

MULTI-YEAR POPULATION STRATEGY PAPER

BANGLADESH

USAID/DACCA
December 1977

MULTI-YEAR POPULATION STRATEGY
BANGLADESH

TABLE OF CONTENTS

List of Abbreviations	i - iii
Summary	1
I. <u>THE DEMOGRAPHIC GOAL</u>	4
A. Relevant Demographic and Social Data	4
B. Population and Family Planning	5
Government of Bangladesh's Demographic Goals	5
Government of Bangladesh's Commitment to Fertility Control	9
II. <u>ASSESSMENT OF THE CURRENT POPULATION PROGRAM: ACHIEVEMENTS AND CONSTRAINTS</u>	12
A. Publicly and Privately Financed Programs	12
Background	12
The Present Public Program	14
Private Sector Programs	22
Donor Support	23
Donor Coordination	27
Effectiveness	28

B. Constraints	29
Constraints on Practice of Contraception	29
Lack of Information	29
Legal Constraints	29
Social and Economic Constraints	30
Constraints to Program Efficiency	35
The Relationship between Health and Population	37
III. <u>MISSION ASSESSMENT OF BANGLADESH'S DEMOGRAPHIC GOALS</u>	40
IV. <u>PROGRAM IMPLICATIONS OF THE DEMOGRAPHIC GOALS</u>	46
Present Policies and Strategy	47
Additional Measures	52
V. <u>U.S. POPULATION STRATEGY IN BANGLADESH AND IMPLICATIONS FOR U.S. PROGRAM SUPPORT</u>	55
U.S. Policy	55
U.S. Population Program Assistance	55
Bilateral Support	56
Non-Bilateral Support	61
The Impact of Other Development Activities on Fertility Plan for Assessing Demographic Impact	53 58
Staffing Implications of Assistance	69

LIST OF ABBREVIATIONS

ADP	Annual Development Programme
BAVS	Bangladesh Association for Voluntary Association
BFPA	Bangladesh Family Planning Association
BFS	Bangladesh Fertility Survey (part of World Fertility Survey)
BIDS	Bangladesh Institute of Development Studies
CDF	Community Development Foundation
CC (Dev.)	Circle Officer Development - Chief Civil Officer at Thana
CRL	Cholera Research Laboratory
DC	Deputy Commissioner
DPCFPC	District Population Control and Family Planning Officer
DTC	District Technical Officer - MBBS Physician in charge of PCFP
ECNEC	Exe. Com. of National Eco. Council. Tech. Prog. in the District
ERD	External Resources Division
FPA	Family Planning Assistant (male fieldworker, one per union)
FWA	Family Welfare Assistant (female fieldworker, one per ward or 3 per union)
FWV	Family Welfare Visitor (successor to LFPV and LHV)
FWVTI	FWV Training Institute
FWW	Family Welfare Worker (male worker under Health Division from former Malaria Eradication and Smallpox programme)
HA	Health Assistant

IEM	Information, Education and Motivation
IPGM	Institute of Postgraduate Medicine
IRDP	Integrated Rural Development Programme
ISRT	Institute of Statistical Research and Training, Dacca University
LFPV	Lady Family Planning Visitor (12 months training - now discontinued)
LHV	Lady Health Visitor (27 months training - now discontinued)
MA	Medical Assistant
MCHTI	Maternal and Child Health Training Institute (formerly three, Azimpur, Rajshahi and Barisal)
MCWC	Maternal and Child Welfare Centre
MC	Medical Officer
NIPCRT	National Institute of Population, Research and Training
NIPCT	National Institute of Population Training
NPC	National Population Council
RHC	Rural Health Complex
SDC	Sub-Divisional Officer
SDPCFPC	Sub-Divisional Population Control and Family Planning Officer
SI	Sanitary Inspector (Health)
TBA	Traditional Birth Attendant - also called "dai". Also called "Lady village organizer"
TcRI	Training-cum-Research Institute (now called FWV Institutes)

THA	Thana Health Administrator
THC	Thana Health Complex
TPCFPO	Thana Population Control and Family Planning Officer
TTC	Thana Technical Officer (MBBS doctor under PCFP Directorate at the Thana level)
UP	Union Parishad or Union Council
VHW	Village Health Worker - or village health squad - now category under primary health care - one villager per 500 population.

<u>Administrative Units</u>	<u>Number</u>
Division (Region)	4
Districts	19
Sub-divisions	62
Thanas	413
Unions	4,300
Wards	13,500
Villages	65,000

S U M M A R Y

Our multi-year population strategy is divided into five Sections.

Section I describes the Bangladesh Government's demographic goal and commitment to the achievement of the goal. The Government's demographic goal is to achieve a net reproduction rate of one by 1985. This target ranks as one of the most ambitious demographic goals ever set by a country. However, no other country has ever been faced with such overwhelming demographic problems. Government commitment to reducing fertility is strong.

In the first part of Section II, we summarize the history of family planning efforts in Bangladesh and provide a detailed description of current government and private sector programs in family planning. There are a wide variety of activities in both sectors, donor support is multifaceted and plentiful, but program effectiveness cannot yet be judged due principally to the fact that the present program approach, begun in May 1976, is not yet fully operational.

The second part of Section II is devoted to the analysis of the most important constraints to the practice of contraception. With the exception of abortion, there are no legal constraints to the practice of birth control. However, management and organizational deficiencies and other "internal" factors constitute major impediments to wider availability and use of family planning services.

Although there is little understanding of fertility behaviour in Bangladesh, it is widely assumed, though not fully documented, that there are strong social and economic deterrents to the achievement of a small family norm. Those assumptions are discussed. Two major studies of the determinants of fertility are underway which will add to our understanding of the social and economic constraints to the practice of contraception.

In the past, the ^{poor} relationship between health and population has been an ^{administrative} constraint in the delivery of both services. Recently, points of cooperation at different levels of health and family planning service delivery have expanded and have given rise to the hope that both services will benefit from this increasing cooperation.

In Section III, we assess the Government's demographic goal. We review the historical precedents of fertility reduction in other countries and conclude that even the most successful experiences (including mainland China) have not achieved a fertility decline of the magnitude aimed at by Bangladesh. At the same time, we admit to the imponderables in the Bangladesh situation which render

historical precedents of only limited value in assessing what is possible. Little is known about the effects of extreme and spreading poverty on fertility behavior at the individual or societal level, especially in Bangladesh which is faced with demographic and development problems without parallel among major nations. There are, still to be documented, accounts of pilot program efforts achieving prevalence of use rates in the range of 25 to 40% which suggest that some communities are approaching the critical mass of social sanction which will lead to a significant fertility reduction. What emerges from our discussion is a mixed picture: lack of historical precedent for a fertility decline on the scale of the Government's goal; yet the realization that Bangladesh's developmental and demographic situation is unique. We state that the Government's demographic goal is overly optimistic and unachievable given the present policy, program characteristics, and seven-year strategy. We point out that the setting of an unrealizable target carries the risk of creating a discredited program, or forcing the program into coercion in order to meet the target. Additionally, the reliance on unrealizable population projections gives national planners a dubious base on which to plan foodgrain requirements, jobs, and social services.

We state that, although it is difficult to quantify what can be achieved in the absence of a fully operating program, contraceptive prevalence rate of 35 to 40% can be achieved if the Government institutes fundamental changes necessary to make the program function at its full potential. The expected fertility decline from this level of prevalence would depend upon the effective use of contraception. If the more effective methods are used and used effectively, then a CBR below 30/1000 can be expected from such a prevalence level. We emphasize the point that our assessment of what can be achieved does not imply that the Government's goal of achieving a NRR of One should be abandoned. Rather, we advocate that the Government develop a solid program during the coming two years and then decide on a more realistic time-frame for achieving NRR of One on the basis of good data.

Section IV deals with our analysis of the important actions and conditions necessary if not to achieve replacement level fertility in seven years, at least to bring about an increase in contraceptive prevalence to the range of 35 to 40%. These actions are grouped as follows: 1) the enlistment of community support; 2) the development of a good program administration; 3) the development of a program which earns the respect of the people; 4) the expansion of menstrual regulation services; 5) the expansion of high quality voluntary sterilization services; 6) the creation of a social and economic environment conducive to a small family norm.

While we believe that a comprehensive, well managed family planning program can achieve impressive declines in fertility in a short time, we discuss additional measures (incentives, disincentives and coercion) which may have

to be considered depending on how rapidly the Government wishes to achieve its more ambitious goal. We conclude this Section by saying that incentives and disincentives which are tied directly to the use of contraception should not be tried until and unless it can be demonstrated that the family planning program is not producing significant fertility decline and until there has been sufficient time to plan and test incentives and disincentives on a pilot basis.

In Section V we discuss our population assistance strategy for the next seven years. Our population assistance will be focussed on 1) the establishment of national availability of fertility control services and information and 2) planning our other development assistance projects in such a way that they will contribute to declines in fertility. Our support will match our capabilities and clear program needs not filled by other donors. In family planning our new initiatives will concentrate on voluntary sterilization services, family welfare centers, operations research and management information, the collaboration with other donors in researching the effects of abortion on maternal morbidity and mortality, and on management. We will continue our support in contraceptive supplies, participant training, and technical assistance. We believe non-bilateral support through intermediary organizations has been effective and we will encourage them to expand their roles to fit clear BDG program needs.

In the area of other development projects, we are prepared to identify future projects in rural development which are likely to have a greater near term impact on reducing fertility. We will also use research resources in AID/W to better understand the indirect determinants of fertility. In addition we are prepared to assist the BDG undertake a comprehensive review of existing policies in order to assess their pro- and anti-natalist implications. We will also discuss with the Government the possibility of developing an experimental research program to examine the acceptability, feasibility, and effectiveness of various forms of incentives and disincentives relating to fertility behavior and applied in the context of policies and programs in such areas as food production, rural development, rural credit, and food distribution.

Assessing the demographic impact of our assistance strategy will be done with the BDG by developing management information systems which include the use of prevalence surveys and by the periodic use of retrospective fertility surveys.

The Mission believes that the number and scope of the activities identified in this paper will likely require additional staff. The exact nature and number of additional staff will be identified as projects are developed.

BANGLADESH
U.S. POPULATION STRATEGY

I. THE DEMOGRAPHIC GOAL

A. Relevant Demographic and Social Data

Population (Estimate as of Jan. 1977)	82.4 million
Crude Birth Rate	44 per thousand
Crude Death Rate	16 per thousand
Rate of Natural Increase	2.8% per year
Number of Years to Double	25
Total Fertility Rate	6.5-7.1
Infant Mortality Rate	130 per thousand
Maternal Mortality Rate	7 per thousand
Percent of Population 14 years and under	46 percent
Average age of females at marriage	15-16
Life Expectancy at Birth	42.3 years
Per Capita Income	90 dollars
Rural Population	92%
Population Density per square mile	1500
Annual Net Increment to Labor Force	800,000
Literacy	
Overall	22%
Male	30%
Female	14%
Number of Married Women, 15 to 49	15,000,000
Currently Practicing Contraception	10%

Note: These data are BDG's estimates.

The statistics on the preceding page do not fully suggest the enormity of the population problem in Bangladesh. The eighth most populous nation in the world, with a population four times that of the combined population of the countries of central America, its people are crowded into an area the size of Wisconsin. All available arable land is already utilized, leaving virtually no space within the country's borders for the growing population to expand. Although the average farm size in this agricultural economy is only 2.3 acres, 49 percent of the rural population are functionally landless, and the extent of landlessness continues to increase. The addition of 800,000 people to the job market each year worsens the problems of unemployment and underemployment--now 44 percent.

Bangladesh is also one of the poorest countries in the world. Per capita income, currently estimated at \$90 per annum, reflects the poverty and misery of the majority of the people. Nearly 50% of the people suffer from serious deficiencies in calorie intake and 80% have vitamin deficiencies. Housing in the rural areas does not provide a minimum protection against the elements. Even in urban areas, 70% of the housing lacks basic masonry; about 80% has no water connection; and 90% is without electricity.

In this setting, where existing programs in every area--food production, health, education, housing--are already badly strained, the continuing high rate of population growth threatens to absorb and even surpass all development efforts.

B. Population and Family Planning

Government of Bangladesh's Demographic Goal

The Government of Bangladesh's demographic goal is to achieve a net reproduction rate of one ** by 1985. Table I below summarizes the

** The Net Reproduction Rate (NRR) is the average number of daughters a woman will bear if she experiences a given set of age-specific birth rates throughout the reproductive ages adjusted for mortality of women over their reproductive ages. A net reproduction rate of 1.0 when reached, indicates that the country will be able to reach a zero population growth rate after five to six decades. The population continues to increase after NRR has reached 1, because of the "above replacement" daughters already born before the NRR fell to 1.0.

Source: Document of the International Bank for Reconstruction and Development, Appraisal Report of a Population Project Bangladesh, Feb. 3, 1975.

demographic and family planning targets required each year from 1978 to 1985 to reach the goal. The goal and the targets are contained in the Government's Two (1978-80) and Five (1980-85) Year Plans which were issued in draft in September 1977. The Plans have been approved in principle by the National Population Commission, the highest population policy making body of the Government.

TABLE I

Family Planning target during approach plan and the
Second Five Year Plan (population figures are in million)
under an assumption of achieving NRR=1 by 1985

Year	Popu- lation (milli- ons)	Fecund married women (milli- ons)	Crude birth rate per 1000 popu- lation CBR	Crude death rate per 1000 popu- lation CDR	Popu- lation gro- wth rate per cent GR	Total Ferti- lity rate	Continued users (millions)	Continued users as % of Fecund married women
2 Year plan								
1978-1979	87.96	12.99	35.97	11.51	2.4	5.70	3.73	28.71
1979-1980	90.11	13.40	32.89	11.14	2.2	4.66	4.67	34.85
Second 5-Year Plan								
1980-1981	92.07	13.82	29.76	10.72	1.9	4.24	5.71	41.32
1981-1982	93.82	14.25	26.69	10.36	1.6	3.83	6.78	47.58
1982-1983	95.35	14.70	23.59	10.11	1.4	3.35	7.92	53.88
1983-1984	96.55	15.17	20.48	9.69	1.0	2.93	9.13	60.18
1984-1985	97.69	15.64	17.39	8.09	0.93	2.30	10.40	66.49

Source: Population Control & Family Planning Program:
The Two Year 1978-1980 and the Second Five
Year 1980-1985 Plans. (Draft, Vol I, Sept. 1977)

The Government first enunciated a demographic goal in its First Five Year Plan (1973-78) by projecting a population of 189 * million persons by the year 2000, based on the assumption of a moderate reduction of the population growth rate. This goal implied a lowering of the population growth rate to 2.8% by 1978 and the achievement of replacement level fertility in 25 to 30 years.

