POPULATION SIZE IN AFRICAN COUNTRIES: AN EVALUATION

Volume I

Paris
1986
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Country</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction by F. GENDREAU</td>
<td>I</td>
</tr>
<tr>
<td>Angola by C.A. DA COSTA CARVALHO</td>
<td>1</td>
</tr>
<tr>
<td>Cameroon by A. NKOUNGOUROU EBONGUE and E. FOTSO</td>
<td>13</td>
</tr>
<tr>
<td>Chad by O.G. MASSOUR</td>
<td>33</td>
</tr>
<tr>
<td>Djibouti by A GUILLAUME</td>
<td>57</td>
</tr>
<tr>
<td>Egypt by F. DROSSO</td>
<td>67</td>
</tr>
<tr>
<td>Ethiopia by H. TESFAGHIORGHIS</td>
<td>89</td>
</tr>
<tr>
<td>Gambia by M.A. GIBRIL</td>
<td>105</td>
</tr>
<tr>
<td>Ivory Coast by F. BINET and C. PAULET</td>
<td>117</td>
</tr>
<tr>
<td>Kenya by Z.S. MUGANZI</td>
<td>127</td>
</tr>
<tr>
<td>Liberia by A.Z. MASSALEE</td>
<td>137</td>
</tr>
<tr>
<td>Madagascar by T. RABETSITONTA</td>
<td>149</td>
</tr>
<tr>
<td>Mali by H. SOW</td>
<td>183</td>
</tr>
<tr>
<td>Mauritius by E. VILQUIN</td>
<td>193</td>
</tr>
<tr>
<td>Mozambique by C.A. DA COSTA CARVALHO and M. FERREIRA DA SILVA</td>
<td>201</td>
</tr>
<tr>
<td>Namibia by by N.B. GOUWS</td>
<td>209</td>
</tr>
<tr>
<td>Niger by M. ROSET-CASENAVE</td>
<td>217</td>
</tr>
<tr>
<td>Nigeria by A. ADEPOJU and J.A. EBIGBOLA</td>
<td>233</td>
</tr>
<tr>
<td>Reunion by R. CLAIRIN</td>
<td>241</td>
</tr>
<tr>
<td>Rwanda by S. NIYIBIZI</td>
<td>267</td>
</tr>
<tr>
<td>Sierra Leone by A. THOMAS</td>
<td>279</td>
</tr>
<tr>
<td>Togo by T. LOCOH</td>
<td>293</td>
</tr>
<tr>
<td>Zaire by J. BOUTE and L. DE SAINT MOULIN</td>
<td>311</td>
</tr>
<tr>
<td>Zambia by M.S.C. MULENGA</td>
<td>335</td>
</tr>
</tbody>
</table>

Contributors 351
List of Tables 353
List of Charts 361
List of Maps 363
TOGO

Thérèse Locoh

JULY 1979
T O G O

I. INTRODUCTION

Togo inherited its present day frontiers from the negotiations between England and France after the First World War over the partitioning of the former German "Togoland". The western part of this territory was placed under British mandate and was later united with the Gold Coast. It was the French Togoland which became the Republic of Togo in 1960.

The first estimates of the population of Togo within its present day frontiers were made after 1920. The German administrative authorities left no information about censuses or regional estimates which could make it possible to assess the population of the territory entrusted to France in 1919.

Under French mandate, nominal censuses took place between 1921 and 1931, followed by periodic updates by region. It is only after 1958, when Togo was established as an autonomous republic, that the first census was carried out (spread over the period from 1958 to 1960), followed by a sample survey in 1961. The second national census took place in April 1970 and was followed by a post-enumeration survey in April 1971. A third census is scheduled for December 1980.

