

Groupe de Démographie Africaine

IDP_INED_INSEE_MINCOOP_ORSTOM

**POPULATION SIZE
IN AFRICAN COUNTRIES :
AN EVALUATION**

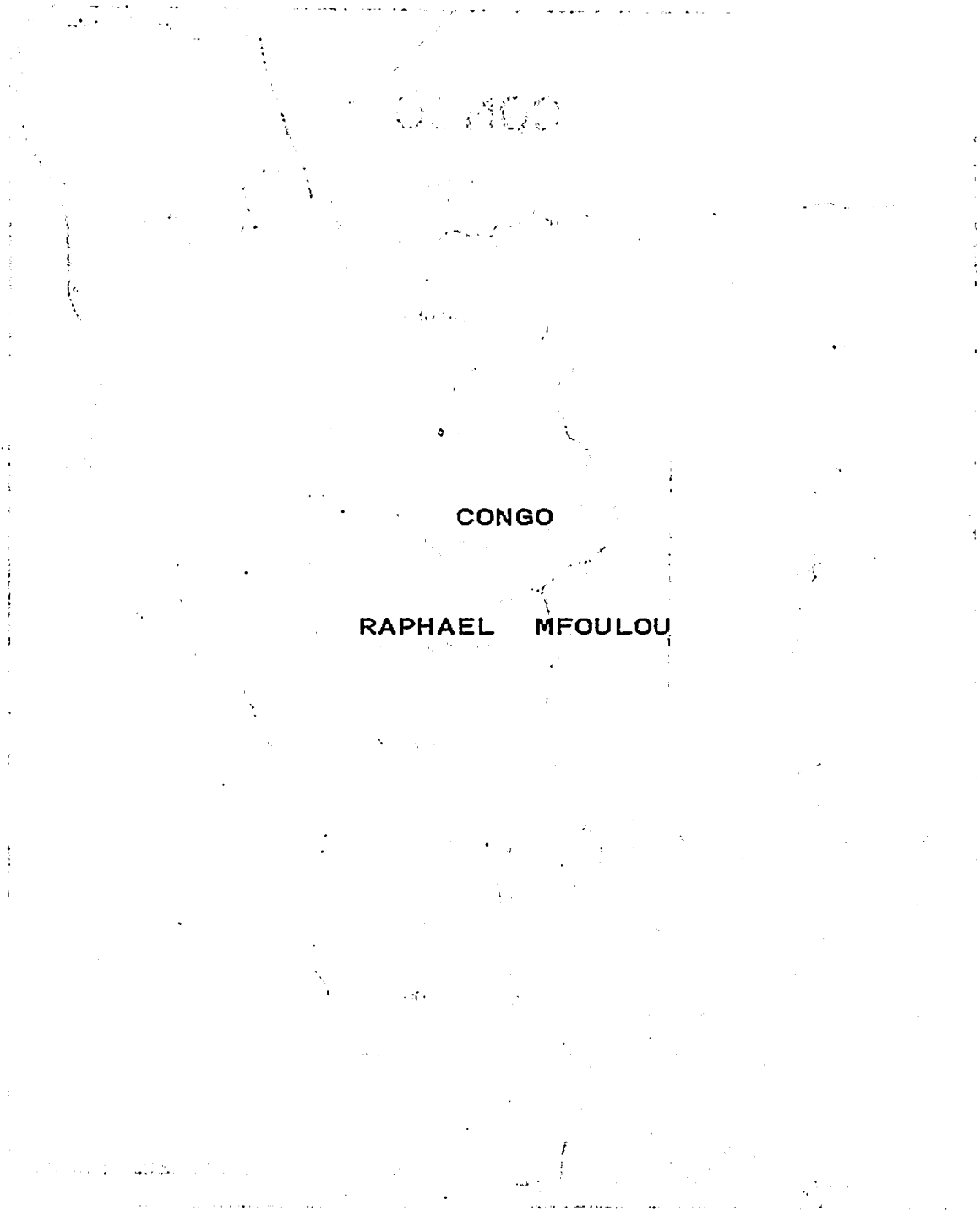
Volume II

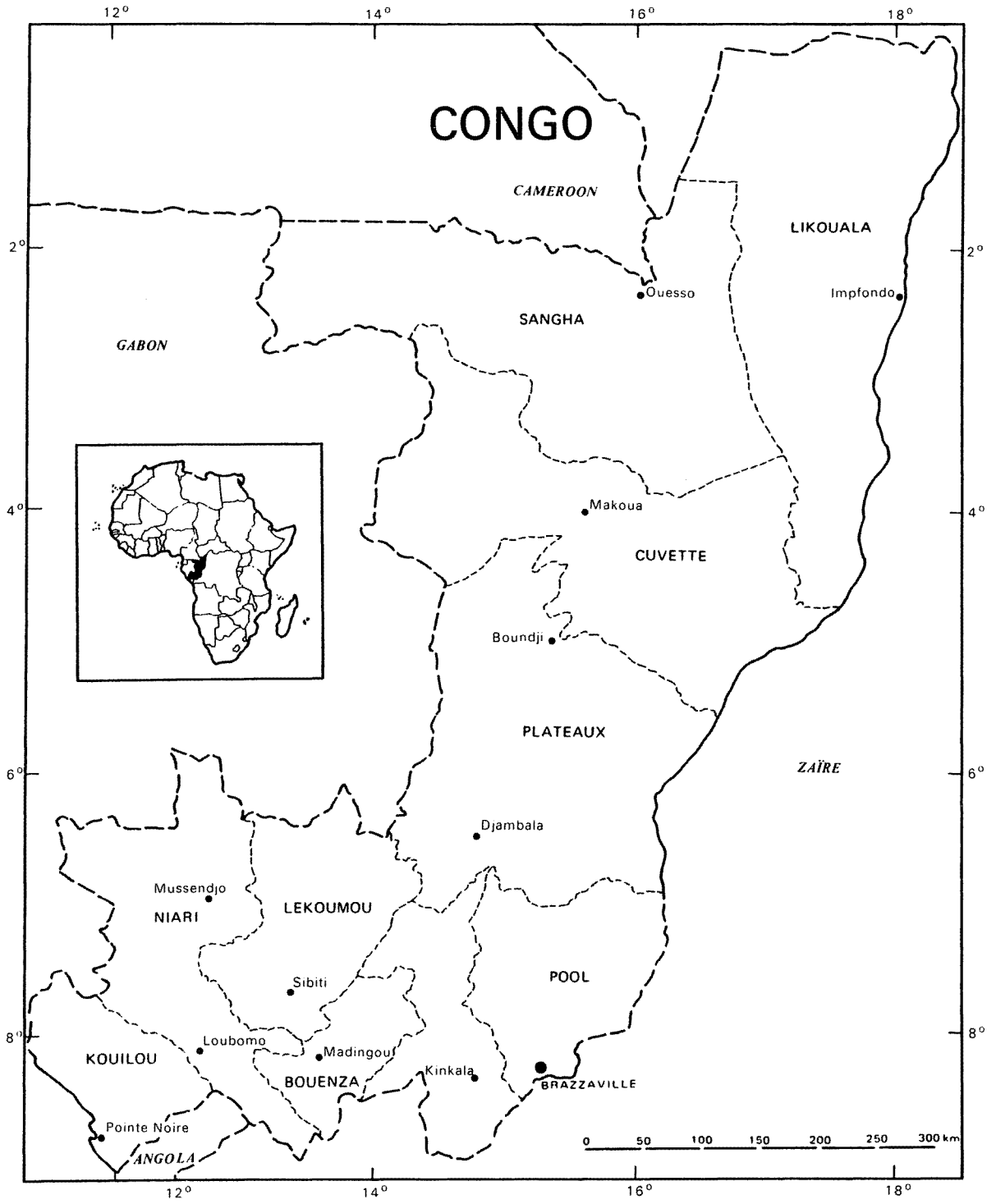
Paris

1988

TABLE OF CONTENTS

	Page
Foreword	I
Algeria by M. MAZOUZ	1
Benin by C. ADJAHOUTONON & J.P. TOVIESSI	13
Botswana by G.S. FINCH, E. JORGENSEN & P.O. WAY	23
Burkina Faso by N. DAKUYO & H. LOUGUE	37
Burundi by S. BARANDEREKA & A. BERCIU	49
Cape Verde by C. CONIM	71
Central African Republic by D. PANTOBE	91
Comoros by F. TALLON	115
Congo by R. MFOULOU	123
Gabon by M.D. FRANCOIS	141
Ghana by L. GOARNISSON	155
Lesotho by D. TABUTIN & E. VILQUIN	173
Libya by K.V. RAMACHANDRAN	183
Mauritania by G. NOEL	199
Sao Tomé and Príncipe by N.A. MORGADO	217
Senegal by A. SADIO	227
Sudan by K.V. RAMACHANDRAN	237
Tanzania by M.P. THIRIAT	253
Tunisia by C. TARIFA	275
Uganda by M.P. THIRIAT	299
Zimbabwe by L. GOARNISSON	315
Conclusion by F. GENDREAU & L. GOARNISSON	335
Authors	395
List of Tables	399
List of Figures	409
List of Maps	413
Contents of Volume I.	417





