Preliminary Draft of the Sections of The CELADE 1980-83 Proposal to UNFPA

on

SUBPROGRAMME 6: DOCUMENTATION AND DATA PROCESSING

(For discussion only; not to be quoted)

CELADE Santiago 12 July 1979

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BUDGET (June 1979 Version)

- A. Project Budget Covering UNFPA Contribution for Subprogramme: Documentation and Information Processing
- B. DOCPAL, Other and Total Subprogramme
- C. DOCPAL: Continued UNFPA Contribution and Additional Amount Requested because of the termination of the IDRC Grant.

Subprogramme 6:

POPULATION DOCUMENTATION AND DATA PROCESSING

6.0. THE SUBPROGRAMME AS A WHOLE

6.0.1. Objectives

The Population Documentation and Data Processing Subprogramme has three elements that concern, respectively, population documentation, census and survey data, and information processing. The entire Subprogramme can be treated as a logical whole with the following Long-range and Immediate Objectives (See sections 6.1 to 6.3 for the objectives of the individual elements):

a). Long-range Objectives

The long-range objective of the Subprogramme is to enable the countries of the Region to obtain, store, retrieve and process their population documentation and data that are required to examine their population situations and population-development interrelations, formulate and evaluate population policies and programmes, and incorporate population factors into development planning. Without the utilization of the information collected in the present and in the past and without knowledge of what is already known, the design and implementation of population policies and development plans incorporating population parameters is likely to be poorly based with a resulting waste of resources and delayed social and economic development.

The importance of population information to development was indicated in the 1974 World Population Plan of Action (para. 15, 72, 73, 76, 77, 78m, 80, 88, 100, 102) and the inclusion of objectives relating to population information within the general objectives of CELADE was formally endorsed in Resolution 1 of the 1979 CEGAN Meeting (E/CEPAL/1072) which was ratified at the XVIII session of the Economic Commission for Latin America held in La Paz, 1979.

b). Immediate Objectives

The immediate objectives of the Subprogramme as a whole are to:

- Increase the flow of population documentation within Latin
 America and with the rest of the world, and to create or
 improve national population documentation infrastructure
 (Authority: E/CEPAL/1072, CEGAN, Resolution N°1, para. 1.d;
 1.j; 2.a; 2.b; 2.i. The Resolution passed at the Twentieth
 Session of the United Nations Population Commission in favor
 of the United Nations International Population Information
 Network (POPIN) provides additional support for this
 objective).
- 2. Facilitate the storage and retrieval of population census and survey data for users in the countries so that new analyses can be obtained from existing data. (Authority, E/CEPAL/1072, CEGAN Resolution N°I, para. 1.b; 1.d; 1.j; 2.a; 2.b).
- 3. Improve the capabilities of national institutions to process census, survey and other population data by computer, taking national into account changing requirements and the resources available.

 (Authority: CEGAN E/CEPAL/1072 Resolution 1, para. 1.b; 1.c; 2.b; 2.i).
- 4. Provide documentation, data and processing to the other Subprogrammes of CELADE to permit them to carry out the research,
 training and technical assistance required to meet the
 objectives of the Centre. (Authority: E/CEPAL/1072 CEGAN
 Resolution N°1, para. 2.i).

6.0.2. Background

It is useful to distinguish two types of information: <u>primary</u> and <u>secondary</u>. The former refers to actual data, documents and statistical tables which a given user requires for analysis, reading or other purposes. Secondary information, on the other hand, is especially created to describe each item of primary information in order to facilitate its retrieval. Abstract journals and library catalogues are secondary information sources.

Common types of primary population information utilized in population policy making, planning and research are: a). micro-data such as census or survey data, most often stored on computer cards or magnetic tape, with variables for each of the smallest units of interest (usually the individual person); b). statistical tables or tabulations, which are produced by aggregating micro-data usually by computer processing; and c). documents. Since tables in Latin America are normally stored on paper, once produced they can be treated as a special form of document. Hence, for purposes of the Subprogramme the two basic types of primary population information are micro-data and documents (including statistical tables).

The capabilities for storing, retrieving and processing population micro-data and documentation that are required for policy making and planning varies widely among and within the Latin American countries. The majority of national institutions, particularly many government offices, are relatively "poorly-endowed". That is, they have inadequate library resources and very limited or no access to computers. They have difficulty recruiting and maintaining good staff because their resources or staffing rules do not permit paying competitive salaries. They are isolated from the mainstream of research and new information, particularly when they are located away from the capital or major cities. On the other hand, there are a small number of "well-endowed" centers in the Region with ready access to good libraries and data processing and with well trained documentalists and programmers; particularly important, their researchers demand and know how to utilize the information services.

The role of CELADE as the United Nations regional agency responsible for the Latin American Regional Population Programme is to assist the poorly-endowed agencies to overcome some of their population information limitations, while also collaborating with the well-endowed centers. The efforts to improve the former require providing technical assistance and training in the storage, retrieval and processing of population information. The most suitable systems for given conditions and requirements must be adapted from existing systems or developed. CELADE also has the mandate entryiers to carry out work that some national institutions cannot yet do within their own countries (such as some complex data processing) and to provide regional-level services to facilitate flows of information among the countries which individual countries could only maintain by duplicating the work done elsewhere (such as setting up a retrieval system for all population documents produced in the Region outside their own country).

Hence, in CELADE it has been necessary to establish an integrated Population Documentation and Data Processing Subprogramme to be able to give suitable technical assistance and training to the individual countries, to provide backup during the period of establishing national facilities, and to maintain regional-level services which in the intermediate future are not likely to be available within individual countries.

6.0.3. Subprogramme Activities: The Process 1/

The Population Documentation and Data Processing Subprogramme has three Elements, each with its own set of long-range and immediate objectives, which in turn, determine the specific activities to be undertaken. The three Elements, which correspond to the first three Immediate Objectives of the Subprogramme as a whole, are:

is given in the description of each

^{1/} The Work Plan
Subprogramme Element.

6.1. Latin American Population Documentation System (DOCPAL)

Provision of appropriate technical assistance and training to national agencies. Maintenance of a computerized database of secondary information on "all" Latin American population documents written since 1970; and maintenance of the earlier relevant literature. Provision of regional-level services (Spanish language abstract journal, searches on request, and a document copy service).

6.2. Population Data Bank

Micro-data, stored on magnetic tape, consisting of census samples from most of the 1960 and 1970 Latin American censuses and a variety of important demographic, migration and fertility surveys. With permission, the tapes, or tabulations produced from the tapes, are provided to users on request. Provision of technical assistance on the organization of data banks and the utilization of data base management technology for more rapid and efficient processing.

6.3. Population Information Processing

Technical assistance and training for processing census, survey and other microdata using computer "packages" that inexperienced programmers, and often analysts, can employ; adaption and development of systems to meet present and future processing requirements and conditions in the countries; processing of population micro-data and DOCPAL secondary information in CELADE.

Each element undertakes some activities that can only be provided efficiently at the regional level (for example, documentation from each country made available to all others), provides technical assistance and training to the countries and supplies—the information or processing required by the other CELADE Subprogrammes. Furthermore, each is involved in the design or adaptation of new systems relevant to country needs; system design in the Subprogramme is analogous to investigation in the other Subprogrammes.

The Elements are completely integrated with the Subprogramme. The Data Bank, which is the source of all data processed in CELADE, is totally dependent upon the Information Processing staff for the copying of tapes and their utilization. The various DOCPAL computer information storage and retrieval systems are operated by the Processing staff, while the standardized general interest tabulations, produced by the Processing staff from the Data Bank tapes, enter DOCPAL to make them known and available throughout the Region. The Processing staff, in turn, obtains the required documentation on previous studies from DOCPAL.