In 1976 the Government decided that the projected economic development on the basis of known available resources could not maintain this projected population at a minimum acceptable standard of living. Therefore, the Government decided that the nation must aim at bringing down the average number of 6.4 children per woman to a replacement level of 2.6 by 1985, and to maintain a 1.5% average annual growth rate through the balance of the century. Under that goal, the projected population by the year 2000 would be 121 million which according to the Government would be of "management" size. The recently issued draft of the Government's Two (1978-80) and Five (1980-85) Year Plans states the goal more clearly: a Net Reproduction Rate of One (NRR=Cne) by 1985. Using data from the 1974 census and the recently analysed Bangladesh Fertility Survey (for which data were collected in late 1975 and early 1976), the Government has concluded that the achievement of the new goal will result in a population of 117.4 million by 2000.

The operational implications of the new goal are staggering, calling for a reduction of 60.4 percent in the crude birth rate--from an estimated 44 per 1,000 population in 1977 to 17.39 per 1,000 by 1985. Similarly, the goal calls for a change in the crude death rate from 16 per 1,000 in 1976 to 8.09 in 1985--a 49 percent drop. The annual population growth rate is expected to fall to 0.93 percent by 1985.

Present fertility and mortality levels are estimates based upon preliminary data from the 1975 Bangladesh Fertility Survey. That survey indicated a 1975 crude birth rate of 47 per thousand population and a crude death rate of 19 per thousand population. The 1977 CBR of 44 per thousand was calculated according to the presumed fertility impact of the current prevalence level of contraceptive use, based upon program service statistics. Mortality levels and trends in Bangladesh are even

* 189 million appears to have been a miscalculation since it implies an annual growth rate of 3.5% .

more sensitive to the vagaries of the Bangladesh environment and general economic situation. The 1975 Bangladesh Fertility Survey yielded a crude death rate of 19 per thousand population, based upon survey figures of the proportion of ever born children who had died by the time of the survey. The distribution of these proportions was transformed into a life table function showing the probability of dying between birth and an exact age. High infant mortality appears to be a major cause of the high general mortality. The CDR of 16 cited for 1977 is only an estimate, based upon likely declines in mortality due to relatively plentiful food supplies during the past two years.

Table I also lists the number and percentage of current contraceptive users required to achieve the desired fertility reductions. Prevalence of contraceptive use must rise from an estimated 10.2 percent of married women of reproductive age in 1977 to 66.5 percent in 1985, a more than sixfold increase. The Government estimates that about 1.25 million fecund married women or their spouses currently use contraceptives; this number must increase to 10.4 million persons by 1985 in order to meet the population goal.

The Mission's assessment of this demographic goal is treated in Section III. It should be noted, however, that no other country has ever attempted to achieve such an ambitious demographic goal; and probably no other country has ever been faced with such overwhelming demographic problems.

Bangladesh Government Commitment to Fertility Control

The present Government, in power since November 1975, has evidenced a strong commitment to achieve a rapid decline in fertility. During 1976 the President and other officials were outspoken in their concern about the gravity of the population problem and their support of the family planning program.

These public utterances have become less frequent since Spring 1977, with a corresponding reduction in the number of population news stories, articles and features which, for more than a year, had appeared almost daily in the press. Although the reasons for this lower profile are unclear, the change coincided roughly with publicity about public reaction in India to fertility control measures adopted by some of the states and to the most recent instance in Pakistan of politicians turning family planning into a political issue.

Even so, political support of fertility control programs remains stronger than in most developing countries, and the highest officials follow the progress of the program closely. The population policy body, the ministerial-level National Population Council chaired by the President, has met eleven times since June 1976. Many public officials and professional leaders are acutely aware of the penalties of delay in lowering fertility in terms of the country's inability to support an ultimate population size of over 100 million. Indeed, it is this sense of urgency which has prompted the Government to elevate its target to a Net Reproduction Rate of one in seven years.

Recognition of a problem and adoption of a policy aimed at reduction or resolution of the problem are measures of one aspect of commitment. Another set of measures concerns the actions taken to translate the policy into action. On this level, the record is less impressive.

A chronology of key actions since independence follows:

December 1971 to December 1973	Extended debate on strategy; no active program.
January 1974	Initiation of integrated health and family planning program using multipurpose field workers.
January 1975	Decision to abandon integration attempt and to revert to a vertical family planning program. Creation of a separate division for population/family planning in the Ministry of Health and Family Planning.
March 1975	Transfer of responsibility for maternal and child health (MCH) from Health to Population Division.
April 1975	BDG approval of field structure with 12,000 new MCH/FP field workers.
September 1975	Approval of Population Control and Family Planning Directorate to implement the MCH/FP program.
January 1976	Approval of budget for Directorate and field staff.
May 1976	Nearly 18% of field workers posted.

October 1976	Expanded PCFP Directorate organization approved
February 1977	About 49% of field workers posted.
September 1977	About 60% of field workers posted.

That the basic organization is not yet fully in place nearly three years after the decision to use a separate structure for MCH/FP services is due, in part, to cumbersome established administrative procedures which the Government has only occasionally set aside on an exceptional basis to facilitate more rapid implementation of this high priority program.

Another aspect of the problem, in our view, has been the evident failure to assign highest priority to development of a solid infrastructure for carrying out a long-range, well-administered program. Program energies are repeatedly diverted into high-pressure activities to achieve impressive results quickly. Unrealistic time tables for completion of actions are set which force the sacrifice of quality for speed. The motives and pressures which cause such administrative behavior can only be guessed at by outsiders, but the effect has been the repeated diversion of attention from the sustained, undramatic and difficult work of building an efficiently functioning program. Thus, a strong management system and such basic program requirements as high-quality training, supervision, service statistics, and commodity logistics remain unrealized prerequisites to an effective program.

Given the pace of implementation and the program's ability to spend, the population/family planning program has been amply funded since its inception. The following table shows the approximate level of Annual Development Plan budgets for the most recent four years.

TABLE II
Annual Development Program
Population/Family Planning

	74-75	I	75-76	I % inc. I	76-77	I % inc. I	77-78	I % inc.
Tk.	84,970,000		185,000,000	118%	295,000,000	59%	287,971,000	-2%
\$	10,755,695		12,671,233		19,566,566		19,198,065	

It has not been possible to isolate precisely the portion financed by the BDG's own resources since they are commingled with donor contributions. It is clear, however, that in the national budgeting process, items which are of little or no interest to international funding agencies have first call on the Government's own resources. Population is an area in which external funds have been abundantly available and relatively more reliance is placed on donor agencies. It should also be noted that the budget figures given above include funds for population/family planning activities of other development ministries, although the largest share is for the national family planning program of the PCFP Division. The budgets are understated inasmuch as they do not include AID's centrally funded contraceptives and most of the intermediary grant and contract activities items which are not funded under bilateral agreements.

II. ASSESSMENT OF THE CURRENT POPULATION PROGRAM: ACHIEVEMENTS AND CONSTRAINTS

A. Publicly and Privately Financed Programs

Background

The history of family planning in Bangladesh is traced in USAID's Development Assistance Program, December 1974, and its Population/Family Planning Project Paper, December 1975. Briefly, in the early 1950's, the family planning message began to be propagated in what is now Bangladesh by the private-sector Family Planning Association. In 1960 the Government of Pakistan began a modest program of family planning services through its static health facilities. In 1965, the program, based largely on the IUD and sterilization, was greatly expanded and put in charge of a newly created unipurpose family planning organization. Services and education were delivered by female paramedics, the Lady Family Planning Visitors (LFPVs), in their family planning clinics and by the part-time, largely uneducated dais (traditional birth attendants) and Chief Male Organizers (CMCs) who visited homes. Governmental doctors, private practitioners, clients and recruiters received per-case cash payments for sterilizations. The large numbers of vasectomies reported in the late 1960's were later acknowledged to be grossly inflated.

By 1968, according to the National Impact Survey, about 70% of the target couples had heard about some method of family planning, about eight percent had ever practiced a modern method of contraception, and three to four percent were currently practicing.

Program operations were disrupted by the political and military events which began in March 1971 and culminated in the independence of the People's Republic of Bangladesh in December 1971. The family planning program remained dormant until two years later, when an attempt was made to integrate health and family planning services.

In this phase of the program, nearly 12,000 male workers of the vertical malaria and smallpox programs were given several weeks' training in each other's tasks and in family planning. Called Family Welfare Workers (FWWs), they began operating in January 1974 as multipurpose workers responsible for delivering preventive health and family planning services during their regular rounds of home visits.

Serious problems arose from the beginning. "Integration" was at the field worker level only. Separate chains of command and separate sources of salaries remained intact at every level. The family planning organization which had bitterly opposed integration, never became fully reconciled to the decision and was less than wholehearted in trying to make it work. FWW training was inadequate, a matter of particular concern since oral pills were being introduced into the program for the first time outside the clinical setting. Workers were ill-prepared to give clients reliable information to satisfy questions, doubts and fears. They not only had a long list of duties to perform but were frequently called off the job for special assignments: periodic malaria spraying, intensive smallpox eradication campaigns, disaster relief, election duty, and rice procurement drives.

It is small wonder that a special evaluation team assessing the program after one year found that family planning was not receiving attention commensurate with the urgency of the population problem. Thus, in January 1975, the Government decided to revert to a vertical family planning program and, three months later, to combine maternal and child health (MCH) with family planning. Accompanying this action was the bifurcation of the Health Division of the Ministry of Health into the Health Division and the Population Control and Family Planning Division and the renaming of the Ministry as the Ministry of Health and Population Control. Nine months later, the vestiges of the erstwhile Pakistani family planning organization were assimilated into the new PCFP Directorate.

Although FWWs have continued to distribute oral pills and condoms from their remaining stocks on an ever-decreasing scale, they have been disregarded by the PCFP Division as a family planning resource. USAID regards with cautious optimism opinions expressed recently by a few Health and Population officials that FWVs, FWWs, Family Welfare Assistants (FWAs) and Family Planning Assistants (FPAs) (female and male family planning workers) ought to consider themselves natural--and necessary--allies in their complementary, mutually supportive provision of a wide range of preventive health services: communicable disease control, environmental sanitation, nutrition, MCH and family planning.

During the year that elapsed while the PCFP Directorate sought Government approval of its organizational structure and the budget for the new MCH-based family planning program, two program changes were made, both in May 1975. The part-time dais and Chief Male Organizers (an estimated 8,000 and 4,000 respectively), who remained on the rolls from the Pakistan program but who had not been used in the post-independence program, were reactivated and permitted to distribute contraceptives to homes. However, they were given no special training on oral pills, which they had not been permitted to dispense before. Second, it was decided to distribute oral pills and condoms free instead of continuing to sell them at the nominal prices (orals: three U.S. cents per monthly cycle; condoms: five U.S. cents per dozen) that had been in effect since the inception of the integrated program. Whether to charge for contraceptives had long been an issue within the family planning organization. The decision to provide them free appears to have been arbitrary and unsupported by any studies. A study now underway is testing public acceptance of reverting to selling at highly subsidized prices.

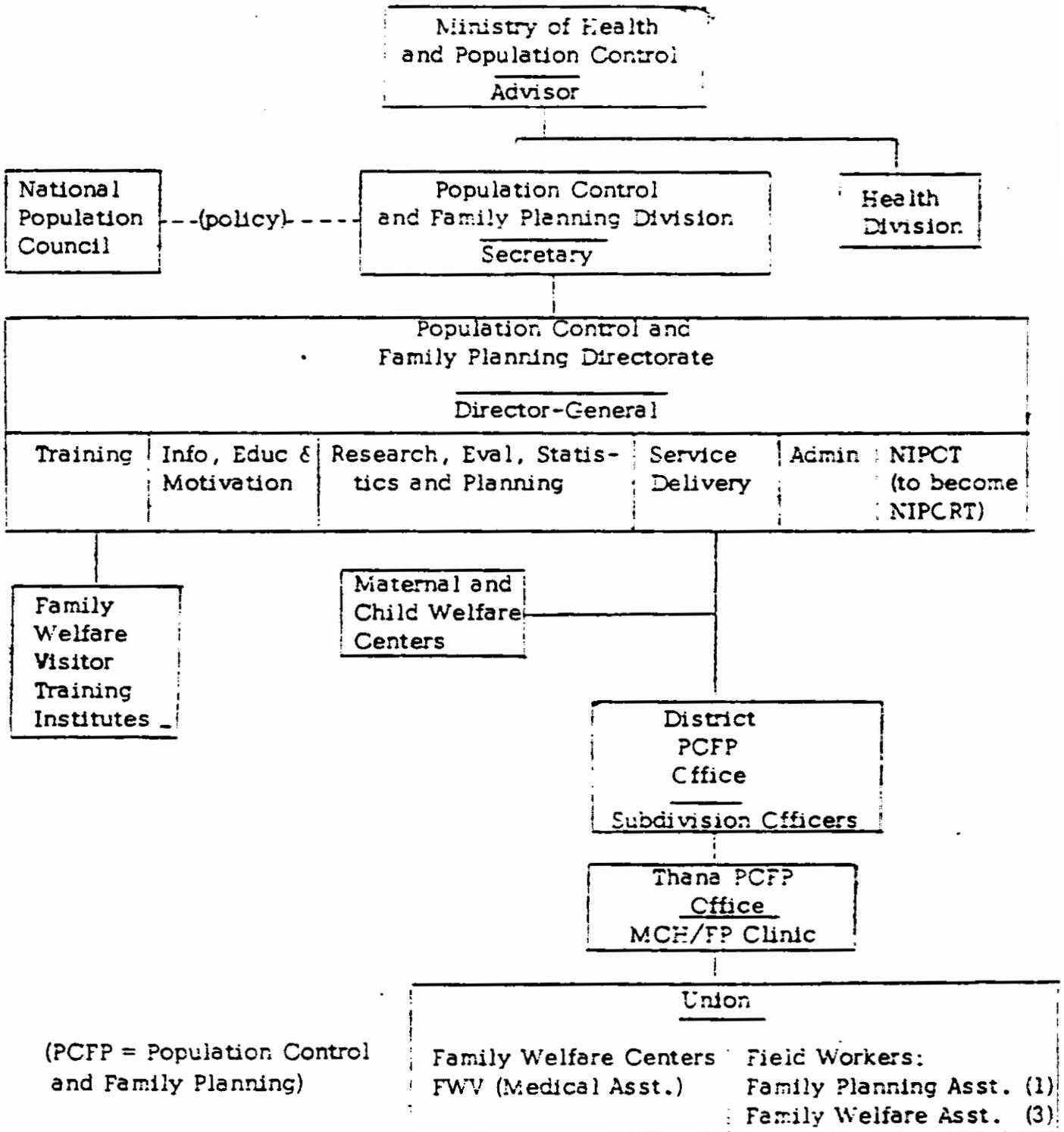
The Present Public Program

Assuming that the requisite management competence can be developed, the basic strategy of the Bangladesh family planning program is appropriate to the environment of Bangladesh. The population is overwhelmingly rural and largely illiterate. Press circulation is small and mostly urban. Coverage by the radio network is good but there are few receivers, some of which are not operating because of the high cost of batteries. Road and other communication networks are inadequate. The movement of most women outside their homesteads is severely restricted.

