

CHAPTER 1

INTRODUCTION

1.1 History, Geography and Economy

History

Historical and archaeological evidence indicates that by 1500 much of modern Zambia was occupied by farming people who were ancestors of the present inhabitants. In the late nineteenth century various parts of what was to become Northern Rhodesia were administered by the British South Africa Company. In 1924 the British Colonial Office assumed responsibility for administering the territory and in 1953 Northern Rhodesia (Zambia) and Southern Rhodesia (Zimbabwe) joined Nyasaland (Malawi) to form the Central African Federation of Rhodesia and Nyasaland, despite the opposition of Northern Rhodesia's Africans. The Federation was, however, dissolved in 1963. In October 1964, Zambia became an independent nation and adopted a multiparty system with the United National Independence Party (UNIP) as the ruling party and the African National Congress (ANC), led by Harry Nkumbula, in the opposition.

By 1973, Zambia had become a one-party participatory democracy under President Kenneth Kaunda's UNIP. The present government headed by President Frederick Chiluba came to power in November 1991 after winning both presidential and parliamentary elections in the reinstated multi-party democracy.

There are 73 officially recognised ethno-linguistic groups in Zambia. The major groups are Bemba, Kaonde, Lozi, Lunda, Luvale, Mambwe, Ngoni, Nyanja, Tonga, and Tumbuka. However, the ethnic and provincial alignments seldom involve the smaller ethnic groups among the seventy-three official groups. Most ethnic groups are concentrated in different parts of the country. The Bemba live primarily in Northern and Luapula Provinces, the Tonga inhabit Southern Province, the Lozi Western Province, the Nyanja and Nsenga Eastern and Central Provinces and the Luvale, Lunda and Kaonde are found in North-Western Province. Most people in Zambia are Christians; however, indigenous traditional religion is the second most widespread belief system.

Geography

Zambia is a land-locked country covering an area of 752,614 square kilometres and consisting of about 2.5 percent of the area of Africa. It shares borders with Zaire and Tanzania in the north; Malawi and Mozambique in the east; Zimbabwe and Botswana in the south; Namibia in the southwest and Angola in the west. Administratively, the country is divided into nine provinces and fifty-seven districts.

Zambia lies in the southern tropics between 8 and 18 degrees south latitude and between 20 and 35 degrees east longitude, a huge butterfly sprawling over the Central African Plateau, with an average altitude of 1,127 metres above sea level. The mountainous areas are found chiefly along the border with Tanzania (Mbala Highlands in the northeast) and Malawi (Mafinga Mountains, particularly the Muchinga Escarpment) where the land rises to 2,000 metres above sea level. The broad depressions at the edges of the plateau form Lakes Tanganyika, Mweru and Bangweulu in the north, the Luangwa River in the east, and the Kafue basin and the alluvial plains of the Zambezi River in the west. The Zambezi River forms Zambia's southern border with Zimbabwe. Among the other major rivers in the country are the Kafue, Luangwa and Luapula.

Zambia has a tropical climate and vegetation. There are three distinct seasons: the warm-wet season stretching from November through April, a cool dry winter season from May to August with the mean temperature varying between 14 and 30 degrees centigrade and a hot dry season during September and October with mean daytime temperatures rising to between 29 and 32 degrees centigrade in the north and northwest and to 35 degrees centigrade over most of western Zambia. The Copperbelt, North-Western, Northern and Luapula Provinces receive the highest precipitation, with the annual average ranging from 1,100 mm to over 1,400 mm. There is a systematic decrease in rainfall towards the south and east, with an annual average ranging between 600 mm and 1,100 mm. The typical vegetation cover is woodland savanna with a mixture of various types of trees, tall grass, herbs and other woodlands which are mainly of the deciduous type usually found on the main plateau. These are also found in other areas, especially the successful maize-farming areas of Southern and Lusaka Provinces. Forests are found in North-Western and Northern Provinces. Grasslands occur mainly in the seasonal flood plains of Western Province and in the Kafue and Bangweulu swamps.

Economy

Zambia has a mixed economy consisting of a modern and urban-oriented sector confined to the line of rail (the area roughly within forty kilometres of either side of the north-south railroad running from the Copperbelt in the north to Livingstone on the Zambezi River) and a rural agricultural sector. The modern sector is dominated by parastatal organisations, while the private sector has been predominant in construction and agriculture. Most of these parastatals are now being privatised by the Movement for Multiparty Democracy (MMD) Government.

