Nutrition of highly vulnerable groups

The Char areas*

The enormous number of rivers that flow through Bangladesh from north to south carry an estimated 5.4 million tonnes of silt each day, or 2.4 billion tonnes each year (United Nations Development Programme [UNDP], 1995). The major portion of the silt is lost in the waters of the Bay of Bengal, but about one third forms the "char" lands, thousands of riverine bars and islands, both small and big, particularly along the basins of the Padma, Jamuna and Meghna rivers.

The char areas are highly vulnerable to erosion and sudden and forceful flooding, which, combined with a lack of physical infrastructure, government services and employment opportunities, makes living in these areas both hazardous and insecure. Many char dwellers struggle to produce or buy enough food to eat, and malnutrition and micronutrient deficiencies are more common than anywhere elsewhere in the country (HKI/IPHN, 2003).

A study conducted by HKI/IPHN between December 2001 and September 2002 in the char communities of the Kazipur, Nagessawari and Rajibpur subdistricts provides a useful general profile of health, nutrition and livelihood conditions in these areas (HKI/IPHN, 2003).

Floods and erosion disrupt the lives of char dwellers. Floods damage or destroy crops, homes, water and sanitation facilities, as well as other assets, and hinder access to food, medical care, schools and work. Erosion causes victims to lose their homestead settlements, agricultural land and employment, and forces them to move elsewhere, sometimes on a yearly basis. The aforementioned study showed that approximately one-half (44 percent) of char households lost crops, 16 percent lost livestock and 10 percent lost land during the monsoon months, compared with only one to three percent loss rates in other rural areas of the country (Table 2).

* Information taken from HKI/IPHN, 200

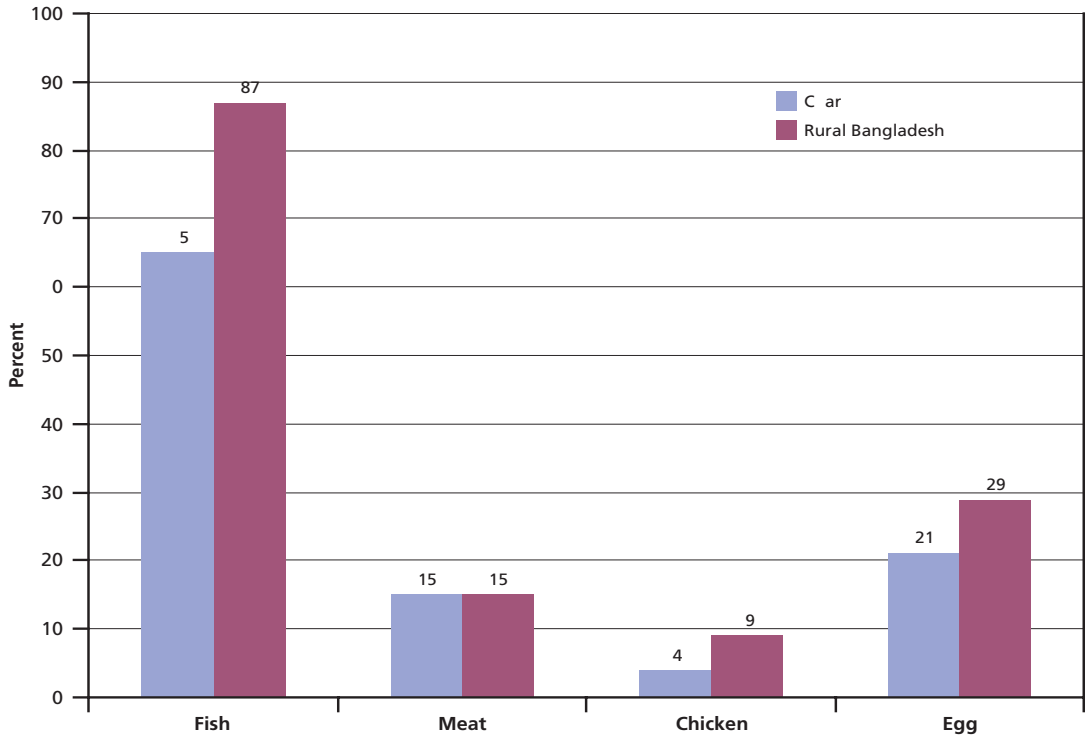
TABLE 2 Percentage of households in the chars and rural Bangladesh that were affected by flood or erosion during August–September 2002

CRISES	CHAR (N 192)	RURAL BANGLADESH (N 999)
Natural disaster:		
Flood	2	4
Riverbank erosion	1	1
Households lost:		
Crops	44	1
Livestock	1	
Land	10	1
House		1
Employment	4	2

Source: HKI/IPHN, 2003

These crises have substantial economic costs, often leading to difficulties paying for basic essentials, including food and health care. Households are sometimes even forced to take a loan to buy food, a clear sign of food insecurity.

