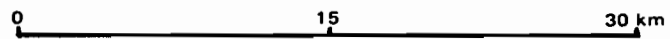
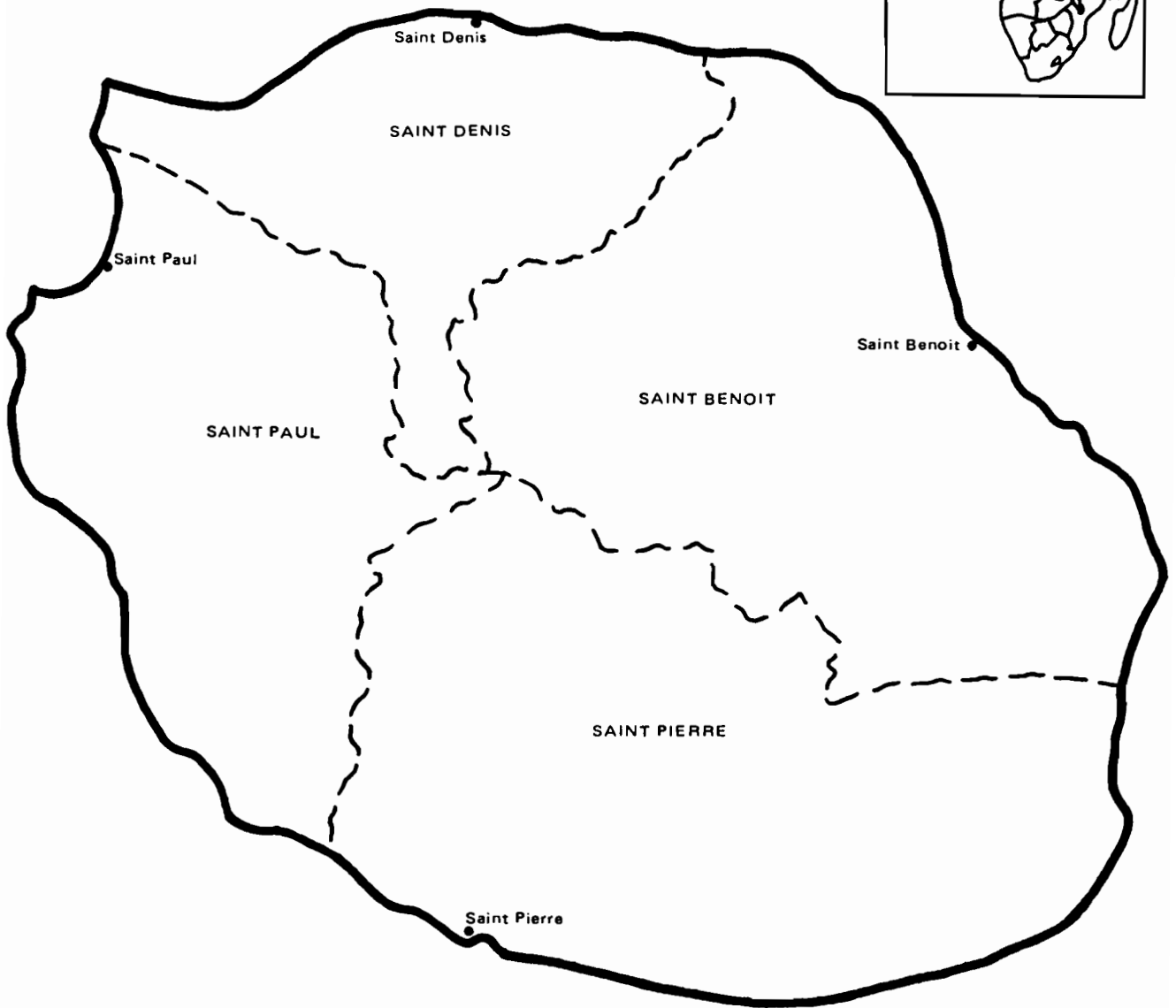
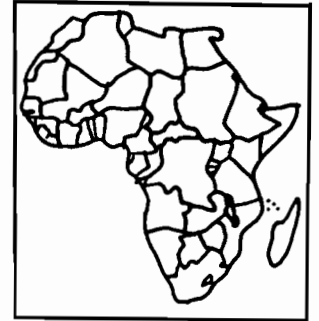


REUNION
Rémy Clairin

JULY 1979

REUNION

INDIAN OCEAN



R E U N I O N

I. THE ISLAND OF REUNION

Reunion, together with Mauritius and a certain number of other small islands, constitute the Mascarenes (named after Mascarenhas, a Portuguese sailor who discovered them in 1517). This group has a very marked individuality, due to its geographical isolation and the specific nature of its population. Before the 17th century, these islands were totally uninhabited; the present population is made up of elements originating from Europe, Africa, Madagascar and Asia (India and China).

Reunion is situated in the Indian Ocean, approximately 800 km east of Madagascar and 225 km west of Mauritius. It has a surface area of 2 510 km². Since 1638, date of first settlement, the island has been attached to France, except for a short period of British occupation (1810-1815), first as a colony and then from 1946 onwards as an overseas Department. Originally it was called "Ile Bourbon"; its present name, dating back to the time of the French Revolution and the First Empire, was definitively adopted in 1848.

Reunion is administered by a Prefect; it is divided into 4 administrative arrondissements, each under the jurisdiction of a Sub-Prefect, and 24 communes administered by elected mayors (1).

II. THE MAIN POPULATION DEVELOPMENTS

There is no trace of human presence before 1638. At this date a modest settlement was established, numbering no more than around 50 inhabitants by 1670. It was also at this period that the first attempts at exploitation were made, accompanied, as was too often the case at the time, by the introduction of Kaffir or Malagasy slaves. Progress remained slow until 1715, when the cultivation of coffee was begun. Growth was then considerable, with the population increasing from 2 000 in 1717 to 85 000 in 1804.