Copper mining is the country's main economic activity, accounting for 95 percent of export earnings and contributing 45 percent of government revenue during the decade following the attainment of political independence (i.e., 1965-1975). This situation was sharply changed by the drastic decline in world copper prices in late 1974 and 1975. Some improvement in prices began in 1978, but in 1981 and 1982 prices dropped sharply again.

The fall in copper prices, rising oil prices and the slow pace of industrialisation with a heavy dependence on imports have driven the economy to a very difficult situation. In 1989 the gross domestic product grew by a meagre 0.1 percent in contrast to 6.3 percent in 1988. Real output declined by an average of about 1.0 percent annually between 1989 and 1991, with the decline in 1991 amounting to 1.8 percent. Real per capita gross domestic product, on the other hand, declined by an average of 1.6 percent per annum between 1984 and 1990.

In spite of attractive copper prices in 1989, acute shortage of foreign exchange remained a major constraint in the development of the economy. This was largely attributed to reduced volume of copper sales associated with difficulties in production and transportation. The development of non-traditional exports remained below expectations.

Essential commodities and services continued to remain in short supply and inflation reached an unprecedented level of well over 100 percent. As a result of an apparent decline in the national economy, the provision of social services such as health and education were drastically affected. For instance, the share of the Government budget for the education sector in 1989 was only 8 percent and in the health sector there was growing evidence of increased malnutrition and higher infant mortality.

In an effort to halt the economic recession, the Movement for Multiparty Democracy (MMD) Government has launched an Economic Recovery Programme (ERP) to turn around the "protracted decline of the economy into sustained positive real growth, coupled with lower inflation and consequent improvement in living standards and the quality of life of the people" (Republic of Zambia, 1992).

In the 1992 budget, the Government adopted certain policy measures which were intended to achieve, among other things, the following objectives:

- i) To halt the decline in real gross domestic product in the economy and achieve a moderate rate of growth in 1992;
- ii) To limit the growth in the money supply to around 25 percent and consequently bring inflation down to around 60 percent;
- iii) To reduce the budget deficit to 1.9 percent of GDP so as to minimise the use of inflationary finance and facilitate the reduction in inflation;
- iv) To restore medical and educational services to decent levels by increasing recurrent and capital funding to these sectors; and
- v) To rehabilitate the road network in both rural and urban areas (Republic of Zambia 1992).

1.2 Population

The 1969, 1980 and 1990 national censuses reported total populations of 4.0 million, 5.7 million and 7.8 million respectively, implying growth rates of 3.1 and 3.2 percent per annum between 1969-80 and 1980-90 respectively (see Table 1.1). The growth rates, however, range from 2.2 and 2.3 percent in Luapula, Western and Copperbelt Provinces to 4.0 percent in Eastern Province and 5.6 percent in Lusaka Province during the 1980-90 intercensal period.

The enumerated population in 1990 is lower by 0.25 million than the projected population based on the 1980 census data (Central Statistical Office, 1985b), by 0.20 million from the World Bank projections and by 0.63 million from the latest medium variant projections of the United Nations for the same year (World Bank, 1992; United Nations, 1991). Thus, there seems to be an undercount in the 1990 population census by between 2 and 7 percent. The growth rates would therefore be underestimates.

The population density increased from 5.3 people per square kilometre in 1969 to 7.5 in 1980 and 10.4 in 1990. The average density in 1990 ranged from 55 people per square kilometre in Lusaka Province and 50 in Copperbelt Province (both heavily urbanised) to 5 and 3 people per square kilometre in Western and North-Western Provinces, respectively.

There has been almost continuous migration of people to mining towns and urban centres and as a result, the proportion of the population living in urban areas has increased steadily from 29 percent in 1969 to 42 percent in 1990. The proportion urban varies among the provinces from 91 percent in Copperbelt Province to 9 percent in Eastern Province. While the population in urban areas has grown by 3.7 percent per annum during the decade 1980-90, the population of rural areas has increased by 2.8 percent. During the previous period 1969-80, the urban population grew at an even higher 5.8 percent per annum, compared with 1.6 in the rural areas. Thus, the speed of migration to the urban areas slowed down considerably during the 1980-90 period compared to the earlier period.