FIGURE 26 Percentage of children ages 24–59 months who consumed animal products at least twice during one week in the chars (n=563) and in rural Bangladesh (n=6,225) from December 2001 to January 2002

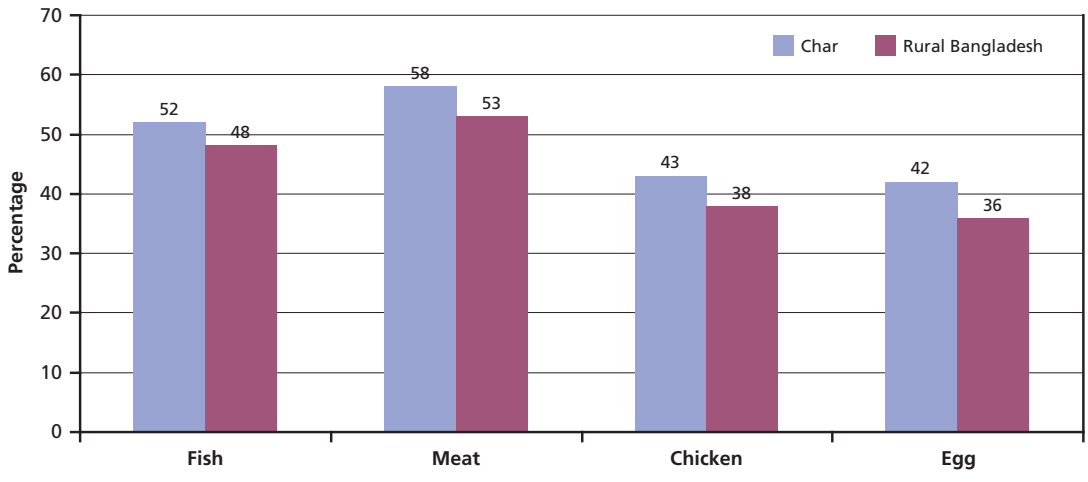


Source: HKI/IPHN, 2003

Poor households tend to spend most of their meagre food budget on cheap staples, such as rice. Animal products, such as eggs, fish, chicken and meat, are better sources of micronutrients but are also much more expensive. Children of the chars consume animal products less frequently than in other rural areas of the country (Figure 26), suggesting a lower-quality diet.

Sanitation in the chars is also poor. Recently, only 11 percent of households reported having a closed latrine compared with 29 percent in other rural areas, which may explain why the prevalence of diarrhoea in the chars for both children and mothers (12. 2 percent and 1.8 percent, respectively) is higher than in other rural areas (7.0 percent and 0.6 percent, respectively). Because dietary intake and disease such as diarrhoea are known to cause malnutrition, it is not surprising that underweight in children and CED in mothers was more common in the chars than in other rural areas (Figure 27).

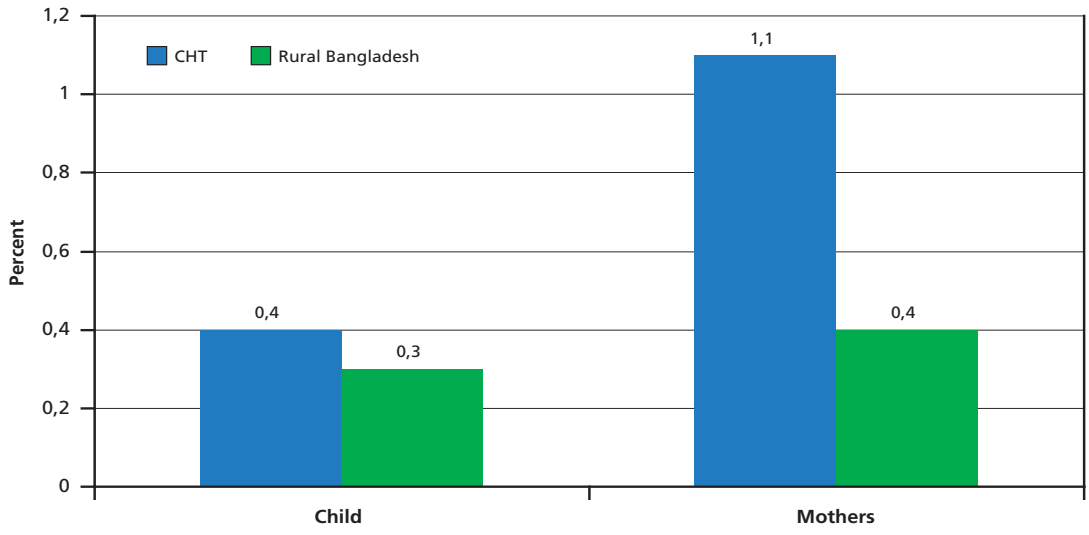
FIGURE 27 Percentage of underweight children aged 0-59 months (WAZ < -2 SD, n=23 293) and non-pregnant mothers with chronic energy deficiency (BMI < 18.5 kg/m², n=17 896) in the chars and in rural Bangladesh in Feb./Mar. and Aug./Sep. 2002 (Bars indicate 95 percent confidence level)