The physical and technical integration of the Elements within the Subprogramme is the most efficient and practical way of provinding population information, assistance and training. It not only facilitates the work of the Subprogramme, but is also oriented to how users view information so that they can obtain the most benefit from limited resources.

This integration of information elements in the specialized field of population, is possible only because of the high degree of integration of the work of this Subprogramme with that of the substantive CELADE Subprogramme, since this gives common goals, common users and a common vocabulary. Hence, in addition to working as an integrated Subprogramme, the Subprogramme as a whole depends upon its integration within CELADE to be able to provide appropriate information assistance, training and services to the Region in the specialized field of population.

6.0.4. Justification

CELADE is dedicated in its 1980-83 proposed programme to aiding the countries to improve their knowledge of their population situations, to develop and implement new and better analytical tools for such measurement, to improve the statistical information available, to clarify population dynamics and development interrelations and to incorporate demographic factors into development planning and policy making (E/CEPAL/1072 CEGAN Resolution 1). For the countries to be able to undertake such studies and related activities, they must have ready access to the existing literature, must locate relevant existing data, and must process it and new data rapidly and efficiently by computer.

That the population information needs of the region are not only objectively real, but are now strongly felt by many of the countries, may be concluded from the large number of data processing technical assistance and training missions carried out (around 15-20 per year) by the Population Documentation and Data Processing Subprogramme and by the number of countries which have expressed interest in receiving documentation and data bank assistance (at least 9 countries) even though the provision of such assistance is just beginning to be offered. In addition to being integrated with the substantive work of CELADE, a necessary condition to be able to provide practical population information assistance in the specialized field of population, the Subprogramme is the only regional integrated population information programme with the experience necessary to provide the regional services and training activities oriented to meet the varying conditions and requirements of the countries (this experience is outlined in the discussions of the individual Subprogramme Elements).

Finally, the large amounts of money spent in collecting data and producing reports will be largely wasted, if the data and results are not available for future work. Even worse is the present situation; the value of the information is recognized but not readily accesible for most countries of the Region. CELADE's information Subprogramme is designed help to help to help waste.

6.0.5. Related Activities

Since the Subprogramme is an integrated whole, all activities proposed to meet the 1980-83 immediate objectives have been described in the preceding sections rather than be considered separate "Related Activities". However, two major items of the Subprogramme will be in part covered, from outside funds, DOCPAL and the development of a data processing system.

January to June 1980

A large percentage (55%) of the costs of the Subprogramme Element treating documentation (DOCPAL) will be covered by funds from the International Development Research Centre (IDRC). For the period from mid-1980

through the end of 1981, after the IDRC funds have terminated (following four and a half years of major support to DOCPAL from that agency), the entire cost of continuing the proposed activities required to meet the objectives of DOCPAL have been included in the present budget.

The development of the system PRODUCE for more rapid and efficient Population data processing (see the Section on the Information Processing Element), is being carried out with the assistance of an expert from Statistics Canada. His salary and most of the costs of the project through June 1980 are covered by the CELADE/CIDA Programme. Costs of future enhancements and the transfer of the system to the countries (technical assistance, system modifications and training) are considered part of the budget presented here.

Subprogramme 6 (continued) 6.1. SUBPROGRAMME ELEMENT: DOCPAL

6.1.1. Objectives

The Latin American Population Documentation System, DOCPAL, is the element of the Subprogramme carrying out the objectives of the Subprogramme dealing with improving the storage, retrieval and processing of documentation in the Region.

a) Long -range objectives

DOCPAL was established in 1976 with three major long-range objectives that continue to be the goals towards which the system is directed. These inter-related goals are to:

- 1. Enable the countries of the Region to maximize the use of their population literature for economic and social development by improving the flow of this documentation within and between the countries, taking into account the differing characteristics and needs of the national institutions.
- 2. Achieve bibliographic control of all published and unpublished literature (that is, identify and make all documents accessible) relating to population written in the countries of the Latin America and the Caribbean Region— since 1970 or written elsewhere about them.
- 3. Improve the flow of population documentation between Latin America and the rest of the world through the United Nations International Population Information Network (POPIN).

The significance of making population documentation available is stated in paragraphs 15, 77, 80-88, 100 and 102 of the United Nations World Population Plan of Action. The authority for the work of DOCPAL was defined in the E/CEPAL/1072 CEGAN Resolution 1, para. 1.d; 1.j; 2.a; 2.h; 1.i. The concept of POPIN was approved at the Twenthieth Session of the United Nations Population Commission (1979).

^{1/} Documents are included in DOCPAL if they refer to any country or territory in Latin America or the Caribbean Region. "Latin America" is used to refer to the entire Region.

b) Immediate objectives

The immediate objectives of DOCPAL during 1980 and 1983 are to:

- Improve (or create where required) the population documentation capabilities of relevant national institutions, in accordance with their specific needs and resources, and enable interested governmental or, if necessary, other national agencies, to become DOCPAL Participating Centres.
- 2. Continue the integrated DOCPAL Regional-level services including the abstract journal, document copy service and specialized searches, and maintain the DOCPAL document collection (including the pre-1970 documents) and computerized database describing the documents written since 1970.
- 3. Collaborate in the development of the United Nations International Population Information Network (POPIN) and develop relations with documentation systems in related social and economic development fields.

The E/CEPAL/1072 CEGAN Resolution N°1, paragraph 2.h specifically recommends that priority be given to the DOCPAL activities required to achieve these objectives.

6.1.2. Background

The United Nations World Population Plan of Action approved by the Governments in 1974 states that the regional economic commissions and the regional agencies of the UN System should play an important role in stimulating and assisting countries to exchange information and experiences (para. 102). No organization in Latin America was involved in such activities until CELADE established DOCPAL in March 1976 with a two year grant—/ from the International Development Research Centre (IDRC) of Canada.

Although for many years the Giorgio Mortara Population Library collection in CELADE was perhaps the most complete in Latin America, it had no experience in organizing and running a documentation system with services and technical assistance to the countries. Hence, the First

^{1/} Centres which utilize DOCPAL methodology (normally non-computerized) or compatible procedures and which form part of a Regional DOCPAL Network. See the Section on DOCPAL Activities for further details.

^{2/} IDRC grant 3-P-75-0101.

Phase of DOCPAL, lasting around two and a half years, was known as the "DOCPAL Foundation Building Phase" since it was oriented toward developing documentation competence in CELADE. International standards were adapted to DOCPAL requirements, the computerized database of information describing the documents was established and the regional-level services were initiated to give DOCPAL concrete products to demostrate its value to the Region. In this Phase, the Library staff was integrated into DOCPAL and the Giorgio Mortara collection was taken as the initial basis for the DOCPAL collection.

The DOCPAL database was computerized because it was expected to grow rapidly beyond the size that can be manipulated manually and to facilitate the production of the abstract journal with very complete cross-referenced indexes that are particularly easy to use by persons in the Region not accustomed to working with such a bibliographic tool. The ISIS information storage and retrieval system, originally developed by ILO, was selected as the basic system because it is used widely (including by CEPAL) and is available free of charge.

As of July 1979, the DOCPAL database and corresponding physical collection has approximately 8500 reports, articles, books, chapters and other documents and around 280 to 350 such documents are being added each month. All have complete indexing, and each written since 1975 has a detailed substantive Spanish abstract. Because the system is designed to facilitate locating specific information, books and monographs are normally entered chapter by chapter.

