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December, 1973

DEMOGRAPHIC TRENDS  
IN THE REPUBLIC OF ZAIRE

Dr. Joseph Boute

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## Introduction

Joseph Boute, S.J., is Chief of Research at the Office Nationale de la Recherche et du Développement (O.N.R.D.), member of the "Centre d'Etudes pour l'Action Sociale," and Acting Head of the Department of Demography, National University of Zaire, all in Kinshasa, Zaire. He took his Ph.D. in sociology at the University of Louvain, Belgium, and studied demography at Princeton University's Office of Population Research during 1961-62. He has been active as a sociologist and demographer in the Congo (now Zaire) since 1953 and has also concerned himself with population trends in all of black Africa.

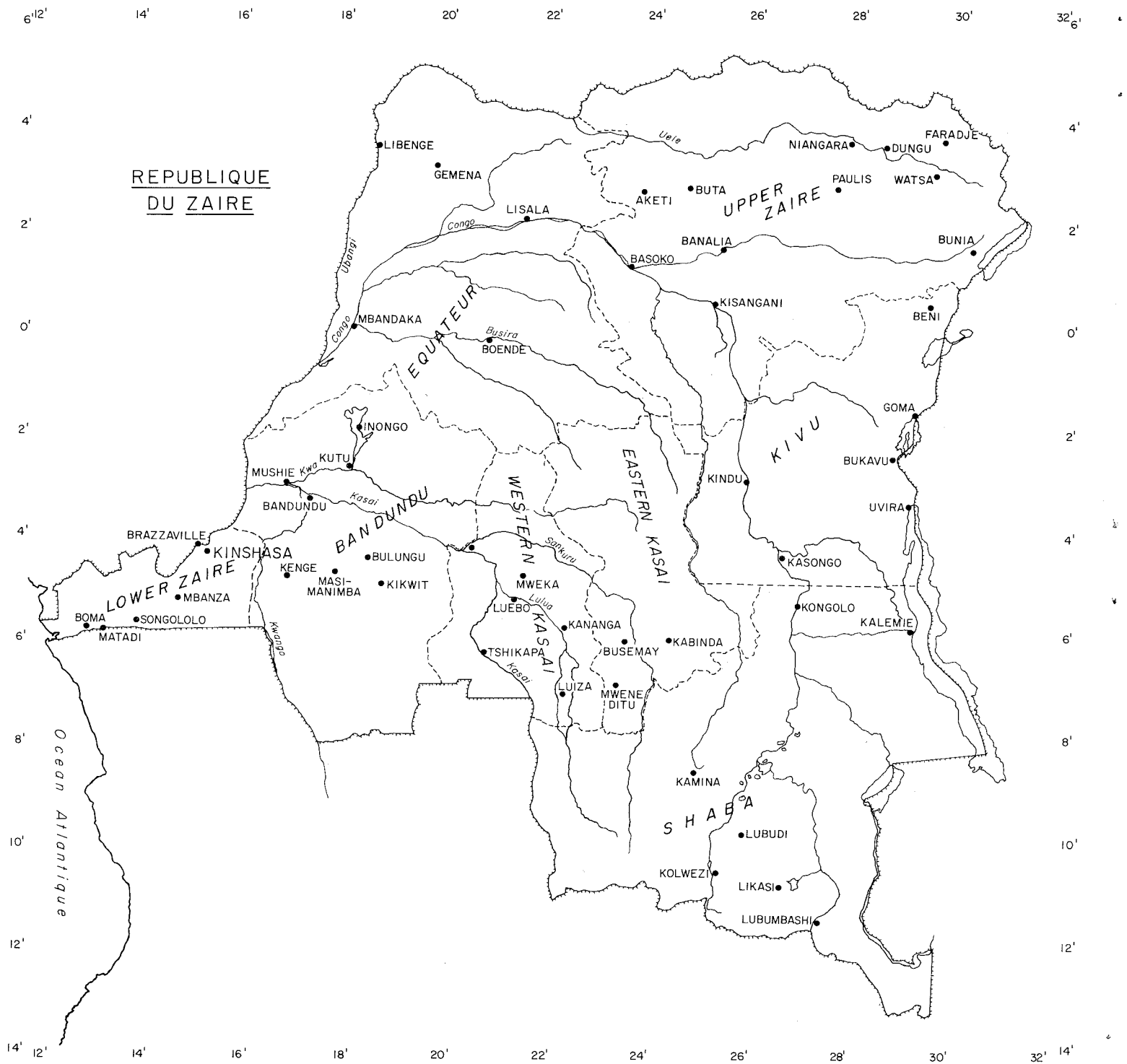
Though I first met Dr. Boute at the Caltech-American Universities Field Staff Population Conference in 1971, it was not until the fall of 1973 that I had the opportunity to converse with him at some length. At that time I was impressed with his ability to ask searching questions about the raw data dealing with fertility, mortality, and migration in Tropical Africa and then to speculate on possible answers. I use the word "speculate" on purpose and am sure that Dr. Boute would not take offence. He, as well as anyone, is aware of the paucity of information on African population trends and of the risks that accompany attempts to interpret whatever information is available. Nevertheless, he is willing to ask now very broad and stimulating questions of fundamental importance. Why, for example, is the proportion of females to males apparently higher in tropical Africa than elsewhere in the world? How does one explain significant differences in fertility between rural areas in the same country? Why does urban fertility in West Africa appear to be less than in rural areas while the exact opposite seems to be the case in Zaire? What is the relationship, if any, between fertility and polygyny? In asking these and other questions, Father Boute is not hesitant to advance both medical and sociocultural explanations. While the reader may disagree with the explanations advanced, his thinking is nonetheless stimulated.