(1) The following small islands: Tromelin, Les Glorieuses, Juan de Nova, Bassas de India, Europa, the first of which is situated in the Indian Ocean, the others being in the Mozambique Channel, fall under the jurisdiction of the Prefect of Reunion, but they are not part of the Department. They are uninhabited.

Thanks to its isolation, Reunion remained relatively unscathed by the tribulations of the Revolution and the Empire. As noted above, it was occupied in 1810 by the British, who evacuated the island in 1815, but retained Mauritius (formerly "Ile de France").

Slavery was completely abolished in 1848 (there were then 60 to 70 000 slaves in a population of the order of 150 000). Between 1815 and 1848, mean annual growth is estimated at about 2%. It is certain that the growth in population was essentially due to forced immigration which persisted despite official prohibition of the trade, difficult to enforce in this isolated region, for the natural population balance would certainly be negative.

What is more surprising is that after the emancipation of the slaves, the natural balance remained in deficit for a very long time in Reunion (as was no doubt also the case in Mauritius). Fertility was relatively low and mortality very high. Among the factors in this evolution must be mentioned the appearance of malaria around 1865.

To counteract this deficit, recourse was made to the immigration of Indians (originating mainly from the south-west of the peninsula) largely under contract. Although this phenomenon had not reached the same intensity as in Mauritius, it is reckoned that by around 1860, Indians represented one-third of the population. This immigration had practically ceased by the end of the 19th century. There was also immigration from China.

Despite this balance of migration, the population seems to have diminished to some extent up to 1890. The census of 1911 gives a population about 5% below that of the 1872 census.

Between the World Wars, the growth rate became positive and was estimated at a little over 10% per annum, mainly because of fertility growth: the death rate remained very high. After 1945, there were considerable upheavals in the demographic field.

First, there was a very rapid decrease in mortality, for which the gross rate fell from 23% in 1945-49 to 7% in 1970-74.

Also, at first, there was a considerable increase in the level of fertility. Around 1960 the gross reproduction rate reached the high level of 3.3 to 3.4.

At this period, the island was in full demographic explosion, with a natural increase rate above 30%, which, if it had been maintained, would have led to a doubling of population within 22 years.

But a new revolution took place towards 1965; a very rapid decline in fertility. The gross birth rate decreased by nearly 40% between 1965 and 1976. As a result, despite the decrease of the gross mortality rate, natural growth was no more than around 20% in 1976.

It remains to be said nevertheless that demographic evolution poses serious problems in a country where density already reaches 190 inhabitants per km² and where 47% of the land is unproductive.

The situation is evidenced in increasing emigration. Emigration towards Madagascar took place formerly but a great part of the population originating from Reunion returned to the island after Malagasy independence.

Since 1965, a very clear increase in net emigration in Reunion can be observed. This movement has been essentially directed towards Metropolitan France. The balance, fewer than 500 people before 1965, was of the order of 5 000 during the 5 year period 1972-1976 and represented about half of the natural increase at the time.

III. CENSUSES IN REUNION

1) Up to 1946

An historical account of censuses in Reunion (up to 1946) has been set out in the booklet published by the Institut National de la Statistique et des Etudes Economiques (Paris) entitled "Résultats statistiques du Recensement Général de la Population des Départements d'Outre-Mer, effectués le 1er juillet 1954, Réunion" (Statistical results of the General Population Census of Overseas Departments, carried out on 1st July 1954 in Reunion).

This text is reproduced below:

HISTORICAL ACCOUNT OF CENSUSES IN REUNION

First period: From Occupation (1638) until 1730

The first censuses were carried out under the aegis of the Royal Administration (commissaries, ...). These censuses took place in every district by family, house or cabin.

Together with nominal lists, relatively short due to the small number of people then enumerated, summaries were sent to the mother country. Nominal lists included either heads of families, whites (adults only in total) or all inhabitants. When complete, they usually showed for each member of household his relationship to the head of household or his status (servant or slave), and sometimes, an indication of his profession, age, place of birth and marital status.

Documents relating to the following censuses (1690, 1704, 1709, 1710, 1711, 1713, 1719, 1776) can be found in the archives of the Ministry of French Overseas Departments.

By way of example, here are some comments on the documents relating to the 1704 and 1709 censuses. The first, entitled "General Census of all inhabitants, heads of families, wives, children and slaves living in the Isle of Bourbon, their age, place of birth, landholding and types of cultivation" encompassed a total population of 734 people belonging to 92 families. The document includes one list per family; the lists are then grouped by districts (St. Paul, St. Denis, St. Suzanne) and are, within each district, classified by alphabetical order of the christian name of the head of family. On each list appear the names, surnames, age, place of birth of the head of family, of his wife, children - sons and daughters, male and female slaves.

The 1907 census was presented in the same manner, the summary being more detailed than in 1704. For example, heads of family are classified as male heads or female heads (widows).

Finally, we find an account of professions which is particularly entertaining: the first person named is entered as a "lazy drunk", another as a "man of virtue", a "clock maker" is mentioned as being responsible for looking after the only clock in the island. In the 1709 summary, opposite the total number of slaves, is the comment "In all likelihood this state of affairs is not correct". The author gave no reasons but they are likely to be related to tax.

Second period: From 1730 to 1848

It seems that from this time onwards, published results originate from enumerations carried out by virtue of a "Declaration made by the King on 3 October 1730".

This provides some detailed information on the enumerations made during the second half of the 18th century and the first half of the 19th century. The purpose of these enumerations was to establish a register of those persons liable to a capitation levy which was fixed in 1730 at one hundred pounds net of sugar per annum. According to the declaration this levy was payable, except for exemptions provided for in the text, by all inhabitants on behalf of themselves, the members of their family, their servants and employees. Exemptions were related to sex, age, place of birth, Civil Registration, and social status.