DOCPAL is now in its Second Phase, which is known as the "DOCPAL Country Population Documentation Development Phase" to emphasize the changing orientation from internal DOCPAL activities to the creation of infrastructure in the countries. During the first part of this phase, from February 1979 through June 1980, IDRC is continuing to finance around 55% of all costs, with most of the remainder covered by UNFPA funds. IDRC is completing its participation in DOCPAL in June 1980 since its purpose was to facilitate the creation and maintenance of DOCPAL during its

^{1/} In addition, DOCPAL enters UN population documents, important pre-1970 Latin American population materials, and a small number of other documents relevant to the work of CELADE but not within the scope of the computerized database.

formative period. Hence, all the costs of carrying out its activities from July 1979 to December 1981 are included in the present proposal along with the January to June 1980 costs that are the counterpart contribution to the IDRC grant.

6.1.3 DOCPAL activities

a) The process

The various activities of DOCPAL are organized in a system to take into account the conditions and needs of the Latin American governmental and other agencies working in population, many, but not all of which, have very limited population information resources.

The Regional-level services are an important component of the DOCPAL System, since no Latin American country is now able to undertake such activities. These services are designed to reduce the isolation and limitations of the poorly-endowed centers while serving the more sophisticated needs of those well-endowed. The abstract journal keeps population workers up to date in their fields and permits easy retrieval of specific information by a variety of indices. When more complete bibliographies are required, specialized searches are provided on request. The Spanish language abstracts given in the journal and search listings are designed to have sufficient substantive information for some purposes to obviate obtaining the documents, which are often unavailable even in their country of origin. But when required, copies of the documents may be obtained from the DOCPAL Document Copy Service located in CELADE; Athe future documents on a given country will be available in that country from DOCPAL Participating Centers.

During the 1980 to 1983 period, DOCPAL will concentrate much of its effort on improving the population documentation infrastructure of country institutions by providing them with Regional-level services, manuals, training, and technical assistance so that interested agencies can adapt DOCPAL methodology and regional-level services to their needs and resources. It is expected that most will use <u>non-compterized</u> procedures. Particular attention will be paid to developing the DOCPAL Participating Centres that will provide population documentation from their

own countries and funnel DOCPAL Regional-level services to their national users, while sending copies of their documents and input worksheets to CELADE/DOCPAL. $\frac{1}{}$ In turn, such centres normally will be linked through CELADE/DOCPAL to the international network.

The nature of population activities in the Latin American countries has to be taken into account in the Regional Network of DOCPAL Participating Centres. Population activities are located in different types of agencies in different countries and no one institution in the same country may cover all aspects of population. Therefore, the types of agencies interested in participating in the Regional DOCPAL Network will vary from country to country and in some nations more than one agency may be a Participating Centre, while in others there may be only one.

Furthermore, interested agencies often do not have separate population collections since their functions may be much broader than population along (such as statistical and planning offices). If they wish to participate in DOCPAL, ways will have to be found in each particular case to adapt the DOCPAL procedures to their own needs.

Given these realities, and the limited resources of CELADE/
DOCPAL to provide assistance to many countries at the same time, the
strategy is to work with countries and institutions that express strong
interest and that can successfully use the assistance, rather than trying
to bring all into the system at once.

The substantive Subprogrammes of CELADE are assisting countries to formulate programmes for possible UNFPA financing and many of these require inventories of existing research. DOCPAL will give priority to assisting such countries to create or improve their population documentation facilities so that they can produce a more useful inventory, can maintain it in the future and can provide other documentation services to those using it. In some situations, it may be desireable for an expert from DOCPAL to participate in the missions developing the larger proposals.

^{1/} Where necessary to distinguish DOCPAL in CELADE from DOCPAL Participating Centres, "CELADE/DOCPAL" will be used. "DOCPAL" without any qualifier always refers here to CELADE/DOCPAL.

b) DOCPAL work plan

Each of the activities outlined below is presented under the immediate DOCPAL objective to which it is most relevant, although, of course, many of the activities are important in achieving other objectives.

- 1. OBJECTIVE: Improvement of national documentation capabilities and establishment of DOCPAL Participating Centres.
 - a) Technical assistance. Examination of the needs of interested national agencies working in population and adaptation of DOCPAL compatible procedures to their requirements and resources. Most will utilize non-computerized methods, although the DOCPAL methodology will permit easy conversion to computer processing if this should be desireable in the future. Interested appropriate institutions, normally goverment agencies, will receive special assistance to become DOCPAL Participating Centres.
 - b) Training seminars. Seminars, in 1980 and 1981, coordinated with POPIN efforts, will be organized to provide training for 15-20 persons working with population documentation (in DOCPAL Participating Centres and others less closely associated with DOCPAL).

 Specific procedures will be taught like the utilization of the thesaurus for indexing national documents or modern non-computerized systems of retrieval.

 Costs of travel and per diem will be sought from other sources.
 - re) In-service training. Approximately 3-5 documentalists per year from the countries will be trained in CELADE/DOCPAL for up to a month. Costs of travel and per diem will be covered by the participating institutions or other sources.

- d) Manual and guides. The existing manuals will be updated when necessary and developed to conform to POPIN standards when these are defined.
- e) DOCPAL Newsletter. To keep persons up to date on DOCPAL population documentation activities in the countries, CELADE, POPIN, etc., a Spanish and English language Newsletter will be distributed twice a year.
- 2. OBJECTIVE: Continue the integrated Regional-level services

 and maintain the CELADE/DOCPAL document collection and

 computerized database.
 - a) DOCPAL Resumenes. Computer production of the abstract journal twice a year, with 700 or more abstracts per issue. Around 1500 copies are printed of each issue of around 250 pages. In 1981 a Cumulative Index covering the 1979 and 1980 volumes also will be published.

Since CEPAL expects to obtain a phototypesetter that can be interfaced to the computer, the visual appearance and readibility of <u>DOCPAL Resúmenes</u> will be much improved.

The journal will be evaluated in 1980 in terms of changing national user requirements and appropriate alternations introduced.

- b) Searches on request. Since the journal does not contain all documents in the system and does not show all index terms used for each document, specialized searches will be conducted on request. It is expected that over 400 searches per year will be made on request between 1980 and 1983 since in the first 6 months of 1979, 180 were requested.
 - c) <u>Document copy service</u> (Clearinghouse). On request, and when permitted, copies of documents will be provided. A small number of documents requested will be provided free to individual users living in the Region, while

- others will play the costs of the service. Around 1500 to 2000 documents are expected to be delivered per year. 1/
- d) Maintaining and updating the document collection and database. Approximately 3000 to 3600 new documents per year will be added to the computerized database (which in July 1979 had around 8500 documents). The indexing and the substantive abstracts will continue to be written by professionals working in their homes on a contract basis. It is expected that a small number of DOCPAL Participating Centres may send worksheets with the abstracts, indexing and other information for entry by CELADE/DOCPAL in the database.
- e) Maintenance of the Spanish language version of the thesaurus. CELADE/DOCPAL, in collaboration with national centres, will insure that the vocabulary continues to serve the needs of the region, adding or clarifying terms as orientations in the Region change.
- f) Provision of DOCPAL services to CELADE students and staff. In addition to the Regional-level DOCPAL services and access to the pre-1970 collection, students and staff will be able to conduct interactive searches.
- 3. OBJECTIVE: A collaboration in the development of the
 United Nations International Population Information
 Network (POPIN) and development of relations with other
 socio-economic documentation systems.
 - a) Participation in the POPIN Advisory Committee
 (to be confirmed)

^{1/} The DOCPAL system is designed to reduce the requests for copies; the abstracts are deliberately detailed to make it possible for a user often to obtain the information required from the abstract itself and to avoid requests for documents that are not really of interest.

- b) Adaptation of the DOCPAL procedures to POPIN standards.

 As indicated elsewhere, these standards, which will permit world-wide information exchange and reduce the duplication of effort, will be introduced into CELADE/DOCPAL work and will be transmitted to the countries of the Region.
- c) Interchange of datatapes with Population Index (and other interested computerized systems). A joint project, with possible funding from IDRC, is being planned with Population Index. If funded, the work and exchange will take place starting in 1980.

