, but the user will have to refer back to the Literature Index for the abstract, etc.

The geographical index will give only the abstract number, title and other countries treated in the document and the author index only the title and number.

The journal is initially scheduled to appear twice a year. Barring unforeseen difficulties, the first experimental issue (vol. 1; number 1) will be sent to press at the end of May and will be printed by the end of July in time to take advantage of presenting it at the General Conference of the International Union for the Scientific Study of Population (IUSSP) in
Mexico City in August, which will bring the largest number of Latin American population specialists together since 1970. The second number of the first volume of the journal will be sent to press at the end of December.

Since both issues of volume 1 of necessity reflect materials readily available to DOCPAL in its formative stage, they will each cover materials from 1975 through 1977. From then on, the journal will attempt to include the latest documents. As the journal is designed to facilitate its use by persons not accustomed to such a tool and without assistance from documentalists, the space per document is relatively large compared to other abstract journals. A cost vs. benefit analysis with user evaluation will be made after the first two issues to see whether major format changes are desirable.

d) Other information stored

Of necessity the journal will present only a small portion of the information stored in ISIS on each document. Users will be able to request searches made on the complete set of descriptor terms, including for example, the variables empirically treated and data sources. It also will be possible to search the titles and the abstract for specific words or combinations of words. A CRT terminal is being set up in the CELADE Library to permit CELADE staff to "browse" and for searches to be performed for other users on request.

The complete ISIS record, which has around 90 fields, not all of which are used for any given document, contains all the information required by the UNISIST Reference Manual; the DOCPAL Manual is consistent with the UNISIST specifications permitting the eventual exchange of tapes with UNISIST based systems not employing ISIS.

Progress to Date

DOCPAL began work in late March of 1976. Under the direction of the Head of the Data and Information Processing Division of CELADE, it is staffed by 3 professional documentalists, 1 systems analyst/programmer, 2 support staff, and half-time data entry and xerox operators; is supported by other programmes and staff in CELADE; and is assisted by approximately 10 free-lance abstractors. In January 1977, after much experimentation, input forms were fixed and printed for recording the bibliographic descriptions, descriptors terms and the abstract. All input is entered and corrected via CRT terminals using a highly flexible CELADE computer program that then sends the information to ISIS.

By early April 1977, material from the CELADE library was being entered into DOCPAL on a relatively routine basis. Around 500 documents had been fully entered and 2000 documents were entered but awaiting the
indexing terms before their computer records were complete. 1/ As noted above, the first experimental issue of the abstract journal will be sent to the printers around the end of May 1977.

There also have been requests from a number of national institutions to input some of their own material to DOCPAL. Although DOCPAL has deliberately not actively sought the participation of other institutions until outputs like the journal are available, informal relationships have been developed with a number of national institutions.

CELADE is one of the two Spanish speaking institutions collaborating on the preparation of the multilingual (English, Spanish and French) POPINS thesaurus of terms used in the population field. The project, funded by the United Nations Fund for Population Activities, and directed by CICRED will be completed in late 1977. Because DOCPAL is actively using the thesaurus on a daily basis, it has been able to suggest additional terms required for Latin American population materials and purposes.

CONCLUSION

DOCPAL should benefit not only administrators, policy makers and planners, but should also support the work of researchers, university professors and students, journalists and secondary-school teachers and their pupils.

With financial and technical assistance from IDRC the system is being designed to make information heretofore unavailable or difficult to obtain available to the small Latin American centers having inadequate library facilities, little or no access to computers and little contact with international institutions. These researchers located in remote centers should benefit most from DOCPAL. However, DOCPAL also will provide far more convenient and specific access to those institutions which already have a high degree of excellence, and have access to computers and to facilities outside the region. CELADE, as a major training, research and technical assistance population centre in the region will especially benefit, making it better able to fulfill present and future roles in the region.

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1/ At the time of revising this paper (mid-May), around 800 documents were complete, but searches on the titles and authors are being carried out on these and the 1500 or so partially entered documents.
In the final analysis, however, the most difficult step in achieving success with any information system is in gaining user acceptance. DOCPAL's success will depend greatly upon whether or not it can change the work habits of decision makers and specialists who, until now, have not had access to the products of an automated information retrieval system about population in Latin America. 1/

1/ Further information on the system may be obtained by writing to DOCPAL, CELADE, Casilla 91, Santiago, Chile.