II. SOURCES OF DATA AND CRITICAL STUDY

1) Censuses in the colonial period

From 1921 onwards, France, as protecting authority in Togo, occupied itself with the enumeration of the population and also, by rudimentary means (most of the time surveys made by military doctors) in the study of natural population change. From 1921 to 1936, the "Rapports du Gouvernement Français à la Société des Nations sur l'administration des territoires du Togo" regularly devoted a chapter to demographic statistics. From 1937 until 1957, date of the last "rapport", only statistical tables of population size are found without any analysis or detailed account, as was the case in the early period.

a) Critical study of administrative censuses

Chart 11 and Table 90 show the successive estimates of the population of Togo as from 1922. From an estimated figure of 727,741 in 1922, the population of Togo under French mandate was evaluated at 1,092,889 in the middle of 1957.
Table 90

TOGO - SUCCESSIVE ESTIMATES OF THE POPULATION BETWEEN 1922 AND 1957 - ADMINISTRATIVE CENSUSES

<table>
<thead>
<tr>
<th>YEAR</th>
<th>POPULATION</th>
<th>YEAR</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1922</td>
<td>727 741</td>
<td>1940</td>
<td>818 315</td>
</tr>
<tr>
<td>1923</td>
<td>762 208</td>
<td>1941</td>
<td>850 219</td>
</tr>
<tr>
<td>1924</td>
<td>747 139</td>
<td>1942</td>
<td>864 697</td>
</tr>
<tr>
<td>1925</td>
<td>744 285</td>
<td>1943</td>
<td>893 440</td>
</tr>
<tr>
<td>1926</td>
<td>742 428</td>
<td>1944</td>
<td>899 614</td>
</tr>
<tr>
<td>1927</td>
<td>747 146</td>
<td>1945</td>
<td>912 425</td>
</tr>
<tr>
<td>1928</td>
<td>747 146</td>
<td>1946</td>
<td>918 644</td>
</tr>
<tr>
<td>1929</td>
<td>730 575</td>
<td>1947</td>
<td>921 884</td>
</tr>
<tr>
<td>1930</td>
<td>725 580</td>
<td>1948</td>
<td>944 446</td>
</tr>
<tr>
<td>1931</td>
<td>749 419</td>
<td>1949</td>
<td>971 824</td>
</tr>
<tr>
<td>1932</td>
<td>750 995</td>
<td>1950</td>
<td>982 263</td>
</tr>
<tr>
<td>1933</td>
<td>753 300</td>
<td>1951</td>
<td>998 660</td>
</tr>
<tr>
<td>1934</td>
<td>762 156</td>
<td>1952</td>
<td>1 014 669</td>
</tr>
<tr>
<td>1935</td>
<td>762 947</td>
<td>1953</td>
<td>1 029 946</td>
</tr>
<tr>
<td>1936</td>
<td>735 606</td>
<td>1954</td>
<td>1 052 318</td>
</tr>
<tr>
<td>1937</td>
<td>763 360</td>
<td>1955</td>
<td>1 069 584</td>
</tr>
<tr>
<td>1938</td>
<td>780 170</td>
<td>1956</td>
<td>1 084 032</td>
</tr>
<tr>
<td>1939</td>
<td>?</td>
<td>1957</td>
<td>1 092 889</td>
</tr>
</tbody>
</table>


The estimates shown in Table 90 are those of the "indigenous" population; foreigners, mainly French and Lebanese, account for only a small proportion of the population (from 2 to 3 000 people) during the period French mandate.
CHART 11  TOGO
EVOLUTION OF THE POPULATION 1921-1975

Number of inhabitants

2nd Post-enumeration survey  1-4-1971
2nd Census  1-4-1970
1st Post-enumeration survey  10-1961
1st Census  1958-1960
Suggested estimate of the evolution of population  1931-1960
Administrative censuses  1921-1957

Estimate  1-1-1975

Years

1000
1500
2000
b) Critical study of administrative censuses

Over the decade 1920-1930, the French Government progressively enumerated the population, area by area, and it was not until 1931 that the population census could be considered by the administrative authorities as "complete".