C O N G O**I. INTRODUCTION**

Before Independence, apart from the 1954-1955 census of the African population in the urban conglomeration of Brazzaville, the Congolese population had only undergone simple counts, all of which fell within what are known as 'Administrative Censuses'.

Congo first began its population surveys and censuses of a scientific nature in the 1960s with a general population survey divided into three sections:

- 1. Census of the town of Pointe-Noire (1958-1959);
- 2. National Population survey (1960-1961);
- 3. Census of the town of Brazzaville (1961).

These were followed by the general population census of Congo in 1974 and two population sample surveys which are worth citing.

There were two organizations at the origin of these operations, the 'Centre National de la Statistique et des Etudes Economiques' (CNSEE) and the Human Sciences Department of ORSTOM in Brazzaville. Before Independence, statistical operations were conducted by the National Department of Statistics and assisted technically by INSEE.

We have purposely not mentioned numerous studies of monographic nature where the main subject was not the population from a demographical point of view.

II. DATA SOURCES AND MAJOR PROBLEMS

The main sources of population data in the People's Republic of Congo are:

- Administrative censuses;
- Population surveys;
- Population censuses;
- Civil Registration;
- Health reports,
- Other Sample Surveys.

1) Administrative Censuses

Prior to Independence administrative censuses were the only source of data capable of giving an estimate of the total Congolese population on a national level. Indeed, the colonial authorities went ahead, once a year, with a general count of the population in every administrative district, in order to identify, on the one hand, those liable for taxation, and, on the other hand, the young healthy people who could be called upon either for heavy construction work of the infrastructures, or for the army, or for work in the plantations.

The population was grouped together in the centre of the village in families in order to carry out these censuses and every individual was reviewed. The data was collected in a village register where one page was given to the enumeration of the members of each family; the following characteristics were recorded for each individual: name and forenames, sex, relationship to the head of the family, age, health and situation in relation to tax.

Around 1956-1958, printed registers following these models were used for the first time for the entire territory of Mid-Congo. Subsequently, due, on the one hand, to the exorbitant cost of printing these documents and, on the other hand, to the arrival of national officers at the head of the administrative districts (Independence), these good intentions were doomed to complete failure. Lacking new documents, the old documents were re-used for further censuses: they consequently became illegible. Soon the new administrators were faced with many difficulties: difficulties due to deterioration in the means of communication, to the inadequacy of available means, to an increasingly incompetent personnel at all levels of the hierarchy, to the thoughtlessness, or the voluntary, or involuntary irresponsibility of certain administrators etc.

The main result of this state of affairs was the pure and simple abandonment of administrative censuses in the majority of administrative districts. As regards the results, in the best of cases, these were included in the annual administrative reports in the form presented in Table 45.

In reality, the work was not always presented in this way: the administrative reports, in general, only provided the total population in the district, distributed simply according to sex. There were no comments on how the field operations were carried out. Sometimes, it was merely a question of empirical estimates since it was necessary to give a figure for the population. The rules of simultaneity, homogeneity and universality within a given territory, which characterize population censuses, were by no means respected here. Moreover, the reference population is not defined since the natives of an area, who were recorded at a given time in this area, continue to be so even after they have permanently emigrated and are enumerated in their new residential area.

In these conditions, it is difficult to use the data from this source to give a reliable estimate of the total population.

TABLE 45 - CONGO - RESULTS OF THE ADMINISTRATIVE CENSUS OF THE PREFECTURE OF BOUENZA-LOUESSE (1957)

S/PREFECTURE	MALE			FEMALE			TOTAL
	0 to 18 years	19 to 59 years	60 years and over	0 to 18 years	19 to 59 years	60 years and over	
SIBITI	4 766	4 388	546	4 745	5 984	567	20 996
ZANAGA	2 241	2 818	283	2 014	3 553	407	11 316
KOMONO	2 802	3 554	607	2 557	4 088	838	14 446
TOTAL	9 809	10 760	1 436	9 316	13 625	1 812	46 758

2) Population Surveys

a) The National Population Survey (1960-1961)

The national population survey was a sample survey carried out over the entire territory except in Brazzaville and Pointe-Noire. The field operations which began in September 1960, were completed in February 1961. The objectives fixed for this survey were the following:

- Estimate of the total population size;
- Determination of the geographical distribution of the population, the characteristics of the structure and growth of the population.

