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SOUTH ASIAN CONFERENCE

ON CHILDREN

BANGLADESH SITUATION ANALYSIS

E C O N O M Y

CHAPTER 1

AREA

Bangladesh has a surface area of 55,598 sq. miles of which about 15 percent is covered by forest and 20 percent by rivers, lakes ponds, tidal creeks, roads, buildings, and homesteads. About 65 percent of the total area is classified as cultivable. In 1983/84 about 60 percent of the total area or 33,400 sq. miles was actually cultivated.

POPULATION

The population of Bangladesh increased from about 50.8 million in 1961 to 87.1 million in 1981. The intercensal growth rates for the 1961-74 and 1974-81 periods were 2.6 and 2.8 percent respectively. The growth rate for the Second Five-Year Plan period (1980-85) was 2.6 percent; it is projected to drop to 1.8 percent for the Third Five Year Plan period (1985-90). The total population is projected to increase from an estimated 100.5 million in 1985 to 139.7 million by the year 2000. (See Table 1).

Two noteworthy features are a very high population density (See Table 2) and a rapid rate of urban growth (See Table 3). Except for the 'city states' Bangladesh has the highest population density in the world (1807 per sq. mile in 1985). Its urban population has grown from about 2.1 million in 1961 (3.8 percent of total population) to 7.5 million in 1985 (17.4 percent of total population) and is projected to reach 37.3 million (26.4 percent of total population) by the year 2000. The urban growth is primarily due to "push" factors such as pervasive poverty and widespread unemployment in the rural areas.

The under-15 years population was an estimated 44.5 million or about 44.2 percent of total in 1985. The under-5 population was an estimated 15.9 million or 15.8 percent of total in 1985.

EMPLOYMENT

The Bangladeshi labour force of 28.2 million comprised about 30 percent of its total population in 1984. Of this number some 58.5 percent were employed in agriculture, forestry, and fisheries and another 8.7 percent in manufacturing.

The labour force structure for 1984 indicates a very low female participation rate of 8 percent compared to 76.8 percent for males. The situation is, however, improving, as indicated by a more than doubling in the female participation rates between 1974 and 1984, and the increase in the proportion of females in the total labour force from 4.1 percent to 8.9 percent during this period. The improving trend is likely to continue due to the pervasive poverty situation in rural areas, increasing migration to urban areas, improvements in female literacy and educational opportunities, and government policies promoting women's employment.

Another disturbing feature of the employment situation is the large number of school-age children in the labour force. It appears that in 1984 there were 3.7 million children under 14 years in the labour force of whom about 600,000 were in the 5-9 age group. It seems that up to 350,000 children under 14 years could be working in urban areas, with girls constituting about one-third of this total. Comparisons with 1974 data indicate a slow but steady growth in child participation in the labour force. (See Table 4) The high population growth rates, the high dependency ratio, endemic rural poverty, and the associated rural-urban migration have contributed to this situation.

GROSS DOMESTIC PRODUCT(GDP)

The Gross Domestic Product at factor cost increased by an average of 4.7 percent yearly between 1972/73 and 1984/85 when it stood at Taka 328,340 million. The GDP is projected to grow

by 5.4 percent yearly to Taka 427,100 million (at 1984/85 factor cost) by the last year of the Third Plan (1989/90). Per capita GDP at factor cost would therefore be Taka 3,267 (about US$123) in 1985, rising to a projected Taka 3,780 by 1990.

During the 1972/73 to 1984/85 period the 3.8 percent average annual growth rate in the agricultural sector was less than the 4.7 percent GDP growth rate, and its share of GDP declined from 60.1 to 54.3 percent. The industrial sector did better with a 6.2 percent growth rate, and its GDP share increased from 7.3 to 8.6 percent. The rest of the economy grew by a yearly average of 5.8 percent and saw its share increase from 30.6 to 37.1 percent.

By 1989/90 the agricultural share of the GDP is projected to decline further to 46.9 percent; industry will increase somewhat to 10.1 percent, and the rest of the economy will have an increased share of 43 percent of GDP.

INCOME DISTRIBUTION

The 4.7 percent GDP growth rate was encouraging but nevertheless not quite enough to have any significant impact on poverty reduction or on income distribution. The extent of poverty varies according to the indicators used. According to one estimate the proportion of functionally landless (owning less than 0.5 acres) rural households increased from 35 percent or 2.9 million households in 1960 to 46 percent or 6.2 million households in 1984.

Another estimate based on minimum FAO recommendations of poverty line incomes (minimum calorie needs plus basic needs items) indicates that the number of rural households below the poverty line went up from 75 percent in 1963/64 to 83 percent in 1976/77. (See Table 5) There appears to be no significant improvement in the situation since then.

In 1963/64 the share of national income enjoyed by the highest 20 percent and lowest 20 percent of the population was 45.7 percent and 7.7 percent respectively; by 1981/82 the corresponding distribution was 45.3 percent and 6.6 percent respectively. For rural areas the figures were 42 percent and 8.5 percent for 1963/64 and 42.4 percent and 7.1 percent for 1981/82..

FOOD PRODUCTION

This endemic poverty and unbalanced income distribution may explain why the nutrition situation in rural Bangladesh appears to have deteriorated over the years despite the encouraging fact that foodgrains production in Bangladesh has increased from 9.9 million tonnes in 1972/73 to 16.1 million tonnes in 1984/85. This 3.8 percent annual growth rate in food production thus kept somewhat ahead of the population growth rate during the same period. Bangladesh, which produced about 87.5 percent of its food grains requirements in 1985, plans to attain self-sufficiency with a 20.7 million tonnes production target by 1990. (See Table 6 for agricultural trends). The production of fish, pulses, and vegetables have registered dramatic decline in the period since 1979/80, and the per capita availability of these key nutritional foods has gone down sharply. This distressing trend merits serious government attention, which may be concentrating too much on the macro aspects of foodgrains and cash crops production.

There is scope for increased crop production through improvements in cropping intensity and crop yields. In 1983/84 chemical plant protection measures covered only about 10 percent of the net cropped area; the ratio of gross cropped area to net cropped area was only 1.53; and less than 23 percent of the net cropped area was under irrigation. In 1984/85 the intensity of fertilizer use was only 21.1 kg per acre compared to 28.7 kg for Sri Lanka and 114 kg per acre for South Korea; paddy yield per acre was about 815 kg in Bangladesh, 1170 kg in Sri Lanka and 2490 kg in South Korea.

TRADE AND AID

Bangladesh has traditionally had a rather large negative trade balance, with its exports fluctuating at between 30 to 40 percent of the value of imports. In 1984/85 the country exported items worth US$ 971 million and imported goods worth US$2,647 million. The major exports are raw jute and jute goods, tea, leather, fish and shrimp, and garments. The major imports are capital goods, food grains, crude oil and petroleum products, fertilizers, yarn and textiles, and edible oils. A noteworthy feature has been the growth in remittances from Bangladeshi nationals abroad, primarily those working in the Middle East. Foreign exchange earnings from this source peaked at US$598 million in 1982/83 but was lower at US$398 million in 1984/85.

Debt service payments have increased steadily in both absolute terms and as a percentage of total export earnings. In 1984/85 they stood at US$170 million or 18.1 percent of export earnings. The total outstanding debt of Bangladesh stood at US$5,268 million as of June 1985; this was about 42.5 percent of 1984/85 GDP at factor cost.

The country is heavily dependent on foreign aid and loans to fill both its export/import gap and its savings/investment gap. Foreign aid constituted nearly 71.9 percent of total plan size during the First Plan period (1973-78), 76.8 percent during the Two Year-Plan (1978-80), and 63.5 percent during the Second Plan (1980-85). For the Third Plan period (1985-90) foreign aid, projected at US$7,245 million, will account for 54.5 percent of total plan outlay (76.2 percent of public sector outlay and 14.5 percent of private sector outlay).

THIRD FIVE-YEAR PLAN: 1985-90

The major socio-economic imperatives governing the Second Plan period (1980-85) were endemic poverty, mass unemployment, malnutrition, illiteracy, rapid population growth, an inadequate national resource base, and a heavy dependence on foreign aid. These imperatives continue to be significant for the Third Plan period.

Poverty alleviation remains the primary objective of the Third Plan. The related major objectives are: reduction of population growth (to 1.8 percent by 1990); expansion of productive employment (5.1 million new jobs by 1990); national food self-sufficiency (foodgrain production to rise to 20.7 million tonnes by 1990); the universalization of primary education (enrolment to reach 11.6 million pupils, equivalent to 70 percent of primary school age-group children, by 1990); satisfaction of the minimum basic needs of the people; acceleration of economic growth (GDP growth rate of 5.4 percent); the development of human resources; the development of a technological base for long-term structural change; and the promotion of self-reliance.

To finance the Third Plan the following resource will be needed:

(Million Taka)

	Public Sector	Private Sector	Total
Foreign Aid	190,400(76.2%)	19,880(14.5%)	210,280(54.5%)
Domestic Resources	59,600(23.8%)	116,120(85.5%)	175,720(45.5%)
Total	250,000(100%)	136,000(100%)	386,000(100%)

(Public Sector 65%; Private Sector 35%; Total 100%)

See Table 7 for the sectoral allocation during the Third Plan period. Of the social development sectors of particular relevance to child survival and development health gets 2.2 percent of total public outlay; primary education gets 2.2 percent; rural water supply and sanitation gets 0.3 percent; women's development gets 0.2 percent; and social welfare gets 0.3 percent. Population Control and Family Planning gets 3.5 percent of total public sector outlay. Block allocations to local development councils are unlikely to effect any significant changes in the relative allocations to the above areas. The primary concentration is on agriculture and irrigation, energy and natural resources, industries and minerals, and transport and communications.