Over the past 17 years my colleague, Elizabeth Colson, and I have been carrying out a longitudinal study of the Gwembe Tonga of Southern Zambia. As part of this study, we have been gathering detailed information on births, deaths, and migration on a sample that now numbers close to 2000 individuals. Though we have yet

systematically to analyse our demographic data, my recent conversations with Dr. Boute struck a responsive chord since he was attempting to generalize some of the very questions that we had begun to ask on the basis of our own micro-study. Though we have yet to compute the sex ratio for different generations in our sample, it is clear from preliminary analysis of genealogical data that mothers who had completed childbearing by the commencement of our study admitted the live birth of more daughters than sons. Is this because fewer sons are in fact born (are male fetuses, for example, more susceptible to falciparum malaria than female? ), or because the death rate is higher among males during infancy and the mothers more apt to forget the deaths of sons than of daughters when asked to list their children many years later?

Our data on the Gwembe Tonga also seems to support Dr. Boute's impression that fertility is higher in Central Africa among those who have moved to town than among their contemporaries who remain in rural areas. If correct, such observations raise fascinating questions that warrant inter-regional and cross-cultural comparison. Let us hope in the years ahead that scientists like Dr. Boute will have the opportunity not just to ask the questions but also to carry out the necessary longitudinal studies to answer them.

T. S.



## DEMOGRAPHIC TRENDS IN THE REPUBLIC OF ZAIRE\*

Boute: In 1968 Africa had a mean population density of 164 persons per square kilometer of arable land, as compared with the world average of 248. But of course there is a wide diversity among countries. In Central Africa, for instance, the range is between 46 in Zaire and 375 in neighboring Rwanda. There is also within each country a big difference between the figures for total surface density and those for density according to arable land. Gabon, for example, has a crude density of only 2 persons per square kilometer, but the figure for density per square kilometer of arable land is 365. But demographic conditions on the continent should not be measured in terms of numbers and density only, but rather in terms of structure, and of the needs of the different groups in the population.

So first let us have a look at the age and sex distribution. The population of Africa is a very young one. On the average in 1970 children made up 44 percent of the total population, persons of working age (15-64) made up 53 percent, and those aged 65 and over represented only 3 percent. It is important to examine trends here in planning to meet future needs for education, employment, health services, and so on. For instance, at present the working-age group is growing less rapidly than the rest of the population--the estimated rate is 2.6 percent--but as the children enter it this group will be growing at a faster rate than the total population, perhaps by the early 1990s, and by the end of the century the rate may be as high as 3.2 percent as against 2.8 percent for the population of all ages. Again, projections for the school-age group indicate that in addition to the educational needs of the estimated 90 million children in present-day Africa, these needs must be met for 54 million more members of this age group between 1970 and 1985, and another 77 million between 1985 and 2000.

So far as sex ratio is concerned, many of you already know that the African population is more female than anywhere else in the world. With few exceptions, this is true all over sub-Saharan Africa, where

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\*This account is based upon transcripts of seminars Professor Boute gave at the California Institute of Technology on October 9-10, 1973.

the ratio is consistently 90 to 95 men per 100 women. It is an interesting trend which is not easy to explain. Some people say that biological reasons, still unexplored, account for the fact that the sex ratio of male babies at birth is very low as compared with other parts of the world. But I have talked with medical people who do not find this ratio to be so in their own experience, and of course the statistical data are very poor. It is a controversial question which will have to wait until better information is available.

Now, about growth. On the average the crude birth rate for the continent is around 46 per thousand and the death rate is about 24 per thousand. I myself computed from detailed averages given in the United Nations Demographic Yearbook summaries for the major regions of Africa, and when I put everything together I found that the growth rate for the entire continent is 26 per thousand. With respect to the large regions, the figure for the crude birth rate in West Africa is the highest, 49 per thousand, and East Africa and Central Africa have about the same, 46 per thousand. The mortality rate is considerably lower in East Africa, 21 or 22 per thousand as compared with 24 per thousand in West and Central Africa, probably because of altitude--more favorable climate and less malaria. I don't think there is that much difference in the medical infrastructure among the three regions. In general it is more or less taken for granted that the mortality rate in Africa is going down on a continuous basis. I remember that at the African Population Conference held in Accra in 1971 there was quite a lot of discussion about it, some demographers contending that the UN projections almost dogmatically count on a very regular decrease in mortality and raising questions about the validity of the data base for such projections. For instance, Professor Brass from London is always trying to improve our knowledge of mortality by age, and that is why in the most recent African censuses the demographers are asked to introduce a new kind of questions: "Is your father still alive?" and "Is your mother still alive?" Of course, in the African context you have to make sure that the respondent is speaking of his biological father, since "father" is a term that means different things in different places. But once you have the answer and are able at the same time to get the age of the respondent, then it is possible to work out the probabilities of having a parent of either sex survive.

