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CONSISTENCY OF THE POPULATION PROJECTIONS PREPARED BY CELADE
WITH THOSE OF THE NATIONAL GOVERNMENTS

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Consistency of the population projections prepared by CELADE with those of the national governments

I. INTRODUCTION

The Latin American Demographic Centre (CELADE) was established by the United Nations in 1957 with the purpose of providing technical cooperation to the countries of the region in dealing with the problems of population and training of national personnel in this area. In 1975 CELADE was incorporated into the Economic Commission for Latin America and the Caribbean (ECLAC) system as a permanent institution with its own identity and entrusted with the execution of ECLAC's regional population programme.

CELADE has its head office in Santiago, Chile and a Subcentre in San José, Costa Rica. It also has a Joint ECLAC/CELADE Unit located in Port-of-Spain, Trinidad and Tobago which allows CELADE to collaborate with the English-speaking countries of the Caribbean and to work closely with the Caribbean Community (CARICOM), and a Joint ECLAC/CELADE Unit in Buenos Aires which covers activities in the countries of the River Plate Basin.

The offices in Santiago, San José and Buenos Aires are those which have the task of working with the countries of Latin America and which collaborate with the Population Division of the United Nations in the preparation of the projections. Although the office in Port-of-Spain, responsible for the Caribbean countries, has collaborated with the Population Division, occasionally sending it estimates or making comments on the projections prepared in New York, it has not participated directly in the preparation of the population projections for the anglophone Caribbean countries.

For that reason this document focuses its attention on the population projections of the twenty countries of Latin America, made by CELADE in coordination with national organizations.

II. THE POPULATION PROJECTIONS OF THE COUNTRIES OF LATIN AMERICA.

Since the beginning of the 1970s CELADE has been responsible for providing the population estimates and projections for the countries which make up Latin America to the Population Division of the United Nations. Although in the beginning this task was undertaken independently of the national authorities of each country, at present it is carried out jointly.

Of the twenty national population projections for Latin America for which CELADE is responsible, eighteen are considered official in the corresponding countries, while in the two remaining cases the estimates were worked out with some sort of collaboration

from the national institutions. The projection for Honduras was prepared in collaboration with the Technical Secretariat of the National Economic Planning Council (CONSUPLANE), but the projection was subsequently revised in the country; for Mexico, CELADE initially carried out the projection jointly with the country, but then in 1987, in consultation with national organizations, the figures were adapted according to a revision made within the country, and recently CONAPO (the National Population Council) has made new projections, which are being examined in CELADE with the aim of assimilating the new information which arises from them into an upcoming revision.

In summary, the projections carried out in CELADE are in the great majority of cases prepared jointly with the countries of the region, that is, the official estimates coincide with those published by the Population Division of the United Nations. In the few cases where this is not so, the estimates in general differ very little from the official figures, either because the same sources of information have been used to estimate the past values of the demographic variables, or because the estimates prepared in the country were used in CELADE's projection; in the latter case, the differences may arise because the projection hypotheses used were different from the official ones, because there is disagreement between the estimates which are derived from the existing information, or because the methodology used in the official projection is different from that used by CELADE.

The great advantage of this mode of operation is that users do not encounter a series of distinct population estimates, but rather there is only one, which is equally valid for both national and international organizations.

III. COLLABORATION BETWEEN CELADE AND THE COUNTRIES OF THE REGION.

The task of preparing or revising a projection may have its origin in one of the following:

1. The national organizations ask CELADE for technical assistance in the preparation or revision of the projection.
2. CELADE proposes to the national organizations that the preparation or revision of the projection be carried out jointly.
3. CELADE prepares or revises the projection without the collaboration of the national organizations.

The first two possibilities differ solely from the point of view of formality, not in the operational sense.

The first option is in fact the most frequent. In general in all the countries of the region, after census data collection and to the degree that the results of the population count are available by age and sex, either from an advance sample or from the complete census, one of the first priorities is the preparation of population projections at least at the national level. The countries know CELADE's experience and infrastructure and while many of them have demographers with experience in these tasks, in general these are few in number and the countries consider it useful to count on the collaboration and support of an international organization. It is also the case that their technical staff are not always totally up-to-date in projection methodologies, given that this is not a task which is carried out on a regular basis. This prevents them from working with the speed and efficiency which this type of research demands. All this, added to the fact that CELADE is located in the region, permitting easy communication, leads to the request for assistance from the national organizations being the most common modality.