Table 1: Population projection by sex and age group 1980 - 2000

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Year	Total	0-4	5-9	10-14	15-24	25-34	35-
1980	T 88507	T 15093	T 14317	T 11687	T 15566	T 11432	T 80
	M 45582	M 7599	M 7250	M 6158	M 7800	M 5788	M 42
	F 42925	F 7494	F 7067	F 5529	F 7766	F 5644	F 37
1985	T100468	T 15859	T 14499	T 14118	T 19942	T 12850	T 92
	M 51754	M 8207	M 7336	M 7162	M 10391	M 6362	M 48
	F 48714	F 7652	F 7163	F 6956	F 9551	F 6488	F 44
1990	T113005	T 16548	T 15349	T 14329	T 25242	T 14870	T107
	M 58213	M 8335	M 7977	M 7261	M 13060	M 7478	M 54
	F 54792	F 8013	F 7372	F 7068	F 12182	F 7392	F 52
1995	T126341	T 17463	T 16117	T 15198	T 27850	T 19174	T121
	M 65063	M 8963	M 8345	M 7909	M 14173	M 10022	M 60
	F 61278	F 8500	F 7772	F 7289	F 13677	F 9152	F 61
2000	T 139693	T 17561	T 17110	T 15988	T 28960	T 24413	T142
	M 71916	M 8983	M 8813	M 8288	M 14952	M 12666	M 71
	F 67777	F 8578	F 8297	F 7700	F 14008	F 11747	F 70

Source: Statistical Yearbook of Bangladesh: 1984-85. Bangladesh Bureau of Statistic

Table 2: Population Projection & Density by Regions (Old Districts): 1961-90

Regions (Old Districts)	Area (sq. miles)	Populations ('000)				
		1961	1974	1981	1985	1990
1. Bandarban	1738	-	-	178 (102)	198 (114)	224 (129)
2. Chittagong	2879	3201 (1112)	4683 (1627)	5729 (1990)	6332 (2199)	7122 (2474)
3. CHTs	3351	414 (124)	547 (163)	606 (181)	669 (200)	752 (224)
4. Comilla	2549	4106 (1846)	6255 (2454)	7179 (2816)	7935 (3113)	8925 (3501)
5. Noakhali	2108	2558 (1213)	3482 (1652)	3981 (1889)	4401 (2088)	4951 (2349)
6. Sylhet	4911	3741 (762)	5115 (1042)	5901 (1202)	6523 (1328)	7337 (1494)
7. Dhaka	2884	5465 (1895)	8327 (2887)	10448 (3623)	11548 (4004)	12989 (4504)
8. Faridpur	2657	3409 (1283)	4360 (1641)	4971 (1871)	5497 (2069)	6179 (2326)
9. Jamalpur	1293	-	-	2559 (1979)	2829 (2188)	3181 (2060)
10. Mymensingh	3733	5933 (1589)	8127 (2177)	6852 (1836)	7574 (2029)	8519 (2282)
11. Tangail	1314	1592 (1212)	2226 (1694)	2549 (1940)	2816 (2143)	3167 (2410)
12. Barisal	2818	3289 (1167)	4221 (1498)	4869 (1728)	5382 (1910)	6053 (2148)
13. Jessore	2538	2351 (926)	3574 (1408)	4194 (1652)	4636 (1827)	5214 (2054)

Regions (Old Districts)	Area (sq. miles)	Populations ('000)				
		1961	1974	1981	1985	1990
14. Khulna	4698	2529 (538)	3875 (825)	4517 (961)	4993 (1063)	5616 (1195)
15. Kushtia	1328	1249 (941)	2018 (1520)	2391 (1800)	2643 (1990)	2973 (2239)
16. Patuakhali	1581	1281 (810)	1617 (1023)	1923 (1216)	2125 (1344)	2391 (1512)
17. Bogra	1501	1691 (1127)	2396 (1596)	2846 (1896)	3146 (2096)	3539 (2358)
18. Dinajpur	2535	1832 (723)	2758 (1088)	3338 (1317)	3690 (1456)	4153 (1638)
19. Pabna	1827	2100 (1149)	3020 (1653)	3573 (1956)	3950 (2162)	4443 (2432)
20. Rajshahi	3651	3016 (826)	4583 (1255)	5498 (1506)	6077 (1664)	6834 (1872)
21. Rangpur	3705	4074 (1100)	5847 (1578)	6792 (1833)	7507 (2026)	8443 (2279)
Bangladesh	55,598	54531 (981)	77031 (1315)	90894 (1634)	100468 (1807)	113005 (2033)

Note: Figures in parenthesis indicate density.

Source: Statistical Yearbook of Bangladesh: 1984-85. Bangladesh Bureau of Statistics, pp 59 and 143.

Table 3: Distribution of Population by Rural and Urban Areas: 1961-2000

	Total Population (Millions)	Urban Population (Millions)	Rural Population (Millions)	Urban Growth (% p.a.)	Share of Urban to Total Population (%) /a
1961	54.5	2.1	52.4	2.1	3.8
1974	76.4	6.8	69.6	9.5	8.9
1981	90.0	13.5	76.5	10.3	15.1
1985	100.6	17.5	83.1	6.5	17.4
1990	113.7	22.9	90.8	5.4	20.1
1995	126.8	29.4	97.4	5.0	23.2
2000	141.1	37.3	103.8	4.8	26.4

/a Values for the percentage of urban population after 1981 are taken from the UN urban/rural projections, adjusted for the revised 1981 percentage of urban population taken from 1981 census results.

Source: Bangladesh: Recent Economic Developments and Medium Term Prospects. Vol 1. World Bank, 17 May 1986, p. 149.

Table 7: Third Plan Sectoral Allocation (1984-85 Prices)

(Million Taka)

Sector	Public Sector	Private Sector	Total
1. Agriculture, Water Resources & Rural Development	70,600	44,000	114,600
2. Industries & Minerals Development.	26,000	32,000	58,000
3. Energy & Natural Resources.	56,750	5,000	61,750
4. Transport and Communication.	30,250	15,000	45,250
5. Physical Planning, Housing & Water Supply.	5,500	36,500	42,000
6. Education & Religious Affairs	12,200	1,500	13,700
7. Health	5,500	500	6,000
8. Population Control & Family	8,700	700	9,400
9. SCYSWAM	3,070	150	3,220
(a) Social welfare	750	..	750
(b) Women,s Affairs	500	150	650
(c) Youth Development	170	..	170
(d) Mass Media	500	..	500
(e) Cultural Development	510	..	510
(f) Development of sports	640	..	640
10. STR	600	..	600
11. Manpower & Labour	930	..	930
12. Public Administration	650	..	650
13. Block Allocation	29,250	..	29,250
(a) Upazila Infrastructure	10,000	..	10,000
(b) Upazila & Zila Dev. Assistance Fund	12,500	..	12,500
(c) Pourashava	920	..	920
(d) CHT	2,130	..	2,130
(e) CDST	1,200	..	1,200
(f) ATAP	2,500	..	2,500
14. Other Sectors	..	650	650
	250,000	136,000	386,000

Source: Third Five Year Plan: 1985-90, Planning Commission, Ministry of Planning, Government of Bangladesh, Dhaka, December 1985, Table 6, p. 32.

CHAPTER 2
PRIMARY EDUCATION

The education system of Bangladesh comprises about 50,000 institutions, 250,000 teachers and administrators and over 10 million students. At the base of the system is the primary school which lasts for five years and is intended for 6-10 year old children. Of the approximately 47,000 primary schools in the country, around 80 percent are Government schools where no fees are charged and the teachers are Government employees. Other types of primary schools include a small number of government-recognized private fee-paying schools predominantly in urban areas, non-recognized private primary schools which do not meet government requirements for teacher and curriculum standards, and the Ibtedaee which are part of the parallel Madrasah religious education system.

Between 1972 and 1984 the number of primary schools (Government and Government-recognized) increased from 31,613 to 43,162, an increase of 37 percent. The School Mapping exercise carried out in 1981-83 revealed that 87 percent of the country's school-age children had a primary school within two miles. Unfortunately it also revealed a number of less satisfactory factors: there was an average of only two class-rooms per school; 73 percent of schools were in need of major repairs or total reconstruction; 78 percent of schools were unusable during the wet season (about half the academic year); 30 percent were unusable throughout the year; 15 percent of schools has no outside walls, 37 percent had not partitions, 7 percent had no roofs, and 77 percent had dirt floors or floors of hardened earth; only about 21 percent of schools had working tubewells on the premises; and only about 6 percent had working toilets.

The above situation refers to Government schools. For the vast majority of non-government schools the situation is thought to be worse. The general picture appears to be of a school environment that is crowded, uncomfortable, unsanitary, and with insufficient teachers and inadequate teaching/learning materials.

There appears to be no noticeable rural/urban bias in the relative distribution of schools. One source indicates that in 1981 about 92 percent of primary schools were in rural areas and 8 percent in urban. Another source indicates that in 1983 the teacher/pupil ratio in rural and urban schools was about the same (1/50 and 1/51 respectively). The teachers per school and the pupils per school (also the enrolment rate) was higher in urban than in rural areas.