6.1.4 Justification

The various resolutions approved at regional and international meetings have demonstrated that the countries now recognize the importance of having adequate access to their own population documentation and to the literature produced elsewhere.

The need for studies of population development relationships relevant for policy making and programme implementation and the attempts to incorporate population factors into development planning account in part for the greater importance being given to population documentation. Latin American researchers increasingly want to build their indepth studies on existing theoretical and empirical work and have to avoid duplication. And they are beginning to work interactively with information; that is, they are examining the literature not only at the beginning of a project, but many times during it as they find unexpected empirical results that past empirical or theoretical studies may deny, support or explain. addition, the introduction of population in planning requires the study of trends; results from past studies are now seen as extremely valuable in providing additional points in time series. Consequently, as stated in the long-range goals of DOCPAL, the countries must have bibliographic control over their own literature and must have the technology, appropriate to their needs and resources, to store and retrieve it. For this, national institutions require technical assitance and training to improve their population documentation infrastructures.

While DOCPAL is using relatively sophisticated technology to produce a journal and other outputs for the Region that are more useful to the poorly-endowed centres than services based on less complex technology, it has also developed compatible <u>non-computerized</u> procedures. This enables DOCPAL to provide suitable assistance to improve the facilities of institution with limited population documentation resources.

To give the countries access to the literature produced in other Latin American countries without the costs of duplicating equivalent regional systems in each country, the DOCPAL Regional-level services are needed. This flow will be facilitated if the national and regional institutions each use compatible procedures and standards in describing documents.

The development of a flexible Regional DOCPAL Network, with DOCPAL Participating Centres using common procedures and standards to meet their own needs and those of other centres in their countries, will greatly improve the utilization of existing research and documents within their own countries and will facilitate the regional flow of documentation. In turn this Regional Network, through proposed links with the world-level system, with area countries, access to the world literature. 6.1.5. Related activities

Although a part (55%) of the costs of the activities of DOCPAL from January to June 1980, will be covered by IDRC funds, the activities have been included in the present description rather than as "Related Activities" since DOCPAL is a system of objectives and corresponding activities integrated into the Subprogramme as a whole.

After four years of major support from IDRC, that agency will terminate its assistance to DOCPAL in June 1980. The costs of continuing the activities to the end of 1981 to meet the objectives of DOCPAL are included in the present proposal.

Subprogramme 6 (continued)

6.2. SUBPROGRAMME ELEMENT: POPULATION DATA BANK

6.2.1. Objectives

The CELADE Population Data Bank contains micro-data, stored on magnetic tape, of Latin American census samples and population surveys. With proper permission from the national agencies responsible, the Data Bank provides tapes or tabulations on request. Such tabulations, and all Data Bank processing for CELADE projects, are always carried out by the Population Information Processing staff (see that Subprogramme Element); the Data Bank has only one non-technical person in charge of documentation and correspondence with users.

a) Long-range objectives

The long-range objectives of the Data Bank are to acquire and make available all Latin American census samples since the 1960 round of censuses and selected other important population micro-data and to enable the countries to create and maintain population data banks to store and retrieve their existing micro-data for new analyses and other uses. (E/CEPAL/1072 CEGAN Resolution N° 1, paragraphs 1.d and 2.a).

b) Immediate objectives

The immediate objectives of the Data Bank are to:

- 1. Maintain the Data Bank collection.
- 2. Provide data sets to external users in the Latin American countries and elsewhere and to CELADE student and staff for their research projects.
- 3. Create data banks in national institutions, when required.
- 4. Improve Data Bank storage to facilitate processing.

6.2.2. Background

The Data Bank, which began in 1968, now holds (July 1979) a total of 99 different datasets stored on over 1000 tapes (since many datasets exist in more than one version, for example, original and cleaned, and all have duplicates for security). Of these, 31 are census samples from the 1960 and 1970 census rounds and the remainder are microdata from migration, fertility and demographic surveys or other sources. An attempt is made to obtain a

sample from each Latin American census; the samples usually have between 200,000 to 1,000,000 cases depending on the size of the total population. Other data sets are acquired only when CELADE collaborated in some form on the study or required the data for a project.

Datasets are organized, when possible, to facilitate easy processing for comparative studies. For example, the census samples from different countries, after consistency checking and correction, are placed in the same standard format with compatible coding. Normally tabulations are only produced from the data when a request is received, but a standard set of tabulations is always produced from the census samples. The tabulations are sent to the country and a copy placed in the DOCPAL document collection.

CELADE, with assistance from a Statistics Canada expert and CIDA funds, is developing a census and survey tabulation system, PRODUCE, which uses data in database form to facilitate producing small numbers of tabulations rapidly and at low cost. When it is ready, frequently used datasets will be placed in database form for use with PRODUCE.

Until recently the only functions of the Data Bank were to supply tapes to external users and data for CELADE projects. However, in the future technical assistance will be given as well, since requests have been received from the countries concerning the creation of data banks. This need is expected to increase as it is likely that the introduction of population factors in planning and other changes in the use of population data will increase the value of utilizing existing micro-data frequently. Attempts will be made to follow international Data Bank standards presently being developed, and where relevant, to participate in the setting of such standards appropriate to the Region.

6.2.3. Subprogramme activities

a) The process

The technical operations of the Data Bank will continue to be carried out by the Information Processing Staff.

b) Data Bank Work Plan

Each activity is placed under the most relevant immediate objective.

1. OBJECTIVE: Maintenance of the Data Bank Collection

a) Acquisition and standardized processing of census samples from the 1980 round of censuses.

- b) Acquisition of selected other datasets required by CELADE students and staff.
- 2. OBJECTIVE: Provision of datasets to external users in

 Latin America and elsewhere and to CELADE students

 and staff for their research projects.
 - a) Provision of magnetic tapes on request (if the country supplying the data grants permission).
 - b) Provision of data for CELADE projects.
 - c) <u>Boletin del Banco de Datos</u> updated list of holdings issued once a year.
- 3. OBJECTIVE: Creation of data banks in national institutions.
 On request, and when considered feasible, assistance will be provided on the design and formation of data banks.
- 4. OBJECTIVE: Improvement of Data Bank storage to facilitate processing.

A number of datasets frequently used in CELADE will be placed in database form to make indepth research more efficient via the PRODUCE system. The data in the form will be provided to the countries if they are using PRODUCE (this will eliminate. for them the initial cost of transforming their data).

6.2.4. Justification

Since new data collection is very costly, existing data should be used when possible. Furthermore, for analyses of population and social change, population data collected earlier provide additional points in time series. As the costs of running the Data Bank are very low, the benefits to CELADE projects are much greater than the costs (the major costs are for one General Service staff member, tapes, space to store them, initial checking of the data, and the production of backup tapes).

In addition to the value of the data to CELADE, external users find the Data Bank useful since around 15 data sets are requested and sent out per year.

Finally, the CELADE experience will be useful to the countries which now wish to set up their own Data Banks to permit them to utilize existing data for further processing when necessary.

6.2.5. Related activities

The transformation of some of the datasets into database form for use with the PRODUCE system, will be covered in large part by CELADE/CIDA Programme Funds, including the work of the Statistics Canada expert. After mid-1980, all costs of such transformations will be borne primarily by users requiring such transformations.

Subprogramme 6 (continued)

6.3. SUBPROGRAMME ELEMENT: POPULATION INFORMATION PROCESSING

The Population Information Processing Element of the Subprogramme is primarily concerned with the computer processing of census, survey, other population micro-data and demographic analysis. The work is carried out by analyst/programmers and experienced programmers, all highly especialized analysis in population data processing As the Data Bank (see the description of that element) contains micro-data on magnetic tape, it can only be utilized through the work os the Processing staff. Similarly, since the DOCPAL data base of information describing the document collection is computerized, the Processing staff are also responsible for the DOCPAL storage and retrieval computer programmes and the complex processing required to produce the abstract journal and other outputs.