Table 1.1 Demographic indicators, Zambia 1969, 1989 and 1990

Indicator	National censuses		
	1969	1980	1990
Population (millions)	4.0	5.7	7.8
Density (pop./sq.km.)	5.3	7.5	10.4
Percent urban	29.4	39.9	42.0
Crude birth rate (per 1000)	47.7	50.0	49.5 ^a
Crude death rate (per 1000)	19.7	16.7	13.2 ^a
Growth rate (per 1000)	28.0	33.3	36.0 ^a
Total fertility rate	7.1	7.2	7.0 ^a
Completed family size (women age 40-49)	5.1 ^b	6.7 ^b	NA
Infant mortality rate	141	97	89.6 ^a
Life expectancy at birth			
Male	41.8	50.4	52.9 ^a
Female	45.0	52.5	55.0 ^a

NA = Not applicable

^aEstimates based on projections of 1980 census data

^bReported figures

Sources: Central Statistical Office, 1974; Central Statistical Office, 1985a and 1985b; Central Statistical Office, 1990a.

The estimated fertility levels have remained virtually constant during the 1969-80 period. The crude birth rate has ranged between 48 and 50 births per 1000 population per year and the crude death rate is estimated to have declined from 16.7 during the quinquennium 1975-1980 to 13.2 during 1985-1990 (Central Statistical Office, 1985b).

The previously estimated total fertility rates lie in the neighbourhood of 7.0 children per woman. The reported total fertility rate of 4.0 in 1969 and 5.7 in 1980 are indicative of underreporting of live births in the two censuses.

The life expectancy at birth climbed from 43 years in 1969 to 51 years in 1980; it was projected to have risen to 54 years by 1990. Zambian women live, on average, 2 to 3 years longer than men. Mortality levels are highest in Eastern, Luapula and Western Provinces, followed by Northern and Southern Provinces, with Lusaka, Copperbelt and Central Provinces experiencing the lowest mortality rates; life expectancy at birth ranged from 44.9 years in Eastern Province to 56.5 years in Copperbelt (Central Statistical Office, 1985b). The overall child mortality declined from 175 deaths per 1000 births in the mid-1970s to 160 in the late 1970s and early 1980s.

1.3 Population and Family Planning Policies and Programmes

For the first decade and a half after independence, Zambia did not view her high rate of population growth as a developmental problem. The only concern then was with the high rate of migration from rural to urban areas and uneven spatial distribution of the population. The results of the 1980 Population and Housing Census exposed the rapidity with which the population was expanding and the implied adverse effect on development and individual welfare. This led to government reappraisal of the perceptions of the role of population in national development efforts. The government realised that the nation's development planning

and plan implementation processes should not only aim at accommodating the increased demands for goods and services brought about by population growth, but should also aim at influencing those aspects of the country's sociocultural life that underpin high levels of reproduction and thus of population growth.

In 1984, the National Commission for Development Planning (NCDP)—now the Ministry of Planning and Development Cooperation—was given a mandate to initiate a draft population policy which would aim at achieving a population growth rate consistent with the growth rate of the economy. The National Population Policy was formally launched by the President in May 1989. The ultimate objective of the policy is to improve the standard of living and quality of life of all Zambians. The immediate objectives of the policy are to:

- i) Initiate, improve and sustain measures aimed at slowing down the nation's high population growth rate;
- ii) Enhance the people's health and welfare and prevent premature death and illness especially among the high health risk groups of mothers and children;
- iii) Systematically integrate population factors into the nation's development planning and the plan implementation processes;
- iv) Ensure that all couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so;
- v) Achieve a more even distribution of the population between urban and rural areas and to regulate international migration;
- vi) Expand and maintain the nation's population database.

The main targets of the national population policy are to:

- i) Reduce the rate of population growth from 3.7 percent per annum in 1989 to 3.4 percent per annum by the year 2000 and to 2.5 percent per annum by the year 2015;
- ii) Reduce the total fertility rate from 7.2 to 6 by the year 2000 and 4 by the year 2015;
- iii) Reduce the infant mortality rate from 97 per 1000 live births to 65 per 1000 live births by the year 2000 and to 50 by the year 2015;
- iv) Make family planning services available, accessible and affordable by at least 30 percent of all adults in need of such services by the year 2000 (National Commission for Development Planning, n.d.).