This survey, the first of its kind, was intended to collect demographic data, which, until this period, were totally inexistent.

The sampling frame was constituted by a list of the villages provided by the different local administrations. All the villages of the same sub-prefecture were classed by land or district, with the following principal characteristics for each: total population size, principal ethnic groups, agricultural activities, social, health and economic infrastructures...

A primary stratification of these villages was conducted by distinguishing the villages with less than 500 inhabitants from those with 500 and over.

For the villages of less than 500 inhabitants, the national territory was divided into eleven strata, taking the following criteria into account: vegetation, soil, climate, type of village, principal ethnic groups. However, within each stratum the villages remained grouped by sub-prefecture. In each defined stratum, village clusters with a total of approximately 250 inhabitants were constituted; villages of more than 250 inhabitants were divided into two. Village clusters were then drawn systematically with a sampling fraction equal to 1/10th.

All the villages of 500 or more inhabitants were considered as constituting one stratum: the 12th. The sample in this stratum was drawn systematically (one village out of every three), from a list of the villages classed according to sub-prefecture.

This sampling plan, which seems quite simple to implement, encountered many problems in the field, to such an extent that it is extremely difficult to understand through the survey reports, which sampling plan was actually applied in the field.

The first difficulty was due to the poor quality of the sampling frame and to the inadequate cartography work; very frequently, villages which had moved, or dispersed, or even entirely disappeared, posed numerous problems for constituting the sample in the field.

False estimates of population size also posed problems for the enumerators who came across sample clusters with well over 500 inhabitants: this gave rise to numerous difficulties of a psychological order within the population groups who did not understand the reasons for the various divisions. As a result such clusters were enumerated either partially, as planned, or entirely, or simply omitted.

A third difficulty arose from the fact that population was not sufficiently aware of the problem. On numerous occasions, inhabitants of one or several villages systematically refused to cooperate.

A very appreciable modification in the sampling plan was decided upon during the realization of the data collection. It was decided that all the administrative centres, the industrial, agricultural and mining centres and the railway stations should be enumerated completely because of the notable increase in their population. Unfortunately, it was not possible to systematize this procedure through lack of additional funds.

b) Other Population Surveys

These were essentially surveys carried out either by the National Department of Statistics, or by the Human sciences department of ORSTOM.

The first procedure of this kind was the socio-demographic survey of Pointe-Noire in 1961-1962 carried out by ORSTOM. This survey was repeated in 1970. It essentially aimed to bring to light the components of the urban growth of the town of Pointe-Noire - natural and migratory movement and the extension of the urban area. - After data analysis, the author presented a model for population trends in Pointe-Noire.

The second was the permanent pilot observation of demographic events in the area of Lékoumou (1972-1975). This was carried out by the National Department of Statistics and ORSTOM, in collaboration. It was an assay intended to test the technical, material and human conditions to be introduced to ensure a permanent collection of basic demographic data. It used the technique of multiround surveys. Three rounds were carried out at one year intervals on a sample of approximately 6,000 people. The first was in fact constituted of the exhaustive census of the population of the area. It was on the spot that the sampling frame from which the sample was taken was elaborated.

This survey enabled a complete study of the main demographic characteristics of the area: natality, fertility, mortality and migration.

The demographic-sociological survey of Brazzaville (1974-1977) which was carried out by ORSTOM was also a multiround survey. Its objectives were the same as the Pointe-Noire survey already cited.

At present, the National Department of Statistics is carrying out a multiround survey on infant and child mortality in Brazzaville. Field collection operations are to last three years; the methodology used is that defined by IFORD in Yaoundé.