6.3.1. Objectives

Although this element has processing functions within CELADE, the long-range and immediate goals are primarily oriented to the needs of the countries.

a) Long-range Objectives

The long-range objective is to enable the countries to have the continuing capacity to process rapidly their own census, survey and other population data to meet their population policy, programme and development planning requirements, using processing technology appropriate to their needs and the level of human and computer resources available. (Authority: E/CEPAL/1072 CEGAN Resolution 1, para. 1.b; 1.c; 1.d).

b) Immediate Objectives

The immediate objectives during 1980-1983 are to:

 Improve the census, survey and other population data processing capabilities of the Latin American national institutions working in population activities and enable them to obtain timely results.

- 2. Improve the quality of the national personnel involved in Population Data Processing
- 3. Adapt, develop and maintain "User-oriented" computer packages $\frac{1}{}$ (software) to meet the changing data processing needs of Latin American institutions.
- 4. Provide processing facilities and services to other CELADE Subprogrammes and to DOCPAL.

The E/CEPAL/1072 CEGAN Resolution 1, para. 2.b; 2.g; and 2.i recommend directly and by implication that priority be given to the above immediate objectives.

6.3.2. Background

Since around 1968, CELADE has been processing its own data and has been assisting Latin American governmental and other agencies to process population micro-data. During the years since its inception, the staff, with relatively little turnover, has gained extensive experience in population data processing under the variety of conditions found in the countries of the Region, and now probably is one of the most experienced and capable groups in the developing countries in the specialized field of population data processing. This appears to be the opinion of such agencies as the World Fertility Survey, which has given CELADE the responsibility to provide processing assistance and training to all the Latin American WFS participating countries (at least 10 countries) and which has adopted the CELADE data editing system, CONCOR, for the WFS throughout the world, and the US Bureau of the Census which requested CELADE's assistance in reprogramming CONCOR in the COBOL language to make it useable on more computers.

During the last three and a half years, the Processing group, which now has two systems analysts and five programmers plus a visiting Canadian expert, has carried out around 60 technical assistance and training missions to countries of the region and on occasion to other regions of the world. During the 1970 round of censuses, the processing group was highly involved in assisting the countries with their censuses. Because there were serious problems impiding the processing of the entire censuses of Dutch Antilles, Haiti, Nicaragua, Panama and the Dominican Republic, these had to be processed in

^{1/} User-oriented computer software packages are generalized programs with languages that researchers can use easily to describe how they want the data processed and what outputs they require. Such packages eliminate the need for programming if the package meets the need of the user.

CELADE, normally with a national programmer assisting the work. Extensive experience that was transferred, to the countries in later missions and in courses, was obtained from processing 31 census samples, from the 1960 and 1970 census round, for the CELADE Data Bank. These data sets ranging in size from 20,000 to 1,100,000 cases, were first edited and automatically corrected via CONCOR (when it was ready), and then specialized tabulations were produced using program packages (the tabulations were sent to the country and a copy is kept in DOCPAL).

The CELADE Processing group, working with the WFS since 1975, has so far conducted 23 missions involving the surveys in 10 countries. As a result of this activity and the processing of a variety of demographic, migration and other fertility surveys, the staff now has obtained extensive experience in the processing of complex surveys and in working very closely with survey researchers.

The major contribution of the Processing group in software development for the Region in the past has been the CONCOR system which permits investigators and unskilled programmers to define edit checks and corrections very rapidly. It is hoped that a new system, PRODUCE, which is a census and survey data processing system using a Statistics Canada statistical data base management system will make an equally important contribution to the Region by permitting researchers and planners to produce small number of specialized tabulations from very large files extremely rapidly and at low cost per tabulation. This will facilitate the type of indepth research and planning activity expected to become very common in the Region during the 1980's.

The experience of the staff and the program packages it has developed or obtained from the industrial and countries have been made available through a number of 2-3 month regional Workshops and a large number of short specialized courses in the countries.

Because of the number of missions that must be undertaken and the high level of all the staff, both international-level analyst/programmers and General Service Level Programmers provide technical assistance and training missions in the countries. Almost all the WFS missions have been undertaken by General Service Level Programmers. Hence, it is incorrect to define the General Service Level programmers as "Administrative Support Staff" in the

budget category in which they are placed; they are better termed "locally Recruited Technical Support staff".

6.3.3. Population Information Processing Activities

a) The Process

The micro-data files used to produce output tables for population analysis are normally very large, even excluding the special case of the entire census of a country. For example, a fertility survey like the World Fertility Survey typically has around 5000 cases stored on magnetic tape, each case with perhaps 400 variables; while a census sample, produced from the entire census to reduce processing costs and delays, still might have up to a 1,000,000 cases with 40 to 50 variables each. The processing operations required on a data set may involve consistency checking and correction (normally necessary only when new data is being processed), the creation of new units of analysis (families from individuals in a census), creation of derived indices from the existing variables, the production of elaborate tables, often in camera-ready form to eliminate manual transcription errors, or carrying out of statistical analyses or complex demographic manipulations.

Until recently, processing of a data set tended to end with the production of an initial large set of basic tables, since many users did have a strong need for additional tables. But this is increasingly no longer true because the Latin American countries are now beginning to use population data for highly specific planning purposes and for indepth policy-oriented studies. They require, therefore, special data manipulation and tabulations for each specific purpose (for example, estimates of in and out migration for an irrigation project valley that does not conform to the usual administrative boundaries in the country) and must get these results rapidly and at reasonable cost. Indepth studies require "interactive" work with the data; that is, investigators go back and forth between the data and the theoretical framework, each time producing a small number of new tabulations or analyses that bring them closer to an understanding of the phenomena.

Given this tendency for an increasing continued dependence of planners and researchers on data processing with timely output, the CELADE Population Information Processing group must transfer its know-ledge and extensive experience to the countries through technical assistance, training, the provision of appropriate software technology, and the development of new required, but presently unavailable, processing systems. In

special cases, when a given institution is unable to get data processed in its own country, CELADE must enable it to continue its substantive work by processing the data in Santiago, where possible with a programmer or investigator from the institution participating in the processing.

Since programming staff turnover in governmental agencies is high, training courses provided to national programmers by CELADE must be frequent to take into account the high staff turnover, and CELADE must provide and develop user-oriented software that can be learned quickly by unskilled programmers and often employed directly by investigators without programmer intervention.

In order to provide appropriate and highly practical technical assistance and training based on experience, each CELADE processing staff member must be involved in regular and varying population data processing in CELADE in collaboration with demographers and other users, and must be involved in the development of the new systems on which CELADE is working. On the other hand, to be able to design new user-oriented software that meets real country needs and is suitable for their computer environments, the same staff must also have experience from missions to different countries. The success of the internal and the external population processing activities depends upon the Processing staff being involved in both, as a group and as individual population processing specialists.

Equally important, the capabilities of the group and its capacity to offer real solutions to substantive data processing problems, depends on its constant involvement with CELADE and country substantive personnel. This close relationship of information processing and substantive experts is an important factor in producing useful results rapidly and efficiently, particularly in new data collection. Hence, this form of collaboration is strongly fostered by the Processing group among national workers in the countries, as well as in CELADE.

b) Population Information Processing Work Plan

Each activity is outlined under the most relevant Immediate Objective of this Subprogramme Element, but it must be remembered, as explained in the previous paragraph, that the various activities and objectives of this Element are extremely interrelated.

