CHAPTER 1

INTRODUCTION

1.1 Geography and Economy

Geography

Bangladesh, a small country of 147,570 square kilometers, and 111.4 million people, emerged on March 26, 1941 as an independent country on the world's map following a war of liberation. It is almost entirely surrounded by India, except for a short southeastern frontier with Myanmar and a south deltaic coastline on the Bay of Bengal. It stretches between 20° 34′ and 26° 38′ north latitude and 88° 01′ and 92° 41′ east longitude.

The most significant feature of the landscape is the extensive network of large and small rivers that are of primary importance in the socioeconomic life of the nation. Chief among these, and lying like a fan on the face of the land are the Ganges-Padma, Brahmaputra-Jamuna, and the Megna.

The climate of Bangladesh is dominated by seasonally reversing monsoons. It experiences a hot summer season with high humidity from March to June, a somewhat cooler but still hot and humid monsoon season from July through early October, and a cool, dry winter from November to the end of February. The fertile delta is frequented by natural calamities such as flood, cyclone, tidal-bore and drought.

For administrative purposes, the country is divided into five divisions,[1] 64 districts, and 489 *thanas* (subdistricts) (BBS, 1993:3). Muslims constitute about 85 percent of the population of Bangladesh, Hindus about 14 percent, and Christians and others less than one percent.

A small fraction of the population consists of several ethnic groups which are distinct in terms of language, race, religion, and customs. The national language of Bangladesh is Bangla, which is spoken and understood by all.

Economy

Agriculture is the most important sector of the nation's economy. It accounts for nearly 34 percent of the gross domestic product (GDP) and provides employment to about 66 percent of the workforce (BBS, 1993:224,104). Jute is the main non-food crop and the main cash crop of Bangladesh. About 15 percent of the cultivated land is used for crops other than jute and rice. Industry, though small, is increasing in importance as a result of foreign investments. Prospects for mineral resources, gas, coal, oil, appear to be bright in the near future. The per capita income is only US$210 (GB, 1994:2). Unemployment/underemployment is a serious problem, and pressure on the land in rural areas has led to a constant influx of people from rural to urban areas.

[1] The fifth division, Barisal, was created in 1992 by subdividing the former Khulna Division.

1.2 Population

Demographic Situation

The population size and growth rate of the country have undergone significant changes over the past few decades. The population of the area which now constitutes Bangladesh was about 42 million in 1941. Since then, Bangladesh has experienced relatively high rates of population growth. The total population of Bangladesh grew from 76 million in 1974 to 90 million in 1981 and to 111 million in 1991 (BBS, 1993:92). The intercensal growth rate of population peaked in the mid-1970s at around 2.5 percent per annum, followed by a continuing decline to 2.2 percent in 1991 (BBS, 1993:92). The 1991 census indicated that 45 percent of the population is below 15 years of age, 52 percent are between 15 and 64 years and 3 percent are age 65 or over (BBS, 1993:84). The relatively young age structure of the population indicates continued rapid population growth in the future. From 1975 to 1990, the elderly population (age 65 and above) increased from 2 to 3.1 million, and it is expected to increase to 4.3 million by the year 2005 (GB, 1994:17).

There has been a substantial rise in the age at marriage. The mean age at first marriage for women has increased from 16.6 years in 1974 to 18.2 years in 1991; it increased from 23.9 to 25.3 years for men during the same period (BBS, 1993:86).

The total fertility rate has decreased from about 6.3 in the mid-1970s (MHPC, 1978:73) to 4.2 in 1990 (Mitra et al., 1993:35). There has been a substantial decline in the crude birth rate in Bangladesh. It was 34.4 births per 1,000 population in 1986, declined to 32.8 in 1990, and then to 30.8 in 1992 (BBS, 1993:87).

Striking changes in the fertility preferences of married Bangladeshi women have been observed. In 1975, the mean desired family size was 4.1 children. In 1989, the desired family size, on average, dropped to 2.9 children, leaving the way open for further fertility decline (Huq and Cleland, 1990:53,54). Young women desired even smaller families, 2.5 children on average, a level close to replacement fertility.

