CHAPTER 1

INTRODUCTION

1.1   Geography, History, and Economy

Geography

Nigeria lies on the west coast of Africa between 4 and 14 degrees north latitude and between 2 and 15 degrees east longitude. It occupies approximately 923,768 square kilometres of land, stretching from the Gulf of Guinea on the Atlantic coast in the south to the fringes of the Sahara Desert in the north. The territorial boundaries are defined by the Republics of Niger and Chad in the north, the Cameroon Republic on the east, and the Republic of Benin in the west. The Gulf of Guinea delimits the southern boundary.

Nigeria is topographically characterised by two main land forms: lowlands and highlands. Lowlands predominate in the Niger-Benue valley in the south, the Sokoto-Rima basin in the northwest, and in the Chad basin in the northeast. Highlands are found mainly in the north and central areas, where they rise to a high at Jos Plateau; they are also found in the southeast, where they rise to a high at Obudu in Cross River State.

As with land forms, two main wind systems define the climatic conditions in Nigeria. The southwest monsoon wind blows from the Atlantic Ocean towards the hinterland between bringing rainfall April and September. The northeast trade wind, which is hot, dry, and dust-laden, blows from the Sahara Desert between October and March, having a cooling effect on the entire country. The intensity of both of these winds diminishes inland. The mean temperature oscillates between 25 and 40 centigrade, while the rainfall ranges from 2,650 mm in the southeast to less than 600 mm in some parts of the north, mainly on the fringes of the Sahara Desert.

The vegetation that results from these climatic differences consists of mangrove swamp forest in the Niger Delta and Sahel grassland in the north. With a wide range of climatic, vegetational, and soil conditions, Nigeria possesses potential for a wide range of agricultural production.

History

Nigeria is a federal republic consisting of 36 states and a Federal Capital Territory. The states are subdivided into 774 administrative units of unequal size called Local Government Areas (LGAs). In some states, especially in the far north, these LGAs are grouped into emirates, districts, or traditional council areas. The 36 states are also grouped into six geopolitical zones that reflect ethnic identity in most cases.

The history of the people of Nigeria goes back to antiquity. Evidence of an Iron Age culture was found in relics left behind by the peoples that lived in the Niger-Benue valley. These historical artifacts are known to have been made by the Nok culture.

The growth of the Nigerian nation-state, however, can be traced to 1914 when the British colonial administration merged the North and South protectorates and the colony of Lagos into one administrative unit. Nigeria became an independent nation in 1960 and since then, has had different administrative structures. Within the boundaries of Nigeria are found many social groups with distinct but similar cultural traits, which are reflected in the diverse behaviour of the people. There are about 374 identifiable ethnic groups, but the Igbos, Hausas, and Yorubas are the major groups.

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Economy

Nigeria is one of Africa's most endowed economies, with an abundance of both natural and human resources. Its citizens are noted for their high degree of resourcefulness and entrepreneurial skills. Ironically, the country's per capita income of U.S.$350 in 1999 is one of the lowest in the world. The economy is largely agricultural. Sectoral contributions to the gross domestic product may give a distorted picture of reality since more than 50 percent of the population is engaged in agriculture. The structure and growth of the economy is therefore not easy to categorise.

The main feature of the economy has always been that a high proportion of the national income is derived from the export of a wide range of mineral and agricultural products, with crude oil currently taking the lead. Since 1980, crude oil production has accounted for more than two-thirds of the gross domestic product and more than 80 percent of total government revenue. There exists vast industrial and commercial concerns that are largely dominated by state enterprises. There are also large, multinational companies, as well as poorly organised small-scale enterprises.

All these economic features have combined to create a diverse private sector. The lack of a broad economic base and political instability have recently led to a large-scale 'brain drain' of skilled manpower. Inflation and unemployment are relatively high.

The economy has fluctuated between growth and decline within the past two decades. Between 1980 and 1985, it registered negative growth of 3.4 percent per annum; however, between 1987 and 1995, it grew at 3.5 percent per annum. The main economic indicators in the years preceding the survey are less than satisfactory. In 1999, the growth of the gross domestic product was estimated at 2.7 percent, up from 2.4 percent achieved in 1998. However, it fell below the minimum 3.0 percent target for the year. The aggregate index of agricultural production increased by 3.7 percent in 1999, compared with 3.5 percent in 1998, while industrial production fell by 1.4 percent from the 1998 level. The average industrial- capacity utilisation in the same year stood at 31 percent, representing a marginal increase of 2 percent over the 1998 figure. Inflation was estimated at 8.0 percent in December 1999.