In such a setting, it makes sense to rely heavily on person-to-person communication and doorstep delivery of conventional contraceptives in the rural areas. The program recognizes the natural relationship between fertility and the welfare of women and children and makes extensive use of women workers for delivery of maternal and child health and family planning services. In this traditional Muslim society, women have much easier access to the female population and they are more acceptable than men as deliverers of services to other women. The decisions to let non-medical field staff select oral pill clients and dispense pills, to rely on women paramedics to insert IUDs, and to authorize shops to sell oral pills without prescription are practical, given the dearth of qualified doctors, nearly half have accepted employment in Middle Eastern and African countries. The majority of the balance are concentrated in urban areas. The decision to develop services first in rural areas, where 92% of the population live, is also reasonable. Steps are planned during the Second Five Year Plan to expand the urban clinical services.

Another significant feature of the strategy is the active involvement, on a pilot basis, of other ministries in family planning education and services. These activities are being assisted under the World Bank and UNFPA projects. The PCFP Division is also experimenting in selected areas with promotion of fertility control in the context of comprehensive rural development--the so-called Zero Population Growth Project--with assistance from Japan and the Netherlands, and in the BDG's own effort at community involvement in self-help, the Swanirvar (Self-Reliance) program.

POPULATION ORGANIZATION CHART
OF MINISTRY OF HEALTH AND POPULATION CONTROL



Organization

The Population Control and Family Planning Program is directed from the national level through a monolithic organizational structure whose tiers correspond to those of local government administration: national level, district, subdivision, thana, and union.

Union Level

The major program contact with the rural population is provided by three female Family Welfare Assistants (FWAs), one in each of a union's wards with an average population of 5,000-6,000. These approximately 13,500 FWAs visit homes to give MCH/FP information and to supply oral pills, condoms and contraceptive foam. They refer IUD and sterilization clients to thana or district clinical facilities as available. As Family Welfare Centers are established during the next seven years, IUD insertion services will be available at the union level. In each of the nearly 4,500 unions, one male Family Planning Assistant (FPA) is responsible for administrative supervision and facilitating the work of the FWAs, talking with potential male clients, and working with the union council (an elected local government body) and other groups.

FWAs and FPAs are required to be permanent residents of the ward or the union, respectively, in which they work.

FWA candidates are required to be between the ages of 18 and 30 and to have a minimum of five years of formal education, with preference (and a higher grade) given to those who have completed ten years. FPA qualifications are twelve or (at lower pay) ten years of school and incumbents must be between 18 and 30 years old. Marriage, parenthood and current use of contraception are not requirements.

The Mission believes that these criteria are overly restrictive and should be broadened to permit the recruitment of more mature married women with children, especially those who are current users of contraception. Experience in many other countries has shown that such women are the most effective field workers. As we point out below, the Government is planning to hire some 13,500 such women to work as part-time aides to the FWAs. While such a measure will undoubtedly be helpful, we believe that older, more mature women should be eligible for recruitment as FWAs as well.

FWAs and FPAs are given one month's initial training in MCH and family planning subjects, to equip them with the minimum basic knowledge and skills they need to begin working.

In order to make basic clinical services more accessible to the people, the BDG plans to establish about 4,000 Family Welfare Centers (FWCs) by 1985, one in each rural union not containing the thana headquarters and its thana health complex. Of the 1,030 FWC's planned by mid-1978, about 450 have already been established, some in rented or rehabilitated existing buildings. When fully staffed, the FWC will offer basic curative health services provided by the Health Division's new category of paramedic, the Medical Assistant, and MCH/FP services provided by the PCFP Division's paramedic, the Family Welfare Visitor (FWV).

The principal focus for involvement of community leadership in support of family planning is the union council. Assuming their duties in February 1977, union council chairmen and members have been exhorted by the President and other officials to take an active role in promoting family planning. The chairmen have recently been given responsibility for "supervision" of the FWAs and FPAs in their respective unions. It is anticipated that the two appointed women members of each council may be assigned principal oversight of this activity.

Thana Level

Staff consists of : a) the Thana PCFP Officer, administrator of the family planning program in the thana; b) two FWVs who operate the family planning clinic and provide MCH/FP services including midwifery and IUD insertion; c) a storekeeper, responsible for storage and issuance of supplies to field workers and clinics; and d) supporting staff. A position exists for a family planning doctor, the Thana Technical Officer; however, the PCFP Division finds it virtually impossible to recruit doctors. Thus, most of these positions remain unfilled.

Space for the family planning clinics is provided in the Health Division's thana health complexes or rural health centers, which exist in nearly half of the rural thanas; elsewhere, MCH/FP service facilities are located in the free-standing clinics established under the former program. Under the recently approved plan to extend voluntary sterilization services throughout the country, major reliance will be placed on the Health Division's thana doctors to perform these operations.

Most of the officers of the development and social service ministries posted at thana level are members of the Thana Population Coordination Committee, which is chaired by Local Government's Circle Officer (Development) and is responsible for coordination of multisectoral population planning efforts.

Subdivision Level

An additional layer in the administrative chain has recently been created with the filling of the new Subdivisional PCFP Officer positions. This is intended to ensure more intensive administrative supervision of thana and union activities than has been possible from the district. The subdivision is not included in the union-to-thana-to-district reporting and data aggregation system of service statistics.

District Level

District family planning activities are administered by the District PCFP Officer. Other staff at the district level include a District Technical Officer (a doctor) responsible for technical supervision; a Storekeeper responsible for storage and issuance of supplies to thana stores, clinical facilities in the district town, and cooperating voluntary organizations; and supporting staff. The multisectoral District Population Coordination Committee is chaired by the Deputy Commissioner, the ranking Local Government official.

National Level

Directing all these units and activities at the national level is the PCFP Directorate, headed by a Director-General. The Directorate has five units, each with a Director and technical staff: Service Delivery; Research, Evaluation, Statistics and Planning; Information, Education and Motivation; Training; and Administration. The newly opened National Institute of Population Training (NIPCT) also reports to the Director-General.

Overall planning, policy formulation and guidance is provided by the PCFP Division of the Ministry of Health, Population Control and Family Planning. The Division is headed by a Secretary, the highest Civil Service position. It also serves as secretariat for the highest population policy body, the ministerial-level National Population Council, chaired by the President, and for the interministerial, secretary-level Central Coordination

Committee, chaired by the Advisor for Health, Population Control and Family Planning. *

Under the control of the PCFP Directorate are nine FWV Training Institutes, to be increased to eleven, for training of female paramedics in MCH/FP. The Dacca College of Nursing, under the Health Division, assists this activity by conducting six months' training courses for nurses and senior Lady Health Visitors to become trainers in these institutes.

The National Institute of Population Training (NIPOT), whose Director is responsible to the Director-General, has recently been created to provide management training for district and thana PCFP officers and other middle-level managers of the program.

The Directorate has taken over the 93 existing Maternal and Child Welfare Centers, many of which had fallen into disuse. It would be fair to say that there have been virtually no MCH services in the past. The activation of these centers as urban MCH/FP clinics, further training of FWAs, and the establishment of FWCs staffed by FWVs in the unions for rural outreach, should for the first time provide a firm base for this important aspect of primary health care.

Other ministries with population/family planning programs have designated officers as Population Project Officers to carry out IBRD- and UNFPA-funded pilot projects. Pilot projects are underway in seven Government programs:

Integrated Rural Development Program: development of women's co-operatives for income-producing activities; population education of men's cooperative leaders.

Directorate of Social Welfare: formation of mothers clubs and youth groups in rural areas.

Ministry of Education: incorporation of population education content into curricula of the formal education system.

Ministry of Labor: family planning in labor welfare centers, industrial plants, and tea plantations.

* At the present time, in the absence of a Parliament, cabinet functions are carried out by a Council of Advisors to the President, each with assigned portfolios.

Ministry of Agriculture: family planning promotion as a part of the work of agriculture extension agents .

Women's Rehabilitation and Welfare Foundation: vocational training centers and rural groups .

Ministry of Information and Broadcasting: press , radio , T.V. , films , speakers .

The Bangladesh Institute of Development Studies (BIDS) is responsible for carrying out economic , behavioral science and demographic research related to population , and the Health and Population Section of the Planning Commission has established a unit to conduct external evaluations of all family planning activities with assistance from World Bank . In addition , a number of university departments and institutes carry out studies independently and at the request of the PCFP Division .

In the draft plan for the next seven years , some of the major actions contemplated are the following:

- Hiring of 13,500 middle-aged and older women as part-time aids to the FWVs . Traditional restrictions on the mobility of women , especially young women , are a handicap to FWAs in making home visits . Similarly , the taboo against intergenerational sex-related communication is still strong .
- Establishment of union-level clinics , the Family Welfare Centers , as discussed earlier .
- Creation of training centers throughout the country for in-service training of field staff , one in each of the 19 districts in the first phase , later to be increased to perhaps 40 .
- Expansion of the role of voluntary sterilization in the program by extension of services into every thana .
- Increasing the number of urban clinics in order to augment urban MCH/FP services . The government intends to accomplish this by rehabilitating existing Maternal and Child Welfare Centers , many of which are disused , and by encouraging voluntary agencies to establish clinics .

- Expansion of NIPCT into NIPCRT--the National Institute of Population Research and Training. Research elements are now projected to include biomedical, operations, demographic, and social science research. Although approved in principle by the National Population Council, detailed plans and budget for the research components have not yet been drawn up. The training function is principally concerned with middle-level management.

Private Sector Programs

The BDG welcomes and encourages the participation of voluntary organizations in family planning. Perhaps 30 agencies, domestic and foreign, are actively engaged in family planning: a large number of local community organizations throughout the country are assisted by one or more of the larger voluntary programs. Such voluntary agencies are especially important for legitimizing family planning because they commonly have greater credibility than government.

These programs operate in a variety of contexts, sometimes with family planning as only one aspect of broader development activities. Most voluntary agencies operate in relatively small areas, and many achieve considerable success. It is not uncommon for voluntary agency projects to reach and sustain prevalence rates in selected areas two to three times the rate so far achieved in the national program. A systematic analysis of these experiences to determine replicability has yet to be undertaken.

A few of the private sector projects with special importance in the national program are described below.

The Bangladesh Family Planning Association (BFPA), an affiliate of IPPF, is the pioneer family planning agency in Bangladesh. It conducts an active public information and education program through radio, publications and film production and, through its nine district branches, public meetings. It has reportedly achieved from 25% to 40% prevalence rates in the nine rural unions assigned to it by the PCFP Division. With a BDC grant of World Bank funds, it has begun to involve selected local voluntary organizations in family planning.

With the cooperation of the BDC, Population Services International (PSI) has developed an organization which markets locally branded "Raja" condoms and "Maya" oral pills through some 30,000 retail outlets throughout the country--drug, stationery, and general merchandise shops--at

subsidized prices (\$0.03 for three condoms; \$0.09 for two monthly cycles of pills). Funded under an AID/Washington contract, the program has demonstrated the existence of a sizeable demand for low-priced commercially marketed contraceptives.

Two clinics in Dacca, supported under AID/W grants by the Pathfinder Fund and the International Program of the Association for Voluntary Sterilization, have shown that there is a steady demand for high-quality services in Metropolitan Dacca and its rural hinterland. These clinics have helped to popularize sterilizations and to fill an important need for the training of doctors in sterilization techniques.

Of special interest is Concerned Women for Family Planning (CWFP), a neighborhood outreach project in Dacca City, managed and staffed entirely by women. Funded by a subgrant from Family Planning International Assistance (FPIA), an AID/W grantee, CWFP has achieved unusually high continuation rates for all methods (85% after 12 months). The program's success is attributed to good worker training and supervision and to the intensive follow-up provided by knowledgeable, sympathetic field staff and neighborhood volunteers. CWFP's example has now been taken up by women in several other cities.

Several private-sector agencies have pioneered in the use of long-acting injectable steroids, which are now being considered by the BDG for further testing and possible introduction into the national program. One agency, the Gonoshasthaya Kendra (People's Health Center), has demonstrated the feasibility of paramedics' performing minilaparotomy procedures under medical supervision. A number of other agencies have made family planning a normal aspect of rural development and have shown the high rates of contraceptive use that can be reached through programs that give community leaders and groups the opportunity to convince themselves of the importance of fertility control.

Donor Support

The gravity of Bangladesh's population problem and the seriousness of the Government's commitment have attracted the support and cooperation of many external donors. Four major donors--UNFPA, the World Bank, USAID, and Ford Foundation--have resident population representatives in Bangladesh. WHO and UNICEF, which are implementing agencies for UNFPA-funded projects, and the Cholera Research Laboratory, have

population professionals on their staffs. In the private sector, FPIA has a regional representative for South and West Asia, and a number of voluntary organizations have expatriate family planning staff members engaged in project implementation. Other bilateral donors assign non-population specialists from their respective embassy staffs to monitor all their assistance.

The first World Bank project carried a price tag of \$45 million, including \$5 million for the BDG contribution, \$15 million in an IDA loan, and \$25 million in grants from six associated countries--Australia, Canada, Federal Republic of Germany, Norway, Sweden, and the United Kingdom. Although the original schedule called for the project to be conducted in the period 1975-1978, expenditures did not begin until 1976 because of delays in meeting conditions precedent and in implementation. It is now expected that the bulk of the funds will be expended by mid-1980. The World Bank will plan its Second Project to begin in 1978, on the basis of discussions with the BDG and other donors, and consideration of the draft Approach Plan (mid-1978 to mid-1980) * and Second Five Year Plan, which the PCFP Division presented to the World Bank, UNFPA and AID during their simultaneous missions to Bangladesh in October 1977.

The UNFPA signed an agreement with the BDG in July 1974 for assistance valued at \$10 million over a period of three years. The new Government's limited project planning capability and the press of other business caused delays in programming the funds, however. It is expected that this first grant will be largely expended by 1978.

USAID assistance has totalled over \$14 million from FY 1973 through FY 1977, including centrally funded contraceptives. According to present program projections, USAID's contribution through FY 1980 will be approximately \$48 million.

Ford Foundation support to the population program has averaged about \$500,000 per year since 1974, and has been devoted to the provision of scholarships for study abroad and in-country research grants.

* The BDG plans to have an interim two-year plan to allow sufficient time for careful preparation of the Second Five Year Plan.

