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ASPECTS OF DEMOGRAPHIC TRAINING AND RESEARCH IN FRENCH-SPEAKING  
AFRICA AND MADAGASCAR

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"Demography, an untamed subject without student or teacher, has long been neglected in universities" (A. Sauvy). This situation, which is common almost throughout the world also prevails in French-speaking Africa and Madagascar, where the educational system is largely a legacy of the French-system. Demographic research, too, is faced with difficulties: research institutes are rare and the university does not play the same rôle as in English-speaking Africa.

Demographic training and research have therefore developed outside the university system through national, foreign and international agencies. In the future, the Yaoundé Institute for Demographic Training and Research (Institut de Formation et de Recherche Démographiques) may have an important co-ordinating and stimulating rôle to play. Its action, along with certain improvements in existing facilities, will no doubt help to improve the still precarious position of African demography.

Existing Demographic Training and Research Facilities in French-speaking Africa and Madagascar

A. Teaching

Until recently - November 1972 - when IFORD opened, there was no teaching establishment specializing in demography in French-speaking Africa and Madagascar.

1. Universities

The universities do not provide complete training in demography leading to a degree, a proficiency diploma or a doctorate in demography. It is sometimes, but not always, taught as a subsidiary subject in Humanities and Economics faculties. According to the "Guides for Students" that have been consulted, demography is given:

- (a) in the Faculty of Law and Economics at Yaounde in the third undergraduate year in the economics option (1971-1972); in the first undergraduate year in economics at Abidjan (40 hours of classes, 40 hours of supervised work) and in the fourth year in the public economy option (40 hours of classes) (1972-1973); in the second undergraduate year in economics at Tananarive (1969-1970) (40 hours of classes); in the second undergraduate year in economics (public economy and planning option) in Dakar (1970-1971) (40 hours of classes)
- (b) in the Faculty of Arts and the Humanities at Abidjan (1972-1973) in the first course of the history/geography social sciences section in the first year within the framework of the geography course and in the second year (social sciences option) within the framework of the sociology course.

## 2. Schools

Demography is also taught in some African statistics schools which train: technicians (agents techniques) (level of admittance : BEPC) assistant technicians (adjoints techniques) (level of admittance : Class I) junior statisticians (ingénieurs des travaux) (level of admittance : Baccalauréat C).

These schools are:

- The Rabat Institute of Statistics and Applied Economics (INSEA) (assistant technicians and junior statisticians);
- The Abidjan school of Statistics (ESIA) (technicians and assistant technicians, junior statisticians);
- The Institute of Statistical Training at Yaoundé (IFS) (technicians and assistant technicians);
- The School of Statistics at Tunis (EST) (technicians and assistant technicians);
- The National School of Applied Economics at Dakar (ENEA) (assistant technicians);

With the exception of the last two, these are all-round schools where demography is offered on the following basis:

- for technicians, 25 hours of classes and 20 hours of supervised work at Abidjan and 15 and 10 hours respectively at Yaoundé;
- for assistant technicians, 35 hours of classes and 10 hours of supervised work at Abidjan and 15 and 5 at Yaoundé in the first year and 40 and 20 hours at Rabat and 15 and 5 at Yaoundé in the second year.
- for junior statisticians at Abidjan, 30 hours of classes and 10 hours of supervised work in the first year, 20 and 10 in the second year and an optional 50 in the third year.

## 3. Institutes located abroad

Among the many institutes abroad that train cadres for French-speaking Africa and Madagascar, the following three are located in Paris:

- (a) The national School of Statistics and Economic Administration (ENSAE) and the European Training Centre for Statisticians-Economists from the Developing Countries (CESD) which train junior statisticians and statisticians-economists with economics degrees and mathematics diplomas.

These two schools give the following courses in demography : for first year statisticians/economists, 12 and 30 hours respectively and 15 hours for both first and second year junior statisticians in the second school.

After this, apprenticeships are organized in Africa in the field, which some students carry out in national demographic services.

(b) The Demography Institute at Paris is the only one of all those mentioned that specializes in demography. It is for graduates and issues two diplomas, one in general demography after one year of study and demographic expert diploma after two years.

## B. Research

Apart from national statistical services, there are only a few national institutes for demographic research in French-speaking Africa and Madagascar in addition to the French-sponsored ORSTOM centres.

### 1. National Statistics Departments

In view of the current lack of basic data and research centres, it is usually the National Statistics Departments that are in charge of demographic studies. It is here that most of the demographic surveys are undertaken and national censuses prepared. From time to time, these services work on methodology and in-depth analysis as well as collecting basic data.

### 2. Algerian Association for Economic and Social Demographic Research (AARDES)

This is a non-profit making institution sponsored by the Secretariat of State for the Plan and is responsible for undertaking socio-economic studies. It has prepared an important socio-demographic study on fertility and the demographic composition of Algerian households.