The strategies for implementing the policy are predicated on the voluntary acceptance of family planning methods in accordance with fundamental human rights. The main strategies include:

- i) Formulating and implementing fertility regulation and family planning programmes within the context of the nation's health care and related systems;

- ii) Providing necessary information and education on the value of a small family size norm to both the individual family and the nation as a whole in achieving self-reliance;
- iii) Intensifying the primary health care programme especially maternal and child health care, so as to reduce the levels of infant, child and maternal morbidity and mortality;
- iv) Improving the status of women through the removal of various social, legal, administrative and cultural barriers to their effective participation in national affairs in order to enhance their participation in national development efforts and as a way of ensuring demographic transition from high to low population growth rates (National Commission for Development Planning, n.d.).

Non-governmental agencies such as the United Nations Population Fund (UNFPA), International Planned Parenthood Federation (IPPF) through its Zambian affiliate—the Planned Parenthood Association of Zambia (PPAZ)—and the Family Life Movement of Zambia (FLMZ) provide material, financial and technical assistance and operate family planning clinics, supplementing the efforts of the Ministry of Health (MOH).

1.4 Health Priorities and Programmes

The Government's commitment to the objectives of attaining health for all means not only improving the accessibility of health services and reducing mortality and morbidity, but also improving the quality of life of all Zambians.

The strategy for achieving this objective is the Primary Health Care (PHC) programme, which constitutes an important component of the health care delivery system. To ensure that the PHC programme operates efficiently in tackling the main health problems of the individual, the family, and the community, the health service has been decentralised, with the responsibility of planning, implementing, monitoring, and managing PHC programmes falling to the districts. The integrated health plans developed out of the District Health Boards' Basic Health Programme constitute the PHC package.

The reformulated PHC programme aims, among other things, to tackle the main health problems in the community, focusing on the needs of the underserved, high risk, and vulnerable groups. Thus, attention is paid to the rural and peri-urban areas where the health needs of the people are greatest, with particular emphasis placed on maternal and child care, family planning, nutrition, control of communicable diseases (e.g., diarrhoea, cholera, dysentery, sexually transmitted diseases, HIV/AIDS, malaria, etc.), immunisation, and environmental sanitation in order to secure adequate health care for all Zambians.

The 1992 National Health Policies and Strategies (Health Reforms) establishes the Government's commitment to improve the health of the population by progress towards the achievement of the following targets by the year 2000:

- To make family planning (child spacing) available, accessible, and affordable by at least 30 percent of all adults in need.
- To reduce the percentage of underweight children (0-5 years) from 23 to 18 percent.
- To bring under control 80 percent of tuberculosis cases.
- To reduce maternal mortality (through promotion of safe motherhood) by 50 percent.

- To increase from 75 to 85 percent the proportion of infants vaccinated with DPT, polio, measles and BCG and to increase the tetanus immunisation coverage of pregnant women as follows: TT5 from 10 to 50 percent and TT3 from 33 to 70 percent in 5 years' time.
- To increase the percentage of the population having adequate sanitation from 66 to 75 percent in urban areas and from 37 to 57 percent in rural areas in 5 years' time (Ministry of Health, 1992).

The implementation of all these aspects of the PHC programmes requires multi-sectoral action and close collaboration among the various government institutions. The Government has therefore set up multi-sectoral PHC committees as an integral part of the PHC basic supportive manpower and inter-sectoral collaboration with other ministries has been given prominence.

1.5 Objectives and Organisation of the Survey

Objectives

The Zambia Demographic and Health Survey (ZDHS) is a nationwide sample survey of women of reproductive age designed to provide, among other things, information on fertility, family planning, child survival and health of children.

The primary objectives of the ZDHS are:

- i) To collect up-to-date information on fertility, infant and child mortality and family planning;
- ii) To collect information on health-related matters such as breastfeeding, antenatal care, children's immunisations and childhood diseases;
- iii) To assess the nutritional status of mothers and children;
- iv) To support dissemination and utilisation of the results in planning, managing and improving family planning and health services in the country; and
- v) To enhance the survey capabilities of the institutions involved in order to facilitate the implementation of surveys of this type in the future.

Organisation

The Zambia Demographic and Health Survey (ZDHS) was conducted by the University of Zambia (Department of Social Development Studies), with the assistance of the Central Statistical Office (CSO) and the Ministry of Health (MOH). Macro International Inc. of Columbia, Maryland provided technical assistance to the project through its contract with the United States Agency for International Development (USAID). Funding for the survey was supplied by Macro International (from USAID), the United Nations Population Fund (UNFPA), the Norwegian Agency for Development (NORAD), and the Government of Zambia (through the University of Zambia and the Central Statistical Office (CSO)).

