

Human Settlements and Alternative
Future Population Projections for
Bangladesh

The Declaration of Principles, circulated by the Secretary-General of HABITAT: United Nations Conference on Human Settlements, clearly states the significance of future population growth for all human settlements. This Declaration:

"Recognizes that the circumstances of life for vast numbers of people in human settlements are unacceptable and that unless positive and concrete action is taken at national and international levels to find and implement solutions, these conditions are likely to be further aggravated by the continuation of:

Population growth which will nearly double the numbers of mankind in the next 25 years, thereby more than doubling the need for food, shelter and all other requirements for life and human dignity."

To meet the basic requirements for life and human dignity, each country will have to make great efforts as from now, and maintain them throughout the coming 25 years. In view of the tremendous adjustments and changes needed in existing national and international policies and trends, the target year 2000 is very near.

To help throw light on the implications of Bangladesh's population growth on its own human settlement planning, please find attached a set of projections prepared during the World Population Year 1974 for use by the United Nations and the Government of Bangladesh.

Projections are made for five different levels for Bangladesh's population in the year 2000, based on different assumptions about family size. The data indicate that if Bangladesh attains a 2-child family norm by the year 2000 (contrasted with a continuation of the average 6.3 children per family estimated for 1970), their population would be dramatically lower by 53 million fewer people.

It is significant that this difference of 53 million people represents 74 percent of the 1970 population. Furthermore, Bangladesh's population growth rate would decline from the estimated 2.2 percent in 1970 to 1.3 percent by the turn of the century.

To mitigate the human settlements problems caused by too rapid urbanization, the Declaration of Principles provides the following Guideline for Action:

"The demographic characteristics of many countries require policies on growth and distribution of population in order to orient rural-urban migration to ensure orderly processes of organization and to minimize rural dispersion with the ultimate goal of achieving balanced development."

A slower total population growth by itself would relieve the pressures that contribute to urban migration and congestion because a large percentage of the growth is due to natural increase, with the rest due to migration from the countryside.

To throw further light on the implications for Bangladesh's policies influencing growth and distribution of population, the urban projections of the United Nations

Population Division were used, as presented in their May, 1975 report, "Selected World Demographic Indicators by Countries, 1950-2000". They project variants of the proportion of population living in cities, ranging from a high of 14 percent to a low of 10 percent for the year 2000. These compare with 6 percent urban estimated for 1970.

Taking the low urban variant based on a 2-child family norm, as compared with the high urban variant based on the current family size, cities in the year 2000 would contain 13 million fewer people. This urban projection of 13 million fewer people is 295 percent of the urban population estimated for 1970.

Even if the low population projection is achieved, the country must still plan for a vast increase in population, requiring considerably more resources than are now available to maintain present living standards, with too many people already poor. And it will require substantially more resources to improve living standards, especially for the poor majority.

The attached set of projections also estimate when and at what level the population of Bangladesh would stabilize if the 2-child family were achieved by 2000 and maintained thereafter. The projection shows that its total population would continue to increase throughout the 21st century because of the large proportion of young people today. Under this assumption, the population would stabilize around the year 2120 at a level of 210 million or 2.9 times the 1970 estimated population.

Clearly, lower national and urban populations that would result from sound population growth and distribution policies integrated with balanced development plans, would considerably improve the prospects for solving the problems of human settlements in Bangladesh. They would more effectively realize the goal stated in the Declaration of Principles:

"The foremost goal of human settlement policy is the rapid and continuous improvement in the quality of life of all people, beginning with the satisfaction of the basic needs of food, shelter, employment, health, freedom, dignity and opportunity for personal fulfillment without discrimination as to race, colour, sex, language, religion, opinion, national or social origin or other cause."

Comments or questions about the attached materials may be directed to the Coordinators for Habitat and Population: Lawrence R. Kegan and Page H. Wilson Suite 200, 1835 K Street, N.W., Washington, D.C. 20006, U.S.A.

**SOME PROJECTIONS OF
THE POPULATION OF
BANGLADESH**

Prepared during
World Population Year 1974
for use by the United Nations
and by the Government
of Bangladesh

SOME PROJECTIONS OF THE POPULATION OF BANGLADESH

The University of Chicago's Community and Family Study Center (CFSC) is making a study of world population possibilities as part of their on-going research in developing family planning targets. Hypothetical projections outline the population trends that would follow varying courses of fertility. They were developed by a team of demographers, composed of Jeanne C. Sinquefield, Deputy Director of the CFSC, University of Chicago; K. C. Zachariah of the Population and Human Resources Division of the World Bank, in his personal capacity; Donald J. Bogue, Director of CFSC, University of Chicago; and Peter Gardiner of the International Statistical Program Center, United States Bureau of the Census.

The series of estimates of future populations were made on comparable bases for most of the developing countries of the world. They are obviously neither projections of probable futures, nor do they attempt to assess possible future fertility reductions that may be considered by those countries as a basis for planning their development policies, which include population as an integral part of their development plans. Although they are not appropriate for planning in the individual countries, they may be valuable in outlining the broad possibilities of the future according to the course of fertility.

The computer printouts and the summary tables of the hypothetical projections for Bangladesh are attached.

This brief note highlights some findings that bear on four questions as to the future population of Bangladesh.

1. What would be the levels of total population for Bangladesh by 1985 and 2000 on five different fertility assumptions if life expectancy steadily increases and there is no net migration?

If the average family size in Bangladesh remained constant at the estimated 1970 level of 6.3 children (Series 1), the population would reach 112 million by 1985 and 188 million by 2000. The population would be slightly over two and three-fifths times the 1970 estimated population.

If, on the other hand, the 2-child family norm that assures replacement were achieved by the year 2000 (Series 5), the population of Bangladesh would reach 103 million by 1985 and 135 million by 2000. The increase would be between one-half and three-fifths that projected with constant fertility. The growth rate would rise slightly from 2.2 percent in 1970 to 2.3 percent in 1985 and fall to 1.3 percent in 2000. The crude birth rate of 44 in 1970 would reach 36 by 1985 and 21 by 2000.

Three intermediate assumptions as to future trends in fertility are also shown in the attached tables: an average family size of 3.5 children (Series 2), 3 children (Series 3) and 2.5 children (Series 4) by the end of the century.

2. If the 2-child family were achieved in Bangladesh by 2000 (Series 5) and continued thereafter, when and at what level would its population stabilize?

Even if the 2-child family were reached by 2000 and continued thereafter, the population would increase slowly throughout the Twenty-First Century because of the large proportion of young people today. Under this assumption, the population would reach stabilization around the year 2120 at a level of 200 million, an increase of 75 million over the projected population in 2000 (Series 5) and almost three times the 1970 estimated population.