The crude death rate has fallen dramatically in Bangladesh from about 19 per 1,000 population in 1975 to 11.3 in 1990 (GB, 1994:4). Although infant and under-five mortality rates are declining, they are still high. The infant mortality rate was 150 deaths per 1,000 live births in 1975, and fell to about 110 in 1988 and 88 in 1992 (GB, 1994:5). Under-five child mortality, estimated at 24 per 1,000 births in 1982, declined to 19 in 1989 and to 14 in 1990 (GB, 1994:5). Maternal mortality has come down from 620 deaths per 100,000 births in 1982 to 470 in 1992. This small but important decline is mainly attributed to increased availability of family planning and immunization services, improved antenatal and delivery care, and a reduction in the number of births to high-risk mothers.

There is evidence of modest improvement in life expectancy during the past decade. Life expectancy at birth was 46 years for males and 47 years for females in 1974 (U.N., 1981:60). It increased to 57.4 years for men and 56.8 years for women in 1992 (GB, 1994:5).

Demographic Transition

It can now be safely said that the demographic transition has started in Bangladesh. The country has passed through two phases of the classic demographic transition. It is now in the third phase when birth rates decline, but remain significantly higher than the death rates, resulting in continued but slower population growth. The decline in the population growth rate would have been even greater had it not been for the decline in mortality.

Fertility in Bangladesh is declining, yet the growth rate of the population is still high and its consequences have adverse effects on various development efforts. One significant consequence of high fertility and the declining mortality trend is a built-in "population momentum," which will continue to generate population increases well into the future, even in the face of rapid fertility decline.

In 1992, Bangladesh had around 22 million married women in the reproductive ages; by the year 2001, this number is projected to rise to 31 million (GB, 1994:8). The government has set a goal of reaching replacement level fertility by the year 2005 (GB, 1994:6). Even if this occurs, the population will continue to grow for the next 40 to 60 years after 2005. One projection suggests that the population of Bangladesh may stabilize at 211 million by 2056. By the year 2010, Bangladesh is likely to have a population of about 150 million. The demographic goal is difficult but not impossible to achieve, in view of the trends already established in the success of family planning, maternal and child health, and other socioeconomic development programs.

1.3 Population, Family Planning and Maternal and Child Health Policies and Programs

Family planning was introduced in the early 1950s through the voluntary efforts of social and medical workers. The government, recognizing the urgency of moderating population growth, adopted family planning as a government sector program in 1965. The present family planning infrastructure of Bangladesh has evolved in a process of development over the last 35 years.

The policy to reduce fertility rates has been repeatedly reaffirmed since liberation in 1971. The First Five-Year Plan (1973-78) of Bangladesh amplified "the necessity of immediate adoption of drastic steps to slow down the population growth" and reiterated that, "no civilized measure would be too drastic to keep the population of Bangladesh on the smaller side of fifteen crore (i.e., 150 million) for sheer ecological viability of the nation" (GB, 1994:7). Through three five-year plans, successive population programs contained new strategies to streamline administrative structures and reformulate program goals and objectives.

From mid-1972, the family planning program received virtually unanimous, high-level political support. All subsequent governments that have come into power in Bangladesh have identified population control as the top priority for government action. This political commitment is crucial in understanding the fertility decline in Bangladesh. The national policy went through several phases of evolution in response to emerging needs and circumstances. In 1976, accelerated growth of population was declared the country's number one problem; a population policy was outlined, operational strategies were worked out, specific field programs were developed, and organizational and management arrangements were made for implementing the programs. Population planning was seen as an integral part of the total development process, and was incorporated into successive five-year plans. The population policy is formulated by the National Population Council (NPC), chaired by the Prime Minister and including about 350 members comprising eminent personalities from different walks of life.

Development of Program Approach

Bangladesh population policy and programs have evolved through a series of development phases and have undergone changes in terms of strategies, structure, contents, and goals. The five distinct and broad phases may be identified as: (a) private and voluntary clinic-based programs (1953-60), (b) family planning services through limited government health care facilities (1960-65), (c) large-scale field-based government family planning programs (1965-75), (d) maternal and child health (MCH)-supported multi-sectoral family planning programs (1975-80), and (e) functionally integrated health and family planning programs with emphasis on MCH, primary health care, and family planning as a package, since 1980. The latest approach has been a shift towards launching a family planning social movement to raise and sustain awareness and interest in all segments of society about fertility reduction as a strategy for sustainable development.