The second option is used when CELADE, in the light of various antecedents, generally recent data which demonstrate that the existing estimates are out of date, proposes to the national organizations that the projections be revised and said organizations agree to carry out the work jointly.

Finally, the third option arises when there is no reaction on the part of the national organizations, neither on their own initiative nor in response to a request from CELADE. In this case CELADE is obliged to prepare the projection without the collaboration of a national counterpart. This implies that the results are subsequently presented to the country institutions to obtain their reactions, comments, and if possible official support of the projection in the country.

With both the first and the second option, after the preliminary contacts a series of activities are decided upon to be achieved by the national technical staff in their country and by CELADE's technical staff. The activities to be carried out by the national counterpart may consist of collection of material, whether raw data or summary information referring to demographic and population variables. The intensity of CELADE's collaboration with national technical staff varies a great deal from country to country and depends on the availability of human resources; there are countries in which only the hypotheses and results are discussed, whereas in others it is necessary to provide support at all stages.

It is also advisable that the data be prepared in the country and that background information be gathered on the quality of the data. In the case of census population data it is necessary to know the results of the coverage survey, if there was one, have in hand the background information on the quality of the census - even if

this is as subjective as checking the opinions of the personnel who participated in the census tasks - and of course examine the information in terms of the behaviour of the data evaluation indices. The same is true for the vital statistics on births and deaths in the sense that it is necessary to have available elements which aid in their evaluation, such as the type of information which is published on an official basis for births; that is, if the criterion adopted is to publish the births registered in a calendar year, or if what is published are the births which occurred and were registered in the same years. Similar remarks hold for other types of information such as that provided by surveys, in which all the estimates must be taken into account even though some of them may be subject to reliability problems.

The great advantage of the joint preparation of the projections with the national organization is the facility of gaining access to basic data from diverse sources. One factor which facilitates this joint work is the presence of CELADE in those countries in which the work is done, a presence which is expressed through various ongoing projects and a very fluid communication. These projects are related, among other things, to the study of mortality, fertility and migration, especially international migration; this often implies working agreements which help to overcome obstacles of a bureaucratic nature.

Once contacts have been established and the preliminary work has been carried out, there comes the stage of preparation of the projection itself, and here there are two possible modalities of work, which are sometimes combined. In the first, CELADE's professionals go to the country to carry out the projection work jointly with the national technical staff. In the second the national technical staff travel to CELADE where, in collaboration with the Centre's specialists, the projection is prepared. In the first case, it is usual to carry out a first mission to establish what information is available. A verification is made whether studies have been done based on the data to estimate demographic variables; that is, it is necessary to collect both the basic information, and the estimates based on it. Subsequently all the methods which permit estimation of the demographic variables must be applied, in order to enter next into the task of reconciling these estimates with the population estimates which arise from the censuses. This first task, which is the one requiring the greatest effort when a projection is to be made, may be distributed, in practice, in such a fashion that part of the work is done in the country and part in CELADE.

After the demographic variables have been determined for the past and the present, and the evolution of the population has been determined for the period which, in general, is from 1950 to 1985, it is time to undertake the task of preparing the projection itself; in this task as well as the preceding ones, decisions are taken jointly. It is here that the national counterparts contribute

their knowledge of the country; CELADE takes care to assure comparability with the other countries of the region and homogeneity with respect to the demographic variables which are to be projected, as well as comparability with the projections made by the United Nations as concerns the initial population and the use of the Population Division's computer program. This is important, since it facilitates sending the input data to New York.

The second modality is not too different from the first in the sense that the information collection step must be done in the country and then CELADE at its main office, in conjunction with the national professionals, derives the estimates of the variables and makes the projection.

In both modalities two situations may arise according to whether or not the figures from a new population census are available. When a census is available the work habitually increases greatly, as it is essential to evaluate the census and then make these data compatible with the demographic variables which come from other sources, and especially with previous censuses. This factor and others such as the quantity of existing information, its quality and comparability all influence the time and experience required to carry out the work. This first modality of collaboration is especially appropriate when the national technical staff have sufficient experience to work on their own, when in addition there is very fluid written communication and when there is a great volume of work. The second, which implies the travel of a country's demographers to CELADE, is very common when there is not information from a new census but rather there is background information suggesting that some hypothesis concerning the projected variables should be changed, without this implying modification of the historic component. In this case a very short period, of a week or two, is sufficient to obtain a new version of the projection.