3. What are the implications of the changes in population for the achievement of development goals in Bangladesh? The printouts give more detailed breakdowns by five-year age groups for the years 1970, 1985 and 2000 which permit some analysis of this question. (Still more detailed tables by single year of age and for all the quinquennial periods between 1970 and 2000 are available by writing the CFSC, the University of Chicago, attention Dr. Jeanne C. Siquefield.)

Health goals are reflected in the assumptions of increased life expectancy. Each of the projections has the uniform assumption that life expectancy at birth will increase from an estimated 1970 rate of 42.8 years for females and 42.4 years for males to 53.6 years and 53.2 years by 1985, and 61.0 years and 60.6 years by 2000, respectively. Further increases are assumed in the Twenty-First Century to 74.3 years and 74.2 years, respectively.

A larger population would cost more than a smaller population to realize the same goals in education. The number of school-age children between the ages of 6 and 17 is estimated at 23 million in 1970. Under the constant fertility assumption for Bangladesh (Series 1) this is projected to reach 32 million in 1985 and 59 million in 2000, or 2.5 times the 1970 level. But if the replacement rate of the 2-child norm were reached by 2000 (Series 5), the number of these school-age children would increase to 30 million in 1985 and 37 million in 2000.

A larger population results over time in a larger working-age population between the ages 15 and 64. On this definition, the projected working-age population in 1985 would be equal under the different fertility assumptions. The working-age population in 2000 would range around 2.5 times the 1970 level with an absolute difference of 7.9 million working-age people between the constant fertility model (Series 1) and the replacement model (Series 5). The full utilization of the projected working-age population depends on the availability of jobs and employment in the future.

The different rates of population growth would result in substantial differences in the relation between the number of child dependent age groups under 15 who make demands on, but contribute little to production, and those in the working-age population who do contribute to production. The 1970 child dependency ratio for Bangladesh is estimated at .92. Under the constant fertility model (Series 1), the ratio would fall to .90 in 1985 and rise to .94 in the year 2000. Under the replacement rate model (Series 5) the respective ratios would be .75 and .52.

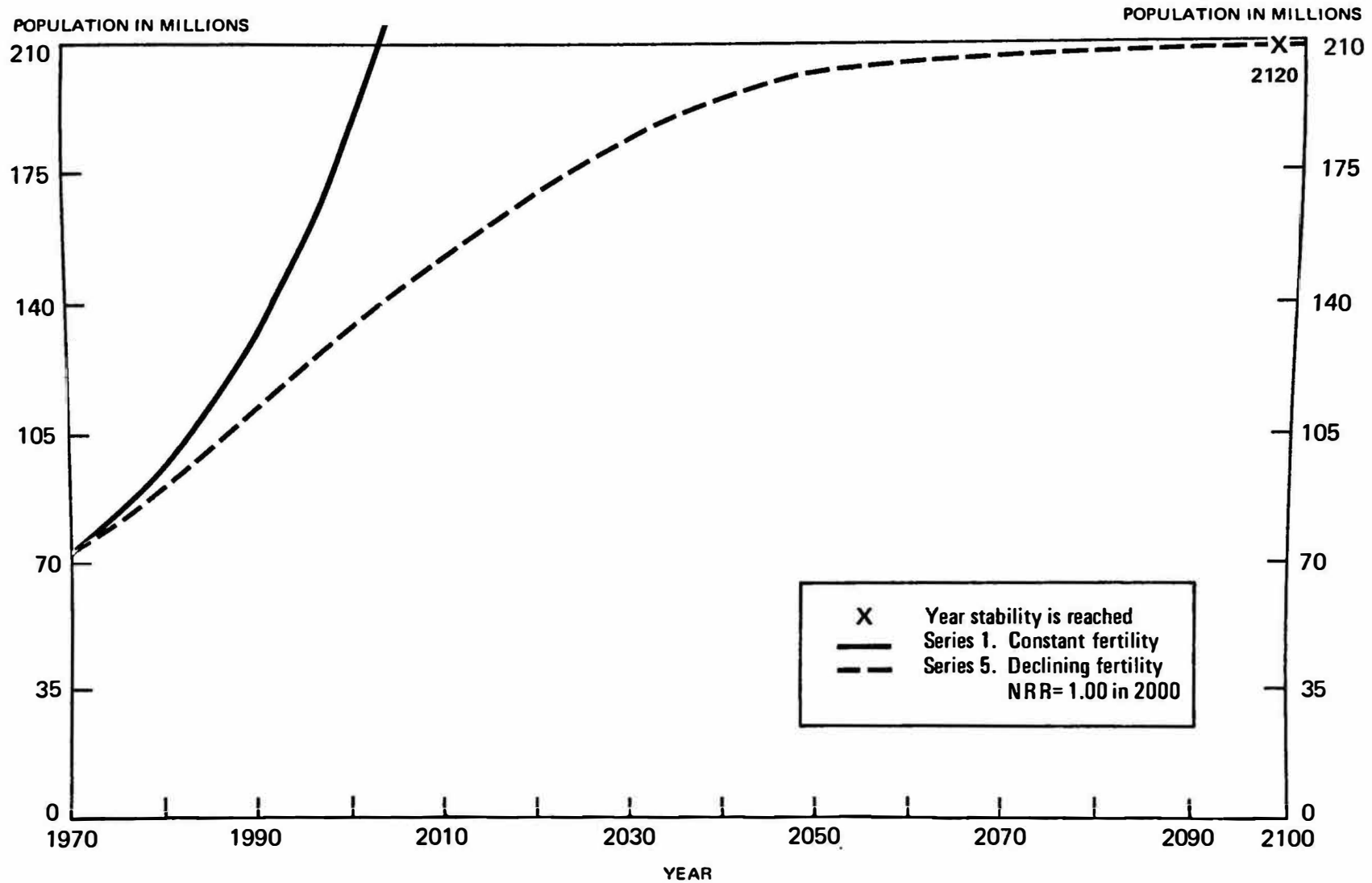
4. Fertility reductions are achieved by an increase in the proportion of women averting births. This proportion is influenced by a variety of factors, including the proportion of women currently married (or exposed) at each age. Assuming these other factors remain constant, how many married fecund women in the child-bearing ages (15-49) must avoid giving birth in 1985 to achieve the replacement goal by 2000 (Series 5)?

It is estimated that in Bangladesh at least 5.0 million fecund married women in the child-bearing ages avoided births in 1970 by some method of family planning (referred to as "the total family planning target" in the table), when the average family size was 6.3 children. This amounted to 33 percent of the total female population in the age groups 15-49 and 45 percent of the fecund married women at that time.

If the replacement level were reached by 2000, then "the total family planning target" in 1985 would require at least 11 million women averting births, resulting in an average family size of 4.3 children. At that time the proportion of women in "the total family planning target" would have to increase to 47 percent of the total female population in the age group 15-49.