The proportion of female teachers was still only about 12.7 percent of the total of nearly 184,000 primary school teachers in 1984; this despite a slightly more than nine-fold increase in female teachers since 1971. There is need for further improvement, particularly if female enrolment ratios are to be improved. (See Table 1).

Enrolment figures have tended to be somewhat unreliable and inconsistent and can only be used as a rough indication. In 1985 the school age population (6-10) was estimated by the Planning Commission to be in the region of 14.8 million with enrolment around 9 million giving a GER of approximately 60 percent. Even this comparatively low figure does not give a true picture as many of those enrolled are over-age children and some are pre-schoolers. The number of pre-schoolers in the unrecognized but tolerated "baby" sections within grade-1 in most primary schools is thought to constitute up to 50 percent of total grade-1 enrolment.

Primary school enrolment increased by 628,000 pupils or 7.6 percent overall to a level of 8.92 million pupils during the Second Plan (1980-85). This is rather low considering the increased attention given to Universal Primary Education during this period. During the Third Plan period (1985-90) total primary school enrolment is projected to increase by about 2.72 million or about 30.5 percent overall to a level of about 11.64 million pupils or 70 percent of primary school age children.

An encouraging feature is the increase in the number of girl pupils from 32 percent of total primary school enrolment in 1971 to 41 percent in 1984. During the Second Plan period itself the figure went up by only 1.8 percent, and, to achieve this, total female enrolment had to improve by about 25 percent. With regard to gender participation rates one source indicates that in the period 1970-81 the participation rate of girls went up from 38 to 56 percent and that of boys from 53 to 68 percent.

Social, religious and economic barriers affect the enrolment of girls though many of these are being gradually overcome. In addition the fact that only a small proportion of teachers have been women has acted as a further discouragement to parents though once again attitudes are changing and moreover, in accordance with official policy, more female teachers are being recruited.

In Bangladesh the poor quality of classroom teaching coupled with a somewhat rigid (and not very useful) testing system at the end of each Grade result in a high rate of repeaters among enrolled children. A sample survey carried out as part of the School Mapping exercise in 1983 found that out of the total enrolment (797,796 children) 20 percent were reported as being repeaters. The phenomenon was most noticeable in Grade-1 and diminished with each Grade as the following Table shows.

TABLE 2
REPETITION RATES BY GRADE

Grade	Enrolment as % of total	Percentage of Repeaters	Repeaters in Grade as % of Total
I	41.6	24	50
II	19.6	19	17
III	16.6	17	14
IV	12.4	17	11
V	9.7	14	7
I - V	100.0	20	100

Source: School Maps, Facilities Department, Table-9

No figures are available on how many children are more than first time repeaters (within the same Grade or in earlier Grades) but the simple fact that 20 percent of all enrolled children are repeaters and that half of these are in Grade-1 points to a serious enough problem. Although the general practice in schools seems to be that children who spent a year in the "baby class" do not get classified as repeaters when they enter Grade-1 proper the following year, the high percentage of repeaters in Grade-I may be the result of the "baby class".

Although initial enrolment in Grade-1 is reasonably high (partly swelled by the so-called baby class), there is a dramatic decline in subsequent Grades due to repetition and drop-outs. It has been estimated that out of every 100 children that enrol in Grade-1, less than 20 reach Grade-5. The dropout problem is particularly severe in Grades-1 and 2 (where it could be as high as about 37 percent and 22 percent respectively) but continues throughout the five year cycle.

TABLE 1

NUMBER OF TEACHERS IN PRIMARY SCHOOLS 1951-1984

Year	Number of Teachers			Percent Female	Teachers per school	Pupils per teache
	Total	Male	Female			
1951	64,815	61,942	2,873	4.4	2.46	36
1961	80,524	78,803	1,721	2.1	3.02	41
1971	117,275	114,734	2,541	2.2	4.08	43
1972	136,508	133,270	3,238	2.4	4.32	47
1973	155,742	151,806	3,936	2.5	4.26	50
1974	150,267	144,378	5,889	3.9	4.10	52
1975	164,617	156,220	8,397	5.1	4.12	51
1976	172,448	163,690	8,758	5.1	4.28	48
1977	174,384	163,537	10,847	6.2	4.24	48
1978	171,024	157,176	13,848	8.1	4.09	44
1979	172,781	158,560	14,221	8.2	4.07	45
1980	174,161	159,323	14,838	8.5	4.09	46
1981	174,447	158,821	15,626	9.0	4.11	47
1982	175,871	158,830	17,041	9.7	4.12	49
1983	178,589	158,028	20,561	11.5	4.15	50
1984	183,658	160,386	23,272	12.7	4.25	52
Increase	66,383	45,652	20,731	-	-	-
1971-84	56.6%	39.8%	X 9			

Source: Based on BBS Table 1.2

PRE-SCHOOL LEARNING

As far as the Education Sector is concerned, any form of pre-school activity in the Government sector, be it formal or informal, has been discouraged since it is feared that it would lead to demands for institutionalizing and formalizing a pre-school class which the Government feels it cannot afford when it already faces such tremendous organizational and financial problems in dealing with the normal primary schools. Despite official positions, however, pre-school education is a growing sector, both openly as well as hidden. The last few years have seen a veritable explosion in the number of private pre-schools and kindergartens catering mostly to the middle and upper classes and located predominantly in urban areas. The phenomenon is largely the result of the intense competition that has developed for admission to the better Government and, especially, private primary schools.

In absolute terms, however, the numbers involved are small. In 1982/83 there were 407 pre-primary schools with 3,026 teachers and 59,136 pupils. The vast majority of these schools are in urban areas, some 39 percent in the Dhaka Metropolitan area itself.

Reference has already been made to the "baby class" of pre-schoolers who accompany their elder siblings to school and comprise upto 50 percent of grade-1 in many primary schools. The baby class is not officially recognized but it is tolerated and to some extent taken into account when calculating such requirements as teachers and textbooks. There also appears to be a shift recently towards actual recognition of this phenomenon -- the distribution of specially developed "readiness learning materials" from 1986 to all primary schools is a step in that direction.

NON-FORMAL EDUCATION

The fact that the literacy rate is still below 30 percent coupled with the fact that Universal Primary Education through the formal system is not, according to current plans, going to be achieved before the turn of the century means that alternatives have to be provided. The educational needs of those children who do not enrol in primary schools, who will continue to drop out, or those youth and adults who were unable to avail of educational opportunities in the past cannot be ignored. In fact, with the increasing emphasis that has been given to Universal Primary Education during the last few years, non-formal strategies have almost been regarded (not the least within the Education Sector itself) as an unnecessary distraction, taking effort and resources away from what is seen as the only way of achieving universal education and literacy. The potential contribution of non-formal strategies to the achievement of UPE, as a necessary complement to the formal system, has generally been ignored.

Despite the lack of official Government recognition a large number of organizations, both local as well as national and international, have been involved in non-formal education activities, some for many years. While many of these include literacy as a component and some have only literacy in their programmes, many have tried to run activities that truly reflect the spirit of non-formal education and respond to basic needs. Unfortunately, the proliferation of such efforts has not meant that significant numbers of people have benefitted from them. Their impact has in fact been rather limited except perhaps that of one or two of the larger ones such as BRAC while the effectiveness and relevance of many has been highly questionable. Moreover, many so-called "non-formal" programmes are no more than poorly-run primary schools whose only claim to "non-formality" is that they do not come under the Government's

primary education structure but are locally supported and run. (In fact the goal of many such local groups is to get formal Government recognition as primary schools.) Nevertheless, in that they represent an addition to Government efforts through the formal system they play a positive role particularly since they tend to be more flexible in things such as scheduling and curricula than the formal primary schools.

What is needed is a national commitment to the concept of non-formal education as a viable option and necessary complement to the formal system and the articulation of a coherent policy within the framework of the country's education or even overall development policies that encompasses not only literacy but all the other educational needs that exist.

LITERACY

The 1974 Census, which defined literacy as the ability to read and write in any language, showed that only 25.8 percent of the population over 15 years of age were literate. By the 1981 Census the rate for the same age group had risen to 29.2 percent, an increase of only 3.4 percent.

More alarming was the increase in the absolute number of illiterates. While the number of adult literates increased from over 9 million in 1974 to over 13 million in 1981 (an increase of 42 percent, well above the population increase of 25.4 percent in this age group), the number of illiterates grew from over 27 million to almost 33 million, an increase of almost 20 percent. Thus while around 4 million more people became literate, more than six million were added to the total of illiterates. It is clear that unless a greater effort is made to prevent the younger generations from becoming illiterate, the absolute number of illiterates will continue to increase dramatically.

Although there was a noticeable improvement in female literacy rates between 1974 and 1981, the gap between male and female literacy rates remained high. The rate for females increased by 4.8 percentage points compared with the increase of 2.5 for males. The absolute number of female literates increased by over 73 percent while the increase in literate males was only 32 percent. This would seem to indicate that increasing attention to primary education for girls was beginning to make an impression. Unfortunately more recent data which would probably show an even more marked effect are not available. Nevertheless the fact remains that females were at a substantial disadvantage compared to males and accounted for 56 percent of the total number of illiterates in 1981.

TABLE 1

MALE AND FEMALE LITERACY RATES 1974 - 1981

	1974			1981		
	Population	Number of Literates	Lit. Rate	Population	Number of Literates	Lit. Rate
Male 15+	19,469	7,242	37.2	24,061	9,560	39.7
% increase				23.6	92.0	2.5
Females 15+	17,638	2,328	13.2	22,457	4,035	18.0
% increase				27.3	73.3	4.8
Total 15+	37,107	9,570	25.8	46,518	13,595	29.2
% increase				25.4	42.0	3.4

Source: Bangladesh Bureau of Statistics.