Now with respect to fertility. In the transitional societies of Africa the age of women at first marriage is usually under 20, and the

proportion of single women at age 35-40 is commonly less than 5 percent. But, although the marriage pattern is much the same throughout Africa, there are very large differences in fertility patterns from one place to another. A good deal of research is going on now to try to find out the causes for these differentials. For example, in Ibadan a new project is being planned to investigate the situation about sterility in Africa. This has an important bearing on family planning, since if you want people to be motivated for birth control and among a lot of the population many women are sterile, the others won't be convinced, you see. One major factor in sterility is venereal disease, and this can be suppressed rather quickly. Here I can cite a local example.

I spent a few weeks in southern Kasai Province, trying to see whether we could start a project of research on the influence of marital status on fertility. At one time this locality, Luiza, did not have any doctor, and about 1962 the World Health Organization sent somebody in. This man noticed when he started work that many of the women had venereal diseases. So he set about curing them and they began having children again, whereas they had not had any for some years. This doctor stayed for two years and then left. No doctor any more, no children any more. When I went around the villages I saw a lot of children 5 or 6 years of age-- none younger than that and none older than that. It was really a strange thing to see.

Education also has some bearing on fertility. Young people who are going to school may marry at a later age than they used to, and this may affect the natural fertility pattern. It is true that in many parts of Africa, high school or secondary school pregnancies are a problem. But the girl usually drops out of school when there is a pregnancy and the boy has to pay compensation for the lack of education the girl will suffer. Sociologically, things are changing quickly now on that point. For instance, the parents no longer consider that the boy has to marry the girl; he has to give the compensation for loss of education and of course he has to take care of the girl up to the birth of the child, but after that he may quit. I am speaking now about Kinshasa, where this has started only very recently; I'm not sure that the same thing is happening in other places.

Another difference in fertility is between urban and rural areas. In some areas, particularly in West Africa, surveys have shown that urban fertility is lower than rural fertility. For instance, Gaisie,

a Ghanaian, has made a very accurate investigation of various tribes in Ghana, and he found out that for all the tribes he studied the same pattern held true: fertility was lower in urban areas. But in Central Africa the opposite is the case; fertility in the cities is much higher, except possibly in Zambia, for which I have not had a close look at the figures. From discussions about this which took place at a conference in Abidjan last June, it would appear that differences in traditional customs offer an explanation. In Central Africa sexual relations are traditionally prohibited for some time after birth. But when the women move into the towns they begin to listen to all kinds of ideas and there is a trend toward emancipation. This is translated, in terms of individual psychology, into the desire of a woman to keep her husband for herself and not share him with other women. So of course polygyny is very much unwanted in urban areas. This means that the prohibition against the husband approaching his wife after the birth of a child is breaking down, and because the women do not know about contraceptives, the spacing of births is getting to be much shorter in the cities than in the rural areas.

Accurate studies of the relation between polygyny and fertility are few. When I was in the region I mentioned earlier, in southern Kasai, I tried to find out about this by asking the women age-by-age and marriage-by-marriage what had happened to them. Of course, these are touchy questions, but women in the bush do not mind answering because sexual relations seem quite natural to them. I found that the largest number of children were born to the first wife of a man with multiple wives. The second highest number of children were born to wives whose husbands did not practice polygyny. Children for second wives in a polygynous union ranked next, and the numbers of children declined for third, fourth, and fifth wives, in that order.

Q: How do you account for this seemingly extraordinary fact? Does the presence of additional wives increase the frequency of intercourse of the first wife because of potential competition?

Boute: I have no satisfactory answer. It is just that where I studied the question, the monogamous wife had fewer children than the first wife in a polygynous marriage. There could be many answers.

Now I would like to mention just briefly some government attitudes about introducing family planning. On the whole, the government

people are skeptical. Their position is that there is plenty of room in Africa and no population problem exists; that accurate demographic data are lacking and therefore the situation may be drastically different from what it appears to be. This makes for a wait-and-see attitude and points up the importance of providing Africa with good data.

A second aspect of African attitudes is that overpopulation is considered as a problem originated by the developed countries, the big consumers of the earth's resources. This came up time and again in the Accra and Abidjan conferences. The industrialized countries want to tell Africa what to do because it is necessary to them that Africans remain producers and suppliers of raw materials, as well as customers for manufactured articles. And of course the Africans are not satisfied that the consumer society should be regarded as the ideal. In fact, the more they travel in Europe and the United States the stronger this reaction becomes. But although there is a distaste for the affluent society, at the same time there is a kind of intolerance for their own way of doing things.

Much research is necessary in Africa on the influence of tradition on fertility. In the past birth spacing has been accomplished by taboos on sexual relations until a child is weaned, and by social pressure--a woman who has her children too close together is made fun of in traditional life. Now, with urbanization and with particularly the women's desire for monogamous marriages, these taboos are no longer effective. But if Africans can be persuaded that they should look for new ways to implement the old aims, I think that this way their fertility can be brought into line with the general trends of the modern world. Also, I believe that this will provide one strong basis for population policy.

Q: You mentioned Gabon. A lot of people have said that the low population in Gabon reflects the devastation of the slave trade. Do you agree?