On this set of projections, the additional births averted are estimated at 3.5 million in 1985, compared with 175 thousand in 1970.

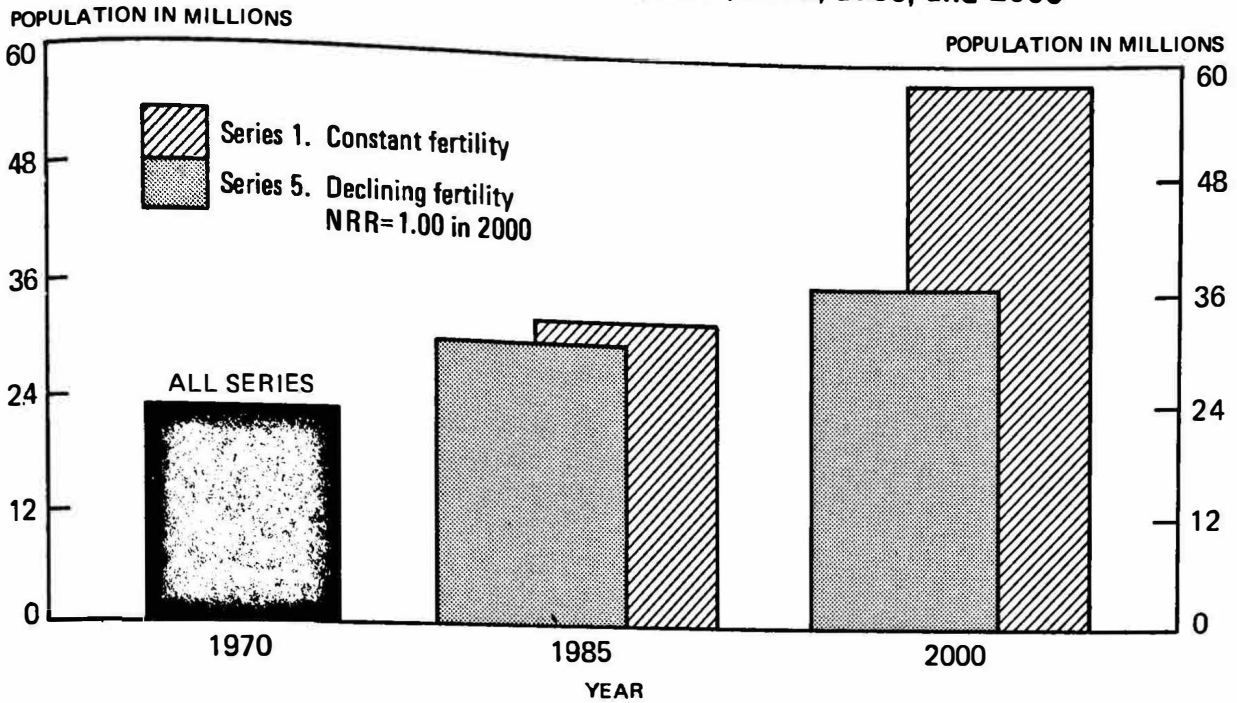
BANGLADESH | Total Population According to Two Fertility Assumptions, 1970-2100



SOURCE: International Statistical Programs Center, U.S. Bureau of the Census, based on data provided by the Community and Family Study Center, University of Chicago, January 1974.

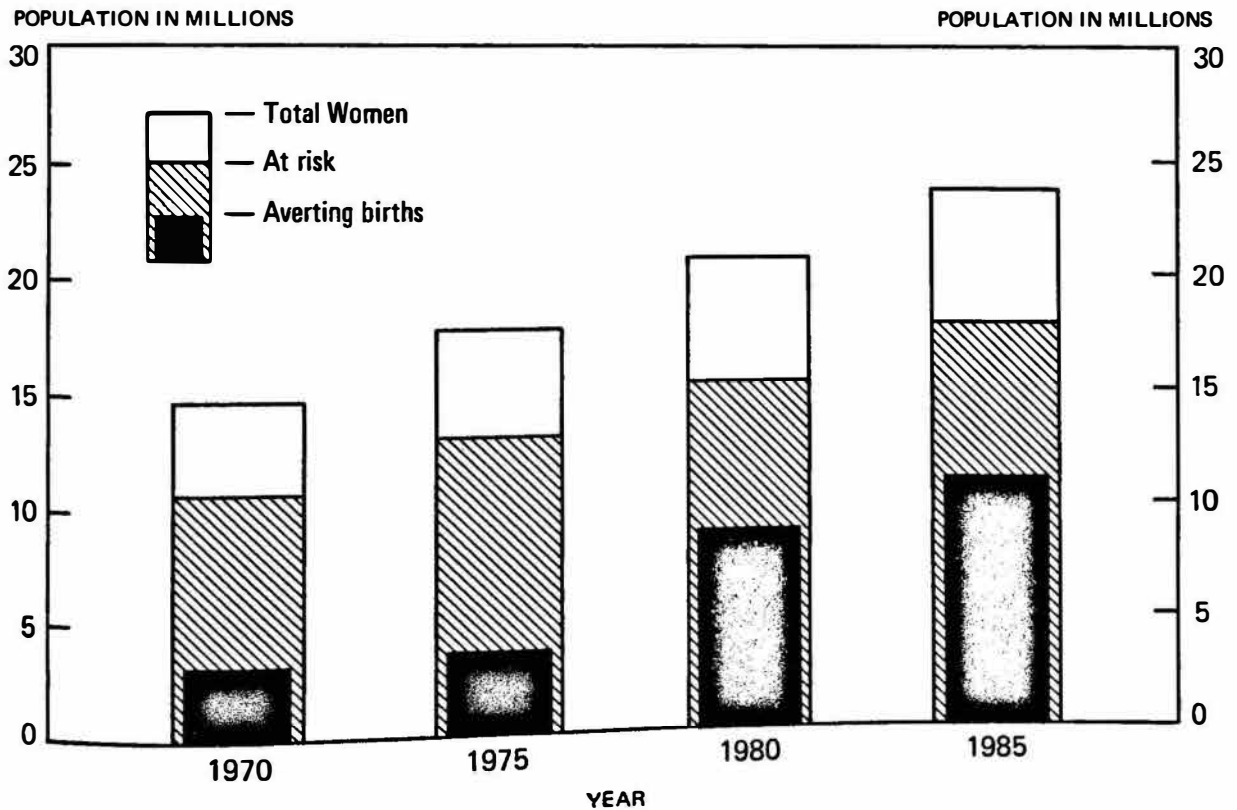
BANGLADESH | School-Age Population (6-17 Years) According to Two Fertility Assumptions, 1970, 1985, and 2000

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BANGLADESH | Total Women of Reproductive Age, Women at Risk of Pregnancy and Number Averting Births Under Assumption of Declining Fertility For 1970, 1975, 1980 and 1985



SOURCE: International Statistical Programs Center, U.S. Bureau of the Census, based on data provided by the Community and Family Study Center, University of Chicago, January 1974.