- 1. OBJECTIVE: Improve the census and population survey data processing capabilities of the countries and enable them to obtain timely results.
 - a) Technical assistance. On request, and when appropriate, technical assistance will be provided in population data processing to governmental and other development-oriented institutions (approximately 15-20 missions per year are expected). The staff member with the most suitable experience for a given mission will be sent for the minimum period required (normally 1-3 weeks), since the national staff will be expected to carry out the actual processing. Major areas of assistance will be:
 - 1. Evaluation of country needs for elaborating the 1980 round of censuses and assistance in processing them;
 - 2. Assistance in the processing of the World Fertility Survey and other survey data. This includes WFS initial processing and First Report tabulations for countries which carry out the field work in 1979, and processing for indepth studies (10-12 WFS countries);
 - 3. Processing of country data in CELADE when it cannot be done acceptably in the country and special adaptations of program packages to specific country needs. Normally the country will be expected to send a programmer or investigator to participate in the work.
- 2. OBJECTIVE: Improvement of the quality of national personal involved in Population Data Processing.
 - Applied to Population. Two-month course to be held in CELADE in the second semester of 1980 and 1981 to provide training, primarily oriented to census processing, to 20-25 national programmers per year. See the Training Subprogramme for further details.
 - b) CONCOR Workshop. Three-week seminar in Santiago to train 15-20 participants in the use of the IBM and COBOL versions of the data editing system CONCOR. To be held in the first semester of 1980 in collaboration with the US Bureau of the Census and financed with funds obtained by them.

- repare them for working on the 1980 round of censuses or other population data processing. This given them direct experience of working in the CELADE processing environment while undertaking real problems. 4-6 programmers per year.
- d) Short specialization courses in the countries, Training in the use of particular program packages, including CONCOR and the system presently under development, PRODUCE. Approximately three to four per year, often in conjunction with a technical assistance mission.
- 3. OBJECTIVE: Adaptation, development and maintenance of "useroriented" software packages to meet the changing data processing
 needs of the countries.
 - 1. PRODUCE. The Statistics Canada database management system,
 RAPID, after adaptation to medium size computer environments,
 is being interfaced with common "user-oriented" statistical
 packages to permit investigators and planners to make special
 tabulations of census and survey data very rapidly and at low
 cost. The initial development of the system, being carried out
 with the assistance of a Statistics Canada expert and CELADE/
 CIDA Programme funds, should be ready in 1980, but enhancements
 and improvements will continue to be made in 1981 and 1982 as
 experience with the system is gained.
 - 2. CONCOR and CO-CONCOR (IBM ASSEMBLER and COBOL versions, respectively). The former system, more suitable for census data the editing (on IBM computers normally available in Latin American countries) because of its rapidity of execution, will be maintained by CELADE. The role of CELADE in the maintenance of CO-CONCOR, some components of which were written by CELADE, is yet to be defined.
 - 3. Other Systems and Programmes

Development and improvement of systems for carrying out specialized demographic procedures (as the "own children" fertility measurement techniques) and adaption of existing systems to country computer environments.

- 4. OBJECTIVE: Provision of data processing facilities and services to other CELADE Subprogrammes and to DOCPAL.
 - 1. Processing of new data and data from the Data Bank
 This includes not only processing for specific research
 projects of CELADE staff, but also work on a permanent projects
 like IMILA (International migration); OMUECE (census sample
 data); population projections, etc. It is likely that a
 number of samples from the 1980 round of censuses will be received by 1983 and processed to enter the Data Bank.
 - 2. Provision of computing facilities for CELADE students and staff. This also includes assistance that will be given to participants in the WFS Indepth Analysis and Training Seminar to be carried out in CELADE in 1980 (the visiting national analysts will produce many of their own tabulations with "user-oriented" software).
 - 3. <u>Processing for DOCPAL</u>. Maintenance of the DOCPAL computerized systems, enhancements as necessary, and production of the abstract journal and specialized lists.

6.3.4. Justification

The nature of formal demographic and social demographic analysis requires the utilization of statistical tables made from files of micro-data that normally either have large numbers of cases (like censuses or census samples) or lage numbers of variables per case (like surveys). These tables can only be produced reasonably by computer. Furthermore, as noted elsewhere, with the greater emphasis in the Region being placed on indepth population studies and the introduction of population in planning, there is an increasing need for specialized tabulations that meet the specific requirements of the analysts. Since their work often is to be a basis for practical decisions, the results must be obtained rapidly. Of course, limited sources dictate the minimization of costs. For the same reasons the 1980 round of censuses must be processed efficiently and very rapidly, while the information still is a good representation of the reality being measured.

If the Latin American Governmental and other agencies working in population are to have a continuing capability to process their own data, and that from data banks, rapidly and at low cost they must improve their data processing

organization and capabilities,

even with staff turnover, and employ the most suitable user-oriented software meeting their particular processing problems and computer environment, all of which are related to the Immediate Objectives of the Data Processing Element of the Subprogramme.

These objectives can be achieved by continuing to develop and transfer the extensive specialized experience (see the Background Section for details) and knowledge of the Population Data Processing staff to the countries through the technical assistance, training and system development proposed here. Since the period covered, 1980 to 1983, coincides with the 1980 round of censuses of most of the Latin American countries, it is particularly important that the experience of CELADE in the various aspects of census data processing, including substantive aspects of the work, be kept intact and made available to the countries.

6.3.5. Related Activities

Because the development of the PRODUCE system is a major effort of the Population Information Processing group to meet new needs of the countries, the work has been included in the description of the Element, rather than as a separate "Related Activity", even though the costs are largely covered by the CELADE/CIDA Programme. That Programme covers most of the costs of the work and the salary of the Statistics Canada data base expert to June 1980 when he will leave CELADE. The future modification and enhancements that will no doubt have to be made as the system is applied in practice, and the costs of transferring it to the countries (technical assistance, and training) are considered part of the budget presented here.

Version June 1979 PROJECT BUDGET COVERING UNEPA CONTRIBUTION

(In US Dollars)

Country: Regional

Project No:

Title: Documentation and Data Processing.