Donor and BDG contributions are generally complementary. In fact, to an unusual degree, the full benefit of any donor's inputs depends on the timeliness of the BDG's and other donors' inputs. The following list of sources of support for key program components illustrates this interdependence:

Personnel - Managers and Service Deliverers

- . Salaries: Mostly BDG
5,500 FWAs - UNFPA and World Bank
Additional personnel needed by other ministries for carrying out multisectoral pilot projects - World Bank and UNFPA
- . Training: FWAs and FPAs - BDG, UNFPA and World Bank
Clinic paramedics - UNFPA/WHC
Doctors - BDG and AID intermediary - supported BAVS and Model Clinic
Selected administrative and technical personnel for long-term and short-term training abroad - USAID
In-country administrative training - BDG
Long-term consultant to develop Directorate's institutional capability to manage the training function - USAID
Advanced academic studies by scholars and researchers - Ford Foundation
Medical students - BDG and UNFPA/WHC

Service Delivery Facilities

- . Thana family planning clinics and some urban clinics - BDG
- . MCW Centers - BDG; UNFPA support for repair and equipping
- . Union FWCs - BDG, UNFPA funds for rental of several hundred existing buildings. USAID and World Bank are considering BDG requests for establishment of others
- . Hospitals - BDG and voluntary organizations
- . Additional FP clinics - World Bank, and AID intermediaries IPAWS, Pathfinder Fund, and FPIA

Training Facilities

- . FWV Training Institutes - BDG and World Bank

- . College of nursing, eight rural health centers, each with three union Family Welfare Centers; construction of these facilities for training of paramedic trainers and field training of paramedics - World Bank

Supply Management and Logistics

- . Additional vehicles - UNFPA
- . Vehicle and other equipment maintenance - UNFPA/UNICEF
- . Supply management - USAID and UNFPA/UNICEF
- . Central Warehouse - UNFPA/UNICEF
- . District and thana storerooms - BDG
- . Supply personnel - BDG
- . Technical assistance - USAID and UNICEF

Commodities

- . Pills, condoms, IUDs, foam - USAID
- . Pills, condoms - SIDA and DANIDA (in 1973)
- . Pills - UNFPA (2 million cycles) and DANIDA (1.5 million cycles) in 1977, at request of BDG which wanted an alternate pill in program
- . Medical kits - UNFPA and USAID; smaller quantities by AVS and FPIA for government and private programs
- . MCH and sterilization drugs and supplies - BDG, UNICEF
- . Private sector contraceptives - AID through IPPF, PSI and FPIA

Communication

- . Infrastructure and personnel - BDG
- . Planning of communication strategy - UNFPA/UNESCC
- . Technical assistance - USAID, UNFPA/ESCAP
- . Multisectoral outreach pilot projects - World Bank and UNFPA

Research and Evaluation

- . Various demographic, contraceptive and fertility research studies - AID through intermediaries
- . Operations Research - USAID
- . Determinants of fertility study by BIDS - World Bank

- . Evaluation - World Bank
- . Long-term research consultant - USAID
- . A variety of R & E studies - Ford Foundation
- . Technical assistance in service statistics - World Bank
- . Technical assistance in census analysis - UNFPA/UNDP

In addition to USAID's bilateral assistance program, a number of activities in Bangladesh are funded under AID/Washington grants and contracts with intermediary agencies. Some of these--PSI, IPAVS, The Pathfinder Fund and FPIA--have already been mentioned. Others include the following:

World Fertility Survey - funding of the Bangladesh Fertility Survey.

Cholera Research Laboratory (CRL) - an experimental project to measure the effect on fertility of intensive household distribution of contraceptives. The project is carried out in CRL's Matlab Thana field test area, for which there is an excellent demographic data base.

Johns Hopkins University has recently completed three years of comparative studies of the effectiveness and acceptability of various contraceptives under Bangladeshi conditions.

International Fertility Research Program, working through the Bangladesh FRP, supports research on fertility control techniques. The research is carried out by individual doctors using standard protocols for international comparability.

The International Association of Schools of Social Work and the American Home Economics Association have provided consultant services for incorporating population/family planning content into the professional education of social workers and home economists.

Donor Coordination

The spirit of cooperation among population donors and between the BDG and the donors has been excellent. The recent joint visit to Bangladesh by teams from the World Bank, UNFPA and AID provided an unusual opportunity for these three principal donors to work together in reviewing the progress of the Bangladesh population program and to reach a general agreement on needs for further assistance. Day-to-day coordination of donors is largely informal, with resident representatives of the major donors initiating meetings as needed for consultation or information exchange.

Effectiveness

Any judgment of the family planning program's effectiveness must be tempered by the knowledge that a full-fledged program is not yet in operation, nor has the capability yet been developed to administer the program adequately.

The present program approach was begun in May 1976 with the partial staffing of one-third of the thanas with field workers. By September 1977 field workers had been placed in all thanas, but about 20% of field worker positions nationwide remain unfilled. Important parts of the infrastructure are not scheduled to be completed until 1985--union-level Family Welfare Centers, a full complement of Family Welfare Visitors, and facilities for training field workers. The process of making sterilization services widely available is in the beginning stages. The capacity to train middle-level program managers and field workers is yet to be developed. Systems of service and supply statistics reporting and analysis still do not meet the needs of program administrators. Supervision of field and clinical workers is minimal. Urban clinical services are sparse.

Most of these deficiencies are addressed in the two-year and five-year plans now under discussion. Until now, however, the Government's strategy has not had a chance to develop its full potential or to demonstrate its efficacy. Since a significant portion of the population does not yet have dependable access to services, there is no reliable measure of existing demand, although survey data indicate high demand. The encouraging results obtained by several voluntary organizations, cited earlier, are associated in every case with high-quality training of staff, good supportive supervision, and careful follow-up of contraceptive users--characteristics not yet evident in the national program. **

It is not possible to extrapolate a fertility rate with confidence from the estimated 8% to 10% prevalence of use rate because no data exist on use effectiveness or user characteristics. However, important baseline data are now available from which fertility trends may be measured in the future with some reliability. If planned improvements in service statistics take place, it should be possible to make concurrent inferences about the program's demographic impact. *

* See Section I, B.

** Indeed, after a rising trend in usage of conventional contraceptives in the government program during 1974 and 1975, the trend has been down from mid-1976 until May and June 1977, from which time a gradual up-turn has been observed. Per-worker/per month performance remains low. USAID attributes this largely to poor supervision and training and, for part of the period, unusual emphasis on recruitment of sterilization clients.

B. Constraints

Two principal kinds of constraints--those relating to people's desire and ability to control fertility and those associated with program management--hamper the achievement of program objectives.

Constraints to Practice of Contraception

1. Lack of Information. USAID believes that a leading cause for the gap between existing expressed demand and actual practice, in the areas where services are available, is the lack of accurate information about each of the contraceptive methods. Program workers as well as the general population share countless fears, doubts, misinformation and rumors. This situation is directly attributable to inadequate training of field and clinic workers. The problem has reached such proportions that two of the most effective means of contraception--the oral pill and vasectomy--are in danger of being discredited and lost to the program, as was the IUD in the 1960s.

2. Legal Constraints. There are no legal or regulatory constraints to the importation or use of modern contraceptives. Oral contraceptives are not a prescription drug and all categories of program personnel are permitted to select and issue supplies to oral pill clients. Sterilization for contraceptive purposes is legal, and paramedical personnel are authorized to insert IUDs.

Abortion is illegal except when necessary to save the life of the mother; reportedly, however, this law is seldom if ever enforced. In the knowledge that liberal abortion laws have had a powerful effect on fertility and maternal mortality rates in a number of countries, the writers of the First Five Year Plan stated the Government's intention to liberalize the abortion law. Legislation has been drafted which would permit abortion up to twelve weeks of pregnancy, with the consent of the woman's husband or guardian, for socio-economic or medical reasons. This draft remains on the shelf, however, and is not being actively promoted. In the meantime, demand has proven to be high in the few sites where menstrual regulation (MR) services are available, and a plan to expand such services during the next seven years is under discussion. Although reliable data on the incidence of "illegal" abortions are not available, physicians report that many of the insufficient number of hospital beds are occupied by women with incomplete or septic abortions attempted by incompetent persons under unsafe conditions, and often by folk methods.

The present minimum legal age at marriage, established in 1929, is 16 for women and 18 for men. It is estimated that, in practice, the average age of women at marriage has risen from 13 or 14 in the recent past to between 15 and 16 at present. Men average eight to ten years older at first marriage. Suggestions for raising the minimum marriage age for women to the late teens are of questionable utility in the short run. It has not been established that such a change would affect the total number of children a woman would bear in her lifetime. Furthermore, in the absence of birth registration, enforcement is virtually impossible even if the formidable administrative problems could be solved. Such a measure may have value as a statement of social policy and intent, however. Raising the minimum legal marriage age for females to twenty or above would have a greater impact on fertility, assuming again that it could be enforced.

Two other approaches--educational and economic-- may have a greater effect on raising the marriage age of women. The Government could incorporate, in its worker training and public education efforts, information on the strong positive correlation between first pregnancy at an early age and maternal and infant mortality and morbidity. Similarly, increasing opportunities for daughters to contribute to the family income could counteract the impulse of parents to marry them off soon after puberty.

3. Social and Economic Constraints

It is widely assumed, though not well documented, that social and economic factors currently work strongly against the achievement of a small-family norm in Bangladesh. Two studies now underway--a major study of determinants of fertility, being conducted by the Bangladesh Institute of Development Studies (BIDS), with the participation of the World Bank and the Johns Hopkins University; and an anthropological study of the influence of world view and belief systems on population in Bangladesh with a grant from USAID--may add significantly to the present meager store of firm data on fertility behavior.

Several currently accepted assumptions about the influence of social and economic factors on fertility are mentioned briefly below. Fuller discussions are included in USAID's DAP (December 1974) and in the Population/Family Planning Project Paper.

The people of Bangladesh place high value on sons. They ensure continuity of the family and property ownership and strengthen the family's position in conflict situations. In rural areas sons begin doing useful work at an early age and are expected to care for aged parents if necessary. For capital-poor families, sons represent potential wage earners. Daughters, on the other hand are not credited with contributing to the family economy through their performance of household tasks. Their marriages are costly and they become part of their husbands' families after marriage.

Many other pronatalist forces exist in the society. There is strong social approval of large families. Marriage is almost universal and, for girls, occurs at an early age. Although the relationships between fertility and infant and child mortality rates, which are still high in Bangladesh, are not well understood, it is commonly assumed that personal or community experience of infant and child death may lead to overcompensation for anticipated losses. Cash outlays for children are not great, especially for parents without great educational aspirations for their children, and children in rural areas begin performing useful work at an early age. In the extended family living situations common in rural Bangladesh, parents are buffered from the full burden of caring for a new child. In life situations with few pleasures, one may assume that children are also valued for the emotional gratification they afford. Perhaps most fundamentally, there are not many family situations below the poverty line in which it can be shown that having only two surviving children--which is what is required to meet the Government's stated goal--would open any realistic options for improving the family's circumstances.

Previous USAID documents have included little detail on the status of women in Bangladesh and their access to education and employment. These subjects will be treated more fully here.

The majority religion sanctions the prevailing belief in the natural superiority of men and the subservient status of women. Traditionally, Bengali women's identity is defined by their relationships with males--daughter, sister, wife, mother, daughter- and sister-in-law. They gain status by becoming mothers--especially mothers of sons. Although rural women are frequently quoted as wanting no more pregnancies, their lowly status leaves them no alternative but to acquiesce in the wishes of their husbands and mothers-in-law, on threat of beating or divorce. In addition, there are traditional restrictions on women discussing sex-related matters with their husbands.

The leaders of the proliferating efforts to raise the status and level of participation of women are convinced that opportunities for income-producing work and education are crucial to improving women's self-esteem and gaining a greater voice in family decision making.

In many countries, greater accessibility of women to education is associated with lower fertility rates, although the nature of the relationship is not well understood. In Bangladesh, 1974 Census figures show a slightly negative, though not significant, association between level of schooling and fertility, but only after completion of primary school. Table III reflects little effect of education or urbanization on past childbearing. This unique finding is substantiated by the Bangladesh Fertility Survey. It may be that the level and range of educational attainment is still so low that it has not yet had an appreciable effect on women's ability to take a more active role in making fertility decisions and on realistic alternatives to continued childbearing. Urban women, according to the 1974 Census, have a literacy rate of 32% and rural women 12.43% for an overall rate of 14%, as compared with about 22% for the total population five and over.

TABLE III

Reported Average Number of Children
Born Alive to Ever-married Women by
Educational Level and Broad Age Groups

Educational Level and Age Groups	Average Number of Live Births/Woman		
	All areas	Urban	Rural
No School:	3.91	3.45	3.93
Under 25 years	1.24	1.24	1.24
25-34 years	3.86	3.55	3.88
35-44 years	5.55	4.98	5.59
45 + years	5.28	4.44	5.33
Primary:	3.38	3.75	3.33
Under 25 years	1.27	1.49	1.24
25-34 years	4.08	4.12	4.07
35-44 years	6.06	5.98	6.07
45 + years	6.11	5.65	6.20
Secondary & Over:	2.58	2.89	2.37
Under 25 years	1.10	1.25	1.03
25-34 years	3.50	3.45	3.56
35-44 years	5.57	5.32	5.82
45 + years	5.65	5.34	5.93
Not reported:	3.41	3.60	3.38
Under 25 years	1.24	1.41	1.22
25-34 years	3.88	3.80	3.89
35-44 years	5.76	5.55	5.79
45 + years	5.50	4.93	5.61

Source: Rabbanl, A.K.M.G., S. D'Souza and S. Rahman.
"1974 Census estimates of fertility levels in
Bangladesh." Dacca, 1976.

In 1974, only 13% of rural girls attended school. With the dearth of girls' schools and female primary teachers, many parents withdraw their daughters from school when they approach puberty, if they haven't already dropped out. Even where educational facilities for girls are available, little attention is given to functional education which might be perceived as useful in daily life. Instead, the rural school system, as the urban, is oriented toward preparation for entry to a following stage of schooling.

In the most recent Population Census, some ambiguity existed regarding the classification of women within the labor force and in the housewife category. Thus, it is difficult to determine the real level of participation of women in the economic sector. In any event, women's participation is not very great. The Census estimated that only 2.5% of all women were economically active, and only 4% of women 10 years and over participated in economic activity. The highest percentage of economically active women, 6.4%, fell into the 10 to 14 age group. This probably reflects the use of young girls as domestic servants and as field laborers. The percentage falls to 3.4% between the ages of 15 and 64 due to the fact that married women have less opportunity to become economically productive. It also disregards the important contribution of women to agriculture through their postharvest processing and storage of foodgrains and seed and their care of livestock, poultry and kitchen gardens.

The deteriorating economic situation has ironically given an impetus to women's development. In the rural areas it has been noted that a redistribution of assets (land, animals, etc.) from lower to upper income groups has forced household members not previously engaged in economically productive activities to be called into service to help meet family consumption needs. Thus, if wives or daughters are capable of contributing to the family income, they are then looked upon as assets and their status within the family improves. Although the BDG is currently trying to meet the demand for more rural schools and for more female primary teachers, it is particularly urgent to provide specialized training for the women who are past school age and for young village women for whom culturally acceptable schools are as yet unavailable. This does not necessarily mean training to be provided through formal literacy programs or even through the school system. Several small "grassroots" projects for women have demonstrated that meaningful and useful learning can be provided through programs outside the formal school system.

Constraints to Program Efficiency

Administrative practices, organizational deficiencies, bureaucratic hurdles, and other "internal" factors constitute another set of constraints to reaching program objectives.