Nevertheless, a mixture of the two working modalities may be used; this occurs when a brief mission of CELADE's demographers to the country, with the aim of agreeing on the activities, is combined with the later travel of the national technical personnel to the Centre to analyze the estimates obtained jointly with CELADE's personnel and to carry out the projection.

The year of the last projection prepared by CELADE for each of the twenty countries of Latin America is given in Table 1, along with the title and year of the official publication, if there is one. It may be seen that in thirteen countries there is an official projection published jointly with the country. Five others - Colombia, Cuba, Ecuador, Peru and Haiti - have recently revised their projections in collaboration with CELADE. Finally, there are two countries in which the projection prepared by CELADE has no official status.

TABLE 1

LATIN AMERICA. DATE OF PREPARATION OF PROJECTIONS
AND JOINT PUBLICATION WITH THE COUNTRIES.

COUNTRY	YEAR OF PREPARATION	JOINT PUBLICATION
ARGENTINA	1987	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. INDEC AND CELADE. BUENOS AIRES 1989
BOLIVIA	1979	ESTIMACIONES Y PROYECCIONES DE POBLACION. TOTAL 1950-2025 URBANA Y RURAL 1970-2000. INE AND CELADE. LA PAZ 1983.
BRAZIL	1982	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. IBGE AND CELADE. SANTIAGO, CHILE 1984.
COLOMBIA	1989	PROYECCIONES NACIONALES DE LA POBLACION 1950-2025. (IN PRESS)
COSTA RICA	1988	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. MIPLAN, DGEC AND CELADE. SAN JOSE 1988.
CUBA	1988	(THERE IS ONLY A NATIONAL PUBLICATION 1985-2005)
CHILE	1987	PROYECCIONES DE POBLACION POR SEXO Y EDAD. TOTAL DEL PAIS 1950-2025. INE AND CELADE. SANTIAGO, CHILE 1987.
ECUADOR	1989	(REPORT IN PREPARATION)
EL SALVADOR	1986	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. MIPLAN, DIGESTYC AND CELADE. SAN SALVADOR 1986.
GUATEMALA	1985	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. DGE AND CELADE. SAN JOSE 1985.
HAITI	1989	(REPORT IN PREPARATION)
HONDURAS	1986	(CELADE'S PROJECTION DIFFERS FROM THE NATIONAL ONE)
MEXICO	1987	(CELADE'S PROJECTION DIFFERS FROM THE NATIONAL ONE)
NICARAGUA	1983	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. INEC AND CELADE. SAN JOSE 1983.
PANAMA	1983	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. DEC AND CELADE. SAN JOSE 1983.
PARAGUAY	1986	ESTIMACION Y PROYECCION DE LA POBLACION. PERIODO 1950-2025. ASUNCION 1986.
PERU	1989	PROYECCIONES REVISADAS DE POBLACION 1980-2025 (IN PRESS)
DOMINICAN REPUBLIC	1985	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. ONE AND CELADE. SAN JOSE 1985.
URUGUAY	1988	ESTIMACIONES Y PROYECCIONES DE POBLACION POR EDAD Y SEXO TOTAL PAIS 1950-2025. DGEC AND CELADE. MONTEVIDEO 1989.
VENEZUELA	1983	ESTIMACIONES Y PROYECCIONES DE POBLACION 1950-2025. OCEI AND CELADE. CARACAS 1983.

The five countries in which the projection has recently been revised present a diversity of situations. In Colombia there is a technical document on the work achieved; we have been informed that the projection has been officially accepted and that it will shortly be published in the Statistical Bulletin of the National Administrative Department of Statistics of Colombia. For Cuba a document is available with the projection from 1985 to 2005 prepared in the country. For Ecuador the revision was made with the National Development Council, which prepared a report and presented it to the National Statistics and Census Institute, as the latter is the organization which officially approves the population figures: while we have been informed that for practical purposes the figures of the new projection are being used in the country, it is necessary to wait until there is an official definition in the matter. In Peru the projection was finalized in November 1989 and it is supposed that the projection figures have an official character, but we are waiting for the National Statistical Institute to publish a report on the projection. The situation in Haiti is to some extent similar, since the revision of the population projection was finished in December 1989 in collaboration with the Haitian Statistical Institute; however, as the director of this Institute was changed, the communications which were being maintained have been interrupted for the moment; nonetheless, word has been received that this projection is being utilized by the Ministry of Public Health.