The literacy rate in rural areas has been consistently and significantly below that of urban areas although between 1974 and 1981 the gap narrowed somewhat as the literacy rate in urban areas actually declined while in rural areas it increased. The decline in urban areas is thought to be the direct result of increasing migration of the rural poor (and therefore predominantly illiterate) to urban areas. (See Table 2)

TABLE 2

LITERACY RATES 1961-1981 POPULATION 5 YEARS AND ABOVE

		1961	1974	1981
All areas	Male & Female	20.9	24.3	26.2
	Male	30.8	32.9	35.4
	Female	10.1	14.8	16.4
Urban areas	Male & Female	48.1	45.4	39.0
	Male	59.1	54.0	49.2
	Female	32.1	33.8	26.8
Rural areas	Male & Female	19.4	22.2	24.1
	Male	29.0	30.6	33.7
	Female	9.1	13.2	14.7

Despite the relative geographic homogeneity of the country, the 1974 and 1981 censuses revealed wide variations in literacy rates between different districts. (See Table 3). A wide variety of factors appears to influence the variations in literacy rates between districts: presence of significant urban areas (Dhaka, Khulna and Chittagong); the general economic status of areas (e.g. Jamalpur is regarded as one of the poorest districts in the country); and geographic and ethnic factors as in the case of the hilly Banderban district which also has a majority tribal population.

15+

TABLE 3

ADULT LITERACY RATES 1974 & 1981 BY DISTRICT

(In ascending order of 1974 rate for both sexes)

District	1974			1981		
	Both sexes	Male	Female	Both sexes	Male	Female
Bandarban	-	-	-	17.3	26.4	5.6
Jamalpur	-	-	-	18.1	25.4	10.7
Mymensingh	18.9	26.8	10.3	21.5	29.2	13.4
Pabna	19.5	28.4	11.1	24.3	33.6	14.7
Kushtia	20.2	28.9	10.9	22.3	30.7	13.3
Chittagong H T	20.8	31.8	7.3	26.6	38.1	11.1
Rangpur	20.9	32.3	8.6	22.7	33.6	11.3
Tangail	21.5	31.5	10.6	25.3	45.9	15.5
Faridpur	21.7	32.5	10.4	26.2	37.0	15.5
Sylhet	22.2	33.5	10.6	23.6	32.8	13.8
Rajshahi	24.3	36.6	12.0	26.0	36.4	14.8
Comilla	25.4	37.7	12.8	29.1	39.7	18.6
Jessore	26.1	38.4	12.9	29.5	41.4	16.8
Noakhali	27.2	40.3	13.6	32.5	44.4	21.5
Bogra	27.2	40.3	13.0	28.3	39.6	16.4
Dinajpur	27.3	42.3	10.6	27.4	40.4	13.3
Chittagong	30.5	43.7	14.1	33.8	45.2	20.3
Patuakhali	30.8	44.0	16.8	37.5	48.6	26.1
Dhaka	32.3	43.4	18.5	37.8	48.3	24.9
Barisal	34.5	45.7	22.3	40.9	50.2	31.1
Khulna	35.2	48.7	19.6	38.3	50.5	24.2
No. of districts						
- below average	10	9	13	14	12	15
- above average	9	10	6	7	9	6

The Second Five-Year Plan (1980-85) accorded high priority to the eradication of illiteracy. The Mass Education Programme (MEP), started in in 1980, and which was to be continued during the SFYP, envisaged covering about 40 million illiterates in the 10-45 year age group. By 1982, however, the Programme had been abandoned having fallen well short of its targets. An Evaluation Committee set up by the Government in early 1982 found that as against the declared target for the period of covering 10 million illiterates, only about 700,000 people were supposedly made literate at a cost of about Tk. 78 million. Among the reasons given for its failure were: insufficient motivation among the learners; lack of commitment among officials serving at the lower tier as well as local leaders; ineffective methods of teaching; faulty approaches to the organization of the programme; minimum involvement of non-government organizations; lack of any direct application of skills learned in the programme; and a feeling among the target groups that the programme has no relevance to their immediate needs and requirements. Basically the programme had been too ambitious, poorly thought out and planned and consequently suffered from organizational, logistic, operational and conceptual problems.

It has been estimated that between 1980 and 1984 the sixteen major NGOs and quasi-government organizations involved in various types of activities that include literacy training imparted training to less that 400,000 adults. Their efforts could become much more meaningful and their output increase significantly if they were integrated into a coordinated national literacy drive that the country obviously needs if the problem of illiteracy is to be attacked in any systematic way.

The Third Five-Year Plan (1985-90) has targeted a relatively modest 2.4 million new adults to be made literate by 1990. For this a sum of Tk. 250 million (2.05 percent of the total allocation for the education sector) has been allocated. The newly-elected Upazila (sub-district) authorities will be responsible for the implementation of the Third Plan literacy programme. Technical and material support will be provided by the Centre and by central government officials posted in the Upazilas. Whether and to what extent the newly empowered Upazila Councils can perform the many local development functions delegated to them, including illiteracy eradication movements, remains to be seen.

It appears that the Government is placing the main burden for achieving universal literacy on formal primary education. Yet the disadvantages of relying only on this strategy are obvious: it is slow; the needs of a large part of the already illiterate will be ignored; and, perhaps most seriously, even if children achieve literacy through primary schools, there is no guarantee that they will retain it. Post-literacy activities through non-formal strategies are therefore of vital importance.

CHAPTER 3
NUTRITION

1. Situation

Hunger and malnutrition affect most of the people of Bangladesh, especially children under five years of age, and pregnant and lactating women. Only 5 percent of the population consume an adequate quantity and quality of food. Malnutrition, which begins during fetal development, lowers resistence to infections and prohibits healthy growth and development from infancy through childhood, with subsequent detrimental affects on adult health. In particular, the malnutrition of girls - which is widespread in Bangladesh - has serious consequences for the reproductive process including pregnancy and lactation. The weight and heights of pregnant women, measured in different income groups in urban and rural areas (See Table 1) show how large the percentages of women are who have sub-normal weight and height. Data on post-delivery maternal weights are consistent with the low mean weight of adult females. The pervasiveness of maternal malnutrition in Bangladesh is also evidenced by the high incidence of low birth weight babies (See Table 2). Moreover, it is known that a high proportion of the low birth weight babies are small-for-gestational age.

Nutrition surveys made since 1981 consistently record the high levels of second and third degree malnutrition in children, including both chronic and acute cases. One survey of rural children aged 0-59 months found 60 percent identified as having 2nd or 3rd degree malnutrition. The greatest prevalence of acute malnutrition was found among rural children aged 12-23 months, at a rate of 61 percent; and the greatest prevalence of chronic malnutrition was also found among children 48-59 months at a rate of 75 percent. All available evidence shows that the condition seems to have deteriorated since the early 1970's.

The numbers of severely malnourished children have increased, and the numbers of mildly malnourished children have decreased. The proportion of rural households falling below the minimum standards of nutrition increased from 59 percent in 1975-76 to 76 percent in 1981-82, and went down to 64 percent in 1984-85.

There are indications that the proportion of children of 0-5 years of age suffer from severe forms of malnutrition at a rate more than double that of children of the age group of 5-14 years. This wider incidence of malnutrition in younger children reflects the problems of poor weaning practices coupled with inadequate food supplementation during the most critical period of their growth and development. Poor weaning practices is one of the most critical areas.

Malnutrition in the later years of 5-14, though half the incidence, shows a prevalence of stunting which persists among 3/4 of these children, due to the cumulative effects of long-term nutritional deprivation.

Evidence shows that there is considerable sex-differential of malnutrition in early and late childhood: females having greater rates of acute, chronic and concurrent acute and chronic malnutrition. Male preferences in feeding and dietary patterns exist, as do male preferences for health care; the two combine to put females at a distinct disadvantage nutritionally. Female children have almost three times the rate of malnutrition of males and a 45 percent higher mortality rate among the severely malnourished.

Broken down by food consumption patterns, it has been shown that per capita caloric consumption has deteriorated significantly in the last two decades, despite the overall positive foodgrain situation. Available data on daily per capita protein consumption suggest severe deficiencies in both quantity and

quality. Assessment of other nutrient intake reiterates this decline in intake. Average per capita intake of Vitamin A is less than one-third of the recommended daily allowance; Vitamin A deficiency among children 0-6 is the main cause of child blindness in Bangladesh. It is estimated that approximately 5 percent of rural children aged 6-59 months have xerophthalmia. Approximately 30,000 children (0-6) become blind each year due to macro and micro nutrient deficiencies, especially Vitamin A; about 50 percent of these children do not survive.

Iodine deficiency in affected districts is reported in 30 percent of the general population, and 80 percent among pregnant and lactating women. Out of the total population of 5.6 million in the 10 districts where goitre is hyperendemic, it is estimated that on an average, 3.8 million are suffering from iodine deficiency.

Iron folate deficiency is very high in young children and women in the reproductive age group; approximately 82 percent of under-5 age children have anaemia, and 74 percent of adult women.

Although the vast majority of women breastfeed their infants, there is a problem of not feeding colostrum in the first critical days of life.

The problems of malnutrition cannot be isolated from the poor health conditions, as they are closely interconnected causally. This is especially relevant to the young children and women in the reproductive age group. The high incidence of diarrhoeal diseases, fevers, measles and intestinal parasites among other infections in children contributes to the high rates of malnutrition in this group.