Boute: No, I think this is anticolonialist bunk. There is no correlation. Once I asked a Gabonese: "What do you think about your rate of fertility?" He answered: "Gabonese people should drink much less." There may be something in this, because there is a large amount of sterility in the country on account of venereal disease.

Q: One can make a case that the civil war in Nigeria was one of the

first wars to be caused by taking a census. Certainly arguments over the census or over the attempts to inflate the figures in order to gain political advantage were exacerbating factors in the differences. What do you think about this?

Boute: Well, I'm sure that all over Africa census results are manipulated for political reasons.

Q: Generally to increase the strength of one ethnic group?

Boute: Yes, or one region--in order to get more assembly seats, for example, or a larger share in the budget.

Q: Nigeria would appear to have been an extreme case. Do you know of others?

Boute: Well, Blacker, who witnessed the census in Uganda, said the same thing. He had to readjust data for some places. And I'm sure that in Zaire also in the census of 1970--they call it a census, but it was just an administrative counting--orders were given to falsify the figures.

Q: To increase them?

Boute: Yes. And when you look at the results you find it was cleverly done, by the way. The proportion of children to adults is not too bad. It was very well balanced, you know. You have to look very closely and compare with earlier figures, of course. The rate of growth in Western Kasai is given as something like 6.8 percent a year.

Q: What was the advantage? Was it a local question, to get money for this region as opposed to another region?

Boute: Yes, and also to have more seats in the assembly in Kinshasa. Because the administrative counting was made six months before the election. Of course, the election results were an exact reflection of the number of adults who were in the region.

I wrote a critical commentary on the results of the so-called census, and I was not allowed to publish it until a few months ago. We are already in 1973, so it is less dangerous; by now everybody is well aware of the fact that the census of 1970 was not all that good. I would

like to talk in more detail now about that counting, and also about the general demographic trends in Zaire today.

As I have said, that 1970 census was a very simple one that gave only the number of males and females under and over 18 years of age; in other words, we have four groups, two for each sex--and that is all we have--for each collectivité locale, the smallest administrative unit. The total population of Zaire is given as about 21.6 million. There is no way of knowing the annual rate of growth, of course, since information on births and deaths in the year of the census is lacking. We have therefore to try to deduce growth rates on the basis of intercensal estimation. Now, the prior census--also an administrative counting of the same type--was taken in 1959, which gives us an 11-year period for our calculations. If we accept the figures for total population from the two censuses, then the population growth during this period would be at the rate of 42 per thousand per year, or 4.2 percent. This is, of course, unheard of in any country. It might possibly happen temporarily in small islands--I believe Mauritius has a very high rate--but for a country the size of Zaire a rate of more than 3 percent would be incredible, and one has to look for a mistake somewhere. The fact that fertility has increased and mortality has decreased is in the range of expected change; I put some qualification on that earlier in this discussion and I won't come back to it at the moment. But let me point out that acceptance of this unheard-of speed of growth leads to impossible conclusions for the separate evolution of birth and death trends. For instance, if we were to accept that Zaire has attained today an almost unbelievably low crude mortality rate of 10 per thousand, then we would have to accept a crude birth rate of 52 per thousand, which is very high. So we really have to question the figures of the 1970 census.

Recently, at the request of the planning service of the President of Zaire, I computed some new figures. In this study I had a look at the agricultural census of 1970, which also provided some data on population and on age groups under and over 18 years, and I used in addition a large national sample survey taken in 1955-57. Together with the administrative census of 1970, I then had three sources for comparison. What I did was to relate the children under 18 to the women 18 and over. The results, though admittedly crude, were interesting. Of course, the agricultural census did not include the cities, but for the rest of the country the comparisons showed a pattern.

Let us take the figures for the entire country. Those for the 1955-57 survey showed 146 children per 100 women, the administrative counting showed 192 children per 100 women, and the agricultural census showed 164 children per 100 women. Except for some slight variations in different parts of the country--I won't go into the details statistically--the pattern is always the same: the administrative census is always much higher than the agricultural census of the same year, and both are higher than the sample survey of 1955-57. I have noted down some reasons that contribute to an explanation of the overall differences, and a few of these factors I have already touched on, but I mention them again. There is better know-how among girls and mothers about confinement and childbearing. The proportion of young women entering the reproductive age is higher, and this means more mothers. Taboos with a birth-spacing effect are being neglected, especially in the eastern part. In a country where large numbers of women remain sterile, more are now able to bear a first child.

Q: Was the apparent tremendous increase in fecundity fairly uniform across the country?

Boute: Yes, except in a few regions that even before independence were known to have a bad situation with respect to fertility. For instance, I am thinking about the Mongo area, which lies in the midst of a river basin. It is swampy, heavily forested, mosquito-infested, and there are no roads; travel is by canoe. The people there are very badly off. Well, in this area the rate of proportion change of women in 1970 over 1955 was 84 percent, so it is well under the national average of 145. For the administrative census of 1970 it works out at 125, but according to the agricultural census it is exactly 85. So we come back practically to the same thing, and that is very interesting. Also, in the Luiza area in southern Kasai, where I did the survey on polygamy and fertility, there was a bad situation when you look at the figures. In 1955 the figure was 146 and now it is 91. I am sure the high mortality accounts for that. All of this means to me, at least, that the agricultural census is much closer to reality than the administrative one.