For Honduras and Mexico there is no projection in common with CELADE. In Honduras the population projections were prepared in collaboration with the Planning Ministry, but as no agreement was reached on the results obtained, another version was worked out in the country, about which no information is available.

In December 1989 Mexico presented the revision of the projections carried out by the National Population Council (CONAPO). This revision was done without the collaboration of CELADE, in spite of which CELADE was invited to the official presentation of the estimates. The current estimates of CELADE were prepared in 1987 and were based on the projections of the National Institute of Statistics, Geography and Informatics and of CONAPO; CELADE communicated with those responsible for the projection, considering the estimates of variables made by them, and incorporated some of them. The present situation is similar to that prevailing at that time. This new estimate changes the historical part between 1960 and 1985 with respect to both the population and the demographic variables; in addition no figures are given for dates prior to 1960. For this reason this projection will be examined and in principle the estimates of the demographic variables prepared in Mexico will be accepted, but this will require some time yet.

IV. LIMITATIONS OF THE JOINT PREPARATION OF PROJECTIONS

In its desire to work jointly with the countries CELADE may encounter several types of difficulties, among them the lack of technically trained persons to do the work; the professional mobility which causes the counterpart personnel to change from one moment to another; the turnover of management personnel which may greatly delay the work; and the bureaucratic sluggishness at all levels which prevents action at the speed required.

One example of the difficulties caused by the turnover of management personnel is the case of Haiti, where all negotiations had been made with the director of statistics, and the population projection had been accomplished during the visit to CELADE of a demographer from the Statistical Institute in December 1989. When an attempt was made to communicate once more with that director we were informed of the change, which suggests a delay, at the least, in the official acceptance of the figures.

In Colombia several problems arose. After the 1985 census two of the country's universities were put in charge of the analysis of the census information and the preparation of the projections. The analysis began in early 1987 and the report was delivered in mid-1988; however, in this study the results did not extend to preparing the population estimates. The National Administrative Department of Statistics (DANE) communicated with CELADE to make the projection and conversations began with the technical personnel of DANE to begin the work. The technical person with whom the work had been begun moved to the National Planning Department (DNP), which caused a problem because DANE did not have other personnel with sufficient experience in demography. At that point it was possible to obtain an agreement between DANE and DNP to carry out the projections jointly with CELADE. Next, two professionals, one from DANE and one from DNP, travelled to CELADE, and while it is true that the representative of DNP was the same person who was originally in charge of the research, his change of institution affected the previously programmed activities.

Another type of problem which may arise is that in the country there is some target with respect to the value which a demographic variable may reach at a future date. In Mexico, when the projection was done in 1983 jointly with INEGI and CONAPO, fertility was falling sharply and there was a political decision that the growth rate should be 1.0 by the year 2000. At that moment Mexico had a growth rate of about 2.4 and it was very difficult to demonstrate that it was impossible to attain the target by the year 2000 however much fertility dropped. However in spite of the establishment of more plausible goals, it was not possible to reach agreement on the fertility hypothesis and thus two versions of the projections were published: one was called the programme projection and was adopted by the country as official, and the other, called alternative, was accepted by CELADE.

The shortage of technical personnel in the national institutions responsible for projection work can make it necessary to resort to solutions such as hiring the services of a national professional as a consultant. In Paraguay, for example, both the statistical office and the technical planning secretariat agreed with CELADE in 1986 to revise the population projections; nevertheless, at that moment neither of these national institutions had a technical person available to carry out the work. Funds were available from a United Nations project, which made it possible to hire a demographer to do the projection in collaboration with CELADE. This sort of situation can easily arise in the countries of the region due to the fact that the good professionals leave the statistical institutes because of the low salaries. Thus on many occasions we encounter the case of very good demographers who change jobs and, more seriously indeed, stop working as demographers to seek better economic conditions.