The current policy and programs emphasize strategies that have an integrated approach to population planning and development. These are:

- Turning the family planning program into a social movement to increase social acceptance of family planning;
- Integrating the delivery of family planning and maternal and child health services;
- Promoting education (especially for girls);
- Improving the status of women;
- Mobilizing community participation;
- Ensuring voluntarism and enhancing method choice through a cafeteria approach;
- Enhancing a multi-/intersectoral approach to family planning education and service delivery;
- Involving nongovernmental organizations (NGOs) and the private sector to complement government efforts;
- Expanding the number of service outlets;
- Improving the quality of services; and
- Promoting program sustainability by enhancing in-country production of contraceptives and maximizing human and organizational resources (GB, 1994:10).

Program Achievement

The national family planning/MCH program is being implemented with a contingent of about 30,000 female fieldworkers at the village level and a network of service outlets for easy availability of family planning/MCH services at the client's doorstep.

These efforts have led to impressive achievements for the Bangladesh national family planning program, while operating in an unfavorable socioeconomic environment. General awareness about family planning is universal in Bangladesh; virtually all married women of reproductive age know at least one modern family planning method. Between 1975 and 1991, the use of contraceptives increased fivefold, from 8 to 40 percent of married women (Cleland et al., 1994:32). Between 1981 and 1991, the use of modern methods increased from 11 to 31 percent of married women, while use of traditional methods increased only slightly, from 8 to 9 percent of married women (Larson and Mitra, 1992:126; Mitra et al., 1993:53). Since 1981, the growth in use of reversible methods has outpaced gains by permanent methods, a reflection of the fact that family planning has become more widespread among younger women wishing to space births and the fact that reversible methods have been more strongly promoted by the supply system.

Factors for Program Success

Numerous factors have contributed to the increase in contraceptive use over the past 10 years. The elements identified as having contributed to the success of the program are: (1) strong political commitment to family planning programs by successive governments, (2) successful promotion of a small family norm through information and education activities and other multi-sectoral programs, (3) establishment of a widespread infrastructure for delivering family planning and health services down to the village level, (4) increased involvement of nongovernmental organizations to supplement and complement government's efforts, (5) flexibility to make policy and programmatic adjustments in response to emerging needs, and (6) strong support of the program by the international aid community (GB, 1994:36).

The success achieved so far in the national family planning program is encouraging and has increased the confidence that it is possible to achieve further progress. But there remain several issues of concern, such as the tremendous growth potential built into the age structure as a consequence of past high fertility. Due to the increasing population entering childbearing age, the program will have to increase efforts substantially just to maintain the current level of contraceptive use. If demand for family planning also increases, that will put even more strain on the program. Other concerns are lack of a steady supply of contraceptives from external sources, which affects program performance; the need for further improvement in access to and quality of facilities and services; and the need for men to participate more actively in family planning acceptance.

Despite these constraints, there exists a substantial demand for family planning services in Bangladesh and there is a need to assign priority to meeting that demand by improving the quality and supervision of outreach services.

1.4 Objectives of the 1993-94 Bangladesh Demographic and Health Survey

The BDHS is intended to serve as a source of population and health data for policymakers and the research community. In general, the objectives of the BDHS are to:

- assess the overall demographic situation in Bangladesh,
- assist in the evaluation of the population and health programs in Bangladesh, and
- advance survey methodology.

More specifically, the BDHS was designed to:

- provide data on the family planning and fertility behavior of the Bangladeshi population to evaluate the national family planning program,
- measure changes in fertility and contraceptive prevalence and, at the same time, study the factors which affect these changes, such as marriage patterns, urban/rural residence, availability of contraception, breastfeeding patterns, and other socioeconomic factors, and
- examine the basic indicators of maternal and child health in Bangladesh.