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FIVE-YEAR INTERVAL SUMMARY TABLE CFSC 100

BANGLADESH - SERIES NO. 1

YEAR

	1970.	1975.	1980.	1985.	1990.	1995.	2000.
TOTAL POPULATION (JULY 1)	71551.	80652.	94406.	111784.	132476.	157438.	188124.
MALES	36722.	41397.	48489.	57381.	68011.	80841.	96616.
FEMALES	34830.	39255.	45977.	54403.	64465.	76597.	91508.
CRUDE BIRTH RATE (PER THOUSAND POP.)	43.5	47.5	48.7	47.6	45.5	44.9	45.2
CRUDE DEATH RATE (PER THOUSAND POP.)	21.2	17.5	15.8	13.5	11.4	9.9	8.9
GROWTH RATE (PCT.)	2.22	3.00	3.29	3.40	3.41	3.50	3.63
LIFE EXPECTANCY AT BIRTH (IN YEARS)							
MALE	42.40	47.60	50.20	53.20	56.20	58.60	60.60
FEMALE	42.80	48.00	50.60	53.60	56.60	59.00	61.00
INFANT MORTALITY RATE (PER 1000 BIRTHS)	164.7	132.7	118.2	101.9	86.8	75.3	66.1
TOTAL FERTILITY RATE	6.295	6.295	6.295	6.295	6.295	6.295	6.295
GROSS REPRODUCTIVE RATE	3.071	3.071	3.071	3.071	3.071	3.071	3.071
AGE SPECIFIC FERTILITY RATE							
15-19	0.2240	0.2240	0.2240	0.2240	0.2240	0.2240	0.2240
20-24	0.3070	0.3070	0.3070	0.3070	0.3070	0.3070	0.3070
25-29	0.3040	0.3040	0.3040	0.3040	0.3040	0.3040	0.3040
30-34	0.2300	0.2300	0.2300	0.2300	0.2300	0.2300	0.2300
35-39	0.1350	0.1350	0.1350	0.1350	0.1350	0.1350	0.1350
40-44	0.0470	0.0470	0.0470	0.0470	0.0470	0.0470	0.0470
45-49	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120
NET REPRODUCTIVE RATE	2.001	2.193	2.286	2.393	2.495	2.573	2.636

FIVE-YEAR INTERVAL SUMMARY TABLE CFSC 103

BANGLADESH - SERIES NO. 2

YEAR

	1970.	1975.	1980.	1985.	1990.	1995.	2000.
TOTAL POPULATION (JULY 1)	71551.	80086.	91906.	105288.	119560.	134466.	149650.
MALES	36722.	41108.	47178.	54050.	61383.	69043.	76847.
FEMALES	34830.	38978.	44728.	51238.	58177.	65423.	72803.
CRUDE BIRTH RATE (PER THOUSAND POP.)	43.5	44.3	42.6	39.3	35.2	31.8	28.8
CRUDE DEATH RATE (PER THOUSAND POP.)	21.2	17.0	15.1	12.8	10.7	9.4	8.5
GROWTH RATE (PCT.)	2.22	2.72	2.76	2.65	2.45	2.25	2.03
LIFE EXPECTANCY AT BIRTH (IN YEARS)							
MALE	42.40	47.60	50.20	53.20	56.20	58.60	60.60
FEMALE	42.80	48.00	50.60	53.60	56.60	59.00	61.00
INFANT MORTALITY RATE (PER 1000 BIRTHS)	164.7	132.7	118.2	101.9	86.8	75.3	66.1
TOTAL FERTILITY RATE	6.295	5.829	5.363	4.897	4.432	3.966	3.500
GROSS REPRODUCTIVE RATE	3.071	2.843	2.616	2.389	2.162	1.935	1.707
AGE SPECIFIC FERTILITY RATE							
15-19	0.2240	0.2074	0.1908	0.1743	0.1577	0.1411	0.1245
20-24	0.3070	0.2843	0.2616	0.2388	0.2161	0.1934	0.1707
25-29	0.3040	0.2815	0.2590	0.2365	0.2140	0.1915	0.1690
30-34	0.2300	0.2130	0.1960	0.1789	0.1619	0.1449	0.1279
35-39	0.1350	0.1250	0.1150	0.1050	0.0950	0.0850	0.0751
40-44	0.0470	0.0435	0.0400	0.0366	0.0331	0.0296	0.0261
45-49	0.0120	0.0111	0.0102	0.0093	0.0084	0.0076	0.0067
NET REPRODUCTIVE RATE	2.001	2.030	1.948	1.862	1.756	1.621	1.465

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FIVE-YEAR INTERVAL SUMMARY TABLE CFSC 106

BANGLADESH - SERIES NO. 3

	YEAR						
	1970.	1975.	1980.	1985.	1990.	1995.	2000.
TOTAL POPULATION (JULY 1)	71551.	79985.	91450.	104132.	117266.	130429.	143049.
MALES	36722.	41056.	46945.	53458.	60206.	66970.	73455.
FEMALES	34830.	38928.	44505.	50674.	57061.	63459.	69594.
CRUDE BIRTH RATE (PER THOUSAND POP.)	43.5	43.7	41.5	37.7	33.2	29.2	25.4
CRUDE DEATH RATE (PER THOUSAND POP.)	21.2	17.0	14.9	12.6	10.6	9.3	8.4
GROWTH RATE (PCT.)	2.22	2.67	2.66	2.51	2.25	1.99	1.70
LIFE EXPECTANCY AT BIRTH (IN YEARS)							
MALE	42.40	47.60	50.20	53.20	56.20	58.60	60.00
FEMALE	42.80	48.00	50.60	53.60	56.60	59.00	61.00
INFANT MORTALITY RATE (PER 1000 BIRTHS)	164.7	132.7	118.2	101.9	86.8	75.3	66.1
TOTAL FERTILITY RATE	6.295	5.746	5.198	4.649	4.100	3.551	3.003
GROSS REPRODUCTIVE RATE	3.071	2.805	2.535	2.268	2.000	1.732	1.465
AGE SPECIFIC FERTILITY RATE							
15-19	0.2240	0.2045	0.1849	0.1654	0.1459	0.1264	0.1068
20-24	0.3070	0.2802	0.2535	0.2267	0.2000	0.1732	0.1464
25-29	0.3040	0.2775	0.2510	0.2245	0.1980	0.1715	0.1450
30-34	0.2300	0.2100	0.1899	0.1699	0.1498	0.1298	0.1097
35-39	0.1350	0.1232	0.1115	0.0997	0.0879	0.0762	0.0644
40-44	0.0470	0.0429	0.0388	0.0347	0.0306	0.0265	0.0224
45-49	0.0120	0.0110	0.0099	0.0089	0.0078	0.0068	0.0057
NET REPRODUCTIVE RATE	2.001	2.001	1.887	1.767	1.625	1.452	1.257