On the other hand, there are several countries which have personnel and resources to carry out the population estimates they require, without resorting to technical assistance. Although in these cases CELADE tries to offer its collaboration, it can happen that the country carries out its projections in an autonomous manner. This is the case of Cuba and Mexico, which did their projections independently of CELADE.

In Cuba the State Statistics Committee, without the collaboration of CELADE, prepared a revision of the national projection for the period 1985 to 2005. CELADE accepted these figures in making its projection from 1950 to 1985, which implied a reconciliation with previous estimates for this historical period prepared for the previous projection. In addition for comparison purposes the projection had to be extended to 2025.

In Mexico a revision of the projections has just been prepared, and one alternative which arises is to adopt the figures, but there are some difficulties in proceeding in this manner: the projection is given starting from 1980 and while the background information exists to allow reconstruction of the period between 1960 and 1980, the decade from 1950 to 1960 is missing and in addition the estimates with respect to the past have varied. The other problem is that a computer program was used which projects by calendar year in contrast to that of the United Nations which works by five-year periods. This last situation makes it impossible in practice to adopt the figures of the country and if to this is added the fact that there is at least a decade to be estimated it turns out that the adoption of the projection is not such a simple task. Hence the intention is to revise the historical part, comparing the projection presently in use in CELADE with that recently made by the Mexicans to see if it must be changed or not; subsequently it is very probable that for the decade between 1980 and 1990 the estimates of the demographic variables made in Mexico

will be adopted, as they used up-to-date information, and it is also possible to incorporate the hypotheses of the projection made in the country for 1990 onwards.

Finally, the low quality of the basic data in the majority of the countries determines that the most important aspect and that which requires the greatest efforts in preparing a projection is the estimation of the demographic and population variables for the historical period. It also occurs that when there is a greater number of sources of information, the work required is also greater because of the inconsistencies in the data. The lack of timeliness with which, in many cases, the data are published also affects the credibility of the estimates. There are countries where the vital statistics are published after a delay of three or four years, and the same happens with the census data.

All the above-mentioned limitations are amply compensated for by the enormous advantage to the national and international users of having uniform figures which have been fully discussed by the technical personnel of the country and of the United Nations.

V. OTHER PROJECTIONS MADE BY CELADE.

As well as making population projections at the national level, CELADE makes projections of the urban and rural population, of the economically active population and of the school-age population, systematically for all the countries of Latin America.

Also, if the country so requests, assistance is given in the preparation of other types of projections such as for major, intermediate and minor administrative divisions, housing projections, projections by marital status, etc.

Table 2 indicates those countries for which projections other than the national ones have been prepared in collaboration with the national organizations.

Nevertheless, in the case of the urban and rural projections and of the economically active population, CELADE uses procedures similar to those which it employs for national population projections; in the case that joint estimates made with the countries are not available, they are made in CELADE and in this way the projections for the twenty countries are published on a regular basis, in the Centre's semi-annual Demographic Bulletin.

TABLE 2

LATIN AMERICA: OTHER PROJECTIONS MADE BY CELADE
WITH OFFICIAL ORGANIZATIONS, BY COUNTRY.

COUNTRY	URBAN-RURAL PROJECTION	PROJECTION OF ACTIVE POPULATION	OTHER PROJECTIONS
ARGENTINA	X	X	X
BOLIVIA	X	X	X
COSTA RICA	X	X	X
CHILE	X	X	X
GUATEMALA	X	X	X
NICARAGUA	X	X	X
PANAMA	X	-	X
DOM. REP.	X	-	X
URUGUAY	X	X	-

It should be made clear that there is not always uniformity as respects the methodology utilized for the preparation of these projections. Thus in the case of the projection of urban and rural populations done with the countries, the method depends on the quality and quantity of the information and also on the time available. If conditions so permit, the component method is used, as for national projections; if this is not possible, semi-demographic or mathematical methods are used.

When CELADE has to prepare these projections independently, a mathematical model is used which implies logistic variation in the urban percentage of the population, very similar to that developed by the Population Division.

In the projection of the economically active population which CELADE makes, while there is still not total uniformity of criteria, in the majority of cases the urban and rural labour forces are projected separately. This procedure has the advantage of incorporating from the outset the variation in the rates caused by migration from the country to the city, as it is well known that the age distribution of the urban participation rates is very different from that in rural areas, especially in the case of the female population.