Meanwhile, a complete nominal enumeration of population, exempt or not, was to be made every year. This enumeration was to be carried out in the following way: in November of each year, all inhabitants, of whatever type or status, exempt or not, were to make a written declaration relating to the persons constituting their household, community or place of residence: name, surname, and age of the whites, blacks, mulattos, freemen, retainers or slaves of both sexes. They were to remit this declaration to the "Receveur du Domaine" of their district or to the "Commis du Domaine" representing their place of residence. The administrative agents would then sign a copy of their declaration.

The Registers and capitation were drawn up and fixed on the basis of the declarations and lists obtained. The lists of taxpayers, collected by the "Commis du Domaine" were checked by them once a year through a general review of the households of all people, whatever their type and status, and through specific visits in order to discover people who could have been concealed and not registered. The "Commis" were also authorised to consult the registers of christenings and deaths of parishes, inventories and divisions kept by registrars and solicitors.

One instruction given for the implementation of the Royal Declaration was that care should be exercised not to let inhabitants abuse exemptions by making false declarations of age (under 14 or over 60) or origin (whites declared as creoles, the latter being exempt); to refer to christening registries so as to detect false declarations of age, and registries of deaths to make sure that negroes had not been passed for dead. Ages declared by captains of slave-ships were also to be used to check ages declared by masters.

If any cheating was discovered, it was to be severely punished: confiscation of undeclared slaves, fines, suppression of exemptions for life.

Documents dating back to the Revolution and the Empire are not very numerous. The troubles prevailing at that time certainly played a part in this and it is possible that censuses were not carried out regularly.

Two Orders passed under the July Monarchy and, applicable in the West Indies, the Ile Bourbon and in Guyana, somewhat altered the method of these enumerations.

The Royal Order of 4th August 1833 (1) stipulated that from 1st January 1834 onwards, enumeration lists returned annually to the municipal authorities and certified by the slave owners were to indicate the name, forename, sex, age and caste of the enumerated, and any distinguishing features to aid their recognition as well as the kind of work in which they were employed. They were also to mention individually, and by date, births, deaths, purchases, sales, successions and donations. Independently of the indications given in the lists, masters were also required to make declarations of births, marriages and deaths of their slaves. These events were to be recorded on duplicate registers: one remaining in the archives of the commune, the other being entrusted to the Record Office.

The Order of 11th June 1839 completed the instructions. It first of all stipulated that a general census was to be carried out within 6 months. Every slave owner had, within a time limit to be fixed by the Governor, to obtain from the Town Hall of his commune three enumeration forms and enter on each the following:

(1) Enforcement of the Law of 24 April 1833 relating to the legislative regime in the colonies, stipulating that it would be enacted through an order on censuses.

1° His name, forenames, place and date of birth, his profession, and, if applicable, the class of his licence;

2° The number, names, sex and age of people constituting his family and not subject to individual enumeration;

3° All details (as required by the Order of 1833) relating to his slaves.

For the people classed as free, ways and means were left to the discretion of the Governor.

The forms were then handed to the Town Hall: one copy, countersigned by the Mayor, was given back to the originator and served as a receipt, the second was kept in the Town Hall and the third was transmitted to the "Direction de l'Interieur".

Enumeration was to be renewed each year for landowners and their slaves; the dates chosen for the rest of the population were left to the discretion of the Governor. Delays and omissions were to be punished by fines. To these measures, more particularly related to censuses, were added a series of provisions the overall purpose of which was to control the slave population: creation of a register of slaves, declaration of births, deaths and mutations; the latter having to be listed additionally in later censuses.

Despite the opportunity presented of not enumerating annually all free people, the operations carried out each year between 1840 and 1848 encompassed the whole population. Local regulations followed very closely the terms of the Order of 1839: they fix the time limit for handing over forms (a month and a half) but give no details on the analysis of the census which, in all likelihood, took place at local level and permitted the establishment annually of the following:

- a picture of the population as at 31 December for the year under consideration;
- population changes during the same year.

The information provided was analogous to that obtained before 1830. However, the free population is no longer divided into white and coloured populations except sometimes under the column "observations" which gives additional information and frequently contains an appraisal of the results shown; an appraisal which can also be found in the "notes" added to some reports.

The enforcement of the Orders of 1833 and 1839 seems to have improved the quality of censuses but their accuracy still remained unsatisfactory in the opinion even of contemporary observers (1).

(1) For example, this extract of a note sent out with the results of the 1843 census: "This difference (increase by comparison with 1842) can be explained by the greater precision introduced into censuses; something the higher authorities have kept constantly in hand, particularly since 1840."

Third period - From the abolition of slavery (1848) to 1866

The abolition of slavery in all the French colonies in 1848 made the Order of 1839 obsolete as far as the slave population was concerned. On 8th December 1848, a circular was therefore issued inviting the Governors of colonies to carry out a general population census in 1848 according to the methods presented for the free population, that is to say, according to the decrees passed by the Governors. Results had to be established within a well defined framework identical for all colonies, showing population figures for communes or districts broken down by sex, age (under 14, over 14) and civil registration. This framework was used without alteration until 1889 for the annual population tables published by the Ministère de la Marine et des Colonies (1).

This circular did not specify how frequently future censuses should be carried out although its author reserved the right to determine their timing. In fact, it was the local authorities who, up to 1911, fixed the dates of censuses. Furthermore, no recommendations were given as to which methods to use at the very time when the abolition of slavery was posing enumeration problems more difficult to solve than ever before. In fact, up to 1848, the slave population played no part whatsoever in the completion of enumeration forms the existence of which was in general unknown to them. Once free, it formed a population whose mobility, dissemination and illiteracy made any control difficult.

It should be noted that it was at this time that the notion of quinquennial censuses appeared.