3) The Population Censuses

a) The African Population Census of Brazzaville, 1954-1955

This is a procedure which is now only of historical interest, since in Brazzaville itself there is no available documentation. However, it is known that it was carried out by the National Department of Statistics, and that the census used individual schedules.

b) The Population Census of the Town of Pointe-Noire 1958-1959

The population census of the town of Pointe-Noire in 1958-1959 was the first real population census carried out by the National Department of Statistics. It benefited from the technical support of the French Cooperation Ministry. It did not give satisfactory results for the study of population growth; but data on state and structure are better.

c) The Population Census of Brazzaville 1961

After the national population survey in 1960-1961, the idea of an estimate of the overall characteristics of the Congolese population led the political authorities to demand a population census for the town of Brazzaville, since a few years previously a census had already been carried out in Pointe-Noire. These three operations used similar documents and the basic concepts were defined in the same way. However, it seems that the operation was generally better prepared for Brazzaville.

For these two operations, reports were published which briefly described the conditions in which data collection was conducted in the field, an analysis of the collected data with the main results obtained and a series of detailed statistical tables.

d) The General Population Census of 1974

The general population census of 1974 fits into the framework of both the United Nations African Population Census Programme of 1970 (EAC) and the joint programme of the countries of the 'Union Douanière et Economique de l'Afrique Centrale' (UDEAC) for the collection of demographic data. This programme was called the 'Programme of permanent observation of demographic events' (see decree n° 7/70-UDEAC-145 of December 18th 1970).

The 1974 census changed from the initial comprehensive survey (with a very short questionnaire) of the programme of the UDEAC countries, to become a standard census procedure using a lengthy questionnaire with

retrospective questions on natality, fertility and mortality. The objectives of the census may be summarized as follows:

- Determination of the total population size, of its geographical distribution and its principal structural characteristics;
- Estimation of the characteristics and indices of population growth;
- Constitution of a sampling frame for future population and statistical surveys and the establishment of a list of villages with the aim of producing a national village register;
- Brief study of the housing characteristics in large towns.

The preparatory work began in September 1971 with, in particular, the realization of a trial census in March 1972 in the area of Lékoumou. This operation was essentially intended for:

- Defining, then testing, an appropriate method for a general census, by correctly identifying the different parameters to be considered: efficiency of basic concepts, questionnaires and other forms used in the census, control procedures, organization of fieldwork teams, enumerators' pace of work, means of transport and other logistic aids, training programme for the staff, publicity etc.
- Assessing the costs of such an operation on a national level in order to be able to plan efficiently the necessary funds for its realization;
- Ensuring training and sound command of the various procedures for Department of statistics leaders.

All the preparatory work (cartography, elaboration of the basic concepts and documents, printing of the questionnaires, trial census etc.) took just over two years.

The period of data collection was basically marked by material problems - insufficient means of adequate transport - which prolonged, by varying degrees in the different areas, the duration of the data collection. In general, the actual enumeration process took from 12 days - Brazzaville, Pointe-Noire, Loubomo, Nkayi, Ouessou and Owando - to 30 days elsewhere. However, in the marshy areas of the Congolese Basin, communication problems were such that the operations took almost two months. This was the case for the area of Likouala, the districts of Loukolela and Mossaka and the administrative control posts of Makotimpoko and Picounda.

4) Civil Registration

Civil registration, like the administrative censuses, dates back to the colonial era. Decree n° 57/58 bore legal measures imposing all citizens to declare the following to the civil registration: birth, legitimation and recognition of children, death, marriage, divorce. It also bore two articles which gave the administrators the right to create as many secondary civil registration centres as was necessary to adequately cover the territory for which they were responsible. Naturally, the principal civil registration centres were located in the county towns of the area or district and in the quarters of the urban communes.

At the present time, it is not incorrect to state that civil registration in Congo does still not constitute a reliable source of demographic data. In the large towns, Brazzaville and Pointe-Noire, where the coverage of civil registration has reached a satisfactory level, the lack of training of civil registration auxiliaries and the poor keeping of the registers sometimes exclude the use of data from this source.

5) Health Reports

Legal measures oblige all mothers to give birth in a health clinic, and the death of a parent to be certified by a doctor from the nearest medical centre before the burial of the body. In these circumstances, the periodical health reports would seem to form a source of demographic data. In practice, it is not possible to use this source:

- The health reports are not always available;
- When they are available - as is the case for the hospitals of Brazzaville, Pointe-Noire and Owando - they only record the events which arose within their own centre; they are, above all, activity reports.

This poses a problem of geographical coverage in a given area, related to a certain extent, to the rate at which the events in question arose in health centres and the attendance ratio of these centres. These two factors clearly depend on health coverage in the country (geographical distribution of the infrastructures).