1. The decision-making process has tended to weaken the program. Important program decisions are sometimes taken precipitously, with insufficient analysis of information, consideration of feasibility or assessment of previous experience. There is little or no discussion with program staff of pros and cons, alternative courses of action, and ultimate consequences. As a result, the course of the program since independence has been erratic--marked by abrupt changes and by bursts of intensive activity aimed at achieving impressive achievement quickly. USAID believes that a more stable, coherent program would result if planning and decision making were carried out through a more orderly, participatory process.

The rapid turnover of personnel in top positions since the first Bangladeshi family planning program began in January 1974--two ministers; three secretaries; three joint secretaries, of whom one was on an ad interim basis; and five chiefs, one ad interim, of the implementation organizations, the Family Planning Board and its successor, the PCFP Directorate--contributes to decision-making problems. It has brought not only discontinuity, but, as in any bureaucracy, differences in personal style and the desire of many administrators to leave their individual marks on the program and to claim credit for achievement in a relatively brief period. Such psychological needs are often inconsistent with the careful building of the solid, stable program structure which is essential for a sustained, high-quality effort over many decades.

2. Personnel problems continue to plague the program. The program is heir to a legacy of several categories of personnel--those from the Pakistani national government service system, from the provincial system, and from the "temporary" autonomous family planning organization. Among the latter are the experienced, well-trained family planning professionals who, under present regulations, are not credited with seniority for more than a decade of service as temporary employees. Thus, highly qualified persons are assigned to responsible positions on a temporary basis, without the job security, status or salary they merit. Although much progress has been made in filling the PCFP Directorate positions, the majority of such appointments are not regularized and permanent. Understandably,

a serious morale problem impedes program progress. For the sake of equity and for the good of the program, a formula needs to be worked out to rationalize the merger of these three categories into a single permanent personnel structure.

Another serious personnel problem is rigidity in application of the seniority criterion in posting staff. Merit and technical qualifications for positions appear to be largely disregarded. The result is assignment of persons incompetent to carry out their tasks and waste of existing talent and experience. The urgency of the population problem justifies measures that ensure that the best qualified people will be placed in these jobs.

3. Other program constraints have been referred to earlier:

- a. Training of the field workers is still inadequate to their tasks of providing correct information about contraceptives, combating rumors, and providing follow-up services.
- b. Program administrators cannot yet obtain the administrative intelligence they need from service statistics. The need for regular, reliable information on what is going on in the program is urgent, as is the need for capacity to analyze these data for problem identification and corrective action.
- c. A simple, potentially effective supply system has been designed and is in partial operation. Previously no information was available on amounts and location of supplies in country. More training of thana- and field-level staff is needed to make the system for management and accountability of supplies fully functional. Staffing actions at national level have still not been taken which would ensure the kind and number of officers who have the competence, authority and support of program administrators to maintain the system. This problem will become more acute with the introduction of the complex array of supply items needed for MCH and sterilization services. Accountability, timely and adequate resupply to service delivery points, and rational projections of future supply needs depend upon establishment of a reliable supply system.

- d. No supervision of FWAs, FPAs and FWVs exists, for all practical purposes, and no plan under discussion would address this problem adequately. This has serious consequences on several levels. Program administrators, from the thana level up, need to know what these workers are doing. Such information is not routinely available now. Workers who are new in their jobs and insecure in their knowledge need considerable practical help and the knowledge that they and their work are valued. Furthermore, as pioneers in opening new opportunities for women in a still hostile environment, FWAs need a great deal of supportive supervision. If they were to fail, the women's movement as well as the MCH/FP program would suffer. Finally, there have been recent indications that acceptor targets will be imposed on individual workers and administrative units, together with a system of penalties and rewards. The risk of abuses inherent in such an action greatly multiplies the need for the control function of supervision many fold. If adoption of family planning is to remain entirely voluntary, and if program administrators are to receive reliable information on program performance, surveillance of workers and case records would have to be more intensive and efficient than is possible under any measures yet contemplated.
- e. The export of trained medical personnel, particularly doctors and nurses, has reached such critical levels that it threatens the success of both health and family planning programs, unless remaining personnel are more strategically deployed and utilized. This problem, as it relates to doctors, was mentioned earlier. Bangladesh has one of the lowest nurse-population ratios in the world, yet there are more senior staff nurses deputed to the Middle East than remain in country. Only 273 out of 405 sanctioned posts for medical professors are filled, yet 61 professors have left for foreign employment. Nineteen out of 30 recently trained FWV trainers have left during the last eighteen months. The Government would do well to reexamine its needs and priorities.

The Relationship Between Health and Population

The relationship between health and family planning has been a difficult problem area for the Bangladesh Government. From 1960 to 1965, family planning was the responsibility of the health services. After 1966,

it was separated from Health and put under the direction of the specially created autonomous body, the Family Planning Board. During 1974, for the period of one year, health and population were again integrated. Feeling that the population activities of health personnel did not receive adequate priority, the BDG once again separated Population from Health, this time combining it with maternal and child health services. For nearly a year, Health and PCFP were under different Presidential Advisors, although this position has recently been rectified. While the problem of lack of a unified viewpoint at the top may have been resolved, many problems remain.

This historical development has left a territorial mentality among both population and health personnel, reinforced by a perceptible zero-sum strain in the national character. Furthermore, both health and population people appear to have a narrow, compartmentalized concept of their respective areas of responsibility. Health personnel, still largely curative or disease-oriented in their bias, do not commonly regard pregnancy counselling as a normal and essential aspect of good health care. Family planning personnel are generally not aware of family planning as a powerful public health measure. Thus, the complementarity and interdependence of these aspects of total family welfare tend to be lost in jurisdictional disputes and dissension over semantics and policy at senior levels.

At the moment, the disputed issue of the allocation of responsibility for maternal and child health services is being raised again. This is particularly unfortunate and, in fact, should be a nonissue. In the past, MCH services were virtually nonexistent and did not reach the rural population at all. For cultural reasons, such services must be delivered by women. It is only the PCFP Division which has women field workers in rural areas and women paramedics with MCH/FP training, and the subject matter of MCH presents natural entry points for family planning counselling. The linkage of MCH with family planning, therefore, seems logical.

At present, there are some points of cooperation between the two divisions. The thana health complexes and rural health centers, where they exist, provide accommodation for the MCH/FP clinics. The union-level clinics, to be constructed under the aegis of the PCFP Division, will accommodate both the Health Division's Medical Assistants and Population's FWVs. Instructors in the FWV training institutes are being trained in the College of Nursing. Sterilization services are to be provided mainly by doctors of the Health Division, although the majority are

unwilling to do so without extra remuneration. A proposal is under discussion in the Government to establish a single cadre of doctors in government service, eliminating the distinction between "Health" doctors and "Family Planning" doctors. This would make it possible to designate medical officers as MCH/FP doctors without their losing career advancement opportunities available to doctors employed by the Health Division. Such a move would help to ensure availability of doctors for sterilization services and would strengthen technical supervision of MCH/FP paramedics and field workers. It would also require wholehearted cooperation between Health and Population regarding assignments, duties and remuneration.

Another positive effort towards cooperation was the inclusion of population-related health problems in the recently completed Country Health Program, prepared as the first part of the health plan to 1985. The planning team included Population representation at both the working and the steering committee levels. The draft Population Plan unfortunately did not include Health participation; therefore, the coordinated program implied in the health plan is not considered in the population plan.

Primary health care and family planning services for the rural population are both in a rudimentary stage. At the moment, the degree of coordination between Population's FWAs and FPAs and Health's FWVs is ill defined and their assigned functions do not make planned, coordinated programs. Similarly, the relationship between FWVs and Medical Assistants, both to be assigned to union clinics, needs to be defined.

At the field level, a focus on objectives and the complementary nature of the technical content of their jobs should ensure that personnel of the two Divisions could work out constructive, cooperative relationships. Shared training, for a portion of their courses, between FWAs and FPAs, on the one hand, and FWVs, on the other, and between FWVs and Medical Assistants might facilitate such a team spirit and mutual understanding.

However, a salutary relationship between health and population activities will in the end depend on the will of the senior officials, their readiness to analyze problems individually on a technical level and to select solutions beneficial to both population and health perspectives, and on the establishment of an effective management system linking the two services in an appropriate manner while ensuring proper balance and focus. Since much of the population activity is to be done by health personnel and physical facilities are shared, it is important that the supporting management system contribute to cooperation rather than encourage disruptive conflicts.

III. MISSION ASSESSMENT OF BANGLADESH'S DEMOGRAPHIC GOALS

The most clearcut statement of the Bangladesh Government's demographic goal is found in Dr. M. Ibrahim's speech before the December 1976 meeting of the World Population Society in Washington and since published by the BDG. " , , , Bangladesh is now aiming at reducing the annual growth rate to 2.0 percent by 1980, and achieving a Net Reproduction Rate (NRR) of one by 1985 . . ." Clearly this is one of the most ambitious demographic goals ever established by a country. It reflects Government leaders' understanding that, without a dramatic decline in the growth rate in the near future, the human population will soon outstrip the country's carrying capacity.

On the basis of this demographic goal, the Government has calculated targets for the crude birth rate, the total fertility rate, and prevalence rate of contraception in order to achieve a 2.0 percent growth rate by 1980, and a 0.93 percent growth rate by 1985. (See Table I). Preliminary and as yet unpublished estimates from the Bangladesh Fertility Survey put the NRR at approximately 2.8 in late 1975. If we accept that figure, then a decline in the NRR from 2.8 to 1.0 by 1985 would represent a fertility decline of 64.3 percent over a period of ten years, an average decline of 6.4 percent per annum for the decade. The Crude Birth Rate, currently estimated by the BDG to be 44 per thousand, will have to fall by 60% to 17.39 per thousand by 1985 to meet the stated demographic goal (See Section I, B for a detailed accounting of the demographic goal).

Assessment of the Goal

A useful way of approaching the question of whether or not the Bangladesh demographic goal is feasible is to compare it with the experience of countries which have registered the most rapid fertility declines in recent years. According to McNamara¹, the largest fertility decline registered in recent years was Singapore's 55 percent between 1955 and 1974. Other countries which are generally regarded as having achieved dramatic fertility declines in recent years (all of which have also had vigorous family planning programs) are Colombia, Costa Rica, Chile, Taiwan, Korea and Thailand. According to McNamara's figures, their 1955-74 percentage declines were as follows: Colombia -25 percent; Costa Rica -42 percent; Chile -33 percent; Taiwan -47 percent; Korea -30 percent; and Thailand -25 percent.

1 Robert S. McNamara, "Address to the Massachusetts Institute of Technology," (World Bank, 1977), page 17.

* Dr. Ibrahim was replaced as Presidential Advisor for Health and Population by Dr. Badruddoza Chowdhury in December, 1977

Looking at more recent data, Brackett and Ravenholt² have calculated recent fertility declines in these same countries (excluding Singapore) as follows: Colombia -33 percent in six years; Costa Rica -38.5 percent in nine years; Chile -23.4 percent in seven years; Taiwan -37.5 percent in ten years; Korea -17.8 percent in ten years; and Thailand -15.9 percent in eight years. China, the world's greatest demographic unknown, is generally acknowledged to have achieved dramatic fertility decline in recent years. By far the most optimistic estimates of this decline are Ravenholt's. According to his estimate, China realized a 61 percent fertility decline in the 11 years between 1964 and 1975 and a 57 percent decline in the seven years between 1968 and 1975. Very few demographers are in agreement with Ravenholt's estimate of a 1975 CBR of 14. Most put the present CBR in the 20's. If they are right, China's fertility decline since 1968 (using Ravenholt's 1968 estimate) would be on the order of 20 to 30 percent.

Even if one accepts Ravenholt's China estimates, it is clear that no country in the world has achieved a fertility decline of 60 percent in seven years--Bangladesh's goal. Furthermore, every one of those countries which has undergone substantial fertility decline in recent years exhibits one or more developmental characteristics not found in Bangladesh. All have literacy rates which are orders of magnitude higher than Bangladesh's 22 percent. All have substantially higher incomes per capita. All have far higher proportions of girls enrolled in school. All are far more highly urbanized. And most have experienced relatively sustained economic development throughout the period of rapid fertility decline.

Let us assume that the Government of Bangladesh will be capable of mounting what proves to be a highly effective family planning program. Such a program would involve many of the following elements: a highly effective system of mass and interpersonal communication on the benefits and means of limiting fertility; developing community support for the small family norm; integration of family planning and MCH services; and improved training and motivation of workers in the delivery of contraceptive services. Such a program might be comparable with Indonesia's Java-Bali program which is often cited as a model of effective family planning. Unfortunately, published data on fertility in Java and Bali are not available for recent years. However, informal and preliminary estimates from the recent World Fertility Survey activity in Indonesia suggest that the decline in fertility over the past five to seven years (roughly the period of vigorous family planning activity) may be as high as 35 percent. If so, Indonesia would join the company of such highly successful countries as Colombia, Costa Rica and Taiwan.

2 James W. Brackett and R.T. Ravenholt, "World Fertility, 1976: an Analysis of Data Sources and Trends," Population Reports, Series J, No. 12, November 1976", page J-215.

The Indonesian program represents not only an effective service delivery system but also a high degree of political pressure and support, widespread community involvement, and a highly effective mass media and interpersonal communication campaign--all elements of Bangladesh's stated aspirations and intentions. Like Bangladesh, Java is Muslim. Per capita income, while higher than that in Bangladesh, is substantially lower than it is in the other countries which have achieved fertility declines of over 30 percent during the past decade. Population density is very high. Literacy is considerably higher in Java than it is in Bangladesh. Our point is that while lessons can be learned from the experience of other countries with similar or dissimilar backgrounds we do not yet know what are the upper limits in fertility reduction a country can achieve over a short period of time by family planning and associated supporting activities alone.

The history of family planning efforts in Bangladesh does not encourage optimism for the prospects of fertility decline. Of the 30 developing countries reviewed by McNamara, Bangladesh is one of only two (the other is Nigeria) which have registered no decline in the crude birth rate over the past 20 years. Even Pakistan, with its dismal record, registered a five percent decline by McNamara's reckoning. According to Brackett and Ravenholt, the total fertility rate in Bangladesh registered a small increase (from 6.9 to 7.1) between 1962 and 1974. Yet during the earlier part of this period, Pakistan (of which Bangladesh was then a part) had one of the world's larger and more active family planning programs. We are not attempting to argue here that family planning programs have never been effectively administered or implemented in Bangladesh, only that the history of family planning programs is not cause for great optimism.

Considerable attention has been given in recent years to the demographic impact of programs in the other development sectors. Of particular importance, according to studies in many countries, are education, employment, infant and child mortality, income distribution, and age at marriage. Clearly the Government believes that activities in the areas of education and age at marriage can play a significant role in stimulating smaller family norms. While the Mission is persuaded that overall development, particularly in the health, education, and employment sectors is of great importance, we are dubious that even substantial changes in such variables as levels of female education, infant and child mortality rates, levels of female employment, income distribution, or age at marriage will produce significant changes in fertility during the seven year period covered by the Government's plan and this paper. No doubt substantial progress with respect to these variables would produce major fertility reductions before the end of the century but none of this reduction is likely to show up in less than ten years even if today there were dramatic increases in female primary education, dramatic declines in infant and child mortality rates, a major increase in the age at marriage, important increases in female employment rates, and large increases in per capita income, especially

among the largely homogeneous rural masses. While this conclusion does not imply that the Mission will modify its approach to rural development, it does suggest that the fertility consequences of even a highly successful rural development strategy will not be felt before the population of Bangladesh has grown by a very substantial margin. In other words, even optimistic assumptions about the prospects for social and economic development cannot increase our optimism that in the short-term economic development will have a major role in contributing to fertility reductions.