It is possible however that annual censuses continued to be carried out. Annual statements of population sent to the central administration, whose origin was not specified, may well have resulted from such censuses or from some form of updating carried out by municipalities from one year to another.

This circular does not seem to have been rigorously enforced in Reunion where the local authorities (Decree of 30th October 1851) considering "that population statistical activities, shared between Mayors and the Syndicat de l'Immigration, are incomplete and inaccurate in several aspects and that they are not suitably designed for the uses to which they are destined of satisfying the requirements of general administration and personal taxation" ordered the implementation of annual censuses under the direction and control of the Controller of Taxation. Provision was to be made for a "methodical and complete classification of individuals of all sexes, ages and status, set out in a way suitable for the maintenance of registers".

(1) "Tables showing population, agriculture, trade and navigation for the year... They also show figures of births and deaths, with no discrimination of sex."

Fourth period - Introduction of central government methodsa) From 1866 to 1946

A circular issued by the French Government dated 7th June 1866 ordered the carrying out of a nominal census of people born in France and currently living in the colonies. This census which was to provide vital events details, religion, origin (French born or nationalised) and level of education, took place in the context of the 5-year census then being carried out in France.

The same circular also required that a general census of sedentary population be carried out for every territory by commune and age ("from nought to twelve months and up to 100 years or more") providing the same information as planned for the population born in France.

On the occasion of the 5-year metropolitan census of 1886, a ministerial despatch of 16th March 1886 required that, as far as possible, a census should be carried out simultaneously in the colonies. It appeared to the author of the circular that instructions applied to France could be enforced without major modifications in the old colonies.

However, it was planned that forms should be arranged in order to distinguish between immigrants of different types: Africans, Indians, Chinese, etc... under contract, having completed their contract, entitled to repatriation or having renounced it.

These instructions do not seem to have been followed in Reunion, at least after the 1872 census.

The following extracts from a letter of 8th February 1873 addressed to the *Ministre de la Marine et des Colonies* give reasons for the measures taken at that date: "The only indications provided so far originated from registers drawn up annually in Town Halls without a sufficient degree of control. Their inaccuracy was inevitable as it was in the direct interest of each municipality to inflate the size of the population of its commune in order to obtain a larger share in the distribution of public funds".

Local authorities, having such a bad opinion of the work of municipalities, could not entrust to them the direction of enumeration operations. In consequence, it was the Direct Taxation Service which took charge of censuses which were carried out every 5 years since that date; the only concession granted to communes was the presence, next to the enumeration agents (agents from the Taxation Service or Police Inspectors), of a municipal official; the absence of the latter did not, however, invalidate operations carried out without him.

The number of agents at the disposal of the Taxation Service being small, censuses were not carried out at fixed dates but lasted as long as was necessary for the agents to complete their circuits.

If we exclude the years 1881 and 1887, no enumeration operation in Reunion was entirely nominal. In fact, besides the categories of population enumerated separately (soldiers, sailors, prisoners, etc.), a great number of people were enumerated numerically only. In the first censuses, next to the name of the head of household, mention was made only of the number of persons constituting a family or household group (wives, children, parents, servants and others). Later on, nominal registration was extended, first (1892 to 1911 inclusive) to boys aged over 16 and workers without contract, then from 1921 to all the members of a family, apart from children under 6. As for Malagasy Indians, Kaffirs, Chinese and Arabs, these were enumerated nominally only in 1881 and 1887. On these two dates, a kind of household return to be filled in by the head of household or by individuals living on their own replaced the statements in which enumeration agents wrote down details collected in turn about each household.

It should be noted, contrary to the rules scrupulously followed in official censuses carried out in France, that the Taxation Service, charged with the implementation of the census, used information obtained for tax purposes. In fact, Article 12 of the Order of 1881 specifies that returns gathered in the central office of the Taxation Service could be used by the divisional controllers for the assessment of personal taxation.

The analysis of nominal information remained superficial and never exhausted all possibilities. In addition, the presentation of results, originally limited to the overall population of communes, was extended to include breakdowns by sex or nationality, and between children, adults and old people. Results were sometimes incomplete and presented in a heterogeneous manner, notably as regards age limits.

It seems, however, as far as can be judged from cross-checks carried out with the help of statistics on population change (the Civil Registration system was operating from 1833 onwards), and on external migration movements, that the overall results of these censuses are relatively accurate, and certainly of a better quality than those carried out at the same time in the West Indies. The Service in charge of the operations had no interest in inflating the figures for the population of communes.

b) The 1946 Census

A census of the whole population on an individual return basis was carried out for the first time from 21 to 31 October 1946. Inhabitants were to go to the communal centres to fill in their individual returns. A receipt was then handed to them which allowed them to claim their ration card.

In creating an actual obligation for the inhabitants to be enumerated, the system employed offered a guarantee against omissions but also contained potential weaknesses. The link between the handing over of the form and the ration card was a temptation for both the individuals and the communal authorities to generate fictitious forms for children, absentees and others. Control rested solely with the communal authorities. It was in their interest to increase the official size of their population from an electoral and, above all, a financial point of view: the proceeds from maritime duties and certain subsidies were distributed between communes in proportion to their populations.

Besides, this census was carried out on a population containing a high proportion of illiterates somewhat averse to administrative enquiries and this resulted in a large number of spoilt or incomplete returns.

On the basis of various cross-checks obtained from civil registration or electoral statistics, the results after processing of the enumeration forms gave a population figure which is likely to have been overestimated by several thousands. (End of text cited.)

2) Censuses carried out since the Second World War

Five general censuses of the population of Reunion have been undertaken since 1945, on the following dates:

21-31 October	1946
1st July	1954
9th October	1961
16th October	1967
16th October	1974

The way the 1946 census was carried out has been described above; although it represented a substantial improvement because for the first time the population was completely enumerated on an individual basis, it was noted that serious criticisms can be made of the methods used.

a) The 1954 Census

This census was the first operation which corresponded to the standards of modern censuses. The "Prefet" of the Department was responsible for the operations. He was assisted by an agent from INSEE (Institut National de la Statistique et des Etudes Economiques).