The difference between the administrative and the agricultural surveys in 1970 is largely explained by the kinds of people who gathered the data. The Department of Agriculture sends people into the field to find out about crops and irrigation and things like that. Although they took a sample of population everywhere they went, they did not have

an urge to come back with large figures. Theirs was not really an exhaustive census, but it did provide figures for the second smallest administrative units, the groupements, which comprise two or three collectivités. I chose a sample from among their list of figures for all the groupements.

This is the point I want to make--that each time we get hold of one more source of data, we have a new reason for asserting that the figures in the administrative census were too high. For example, I investigated also the intercensal rate of growth. We had one administrative counting in 1956 and another one in 1959, and both of these countings were more accurate than that in 1970, I believe. I took the intercensal rate of growth between these two earlier censuses and then computed what the population would be if this rate were to continue up to 1970. I did it for each of the 24 districts in Zaire. Now, if you add the 24 estimations together you get a total population of 18,317,000 instead of the 21,637,000 given in the 1970 census. Of course, there is no certainty that the population will stick to the former rate of birth, so I decided to accept an increase of 5 per thousand in the rate and recomputed the total. I got a figure of 19,700,000, and to me this looks like a sensible figure for 1970. It is very crude, naturally, the way I tried to adjust it, but I think it is better than nothing.

Now, what we tried to do in the National Statistical Institute is this. We were asked to compute some projections up to 1980, but we were requested to stick to the figures of the administrative census of 1970. So what we did was to take the 1970 figures, since these were officially enforced on us, but then to use the rate of growth I have been talking about, so that the closer the projection got to 1980, the more normal the figures would look. And if there is a census in that year and they hit our figures on the projection, then they will say, "Yes, we were expecting that," and they won't be surprised to find that number of people, even if they would like to have more. If someone isn't happy with our figures, well, we will have to live with it. We won't give them other figures. So the projections were done, and the Office of the President considered that they were the official version of the government. All the government departments--Agriculture, Labor, and so on--were practically forced to accept those figures and to make all their provisions accordingly. It is a little bit tricky, but it seems much more sensible to do it that way.

There is another point I want to make. We showed, because we did not

want to be too dogmatic about it, three different projections--high, medium, and low--as the United Nations commonly does, and, of course, I have been speaking about the medium projection, which looks to me more reasonable than the others. Now, there was a fair in Kinshasa, as there is every year at the end of June and the beginning of July, and we were asked to exhibit some maps and graphs, so we showed a graph of the three projections. The President when he visited the fair stood there looking at our projections. And then he said, "Well, I prefer the lowest one. Because what can we do with all those children? It is really becoming a problem." This shows that the American doctors who have been attending him are beginning to influence his thinking. Three years ago he was very proud of Zaire being a big nation of 21.6 million, and a few months later he was already speaking of it as 22 million. Now it is no longer like that.

I will give you another illustration of the change. A month ago there was a meeting in Nairobi on population policy. The Zairian representative and I had several discussions before he wrote his paper; he had studied economics in London, so he knows English rather well. And this is what he wrote about the current approach and programs.

"Before 1972, in spite of the availability of countrywide data, no official position was formulated on family planning or population control in Zaire. Nevertheless, certain laws concerning social and family welfare exercised an unsought-for influence over the population growth. This was the case with the sale of contraceptive articles and the practice of abortion, which were both explicitly prohibited by the colonial penal code. But these provisions were neither formally ratified nor abrogated after Independence. It was only in his address to the National Legislative Council on December 5, 1972, that the President for the first time raised a question of the birth and death rates when he declared that 'the decline in the death rate no longer required, as in times past, that there were numerous births in order to have the same number of children.' Also, one concluded from that message that the government had to search for means of reducing to a minimum infant mortality just as it had to explain as well as to facilitate the use of contraceptives. These words of the President then gave the signal for a series of direct and indirect measures for concrete action. Among the direct measures adopted were the creation of a National Council for the Promotion of the Principle of Desirable Births, the setting up of family planning units in hospitals, and the encouragement of the use of contraceptives." Then he gives a lot of

indirect measures that I won't enumerate. So you see that Zaire now has a sort of official policy which is favorable to contraception.

Q: May I ask if any of this--the split in recent years between Bishop Malula and President Mobutu--did any of this arise over the question of family planning?

Boute: No.

Q: So the Catholic Church has not made an issue of this in Zaire?

Boute: No, not at all. I should explain that in the Catholic Church in Zaire there are 46 diocese and 8 archdiocese; about 40 percent of the population is Catholic, and of course, then, the Church is considered a large social body. More than half of the bishops are Zairian--I can't say exactly because some have died recently and some auxiliary bishops have been added, but I know that it is more than half. Now to get back to your question. At the annual general assembly of bishops in 1968 the African bishops, who are more conservative than the European ones, were contemplating issuing a statement about Humanae Vitae. There was some tension about them at this time, but then they decided just to keep silent. Whereas for instance in Ouagadougou in Upper Volta, some bishops spoke loudly in favor of Humanae Vitae, in Zaire they did not talk about it. So this was not at all an issue between the President and the Catholic Church.