For the labour force projections CELADE generally works with limiting rates. If the urban and rural economically active populations are considered separately, limiting participation rates by sex and age are used for both the urban and the rural sectors.

Other figures which CELADE prepares in a systematic fashion for all the countries of the region are the projections of the population aged 0 to 24 years by single year of age, derived from the national projection; these estimates are made by sex and calendar year. Part of this work is done by the Population Division's program, for example the determination of the population by single year of age from 5 to 24 years for the calendar years terminating in 0 or 5. CELADE has developed a method which separates the under-five population by individual areas. The population for calendar years is calculated by interpolation.

CELADE becomes involved in other types of projections only when there is an official request that they be done on the part of the national authorities. At present the tendency is for the countries to request projections particularly as a disaggregated level, beginning with those of the largest administrative divisions and terminating with those of the minor administrative divisions and small localities, coinciding with the trend to decentralization which is being observed in the majority of the Latin American countries. There are other projections for which there is some demand from the countries, particularly those of housing and school enrolment.

VI. RECENT PROJECTION ACTIVITIES IN CELADE.

CELADE has prepared five national population projections since December 1988. These are for Colombia, Cuba, Ecuador, Haiti and Peru.

The projections for Colombia and Haiti are of great importance to CELADE because for the first time they have been prepared jointly with national organizations. Work in Colombia was done with the National Administrative Department of Statistics (DANE) and the National Planning Department (DNP) and we are waiting for the publication which will be issued shortly by DANE. In Haiti the revision of the projection along with the Haitian Institute of Statistics and Informatics was finished in December 1989; however, because of changes at the level of senior management in this institution followed by the political instability which the country is experiencing, the official approval of the figures has been delayed.

In Colombia the preparation of the projection was done immediately after the publication and analysis of the data from the 1985 census. In Haiti, on the other hand, the revision was carried out taking as a base the previous projection made by CELADE and

some tabulations corresponding to a ten-percent sample of the 1982 census.

In the projections for Ecuador and Peru the historical part was not changed; modifications were simply made to some of the hypotheses on the basis of recent information. In Ecuador only the fertility projection was modified, in accordance with the data from very recent surveys. In Peru also, the fertility hypothesis was revised in the light of new background information provided by surveys, and in addition an international migration hypothesis was incorporated (the previous projection considered migration to be nil), taking information from the register of entries to and departures from the country; while this register is not very reliable, its trend shows very important changes which must be taken into consideration.

Cuba had prepared its projections for the period between 1985 and 2005, and so CELADE's task consisted of reconciling this projection with past data and projecting beyond 2005.

As well as the above-mentioned national projections, several derived projections have recently been prepared in collaboration with the countries.

For Costa Rica, projections of the economically active population by age and sex were prepared at the national level and for major administrative divisions.

For Chile projections of the urban and rural population by age and sex were prepared at the national level and for major administrative divisions. As well, CELADE collaborated in the projection of the population by age and sex for minor administrative divisions.

For Guatemala projections of the urban and rural population were prepared by age, sex and calendar year for major and intermediate administrative divisions.

In Panama the projection of the population by sex was prepared at the level of minor administrative divisions.

Finally, for the Dominican Republic the population was estimated by age, sex and calendar year for planning regions and sub-regions; in addition projections of the urban and rural population were prepared by age, sex and calendar year at the level of the major administrative divisions.

It is also important to emphasize the International Seminar on Sub-national Population Projections held by CELADE in collaboration with Colombian organizations in Girardot, Colombia in November 1988. In this seminar various methodological papers were presented, as well as a computational package which

incorporates a series of projection methods. The document containing the papers presented in this Seminar has just recently been published in Colombia.

For some time CELADE has been preparing a computational package for demographic projections, PRODEM. A preliminary version which incorporates the projections program prepared by the Population Division was presented at the seminar in Colombia. The package also includes a series of demographic, semi-demographic and mathematical methods which allow the projection of major, intermediate and minor administrative divisions, of urban and rural areas and also the projection of demographic variables. At present the new version prepared in New York which includes new mortality and fertility models is being incorporated.

VII. PROJECTION ACTIVITIES PLANNED BY CELADE.

It is foreseen that the national projections of Mexico, Bolivia, Nicaragua and Honduras will be revised during 1990.