The Central Bank recently reported that the country's balance of payments improved markedly in 1999 as a result of the rise in global oil prices; however, the performance of non-oil exports remained unimpressive.

Since the onset of democratic administration in 1999, economic policies have become more favourable to investment. Bold steps have been taken to privatise the government's equity in major manufacturing, oil, and service companies.

1.2   Population

The total population of Nigeria as reported in the 1991 census was 88,992,220 (Table 1.1). Using a growth rate of 2.9 percent per annum, the National Population Commission (NPC) estimates the current population of Nigeria to be about 115 million.

The spatial distribution of the population is uneven. Extensive areas in the Chad basin, the middle Niger valley, the grass plains, and the Niger delta, among others, are sparsely populated. In contrast, there are large areas of densely populated rural districts, which support more than 400 persons per kilometre occur in parts of Akwa Ibom, Imo, Anambra, and Enugu States, as well as around Kano, Katsina, and Sokoto States. However, the average population density of the country in 1991 was 96 persons per kilometre. The most densely populated states are Lagos, Anambra, Imo, and Akwa Ibom. Except for Lagos, all the states

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Table 1.1 Demographic indicators

Demographic indicators from various sources, Nigeria 1963-91

Indicator	Census 1963	NFS 1981-82 and NDSS 1980	NDHS 1990	Census 1991
Population (millions)	55.7	84.7	U	88.9
Density (pop./sq. km)	60	92	U	96.0
Percentage urban	19	23	24	36.3
Crude birth rate (CBR)	66	46	39	44.6[a]
Crude death rate (CDR)	27	16	U	14
Total fertility rate (TFR)	U	6.3	6.0	5.9[a]
Infant mortality rate (IMR)	U	85	87	93
Life expectancy at birth	36	48	U	53.2

U = Unknown (not available)
[a] From the post-enumeration survey
Sources: National Population Commission, 1998; Federal Office of Statistics, 1990

with high population densities are located in the southeast of Nigeria. Kano State, with an average density of 281 persons per square kilometre is by far the most densely populated state in the north. Other states in the north with a population density of more than 100 persons per square kilometre are Katsina (140 per square kilometre) and Jigawa (127 per square kilometre).

The population of Nigeria is predominantly rural, with about 36 percent living in urban areas. The states with a predominantly urban population are Lagos (94 percent), Oyo (69 percent), and Anambra (62 percent). The states with small urban populations are Jigawa (7 percent), Taraba (10 percent), Akwa Ibom (12 percent), Kebbi (12 percent) and Sokoto (14 percent).

1.3   Population and Health Policies and Programmes

Population Policies and Programmes

In the light of the perceived high population growth rate and its adverse effect on national development, the federal government adopted a National Policy on Population for Development, Unity, Progress and Self-Reliance (NPP) in 1998. The policy was designed to enable Nigeria to balance the rate of population growth with the available resources. The four main goals of the NPP are as follows:

1.   To improve the living standards and the quality of life of the people

2.   To promote their health and welfare, especially through preventing premature deaths and illness among the high-risk groups

3.   To achieve lower population growth rates, through reduction of birth rates by voluntary fertility regulation methods that are compatible with the attainment of the economic and social goals of the nation

4.   To achieve a more even distribution of the population between urban and rural areas (Federal Ministry of Health, 1988).

To achieve these goals and to promote national awareness of the adverse effects of rapid population growth, the following objectives were set out:

a) Promote awareness among the citizens of population problems and the effects of rapid population growth on development.

b) Provide everyone with information and education on the value of reasonable family size to both the individual family and the future of the nation in achieving self-reliance.

c) Educate all young people about population matters, sexual relationships, fertility regulations, and family planning before they enter the ages of marriage and childbearing to encourage them to maintain responsible parenthood and reasonable family size to the best of their ability.

d) Make family planning services readily available to all couples at an affordable cost at the earliest possible time to enable them to regulate their fertility.

e) Provide fertility management programmes that will respond to the needs of sterile or sub-fertile couples to achieve reasonable self-fulfillment.

f) Improve demographic data collection and analysis on a regular basis and use such data for economic and social-development planning.

g) Enhance integrated rural and urban development in order to improve the living conditions in the rural areas and to slow down the rate of rural-urban migration (Federal Ministry of Health, 1988).