### 3. The Centre for Demographic Research and Studies at Rabat (CERED)

This agency was established within the Department of the Plan and Regional Development to put Moroccan population data on a solid basis and provide the requisite demographic information for economic and social planning. USAID and the University of North Carolina are participating in the financing of the project. The Centre is now undertaking a survey using the two-stage collection technique.

### 4. The Centre for Economic and Social Studies and Research at Tunis (CERES)

The Centre, which was established in 1964, is designed to promote research in Tunisia. It is a public agency, subsidized by the State, which also receives assistance from the Ford Foundation and occasionally from the Population Council. It publishes the Tunisian Social Science Review and the CERES Bulletins.

### 5. The Institute for Economic and Social Research at Kinshasa (IRES)

This agency, which is attached to the Louvanium University, deals with problems of economic and social development. It published a quarterly review entitled "Economic and Social Papers".

6. The Overseas Office for Scientific and Technical Research (ORSTOM)

This is a French agency which has its headquarters in Paris and whose main task is to undertake and promote fundamental research to establish basic data on the natural and human environment in non-temperate regions. Demographers have been posted to ORSTOM Centres at Brazzaville, Dakar, Ouagadougou, Tananarive, Tunis and Yaoundé.

II. SYNOPSIS OF EXISTING PROBLEMS IN DEMOGRAPHIC EDUCATION AND RESEARCH IN FRENCH-SPEAKING AFRICA AND MADAGASCAR

Attached to the above mentioned agencies, there are a number of demographers working in various fields. After having reviewed these persons and their work, an attempt will be made to identify short- and long-term requirements in training and research.

A. Personnel

No yearbook has been prepared of demographers in French-speaking Africa and Madagascar and only fragmentary information is available in this regard.

- (1) The African Directory of Demographers, prepared by the Economic Commission for Africa in 1969 lists 28 demographers from French-speaking Africa and Madagascar, of which 7 are working outside the region, and 10 outsiders who are working within the region.
- (2) The 1972 yearbook of the association of demographic experts and general demographers from the Paris Institute of Demography does not list anyone born (in French-speaking Africa and Madagascar). Few Africans have been successfully trained in IDEP. There are at the most 10, mainly from the three Maghreb countries, and they have graduated recently.
- (3) The membership list of the International Union for the Scientific Study of Population (1972) contains only 12 members from French-speaking Africa and Madagascar, in addition to 14 non-Africans who are working in the region.
- (4) The "Liaison Bulletin" of French-speaking African demographers gives a more precise picture of the situation. The latest issue (January-March 1973) lists 55 persons born in the region, of whom 4 are working abroad, and 30 outsiders working in the region. Of the 55 local persons, 34 are employed by national Departments of Statistics.

These "demographers", of whom there are now around 50, have mainly been trained as statisticians and only 15 or so specialized in demography while pursuing their studies.

## B. Work

Recent demographic research work in French-speaking Africa has fallen into three categories:

1. Monographs prepared by researchers or administrative officers in the local civil service who have not necessarily been trained in demography which nevertheless have helped to identify the time and space frames of some points of reference which enrich the demographic knowledge of the populations in question.

2. Methodological research aimed rather at the development of new identification methods than at obtaining results. Various experiments have been made with multi-sample two-stage collection surveys.

3. National activities, surveys and censuses, the first wave of activities occurred between 1954 and 1966 in most of the countries in the region. All kinds of sampling methods and retrospective questioning techniques were used. The results of these activities frequently continue to be the main source of demographic data. Since then, a few new national surveys have been undertaken using the multi-sampling technique (Algeria, Burundi, Senegal, Tunisia). Some countries (Algeria, Gabon, Morocco, Mauritius, Rwanda, Togo) have carried out censuses and one, Chad, carried out an improved administrative census in 1968.

In the course of these activities, demographers have been called upon to develop techniques for the evaluation of basic data.

## C. Requirements

The scarcity of studies in the field of African demography has many causes including in particular, the lack of personnel.

### 1. Training requirements

The need for higher-level personnel specializing in demography has been felt in Africa for many years. The United Nations has considered the problem and the Institute for Demographic Training and Research at Yaoundé was established in response to this need.

The analysis which preceded the establishment of IFORD and the relevant discussions at the first Conference of African Demographers, held at Accra from 20-22 December 1971, underscored the following points:

- (a) There is a need for high level training;
- (b) Training, while focussing on the teaching of demography, should not neglect the allied subjects of sociology, economics and geography so as to retain the multi-disciplinary nature of demography;

- (c) There should be close co-operation between the three African institutes for demographic research and training at Cairo, Accra and Yaoundé;
- (d) The diplomas issued should be recognized in the civil services of the countries concerned;
- (e) The students at IFORD should take English courses and those at the Accra Institute should take French courses in order to facilitate communication between the specialists from the two language areas;
- (f) Although IFORD is supposed above all to train higher-level personnel, specialization courses should be organized for middle-level personnel and demography courses should be intensified in middle-level statistical training centres.