FIVE-YEAR INTERVAL SUMMARY TABLE CFSC 109

BANGLADESH - SERIES NO. 4

YEAR

	1970.	1975.	1980.	1985.	1990.	1995.	2000.
TOTAL POPULATION (JULY 1)	71551.	79883.	90989.	102962.	114945.	126357.	136440.
MALES	36722.	41004.	46709.	52858.	59014.	64879.	70058.
FEMALES	34830.	38878.	44280.	50104.	55930.	61478.	66381.
CRUDE BIRTH RATE (PER THOUSAND POP.):	43.5	43.1	40.4	36.1	31.0	26.4	21.8
CRUDE DEATH RATE (PER THOUSAND POP.)	21.2	16.9	14.8	12.5	10.5	9.2	8.3
GROWTH RATE (PCT.)	2.22	2.62	2.56	2.36	2.05	1.72	1.35
LIFE EXPECTANCY AT BIRTH (IN YEARS)							
MALE	42.40	47.60	50.20	53.20	56.20	58.60	60.60
FEMALE	42.80	48.00	50.60	53.60	56.60	59.00	61.00
INFANT MORTALITY RATE (PER 1000 BIRTHS)	164.7	132.7	118.2	101.9	86.8	75.3	66.1
TOTAL FERTILITY RATE	6.295	5.662	5.030	4.397	3.764	3.132	2.499
GROSS REPRODUCTIVE RATE	3.071	2.762	2.454	2.145	1.836	1.528	1.219
AGE SPECIFIC FERTILITY RATE							
15-19	0.2240	0.2015	0.1790	0.1565	0.1340	0.1114	0.0889
20-24	0.3070	0.2761	0.2453	0.2144	0.1836	0.1527	0.1219
25-29	0.3040	0.2734	0.2429	0.2123	0.1818	0.1512	0.1207
30-34	0.2309	0.2069	0.1838	0.1607	0.1375	0.1144	0.0913
35-39	0.1350	0.1214	0.1079	0.0943	0.0807	0.0672	0.0536
40-44	0.0470	0.0423	0.0376	0.0328	0.0281	0.0234	0.0187
45-49	0.0120	0.0108	0.0096	0.0084	0.0072	0.0060	0.0048
NET REPRODUCTIVE RATE	2.001	1.972	1.826	1.671	1.492	1.280	1.046
TFR IN YEAR 2000 IF NRR=1.0 EQUALS		2.388284					

PLEASE NOTE THAT PROJECTIONS WERE RUN IN SPITE OF AN INPUT ERROR

FIVE-YEAR INTERVAL SUMMARY TABLE CFSC 112

BANGLADESH - SERIES NO. 5

YEAR

	1970.	1975.	1980.	1985.	1990.	1995.	2000.
TOTAL POPULATION (JULY 1)	71551.	79860.	90885.	102699.	114422.	125443.	134963.
MALES	36722.	40993.	46656.	52723.	58746.	64409.	69300.
FEMALES	34830.	38867.	44230.	49976.	55676.	61034.	65663.
CRUDE BIRTH RATE (PER THOUSAND POP.)	43.5	43.0.	40.1	35.7	30.5	25.7	20.9
CRUDE DEATH RATE (PER THOUSAND POP.)	21.2	16.9	14.8	12.5	10.5	9.1	8.3
GROWTH RATE (PCT.)	2.22	2.61	2.54	2.32	2.01	1.66	1.26
LIFE EXPECTANCY AT BIRTH (IN YEARS)							
MALE	42.40	47.60	50.20	53.20	56.20	58.60	60.60
FEMALE	42.80	48.00	50.60	53.60	56.60	59.00	61.00
INFANT MORTALITY RATE (PER 1000 BIRTHS)	164.7	132.7	118.2	101.9	86.8	75.3	66.1
TOTAL FERTILITY RATE	6.295	5.643	4.992	4.340	3.689	3.037	2.386
GROSS REPRODUCTIVE RATE	3.071	2.753	2.435	2.117	1.799	1.402	1.164
AGE SPECIFIC FERTILITY RATE							
15-19	0.2240	0.2308	0.1776	0.1544	0.1313	0.1081	0.0849
20-24	0.3070	0.2752	0.2435	0.2117	0.1799	0.1481	0.1164
25-29	0.3040	0.2725	0.2411	0.2096	0.1781	0.1467	0.1152
30-34	0.2300	0.2062	0.1924	0.1936	0.1348	0.1110	0.0872
35-39	0.1350	0.1210	0.1071	0.0951	0.0791	0.0651	0.0512
40-44	0.0470	0.0421	0.0373	0.0324	0.0275	0.0227	0.0178
45-49	0.0120	0.0108	0.0095	0.0093	0.0070	0.0058	0.0045
NET REPRODUCTIVE RATE	2.001	1.966	1.813	1.650	1.462	1.241	0.999
TFR IN YEAR 2000 IF NR=1.0 EQUALS		2.3882E4					

PLEASE NOTE THAT PROJECTIONS WERE RUN IN SPITE OF AN INPUT ERROR

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Series No. 5 Projection For: **BANGLADESH**

Year in Which
Zero Growth Rate
is Reached
(2120)

	2000	2025	2050	2100	
Total Population (January 1)	134,112	178,340	202,000	209,537	209,859
Males	68,863	91,537	103,614	107,444	107,565
Females	65,249	86,803	98,386	102,093	102,294
Crude Birth Rate (Per Thousand Population)	20.9	16.2	14.4	13.7	13.7
Crude Death Rate (Per Thousand Population)	8.3	8.8	12.4	13.7	13.7
Growth Rate (percent)	1.26	0.74	0.20	0.00	0.00
Life Expectancy at Birth (in years)					
Males	60.60	68.40	71.70	74.20	74.20
Females	61.00	68.60	71.80	74.30	74.30
Infant Mortality Rate (Per Thousand Births)	66.1	33.7	22.3	14.8	14.8
Total Fertility Rate	2.386	2.210	2.150	2.110	2.110
Gross Reproductive Rate	1.164	1.078	1.049	1.029	1.029
Age-Specific Fertility Rate					
15-19	.0849	.079	.076	.075	.075
20-24	.1164	.108	.105	.103	.103
25-29	.1152	.107	.104	.102	.102
30-34	.0872	.081	.079	.077	.077
35-39	.0512	.047	.046	.045	.045
40-44	.0178	.016	.016	.016	.016
45-49	.0045	.004	.004	.004	.004
Net Reproductive Rate	1.000	1.000	1.000	1.000	1.000