When viewed against the experience of fertility declines in other developing countries, the less than successful attempts at reducing fertility when Bangladesh was part of Pakistan, and the not too promising impact on fertility of the other development activities in the Bangladesh context (at least in the next seven years), the prospects of reducing fertility on the scale called for under the Government's stated demographic goal are not very promising.

At the same time, there are imponderables in the Bangladesh situation which render historical precedents of only limited value in assessing what is possible. Bangladesh's population size, density and growth rate, its lack of the safety valve of significant unsettled or sparsely settled areas, and lack of resources for early creation of a highly industrial or commercial economy--this combination of factors is without parallel among major nations. Much has been written about development-fertility and equity-fertility relationships. But little is known about the effect of extreme and spreading poverty on fertility behavior at the individual or the societal level.

Forty-nine percent of the rural population are functionally landless; that is, they own less than one-half acre of land other than homestead. The balance of the rural population hold, on the average, less than three acres of land per family. It is estimated that forty-two percent of the labor force are unemployed or underemployed. In the next ten years, about five million additional persons will enter the agricultural labor force alone.

* There is considerable dispute among economic demographers about the fertility effect of rising incomes. Some evidence exists to support the proposition that as incomes rise slightly above subsistence, fertility rises. Other evidence suggests that income levels are less important than the distribution of income in society, and that equalization of income distribution (along with concomitant improvements in general access to social and economic opportunity) is associated with declining fertility.

How great does the threat of catastrophe have to be before a society's instinct for self-preservation overrules individual choices?

There are hopeful signs of recent social changes favoring lower fertility. Many observers are convinced that existing demand for family planning services exceeds the Government's present capacity to meet it. Reports of prevalence of contraceptive use rates from a variety of voluntary agency programs and governmental experimental projects support this view. With continuing-user rates in the range of 25 to 40%, it may be that some communities are approaching the critical mass of social sanction of contraceptive use needed to influence late adopters. There are many anecdotal accounts of individual opinions and actions which, in the aggregate, lend credence to the contention that conditions are right for a rapid reduction in fertility. While one must guard against the temptation to generalize from individual cases, the fact is that such reports were unheard of as recently as independence.

Some of the still preliminary findings of the Bangladesh Fertility Survey for which fieldwork was carried out in late 1975 and early 1976 are of interest in this regard:

- 81.8 percent of the respondents had heard of family planning methods;
- 67.8 percent said they either did not want their last pregnancy or wanted no additional children;
- the mean number of children ever born to ever-married women is 4.0; mean currently living is 3.0;
- 13.0 percent of the respondents had at some time used a method of contraception;
- 10.0 percent who had no education, 21.1 percent of these with primary education, and 37.9 percent of those with higher education had ever used contraception;
- 9.6 percent of women currently exposed to risk of pregnancy reported current use of contraception; of those, 5.5 percent reported use of a modern, effective method;
- 7.4 percent of the respondents at risk and with no education, 14.2 percent with primary education, and 27.2 with secondary or higher education reported current use of a modern, effective method of contraception.

What emerges from all this is a mixed picture: lack of historical precedent for a fertility decline on the scale represented by the Government's target, family planning program failure in the past, the heavy baggage of traditionalism and poverty, yet small signs of promise and hope in a few corners of the country. This review of the past and present in Bangladesh and the recent history of fertility decline in other countries brings us to the question of what the Mission believes is possible in Bangladesh.

We regard the Government's target as overly optimistic--as unachievable given the present policy and program characteristics and the Government's seven-year strategy. In this regard it should be pointed out that setting an unrealistically high goal carries the risk of undesirable, unintended consequences.

- If the national target, apportioned among subordinate units and workers, is regarded by them as impossible, staff become disheartened and frustrated. They may give up, or they may falsify reports, thus denying program administrators reliable information on program performance.
- Similarly, a large gap between performance and a widely publicized goal usually results in a discredited program. This has a number of long-lasting deleterious effects: on political support, budget allocations, donor interest, public opinion and staff morale.
- If achievements appear to be inadequate to reach the goal, pressures are introduced which may impel the program into unproductive crash efforts or implicit coercion out of a sense of urgency or to vindicate selection of the goal.
- Population projections based on the assumption of $NRR=1$ by 1985 give national planners a dubious base on which to project such requirements as foodgrains, jobs, and social services. Reliance on achievement of a questionable goal, for national planning purposes, may lead to a serious underestimation of a host of other, related problems.

Although it is difficult to quantify what can be achieved in the seven short years under consideration, our best estimate of what can be accomplished is the achievement of a contraceptive prevalence rate in the range of 35 to 40%. We believe that this can be accomplished, only if the Government institutes the changes we regard as absolutely fundamental to make the program function at its full potential. (See Section IV). The achievement of a prevalence rate on this scale would be a monumental accomplishment for Bangladesh. Nevertheless, it can be done if the Government, which has recognized the seriousness of its demographic situation, acts decisively and quickly.

What would be the expected impact on fertility from a 35 to 40% prevalence rate? Estimation of fertility decline from prevalence data requires, inter alia, assumptions about use effectiveness of contraceptive methods--information which is not available in Bangladesh. However, the Government's seven year plan calls for emphasizing the use of theoretically more effective methods, such as voluntary sterilization, the pill, the IUD, and Depo-Provera. If use of these methods increases, supported by correct information on proper use and good follow-up and backed up with more readily available MR services, we believe the CBR will fall below 30/1000, a drop of about 34% in fertility. This would place Bangladesh on the list of developing countries which have achieved significant fertility declines over short periods of time.

It is impossible at this time to predict what the annual population growth rate will be in the context of a 34% decrease in fertility since we have no idea how quickly the CDR will fall during this same period. We do believe that unless greater progress is made in developing a primary health care program, especially one which provides at least rudimentary MCH services, a CDR decline on the scale projected by the Government in Table I will not occur.

We want to emphasize that our assessment of a reasonable expectation of achievement in so short a time period does not mean that the Government's demographic goal of a Net Reproduction Rate of One should be abandoned. We endorse the Joint IBRD/UNFPA/AID Mission's recommendation that the Government monitor the achievement of the expanded program closely during the interim 1978-80 period. The experience during this time would provide the baseline data needed to determine a more realistic time frame for the achievement of NRR of One.

In the following Section we outline what we believe the Government will have to do to achieve a prevalence figure in the 35 to 40% range, and in Section V we discuss what we propose to do to assist the Government in this ambitious, but achievable goal.

IV. PROGRAM IMPLICATIONS OF THE DEMOGRAPHIC GOAL

This section includes an assessment of what in our view would be required, if not to reach replacement-level fertility in seven years, (which we have judged unlikely) at least to bring about an increase in contraceptive prevalence to around 35 to 40%. We will describesome of the most important actions and conditions necessary to make the Population Control and Family Planning Program function at its full potential under its present policy guidelines and strategy design. We will then discuss additional measures which might be considered and, finally, more extreme actions which, although antithetical to present

policies and political realities, may become necessary if achievement of the Government's goal is considered imperative or if population pressure becomes too great. USAID believes that it would be advisable to give the present program strategy a fair chance to demonstrate the extent of its efficacy before more drastic approaches are attempted.

Present Policies and Strategy

What will have to be done to maximize the effectiveness of the program as it is presently designed? The Government has undertaken to direct a social change of enormous proportions. The majority of families are being asked to adopt untraditional, unfamiliar practices. Under the policy that adoption of family planning practice must be entirely voluntary and free from coercion, this means that millions of couples must feel convinced that their best interests lie in having a small completed family. This implies several things for the program and the way in which it is carried out.

The decisions must come from the people; telling them what to think and do is not sufficient. In no other way can a great social change come about voluntarily. The people must have confidence in the program. They must have belief in the competence of the service deliverers and in the safety of the services. They must be able to receive services without loss of dignity. They must believe that the services are offered to benefit them, not primarily to benefit the program workers. And they must know that their neighbors approve of their actions.

Specifically, the program implications of a goal of raising the prevalence of use by as much as four times its present level and of the selected strategy to reach the goal include the following:

1. The Government plan speaks of the necessity of enlisting the support and involvement of community leaders. Two points should be made, by way of background. Villages in Bangladesh are rarely, if ever, the unified, close-knit communities commonly found in East and Southeast Asia. The settlement pattern is more dispersed, and villages are frequently split into factions in conflict with each other. Recognizing the limitations of generalizations, one may say that a sense of community extends beyond the extended family only in certain circumstances--for example, in case of membership in mosques of various Islamic sects, or in the event of an external threat or challenge to the safety or the prestige of the entire village. The second point concerns leadership. The readily identified "community leaders" are usually men whose power base is land ownership or other wealth. Many of them maintain a feudal relationship with the poor majority and use their leadership position in an exploitative way.

We agree that the support of such leaders may be important to the program's success. However, other channels are needed to stimulate the extensive individual behavior change and the degree of social support required for the program

to affect fertility. Although no well-developed tradition of community action to solve common problems exists in Bangladesh beyond the extended family, we see the development of such involvement and action as critical to achieving widespread practice of contraception.

Government programs to bring about community acceptance of new ideas and practices in any sector often rely on abrupt and sometimes impersonal attempts to impose such innovations from above--e.g. through exhortations, speeches to groups, and assigning responsibility to union councils. Such programs have had only limited success in introducing changes, however, and do not appear now to be the most promising way to convince the vast majority of people that their common and individual best interests lie in slowing population growth and in limiting the size of their own families.

Several isolated instances in which community workers in Bangladesh have stimulated community understanding and action in development programs suggest an approach for community family planning workers. In these cases, workers have served as catalytic agents to spark community discussion of problems, reflection on the causes and consequences of the particular situation, and reaching of their own conclusions and action plans. Through this gradual process, the people in these villages have decided that having too many children is a problem, linked with many other problems, and they have brought about significant reductions in fertility in a short time.

Following this approach, the Bangladesh Government should provide family planning field workers and administrators training in understanding human behavior and in communication and human relations skills. This would equip the workers with the attitudes and skills needed to enable communities to arrive at understandings and decisions which lead to action.

2. Another essential condition for achieving a four fold increase in prevalence is a service program which has earned the trust and confidence of the people. One characteristic of such a program is good administration. The process of planning will need to be greatly improved. The PCFP Division is fully aware that the recently written two-year and five-year plans are preliminary drafts. At present, these plans are little more than statements of intent--a description of where the program should be in seven years. The steps required to get there--the chain of interdependent actions, the resources required, and when--have not yet been thought through and described. All elements of the organization need to be integrated into this process. Because of the interrelatedness of their substantive areas and the interdependencies at every level, the Health Division should participate with the PCFP Division in this planning process. The BDG should consider using the two-year Approach Plan period to develop its management control system in order to produce a first-rate Second Five Year Plan and a strong, well-functioning program of family planning information and services. Such an

approach would address the full range of elements of administration. Some of these we have already identified as present weaknesses; we will reiterate them because an effective program is not possible without them.

- a. The several organizational units must be given authority commensurate with their assigned responsibilities.
- b. Lateral and vertical communication channels need to be opened and used to avoid the present situation of organizational units' operating in a vacuum, duplicating effort, and striving for status through denigration of each other.
- c. Introduction of those elements of supervision of field staff which give technical support and on-the-job staff training must be undertaken.
- d. Training should be recognized as a specialized skill. A cadre of trainers needs to be developed who have been trained in educational and training methodology. They should be rotated between training and field supervisory assignments so they understand the training needs of their trainees and can evaluate their training.
- e. In addition to human-relations and communication skills, field workers need to be much more secure in their grasp of MCH/FP knowledge.
- f. Management information systems must be greatly improved, and managers at every level need to learn how to use such information for problem identification and corrective action.
- g. Personnel policies should ensure equitable employment conditions and assignments on the basis of qualifications.

3. Another characteristic of a program which merits the confidence of the people is integrity. It must be free of any hint of corruption. In this regard, we believe the Government should reexamine its use of targets in the program. Quantified objectives serve a useful purpose in planning, budgeting and evaluation. When they are apportioned among individual workers, and especially when they are combined with promises of reward and threats of penalties, obvious dangers are introduced which may work to the detriment of the program in the long run. Such a use of targets also creates a situation of unhealthy competition among PCFP Division workers and those of other ministries and voluntary agencies in which one worker's gain of a client is all other worker's loss. A cooperative team

spirit is unlikely to flourish in such circumstances. Another negative consequence is that targets, as presently discussed, place more premium on recruiting new acceptors than on keeping acceptors in the program as continuing users. Several studies have found a significant level of improper use of pills and condoms and resultant high dropout rates. Some small projects, on the other hand, have found that high continuation rates can be achieved by intensive follow-up by knowledgeable workers in the first few months after adoption. For preventing births, the program and the field workers would do well to emphasize continuation.

4. The BDC draft plan includes a proposal to make menstrual regulation services more widely available without waiting for a change in the restrictive but unenforced abortion law. It is known from hospital physicians and rural health workers that there is considerable demand for abortions and that, under present conditions, abortions constitute a significant public health problem. While increased use of safe menstrual regulation services may not, in and of itself, lead to an increase in contraceptive prevalence, it will have an impact on reducing fertility, and thus is mentioned here.

5. Voluntary sterilization services must be provided throughout the country to respond to the existing demand for these services. Evidence of the demand is clear wherever services have been made available. In the Government's sterilization campaign in 155 thanas in early 1977, for example, 76,000 procedures were performed--surpassing the target of 60,000 by more than 25 percent--and at least as many potential acceptors are said to have been turned away because of the scarcity of facilities and time. Private organizations and government clinics that regularly offer sterilization services report a steady demand that matches and frequently exceeds the supply.

The Bangladesh Government should continue to develop a comprehensive long-term plan which both establishes and sustains the highest possible quality of services. Counseling must be developed to guarantee clients' informed consent.

* Targets have worked very well in several of the countries of East Asia but have been subject to considerable abuse in Pakistan and Bangladesh (then East Pakistan) in the past. We believe that targets may be appropriate at such time as the BDC is able to build a strong management system and full accountability into the delivery of field services.

Facilities and trained doctors are needed to make voluntary sterilization services available in every thana. Approximately 400 medical facilities now exist which can offer sterilization services or which can be equipped and staffed to do so. These include governmental, armed forces, police, railway, industrial, and private-sector institutions. With the construction and staffing of additional thana health complexes in rural thanas, this number will increase to over 500. This action, however, is not expected to be completed before 1985. In the meantime, fifteen mobile sterilization teams have been sanctioned to serve thanas without surgical facilities. The Government estimates that 500 trained doctors are needed to provide services at these facilities.