10			1980		1981		Total	
11-01 Sr. Systems A 11-02 Documentalist 11-03 Chief Adminis 11-04 Regional Advi 11-05 Programme Off 11-06 Documentalist 11-07 Documentalist 11-09 Administrativ 13-01 Administrativ 13-99 Travel Costs 15-01 Travel, Per-d 15-99 19 20 Subcontract C 21 Abstractors/1 21-99 29 40 / EQUIPMENT COM 41 Expendable Ed 41-98 Expendable Ed 41-98 Expendable Ed 41-99 42 Non-expendabl 42-51 Data Processi 42-99 43 Premises 43-51 Premises Rent 43-99 49 50 MISCELLANEOUS 51 Operation and Equipment 52 Report and Premises		m/m	US\$	m/m	บรร	m/m	US\$	
11-01 Sr. Systems A 11-02 Documentalist 11-03 Chief Adminis 11-04 Regional Advi 11-05 Programme Off 11-06 Documentalist 11-07 Documentalist 11-99 13 Administrativ 13-01 Administrativ 13-99 15 Travel Costs 15-01 Travel, Per-d 15-99 19 Subcontract C 21 Abstractors/J 21-99 20 Subcontract C 21 Expendable Ed 41-98 Expendable Ed 41-98 Expendable Ed 41-99 42 Non-expendabl 42-51 Data Processi 42-99 43 Premises 43-51 Premises Rent 43-99 49 49 40 MISCELLANEOUS 51 Operation and Equipment 52 Report and Pr	nt/Line items			,				
11-01 Sr. Systems A Documentalist 11-02 Documentalist 11-03 Chief Administ I1-04 Regional Advi 11-05 Programme Off 11-06 Documentalist 11-07 Documentalist 11-09 3	PERSONNEL	•						
11-02 Documentalist 11-03 Chief Adminis (11-04 Regional Administrativ 11-05 Documentalist 11-06 Documentalist 11-07 Documentalist 11-99 3 Administrativ 13-01 Administrativ 13-99 5 Travel Costs 15-01 Travel, Per-d 15-99 9 Subcontract (12-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	ational Personnel							
11-03 Chief Adminis (11-04 Regional Advi 11-05 Programme Off 11-06 Documentalist 11-07 Documentalist 11-09 3 Administrativ 13-01 Administrativ 13-99 5 Travel Costs 15-01 Travel, Per-d 15-99 9 Subcontract (1 Abstractors/1 21-99 9 / EQUIPMENT COM 1 Expendable Eduipment 142-51 Data Processi 142-99 3 Premises 143-51 Premises Rent 143-99 9 MISCELLANEOUS 10 Operation and Equipment 12 Report and Processi 13 Premises Rent 143-99 15 MISCELLANEOUS 16 Operation and Equipment 17 Report and Processi 18	ems Analyst	12	32.100	12	36.750	24	68.850	
711-04 Regional Advi 11-05 Programme Off 11-06 Documentalist 11-07 Documentalist 11-07 Documentalist 11-99 13 Administrativ 13-01 Administrativ 13-99 15 Travel Costs 15-01 Travel, Per-d 15-99 19 20 Subcontract Costs 21-99 21 Abstractors/1 21-99 22 Abstractors/1 21-99 23 Expendable Eduity 41-98 Expendable Eduity 41-98 Expendable Eduity 42-99 34 Premises 43-51 Premises Rent 43-99 35 OMISCELLANEOUS 56 Operation and Equipment 57 Report and Premises 58 Report and Premises 59 Report and Premises		12	41.600	12	44.900	24	86.500	
11-05 11-06 11-06 11-06 11-06 11-07 10-06 11-07 10-06 11-07 10-07 10-07 11-09 13 Administrativ 13-01 13-01 Administrativ 13-99 15 Travel Costs 15-01 15-99 19 19 10 Subcontract (Abstractors/1 21-99 19 10 Expendable Eduipment 142-51 Data Processi 142-99 13 Premises 143-51 Premises Rent 143-99 19 10 MISCELLANEOUS 10 11 11-06	inistrative Officer	. 12	39.700	12	42.900	24	82.600	
11-06 11-07 11-09 13 Administrativ 13-01 13-01 13-99 15 Travel Costs 15-01 15-99 19 20 Subcontract C 21 Abstractors/I 21-99 21 Expendable Ed 41-99 42 Non-expendabl 42-51 Premises 43-51 Premises Rent 43-99 49 49 49 40 MISCELLANEOUS 51 Operation and Equipment Report and Pres 52	Adviser in Data Processing	12	55.900	12	49.950	24	105.850	
11-07 Documentalist 11-99 13 Administrativ 13-01 Administrativ 13-99 15 Travel Costs 15-01 Travel, Per-d 15-99 19 20 Subcontract C 21 Abstractors/J 21-99 29 40 / EQUIPMENT COM 41 Expendable Ed 41-98 Expendable Ed 41-99 42 Non-expendabl 42-51 Data Processi 42-99 43 Premises 43-51 Premises Rent 43-99 49 MISCELLANEOUS 51 Operation and Equipment 52 Report and Pr		12	32.400 13.850	12 12	35.000 29.900	24 18	67.400 43.350	
11-99 13		. 6 6	14.350	12	30.950	18	45.300	
13-01 Administrative 13-99 15 Travel Costs 15-01 Travel, Per-de 15-99 19 20 Subcontract (Costs) 21-99 21 Abstractors/1 21-99 22 Abstractors/1 21-99 23 Expendable Ecc 41-98 Expendable Ecc 41-99 24 Non-expendable 42-51 Data Processi 42-99 25 Premises Rent 43-99 26 MISCELLANEOUS 26 Operation and Equipment 27 Report and Processi 28 Report and Processi 29 Report and Processi 20 Report and Processi 20 Report and Processi 20 Report and Processi 21 Report and Processi 22 Report and Processi 23 Premises Rent 24 Processi 25 Report and Processi 26 Report and Processi 27 Report and Processi 28 Report and Processi 29 Report and Processi 30 Premises Rent 40 Processi 41 Processi 42 Premises Rent 43 Processi 43 Premises Rent 43 Premises Rent 44 Processi 45 Premises Rent 45 Premises Rent 46 Processi 47 Premises Rent 48 Processi 49 Premises Rent 49 Premises Rent 40 Premises Rent 40 Premises Rent 41 Premises Rent 41 Premises Rent 42 Premises Rent 43 Premises Rent 43 Premises Rent 44 Premises Rent 45 Premises Rent 46 Premises Rent 47 Premises Rent 47 Premises Rent 48 Premises Rent 48 Premises Rent 49 Premises Rent 49 Premises Rent 40 Premises Rent 40 Premises Rent 40 Premises Rent 40 Premises Rent 41 Premises Rent 41 Premises Rent 42 Premises Rent 43 Premises Rent 43 Premises Rent 44 Premises Rent 45 Premises Rent 46 Premises Rent 47 Premises Rent 48 Premises Rent	Sub-total	72	229.900	84	270.350	156	500.250	
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13-99 15	- ,		274.500		316.200		590.700	
15	Sub-total		274.500		316.200	•	590.700	
15-01 Travel, Per-d 15-99 19 20 Subcontract C 21 Abstractors/1 21-99 29 40 / EQUIPMENT COM 41 Expandable Ed 41-98 Expandable Ed 41-99 42 Non-expandabl 42-51 Data Processi 42-99 13 Premises 43-51 Premises Rent 43-99 49 40 41 42 43 43 43 44 45 45 45 46 47 48 48 48 48 49 49 49 40 40 41 41 42 43 44 45 45 45 46 47 48 48 48 48 48 48 48 48 48			27,77000	٠,			3244.14	
15-99 19 20	•			•				
20 Subcontract (21 Abstractors/1 21-99 229 229 229 229 229 229 229 229 229	Per-diem Personnel		17.500		21.600		39.100	
21	Sub-total		17.500		21.600		39.100	
21 Abstractors/1 21-99 29 40 / EQUIPMENT COM 41 Expendable Ed 41-98 Expendable Ed 41-99 42 Non-expendabl 42-51 Data Processi 42-99 43 Premises 43-51 Premises Rent 43-99 49 50 MISCELLANEOUS 51 Operation and Equipment 52 Report and Pr	Component Total	72	521.900	84	608.150	156	1.130.050	
21-99 29 29 20 20 21-99 20 21-99 20 21-99 21 21 21 21 21 21 21 22 22 23 24 24-98 24 2-99 25 26 27 28 29 29 29 29 29 29 29 29 29 29 29 29 29	act Component		**					
Peguipment com Expendable Ec 41-98 Expendable Ec 41-99 42 Non-expendable 42-51 Data Processi 42-93 Premises 43-51 Premises Rent 43-99 49 MISCELLANEOUS 51 Operation and Equipment Report and Pr	ors/Indexers		9.500		20.000		29.500	
#1 Expendable Eduipment COM #1 Expendable Eduipment #1-98 Expendable Eduipment #2-99 Non-expendable #2-99 #3 Premises #3-51 Premises Rent #3-99 #9 #9 #9 #6 #1-98 #1-98 #1-98 #1-99	Sub-total		9.500		20.000		29.500	
#1	Component Total		9.500		20.000		29.500	
#1-98 Expendable Ed #1-99 #2 Non-expendable #2-51 Data Processi #2-99 #3 Premises #3-51 Premises Rent #3-99 #9 #9 #9 #6 #ISCELLANEOUS #6 #6 #6 #6 #6 #7 #6 #7 #7 #7	COMPONENT						•	
#1-99 #2	le Equipment							
Non-expendable	le Equipment, Other		9.500	' •	10.300		19.800	
42-51 Data Processi 42-99 43 Premises 43-51 Premises Rent 43-99 49 50 MISCELLANEOUS 51 Operation and Equipment 52 Report and Pr	Sub-total		9.500		10.300	•	19.800	
42-99 43	ndable Equipment					*		
42-99 43	essing Rentals		30.000		39.900		-69.900	
43-51 Premises Rent 43-99 49 MISCELLANEOUS Operation and Equipment Report and Pr	Sub-total	•	30.000		39.900		69.900	
43-51 Premises Rent 43-99 49 MISCELLANEOUS Operation and Equipment Report and Pr		•		1				
43-99 49 50 MISCELLANEOUS 51 Operation and Equipment 52 Report and Pr	Pontale		16.500	,	17.800		34.300	
MISCELLANEOUS Operation and Equipment Report and Pr	Sub-Total	٠.	16.500		17.800		34.300	
50 MISCELLANEOUS 51 Operation and Equipment 52 Report and Pr	Component Total	•	56.000		68.000		124.000	
51 Operation and Equipment 52 Report and Pr					00.000			
Equipment Report and Pr	* .			•				
	n and Maintenance of	••	10.300		11.100	•	21.400	
53 Sundry	nd Printing Costs		5.000		5.400		10.400	
•	:		20.400		24.600		45.000	
59 .	Component Total		35.700		41.100		76.800	
99	GRAND TOTAL	72	623.100	84	737.250	156	1.366.350	