Q: As a Jesuit, have you never been criticized within the Church because of your stand on family planning?

Boute: No, never. Before we go on to something else, the last point I want to make here is that recently the creation of a National Council for the Promotion of Desirable Births was decreed, as mentioned a moment ago in the paper I quoted. This is a cumbersome term. It came about because in his address to the National Legislative Council, President Mobutu said that instead of speaking about "family planning," he himself preferred to speak about "desirable births." He did not explain in what sense they were desirable. What may be desirable for the government is not necessarily desirable for the parents. Also, in Africa you have to contend with the extended family; a nuclear family household might like to have fewer children, but maybe the uncles and grandparents and everybody behind them are

pushing them to have more. Well, so the decision was made last February to create the Council, but nobody was ever appointed and we are already into October. The Council is not working yet because nobody is in it. In other words, things are going ahead, but not all that quickly.

Now I would like to talk for a few minutes about the cities. I want to show you that it is not exactly easy to analyze growth trends in the cities, because historically towns were organized in a variety of ways. First, in 1913, when some points in the country began to attract more people, human agglomerations grew up, and within these the decision was made under colonial rule to separate the European and the African sous-régions (districts) in what was really a segregative measure. The European quarters were called the ville and the African quarters were called the cité indigène, and each had a separate administration. Africans were allowed to work in the European sous-régions, but, except for house servants, were required to go back to their own sous-régions at night to sleep.

A little bit later, in 1915, another formula was used for some places where the government decided to take over land to prepare for the grouping of a city. These were called circonscription urbaine, and the area covered was much larger than the place where people were actually living. It might include, besides the core of the city, some villages that were destined to become incorporated into the city when it grew up.

In 1923 Léopoldville was the first to be called a district urbain, made up of the cité indigène, the ville, and some neighboring territory. Then in 1931 still another kind of settlement was formulated, the centre extracoutumier. In the interior, in some places where, for instance, there was one small European enterprise, this business was likely to be located on the fringe of a neighboring village and was considered as a special part of that village. But tensions arose with the chiefs and so on, and the administration decided to separate these enterprises from the villages. They were called centres extracoutumiers, which means "outside of traditional life." By 1959 there were 48 such centers in the country.

Kinshasa itself is very complex in its origins. The original settlement, the cité indigène, where the boats started to go to Stanleyville, 1000 miles up the river, today is called Kintambo, after the chief Stanley encountered there in 1873. But it became too

small, and another port was started some distance away. Then there was a village called Kinshasa, where people began working for the embarkment of goods, and so on. By 1954 the city of Léopoldville embraced three zones--Kinshasa, Barumbu, and Linguala. Then in 1956 the administration decided to establish three different centers--Bandalungwa, Matete, and Lemba, with nothing in between. Today all that is Kinshasa, the district urbain. I don't want to elaborate any further, but just to stress that in using statistics about cities, especially in computing intercensal rates of growth, one has to be extremely careful. If the definition of the place is not the same at different times, it can be very misleading.

Most of the cities in Zaire are growing quite rapidly. We have 10 centers growing at the pace of about 11 percent a year--very fast. Then the rate for 14 cities is between 8 percent and 10 percent, for 15 cities between 5 percent and 7 percent, and for 11 cities between 0 and 4 percent. This rate of growth is not something new--the pace has been more or less stable for the past twenty or thirty years when the areas are correctly defined. And this shows that it is not only because the country became independent and obstacles were removed that the cities are growing now. It used to be said that the cities were developing because of the need of manpower, which actually is not quite true. The trend is a fundamental one. People want to come to the cities, where they have advantages. And I don't mean just employment. If you ask a woman, "Why did you come to the city instead of staying in your village?" she would answer you, "Well, I don't have to cut the wood, I have charcoal ready to use," and things of that kind.

Q: Was there not a very sharp increase in the rate of growth in Kinshasa, or Léopoldville, after World War II? I was there in 1947 and again in 1953 and 1955, and I remember the difference.

Boute: Yes, and especially after 1960. But in fact that was a kind of making up for what could not be done within the previous five years. Between 1955 and 1960 the colonial government really tried to impede people from coming into Léopoldville because it was growing too fast. But when you look at the general trend, there is no important change.

Q: The reason I asked the question is because this is generic to most African cities. During the colonial period many of the

administrators tried one way or another to stop the rapid urbanization, which was creating a lot of problems, and the same concern is still felt today. It has sometimes been said that one of the advantages of independence would be that an African government would be more willing to try to take measures to control too-rapid urbanization, whereas if the same things had been done by a colonial government they would have been regarded as politically repressive and would have led to confrontation.

Butte: In Zaire you have an example of that, too. Three years ago the government decided to send back to the villages people who did not have any jobs in the city. And people were put on the trucks and there they went.

Q: Was it a law or did they just do it?

Butte: Well, it was a local administrative decision all over the country, but it was not a law. And of course it is all very well to make a decision like that, but one has to be able to enforce it. First of all, you never know whether the people have really reached their villages, and second, what is to prevent them from coming back? So after a few months, there they are again.