The Mission believes that the 500 facilities and 500 physicians specified in the Government's plan are theoretically sufficient to ensure the availability of voluntary sterilization services throughout the country. However, considerable additional thought needs to be given to planning the most effective geographical distribution of the centers and, in particular, to resolving difficulties of recruiting doctors for these positions. Although the amount of physician time required by the voluntary sterilization plan should not seriously strain the country's medical resources, past experience suggests that problems are likely to arise because of the export of Bangladeshi doctors to other countries and the undesirability of service for the PCFP Division in rural areas. The negative effect of the export of doctors on sterilization services, per se, is principally in the interruption of services in specific localities by creation of vacancies which are often not filled quickly, and in the loss of the investment in special training.

Only the BDG can make the decisions which will ensure adequate availability of medical manpower for voluntary sterilizations and technical supervision of MCH/FP services.

Early action is needed by the Government on the proposal to create a single cadre of doctors, subject to deputation to MCH/FP duty without loss of career opportunities. Conditions of employment, remuneration, training opportunities, linkage of MCH/FP service with conditions for employment abroad, and places of posting are all subjects which will need to be jointly considered by the Health and the PCFP Divisions. The Government should also weigh the possibility of extending its scarce medical expertise by experimenting with the use of paramedics to perform vasectomies under qualified medical supervision.

6. It seems obvious that family-size limitation must seem rational to families, given their circumstances and their perceptions of realistic options. While the dynamics of the relationships are not fully understood, there is increasing evidence that equitable distribution of the benefits of development and access to social services are associated with fertility declines. It is therefore incumbent upon the Government to pursue the goals of: a) creation of off-farm job opportunities, particularly for women, and b) reducing the

deprivation of the poor; c) raising literacy rates; d) improving health and nutrition and lowering infant and child mortality; and e) improving the status of women.

Additional Measures

While the Mission believes that a prevalence rate in the range of 35 to 40% can be achieved by 1985 under the program conditions outlined immediately above, we cannot ignore the fact that the Government has set far more ambitious targets for itself. What follows is a discussion of the measures which we believe may be necessary if the Government is to accomplish the official goal of replacement level fertility by 1985. Furthermore, we believe that some of these measures may be required after a prevalence rate of 35 to 40% has been achieved, depending upon how rapidly the Government wishes to achieve its more ambitious goal.

Incentives - There has been considerable debate about the use of various types of rewards as incentives to individuals to either limit their fertility or to deliver family planning services more effectively. Proponents have argued that incentives are a time-honored means of promoting behavior modification. There are, of course, countless examples of ways in which incentives, particularly monetary incentives, have produced important behavioral changes in all societies, especially capitalist ones. These proponents argue that an effective way of changing individual fertility behavior is to pay people not to have children. On the field worker side, it is argued very simply that fieldworkers (or other deliverers of services) are likely to perform best to the extent that they receive rewards for actual performance.

Critics of incentives base their opposition on three major arguments. First, there are those who argue that, as far as acceptor incentives are concerned, they are not necessary because "demand" for family planning services (and hence, fertility control) already exists. All that is necessary is to effectively deliver services and contraceptive commodities--to achieve availability. A second argument holds that both acceptor and fieldworker incentives are difficult to administer, especially in developing countries, and that they tend to lead to corruption. The third anti-incentives argument contends that, depending on their form, acceptor incentives can be coercive - that they represent a form of bribery in which the bribe may be so attractive that the person being offered the bribe has no effective choice but to accept it. Furthermore, the poorer the person the more the incentive can be seen as a bribe.

In the case of Bangladesh, the Mission believes that before incentives can be effectively administered, the present and potential demand for family planning services should be filled. The Mission believes this potential

demand is large. In addition to the data generated from the BFS, some Christian Health Care Project extension areas report prevalence of contraceptive use as high as 50%. Informal accounts of the ZPG and the Self Reliant villages indicate that not only has prevalence increased dramatically but that fertility has decreased sharply. No evidence is yet available, but the Bangladesh Institute of Development Studies is currently developing a study to examine the impact of these efforts.

The Mission believes that in the face of these small but promising signs of demand, it would not make administrative or financial sense to begin large-scale incentives/programs at this time. Once a high quality family planning program is in place against which effective demand can be measured, this first argument may not be so persuasive, and incentives may appear to be more appropriate than they appear to be now.

The second argument is to us even more persuasive. Corruption is not unknown in Bangladesh. There is no doubt that certain kinds of incentives schemes would represent an enormous temptation to corrupt or corruptible officials and to many potential acceptors as well. Furthermore, the implementation capacities of the Bangladesh Government are extremely limited. It seems unlikely that any incentives scheme except the simplest kind would be possible to carry off in Bangladesh.

The third argument against incentives is a very difficult one because it deals with individual value systems and normative structures. Certainly some kinds of incentives are more coercive than others. A huge one-time payment to a sterilization acceptor is quite different from small incremental payments into a blocked savings account which is to be used as old-age insurance by a successful contraceptive.

The Mission is not prepared to write off incentives altogether and is not prepared to recommend that the Government do so. If the Government believes that incentives are a necessary part of its program at this time, we believe that they would have at least an initial impact on fertility, but at a high administrative and perhaps social cost. At this stage in the Bangladesh family planning program, they may complicate the rather straightforward work of making services available to meet existing demand. If that demand (or the demand created by program efforts) turns out to be less than is needed to achieve a prevalence rate of 35 to 40% in the short run or the Government's replacement level fertility goal in the longer run, then we believe that little choice will remain. Incentives may then be a program necessity.

Disincentives - The same controversy which surrounds incentives surrounds discussion of disincentives. They assume lack of motivation on the part of individual couples; they can be very difficult to administer; and they are, perhaps, more coercive than incentives. Furthermore, in a society like that of Bangladesh, there is considerable question about their applicability.

Disincentives may be effective in a semi-authoritarian city-state like Singapore, but in a poor, rural country like Bangladesh does the Government effectively control any benefits which might be withheld? It is possible to imagine that the Government could withhold agricultural credit or food ration cards from families which exceed officially prescribed family sizes. Such measures would certainly qualify as coercive and, possibly be extremely difficult to administer. As in the case of our discussion of incentives, we believe that until the level of effective demand is identified and actual demand served, we cannot justify recommending the implementation of disincentives at this time.

Coercion: Although it is possible to imagine various forms of coercion that could be applied to enforce adherence to an officially prescribed demographic norm, and it is equally possible to judge that Bangladesh's demographic situation requires coercion, the fact remains that the BDG has officially rejected coercion as a politically feasible alternative. The very fact that coercion is mentioned as a possible alternative emphasizes again the severity of the problem. If Bangladesh cannot reduce the growth rate rapidly enough, no one may have the luxury of debating the pros and cons of coercion. It may have become a necessity.

In the next section we return to these difficult areas "beyond family planning" in our discussion of Mission strategy. We reiterate here our view that incentives and disincentives should not be instituted as elements of the national program until and unless a) it can be demonstrated that the program planned by the Government is not producing significant fertility decline; and b) there has been sufficient time to plan and test on a pilot basis various incentives and disincentives schemes.

V. U.S. POPULATION POLICY AND STRATEGY IN BANGLADESH
IMPLICATIONS FOR U.S. PROGRAM SUPPORT

U.S. Policy

The primary U.S. Government objective in Bangladesh is developmental and humanitarian. In this context, the United States has used both diplomatic initiatives and program assistance to emphasize the importance of solving the population problem in Bangladesh as a contributing means to improving the lives of the poor majority and gaining a measure of economic development. Continued diplomatic effort and program assistance will remain the twin pillars of U.S. policy for the foreseeable future.

U.S. Government Population Assistance

The Mission's population assistance strategy in Bangladesh is to support activities which maximize the availability of family planning services and information. Our population assistance will be focused on two basic themes: 1) development of the institutional capability to provide fertility control services and information to meet existing demand and generate greater demand; and 2) planning our other development assistance projects in such a way that they will contribute to declines in fertility.

AID support focuses on those areas in which AID's particular experience and capabilities match clear program needs not filled by other donors. The areas in which we plan to provide support in the next few years are described below. We will continue to coordinate our efforts closely with those of other donors, and in particular will pay close attention to the new World Bank- and UNFPA-funded projects that are expected to be developed as a result of the joint IBRD/UNFPA/AID population assessments in Bangladesh in October 1977.

AID's current relationship with the Bangladesh Government in bilateral and centrally funded projects gives us flexibility and the ability to provide support more quickly than is possible under a multilateral funding arrangement. We would be receptive to considering another method of providing assistance in the future, if it appears that such a method would be suitable and more effective in promoting the population effort in Bangladesh.

Bilateral Support

The purpose of the Mission's current Population/Family Planning Project is to assist the BDG in developing a functioning national institutional structure providing family planning services and population/family planning information and education on a continuing basis to the people of Bangladesh. Since we believe that the establishment of such a structure can contribute to significant reductions in fertility in Bangladesh, we intend to expand our assistance in this field.

1. Contraceptives

AID is the largest supplier of contraceptive commodities in the Bangladesh Program. This foreign exchange item, an essential ingredient in implementing a family planning program, would be very difficult for the BDG to finance in the foreseeable future. AID is the logical donor for contraceptives because of its experience in planning, procuring and shipping them in an efficient manner and at reasonable costs. However, given the growing need for contraceptives and their increasing costs over the years, AID will encourage other donors to increase their participation in this growing program expenditure.

The Mission regrets that the U.S. cannot provide Depo-Provera injectable contraceptive to the Bangladesh Population Program. Although recommended for approval by a scientific committee of the U.S. FDA, the FDA has not yet approved this drug for contraceptive use. Where Depo-Provera has been introduced here, such as in the Christian Health Care Project, the Model Clinic, the Matlab Contraceptive Distribution Project, the Hopkins Fertility Research Project, and a number of other projects, it has gained significant acceptance without any serious side effects. We request AID/W to continue its efforts to allow this drug to be bought by AID for developing country population programs. Until such time as we can procure Depo-Provera, the BDG must rely on other donors for its increasing needs for this contraceptive.

2. Participant Training

AID believes that its investment in participant training will begin to pay off as students return to assume work in the national program. The short-term visits of BDG officials and family planning staff to other Asian countries to observe national programs have been valuable in exposing program officials to a range of approaches. Although the Mission intends

to be responsive to BDG requests to continue participant training programs, we believe that once a critical core of returned participants is in place further investments in participant training abroad will yield diminishing returns. Therefore, we estimate that future support in this area will be progressively reduced.

New Initiatives

The Mission believes that its support, to be effective, should be flexible in order to respond to changes in the BDG's approach to solving its population problem and to increasing needs for greater resources. The Mission intends, in collaboration with other donors, to seek out and support innovative activities which promise to have the greatest effect on fertility. There are several such activities now which were not foreseen or which were not emphasized in our present Project but which the Mission believes warrant AID's support.

1. Voluntary Sterilization Services

In response to a Bangladesh Government request for support for its planned program to provide voluntary sterilization services nationwide, USAID has begun negotiations with the Government to identify components of the program most suitable for AID funding. We will review the plan with the Government to determine whether additional facilities and personnel are required to make services fully available in each thana.

While the exact nature and level of our support are still undecided, all AID support will be clearly within the guidelines established in AID's voluntary sterilization policy directive, PD 70. Any AID support to voluntary sterilization services will be reviewed yearly and will be sensitive to and supportive of BDG efforts to ensure that no coercion is present in the program. In addition, in view of the problems cited earlier resulting from export of physicians and undesirable working conditions, we will condition AID support on the Government's assurance that physicians and auxiliary personnel are recruited to the program to make voluntary sterilization services fully available in the centers as they are established.

2. Family Welfare Centers

As noted in Bangladesh's First Five Year Plan, health care is still largely urban oriented and curative. The 92% of the population who live in rural areas have little access to modern health services. The health

services available in most villages consist only of the village dai, the traditional practitioner, and occasional visits by the field-based health workers and family planning workers.

Of the 356 rural thanas, about 164 have Thana Health Complexes (2 story building with 31 beds) or Rural Health Centers to be expanded into THCs. The Government intends to construct a Health Complex in each thana. The next step in the process of implementing an integrated health delivery system in all rural areas is to build and staff subcenters in each of the country's 4,352 rural unions. (See Section II.)

Beginning in FY '78, USAID intends to provide health funds in a three-year Project to assist the BDC in constructing up to 500 of these health centers. The BDC has estimated that the total cost of building all 4,352 centers will be in the range of 75-100 million dollars. IBRD and other bilateral donors have expressed interest in supporting this effort as well. After completion of 500 centers, USAID may consider a second project, depending on the remaining need and the experience of the first project.

3. Family Planning Operations Research

One of the primary reasons the family planning program cannot make reasonable and positive adjustments in its program operations is that it does not have the means to assess problems in an accurate and comprehensive manner.

In late FY '77 the Mission in concert with DS/PCP/Research began a family planning operations research project. Small research grants will be awarded to governmental and private research concerns to study practical operational problems and recommend changes which will improve program operations. The initial year's funding is \$150,000. If the project operates well the first year, USAID will continue the project through 1980 by utilizing AID/W funds and then incorporate the project into the Mission's second Population/Family Planning Project.

4. Training and Supervision

We have emphasized, perhaps redundantly so, throughout this paper the importance of high quality training and supervision as primary determinants of delivering effective family planning services. The Mission is

prepared to assist the BDG in improving these two important program activities/providing technical assistance and funds for training expenses. (Presently we are funding a training management consultant.) We have also repeatedly stated that the traditional type of training will not accomplish what has to be done. Training of the sort we would be willing to support would have to have as its main focus the development of workers sensitive and competent enough to guide the people in working out their own solutions which they see as being in their best interests.

5. Management Information

At the moment there is no functioning management information system in the Bangladesh population program. Administrators and donors alike are forced to depend largely on visual inspection and anecdotal evidence in their efforts to evaluate program operations.

Three types of data are required in order to evaluate the effectiveness of the program: data on client response to the availability of contraceptive services; data on fieldworker performance; and data on contraceptive logistics. These types of data can be collected through information systems of the following types; contraceptive prevalence surveys; client record systems; and contraceptive distribution vouchering systems.

The Bangladesh Mission believes that efforts which we have previously supported and are now supporting have resulted in the development of a workable contraceptive logistics monitoring system. We intend, during the period covered by this strategy paper, to follow closely the Government's efforts in implementing the system on a nationwide basis.

We have given considerable thought to the problems of collecting client data and data on fieldworker performance. Our inclination at this point is to begin by assisting the BDG to collect both types of information through a single contraceptive prevalence survey. The survey will be designed in such a way that it collects data not only on client contraceptive practice, but also on contacts with program workers. We believe that such a survey, well designed and well administered, could provide the basic minimum of information.