A collective household questionnaire was used (with one line for each member of household). Enumeration agents filled in the forms themselves.

Field operations lasted for about one month.

A control by sample took place in some areas.

b) The 1961 Census

This census was the first in which, as was the case in Metropolitan France, each mayor was in charge of enumeration operation in his commune (in particular, for the breakdown into districts and the recruitment of enumeration agents). An official of INSEE played the role of technical consultant and supervisor. It was also his duty to carry out sample control operations: a quantitative control on 1/10 of households and a qualitative control on 1/50 of households. The quantitative control operation showed that on the whole the figures obtained by the census were satisfactory except for one part of one commune where there had been irregular registrations.

Apart from these innovations, the methods used in the census were practically identical to those in 1954, in particular, field operations which lasted for about one month.

c) The 1967 Census

This census was marked by a certain number of improvements over its predecessor. First of all, in the meantime, a Departmental service of INSEE was created in Reunion which provided a most useful permanent infrastructure for the methodical preparation of the census and statistical operations. The work of the agents was organised more efficiently and was facilitated by the introduction of a pre-census which took place approximately one month before the enumeration proper and including notably a list of buildings.

The census was followed by a control sample survey carried out on 1/20 of habitations except in the capital, St. Denis, where it was on 1/10 of habitations.

d) The 1974 Census

This census was carried out according to the same principles. A certain number of improvements were achieved. The pre-census gave rise to the establishment of a list of households and the preparation of enumerators' log books. "Contrôleurs-Délégués" were able to be recruited for the duration of the operation to prepare, organise and check the work of enumerators. On the other hand, it is to be deplored that the additional control survey initially envisaged could not be carried out.

IV. EVOLUTION OF POPULATION UP TO THE SECOND WORLD WAR

Table 69 shows the figures available up to 1941. It goes without saying that these figures are of variable reliability. In particular, the figure for 1848 is totally improbable but can doubtless be explained by the turmoil caused by the abolition of slavery.

Table 69
REUNION - EVOLUTION OF THE POPULATION BASED ON
ENUMERATIONS AND CENSUSES UP TO 1941

YEAR	POPULATION	YEAR	POPULATION
1646	12	1872	182 700
1654	13	1877	182 100
1670	50	1881	172 100
1686	269	1887	163 900
1707	734	1902	173 315
1713	1 171	1907	177 677
1717	2 000	1911	173 822
1777	35 469	1921	173 190
1804	65 152	1926	186 837
1826	87 100	1931	197 933
1837	110 000	1936	208 258
1848	105 677	1941	220 955
1853	152 600		

If this figure is ignored, mean annual increase rates by period are as follows:

Table 70
REUNION - MEAN ANNUAL INCREASE RATES FROM 1801 TO 1941

PERIOD	ANNUAL INCREASE RATE PER THOUSAND
1804-1826	+ 13.3
1826-1837	+ 21.4
1837-1853	+ 20.7
1853-1872	+ 9.5
1872-1877	- 0.7
1877-1881	- 14.0
1881-1887	- 8.1
1887-1902	+ 3.7
1902-1907	+ 5.0
1907-1911	- 5.5
1911-1921	- 0.4
1921-1926	+ 15.3
1926-1931	+ 11.6
1931-1936	+ 10.2
1936-1941	+ 11.9

-1.8 (1872-1902)

0.0 (1902-1921)

Taking into account the earliest figures, a markedly constant increase is observed between 1826 to 1853 (of the order of 2% per annum); the lower figure recorded for the interval 1804-1826 can be logically accounted for as resulting from the military activities which marked that period.

The 1853-1872 period is a key period marked on one hand by substantial immigration and at the same time by a sharp increase in the death rate (a close link may exist between these two factors as has often been the case for insular populations subjected to external influences).

From 1872 to the beginning of the 20th century, the observed increase was almost continuously negative despite immigration, which incidentally decreased in its intensity, and stopped almost completely towards 1900.

Vital events registrations are available for almost the entire period stretching from the middle of the 19th century until 1889. After that date, data became quite fragmentary (it is certain that the number of infant deaths was somewhat underestimated, which affected both the birth and death rates observed but not the natural increase).

Table 71

REUNION - VITAL EVENTS STATISTICS AVAILABLE PRIOR TO 1945

PERIOD	MEAN ANNUAL NUMBER		
	Births	Deaths	Balance
1849-1852	3 415	3 597	- 182
1857-1861	4 037	6 858	- 2 821
1862-1866	4 243	5 867	- 1 624
1867-1871	4 108	4 764	- 656
1872-1876	4 480	5 018	- 538
1877-1881	4 492	6 287	- 1 795
1882-1885	4 691	5 158	- 467
		(1882-1886)	
1887-1889	4 827	4 087	+ 740
1897	4 228	5 479	- 1 251
1911-1921	6 240	6 070	+ 170
1933	7 917	6 052	+ 1 865
1940	9 404	4 777	+ 4 627
1941	9 636	4 768	+ 4 868
1942	9 172	6 136	+ 3 036
1943	8 614	5 135	+ 3 479
1944	8 204	4 961	+ 3 243
1945	7 817	5 479	+ 2 338

On the basis of these figures, the gross birth rate changed very little between 1857 and 1889, being in the order of 25 to 26 per thousand (or "25 to 26‰"); on the other hand, considerable fluctuations are observed in the death rate, which is not surprising at a time when the island was practically defenceless against climatic and epidemic hazards. For the whole of that period, the mean gross mortality rate would be in the order of 32% per thousand (or "32‰"), giving a natural increase rate (or rather decrease rate) in the order of -5 to -6%.