## 2. Future work

(a) In view of the lack of basic data, in the future priority should be accorded to the organization of national activities. The African Census Programme should contribute to the speedy attainment of this important phase in the acquisition of demographic knowledge. But since most of the countries will be holding their first national census, emphasis should be placed on the difficulties inherent in such activities and the importance of planning modest programmes which can be completed at a later stage by sample surveys, when the census will provide the sampling frame.

(b) At the same time, methodological research should be undertaken on:

- Collection as a way of developing demographic observation methods consistent with the social situation of the people concerned or of improving administrative sources such as the civil register and administrative censuses,
- Collation of data,
- Analysis of data with a view to finding new techniques for the refinement of crude data. The analysis of imperfect data is, however, only a temporary solution and the definitive solution lies in improving collection;

(c) "Down the line" research to extend basic data by studying certain questions is hardly used in the region and should begin with problems that have already been identified such as fertility differentials between the urban and rural environments, mortality patterns, the population - resources equilibrium and so forth.

III. The Yaoundé Institute for Demographic Training and Research (IFORD)

A. Structure

In 1968, a United Nations mission for demographic programming in Africa recommended that French-speaking African countries should accord highest priority to the establishment of a high level training centre. The Economic Commission for Africa approved the proposal at its ninth session in February 1969 and at its tenth session in February 1971 recommended that the establishment of the Centre should be speeded up. In 1970 it was decided the Centre should be located at Yaoundé and the agreement between the United Nations and the Government of Cameroon concerning the establishment of an Institute for Demographic Training and Research was signed in November 1971.

The Institute opened in November 1972.

It serves those African countries which are French-speaking, i.e., the following 22 countries:

Algeria, Burundi, Cameroon, the Central African Republic, Chad, the Congo, Dahomey, Gabon, Guinea, the Ivory Coast, Madagascar, Mali, Mauritania, Mauritius, Morocco, Niger, Rwanda, Senegal, Togo, Tunisia, Upper Volta and Zaire.

English-speaking African countries are served by the Regional Institute for Population Studies, which was set up in Accra at about the same time.

Under the agreement of 1971, the objectives and activities of IFORD are as follows:

- (1) To act as a training and research centre in demography and related fields for any of the afore-mentioned countries wishing to take advantage of the services offered by it;
- (2) To carry out and direct basic research and applied technology and, in consultation with the United Nations, to publish documents on population trends and their relevance to economic and social trends, taking account of the results of the latest population and other censuses; to undertake on-the-spot research in the countries referred to above at the request of their Governments or in agreement with them and to publish the results in consultation with the United Nations;
- (3) To organize intensive training and research courses on demography and related subjects to be held in French; it may also be possible for the Institute to organize retraining courses;

(4) In co-ordination with other United Nations advisory services, to provide information and advice in demography and related fields to the Governments of those countries served by the Institute, at their request.

The Board of Directors of IFORD, comprising three members appointed by the Cameroonian Government and three members appointed by the United Nations, shall be responsible for setting up and evaluating research, training and advisory programmes and for any related tasks which may be necessary if the Institute is to function smoothly.

At the scientific level, it shall be assisted by an Advisory Committee of 14 members including three experts from three countries served by the Institute, who shall be appointed on a rotary basis, the order of their appointment to be decided by the Board of Directors.

#### B. The Type of Education to be Acquired at IFORD

The main course of study at IFORD lasts for 3 years and is intended for students with a Junior Statistician's diploma (diplôme d'Ingénieur des Travaux Statistiques) from INSEA, ESA, CESD or ENSAE or with a degree in geography, sociology, economics, biology, mathematics or physics. Students are admitted to the Institute on the basis of the results of a competitive examination.

At the end of their first year, students who had already been trained at university when they were recruited are required to be:

- Familiar with population phenomena and the problems they present, especially in Africa;
- Capable of organizing and of directing a population survey or census (designing the operation and collecting and analysing the data).

In addition to taking courses and doing supervised work, first-year students are required to participate in a field survey, in which trainees are responsible for the preparation, planning, checking extraction and analysis.

The circulation for the two final years includes:

- Some courses and smaller amount of supervised work, some of it optional, which is designed with a view to allowing the trainees to broaden the knowledge acquired in their first year;
- About six months on-the-job training in a statistical office or in an African organization for population research;
- The preparation of a dissertation on the subject which must be approved by the Institute.