The causes of malnutrition are complex and involve problems inherent in the vicious cycles of poverty and underdevelopment, which characterize the daily situation of more than 80 percent of the population of Bangladesh. They include low purchasing power (low income, unemployment, and underemployment) of families, particularly of women; high levels of landlessness; gross inequitable distribution of resources; poor environmental conditions; and lack of education and information about good dietary practices. The latter is complicated by the existence of cultural practices and beliefs about food intake during pregnancy and lactation, which tend to exacerbate problems of balanced nutritional intake.

Furthermore, the causes of malnutrition cannot be separated from the wide ranging political and economic issues involved with food and agricultural production, pricing, distribution and so forth. Food policies are critical since the mere production of increased levels of food are not adequate for improving the nutritional situation of the population unless the nutritional needs are taken into account.

2. Current Programmes and Resources

Programmes for the prevention and reduction of malnutrition fall under the aegis of a number of different government ministries, for example, the Ministries of Agriculture, Food, Health and Family Planning, Education, Information, and Social Welfare. While it is necessary for all Ministries to be involved in eliminating or reducing the causes of malnutrition, there have been problems of lack of coordination and of duplication. The problems have persisted in the absence of a national nutrition strategy.

A National Nutrition Council exists; but, while it has been instrumental in assisting the development of various small nutrition activities, it has not played a major role in policy and strategy development. It has prepared a standard growth chart for use in the country as part of primary health care, and will be developing a growth monitoring programme. It is located in the Ministry of Health and Family Planning.

The Institute of Public Health and Nutrition (IPHN) is responsible for the establishment of child nutrition units in the Upazila Health Complexes, and provides technical support for other nutrition activities in the health programmes. So far only 20 child nutrition units have been established.

The Institute of Nutrition and Food Sciences (INFS) has played an important role in providing technical support and carrying out relevant research.

The Ministry of Health and Family Planning has only limited programmes concerning nutrition, and primarily related to the nutritional deficiency diseases:

Vitamin A deficiency: The Blindness Prevention programme focuses on the distribution of High Potency Vitamin A Capsules and aims to cover all children from 0-6 years of age, and children with night blindness of 7-15 years, twice a year, at 6 monthly intervals. The target population is 23 million children per year. Low coverage rates (less than 50 percent of target) have been a problem. Education activities aimed at encouraging home production, preservation, and consumption of Vitamin A rich foods are also part of the programme.

Iodine deficiency: The Goitre control programme concentrates on the ten hyper-endemic areas in the country. Lipiodol injections are being administered to boys up to the age of 15,

and to females, up to 45 years of age. The target population is approximately 3.8 million people. Coverage to date has been rather low. A more ambitious programme is the effort to promote the nationwide supply and consumption of iodated salt in Bangladesh through universal salt iodation by 1990.

The Bangladesh Bureau of Statistics is carrying out a National Household Expenditure Survey which has a nutrition component.

The vulnerable group feeding (VGF) programme of the WFP is carried out under the Ministry of Food and Relief. It provides bulk food on a monthly basis to selected families in each union. It is mainly an income transfer activity, without nutrition targeting or nutrition education.

The Food for Work Programme (FFWP) is also an income transfer activity. It aims at providing employment and payment in the form of foodgrain to landless labourers in rural areas in the non-agricultural season. It is an important programme in the country; in 1982/83 98 million man-days of work were generated, and about 350,000 tons of wheat were distributed.

A large number of non-governmental agencies provide nutrition services to mothers and children throughout the country. Notable among these are the following:

- CARE: Women's Development Project (target population 135,000 women and children)

- Concern: Nutrition Rehabilitation Centre

- ICDDR,B: Matlab Field Station (target population 80,000 people)

- Radda Barnen: MCH Project, Nutrition Department (700,000 population)

- Save the Children UK: Children's Nutrition Unit

- Save the Children USA: Health and Nutrition Programme (50,000 women and children)

While these programmes are encouraging, the coverage of mothers and children in the country does not even come close to meeting the urgent needs of the vulnerable groups. The resources are miniscule compared with the requirements.

There is a need for a coherent and phased nutrition strategy and the development of a food and nutrition policy which is relevant to the political and economic situation.

TABLE - 1

WEIGHT AND HEIGHT OF PREGNANT WOMEN, 1983

Socioeconomic Sector	% with Weight below 50 kg	% with Height below 147 cm
High income Urban	44.8%	32.4%
Low income Urban	83.4%	44.6%
High income Rural	76.9%	38.5%
Low income rural	100.0%	57.1%

Source: C Canosa. Deterioration of Nutrition in Bangladesh WHO, 1983.

TABLE - 2

BIRTH WEIGHT OF NEW-BORN BABIES (Kg)

Socio Economic Category	N	New Weight	S. D.
High Urban	112	2.80	0.55
Low Urban	339	2.63	0.46
High Rural	16	2.33	0.61
Low Rural	29	2.38	0.37

Source: C Canosa. Deterioration of Nutrition in Bangladesh. WHO. April 1983

CHAPTER - 4
HEALTH

1. Situation

The health conditions of mothers and children in Bangladesh are very poor; estimates of maternal, neonatal, infant and childhood mortality and morbidity rates are extremely high in relation to other developing countries in Asia. Maternal mortality is estimated at 6 per 1000 live births (See Table 1). The major causes of death are eclampsia, infections (childbirth and septic abortion), complications of labour, and haemorrhage. The nature of these causes indicate the significance of unhygienic practices and inadequate care as contributing factors. The distribution of maternal deaths per age group and by parity show the importance of family planning as a maternal health measure; the fact that septic abortion is a frequent cause of death also confirms this.

The neonatal mortality rates shown in Table 2 average 85 per 1000 live births. Neonatal death (up to one month) continues to comprise a large proportion of infant mortality, which reflects the very low levels of women's health and nutrition as well as the poor birth practices prevalent in Bangladesh. These rates correlate positively with the figures for low birth weight; the fact that most of the low birth weight babies are small-for-gestational age is another indicator of poor maternal health and nutrition. Tetanus contributes to about one-third of all neonatal deaths, with about 135,000 deaths per year.

The high infant mortality rate of 125 per 1000 live births is officially given, though there is evidence of much higher rates in some areas (See Tables 3 and 4). Childhood mortality (ages 1 - 4) is given at 25 to 30 per 1000 population of that age (See Tables 5 and 6). The main causes of neonatal, infant

and childhood mortality include birth trauma, tetanus, diarrhoeal diseases, pneumonia and measles, in combination with malnutrition. At least 50 percent of the causes of infant deaths are due to tetanus, respiratory infections and diarrhoeal diseases. Malnutrition, combined with diarrhoeal diseases cause over 50 percent of childhood mortality, followed by measles and its complications (See Table 7).

Infectious diseases such as cholera, typhoid, tuberculosis, tetanus, diphtheria, whooping cough, measles, and parasitic diseases (eg. malaria and worm infestations) are major cause of morbidity of women and children. For example, the incidence of measles is 2.5 million cases per year, with an estimated 45,000 deaths; paraplytic polio effects an estimated 10,000 new persons per year. Malaria in particular is on the increase and of great concern. In addition, the levels of morbidity of women in the childbearing ages have not been adequately studied. It is known from clinical evidence however that of these 20,000,000 women, at least 50 percent are suffering from nutritional anaemia, and a considerable proportion are also suffering episodes of genital tract infections due to complications or side effects of certain family planning methods, septic abortion and childbirth, among other causes.

Nutritional deficiency diseases in children also make up an important percentage of morbidities; for example xerophthalmia (Vitamin A deficiency) is estimated at 5 percent of rural children under 6.

Infant and childhood mortality and morbidity are closely related to the educational level of the mother. Women's literacy in Bangladesh is estimated at 18.8 percent, and thus this relationship is especially significant in the country. Other factors comprising the low status of women in Bangladesh such as low income and low access to the public sector are closely associated with poor infant and child health and development. The synergistic interaction of malnutrition and

infections as causes of infant and childhood mortality and morbidity is heightened in the rural and urban settings where there is a lack of safe drinking water and sanitation.

The major health problems of mothers and children in Bangladesh are striking because the proportion of death and illness which could be prevented is so high. They could be prevented by applying relatively simple interventions which are available now, at an affordable cost, and which are possible to deliver within the health and family planning system.

2. Current Programme and Resources

The government's health sector infrastructure and resources are amalgamated within the Ministry of Health and Family Planning, which consists of two wings, or directorates, under the Secretary of Health and Family Planning, namely the Health Wing and the Family Planning Wing. Programmes and services concerning the health care of women and children are included within both these wings. The official policy is that services are integrated at the level of Upazila and below. This bifurcation of health and family planning has caused problems of coordination, particularly in terms of maximum utilization of facilities and staff.

Institutional facilities: the Upazila Health Complex (UHC) and the Union Health and Family Welfare Centres (UHFWCs) constitute the peripheral network of static health and family planning centres. There are District hospitals and specialized hospitals which make up the referral points for primary health care, as well as medical college hospitals and others (See Table 8). It is estimated that health care facilities have so far covered only 30 percent of the total population.

The problems include inadequate maintenance of buildings, inadequate water and sanitation facilities, lack of essential physical and functional facilities (eg. laboratories), and inadequate supply of drugs, supplies and equipment. While financial limitations exist, some of these problems are exacerbated by poor management of the logistics system, and by lack of supervision.