If it is assumed that the figure of 182 700 inhabitants in 1872 is correct, a population of around 170 500 in 1889 would be obtained in the absence of migration movements, on the basis of vital events figures. In fact, Table 69 gives a figure of 163 900 for 1887, but comparison with adjacent figures: 172 100 in 1881 and 173 315 in 1902 could suggest that there was a degree of underestimation.

During the early years of the 20th century, a balance seems to have been established: population in 1921 was more or less the same as in 1902 after, it must be noted, the disturbances caused by the First World War.

For that period, there are vital events data only for the decade 1911-1921: they are remarkably similar to those observed in Mauritius around the same time.

Table 72

REUNION - ESTIMATE OF GROSS DEMOGRAPHIC RATIOS IN REUNION
AND MAURITIUS AT THE BEGINNING OF THE 20TH CENTURY

	RATE PER '000		
	Birth rate	Death rate	Natural increase
Reunion 1911-1921	36	35	+ 1
Mauritius 1901-1911	36	37	- 1

An annual increase in the order of 10% is observed during the interwar period (the peak rate of 15% for the period 1921-1926 may be explained as a consequence of the end of the war and demobilisation unless it was due to a difference in the quality of censuses). It is possible that certain figures relating to the censuses have been overestimated. Unfortunately, there are vital events data only for the year 1933; shown below is a comparison between ratios calculated for that year and those observed around the same period in Mauritius.

Table 73

REUNION - GROSS DEMOGRAPHIC RATES OBSERVED DURING THE 1930s
IN REUNION AND MAURITIUS

	RATE PER '000		
	Birth rate	Death rate	Natural increase
Reunion 1933	39	30	+ 9
Mauritius 1935-1939	34	27	+ 7

V. CRITICAL ANALYSIS OF CENSUSES SINCE THE SECOND WORLD WAR

1) Population definition

A modification in the definition of the legal population of the Department (which incidentally affected only a small number) was made between the 1954 and 1961 censuses.

Since 1961, some categories of people previously belonging to the population counted separately were included in the legal population. These were in particular boarding-school pupils and military contingents posted in barracks outside Reunion at the time of enumeration when in fact the household to which they belonged was in Reunion.

In 1961, the number of persons involved amounted to 1 772 out of a total legal population of 349 282; they therefore represented approximately 0.5% of the total population.

In order to permit comparability with previous censuses, the two figures will be mentioned for 1961.

Table 74

REUNION - LEGAL POPULATION FOR CENSUSES CARRIED OUT SINCE
THE END OF THE SECOND WORLD WAR

CENSUS	LEGAL POPULATION
21-31 October 1946	241 667 (a)
1st July 1954	274 370 (a)
9th October 1961	347 510 (a) 349 282 (b)
16th October 1967	416 525 (b)
16th October 1974	476 675 (b)

(a) former definition
(b) new definition

2) Underestimation of young children

For the censuses of 1954, 1961 and 1967, a comparison has been made between the number of enumerated children below the age of 5 and that of the same age group calculated on the basis of vital events data. The following results were arrived at:

- 1954: These children are up to 4 and a half years of age, that is to say, born between 1st January 1950 and 1st July 1954.

Enumerated	45 747	
Calculated	47 095	

Balance	- 1 348	(relative underestimation -2.9%)

- 1961:	Enumerated	62 044	
	Estimated	64 193	

	Balance	- 2 149	(relative underestimation -3.3%)

For the 1967 census, estimates according to year of age (as at 1st January 1968) and sex are as follows:

Table 75

REUNION - COMPARISON BETWEEN NUMBER OF ENUMERATED CHILDREN UNDER 5 AND THAT CALCULATED ON THE BASIS OF VITAL EVENTS DATA - 1967 CENSUS

AGE	MALE			FEMALE		
	Enumerated (up-dated)	Calculated	Balance	Enumerated (up-dated)	Calculated	Balance
	A	B	A-B	A	B	A-B
0	6 304	7 634	- 1 330	6 732	7 711	- 979
1	7 154	7 796	- 642	7 170	7 646	- 476
2	7 180	7 596	- 416	7 230	7 681	- 451
3	7 220	7 128	+ 92	7 199	7 225	- 26
4	7 239	7 591	- 352	7 065	7 340	- 275
0-4	35 097	37 745	- 2 648	35 396	37 603	- 2 207

That is altogether for both sexes, an underestimation evaluated at 4 855 children under 5 in a total of 75 348.

The relative underestimation would therefore be:

- 7.0% for males
- 5.9% for females
- 6.4% total

It would therefore appear that there is a tendency towards an increase in the population of children underestimated (doubling between 1961 and 1967), which is not very encouraging but this represents an overall underestimation of only 1% in 1967.

3. Comparison between population figures at successive censuses

In order to make this comparison, the vital events figures are used, which are well-known, and statistics of migratory movements which exclude the earliest periods and whose value is questionable where they do exist, although the insular nature of Reunion is a very favourable factor in this regard.

In order to make this comparison, a standard point of reference must be adopted. As several indications seem to show that the 1967 census was of a higher quality than the others, the population figures for 1961 are used as a reference. This is obviously rather arbitrary, but if new data or more advanced studies subsequently led to rectification of the 1961 figures, it would then suffice to apply the same correction in absolute terms to the results of the other censuses.

Let us go back to the figures for 1961. 347 510 people were enumerated according to the former definition of legal population and 349 282 according to the new one which includes in the legal population certain categories of persons temporarily absent.

To this figure is added the 2 149 young children estimated to have been omitted, which gives the following:

- 349 431 inhabitants for the population according to the former definition (which will be used as a point of reference when drawing comparisons with censuses prior to 1961);
- and 351 431 inhabitants for the new definition of population (which will be used to compare with later censuses).

a) Censuses prior to 1961

* 1954-1961 Interval

Natural population change between the two censuses was more or less as follows:

- births	104 800
- deaths	30 500
- natural balance	74 300

It is difficult to obtain accurate figures for the migratory balance: this was probably somewhere between -200 and -250 people per annum during the intercensal period.