Now, if one looks at a map of Zaire to see where the big cities are, one finds that they lie along the communication lines--along the rivers and the railroads and along the lake. But the interesting thing is this: If you compare a map that shows density of population, you will see that except in one place--along the lake--high density does not actually follow along the same lines. On the contrary, the areas of highest density are generally away from the places of resources or of communication. That means, for example, that for the extraction of copper in South Shaba, where the density is only 2 persons per square kilometer, people had to be brought in from Kasai to work in the mines and the Belgian government had to build houses for them. Of course, it was a paternalistic way of doing things, but they could not do otherwise, since there were not enough people living there before. One explanation of the low densities along the rivers is the sleeping sickness. The tsetse fly is very much alive in what we call in French la forêt galerie--the gallery forest that extends for a few miles in width along both sides of the rivers--so it was impossible for people to exist there and they had to live farther away. But then because of the traffic and the other needs of economic life, they had to come back to where the traffic was taking place. And this, I think, is one reason for the fact that you now have the cities along the rivers.

Q: I would like to ask where Kinshasa got its people. Because it is particularly interesting that the percentage of people who come in from Angola is high. This was true long before the fighting started, though it seems to have accelerated since then.

Boute: There are many Angolans in Kinshasa, yes, but most Angolans are living down near Matadi. One area there, the Songololo territory, is 60 percent Angolan and only 40 percent Zairian.

Q: What is the proportion of Angolans in Kinshasa?

Boute: About 16 percent.

Q: Are they permanent? They would not go back to Angola if it were African ruled?

Boute: No. Maybe some of them would, but the majority would not. Because for most of them, their fathers came here at the time of the Belgian colony and they don't feel like going back. They are at home in Kinshasa or in Zaire, and many have married Zairian girls. One has to remember that these people are at home everywhere: the former kingdom of the Congo was in what are now three different countries--Angola, Zaire, and the People's Republic of Congo.

Q: Then they are not drawn from poor areas in Angola seeking employment?

Boute: Well, today in Zaire when you speak of Angolans, you are speaking largely of people who came from the region beyond the falls, not from farther south, but I don't know the breakdown. Today the Liberation Army in Angola is trying to get some Angolans from Kinshasa to be trained in guerrilla camps in lower Zaire and to go back to Angola to fight against the Portuguese. But most of them don't like that; they say they have been so long in Zaire that they no longer consider themselves Angolans and why should they go back there and get shot?

Q: Does Zaire have a sufficiently large armed force to discourage any threatening gestures from the Portuguese in Angola over these problems, such as the training of guerrillas on Zairian territory?

Boute: Well, you see, in a developing country like Zaire you always have many unemployed people. So one way of coping with that problem is to draft many men, and that is what is happening in Zaire. They have a huge army, more than 30,000 men, which is quite unnecessary. Actually, what will they do with it?

Q: Are they being equipped in any special way? And by whom?

Boute: Mostly by the United States. The Air Force is equipped by Italy, and the pilots are trained by Italian instructors.

Q: But it is a relative matter, isn't it? That is, 30,000 troops in an area that is larger than the United States east of the Mississippi doesn't sound like such a lot.

Boute: No, but I don't think they are planning to fight. Sometimes one hears that they are preparing a huge army to march against South Africa, but I think these are only rumors.

Of course, to a certain extent these are the ones who are keeping order, and sometimes they are also creating disorder. A year ago I went from Kinshasa down to Matadi. This is the only asphalt road in Zaire, something like 350 kilometers long. On that stretch of road there were eighteen barriers manned by gendarmes that are not needed at all. Things like that happen everywhere. Also, most of them are not really well-trained soldiers.

Q: How long does it take before Angolans are counted as Zairians?

Boute: There is no exact rule about it. For a long time they were considered as Congolese, because under colonial rule anyone who originated in a neighboring country was considered as Congolese in the census, and no distinction was made among them. That is another reason why it is difficult to compare censuses. What is the proportion of people who are today considered as foreigners but who were not so regarded in a former census? So I cannot answer your question exactly. But I do know that in 1970 the government made a special effort to change and to be more precise about differentiating between people coming from outside and people who are native Zairians. They did not want to give foreigners the right to vote, for instance. During the first years of independence "foreigners" meant white people, but that is no longer true. Today a foreigner is really a foreigner, whatever the color of his skin.

Coming back to the cities. I have tried to compute some ten-year projections for these and I would like to pass them along to you. The annual rate of increase for Kinshasa works out at 108 per thousand, and thus a population of 1,300,000 in 1970 would become 3,680,000 by 1980. For the province of Lower Zaire I considered 23 centers--a "center" as used here being a city of 5000 or more in 1970--and the rate of growth is much lower, only 67 per thousand. So from a total of 380,000 it would become 770,000 by 1980. Matadi is the largest city in this région (province), of course, and today Matadi must come to something like 170,000. The 14 centers in Bandundu Province, with an annual increase of 69 per thousand, will go from 330,000 to 658,000, more or less. Equator Province has 11 centers and an annual rate of 61 per thousand, one of the lowest. Here the increase is from 280,000 to 519,000. Upper Zaire, with 21 centers and a growth rate of 71, has a population in 1970 of 526,000, which will grow by 1980 to 1,046,000. The 16 centers in Kivu Province, annual rate 86, will go from 435,000 to 989,000. In Shaba, formerly Katanga, the rate of increase is only 55 per thousand, which is a very slow pace in comparison with the rest. Here the urban population will increase from 863,000 to 1,474,000, the highest figure for 1980 except for Kinshasa. Eastern Kasai has 8 centers and a rate of 67; the population figures are 519,000 for 1970 and 996,000 for 1980. And the last région is Western Kasai: 7 centers, a very high annual growth rate--88 per thousand--and a correspondingly large increase, from 580,000 to 1,279,000. Altogether, the 117 centers considered had an aggregate population of 5,256,000 in 1970, or 24 percent of the total population of the country. With a rate of growth on the average 80 per thousand per year, this would mean an urban population in 1980 of 11,379,000, or 39.7 percent of the total. So seven years from now, 40 percent of the Zairian population will be living in cities.