HANGLAJESH

2050

AGE	BOTH SEXES	MALE	FEMALE	% BOTH SEXES	% MALE	% FEMALE
ALL AGES	202000.	103614.	98386.	100.00	100.00	100.00
0- 4	14277.	7336.	6942.	7.07	7.08	7.06
5- 9	14223.	7315.	6909.	7.04	7.06	7.02
10- 14	14114.	7260.	6853.	6.99	7.01	6.97
15- 19	13980.	7191.	6788.	6.92	6.94	6.90
20- 24	13935.	7170.	6765.	6.90	6.92	6.88
25- 29	14032.	7224.	6808.	6.95	6.97	6.92
30- 34	14191.	7315.	6875.	7.03	7.06	6.99
35- 39	14085.	7271.	6814.	6.97	7.02	6.93
40- 44	13478.	6965.	6512.	6.67	6.72	6.62
45- 49	12371.	6398.	5972.	6.12	6.18	6.07
50- 54	12496.	6461.	6035.	6.19	6.24	6.13
55- 59	12828.	6613.	6215.	6.35	6.38	6.32
60- 64	12242.	6263.	5980.	6.06	6.04	6.08
65- 69	10646.	5386.	5260.	5.27	5.20	5.35
70- 74	8049.	4013.	4036.	3.98	3.87	4.10
75- 79	4910.	2399.	2511.	2.43	2.32	2.55
80 +	2145.	1033.	1112.	1.06	1.00	1.13

CRUDE BIRTH RATE 2050 - 2055 = 14.35

CRUDE DEATH RATE 2050 - 2055 = 12.35

RATE OF NATURAL INCREASE 2050 - 2055 = 2.01

FEMALE LIFE EXPECTANCY AT BIRTH 2050 - 2055 = 71.80

MALE LIFE EXPECTANCY AT BIRTH 2050 - 2055 = 71.70

AGE SPECIFIC FERTILITY RATES 2050 - 2055 =

.076

.105

.104

.079

.046

.016

.004

TOTAL BIRTHS 2050 - 2055 = 14567.

TOTAL DEATHS 2050 - 2055 = 12531.

INFANT MORTALITY RATE 2050 - 2055 = 22.27

TOTAL MALE MIGRANTS 2050 - 2055 = 0.

TOTAL FEMALE MIGRANTS 2050 - 2055 = 0.

BANGLADESH

2120

AGE	BIRTH SEXES	MALE	FEMALE	% BOTH SEXES	% MALE	% FEMALE
ALL AGES	209859.	107565.	102294.	100.00	100.00	100.00
0- 4	14160.	7271.	6889.	6.75	6.76	6.73
5- 9	14131.	7260.	6871.	6.73	6.75	6.72
10- 14	14114.	7252.	6862.	6.73	6.74	6.71
15- 19	14091.	7240.	6850.	6.71	6.73	6.70
20- 24	14053.	7220.	6832.	6.70	6.71	6.68
25- 29	14007.	7198.	6809.	6.67	6.69	6.66
30- 34	13957.	7176.	6781.	6.65	6.67	6.63
35- 39	13894.	7150.	6744.	6.62	6.65	6.59
40- 44	13797.	7108.	6689.	6.57	6.61	6.54
45- 49	13646.	7038.	6607.	6.50	6.54	6.46
50- 54	13370.	6900.	6470.	6.37	6.41	6.32
55- 59	12916.	6655.	6261.	6.15	6.19	6.12
60- 64	12215.	6263.	5952.	5.82	5.82	5.82
65- 69	11139.	5666.	5473.	5.31	5.27	5.35
70- 74	9503.	4782.	4721.	4.53	4.45	4.61
75- 79	7220.	3590.	3630.	3.44	3.34	3.55
80 +	3648.	1793.	1854.	1.74	1.67	1.81

CRUDE BIRTH RATE 2120 - 2125 = 13.71

CRUDE DEATH RATE 2120 - 2125 = 13.71

RATE OF NATURAL INCREASE 2120 - 2125 = -0.01

FEMALE LIFE EXPECTANCY AT BIRTH 2120 - 2125 = 74.30

MALE LIFE EXPECTANCY AT BIRTH 2120 - 2125 = 74.20

AGE SPECIFIC FERTILITY RATES 2120 - 2125 =

- .075
- .103
- .102
- .077
- .045
- .016
- .004

TOTAL BIRTHS 2120 - 2125 = 14383.

TOTAL DEATHS 2120 - 2125 = 14391.

INFANT MORTALITY RATE 2120 - 2125 = 14.77

TOTAL MALE MIGRANTS 2120 - 2125 = 0.

TOTAL FEMALE MIGRANTS 2120 - 2125 = 0.

SERIES NO. 1 PROJECTION FOR BANGLADESH CFSC 97

1970 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	70756.	36312.	34444.	100.00	100.00	100.00
0-4	12513.	6406.	6107.	17.68	17.04	17.73
5-9	10540.	5415.	5125.	14.90	14.91	14.38
10-14	9578.	4952.	4790.	13.83	13.75	13.91
15-19	7919.	4047.	3872.	11.19	11.15	11.24
20-24	5666.	3031.	2835.	8.29	8.35	8.23
25-29	3894.	2023.	1866.	5.50	5.58	5.42
30-34	3900.	2023.	1872.	5.51	5.58	5.43
35-39	3749.	1959.	1790.	5.30	5.39	5.20
40-44	2878.	1509.	1369.	4.07	4.16	3.97
45-49	2559.	1354.	1245.	3.67	3.73	3.61
50-54	2019.	1047.	972.	2.85	2.88	2.82
55-59	1628.	836.	792.	2.30	2.30	2.30
60-64	1252.	632.	620.	1.77	1.74	1.80
65-69	925.	455.	470.	1.31	1.25	1.36
70-74	630.	300.	330.	0.90	0.83	0.98
75+	656.	273.	383.	0.93	0.75	1.11

SERIES NO. 1 PROJECTION FOR BANGLADESH CFSC 98

1985 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	109882.	56404.	53478.	100.00	100.00	100.00
0- 4	21345.	10931.	10414.	19.42	19.38	19.47
5- 9	16755.	8008.	8148.	15.25	15.26	15.24
10-14	12606.	6469.	6137.	11.47	11.47	11.48
15-19	11023.	5687.	5337.	10.03	10.08	9.98
20-24	9900.	5111.	4789.	9.01	9.06	8.95
25-29	9020.	4624.	4395.	8.21	8.20	8.22
30-34	7174.	3681.	3493.	6.53	6.53	6.53
35-39	5228.	2710.	2518.	4.76	4.80	4.71
40-44	3411.	1779.	1632.	3.10	3.15	3.05
45-49	3335.	1726.	1609.	3.03	3.06	3.01
50-54	3100.	1598.	1502.	2.82	2.83	2.81
55-59	2261.	1158.	1103.	2.06	2.05	2.06
60-64	1879.	946.	933.	1.71	1.68	1.74
65-69	1280.	635.	645.	1.17	1.13	1.21
70-74	841.	409.	433.	0.77	0.72	0.81
75+	726.	334.	393.	0.66	0.59	0.73