6) Other Sample Surveys

Other statistical surveys which offer, apart from their principal results, information about the population - size, structure by sex and age, marital status etc. - are very limited. The following can be cited:

- The Jacob (now Nkayl) Household-Budget Survey in 1965 by the National Department of Statistics;
- The 1967 census of the expatriated population of Brazzaville by the National Department of Statistics;
- The 1972-1973 Agricultural Census - sample survey - carried out by the Statistics Department of the Ministry of Rural Economy;
- The sample survey on the Activity Rate in Brazzaville in 1972, carried out by the National Department of Statistics.

III. POPULATION GROWTH

1) Demographic Indicators

In the absence of at least two complete coverage censuses carried out over the entire territory of Congo, it seems important to continue with a short examination of the main population factors available from the surveys and censuses mentioned above.

It can be pointed out, from the data in Table 46, that, in general, most of the indices of population growth, and in particular those of

mortality and migration, could not be determined from the operations carried out in the 60s; data on fertility, after modification, enabled certain characteristic indices of the phenomenon to be obtained.

Finally, it was the 1974 general census and the Brazzaville and Lékoumou surveys, which provided the possibility of a better evaluation of the components of population increase in Congo. However, it should be pointed out that the census data had to be adjusted using appropriate techniques in order to give plausible results.

From an analysis of this data it can be seen that:

- Mortality is a phenomenon which is steadily decreasing, even if the present level is still relatively high. There are regional differences; in the large towns, in particular, where the principal socio-cultural and health infrastructures of the country are concentrated, and mortality is considerably lower.
- Fertility is on the increase, mainly due to the improvement of general living conditions (hygiene and health education, more help for the mother and child, schooling, housing, income etc.). The decline in polygamy, especially in the rural areas, had also contributed to a certain extent to the rise in fertility. In Congo, natural fertility is the rule. Very few couples in fact use a method of birth control. Fertility seems to be the highest in large towns.
- Migration (international migration) is still very vague in Congolese demography. Not only has no study ever been undertaken in this domain, but, statistics are, moreover, almost non-existent.

TABLE 46 - CONGO - DEMOGRAPHIC INFORMATION AVAILABLE IN 1975

SOME INDICATORS	1960-1961 CONGO RURAL ZONE SURVEY	1961 BRAZZAVILLE CENSUS	1958 POINTE NOIRE CENSUS	1962 POINTE NOIRE SURVEY	1972-1973 LEKOUYOU MULTIROUND SURVEY	1974 CONGO CENSUS	1975-1977 BRAZZAVILLE MULTIROUND SURVEY
- Crude Birth Rate ‰	41.1	50.1	xx	58.4	38.2	47.3	41.0
- Crude Death Rate ‰	24.4	xx	xx	xx	23.6	17.9	11.7
- Natural increase Rate ‰	1.7	3.2	xx	xx	1.46	2.9	2.9
- Infant Mortality Rate ‰	xx	xx	153	110	133.0	124.9	69.1
- Life Expectancy at Birth (years)	xx	xx	xx	39.2	43.2	46.8	53.7
- General Fertility Rate ‰/‰	138	219	201.6	243	172	206.6	198
- Gross Reproduction Rate	2.6	3.1	2.6	3.3	3.3	3.4	3.0
- Net Reproduction Rate	xx	xx	xx	xx	2.3	2.4	2.5
- Average Age at Child- bearing (years)	28.4	27.9	xx	xx	27.6	29.7	28.5
- % under 15s	41.3	45.0	41.5	46.8	38.6	15.9	49.8
- % 15-19 years	53.4	53.7	55.7	50.7	52.0	49.2	48.4
- % 60 years and over	5.3	1.3	2.8	2.5	2.4	4.9	1.8

xx : No reliable estimate of the indices was obtained.

At the time of the French Congo, between 1920-1940, past history reveals a strong immigration, in most cases forced, of Chad and Oubanguian populations coming to Mid-Congo, particularly for the construction of the ports of Brazzaville and Pointe-Noire and the Congo-Ocean railway. It is also to be recalled that Brazzaville, which was for a long time the capital of the former 'A.E.F.', accommodated most of the federal structures, the creation and running of which drained populations from Chad, Gabon, Oubangui and even Cameroon.

Independence movements in the 60s, on the other hand, completely changed the direction of this type of migration: everyone returned or was sent back to his native country.