Note: This programme budget absorbs the financing that until 30 June 1980 is being provided by IDRC to DOCFAL.

B. PROJECT BUDGET COVERING UNFPA CONTRIBUTION (June 1979 Version)

CELADE Subprogramme: Documentation and Data Processing 1980-1981

DOCPAL, OTHER (Data Bank and Information Process) and TOTAL SUBPROGRAMME

		1980		1981		TOTAL
		Other	DOCPAL	Other	DOCPAL	Subprogr.
10	PROJECT PERSONNEL					•
11	UN International Personnel					
11-01	Jr. Systems Analyst	32.100	* **	36.750	• .	68.850
11-02	Documentalist		41.600		44.900	86.500
11-03	Chief Administrative Officer	39.700		42.900		82.600
11.04	Regional Adviser in Data Processing	55.900		49.950		105.850
11-05	Programme Officer	32.400		35.000		67.400
11-06	Documentalist	• . *	13.850		29.900	43.750
11.07	Documentalist	•	14.350		30.950	45.300
11-99	Sub-total	160.100	69.800	164.600	105.750	500.250
13	Administrative Support_Costs				,	
13-01	Administrative Support Personnel	207.400	67.100	224.000	92.200	590.700
13-99	Sub-total	207.400	67.100	224.000	92.200	590.700
15	Travel Costs			• .		
15-01	Travel, Per-diem Personnel	12.500	5.000	13.500	8.100	39.100
15-99	Sub-total	12.500	5.000	13.500	8.100	39.100
19	Component Total	380.000	141.900	402.100	206.050	1.130.050
20	Subcontract Component			* *	•	
21	Abstractors/Indexers		9.500		20.000	29.500
21-99	Sub-total		9.500	•	20.000	29.500
29 .	Component Total		9.500		20.000	29.500
40	EQUIPMENT COMPONENT		•		•	
41	Expendable Equipment					
41-98	Expendable Equipment, Other	. 6.000	3.500	4.800	3.500	19,800
41-99	Sub-total	6.000	3.500	4.800	5.500	19.800
42 '	Non-Expendable Equipment					
42-51	Data Processing Rentals	18.000	12.000	19.400	20.500	69.900
42-99	Sub-total	18.000	12.000	19.400	20.500	69.900
43	Premiser					
43-51	Premiser Rentals	5.700	10.800	6.100	11.700	34.300
43-99	Sub-total	5.700	10.800	6.100	11.700	34.300
49	Component Total	29.700	26.300	30.300	37.700	124.000
50	MISCELLANEOUS COMPONENT					
51	Operation and Maintenance of Equipment	2.800	7.500	2.500	8.600	21.400
52	Report and Printing Costs		5.000		5.400	10.400
53	Sundry	8.600	11.600	6.900	17.700	45.000
59	Component Total	11.400	24.300	9.400	31.700	76.800
ý. 99	GRAND TOTAL	421.100	202,000	441.800	295.450	1.360.350

C. PROJECT BUDGET COVERING UNFPA CONTRIBUTION (June 1979 Version) CELADE Subprogramme: Documentation and Data Processing 1980-1981 DOCPAL: Continued UNFPA Contribution and Additional Amount Requested because of the termination of the IDRC Grant 1, ...

		Continued2		Additional ³ /		Total
		1980	1981	19804/	19814/	DOCPAL
10	PROJECT PERSONNEL					•
11	UN International Personnel			•	•	
11-02	Documentalist	41.600	44.900	•		86.500
11-06	Documentalist			13.850	29.900	43.750
11-07	Documentalist			14.350	30.950	45.300
11-99	Sub-total	41.600	44.900	28.700	60.850	175.550
13	Administrative Support Costs					
13-01	Administrative Support Personnel	48.800	52.700	18.300	39.500	159.300
13-99	Sub-total	48.800	52.700	18.300	39.500	159.300
15	Travel Costs	•	•			
15-01	Travel, Per-diem Personnel	2.500	2.700	2.500	5.400	13.100
15-99	Sub-total	2.500	2.700	2.500	5.400	13.100
19	Component Total	92.900	100.300	49.000	105.750	347.950
20	Subcontract Component				•	
21	Abstractors/Indexers			9.500	20.000	29.500
21-99	Sub-tota1			9.500	20.000	29.500
29	Component Total	,		9.500	20.000	29.500
40	EQUIPMENT COMPONENT					
61 '	•	•		• .	٠	
41-98	Expendable Equipment Expendable Equipment, other	2.000	2.200	1.500	3.300	9.000
41-99	Sub-total	2.000	2.200	1.500	3.300	9.000
2			FILLY	27720	21111	2.00
· 42-51	Non-Expendable Equipment Data Processing Rentals	6.000	6.500	6.000	14.000	32.500
42-99	. Sub-total	6.000	6.500	6.000	14.000	32.500
		<u> </u>	0.500	0.000	141000	32.300
43-51	Premiser Premiser Rentals	10.800	11.700			22.500
43-99	Sub-total	10.800	11.700			22.500
49	and an an and a black and an and a state of the analysis and an analysis and a state of the analysis and a state o	18.800	20.400	7.500	17.300	
	Component Total	10.600	20.400	7.300	17.300	64.000
50	MISCELLANEOUS COMPONENT	• .				
51	Operation and Maintenance of Equipment	1.500	, 1.600	6.000	7.000	16.100
52	Report and Printing Costs	•		5.000	5.400	10.400
53	Sundry	7.000	7.600	4.800	10.100	29.500
59	Component Total	8.500	9.200	15.800	22.500	56.000
•	GRAND TOTAL	120.200	129.900	81.800	165.550	497.450

^{1/} IDRC Second Phase Grant to DOCPAL for the period 3/79 to 6/80.
2/ Continuation of the same amounts that the UNFPA is contributing to DOCPAL during 1979, with increase only for inflation.

^{3/} Additional amount required to maintain the DOCPAL Programme when the IDRC grant terminates at the end of June 1980. That is, the amount IDRC would have given DOCPAL if it were financing July 1980-December 1981 at the same rate as it gave in January-June 1980, plus inflation.

A/ The 1980 amount is lower than that for 1001 to 1001 to 1000.

^{4/} The 1980 amount is lower that that for 1981 because the IDRC grant provides funds for January-June 1980.