Funds from USAID were administered by Macro International and were used for training of interviewers, supervisors and editors, field allowances for interviewers and supervisors, purchase of anthropometric and other survey equipment, data processing, printing of questionnaires and publication of reports. NORAD funds were used for training interviewers, supervisors, editors and purchase of a personal computer and a printer. UNFPA provided funds for fuel and field allowances for the Survey Director and his deputy. In addition to providing vehicles for the survey, the Central Statistical Office (CSO) paid the field allowances for editors, field coordinators and drivers, as well as providing fuel for the household listing exercise. The Ministry of Health contributed most of the field staff.

Sample

In preparation for the 1990 Census of Population, Housing and Agriculture, the entire country was demarcated into Census Supervisory Areas (CSAs). Each CSA was in turn divided into Standard Enumeration Areas (SEAs) of roughly equal size. The frame of 4240 CSAs was stratified into urban and rural areas within each province. The ZDHS sample was selected from this frame in three stages. First, 262 CSAs were selected from this frame with probability proportional to size. One SEA was then selected from within each CSA, again with probability proportion to size. After a household listing operation in all selected SEAs, a systematic sample of households was then selected. As a result of oversampling of households in Luapula, North-Western and Western Provinces in order to produce province-level estimates for some variables, the ZDHS sample is not self-weighting at the national level. A more detailed description of the sample design is presented in Appendix A.

Questionnaires

Two types of questionnaires were used for the ZDHS: the Household Questionnaire and the Individual Questionnaire. The contents of these questionnaires were based on the DHS Model B Questionnaire, which is designed for use in countries with low levels of contraceptive use. Additions and modifications to the model questionnaires were made after consultation with members of the Department of Social Development Studies of the University of Zambia, the Central Statistical Office (CSO), the Ministry of Health, the Planned Parenthood Association of Zambia (PPAZ), and the National Commission for Development Planning (see Appendix E). The questionnaires were developed in English and then translated into and printed in seven of the most widely spoken languages (Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga).

The Household Questionnaire was used to list all the usual members and visitors of a selected household. Some basic information was collected on the characteristics of each person listed, including his/her age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify women who were eligible for the individual interview. In addition, information was collected on the household itself, such as the source of water, type of toilet facilities, material used for the floor of the house, and ownership of various consumer goods.

The Individual Questionnaire was used to collect information from women age 15-49 about the following topics:

- Background characteristics (education, religion, etc.);
- Reproductive history;
- Knowledge and use of family planning methods;
- Antenatal and delivery care;
- Breastfeeding and weaning practices;
- Vaccinations and health of children under age five;

Marriage;
 Fertility preferences;
 Husband's background and respondent's work; and
 Awareness of AIDS.

In addition, interviewing teams measured the height and weight of all children under age five and their mothers.

Fieldwork

The fieldwork for the ZDHS was carried out by 10 interviewing teams. Each consisted of one supervisor, one field editor, four interviewers and one driver; however, due to heavier workloads in two provinces, one team had five interviewers and another six. In total, there were 10 supervisors, 10 field editors, 43 interviewers, and 10 drivers. Of the interviewers, 34 were women and 9 were men. In addition, each team was assigned a fieldwork coordinator, generally one of the trainers, who spent approximately half of the fieldwork time in the field with his/her team. Fieldwork commenced on 18th January and was completed on 15th May 1992. The people involved in the survey are listed in Appendix D. A more complete description of the fieldwork is presented in Appendix A.

Table 1.2 is a summary of response rates from the household and the individual interviews. A total of 6,709 households were selected; of these 6,209 were successfully interviewed. The shortfall is due primarily to dwellings being vacant at the time they were visited by the interviewing team. Of the 6,458 households that were occupied, 96 percent were successfully interviewed. In these households, 7,247 women were identified as eligible for the individual interview and 7,060 were successfully interviewed.

Result	Urban	Rural	Total
Households sampled	2577	4132	6709
Households found	2522	3936	6458
Households interviewed	2480	3729	6209
Household response rate	98.3	94.7	96.1
Eligible women	3446	3801	7247
Eligible women interviewed	3358	3702	7060
Eligible women response rate	97.4	97.4	97.4