In the report for 1924 [4, p.101], enumeration activities are described as follows:

"A population count will probably have been achieved by 1926 in the areas around Lomé, Atakpalé and Sansanné Mango, but not before 3 years in Sokodé. The conditions in which these activities are carried out require a great deal of patience."

"Depending on the size of the wards and the density of population, censuses have been carried out either by the administrative staff alone, or by native agents under the control of travelling officers. Each village chief is notified beforehand, and he gathers the inhabitants on the appointed day in the village square in the shade of the trees. The families are grouped separately and are presented by their chief. Frequent discussions occur over cases where declarations made are plainly inaccurate; then, the respondent must be submitted to close questioning in order to bring him to divulge the exact composition of his family."

"In fact, the natives generally loathe providing this kind of information, whether by natural carelessness, or intentionally, in order to avoid payment of personal taxes. Under such conditions, one can imagine how slowly the census is carried out."

This description given by the French authorities themselves underlines the approximative nature of the population estimates and the inevitable under-estimation of such counts.

In 1926 [4, p. 71] a control in one village shows an underestimate by 13% in the count of the previous year. Further calculations (see paragraph III.2) show that the under-estimate was certainly even greater.

2) Medical and demographic surveys in the colonial period

In the reports published from 1921 till 1934, demography remains an important topic. In them there can be found not only regional population estimates but also detailed accounts, often by military doctors, of natural population changes. In each area, surveys were carried out on the lifetime fertility of older women and the number of their children still alive at the time of the count.

Unfortunately, these "surveys" show little consistency and it is impossible to draw from them "probable" tendencies of natural population change during the colonial period. The authors' observations vary from one year to another - depending probably more on the individual's personality or the coloniser's political views than on clearly established statistical indications. Moreover, the permanence of two objectives underlying most of the demographic chapters can be distinguished:
The first one is to safeguard the "image" of the protecting government, the second is to make sure that the population is seen to be growing, as the country was always considered as under-populated by the colonial authorities.

In order to achieve the first objective, emphasis is placed on the progress realised in the field of mortality - but with the help of rather questionable statistics. The report of 1922 deplores that "50% of children die before their fifteenth birthday" (probably below the true figure) but in 1924 the "Rapport" acknowledges with satisfaction that "child mortality does not exceed that of some European countries". [4, p.33]

Efforts are also made to prove to the League of Nations that migratory movements towards the Gold Coast were negligible to bolster the idea of good administration of Togo by France (these movements are however confirmed by most of the observers of that period).

Growth of population seems to have been a constant preoccupation of the protecting government whose comments on this subject are clearly populationist. By means of various distributions into large groups or surveys on the offspring of smaller groups of older women, the protecting government endeavoured to classify the regions in terms of whether they were "progressive" (that is to say in terms of demographic growth) or not. The reports underline the numerous offspring of women, a sign of the "vigour of the race". Incidentally, during the first years of the mandate, a warning is given of the damage caused by syphilis against which a medical campaign was led, aimed at fighting sterility. According to the medical reports, the total number of children of the women interviewed averaged 4 to 5, which seems below the real figure. In 1931, the date by which "demographic surveys" were, according to the administration, sufficiently extensive, the natural increase rate varied between 6% and 19% from one area to another. A natural increase rate of around 1% for the decade 1930-40 could probably be accepted as plausible.

In any case, the mass of information contained in the medical reports published between 1921 and 1939 should be treated with a certain reservation by the demographer as the data are too imprecise to provide a basis for trustworthy estimates.