The various subjects taught include:

- Demography
  - Auxiliary subjects
  - Complementary subjects.
- (1) The demographic subjects cover the various stages in the study of population, in the following courses:
- Introduction to demography;
  - Concepts utilized in demography;
  - Collecting demographic data;
  - Computerizing demographic data;
  - Demographic analysis. This is the most important course and includes:
    - . Tools of analysis -
    - . The structure of the population -
    - . Mortality, morbidity -
    - . The birth rate, the fertility rate -
    - . The marriage rate -
    - . Migration, urbanization -
    - . The rate of growth of the population
  - Population models
  - Analyzing incomplete data
  - Population forecasting
  - Population policies
- (2) The auxiliary courses include those which are needed for a good understanding of the courses in the first category. They include:
- Sociology
  - Economics
  - Mathematics
  - Calculus of probabilities
  - Statistics
  - Computerization
  - Sample surveying
  - Birth control
  - Research methods
  - English
- (3) Finally, in the complementary subjects, some matters are developed to put the finishing touches on the basic education received. These courses, which are optional, are as follows:
- Study of the active population
  - Socio-demographic counts
  - Population and resources
  - Literacy
  - Health

- Geography
- Ecology
- Genetics
- Mathematical demography

C. Research carried out at IFORD

It is still too early to talk about a research programme for the Institute since the first priority task was to organize the course of study described above. However, proposals may be submitted now for the two or three kinds of research described earlier and for the study of methods and topics. The following subjects may be proposed for research; all of them seem to correspond to problems which have long been present in most African countries and whose study is likely to add new facts to the body of knowledge:

(1) The study of methods

- Registering vital statistics and conducting administrative censuses;
- Determining ages;
- Definition of concepts (housing, households, vocation, ...);
- Problems confronted in studying migration;
- Follow-up observation, two-stage collection.

(2) The study of Topics

- Infant mortality (on the basis of age, sex, living conditions, age at weaning)
- Fertility differentiation in urban and rural areas;
- Sterility
- Maintaining a balance between population and resources and the way in which the population redresses imbalance (migration, birth control);
- Urbanizing and employment in urban areas;
- Migration between rural areas (seasonal migration of labour, re-settlement in new areas, etc.).

As far as research is concerned, IFORD has a number of functions:

- At first the Institute will in all probability carry out its own field research, mostly in Cameroon, using its own research workers and students;
- The Institute will also be able to advise countries, at their request, as to ways of carrying out surveys or population studies.
- In the middle term, the Institute's role will have to be one of providing the incentive and co-ordination needed to initiate multinational research programmes since such comparative studies (in time and in space) contribute a great deal to the

advance of knowledge. IFORD will probably also play an important rôle by giving scientific advice in the establishment of demographic departments in the national research institutes which are to be created in a number of countries.

#### IV. SOME PROPOSALS

By way of conclusion, we will set forth several proposals which, together with the growth of the Institute's activities, should contribute substantially to demographic training and research in French-speaking Africa:

- A. Action should be taken at universities with a view to systematizing the teaching of demography especially by co-ordinating it with the study of economics, sociology, geography and medicine. The teaching staff at IFORD should also be able to handle some of these subjects. It might also undertake the preparation of a textbook designed for this type of education.
- B. Demography could be made to play a larger role in statistical training schools perhaps by making it an optional subject. The following distribution of work might for example, be suggested:

|                        | <u>Courses</u>                         | <u>Supervised work</u> |
|------------------------|--|------------------------|
| Technicians            |  |                        |
| Technical assistants   | 25 hours                               | 25 hours               |
| first year             | 30 hours                               | 30 hours               |
| second year            | 30 hours                               | 30 hours               |
| I Junior Statisticians |  |                        |
| first year             | 30 hours                               | 30 hours               |
| second year            | 30 hours                               | 30 hours               |
| third year             | 50 hours at the<br>students discretion |                        |

- C. Co-operation between demographers and administrators must be encouraged so that the administrative sources of demographic data (administrative censuses, registration of vital statistics, various files....) may be improved. Such co-operation could be initiated in training courses or seminars attended by both administrators and demographers. For example, a training course might be held on the registration of vital statistics and attended by those responsible for collecting vital statistics and statisticians and by demographers using these statistics.
- D. This co-operation could be facilitated by making administrators aware of demographic problems, which could be done, inter alia, by systemizing the teaching of demography in national administrative schools.

- E. Finally, contacts between demographers in the field should be furthered by circulating reports systematically, by recreating an African demographic journal and by publishing a yearbook of African demographers and demographers specializing in African problems. In this connection, every effort should be made to promote contacts between English and French-speaking demographers and, in so far as possible, to bridge the language gap which Africa has inherited from its colonizers. It seems to us that such measures would make it possible for demography in French-speaking Africa and Madagascar to reach a new phase in its middle-term development.

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