At the inception of the NPP, the government mobilised resources to implement the population programme. The Population Activities Fund Agency (PAFA) was established to manage a population activities fund with donor and government funds. PAFA was expected to mobilise more funds from other sources. The World Bank discontinued its involvement in 1996 after about three years of operation; therefore, the agency currently relies solely on government funding to promote population programmes in such areas as child and maternal health, advocacy, service delivery, and hospital services.

Bilateral and international agencies that have supported the National Population Programme include the United Nations Population Fund (UNFPA), the U.S. Agency for International Development (USAID), and the World Bank. USAID has long been the main provider of contraceptives for the private sector. The British Department for International Development has also continually supported the National Population Programme. The Planned Parenthood Federation of Nigeria (PPFN), an affiliate of the International Planned Parenthood Federation, is the doyen of population activities in the country. The MacArthur Foundation and the Ford Foundation, among others, support various non-governmental organisations.

The population policy is widely commended internationally, but its implementation has been dogged by inconsistencies and other problems that are sometimes beyond its control. Chief among these problems are cultural norms that lead to high fertility and religious beliefs about family planning. The low status and level of education of women; poor quality of family planning service delivery; and lack of information, especially in rural areas, are also factors. Poor institutional mechanisms for coordination and implementation of the various population programmes, both private and public, have limited the achievements of the policy in its 12 years of existence.

Health Policies and Programmes

The federal government has several programmes and policies aimed at improving health delivery services. The fourth National Development Plan (1981-1985) established a government commitment to provide adequate and effective primary health care that is promotive, protective, preventive, restorative, and rehabilitative to the entire population by the year 2000. A national health policy was consequently adopted in 1988. Its goal is to provide a formal framework for the direction of health management in Nigeria. The objective is to provide the population with access not only to primary health care but also to secondary and tertiary care, as needed, through a functional referral system. It defines the roles and responsibilities of the three tiers of government, as well as of civil society and non-governmental organisations.

In general, the provision of health services is the responsibility of federal, state, and local governments as well as religious organisations and individuals. The services are organised in a three-tier health care system:

i) primary health care, which is largely the responsibility of local governments, with the support of the State Ministry of Health

ii) secondary health care, which provides specialised services to patients referred from the primary health care level and is the responsibility of the state government

iii) Tertiary health care, which provides highly specialised referral services to the primary and secondary levels of the health care delivery system and is in the domain of the federal and state governments.

The national health policy regards primary health care as the framework to achieve improved health for the population. Primary health care services include health education; adequate nutrition; safe water and sanitation; reproductive health, including family planning; immunisation against five major infectious diseases; provision of essential drugs; and disease control. The policy document requires that a comprehensive health care system delivered through the primary health centres should include maternal and child health care, including family planning services.

The health sector is characterised by wide regional disparities in status, service delivery, and resource availability. More health services are located in the southern states to the disadvantage of the north. The health sector has deteriorated despite Nigeria's high number of medical personnel per capita. The current priorities in the health sector are in the area of childhood immunisation and prevention of HIV/AIDS.

1.4   Objectives, Organisation and Design of the NDHS

Objectives

The main objective of the 1999 Nigeria Demographic and Health Survey (NDHS) is to provide up-to-date information on fertility and childhood mortality levels; nuptiality; fertility preferences; awareness, approval, and use of family planning methods; breastfeeding practices; nutrition levels; and maternal and child health. This information is intended to assist policymakers and administrators in evaluating and designing programmes and strategies for improving health and family planning services in Nigeria.

Organisation

The 1999 NDHS is a joint project between the National Population Commission (NPC), the United Nations Population Fund Activities (UNPFA) and the U.S. Agency for International Development (USAID). The project was funded by these three organisations, while Macro International Inc., located in Maryland, provided limited technical support in data processing, analysis, and report writing after the data were collected.