We are not planning at this time to support the establishment of a client record system. Experience in several other countries suggests that such systems are extremely difficult to administer, are subject to considerable degrees of abuse, and are too costly to justify the marginally more detailed information they yield. Perhaps in time, after the basic delivery system

is established and functioning, it will be possible to implement a client record system. However, for the next three to four years we believe a regular, repetitive prevalence survey will serve the Government's and our purposes. We intend to request assistance through AID's centrally funded contract with Westinghouse in the design and implementation of this survey system, assuring that discussions with the Government over the next few months yield a workable agreement.

5. Abortion

Although no statistics are collected on the incidence of abortion in Bangladesh, abortions are believed to be common. Medical and paramedical personnel--physicians, hospital and clinic administrators, down to local practitioners such as dais--routinely attest to the widespread practice of abortion and its heavy influence on maternal death rates. The few small privately-funded projects offering menstrual regulation find that the steady demand for this procedure frequently exceeds their capacity to provide services.

While AID assistance for the provision of abortion services is prohibited, we recognize that abortion is an important means of fertility control in Bangladesh, and that it will become even more so if the Bangladesh Government carries out its plan to liberalize the abortion laws.

Given the many questions remaining about this important issue, the Mission may assist the Bangladesh Government in collaboration with the Ford Foundation in undertaking a study to measure the incidence of abortion in Bangladesh to determine its impact on fertility and on maternal mortality and morbidity.

7. Management

Several times in this paper we have commented on the critical need for the BDG to strengthen its program management. By providing consultant services and an operations research grant, we have supported BDG efforts to improve its operational and management capability in training, research, service delivery, and logistics. Earlier in this Section

we identified management information as another area of our interest and possible support. We intend to pursue ways by which we can continue to play a helpful and supportive role to remove obstacles which hinder the improvement of program operations.

In Bangladesh where it is often difficult to determine the exact nature of management problems, a useful first step would be to develop with the Government and other donors a series of short workshops where problems can be clearly defined and remedial actions planned. If it becomes clear that a longer term comprehensive effort is indicated, we are prepared, in coordination with other donors, to support a longer term effort. This might require the use of outside management consultants to approach problems such as personnel training systems, supervision, operational planning, and overall program design and management.

The need for management linkages between general health services and MCH/family planning to ensure close cooperation has been stressed. We would anticipate that a management team would address this mutual health and population need.

Nonbilateral AID Support

The activities of population organizations in Bangladesh supported by PHA/POP in AID/W have been valuable in stimulating private sector involvement in population, assisting in research, especially contraceptive use research, and by complementing the activities of the Government. It is part of the Mission's population strategy to continue to encourage those AID/W supported activities which contribute most significantly to decreasing fertility.

1. Bangladesh Association of Voluntary Sterilization (BAVS):

BAVS, which is supported by IPAUS, has been invaluable in assisting the national program in legitimizing voluntary sterilization as an important contraceptive, by taking the lead in providing quality training for physicians and paramedics, and by establishing model voluntary sterilization services centers in key areas of the country. As the Government begins the process of making voluntary sterilization services available nationally, BAVS's role should expand to meet the needs of the Government's program.

2. Bangladesh Family Planning Social Marketing Project (BFPSMP):

This project, managed by Population Services International (PSI), has done an excellent job of activating a dormant to nonexistent commercial market for pills and condoms. It is expected that AID/W support for this project will continue to June 1979 at which time the BDG is expected to assume management and financial responsibilities through a quasi-governmental entity. Costs of contraceptives and occasional technical assistance will continue to be financed through AID.

The Mission believes that the phase-out date of June 1979 of PSI may be premature. We believe that there is a need in Bangladesh for social marketing of other contraceptives and perhaps even health and nutrition products. For example, two contraceptives which have been either neglected or not widely available in Bangladesh in the past have been the IUD and the injectable. In the case of the IUD, the same marketing techniques which popularized the Raja condom and the Maya pill could be used effectively to reestablish a good name for this effective contraceptive. In the case of injectables which are popular but not readily available, a distribution system which now brings Raja and Maya to over 30,000 outlets could be used to deliver injectable contraception to women at subsidized prices. During 1978 the Mission will explore with PSI and the BDG the possible role of social marketing for additional contraceptives and/or health and nutritional products. If consensus is reached that expanded social marketing would be desirable in Bangladesh, the Mission is prepared to incorporate a social marketing project into its next Population Project.

3. Bangladesh Fertility Research Program (BFRP):

This program supported by the International Fertility Research Program is the only existing focal point in Bangladesh for the investigation of the biomedical problems associated with contraceptive use. Its previous work, for instance, has helped to determine the usefulness of introducing Depo-Provera into the program and in collecting useful information on voluntary sterilization procedures. The Mission believes that BFRP should continue to be funded in order to provide program administrators with this type of information.

4. Family Planning International Assistance (FPIA):

In Bangladesh FPIA has been mostly involved in supporting voluntary groups to begin innovative family planning service programs. In addition to supporting voluntary organizations, FPIA has one project with the BDG in which it is funding the remodeling of facilities and equipping model family planning clinics at four medical colleges. These clinics will provide technical assistance to establish undergraduate training to medical students as well as short-term training for doctors already in practice. FPIA's assistance is flexible and an important asset in a program which has to mobilize every segment of society in order to reduce fertility significantly.

5. The Pathfinder Fund:

The most notable project supported by Pathfinder Fund has been the Government's Model Clinic in Dacca. The Model Clinic is the only high quality clinic in Dacca which provides the full range of family planning services; it is also used as a training facility for physicians. The Pathfinder Fund has recently initiated projects for an expansion of the model clinic concept and for providing services for industrial workers. Continuing work in these and other areas will be promoted by the Mission in the coming years.

The Impact of Other Development Activities on Fertility

The overall assistance strategy of the Bangladesh Mission, as outlined in the 1979 Annual Budget Submission, is one of "staying even" with population growth. Between 1977 and 1985, the Mission believes that the only feasible goal is to achieve foodgrain self-sufficiency by 1985, which corresponds to BDG intent.

A very large percentage of the Mission's program through 1983 is proposed to be spent in the agriculture and population sectors. Indeed, excluding PL 480, the Mission proposes to spend between 90 and 95 percent of its budget in these two sectors over the next five years. Furthermore, a very large amount of what the Mission proposes to spend in the agricultural sector is directly related to increasing food output. This brings us to the subject of how much impact a successful agricultural sector strategy is likely to have on the rate of population growth.

As we pointed out in Section III, development activities in areas other than population itself are unlikely to produce important declines in fertility during the next seven years--the period covered by this paper. Looking more closely at the Mission's proposed program in the agriculture sector, it appears that the short-term impact, everything else remaining equal, will be to increase the rate of population growth. That is, if no activities were contemplated by either the Mission, other donors, or the Government in the area of fertility control, the proposed Mission agricultural program would probably result in a net increase in the population growth rate. Of the 12 food and nutrition (FN) projects proposed for the period after 1977, only two, Rural Roads and Rural Electrification, are likely to have even intermediate term antinatalist consequences.

These conclusions are based on admittedly very sketchy information. First, most of the proposed projects have not been developed in sufficient detail to permit a careful assessment of their demographic impact. Projects in areas such as Food for Work, Rural Irrigation Works, Small Scale Irrigation, and Rural Credit could be developed in ways that might make their demographic impact, even in the intermediate term, substantial (e.g. through widespread employment of women or by tying demographic performance to individual eligibility for credit). Second, our understanding of the determinants of fertility in Bangladesh is so limited that it is difficult to predict the demographic consequences of important changes in small farm incomes or in per capita food availability.

Recent research findings suggest that as income rises in Bangladesh, so does fertility. The 1974 Bangladesh Retrospective Survey of Fertility and Mortality shows quite clearly that better educated and better housed people have more children. The Bangladesh Fertility Survey shows that families "with possessions" have higher fertility than those who have none. If education and housing can be considered income surrogates (and most economists treat them that way, at least in economic-demographic studies of developing areas), then it appears that important improvements in income could result in increased fertility, especially in rural areas. * This finding is consistent with findings from studies in other countries; as income rises to a level slightly above subsistence, people tend to have more children. These same studies show that further increases in income

* This generalization applies to the income effect alone. Presumably increases in family income brought about by the employment of women would have an antinatalist effect that could partially or completely offset the general income effect, or even exceed it.

eventually lead to a downturn in fertility as, it is assumed, people begin to invest less heavily in additional children and more heavily in alternative forms of consumption.

The Mission's goal of achieving equilibrium between population growth and agricultural production by 1985 is predicated on an agricultural strategy of increasing foodgrain prices as an incentive to farmers to produce (and hence earn) more. We do not believe that this will result in increases in real income but income is also not expected to decline. Therefore, fertility does not appear likely to decline as a result of income changes and could actually increase should rural real incomes increase even slightly. The 1976-77 Land Occupancy Survey shows that landless families tend to have smaller households (and probably lower fertility) than land-owning families. We expect the percentage of landless families to increase. This could result in fertility declines which might offset increases that could occur if landholders' incomes do increase.

A strategy aimed at major improvements in foodgrain production is likely to lead to decreases in mortality, particularly if the strategy includes a redistributionist element. If the result of a successful foodgrain strategy is a higher nutritional level in the society as a whole, then we can assume that mortality will decline.

These demographically gloomy projections must be tempered by two important considerations. First, they apply only to the short run. Over time, if incomes continue to rise and if mortality continues to fall, it is likely that fertility will also begin to fall. However, without major interventions in the population sector itself, this is not likely to happen until well after 1985. Second, things are never as simple and straightforward as the foregoing narrative implies. Bangladesh is breaking new demographic ground; its demographic situation is unprecedented at the nation-state level. Findings from other countries may simply not apply here. Among other things, the general research findings cited above come from countries in very different circumstances from Bangladesh's. They have tended not to be as poor, as crowded, or as concerned about the rate of population growth as Bangladesh is.

That having been said, the Mission also believes, on reflection, that we must look for ways of making our projects aimed at generating additional food production and higher rural incomes as antinatalist as possible. There are two ways of doing this. First, we can more carefully examine elements of the indirect determinants of fertility (e.g. female employment,

female education, infant and child mortality) which are implicit in these projects in an effort to identify ways of modifying the projects to deal with these determinants more explicitly. This we will do.

Secondly, we should mention that two of our proposed projects in the agricultural sector seem to us likely to produce fertility decline in the intermediate run without first stimulating either fertility increases or mortality decreases. These are Rural Electrification and Rural Roads. While, once again, the data are not very clear in these areas (and we are aware of no data on these subjects in Bangladesh), studies in other countries suggest, at least, that both rural electrification and rural roads can be conducive to important declines in fertility. A recent study in the Philippines, while not conclusive, shows that households which had been electrified in certain villages exhibited significantly lower fertility than households which had not been electrified. Because control variables were not included in that analysis, it is not possible to sustain an unqualified conclusion that the difference was entirely due to electrification.

Our optimism about the antinatalist effect of the Rural Roads project is even less well grounded in empirical fact. However, it has been shown that generally improved communications---access to the outside world---can be an important contributing influence in fertility decline. In cross-national studies, it has been frequently demonstrated that there is a significant negative correlation between various indicators of communications development (including miles of all weather roads) and fertility.

Our point is that we will more aggressively attempt to identify future projects in rural development which are likely to have a greater near term impact on reducing fertility. We will begin to use research resources in AID/W to better understand the indirect determinants of fertility.

possible BDG

We are also considering the examination of/policies which could have a more direct impact on fertility when built into new or existing projects in the food sector. For example, it is possible to imagine a policy which would give preference in obtaining agricultural credit to farmers whose families can demonstrate the effective practice of family planning. Such a policy would not deny credit to farmers with large families or to farmers who are not practicing family planning, but it would move to the front of the "queue" those who do practice effectively.

Similar sorts of policies could be imagined for both individuals and communities in such areas as irrigation construction projects, fertilizer distribution, fertilizer prices, and the provision of handpumps.

We intend to fully discuss these issues with the Government in the months ahead to carefully consider building such policy measures into various of our rural development and agricultural production projects.

Furthermore, we believe that the Bangladesh Government should undertake a comprehensive review of existing policies in order to assess their pro- and antinatalist implications. Such research would examine the fertility implications of existing policies in such areas as civil service benefits, the web of laws and regulations affecting the rights and status of women, and a host of other social and economic policy areas.

Such research could take two essential forms. The first would be a largely theoretical review of the consequences of existing and modified policies in the light of what is known about the determinants of fertility in Bangladesh. This sort of research would attempt to elucidate the probable fertility consequences of policies which exist and which are being implemented. However, because the research would be non-experimental, conclusions would be stated only in probabilistic terms since it would not be possible to verify that the inferred fertility consequences of these policies are actually occurring. Research of this sort could be carried out by the Bangladesh Institute of Development Studies (BIDS), perhaps in cooperation with the Institute of Law and International Affairs, and could be supported by USAID, another donor agency, or a combination of donors. Technical assistance would almost certainly be required. AID intends to explore the interest of the BDC in the possibility of such a research program.

We are also considering the acceptability of a program of research which would examine the fertility consequences of new or modified social and economic policies through actual field experimentation. Such a research program could be used to examine the acceptability, feasibility, and effectiveness of various forms of incentives and disincentives relating to fertility behavior and applied in the context of policies and programs in such areas as rural credit and rural development.

We recognize that experimental research of this sort would be difficult to carry out for a variety of reasons. However, we believe that such research would be worthwhile for the light it might shed on policy measures which the Government will have to adopt if it is to reach its demographic goal of replacement level fertility. We believe that the severity of the population problem in Bangladesh justifies the examination of policy options which might not be considered in countries with less pressing demographic problems. Such a research program would have to be supported either by a multilateral institution or by a combination of bilateral donors—not by a single bilateral agency. For this reason, we intend to discuss the possibility of instituting such a program of research simultaneously with the Bangladesh Government and with other donor agencies which are represented here.

Plan for Assessing the Demographic Impact

There are several ways in which family planning programs can be evaluated to measure their effectiveness. In the past in developing countries emphasis has been placed on evaluating the outputs of family planning programs as sole indicators of the degree of program success. Relatively little attention has been paid to determining how family planning programs have affected fertility, even in countries with demographic goals.

In Bangladesh neither system of evaluation has been developed to the point of enabling us to determine what is happening in the family planning program and what is happening demographically. On page 59 we described our interest in helping to institute a management information system. A working management information system, particularly the prevalence survey, together with an operations research project should provide the Government with the basis of planning, implementing and evaluating its family planning efforts.

On the demographic front, the BDC is planning to repeat the Bangladesh Fertility Survey in 1978 and on two to three year intervals thereafter. This will become the main source of measuring demographic change in Bangladesh. The Mission intends to be responsive to a BDC request for assistance in this activity after coordinating with other donors which might also be interested. In addition to demographic retrospective surveys, the BDC intends to launch a national census in 1981. UNFPA is assisting with this census through the provision of technical assistance and equipment.

Staffing Implications of Assistance

Presently, the Mission has three direct hire, one American contract person, and one local professional working in its Health and Population Division. We believe that the number of activities identified in this paper for possible support will likely require additional staff. The exact nature and number of additional personnel needs will be identified as projects are developed.