3) Statistical censuses

a) The first General Population Census 1958-60 [8]

The first General Population Census, which was undertaken as soon as the territory became autonomous, had to be spread over time for material reasons. Urban centres were enumerated first, from November 1958 until July 1959, then the rest of the territory, from November 1959 until December 1960. The de jure and de facto populations were recorded. It is the former which are used here. After adjustments had been made to reduce the effects of the spreading of
the census over two years, the population of Togo was estimated at
1 440 000 as at 1st January 1960. The great disadvantage of this first
census is this spanning over two years which militates against the
validity of the overall results. Despite this, the training of the inter-
viewers, and the care with which counting was carried out, give a
relatively good impression of this first demographic collection.

As regards the number of foreigners living in Togo, this can-
not be assessed from the published tables as they do not list inhabit-
ants by nationality of origin but by ethnic groups. Furthermore, these
ethnic groups often overlap the colonial boundaries, which makes it
difficult, even impossible, to distinguish between foreigners and
nationals. In contrast, residents are classified according to whether
they were born abroad or not. In 1960, around 4% of residents outside
urban centres and 21% of the 138 000 inhabitants in the urban centres
were not born in Togo; that is a total of 80 000 people.

It is just as risky to try to estimate the number of Togolese
living abroad. It is well known that the Togolese (like the
Camerounese) provided a large number of employees and administrative
agents in the French-speaking countries of Africa. However, the major-
ity of emigration has been directed towards Ghana (previously called
Gold Coast), a rich country where the exploitation of cocoa provided
numerous jobs and where there was no "forced labour" (various chores
imposed by the authorities) as was the case in French Togoland. The
living in its territory. The Togolese represented one of the most
important groups of foreigners. In 1960, there were in Ghana 280 000
people of Togolese origin of which 104 000 were born in Ghana and
176 000 abroad. It is the latter group which had migrated, as the
people of Togolese origin born in Ghana are for the most part children
of migrant families. Therefore, more than 12% of the population of
French Togoland lived in Ghana in 1960.

Foreigners living in Togo are therefore included in the cen-
sus whereas the Togolese living abroad are excluded from the enum-
eration. The same measures will apply to the assessment of population
during the 1970 census.

b) Second General Population Census [7]

In 1970 Togo launched, with its own resources, its second
national census. The shortage of facilities raised a few problems but
nevertheless collection was completed after 2 months (March/April 1970).
The population (including residents present and absent) was estimated
at 1 950 646, giving a mean annual growth rate of 3% during the inter-
censal period 1960-1970. However, it must be noted that the popula-
tion enumerated during the 1970 census had been inflated by the sud-
den return of 75 000 to 80 000 Ghaneo-Togolese driven out of Ghana
at the end of 1969 by the "Alien Compliance Order" (1).

(1) Legislative measure taken against foreign residents in Ghana and
which hit particularly the Togolese who had settled there.
It is generally admitted that a number of these "refugees" subsequently re-crossed the border, but there are no figures on the size of this movement.

The quality of the personnel directing this census, and its careful preparation, offer a satisfactory guarantee of its statistical validity. There were difficulties to deal with, especially on the financial side, during fieldwork.

The problems posed in this collection are described in detail in the first volume of the 1970 Census. Furthermore, an account of the implementation of this census is in the course of publication [1]. Therefore, the details of the evaluation of the population at that date will not be described here.

4) The post enumeration surveys

The first two censuses of Togo were followed by post-enumeration surveys in 1961 and 1971 respectively, which allows for very interesting comparisons and checks on the consistency of the data. It was during the course of these surveys that data were gathered on natural population change.

a) Demographic Survey 1961 [2]

This first post-enumeration survey took place between August and December 1961, with different sampling fractions according to the types of population (1/5th for Lome, 1/10th for centres with more than 4 000 inhabitants, 1/20th for the rest of the country). This operation seems to have been of a better quality than its predecessor if only because of better timing. One interesting measure was taken during the 1958-60 census: each enumerated person had been provided with a "census form" which was subsequently examined by the enumeration agent, making it possible to establish to some extent a check of the census at the second round.