Q: But won't there be more centers of 5000 people by that time, so that the figure would actually be higher than 40 percent?

Boute: Exactly. And this points up what I said earlier about the fertility pattern and its importance.

Q: Earlier you gave us a rather dramatic example of the effect of one doctor in one region curing venereal disease to some extent, and the consequent large number of children. Are we correct in assuming that in the cities there are better public health care and control of venereal disease? In other words, would the ones coming

in from the country benefit from that so that you would have a higher specific fertility?

Boute: Precisely right. Sometimes I have had young men come to me and say, "I am suffering." And I say, "Well, what kind of suffering do you have?" Then they look at me in a certain way and I understand. I tell them, "You go to the dispensary right away." So they go to the neighboring dispensary and there it is; it takes four or five days and they have forgotten about it. Of course, in the interior they could never do that.

Q: Can you estimate this effect on the growth trend in the cities?

Boute: No, I use the general trend, assuming that a similar pattern existed in the past. This would mean that if the trend is more or less changing throughout the period, one would think that fertility is higher and mortality the same or a little bit lower. And then the natural increase would be higher. But it does not mean that global growth would necessarily be higher, because you don't know how many people you pull in by migration.

Q: What do you forecast, though, for the effect of increased medical services in areas that don't have them now? Presumably in 1980 there will be a larger number of Zairian doctors.

Boute: I don't have the figures here, but of course the cities are always much better off as regards the number of medical doctors available for the population. And I think that the gap between the cities and the rural areas in this respect will be greater in the future than it is today, unless there is a drastic change enforced by government decision. But I don't expect that. Zairian doctors don't want to go into the interior. They prefer to stay in the cities because then they can open their own offices and work for their own sakes instead of working in the state hospitals.

Q: What about nursing teams and paraprofessionals who, if I understand the situation correctly, can work in the country or anywhere else?

Boute: They can work anywhere, yes, but their proportion is small.

Q: In the cities do you have developing at least the beginnings of a middle class of administrative people and technocrats, so to speak,

who would tend to have smaller families and higher economic status? Would that effect the projections to any degree?

Boute: Yes, we are beginning to have a middle class, but they are a minority. The people who are coming in and the lower class people still stick to their old traditions. They don't see why they should have fewer children, since this would not change anything. Some surveys made on household expenses show that whatever the number of children these families have, they would not spend one likuta--1/2 a U.S. cent (1/100 of a "Zaire")--more if they had more children.

Q: From your predictions about rapid urbanization, which are obviously sensible, you seem to presume that government efforts in birth control will not really get under way. But one would like to think that if they did, then urbanization and a concentration of doctors in the cities would be the ideal way to get population control. You wouldn't have to chase around the whole countryside in order to find people.

Boute: I don't know whether you have been able to speak with people in charge of family planning in Kenya and Nigeria and places like that. What I have heard from these people indicates that family planning will have some results so far as mother and child care is concerned, but when it comes to reducing the growth rate it is really too early to tell. I expect that it will be at least 1990 before we are able to see that a change has come about in that respect.

Q: I only know of one specific instance, but in that case they tried to extend birth control out into the rural areas and the men strongly opposed it for all kinds of reasons--psychological and sociological. But in an urban situation where many of the women were working in factories the women wanted birth control, and in the anonymity of an urban society they were able to get contraceptives without telling the men about it. Of course, in a rural society they might have been discovered.

Boute: In 1967 we did a sample survey in Kinshasa on fertility and economic status. We divided the city into six different kinds of areas and looked at the fertility rates, and we found that the higher the socioeconomic status, the lower the fertility.

Q: But what proportion of the people are in the upper bracket?

Boute: Less than 5 percent.

Q: It seems to me that the large growth of urban population is going to require conversion to a completely different type of economy. I wonder whether there are finally going to be so many people in the cities that the government won't be able to provide the services necessary to keep the city going, and the momentum will, in effect, stop itself?

Boute: You mean, let the garbage pile up, and if it gets too bad nobody will come to live there? But I don't think the people who migrate to the cities will consider that. They will go there anyway.

Q: Yes, people have been pouring into the cities in Africa to live under some of the worst slum conditions. They take a lot of tin cans and put them together and hang up a few burlap sacks.

Boute: They have nothing in the interior, most of them, so they just want to try their luck. Once they are there, and find out that it is not heaven, they don't want to go back because it would show everyone that they did not succeed.

Thank you very much, Professor Boute, for coming to discuss Zaire demography with us. We feel that Zaire is fortunate to have you in its service.

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