The NPC set up an NDHS committee to coordinate activities pertaining to the survey. Under the direction of the committee, the Census and Survey Department of the commission conducted the survey. The committee organised seminars and workshops at which the commission's senior demographers gave inputs on the survey instruments. The DHS Model Questionnaire (which had been sent from Macro International Inc. upon request) was adapted to Nigerian cultural conditions in a symposium held on 11 September 1998.

After the workshop, other stakeholders were invited to a two-day workshop in Kaduna on 3 and 4 November 1998. The participants in the workshop included USAID; UNFPA; Population Activities Fund Agency (PAFA); Family Health International (FHI); the Planned Parenthood Federation of Nigeria (PPFN); the Federal Ministry of Health (MOH); and academics from universities in Lagos, Ibadan, Ile-Ife, Sokoto, and Nsukka. The participants expressed their interest in the survey and suggested that specific questions and modules be added to the questionnaire, such as AIDS/STD, a male questionnaire, and maternal mortality.

The NDHS committee was responsible for the execution of the project. The project director was in charge of the day-to-day administration of the project with the assistance of the deputy project director. A project coordinator, whose responsibilities included coordinating the state activities, supervising logistics, and ensuring standards, was positioned at the headquarters in Lagos. The seven commission zonal directors acted as zonal coordinators for the survey in their respective zones, while state coordinators were assigned the administration of the survey at the state level. The actual interviews of households and individuals were conducted by teams of seven people, consisting of one supervisor, one field editor, one male interviewer, and four female interviewers. Altogether, there were 34 teams for the 36 states and the Federal Capital Territory.

1.5   Sample Design and Implementation

The 1999 Nigeria Demographic and Health Survey (NDHS) was a nationally representative probability sample of women age 10-49 living in households. The sampling frame used for the survey was constructed from the enumeration areas (EAs) into which the country was delineated for the 1991 population census. Currently, the frame contains 212,079 EAs.

The sample was stratified into rural and urban areas and was selected in two stages. It was designed to produce reliable estimates of most of the variables for the rural and urban segments of the country as well as each of five statistical regions, namely, the Northeast region, the Northwest region, the Central region, the Southeast region, and the Southwest region. Each of these five regions was treated as a sampling domain. The distribution of the states across these regions is shown fully in Appendix A. The regions used for this survey differ from the six geopolitical zones of the country and the seven administrative zones of the National Population Commission.

The primary sampling unit was the EA. Altogether, 400 EAs were selected with equal probability. In all, 119 urban EAs and 281 rural EAs were selected. To ensure data quality, the selection of the EAs

was done centrally by trained statisticians at the Liaison Office of the National Population Commission (NPC) in Lagos. The list of selected EAs was sent to the NPC offices in each state to identify the EAs, draw sketch maps, and conduct a listing of all households in each selected EA. NPC's comptrollers at the local government offices thereafter cross-checked the work of the state officers to ensure no omission of any building within the EA.

At the second sampling stage, one in every five households listed was selected for interview. The combination of equal probability selection at the first stage and a fixed sampling rate at the second stage yielded a roughly self-weighting sample design. However, while the returns from the rural stratum showed an appreciable level of self-weighting, the returns from the urban stratum showed a significant level of deviation from self-weighting. The deviation in the urban stratum was due to underlisting of dwellings in some EAs because of changes in EA boundaries over time. Therefore, in processing and estimating the population parameters, the sample returns were weighted by considering the selection probabilities of the primary sampling units, the expected and eventual field returns, and the differential response rate among the domains. The weights were standardised and entered with the individual data records. Thus, all the tables presented in this report are based on weighted data.

In the selected households, all women age 10-49 were eligible for interview with the Women's Questionnaire. In every third household, men age 15-64 were eligible for interview with the Men's Questionnaire.

Survey Questionnaires

Four questionnaires were used for the main fieldwork: the Service Availability Questionnaire, the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. The Service Availability Questionnaire was implemented at an early stage of the fieldwork and was designed to assess the availability (or supply) of health and family planning services. It was administered at the community level (enumeration area) by interviewing knowledgeable informants in the selected community.