The 1961 survey estimated the rate of natural increase of the Togolese population at 2.6%, which would have resulted, on the basis of the population estimated at 1 440 000 during the first census, in an "expected" figure of 1 507 000 on 31st December 1961. In fact, at that date, the estimate obtained from the demographic survey is 1 544 000, the difference being attributable to enumeration errors, random sampling errors in the survey or to a positive migration factor, or more probably to a combination of the three elements.

The checking of forms for the 1958-60 census gave, after calculation of natural population changes, a total of 52 000 persons "without forms", a figure which, if lost forms are taken into account, is not far from the difference noted above.
b) **Demographic Survey 1971**

The double enumeration system set up in the 1960s was retained for the 1970s, but the 1971 survey took the form of a multi-round survey at one-year interval (March-April 1971) to estimate population change, which represents a step forward in statistical collection techniques. In the opinion of K. Adognon [1], there may have been a mean interval of 10 rather than 12 months between the two periods of observation. That, at least, can be deduced from the adjustment of raw data on fertility during the period. The principal technical problem during this second survey was the difficulty in relocating a certain number of compounds; this problem could only be solved by assuming that the "missing" compounds were on average not different from those which were found again, an assumption which, strictly speaking, is probably not justified. The 1971 survey showed the Togolese population amounted to 2,017,000 at that date, or more exactly, in the range $\alpha = 0.05$ between 1,967,000 and 2,068,000 inhabitants.

By comparing the two enumerations of 1970 and 1971 according to the multi-round survey technique, a death rate of 18.8% was obtained and a birth rate of 45.3% giving a natural increase rate of 2.65%, identical to that of 1961. The rates observed in 1961 (birth rate: 55%, death rate: 29%) led to the same natural increase rate. As will be seen later (paragraph III), the inter-censal increase rate gives the same result. Although the significant discrepancy between both birth and death rates between the two dates seems to be due to imperfections in recording, it appears that the natural increase is more or less at the level given by the two enumerations.

5) **Census of the "Service National du Paludisme" (National Office for Malaria) (1965-1977)**

In order to plan its prevention measures, the "Service National du Paludisme" undertook a census of overall population independently of the Statistical Office, which spanned the period from 1965 to 1977, two or three districts being covered every year by a team of agents from this office. From the point of view of the assessment of total population, this type of collection is rather inefficient.

Moreover, the distortions observed for certain districts suggest that the administrative divisions which have been used by the "Service National du Paludisme" and the "Statistical Office" (Direction de la Statistique) do not match perfectly. For example, it is surprising to note a large divergence between two evaluations made at about the same time of the population of the district of Lomé:

- Service National du Paludisme (1969) 304,974 inhabitants
- Service de la Statistique - Census 1970 229,305 inhabitants

This case study therefore does not include the information found in the census of the Service National du Paludisme. It can be mentioned, however, that the total population estimate carried out in the middle of 1970 on the basis of the above information led to a population figure of 1,975,000 which is rather close to that found by the census.
The various data sources available for Togo and their main characteristics are shown in Table 91 below:

**Table 91**

**TOGO - SYNOPTIC TABLE OF SOURCES FOR POPULATION ASSESSMENT**

<table>
<thead>
<tr>
<th>Nature</th>
<th>Date of collection</th>
<th>Sampling rate</th>
<th>Observed population</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administerative censuses colonial period</td>
<td>Annual 1921-1927</td>
<td>Exhaustive</td>
<td>Exhaustive</td>
<td>Large under-estimation</td>
</tr>
<tr>
<td>Medical surveys, various estimates of natural population change</td>
<td>1921 to 1936</td>
<td>Variable - Surveys made on reduced samples - non-probabilist</td>
<td>Variable - visitors to medical centres</td>
<td>Inconsistency of estimates from one year to another. Improbability of results rather frequent</td>
</tr>
<tr>
<td>1st Population census</td>
<td>11/1958 7/1959</td>
<td>Exhaustive</td>
<td>De jure and de facto population</td>
<td>First reliable assessment of population but spreading in time prejudices data accuracy</td>
</tr>
<tr>
<td>1) Urban centres</td>
<td>11/1959 12/1960</td>
<td>Exhaustive</td>
<td>De jure and de facto population</td>
<td></td>
</tr>
<tr>
<td>2) Outside urban centres</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Post-Enumeration Survey</td>
<td>8/1961 12/1961</td>
<td>Lomé: 1/5th, Towns 4 000 and more inh: 1/10th, other centres: 1/20th</td>
<td>De jure and de facto population</td>
<td>Estimate of population superior to that expected on the basis of the results of census</td>
</tr>
<tr>
<td>2nd Post-Enumeration Survey</td>
<td>3/1971 4/1971</td>
<td>1/10th Urban centres 1/20th other centres</td>
<td>De jure and de facto population</td>
<td></td>
</tr>
<tr>
<td>Census of the Service National du Paludisme</td>
<td>1965-1977</td>
<td>Exhaustive</td>
<td>De facto population</td>
<td>Spreading in time makes these observations much less interesting</td>
</tr>
</tbody>
</table>
III. POPULATION FIGURES AND SUGGESTIONS FOR FUTURE ESTIMATES

As has been seen, the Republic of Togo is not among the worst endowed of African countries as far as demographic enquiries are concerned. At present, two national censuses carried out in 1960 and 1970 respectively are available, and two post-enumeration sample surveys. These four studies offer statistical guarantees sufficiently reliable to be used as the basis for the evaluations below.

These will be done backwards: the best estimate of the Togolese population is provided by the 1970 census, that is 1 950 000 inhabitants. The evaluation of 1971: 2 018 000 inhabitants inevitably contains a measure of random error and it is preferable to stand by the evaluation of 1970. Although it was probably of inferior quality and may notably have underestimated the population present, the figure of 1 440 000 inhabitants at 1st January 1960 given by the 1958-60 census will be retained from the earlier enumerations.

The mean annual inter-censal growth rate calculated between 1st January 1960 and 1st April 1970 (mid-point of the 2nd census) is 3% (1). It has been mentioned earlier that 1969 had witnessed the sudden return of Togolese people who had been long established in Ghana. The tables of the Togolese census include a breakdown of repatriates from other countries, classified according to the length of their stay and their age. Those who have lived outside the country for more than 10 years and repatriates less than 10 years old are, by definition, considered as immigrants during the inter-censal period.

61 500 repatriates fit into one or other of these criteria. This number ought therefore to be subtracted from the population figure of 1970 so as to obtain an estimate of the mean annual increase closer to that of the mean natural increase rate.

This second calculation gives a mean annual inter-censal rate of 2.6%. The fact that this rate is identical to the two natural increase rates calculated in 1961 and 1971 does not place it beyond reproach. It may have resulted from a series of coincidences. The inter-censal rate calculated in this way includes natural population change and migrations. If it is in fact identical to the natural increase rate, this means that the balance of migrations during the period is negligible (excluding for the present the return of the Ghaneto-Togolese). Moreover, the 2.6% natural increase rate observed in 1961 and 1971 is not beyond criticism. In the light of observations made in the 1970s, it appears likely that the estimate of 1961 (birth rate: 55%, mortality rate: 29%) suffered from over-estimation due to the "telescopic effect" resulting from responses on the events of the previous twelve months. In general, it is known that in demographic surveys, death rates are more inclined to suffer from under-estimation than birth rates. It is suggested, therefore, that the natural increase rate of Togo must be of the order of 2.5%; the 2.6% figure being considered as a maximum. If mortality rates decrease, the above rate should be maintained or increase very slightly during the decade 1970-80.

\[
P_{1970} = P_{1960} (1 + r)^{10.25}
\]

where "\(r\)" = mean annual increase rate.