SERIES NO. 2 PROJECTION FOR BANGLADESH CFSC 101

1985 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	103893.	53334.	50560.	100.00	100.00	100.00
0-4	17518.	8972.	8547.	16.86	16.82	16.90
5-9	14996.	7704.	7292.	14.43	14.44	14.42
10-14	12202.	6262.	5940.	11.74	11.74	11.75
15-19	11023.	5687.	5337.	10.61	10.66	10.55
20-24	9900.	5111.	4789.	9.53	9.58	9.47
25-29	9020.	4624.	4395.	8.68	8.67	8.69
30-34	7174.	3681.	3493.	6.91	6.90	6.91
35-39	5228.	2710.	2518.	5.03	5.08	4.98
40-44	3411.	1779.	1632.	3.28	3.34	3.23
45-49	3335.	1726.	1609.	3.21	3.24	3.18
50-54	3100.	1598.	1502.	2.98	3.00	2.97
55-59	2261.	1158.	1103.	2.18	2.17	2.18
60-64	1879.	946.	933.	1.81	1.77	1.84
65-69	1280.	635.	645.	1.23	1.19	1.28
70-74	841.	409.	433.	0.81	0.77	0.86
75+	726.	334.	393.	0.70	0.63	0.78

SERIES NO. 3 PROJECTION FOR BANGLADESH CFSC 104

1985 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	102828.	52788.	50040.	100.00	100.00	100.00
0-4	16838.	8623.	8214.	16.37	16.34	16.42
5-9	14663.	7543.	7140.	14.28	14.29	14.27
10-14	12130.	6225.	5906.	11.80	11.79	11.80
15-19	11023.	5687.	5337.	10.72	10.77	10.66
20-24	9900.	5111.	4789.	9.63	9.68	9.57
25-29	9020.	4624.	4395.	8.77	8.76	8.78
30-34	7174.	3681.	3493.	6.98	6.97	6.98
35-39	5228.	2710.	2518.	5.08	5.13	5.03
40-44	3411.	1779.	1632.	3.32	3.37	3.26
45-49	3335.	1726.	1609.	3.24	3.27	3.21
50-54	3100.	1598.	1502.	3.01	3.03	3.00
55-59	2261.	1158.	1103.	2.20	2.19	2.20
60-64	1879.	946.	933.	1.83	1.79	1.86
65-69	1280.	635.	645.	1.25	1.20	1.29
70-74	841.	409.	433.	0.82	0.77	0.86
75+	726.	334.	393.	0.71	0.63	0.78

SERIES NO. 4 PROJECTION FOR BANGLADESH CFSC 107

1985 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	101749.	52235.	49514.	100.00	100.00	100.00
0-4	16148.	8270.	7878.	15.87	15.83	15.91
5-9	14366.	7380.	6986.	14.12	14.13	14.11
10-14	12057.	6187.	5670.	11.85	11.85	11.86
15-19	11023.	5687.	5337.	10.83	10.89	10.78
20-24	9900.	5111.	4789.	9.73	9.78	9.67
25-29	9020.	4624.	4395.	8.86	8.95	8.88
30-34	7174.	3681.	3493.	7.05	7.05	7.05
35-39	5228.	2710.	2518.	5.14	5.19	5.08
40-44	3411.	1779.	1632.	3.35	3.41	3.30
45-49	3335.	1726.	1609.	3.28	3.30	3.25
50-54	3100.	1598.	1502.	3.05	3.06	3.03
55-59	2261.	1158.	1103.	2.22	2.22	2.23
60-64	1879.	946.	933.	1.85	1.81	1.88
65-69	1280.	635.	645.	1.26	1.22	1.30
70-74	841.	409.	433.	0.83	0.78	0.87
75+	726.	334.	393.	0.71	0.64	0.79

SERIES NO. 5 PROJECTION FOR BANGLADESH CFSC 110

1985 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	101506.	52110.	49396.	100.00	100.00	100.00
0-4	15953.	8151.	7802.	15.76	15.72	15.80
5-9	14295.	7344.	6951.	14.08	14.09	14.07
10-14	12041.	6179.	5862.	11.86	11.86	11.87
15-19	11023.	5657.	5367.	10.86	10.91	10.80
20-24	9900.	5111.	4789.	9.75	9.81	9.70
25-29	9020.	4624.	4395.	8.89	8.87	8.90
30-34	7174.	3681.	3493.	7.07	7.06	7.07
35-39	5228.	2710.	2518.	5.15	5.20	5.10
40-44	3411.	1779.	1632.	3.36	3.41	3.30
45-49	3335.	1726.	1609.	3.29	3.31	3.25
50-54	3100.	1553.	1547.	3.05	3.07	3.04
55-59	2261.	1153.	1108.	2.23	2.22	2.23
60-64	1879.	946.	933.	1.85	1.82	1.87
65-69	1280.	635.	645.	1.26	1.22	1.31
70-74	841.	409.	432.	0.83	0.78	0.88
75+	726.	334.	392.	0.72	0.64	0.79

SERIES NO. 1 PROJECTION FOR BANGLADESH CFSC 99

2000 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	184708.	94859.	89848.	100.00	100.00	100.00
0-4	34977.	17947.	17030.	18.94	18.92	18.95
5-9	28349.	14573.	13772.	15.35	15.37	15.33
10-14	23868.	12274.	11594.	12.92	12.94	12.90
15-19	20087.	10335.	9752.	10.88	10.89	10.85
20-24	16151.	8315.	7835.	8.74	8.77	8.72
25-29	12018.	6181.	5837.	6.51	6.52	6.50
30-34	10386.	5372.	5014.	5.62	5.66	5.58
35-39	9236.	4784.	4452.	5.00	5.04	4.95
40-44	8317.	4276.	4041.	4.50	4.51	4.50
45-49	6500.	3333.	3166.	3.52	3.51	3.52
50-54	4606.	2373.	2234.	2.49	2.50	2.49
55-59	2874.	1477.	1397.	1.56	1.56	1.55
60-64	2611.	1318.	1294.	1.41	1.39	1.44
65-69	2171.	1078.	1093.	1.18	1.14	1.22
70-74	1323.	644.	679.	0.72	0.68	0.76
75+	1235.	575.	660.	0.67	0.61	0.73