In December 1989 CELADE was invited to Mexico to participate in the analysis and in the presentation of the national projection prepared by the National Population Council (CONAPO). These results are being examined in CELADE in order to incorporate the new information which has been used by CONAPO so that the estimates made in the country and those of CELADE are consistent. The problem is to reconcile the historical estimates of CELADE with CONAPO's projections.

The projection for Bolivia is very old, having been prepared in 1979. Recent information is now available from three surveys, which makes a revision necessary. Contacts with the country's authorities have been initiated in order to begin the work soon. The fact that CELADE is cooperating in activities related to these surveys will facilitate arrangements.

In Nicaragua CELADE has been cooperating in all aspects of the National Demographic and Socio-economic Survey which is now at the stage of data analysis. It is hoped that by the end of 1990 new estimates of mortality, fertility and international migration derived from the results of this survey will be available, allowing the revision of the population projection of the country which is being used at present.

In Honduras, CELADE is expected to participate in a project which is being prepared for the analysis of the information from the population census of 1988. As a next step, there is a proposal to update the projections using the results of these analyses.

At the moment CELADE is preparing a Demographic Bulletin which will present the population projections by sex and single year of age between the ages of 0 and 24 and by calendar year from 1980 to 2000 for the countries of Latin America.

Another task in which CELADE is engaged is the revision of the projections of the urban and rural population, and later those of the economically active population for the twenty countries of Latin America will be done. These projections will form the content of the two Demographic Bulletins following the one dedicated to the projections by single year of age. As was indicated above, only some of these projections have been prepared with the collaboration of the countries.

CELADE will continue to lend technical assistance with other types of projections to those countries which request it; this is an activity which is even less foreseeable than that of preparing national projections. In Chile CELADE is collaborating in the preparation of projections of the economically active population at the national level and projections by marital status. In Costa Rica advice is being given in the preparation of projections of the population of minor administrative divisions. In Cuba CELADE is collaborating in the preparation of projections by calendar year. In Panama help is being given in projecting international migration and housing needs. Uruguay requires assistance in the preparation of projections by major administrative division.

In addition, work will continue in CELADE on updating the computational package for the preparation of national and derived population projections (PRODEM); among other aspects, we are studying how to adapt the multiregional projection method to the type of information available in Latin America, in order to incorporate this projection method for major and intermediate administrative divisions into the package.

VIII. SUMMARY AND CONCLUSIONS

CELADE prepares the national population projections for the twenty countries of Latin America. These projections are made in the great majority of cases in collaboration with the countries and therefore have official status in the country.

Assistance is also given to the countries of the region with other projections such as: urban and rural; labour force; by major, intermediate and minor administrative division; by single year of age; of housing, etc.

As well as the national projections, CELADE systematically prepares projections of urban and rural population, the labour force and the school-age population by single year of age.

As well as giving technical assistance to the countries, CELADE carries out methodological research and has made available (although it is continuously being improved) a computational package which facilitates the preparation of the projection as well as the preliminary analysis.

The fact that the national projections are prepared, in the great majority of cases, in collaboration with national organizations has the great advantage for the users that there is only one version of the population figures. This is very important both for the country and for CELADE. It is important for the country because the estimates are seen to be supported by an international organization which specializes in this area. It is important for CELADE because this way of working implies access to the most up-to-date sources of information in the country; further, it allows taking into consideration factors related to the quality of the data, often known only to those who have worked very closely with them.

This great advantage counterbalances the difficulties which may arise in this form of work. The most usual complications are the turnover of management as well as professional personnel; the lack of qualified personnel for the projection work; the proposing of goals inconsistent with the demographic reality of the country which are frequently made by planners or politicians who are not in touch with demographic reality.

While at the moment there are two countries which do not have a common national projection with CELADE - Mexico and Honduras - it is hoped this year to revise the Honduran projection, taking advantage of the recently published results of the 1988 population census. Mexico's projection was just revised in December 1989 and CELADE is examining the possibility of making these results compatible with the historical estimates of the current projection.

For the near future there is evidence of great interest on the part of the countries to respond to internal demands in the field of population projections, especially for small areas. This is the reason why CELADE's attention has centred on the study of methodologies for the preparation of these projections and on the development of computational packages to facilitate this type of task.