Once again, there are no figures to show the extent of these changes. Nowadays, it is highly probable that external migration is low and that its effect on the population growth of the country is insignificant compared with growth due to natural increase. This observation is principally founded on the communication difficulties between the States (lack of adequate communication routes) and on the ponderous and complicated entry and exit formalities at the State borders; all these procedures making free circulation between neighbouring States extremely difficult.

2) Estimate of the Population Size in Congo

Since Congo only underwent its first complete coverage census in 1974, any figures before this date are mere estimates, the accuracy of which depends on the value of the source and the efficiency of the techniques used.

Table 47 gives three estimates for the population of Congo at three different periods. In fact, numerous estimates exist which are not given here.

The first estimate, that of 1957, is based on the administrative reports of the prefectures for that year. This data was used for the preparation and organization of the National Population Survey of 1960-1961. The administrative reports of the prefectures did not all give population figures, the missing figures were therefore either assessed somewhat empirically, or purely and simply omitted.

The second estimate, that of 1961, was obtained from the results of the Pointe-Noire and Brazzaville censuses and the National Population Survey. For each of these three sub-populations, it was necessary to make certain hypotheses on the annual growth rate in order to obtain a figure for the total population at a same date. The following growth rates were used:

- Brazzaville	5.6% per year;
- Pointe-Noire	8.1% per year;
- Remainder of the country	1.2% per year.

The final estimate of population size dates back to the General Population Census of 1974.

Taking these three figures to be valid, they would then reflect the following population trends over the period, in terms of mean annual growth rate:

- 1957-1961 period	0.8%
- 1957-1974 period	3.1%
- 1961-1974 period	3.8%

There is clearly a certain inconsistency in the data used, as although the first rate is very low, the second and third are, on the other hand, extremely high. This can only be justified by considering that the population was largely underestimated in 1957 and 1961.

In order to remedy this situation, the evolution of the Congolese population has been traced back from recent data (1972-1977) and the United Nations models on the evolution of fertility and mortality in the area. The annual growth rate for the different periods was thus determined, which enabled Table 48 to be drawn up. Population forecasts have also been calculated for the period 1980-2000 and the principal results are given in Tables 49 and 50.

IV. CONCLUSION

Throughout this document, we have tried to demonstrate that, up to a certain period, it was extremely difficult to assess the population of Congo. In general, this was due, on the one hand, to the low number and poor quality of the population surveys and censuses, and, on the other hand, to insufficient national statistics machinery. This situation is not peculiar to Congo. It is characteristic of most of the francophone African countries south of the Sahara in the years following independence.

The United Nations, by declaring 1970 to be the year for population censuses, marked a watershed in the demographic history of these countries. In Congo this change was to be seen at the Governmental level through the adoption of a programme for permanent observation of demographic events which was advocated by the 'Union Douanière et Economique de l'Afrique Centrale' (UDEAC), and for which the General Population Census in 1974 and the 1972-1973 Survey in Lékoumou were the beginnings. At present, this programme is under way. with the implementation of a project which aims, firstly, to improve the recording and statistics of vital events, and, secondly, to prepare the next general population census, planned for 1984.

Thus, whilst it may be difficult to assess the past, the future shows more favourable signs, and the richer and the more varied the results of future surveys, the higher the standard of estimates of past populations will be.

TABLE 47 - CONGO - POPULATION TRENDS ACCORDING TO DATA SOURCES AND SIZE OF PLACE OF RESIDENCE

(thousands of inhabitants)

SIZE OF PLACE OF RESIDENCE	1957 ADMINISTRATIVE CENSUS	1961 DEMOGRAPHIC SURVEY AND CENSUS OF BRAZZAVILLE AND POINTE NOIRE	1974 GENERAL CENSUS
Less than 500 inh.	535.7	497.8	460.9
500 to 4 999 inh.	83.2	92.4	231.2
5 000 to 29 999 inh.	9.5	19.9	184.8
30 000 and over	154.0	198.7	442.8
TOTAL	782.4	808.8	1 319.7

TABLE 48 - CONGO - POPULATION TRENDS FROM 1950 TO 1980

(thousands of inhabitants)