(1)
The mean annual increase rates between the two sample surveys of 1961 (mid-point 1st October) and 1971 (mid-point 1st April) have been calculated for completeness. The results are as follows:

- gross mean annual rate of increase: 2.8%
- mean annual rate of increase (repatriates excluded): 2.5%

These estimates are subject to the random error appropriate to each of these two surveys.

1) Evaluation as of 1st January 1975

In the absence of more accurate information, it is assumed that the return of Ghanian-Togolese people to Ghana since 1970 has not been very substantial and that the annual increase rate during the period 1970-1975 was 2.6%.

Under these assumptions, the population of Togo at 1st January 1975 would have amounted to 2,203,500. Forecasts by sex and age based on the assumption of stable fertility and decreasing mortality give an identical population figure for 1975 (1). The precision of this figure is deceptive and, according to circumstances, it can be estimated that the actual population must have been between 2,150,000 and 2,250,000.

2) Retrospective assessment of the Togolese population

Assessments given by administrative censuses are the only sources of information available on the Togolese population between 1921 and 1960. It can be stated in addition that:

- the colonial period was marked by a notable migration towards Ghana.
- the natural increase rate was very low between 1920 and 1930, possibly around 1% towards 1930 (see paragraph II 1b above) and probably close to the rate observed in 1961 during the years 1955-1960
- there was a significant under-estimation in the administrative censuses
- this under-estimation must have been the result of a certain strategy on the part of the population and the village chiefs in particular. It can be assumed that they reckoned more or less intuitively the proportion of people that they could realistically "conceal" from the colonial administration. Once the nominal lists (censuses in Togo were nominal) were established, they had to be referred to from one year to another. It may be supposed that the margin of under-estimation must have been more or less of the same order each year. For want of better information, this hypothesis will be retained in the re-estimation of the population before the "statistical period".

(1) Unpublished forecasts calculated by the authors. Hypothesis: steady fertility (1961 level). Decreasing mortality should result by 1985 in the following levels of life expectancy: 44 years for men and 50 years for women.
To assess the rate of under-estimation, the population in mid-1957 has been recalculated on the basis of:

- the population figure at 1st January 1960
- a mean annual rate of increase of 2.5%

and the figure obtained: 1 328 000 has been compared with that mentioned in the "Rapport Annuel du Gouvernement Français à l'Assemblée des Nations Unies" of 1957, that is 1 092 889. The ratio of administrative census population to probable population is 0.823. The inverse of this ratio has then been applied to the estimate of the Togolese population made in the administrative census of 1931. The reason for selecting this date is because, in the view of the directors of the "Rapports Annuels du Gouvernement Français à la Société des Nations", it is the date at which a full population census was achieved for the first time.

In this way, a new estimate is obtained of the population at that date based on the following formula:

\[ \text{1931 Administrative census population} \times \frac{1}{0.823} = 903 \text{ 000 inhabitants} \]

This re-estimation leads to a mean rate of increase of 1.6% for the period 1931-1960. If emigration to Ghana is taken into account, it could be argued that the Togolese population on the territory in 1931 was slightly more numerous.

In Chart 11, taking account of this re-estimation and the assumptions made regarding natural increase, an attempt has been made to draw a plausible curve of the evolution of population between 1931 and 1960.

In Table 92, the statistical assessments of population between 1960 and 1970 are recalled and the estimates which were set forth above. Table 93 gives a summary of estimates available on population growth.