For the whole period, the figure -1 600 which features in the report of the 1961 census is used, which gives the following:

Table 76

REUNION - ESTIMATE OF POPULATION IN 1954 BASED ON FIGURES
OBTAINED IN THE 1961 CENSUS

Population at 9th October 1961	349 660
- natural balance	- 74 300
- migratory balance	+ 1 600
Estimate of population at 1st July 1954	276 960

The population actually enumerated in 1954 amounted to 274 370, that is a difference of 2 590 people. It was seen that the under-5 age group seems to have been underestimated by 1 350 people; if this factor is taken into account there remains a difference of 1 240 that is, a margin of less than 0.5%, which is quite negligible.

In conclusion, the consistency between the two censuses proves quite satisfactory.

A population of the order of 277 000 for 1954 will therefore be accepted, assuming that the 1961 figures are correct.

** 1946-1954 Interval

There are no data on the migratory balance during this interval, but it was certainly low.

On the basis of civil registration, the following figures appear for the intercensal period:

- births	89 300
- deaths	39 000
- natural balance	50 300

which leads to the following estimates:

Table 77

REUNION - ESTIMATE OF POPULATION IN 1946 BASED ON 1954 FIGURES

	Figures observed in 1954	Figures estimated on the basis of the 1961 census
Population in 1954	274 400	277 000
- natural balance	- 50 300	- 50 300
Estimate of population in 1946	224 100	226 700

The legal population at the census amounted to 241 667; hence all the evidence points to an overestimation in the order of 7 to 8%, which is not negligible, but much lower than observed in countries where conditions were analogous, above all if the following factors are taken into consideration: the absence of control by a non-political organisation, the existence of ration cards, and the interest of municipalities in inflating the figures in order to obtain larger subsidies.

*** Estimate of population in 1941

An uninterrupted set of vital events are available from 1940 onwards. In addition, there is a population figure assessed on the basis of a census (or enumeration) in 1941. No accurate information is available regarding this operation but it is likely that, as for previous censuses (from 1921 to 1936), the date of reference was 1st July.

Under these circumstances, the natural inter-censal balance for 1941-1946 can be estimated as follows:

- births	46 015
- deaths	28 179
- natural balance	17 836

which would lead (if migratory movements are ignored) to the following estimates for 1st July 1941:

- based on 1954 figures:	206 300
- based on 1961 figures:	208 900

The official figure was 220 955; this would entail, according to the calculations above an overestimation of 5.8% to 7.1%, i.e. very close to, although slightly lower than, the overestimation observed in 1946.

b) Censuses after 1961* 1961-1967 Interval

If an estimate of the 5-year old children who had been omitted is added, a figure of 421 380 is arrived at for the population in 1967.

Natural increase during the intercensal period amounted to -75 379 people. The estimation of the migratory balance is more complicated.

The various sources recording movement in and out of the island provide figures which are markedly different: the results of the 1967 census [8] show a migratory balance of -5 095 people.

In another publication [10] the following 'indirect' estimates of the balance are to be found (1).

Table 78

REUNION - ESTIMATE OF THE MIGRATORY BALANCE BETWEEN
1961 AND 1967

	MALE	FEMALE	TOTAL
Increase in the number of Reunionese enumerated in France *	- 5 700	- 4 900	- 10 600
Increase in the number of French-born people enumerated in Reunion	+ 1 450	+ 1 050	+ 2 500
Increase in the number of people born in Madagascar and enumerated in Reunion	+ 650	+ 750	+ 1 400
Total balance	- 3 600	- 3 100	- 6 700

* This refers to French censuses in 1962 and 1968.

(1) The balance does not take into account the deaths of people who died in France but were born in Reunion, whose number was certainly very low considering the age distribution of Reunionese in France, or migratory exchanges with other countries.

The two following estimates may thus be derived:

Table 79

REUNION - ESTIMATE OF THE POPULATION IN 1967
BASED ON 1961 FIGURES

Population in 1967 (new definition)		351 431
Natural balance		+ 75 379
Migratory balance	- 5 095	- 6 700
Estimates (rounded) of population in 1971	421 700	420 100

The difference with the figure of 421 380 people shown above is not significant.

** 1967-1974 Interval

Regarding the 1974 census, it was not possible to make an estimate of the underestimation of children below the age of 5 as was the case for the previous censuses; if it is assumed that the relative differential was the same as in 1967, the estimated figure would be approximately 482 800 instead of 476 667.

The natural balance between the two censuses amounted to 75 153 people.

The migratory balance estimated for the same period would be 13 980, a figure calculated on the basis of the statistics of movements in and out of the island by year assuming that in the two 'extreme' years (1967 and 1974) the balance was distributed in a linear fashion over time.

Besides, the number of Reunionese enumerated in Metropolitan France increased from 16 548 to 34 985 between the censuses of 1968 and 1975, i.e. an increase of 18 437 people. Unfortunately, figures relating to the growth in the number of non-Reunionese in Reunion are still unavailable.

In addition, the census in France took place in February 1975, that is to say, 4 months after the one in Reunion. Now the years 1974 and 1975 were marked by a considerable increase of the migratory balance in Reunion, as the following table shows:

Table 80
REUNION - RECORDED MIGRATORY BALANCE, 1972-1975

1972	- 2 294
1973	- 2 387
1974	- 5 722
1975	- 9 863

In the absence of migration, the population would have increased (from 1967 to 1974) to 421 380 + 75 150 = 496 530 inhabitants.