YEAR	POPULATION SIZE
1950	815
1955	885
1960	960
1965	1 070
1970	1 183
1975	1 351
1978	1 468
1980	1 546

TABLE 49 - CONGO - OVERALL FORECASTS FOR POPULATION TRENDS ACCORDING TO SEX

YEAR		HIGH VARIANT	AVERAGE VARIANT	LOW VARIANT
1980	Male	744 862	744 379	743 164
	Female	806 799	806 503	802 785
	Total	1 551 661	1 550 882	1 545 949
1985	Male	850 462	847 652	843 809
	Female	918 576	916 707	910 697
	Total	1 769 038	1 764 359	1 754 506
1990	Male	974 247	966 816	957 662
	Female	1 046 914	1 042 034	1 034 008
	Total	2 021 161	2 008 850	1 991 670
1995	Male	1 119 302	1 107 627	1 086 367
	Female	1 193 145	1 184 604	1 168 022
	Total	2 312 447	2 292 231	2 254 389
2000	Male	1 288 519	1 272 939	1 234 689
	Female	1 358 532	1 346 781	1 326 290
	Total	2 647 051	2 619 720	2 560 979

TABLE 50 - CONGO - FORECASTS FOR POPULATION TRENDS BY LARGE ADMINISTRATIVE UNITS (1974 FRONTIERS; average variant)

ADMINISTRATIVE UNITS	1974 (a)	1975	1980	1985
BOUENZA REGION	117 759	120 551	128 798	140 608
BRAZZAVILLE	302 459	309 755*	422 402	480 544
KOUILOU REGION	73 296	75 141	76 275	80 426
LEKOUMOU REGION	60 110	61 492	62 732	70 997
LILOUALA REGION	30 010	30 678	31 925	35 985
LOUBOMO	28 577	29 192	30 833	35 566
NIARI REGION	99 750	102 171	106 383	119 766
NKAYI	28 957	29 597	32 518	42 727
POINTE NOIRE	140 367	143 661*	185 105	236 584
POOL REGION	188 637	193 124	208 416	226 919
REGION OF THE BASIN	114 535	117 307	121 471	131 783
REGION OF THE PLATEAUX	96 148	98 657	102 667	115 840
SANGHA REGION	39 185	40 138	41 357	42 614
WHOLE OF CONGO	1 319 790	1 351 464	1 550 882	1 764 359

* The figures marked with an asterisk have been corrected so as to take into account the mass expulsion of illegal immigrants of principally African origins.

(a) The data for 1974 are those provided by the 1974 General Population Census.

BIBLIOGRAPHY

- 1.- "Annuaire statistique 1980", 1981, Brazzaville.
- 2.- **BERTRAND** (H.), "Le Congo, formation sociale et mode de développement" 1975, Maspero, Paris.
- 3.- **COGUERY-VIDROVITCH** (C.) et **SAMIR AMIN**, "Histoire écono-mique du Congo 1880-1968", 1974, IFAN, Dakar.
- 4.- **COURBAGE** (Y.), "Utilisation des décès incomplètement déclarés à un recensement pour estimer les indicateurs de la mortalité: cas du Cameroun, Congo et Togo". March 1980, Colloque de démographie d'Abidjan, vol.3, Abidjan.
- 5.- ¹**DUBOZ** (P.), "Recensement démographique de Pointe-Noire 1958", résultats définitifs, 1961, INSEE, Paris.
- 6.- **DUBOZ** (P.), "Enquête démographique 1960-1961", résultats définitifs, 1965, INSEE, Paris.
- 7.- **DUBOZ** (P.), "Recensement de Brazzaville, 1961", résultats définitifs, 1965, INSEE, Paris.
- 8.- **DUBOZ** (P.), "Etude démographique de la Lékoumou 1972-1973", June 1974, ORSTOM, Brazzaville.
- 9.- **DUBOZ** (P.), "Enquête démo-sociologue à Brazzaville, July 1979, ORSTOM, Bangui.
- 10.- **GANON** (F.), "Enquête sur la mortalité infantile à Pointe-Noire", typed report, July 1959.
- 11.- **MFOULOU** (R.), "La population du Congo: perspectives 1980-2000", May 1980, CNSEE, Brazzaville.
- 12.- "Mouvement naturel de la population à Brazzaville 1960, 1974, 1975", DSCE, Brazzaville.
- 13.- **RAZAFIMANDIMBY** (C.) et **RANDRETSIA** (I.), "La fécondité du Congo d'après les résultats du recensement de 1974", September 1981, Annales no.6, IFORD, Yaoundé.
- 14.- "Recensement général de la population du Congo 1974", tomes I, II, IV, 1978-1980, CNSEE, Brazzaville.
- 15.- **SITA** (S.), "Monographie de la région économique de la Lékoumou", 1969, IPD, Douala.