1.5 Survey Organization

The 1993-94 BDHS was conducted under the authority of the National Institute of Population Research and Training (NIPORT) of the Ministry of Health and Family Welfare. The survey was implemented by Mitra and Associates, a private research firm located in Dhaka. Macro International Inc. of Calverton, Maryland provided technical assistance to the project as part of the international Demographic and Health Surveys program. Financial assistance was provided by the U.S. Agency for International Development (USAID)/Dhaka.

Sample Design

Bangladesh is divided into five administrative divisions, 64 districts (*zillas*), and 489 *thanas*. In rural areas, *thanas* are divided into unions and then *mauzas*, an administrative land unit. Urban areas are divided into wards and then *mahallas*. The 1993-94 BDHS employed a nationally-representative, two-stage sample. It was selected from the Integrated Multi-Purpose Master Sample (IMPS), newly created by the Bangladesh Bureau of Statistics. The IMPS is based on 1991 census data. Each of the five divisions was stratified into three groups: 1) statistical metropolitan areas (SMAs)[2], 2) municipalities (other urban areas), and 3) rural areas. In rural areas, the primary sampling unit was the *mauza*, while in urban areas, it was the *mahalla*. Because the primary sampling units in the IMPS were selected with probability proportional to size from the 1991 census frame, the units for the BDHS were subselected from the IMPS with equal probability to make the BDHS selection equivalent to selection with probability proportional to size. A total of 304 primary sampling units were selected for the BDHS (30 in SMAs, 40 in municipalities, and 234 in rural areas), out of the 372 in the IMPS. Fieldwork in three sample points was not possible, so a total of 301 points were covered in the survey.

Since one objective of the BDHS is to provide separate survey estimates for each division as well as for urban and rural areas separately, it was necessary to increase the sampling rate for Barisal Division and for municipalities relative to the other divisions, SMAs, and rural areas. Thus, the BDHS sample is not self-weighting and weighting factors have been applied to the data in this report.

After the selection of the BDHS sample points, field staff were trained by Mitra and Associates and conducted a household listing operation in September and October 1993. A systematic sample of households was then selected from these lists, with an average "take" of 25 households in the urban clusters and 37 households in rural clusters. Every second household was identified as selected for the husband's survey, meaning that, in addition to interviewing all ever-married women age 10-49, interviewers also interviewed the husband of any woman who was successfully interviewed. It was expected that the sample would yield interviews with approximately 10,000 ever-married women age 10-49 and 4,200 of their husbands.[3]

Questionnaires

Four types of questionnaires were used for the BDHS: a Household Questionnaire, a Women's Questionnaire, a Husbands' Questionnaire, and a Service Availability Questionnaire. The contents of these questionnaires were based on the DHS Model A Questionnaire, which is designed for use in countries with relatively high levels of contraceptive use. Additions and modifications to the model questionnaires were made during a series of meetings with representatives of various organizations, including the Asia

[2] SMAs are extensions of the division headquarters and include rural areas.

[3] Not all ever-married women were currently married, and some of the eligible husbands could not be interviewed for various reasons.

Foundation, the Bangladesh Bureau of Statistics, the Cambridge Consulting Corporation, the Family Planning Association of Bangladesh, GTZ, the International Centre for Diarrhoeal Disease Research (ICDDR,B), Pathfinder International, Population Communications Services, the Population Council, the Social Marketing Company, UNFPA, UNICEF, University Research Corporation/Bangladesh, and the World Bank. The questionnaires were developed in English and then translated into and printed in Bangla.

The Household Questionnaire was used to list all the usual members and visitors of selected households. 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 and men who were eligible for individual interview. In addition, information was collected about the dwelling itself, such as the source of water, type of toilet facilities, materials used to construct the house, and ownership of various consumer goods.

The Women's Questionnaire was used to collect information from ever-married women age 10-49. These women were asked questions on the following topics:

- Background characteristics (age, 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 three,
- Marriage,
- Fertility preferences, and
- Husband's background and respondent's work.

The Husbands' Questionnaire was used to interview the husbands of a subsample of women who were interviewed. The questionnaire included many of the same questions as the Women's Questionnaire, except that it omitted the detailed birth history, as well as the sections on maternal care, breastfeeding and child health.