3) **Suggestions for the improvement of sources**

Togo is in the process of preparing for the 1980 census and hopefully the lessons of the 1970 census will be taken into consideration in its design as far as collection is concerned. In particular, it would seem important to be in possession of detailed maps of the survey sectors so as to avoid "losing" settlements and villages, and to further diminish the observation period in the field so as to meet the criterion of simultaneity.
Table 92
TOGO – POPULATION FIGURES, RECENT EVALUATIONS, RETROSPECTIVE ESTIMATES AND FUTURE PROJECTIONS

<table>
<thead>
<tr>
<th>DATE</th>
<th>NATURE OF THE EVALUATIONS</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931</td>
<td>Administrative census</td>
<td>749 419</td>
</tr>
<tr>
<td></td>
<td>Re-estimation with % of under-estimation</td>
<td>903 000</td>
</tr>
<tr>
<td>6/1957</td>
<td>Administrative census</td>
<td>1 092 889</td>
</tr>
<tr>
<td></td>
<td>Re-estimation based on the 1961 results</td>
<td>1 328 000</td>
</tr>
<tr>
<td>1/1/1960</td>
<td>1st Census</td>
<td>1 440 000</td>
</tr>
<tr>
<td>1/10/1961</td>
<td>Post-enumeration survey</td>
<td>1 544 000</td>
</tr>
<tr>
<td>1/4/1970</td>
<td>2nd Census</td>
<td>1 950 600</td>
</tr>
<tr>
<td>1/4/1975</td>
<td>2nd Post-enumeration survey</td>
<td>2 018 700</td>
</tr>
<tr>
<td>1/1/1975</td>
<td>Forward projection</td>
<td>2 203 500</td>
</tr>
</tbody>
</table>

Table 93
TOGO – MEAN ANNUAL RATES OF INCREASE AT VARIOUS PERIODS

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>SOURCE OF ESTIMATION</th>
<th>ESTIMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931-11/1960</td>
<td>1931 re-estimation – 1960 Census</td>
<td>1.6%</td>
</tr>
<tr>
<td>1960</td>
<td>Raw population in censuses 1960-70</td>
<td>3%</td>
</tr>
<tr>
<td>1/4/1970</td>
<td>1960 Census – 1970 Census excluding repatriates from Ghana</td>
<td>2.6%</td>
</tr>
<tr>
<td>1/10/1961</td>
<td>1961 and 1971 Demographic Surveys</td>
<td>2.8%</td>
</tr>
<tr>
<td>1/4/1971</td>
<td>12 month natural increase preceding 1961 survey</td>
<td>2.6%</td>
</tr>
<tr>
<td>1/4/1970</td>
<td>Natural increase period between 1970 and 1971 survey</td>
<td>2.6%</td>
</tr>
<tr>
<td>1/4/1971</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To these recommendations of a practical nature are added a few others relating to the analysis and publication of data. However much the 1970 census of Togo can be considered as a success in the field, the analysis of data provided has been disappointing. Analysis of results has not yet started in certain fields. The principle of the post-enumeration survey is excellent, but various obstacles in coding and data processing have seriously delayed the publication of the results concerning population change. There is still no official publication of the results of this survey, and any analysis which could be drawn from it now would be of purely historical interest.

In future, a global programme encompassing not only fieldwork but also coding, counting, analysis and publication of results should be instituted. It seems desirable that this overall programme should be implemented by means of an overall budget in order to avoid successive operations being carried out in fits and starts as and when money is provided.

Finally, with regard to the estimate of natural increase and migratory movements, it is suggested that the Direction de la Statistique undertake a follow-up survey on a random sample of population centres every 3 years. A judicious stratification of the baseline survey represented by the census, and a rational use of infrastructure and of the staff of the Direction de la Statistique should ensure that these activities are carried out at relatively modest cost.

The lessons which could be drawn from such a survey on the mobility and growth of population could largely justify the outlay.
BIBLIOGRAPHY


4.- "Rapports annuels du gouvernement français à la Société des Nations sur l'administration des territoires du Togo", 1921 to 1939, Imprimerie Lahure, Paris


8.- "Recensement générale de la population, mars-avril, 1970"

"Vol. I. Méthodologie et premiers résultats", June 1973
"Vol. II. Résultats détaillés par circonscription", August 1975
"Vol. III. Données relatives aux ménages", September 1978
Direction de la Statistique, Lomé.