SERIES NO. 2 PROJECTION FOR BANGLADESH CFSC 102

2000 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	148129.	76065.	72064.	100.00	100.00	100.00
0-4	19746.	10133.	9613.	13.33	13.32	13.34
5-9	18734.	9633.	9101.	12.65	12.66	12.63
10-14	17808.	9157.	8650.	12.02	12.04	12.00
15-19	16496.	8487.	8009.	11.14	11.16	11.11
20-24	14455.	7442.	7012.	9.76	9.78	9.73
25-29	11632.	5983.	5649.	7.85	7.87	7.84
30-34	10386.	5372.	5014.	7.01	7.06	6.96
35-39	9236.	4784.	4452.	6.23	6.29	6.18
40-44	8317.	4276.	4041.	5.62	5.62	5.61
45-49	6500.	3333.	3166.	4.39	4.38	4.39
50-54	4606.	2373.	2234.	3.11	3.12	3.10
55-59	2874.	1477.	1397.	1.94	1.94	1.94
60-64	2611.	1316.	1294.	1.76	1.73	1.80
65-69	2171.	1078.	1093.	1.47	1.42	1.52
70-74	1323.	644.	679.	0.89	0.85	0.94
75+	1235.	575.	660.	0.83	0.76	0.92

SERIES NO. 3 PROJECTION FOR BANGLADESH CFSC 105

2000 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	141833.	72830.	69003.	100.00	100.00	100.00
0-4	17209.	8831.	8378.	12.13	12.13	12.14
5-9	17061.	8773.	8288.	12.03	12.05	12.01
10-14	16732.	8504.	8128.	11.80	11.81	11.78
15-19	15857.	8159.	7699.	11.18	11.20	11.16
20-24	14153.	7287.	6866.	9.98	10.00	9.95
25-29	11563.	5947.	5616.	8.15	8.17	8.14
30-34	10386.	5372.	5014.	7.32	7.38	7.27
35-39	9236.	4784.	4452.	6.51	6.57	6.45
40-44	8317.	4276.	4041.	5.86	5.87	5.86
45-49	6500.	3333.	3166.	4.58	4.58	4.59
50-54	4606.	2373.	2234.	3.25	3.26	3.24
55-59	2874.	1477.	1397.	2.03	2.03	2.02
60-64	2611.	1318.	1294.	1.84	1.81	1.87
65-69	2171.	1078.	1093.	1.53	1.48	1.58
70-74	1323.	644.	679.	0.93	0.88	0.98
75+	1235.	575.	660.	0.87	0.79	0.96

SERIES NO. 4 PROJECTION FOR BANGLADESH CFSC 108

2000 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	135522.	69588.	65935.	100.00	100.00	100.00
0-4	14692.	7540.	7152.	10.84	10.83	10.85
5-9	15378.	7908.	7470.	11.35	11.36	11.33
10-14	15643.	8044.	7599.	11.54	11.56	11.52
15-19	15210.	7826.	7384.	11.22	11.25	11.20
20-24	13847.	7129.	6718.	10.22	10.25	10.19
25-29	11494.	5911.	5582.	8.48	8.50	8.47
30-34	10386.	5372.	5014.	7.66	7.72	7.60
35-39	9236.	4784.	4452.	6.81	6.87	6.75
40-44	8317.	4276.	4041.	6.14	6.15	6.13
45-49	6500.	3333.	3166.	4.80	4.79	4.80
50-54	4606.	2373.	2234.	3.40	3.41	3.39
55-59	2874.	1477.	1397.	2.12	2.12	2.12
60-64	2611.	1318.	1294.	1.93	1.89	1.96
65-69	2171.	1078.	1093.	1.60	1.55	1.66
70-74	1323.	644.	679.	0.98	0.93	1.03
75+	1235.	575.	660.	0.91	0.83	1.00

SERIES NO. 5 PROJECTION FOR BANGLADESH CFSC 111

2000 (JANUARY 1)

AGE	POPULATION			PERCENT DISTRIBUTION		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	134112.	68363.	65249.	100.00	100.00	100.00
0-4	14133.	7253.	6880.	10.54	10.53	10.54
5-9	15001.	7714.	7287.	11.19	11.20	11.17
10-14	15398.	7918.	7480.	11.48	11.50	11.46
15-19	15065.	7751.	7314.	11.23	11.26	11.21
20-24	13778.	7094.	6684.	10.27	10.30	10.24
25-29	11478.	5903.	5575.	8.56	8.57	8.54
30-34	10386.	5372.	5014.	7.74	7.80	7.68
35-39	9236.	4784.	4452.	6.89	6.95	6.82
40-44	8317.	4276.	4041.	6.20	6.21	6.19
45-49	6500.	3333.	3166.	4.85	4.84	4.85
50-54	4606.	2373.	2234.	3.43	3.45	3.42
55-59	2874.	1477.	1397.	2.14	2.14	2.14
60-64	2611.	1318.	1294.	1.95	1.91	1.98
65-69	2171.	1078.	1093.	1.62	1.57	1.67
70-74	1523.	644.	879.	0.99	0.94	1.04
75+	1235.	575.	660.	0.92	0.83	1.01

PROJECTION OF FAMILY PLANNING TARGETS FOR BANGLADESH : 1970-1985
 On assumption of decline to replacement level by the year 2000
 (All numbers are in thousands)

Item	1970	1975	1980	1985
<u>TOTAL WOMEN AGED 15-49</u>				
Total female population.....	26054	20209	19685	23371
Fecund Women, all marital statuses.....	13269	14201	17065	20117
Married Women, total.....	19770	15979	15613	17551
Fecund Married Women.....	11540	12017	13648	15117
Unexposed Fecund Women.....	1728	2184	3417	5000
Fecund Women who must be protected.....	6692	7890	10357	13242
Total family planning target.....	4963	5707	6940	8241
Annual increase in family planning target.....	0	202	263	253
Additional births averted if target achieved..	124	655	1312	1937
<u>BIRTHS AND FERTILITY</u>				
Number of births.....	3191	3387	3595	3625
Total fertility rate (per 1000).....	6295.0	5643.5	4992.0	4340.5
General fertility rate (per 1000).....	122	168	183	155
Crude birth rate (per 1000).....	43.5	43.0	40.1	35.7

NOTES

Fecund women who must be protected - the total number of women who are not sterile, who must not bear children in a given year to reach the assumed fertility reduction.

Total Family Planning Target - the total number of fecund, married women who must use some method of family planning to avoid bearing children.

Annual increase in the Family Planning Target - the yearly increases in the family planning target that must be achieved to obtain the assumed fertility reduction.

Additional births averted - The estimated number of live births that will have been averted if the given fertility objectives are reached.

All the above are expressed in terms of woman years of protection from child-bearing. A full description of these terms and the general methodology involved in the development of the family planning target is found in D.J. Bogue et. al. An Empirical Model for Demographic Evaluation of the Impact of Contraception and Marital Status on Birthrates. Community and Family Study Center, University of Chicago, 1973. A copy of this manual is available on request.