The Service Availability Questionnaire was used to collect information on the family planning and health services available in and near the sampled areas. It consisted of a set of three questionnaires: one to collect data on characteristics of the community, one for interviewing family welfare visitors and one for interviewing family planning field workers, whether government or nongovernment supported. One set of service availability questionnaires was to be completed in each cluster (sample point).

Fieldwork

The BDHS questionnaires were pretested in July 1993. Male and female interviewers were trained for 10 days at the office of Mitra and Associates. Many of the interviewers had participated in prior surveys. After training, the teams spent nine days in the field conducting interviews under the observation of staff from Mitra and Associates. Altogether, 209 women's and 57 husbands' questionnaires were completed. The field teams then spent three days in Dhaka in debriefing meetings, discussing the fieldwork and suggesting modifications to the questionnaires. On the basis of these suggestions, revisions in the wording and translations of the questionnaires were made.

In October 1993, candidates for field staff positions for the main survey were recruited. Recruitment criteria included educational attainment, maturity, ability to spend one month in training and at least four months in the field, and experience in other surveys. A total of 102 trainees were recruited.

Training for the main survey was conducted at Mitra and Associates offices for four weeks (from 18 October to 15 November 1993). Initially, training consisted of lectures on how to fill in the questionnaires, with mock interviews between participants to gain practice in asking questions. Towards the end of the training, participants spent several days in field practice interviewing in various parts of Dhaka and Chittagong cities, as well as in some rural areas of the Tangail and Gazipur Districts. Trainees whose performance was considered superior were selected to be supervisors and field editors.

Fieldwork for the BDHS was carried out by 12 interviewing teams. Each consisted of 1 male supervisor, 1 female field editor, 4 female interviewers, and 2 male interviewers, for a total of 96 field staff. In addition, each team included one person who was responsible for completing the Service Availability Questionnaire. Finally, Mitra and Associates fielded four quality control teams of two people each to check on the field teams. Fieldwork commenced on 17 November 1993 and was completed on 12 March 1994. The distribution of individual interviews with women was roughly: November (12 percent); December (25 percent); January (27 percent); February (26 percent); and March (10 percent).

Data Processing

All questionnaires for the BDHS were returned to Dhaka for data processing at Mitra and Associates. The processing operation consisted of office editing, coding of open-ended questions, data entry, and editing inconsistencies found by the computer programs. One senior staff member, 1 data processing supervisor, 1 questionnaire administrator, 2 office editors, and 5 data entry operators were responsible for the data processing operation. The data were processed on five microcomputers. The DHS data entry and editing programs were written in ISSA (Integrated System for Survey Analysis). Data processing commenced in early February and was completed by late April 1994.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews and response rates, Bangladesh 1993-94

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households sampled	1495	8186	9681
Households found	1401	7854	9255
Households interviewed	1376	7798	9174
Household response rate	98.2	99.3	99.1
Individual interviews			
Number of eligible women	1510	8390	9900
Number of eligible women interviewed	1466	8174	9640
Eligible woman response rate	97.1	97.4	97.4
Number of eligible husbands	589	3285	3874
Number of eligible husbands interviewed	500	2784	3284
Eligible husband response rate	84.9	84.7	84.8

Response Rates

Table 1.1 shows response rates for the survey and reasons for nonresponse. A total of 9,681 households were selected for the sample, of which 9,174 were successfully interviewed. The shortfall is primarily due to dwellings that were vacant, or in which the inhabitants had left for an extended period at the time they were visited by the interviewing teams. Of the 9,255 households that were occupied, 99 percent were successfully interviewed. In these households, 9,900 women were identified as eligible for the individual interview and interviews were completed for 9,640 or 97 percent of these. In one-half of the households that were selected for inclusion in the husbands' survey, 3,874 eligible husbands were identified, of which 3,284 or 85 percent were interviewed.

The principal reason for nonresponse among eligible women and men was failure to find them at home despite repeated visits to the household. The refusal rate was very low (less than one-tenth of one percent among women and husbands). Since the main reason for interviewing husbands was to match the information with that from their wives, survey procedures called for interviewers not to interview husbands of women who were not interviewed. Such cases account for about one-third of the non-response among husbands. Where husbands and wives were both interviewed, they were interviewed simultaneously but separately.