In the area of health manpower resources, substantial progress has been made in terms of the education and training of health and medical personnel (See Table 9). However, there is a need to reorient curricula towards a primary health care approach, and to introduce more practical training in skills relevant to the needs in the rural areas.

The staffing pattern of the health and family planning systems includes centre-based and field workers, who are based at the ward level. There are also community-based health volunteer schemes in many areas. The health personnel to population ratio, though not completely satisfactory, is being improved; for example there has been a progressive increase in the ratio of female field workers (FWAs) to population (currently 1: 4000 population) in the rural areas. There are serious problems of supervision and personnel management particularly in the rural periphery. Moreover, there is a problem of the rational utilization of health and family planning staff, especially at the Union and ward levels, where integration of MCH/FP services is needed. A harmonization of job descriptions and training is required to ensure maximum use of the time, training and motivation of field-based staff and to improve their acceptability by the community. The team work approach needs to be institutionalized.

The main service programmes are Family Planning and Population Control, Malaria Control, TB Control, Diarrhoeal Diseases Control, Blindness Prevention, Expanded Programme on Immunization, Control of Iodine Deficiency Disorders, MCH, Nutrition and curative services at health centres and hospitals. In general, however, coverage tends to be rather inadequate.

Moreover, there is a serious problem of underutilization of services in the rural areas, due in part to the generally poor quality of services arising out of inadequate technical and management systems coupled with an inadequacy of essential supplies. Also, lack of information and education of the people about the importance of primary health care for mothers and children, and other social factors (including the low status of women) inhibit the use of health care services.

3. Health and family Planning Policies and Strategies

Successive health plans have emphasised Primary Health Care (PHC) as the key approach to the improvement of the health status of the people. The global strategy of Health For All By The Year 2000 has been accepted by the government as the national objective.

The national drug policy adopted in 1982 emphasizes the provision of a limited number of selected essential drugs for primary and secondary health care, and their local production.

A Comprehensive National Strategy for Maternal and Child Health was endorsed by the Secretary of Health and Family Planning in 1985. It gives priority to the three areas of immunization, safe birth practices, and oral rehydration therapy, in addition to family planning. The Strategy represents a pulling together of the aims and approaches of the priority component programmes of immunization, safe birth practices, oral rehydration, and family planning, as well as looks forward to an integrated and more comprehensive MCH programme, which will gradually be developed in response to all of the health problems of mothers and children. The Strategy emphasizes the prevention of major causes of death, by widespread implementation of a small number of interventions.

The overall goal of the MCH programme for the Third Five Year Plan, 1985-1990 is to improve the health conditions of mothers and children, through the reduction of mortality and morbidity, specifically to

- reduce maternal mortality from 6 to 4 per 1000 live births

- reduce infant mortality from 125 to 100 per 1000 live births; and neonatal mortality from 85 to 65 per 1000 live births

The overall objectives are:

- to ensure access of women to care during pregnancy and delivery by trained persons

- to reduce mortality, morbidity and disability from tuberculosis, tetanus, diptheria, pertussis, measles, and poliomyelitis, through immunization

- to reduce morbidity and mortality due to diarrhoeal diseases and diarrhoea-related malnutrition:

  - to reduce mortality due to diarrhoeal disease by 30 percent

  - to reduce hospital utilization of intravenous fluids by 50 percent

  - to reduce hospital/other visits by diarrhoeal cases by 30 percent

- to reduce crude birth rate of women in extreme age and high parity groups through family planning

- to develop self-sufficient MCH care as part of primary health care and increase coverage of comprehensive services to mothers and children.

The process or specific objectives are:

1. to ensure that at least 30 percent pregnant women have been contacted, and are

   assessed for risk; provided knowledge on safe deliveries;

   educated on nutrition; informed of availability of trained birth attendants in health facilities or of trained TBAs;

   in addition, the trained FWV will provide antenatal and postnatal care to about 2000 population around each static facility.

2. to have 30 percent of deliveries in rural areas attended by trained birth attendants; and about 10 percent of all births, urban and rural, in institutions, equipped for handling high risk cases

3. to cover 30 percent of women of childbearing age with two doses of TT

4. to cover 55 percent children 0-2 years in areas with primary EPI centres with BCG, DPT, Measles and OPV (0.63 million)

5. to cover 30 percent children 0-2 years in areas with UHFWC's with BCG, DPT and Measles (0.60 millions)

6. to cover 75 percent families in rural areas with information on prevention and treatment of diarrhoeal diseases; and to have 35 percent of households using ORT

7. to achieve a 40 percent contraceptive prevalence rate

8. to cover 30 percent of mothers and children with curative care in areas surrounding the static health facilities

9. to educate 50 percent of households in MCH practices including hygiene, maternal nutrition, and infant feeding.

In late 1985 the government committed itself to reaching the target of universal child immunization by 1990. The EPI related objectives of the MCH strategy have been amended accordingly and detailed programme guidelines prepared for the accelerated EPI programme.

The policy basis of the health programmes are generally satisfactory. Greater efforts are needed in their planning and implementation.

Table 1:

Maternal Mortality Rates (per 1000 live births) Found in Different Studies in Bangladesh

Studies Conducted by	Study Area	Approx. size of pop.(1000)	Study Time	Maternal Mortality Rates
ICDDR,B	Matlab	180	1967-68	7.7
ICDDR,B	Matlab	180	1968-70	5.7
BAMANEH	Islampur and Jamalpur	267	1982-83	6.2
Alauddin	Gopalpur and Bhuapur	300	1982-83	5.7
BAMANEH Project	Chandina, Gabtali & Tongi	137	1982-83	4.8

Source: National Strategy for A Comprehensive Maternal and Child Health Programme, Ministry of Health and Population Control Population Control Wing, Dhaka, January 1985.

TABLE 2

Neonatal Mortality Rate (per 1000 live births Found in Different Studies in Bangladesh

Author	Agency	Year of Study	Place of Study	Rate
Islam et al 1981	ICDDR,B	1976-77	Teknaf	89.0
Rahman, M et al 1981	ICDDR,B	1976-77	Matlab	73.4
Rahman, S et al 1981	NIPORT	1979	Ghatail	70.1
Rahman, S et al	NIPORT	1979	Ghatail	85.2
Jahan,F A et al 1984	BAMANEH	1982-83	Jamalpur	80.5
Alauddin, M 1984	ISWR	1982-83	Tangail	117.0

Source: National MCH Strategy, p.4.

TABLE 3

Infant Mortality Rates Derived from Different Sources for Different Time Periods

Year	ICDDR,B (Matlab)	BRSFM	BFS/WFS	CSD Companiganj
1969-70	125.5	-	-	-
1971-72	146.6	-	-	-
1974	137.9	153.0	-	-
1975	191.8	-	150.0	139.7
1976	102.9	-	-	121.0
1978	125.8	-	-	115.2
1980	114.0	-	-	-
1982	114.5	-	-	-

Source: National MCH Strategy, p.4.

TABLE 4

DIVISIONWISE POPULATION SHOWING NUMBER OF CHILDREN BORN AND INFANTS DIED DURING THE LAST ONE YEAR PERIOD

Division	Population Surveyed	Number of Births	No.of Infant Died in 1 yr.	Birth Rate (Estimated)*	Infant Mortality Rate per 1000
Dhaka	7,877	296	45	37.57	152.02
Chittagong	5,283	192	17	36.34	88.54
Khulna	7,546	291	37	38.56	127.14
Rajshahi	5,173	219	37	42.33	168.94
Total:	25,879	998	136	38.56	136.27

* The population at the time of survey has been used as the denominator instead of the mid-year population.

Source: Morbidity and Mortality Survey on Diarrhoeal Diseases, Government of Bangladesh, December 1983, p.8.

TABLE 5

Child (1 to 4 years) Mortality Rate in Companiganj and Matlab in Different Years

Year	Companiganj	Matlab
1975	57.1	-
1976	58.0	29.6
1978	14.7	-
1981	-	22.0

Source: National MCH Strategy, p.5.

TABLE 6

AGE SPECIFIC MORTALITY RATE

Age in years	Number of Children	Number of Deaths	Mortality Rate per 1000
0 - <1	998	136	136.27
1 - <5	3,689	80	21.68
0 - <5	4,687	216	46.08

* Inclusive of death children

Source: Morbidity and Mortality Survey, p.9.

TABLE 7

Causes of Death Among Children under 5 Years of age in Matlab (1981) and Companiganj (1975-78)

Causes of death	Companiganj						Matlab			
	0-28 days		1-11 months		1-4 years		1 year		1-4 years	
	No.	%	No.	%	No.	%	No.	%	No.	%
Birth injury	67	54.2	-	-	-	-	-	-	-	-
Tetanus	31	25.0	3	3.2	-	-	340	38.3	30	3.8
Measles	1	0.8	4	4.3	12	7.1	14	1.6	65	12.3
Pneumonia	15	12.0	31	32.9	23	13.5	-	-	-	-
Respiratory diseases	-	-	-	-	-	-	103	11.6	54	10.2
Malnutrition	2	2.4	26	27.7	39	22.9	-	-	-	-
Diarrhoeal diseases	1	0.8	12	12.8	54	31.8	31	5.5	122	23.1
Drowning	-	-	2	2.1	14	8.2	3	0.3	53	10.0
Others	6	4.8	16	17.0	28	16.5	397	44.7	215	40.6
Total:	124	100.0	94	100.0	170	100.0	888	100.0	529	100.0

Note: Respiratory diseases include cold, fever, cough, TB, asthma, etc.