All regular members and visitors in the selected household were listed on the Household Questionnaire. For each person listed, information was collected on name, sex, age, and education. The household questionnaire was used to identify both men and women who were eligible for the individual questionnaire and to collect data on housing characteristics.

The Women's Questionnaire was administered to all women age 10-49 who were listed on the Household Questionnaire. The decision to interview women age 10-14 was influenced by pretest findings on teenage pregnancy, motherhood, and the age at commencement of sexual activities. Since most of the variables presented in this report are not relevant for the youngest women, the analysis has been restricted to women age 15-49. Women were asked questions on the following topics:

- Background characteristics (age, education, religion, etc.)
- Female genital cutting practices
- Fertility preferences
- Husband's background and respondent's work
- Knowledge of AIDS
- Maternal mortality
- Height and weight of respondents and their children under three.

The Men's Questionnaire was used to interview men age 15-64 living in every third household. It was similar to that for women except that it omitted the sections on antenatal and delivery care, breastfeeding, vaccinations, causes of death, female genital cutting, and height and weight.

Training

Two levels of training were organised. The first level was the training of trainers, which took place in Lagos between 16 and 20 November 1998. The trainees consisted of zonal and state directors of NPC and selected senior headquarters/liaison office staff who are well versed in survey methodology. Individuals who participated at some of the workshops organised at the planning stages of the survey acted as the facilitators during this level of training.

The second stage of training took place for two weeks at the seven zonal headquarters of the NPC (namely, Kano, Yola, Port Harcourt, Enugu, Lagos, Ibadan, and Kaduna.) This level of training involved the training of interviewers, supervisors and field editors. Those trained at the first level of training facilitated at this level.

Fieldwork

Immediately after the training exercise, NDHS field personnel went to the field for data collection. The field staff consisted of 34 teams, each composed of one supervisor, one field editor, four female interviewers, one male interviewer, and a driver. Fieldwork was carried out in 400 EAs nationwide between 29 March 29 and 29 May 1999. The people involved in the fieldwork and the complete description of the exercise are presented in Appendices D and A.

Data Processing

The personnel who took part in the processing of NDHS data consisted of 20 data entry operators, two supervisors, and six coders/editors, all of whom are staff of the NPC. Before data processing began, the data entry operators were trained intensively for two weeks by staff from Macro International Inc. (USA).

Data were processed on microcomputers and printers that were provided by Macro International Inc., with funding from USAID. The computers were used to establish the nucleus of a demographic laboratory at the NPC. Data were processed using programmes written by Macro International Inc. with the Integrated System for Survey Analysis (ISSA), which was designed for processing DHS data.

Response Rate

The summary of results from the household and individual interviews is presented in Table 1.2. A total of 7,919 households were sampled, of which 7,736 were determined in the field to be valid households and 7,647 were successfully interviewed, giving a response rate of 99 percent.

Of the 8,918 eligible women age 15-49 in these households, 8,199 were interviewed for a response rate of 92 percent. Every third household was selected for coverage with the Men's Questionnaire. Thus, 2,620 households were sampled, of which 2,571 were found and 2,550 were successfully interviewed. In these households, a total of 3,082 men age 15-64 were identified and 2,680 were interviewed for a response rate of 87 percent.

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Table 1.2 Results of the household and individual interviews

Number of households, number of interviews and response rates, according to urban-rural residence, Nigeria 1999

Result	Residence		Total
	Urban	Rural	
FEMALE			
Household interviews			
Households sampled	2,600	5,319	7,919
Households found	2,524	5,212	7,736
Households interviewed	2,482	5,165	7,647
Household response rate	98.3	99.1	98.8
Individual interviews: women			
Number of eligible women	2,984	5,934	8,918
Number of eligible women			
interviewed	2,697	5,502	8,199
Eligible woman response rate	90.4	92.7	91.9
MALE			
Household interviews			
Households sampled	849	1,771	2,620
Households found	834	1,737	2,571
Households interviewed	825	1,725	2,550
Household response rate	98.9	99.3	99.2
Individual interviews: men			
Number of eligible men	1,056	2,026	3,082
Number of eligible men			
interviewed	882	1,798	2,680
Eligible man response rate	83.5	88.7	87.0