The difference between this figure and that of 482 200 mentioned earlier, i.e. 14 330, may therefore be explained primarily as the result of migratory balance, this, of course, being subject to a more detailed analysis which will become feasible when a full breakdown of the data on the 1974 census is available.

VI. CONCLUSIONS

It has been shown that the quality of recent censuses in Reunion can be considered comparable to those in developed countries; allowing that the census of 1961 is pretty accurate, (subject to the underestimation of children aged under 5), the following estimates of the four later censuses appear:

Table 81
REUNION - ESTIMATES OF THE POPULATION AT THE
FOUR LATEST CENSUSES

DATE	ENUMERATED POPULATION	ESTIMATED POPULATION
1st July 1954	274 400	277 000 (a) 278 400 (b)
9th October 1961	349 300	351 400
16th October 1967	416 500	421 400
16th October 1974	476 700	476 700 (c)

(a) former definition of legal population.

(b) estimate of legal population following the definition used in the censuses of 1961, 1967 and 1974, assuming the relative differential to be the same as in 1961.

(c) not adjusted, lacking exhaustive data.

With regard to the previous censuses, whose organisation and control did not meet the normal requirements of modern censuses, the figures of 1941 and 1946 appear to be overestimated by 6 to 8%, the likeliest figures being as follows:

Table 82

REUNION - ENUMERATED FIGURES AND ESTIMATES OF
PROBABLE POPULATION IN 1941 AND 1946

DATE	ENUMERATED POPULATION	ESTIMATE
1941	220 955	208 900
1946	241 667	226 700

It is difficult to assess the validity of earlier censuses; it should be borne in mind nevertheless that if it is allowed that the figure of 1921 is accurate, the mean annual growth between 1921 and 1941 is 9.4%, a highly probable figure.

BIBLIOGRAPHY

- 1.- "Annuaire statistique de la Réunion 1960-1964", 1967, INSEE, Paris, 116 p.
- 2.- "Annuaire statistique de la Réunion 1965-1968", 1970, INSEE, Paris, 124 p.
- 3.- "Annuaire statistique de la Réunion 1969-1973", 1973, INSEE, Paris, 179 p.
- 4.- "Mémento statistique 1977", document n° 17, Service Départemental de l'INSEE, Saint Denis
- 5.- "Les principaux résultats provisoires du recensement général de la population du 16 octobre 1974", document n° 23, Service Départemental de la Statistique, Saint-Denis
- 6.- "Résultats statistiques du recensement général de la population des Départements et Territoires d'Outre-Mer effectué le 1er juillet 1954, Réunion", 1956, INSEE, Paris, 174 p.
- 7.- "Résultats statistiques du recensement général de la population des Départements et Territoires d'Outre-Mer effectué le 9 octobre 1961, Réunion", INSEE, Paris, 222 p.
- 8.- "Résultats statistiques du recensement général de la population des Départements et Territoires d'Outre-Mer effectué le 16 octobre 1967, Réunion, 1ère partie, tableaux statistiques" , INSEE, Paris, 117 p.
- 9.- "Statistiques démographiques. Mouvement naturel de la population année 1976", document n° 11, Service Départemental de l'INSEE, Saint-Denis
- 10.- "Les tendances démographiques dans les départements insulaires d'Outre-Mer", INSEE, Paris.

Groupe de Démographie Africaine

IDP_INED_INSEE_MINCOOP_ORSTOM

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

Volume I

Paris
1986

Le groupe de Démographie africaine IDP - INED - INSEE - MINCOOP-ORSTOM

est un organisme de liaison non officiel entre les statisticiens, démographes et autres techniciens qui s'intéressent aux questions de population dans les pays d'Afrique.

Il effectue des travaux de synthèse ou méthodologiques à partir des données recueillies ou des techniques mises en oeuvre dans ces pays ; il rend compte des travaux qui y sont réalisés dans le domaine de la démographie et d'une manière générale s'efforce d'informer les personnes intéressées par toute question ayant trait à la démographie africaine.

PUBLICATIONS DU GROUPE

- « Démographie africaine », bulletin de liaison :
 - n° 0 2^{ème} trimestre 1971 à n° 28 septembre-décembre 1978 (poursuite de cette publication à Yaoundé - IFORD)
 - numéros spéciaux 1 à 13.
- « Études et documents », prolongement des numéros spéciaux du bulletin de liaison.
- « Afrique Noire, Madagascar, Comores - Démographie comparée » tomes I et II - INSEE, INED, DGRST, Paris 1967.
- « Les enquêtes démographiques à passages répétés » Application à l'Afrique d'expression française et à Madagascar - Méthodologie - ORSTOM, INSEE, INED, Paris 1971.
- « Sources et analyse des données démographiques » - Application à l'Afrique d'expression française et à Madagascar - INED, INSEE, MINCOOP, ORSTOM, - Paris 1973-1977.
 - 1^{ère} partie : Sources des données
 - 2^{ème} partie : Ajustement de données imparfaites
 - 3^{ème} partie : Analyse des données (tomes I et II).
- « Le traitement informatique des enquêtes statistiques » - Groupe de démographie africaine, INSEE - Paris 1978.
- « Le recensement des nomades mauritaniens » - Yves PACCOU - Paris, 1979.
- « Recensements africains - 1^{re} partie : Monographies méthodologiques » - Paris, novembre 1980 et février 1981.
- « Recensements africains - 2^e partie : Synthèse méthodologique » - Paris, octobre 1981.
- « Les structures par sexe et âge en Afrique » - Gilles ROGER, Dominique WALTISPERGER et Christine CORBILLE-GUITTON - Paris, 1981.
- « L'évaluation des effectifs de la population des pays africains », tome I, Paris, janvier 1982.
- « L'évaluation des effectifs de la population des pays africains », tome II, Paris, octobre 1984.
- "Contribution à l'analyse des données démographiques imparfaites des pays africains" - Rémy CLAIRIN - Paris, octobre 1985