Source: National MCH Strategy, p.67.

TABLE 8

HEALTH CARE DELIVERY INFRASTRUCTURE

Institutions	Actual 1984/85	Target 1989/90
1. Hospital Beds		
a) Health Services	19,661	29,534
b) Others	7,976	11,200
2. Upazila Health Complex(UCH)	341	397
3. Union Health & Family Welfare Centres(UHFWCs)	2,329	4,500
4. Health Posts(community based)	-	397
5. Blood transfusion services, District Hospitals	20 90 coverage	64 90 coverage
6. Health Laboratory Services		
a) Simple diagnostic-UHC	20%	100%
b) District Laboratory	25%	60%
c) Simple Tests-UHFWCs.	5%	25%
7. X-ray facilities in UHCs	20%	60%

Source: Third Five-Year Plan: 1985-90.
Planning Commission, Ministry of Planning, Government of Bangladesh, Dhaka, December 1985.

TABLE 9

HEALTH MANPOWER

Personnel	Actual 1984/85	Target 1989/90
1. Graduate Medical Doctor	16,000	22,500
2. Post-Graduate Doctor	1,050	2,100
3. Dentist	510	750
4. Basic Nurse/Midwife	6,500	10,200
5. Medical Assistant	3,600	4,600
6. Laboratory Technician	1,350	2,000
7. Radiographer	350	700
8. Pharmacist	5,800	8,500
9. Health Sanitary Inspector	1,265	1,500
10.Assistant Health Inspector	1,870	4,500
11.Health Assistant	15,000	23,000
12.Senior Family Welfare Visitor	-	460
13.Family Welfare Visitor*	4,200	6,000
14.Family Welfare Assistant *	13,500	23,500

Source: Third Five Year Plan: 1985-90: Planning Commission, Ministry of Planning, Government of Bangladesh, Dhaka, December 1985.

* Draft TFYP, Population Wing, Ministry of Health and Family Planning, Government of Bangladesh.

WATER AND SANITATION

CHAPTER 5

Water Supply

The hydrology of Bangladesh is characterised by the major cross-border rivers (Brahmaputra, Ganges and the tributaries forming the Meghna) and by abundant annual rainfall (2183 mm or 86 inches), of which 80-85% falls in the monsoon months June to September. The monsoon rains result in widespread flooding, with the major rivers typically covering almost one third of the country and another third going under water due to poor drainage. About two-thirds of the annual rainfall is "lost" in evaporation and evapotranspiration and about 15% percolates underground, raising the water table close to ground level. In the dry season, while flood waters recede and pond and groundwater levels fall, general water availability remains high in most parts of the country. For the vast majority of the country, the ground water table never exceeds 15m.

The most significant development in the last decade has been the dramatic increase in power-driven deep and shallow tubewells for irrigation. As most irrigation takes place in the dry season there is a significant decline in groundwater levels during this period, particularly in localised areas of high extraction. In addition, there is a more severe but temporary effect caused by the local depression of groundwater during operation of power-driven irrigation tubewells. Although water levels recover in the monsoon, an increasing number of shallow hand tubewells become inoperative during the last few months of the dry season, because the water table falls below the suction limit (7-8 metres).

Coverage and Access

Table 1 shows the average national coverage of installed tubewells by tubewell type. An estimated nine million people who are served by private shallow tubewells are separated from the coverage calculations. It is significant to note that although national coverage is 143 persons per operating tubewell, there are enormous differences between shallow wells (approx. 100), deep wells (approx. 600) and deepset (approx. 1200).

Surveys in 1984 indicated that 82% of rural people used a handpump for at least some of their water needs; 70% of users live within the 150m (500 ft); 66% of users use a public handpump; 70% of handpumps serve between 60 and 180 people.

As expected, public handpumps are situated closer to richer households; 80% of user households owning more than 7.5 acres live within 100 metres of a tubewell, compared to 45% of landless users. However, there is surprisingly little difference in water use patterns between rich and poor tubewell users. (These figures are applicable only to shallow tubewell areas).

Water Use

It is a positive achievement that over 82% of rural villagers say they use tubewell water for drinking. However, even if they drink tubewell water, children will still contract diarrhoea as long as they remain exposed to faecal pollution in surface water and in the home environment. Only 12% of tubewell users use it for all their water needs, which means that the vast majority of rural people still use ponds and other surface water bodies. Encouraging the use of tubewell water for all purposes will reduce exposure of under-five children to polluted

water when they accompany their mothers to the water source; however, in a society with low health awareness, use of tubewell water is a function of distance, access, convenience and user group size. Data from the International Centre for Diarrhoeal Diseases Research, Bangladesh showed that average daily per capita consumption was 19 litres where the average user group size was 82, and 53 litres where the average size was 12. Tubewell platforms are too small for simultaneous use by more than one person, and only those living very close to the tubewell will find it more convenient than the nearest pond. Furthermore, whereas caretakers of public tubewells usually permit beneficiaries to draw the limited amounts currently utilized, they may discourage dramatically greater use of the tubewell if this becomes seen as a "nuisance" by the caretakers.

Ways to increase tubewell water consumption include:

a) reducing user group size and distance to the tubewell by installing more tubewells.

b) increasing platform size.

c) increasing perceived right of access by involving all beneficiaries in tubewell installation.

d) creating greater public awareness of health hazards to young children of exposure to surface water sources.

Sanitation

A survey in 1984 indicated that 33% of the rural population uses a "fixed place" for defecation, 90% of which lie within the outer yard of the compound. Only between 2-4% of households have a "sanitary" latrine. Children find latrines smelly and are often afraid of falling into the pit; they also dislike dark enclosures. (Women, on the other hand, regard the enclosure as the most important feature). Children under 5 defecate close to the home (on average 9 metres from the living room), whereas adults go further (women 27 metres, men 35 metres).

The most widespread technology for sanitary latrines is the single pit, pour-flush water-seal slab latrine, which has become enormously successful in the last ten years. The public sector sale prices of these latrines is subsidized by approximately 50%; because demand far exceeds public sector production, private sector production is growing.

For poorer people, the most appropriate technology is the simple pit latrine made entirely from local materials. The slab can be made from wood or bamboo. To avoid collapse, the pit should be shallow unless the soil is stable or the pit is lined.

The high water table in the monsoon is a complicating factor for any sanitation technology. The usual method to reduce this is to build up the level of the slab, using the soil excavated from the pit. There appears to be no solution to the problem of pit inundation by surface flooding.

Relationship to Infant and Child Mortality and Morbidity

There are no national statistics relating water, sanitation and health awareness to mortality and morbidity. A study conducted in 1983 records that there are an estimated 57.2 million annual episodes of diarrhoea in children under five, causing an estimated 200,000 child deaths. Discounting deaths in the first month of life, diarrhoea accounted for 43% of mortality between the age of 29 days and 5 years. Diarrhoea and parasitic diseases are also known to be major contributory factors to the high incidence of child malnutrition.

A study by ICDDR,B suggested that the risk of post neonatal mortality (i.e. age over one month and under one year) was three times greater in families without a latrine compared to those with. Another study by ICDDR,B indicated that in a community that had received health education through home visits, the incidence of diarrhoea in children living under 150 metres from a handpump was nearly half the incidence in those living over 150 metres.

Government Programme

There are four main components of the Government's current rural water supply programme. The installation of shallow hand tubewells is now implemented by the beneficiaries, who themselves bear the total cost of and responsibility for sinking the well. The Department of Public Health Engineering (DPHE) provides logistic support and technical supervision. Current implementation capacity is approximately 40,000 wells per year. Secondly, the resinking of choked up wells is also implemented by the beneficiaries at their own cost; 15 - 20,000 wells can be resunk each year. The installation of deepset hand tubewells is expanding rapidly and will eventually become larger than the shallow well component. Fourthly, the installation of deep hand tubewells (and very shallow shrouded tubewells) in the coastal belt. This component is constrained by the high cost of deep tubewells. For deepset and deep tubewells and VSSTs, installation is done by contractors, with a nominal contribution from the beneficiaries of Tk. 350 for deepset and VSSTs and Tk. 1,000 for deep wells. In all tubewell components, materials are provided by UNICEF, with the exception of brick chips and sand for platform construction.

Water supply and sanitation receive reduced priority in the Third Five-Year Plan (1985/90) in line with the reduced priority for the social sector as a whole and this is largely a consequence of increased priority to the development of the Upazila system and to the Energy and Natural Resources Sector. (See Table 2 for water sector allocations). There is a shift in emphasis towards the urban subsector which reflects the growing rate of urbanization, the higher cost of urban supplies and the general assumption in Government planning circles that the rural subsector is comparatively well served with water supply.

Within the rural subsector, priority is once again given to shallow hand tubewells. Deep and deepset hand tubewell areas are allocated relatively lower priority, despite being respectively five and ten times less well-served compared to the shallow tubewell area.

Other than the Third Five-Year Plan, the Government currently has no long-term plan for the water supply and sanitation sector. A Sector Study currently in draft stage, will propose certain criteria, targets and financial allocations for the next 30 years.

The Water Master Plan and its Effects on Groundwater

The Government has published a Water Master Plan which gives a very high priority to accelerating the extraction of groundwater for irrigation, as part of an overall strategy to achieve food self-sufficiency. This will accelerate the lowering of minimum groundwater levels. It is estimated that the percentage of the rural population living is deepset areas will increase as follows:

1985	8%
1990	20%
1995	45%
2000	60%

The estimated value of the shallow tubewells rendered prematurely useless due to the lowering of groundwater levels in this period is Tk. 56 crore ($19 million) and the cost of replacing them with deepset pumps would be Tk.270 crore ($90 million) without any increase in service coverage. In other words, the total cost to the rural water supply sector of the expected increase in irrigation will be Tk. 326 crore, over $100 million.

Water Supply and Sanitation Implementation Policies

In the past, the Government has adopted a service delivery approach to water supply and sanitation. In the rural sphere, there has been a steadily increasing involvement of the beneficiaries, both financially and through self-help. The emphasis has been on "hardware" delivery - the installation of hand tubewells, laying of pipelines and production of latrine components. In terms of hardware, this has been very successful, especially in the rural areas. However, in terms of health and social impacts, there has been very little measurable improvement.

The Government is now focussing more attention on the problem of low health impact. There is a growing recognition of the need for health promotion and awareness-raising activities and for integrating sanitation with water supply. DPHE is currently setting up a project to develop a new, integrated approach, whereby the installation of tubewells is linked with health and sanitation promotion specially targetted on new tubewell user groups. Once developed, this approach will be introduced into the regular programme.

TABLE 4 RURAL SERVICE COVERAGE BY TUBEWELL TYPE 1971-1990

	1971			1975			1980				
	target pop'n (millions)	No. of wells	persons per operating well [1]	target pop'n (millions)	no. of wells	persons per operating well [1]	target pop'n (millions)	no. of wells	persons per operating well [1]	target pop'n (millions)	
Nationwide (all public wells)	64.1	204,390	448	69.2	261,790	352	73.1	453,510	201	76.8	62
Shallow (public)	49.7	196,110	362	53.4	251,910	283	55.2	436,810	158	55.5	6
Deep (public)	6.6	7,530	1,252	7.2	8,620	1,111	7.8	12,780	763	8.5	
Deepset (public)	3.3	750	6,286	3.6	1,250	3,829	4.7	3,920	1,499	7.0	
Other	4.5	-	-	5.0	-	-	5.4	-	-	5.8	
Private Tubewells [4]	1.5	100,000	15	2.6	175,000	15	4.5	300,000	15	8.6	5
Total rural population	65.6			71.8			77.6			85.4	

Notes: 1. The number of persons per operating public tubewell is calculated assuming tubewell unserviceablity as follows: 30% (1971); 25% (1975); 20% (1980); 15% (1985); 15% (1990).

2. 1990 figures are based on implementation estimates, not on targets.

3. From 1985-1990, the shallow well area will shrink and an estimated 45,000 shallow tubewell will go out of year-round service

4. Private tubewell figures estimated by extrapolation from a survey conducted in 1983. Statistical reliability poor.

Source: UNICEF and DPHE records

TABLE 2

SECTORAL BUDGET ALLOCATIONS (in crore taka)

	First FYP 1973-78		Two Year Plan 1978-80		Second FYP* 1980-85	
1. Total Public Sector Allocation	3,952		3,261		20,125	(100%)
				[revised	11,100	(100%)]
2. Total Public Sector Expenditure	4,162		3,933			
3. Total Physical Planning and Housing Allocation					1,220	(6.1%)
				[revised	574	(5.2%)]
4. Total Physical Planning & Housing Expenditure	270	(6.5%)	241	(6.1%)	739	
5. Total Water and Sanitation Allocation					375	(1.9%)
				[revised	237	(2.1%)]
6. Dhaka and Chittagong WASAs Allocation					125	(0.6%)
				[revised	102	(0.9%)]
7. DPHE Urban Allocation					70	(0.3%)
				[revised	50	(0.5%)]
8. DPHE Rural Allocation					180	(0.9%)
				[revised	85	(0.8%)]
9. DPHE Urban Expenditure					36	
10. DPHE Rural Expenditure					113	
11. Total Rural: Urban Ratio Allocation					48 : 52	
				[revised	36 : 64]	
12. DPHE Rural : Urban Ratio Allocation					72 : 28	
				[revised	63 : 37]	

* The Second FYP was revised in 1983.

** Out of Tk.1250 crore allocated as development grant to Upazila Parishads, between 10% and 17.5% may be spent on hats and community centres, and rural water supply and sanitation. Actual investment is at the discretion of the Upazila Parisha If 3% is spent on rural water supply and sanitation, this represents an extra Tk.40 crore allocation to the rural sector

Source: Relevant Five Year Plan Documents

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COMMUNICATION
CHAPTER 6

Development in Bangladesh, as elsewhere, is constrained by a paucity of means of communication -- logistical (roads, railways, bridges) and otherwise (mass media) -- and by high levels of illiteracy. Unusually for a small highly populated country, communication in social terms is also severely hampered by water; many thousands of villages are stranded many months of the year, and villagers live in isolation, cut off from casual contact with the marketplace (literal and metaphorical).

On the other hand, there is a homogeneity in the country, both within the extended family system and in terms of language, religion and poverty which accustoms small groups of people to working, thinking and living together. Non-government organizations have found in their work that these groups cannot be assumed to extend to whole villages, particularly in the case of the landless or functionally landless, but that their responses to innovations may not vary too much round the country.

The rural-urban disparity of resources is reflected in communication resources like any other; the press and marketing infrastructure is poorly developed (5 daily newspaper copies per thousand people), and the rural share of the most developed mass media -- radio -- remains low, only a small proportion of broadcast hours.

Although statistics on media exposure are few, studies show that only a third of rural women and a half of urban women have access to a radio that works and listen to it. A half of rural women and a quarter of rural men have no access to radio at all. Two rural women out of three virtually never listen to the radio. In contrast, three-quarters of urban men listen to the radio at least several times a week. Ownership is five sets for every 100 people nationally. There are said to be 600,000 TV sets in the country.

In content, the mass media do not devote much time or space to development issues. A Radio Bangladesh survey in 1985 classified 21 per cent of programmes as 'motivation'. Less than 10 per cent of TV programmes can be classified as developmental.

Local media, including folk media, continue. Amplifiers, both in mosques and in the marketplace, are common. Itinerant folk singers are a popular medium.

Government Communication Practices

Unfortunately, the many officials tend to have the traditional faith in information as being all that is needed by way of communication to help induce behavioural change. The limitations of information alone as a means of instigating behavioural change with an unreceptive audience have not been absorbed by government extension workers, and staff are still untrained in the concepts of dialogue and participation when dealing with rural societies; all wisdom is felt to lie in the hands of authority to be handed down along with other development inputs. The considerable body of health educators, for instance, are not in the mainstream of development projects and are generally considered ineffectual and peripheral. Communication methodologies found effective by leading NGOs have yet to be adapted to the ways of government.

Social Marketing

Some success in breaking the mould of traditional ways of disseminating government policies is claimed in the field of family planning. The social marketing of contraceptives was started in 1976, when usage of modern contraceptive techniques was under 8 percent; prevalence among eligible couples in 1983 was estimated at 27 percent, partly due to the activities of the Social Marketing Project.

The same project is about to use similar advertising techniques to market oral rehydration salts (ORS), an idea that has been proven in several countries. The strategies for marketing both ORS and contraceptives hinge on one essential factor -- a monetary transaction for a tangible product. With other social innovations that are free and intangible (eg immunization) marketing techniques have yet to be tried and proven, but they will be attempted in the Expanded Programme of Immunization (EPI), using not private 'retailers' but government vaccinators.

Approaches to the Community

Some non-government organizations have achieved notable success in communicating self-help in the villages and have developed methods of interpersonal communication that have been noticed round the world. The strategy of one such organization, the Bangladesh Rural Advancement Committee (BRAC), has evolved from one of conscientization and training, to integrated services, credit support and training, and (today) to group mobilization and support as a means of empowering the poorest to solve their own problems. Conventional communication and extension methods play a supporting role only, and the emphasis is on the process rather than the medium, and on the group dynamics of the poorest sections of society.

In supporting some of the NGO successes, however, the mass media have played a notable part in what they do best -- awareness creation and reinforcement. Separate studies of the BRAC Oral Therapy Extension Programme (OTEP) have shown high awareness (87%) of ORT throughout the country and almost universal familiarity (up to 99%) in the areas where the BRAC extension staff were operational.

Up to two-thirds of women had heard media messages on ORT, and radio was by far the most important source. And the messages were remembered, somewhat better in OTEP areas than elsewhere, although reported ability to make ORT was considerably higher in the extension areas. Whatever the practices (which remain to be evaluated in terms of health impact), the fact is that about half the women sampled reported they used ORS, whether or not there had been extension activity on the ground; this is powerful testimony to the effectiveness of radio in creating awareness and thus as one tool in the development process..

Understanding the Community

Rural people are not inarticulate about their needs, and the possibilities of using their testimony to educate government front-line workers can be explored, perhaps using inter-active video techniques. The Grameen Bank has plans for an 'electronic newsletter' as a tool for small communities which have developed 'ideas that work' to communicate their experiences to others. The use of simpler technology like audio cassettes could also be explored. This may be especially so in the case of groups of women, who are denied access to communication channels even more than men.

Advocacy

The extent to which private and commercial resources can be mobilized in support of rural development is unknown. While there are a large number of voluntary organizations engaged in development work of one kind or another, large philanthropic initiatives drawing support from the commercial or industrial sectors are rare. Advocacy for children has to be done within a climate of widespread acceptance of the burden and effect of poverty; government, heavily supported by foreign aid, is perceived to bear the main responsibility for its alleviation.