Source: HKI/IPHN, 2003

Micronutrient malnutrition is also a serious problem. The prevalence of maternal night blindness, an early sign of vitamin A deficiency, was more than double in the chars than in other rural areas (Figure 28). In principle, the chars are covered by normal government services, but, in practice, they are not well served. For example, the low coverage of measles immunization (45 percent in the chars compared with 84 percent in other rural areas) and outreach activities of family welfare assistants (42 percent of char households visited during a six-month period compared with 70 percent in other rural areas) indicates a lower level of immunization and health extension services. Government programs suited to the unique needs of people in the chars have yet to be devised and implemented. Although an increasing number of NGOs are addressing development needs in some of the chars, there is need for help at the individual household level.

FIGURE 28 Percentage of children ages 18–59 months and nonpregnant mothers with night blindness in 2000



Source: HKI/IPHN, 2003

Despite poor living conditions, people continue to live in the chars because they simply have no alternative (HKI/IPHN, 2003). Moving the char dwellers to safer areas is not feasible. Interventions should therefore aim to support the livelihoods of char people so that they can make the best use of available resources and better cope with the hazardous environment.

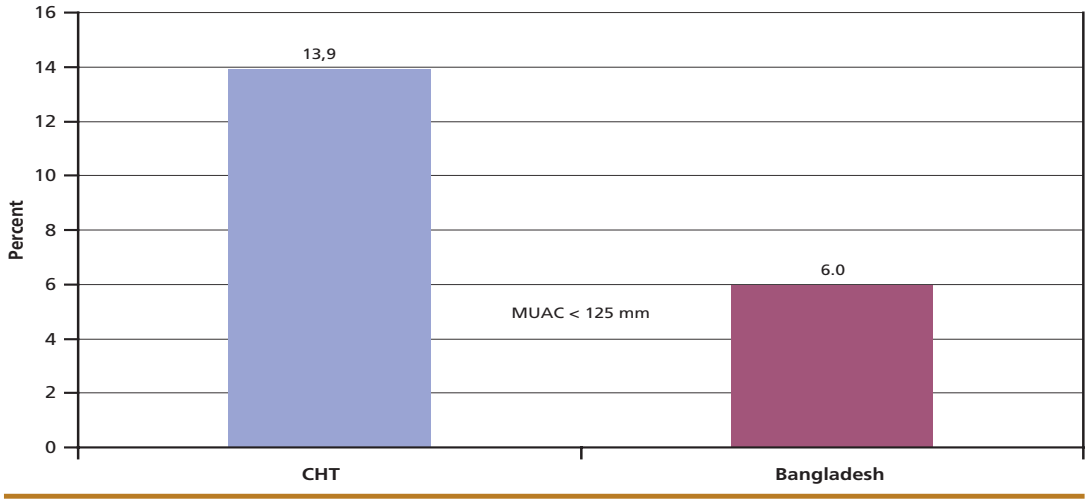
The Chittagong Hill Tracts

The Chittagong Hill Tracts (CHT) in southeast Bangladesh is very different from other parts of the country in geography, ethnic composition and agricultural, dietary and cultural practices. About 13 culturally diverse ethnic groups live in the CHT, some in remote communities in the hills and mountains of this upland region. These unique characteristics mean that successful nutrition and health policies and programmes might need to be modified in order to succeed for populations in the CHT (HKI/IPHN, 2003a).

Outbreaks of civil conflict during the period 1973–1997 kept government agencies and development organizations away, preventing access to essential health and social services. Thus, for a long time, the CHT remained an almost unknown and unexplored world and only recently have some NGOs, such as BRAC and HKI, and government agencies, such as BBS, begun conducting activities in this region.

Data collected during a special survey of the NSP in May and June 2000, revealed that the prevalence of CED in mothers was serious and the prevalence of underweight and stunting in children in Bangladesh was very high according to international criteria. The prevalence of night blindness among mothers and children ages 18–59 months in the CHT (1.1 percent and 0.4 percent, respectively) was nearly three times higher compared with other rural areas of the country (Figure 28). According to a 1999 study by BRAC, the percentage of severe wasting (MUAC < 125 mm) among children ages 12–59 months in the CHT was more than two times higher than in other rural areas (Figure 29). A recent BBS/BRAC/UNICEF study also revealed a very high prevalence of anaemia in under-2 children of the CHT (over 90 percent; data not yet published).

FIGURE 29 Percentage of CHT children ages 12–59 months with MUAC < 125 mm in 1999



Source: BRAC, 1999

Household food insecurity, grossly inadequate water and sanitation facilities and a wide gender disparity in education are also serious concerns in the CHT (Table 3). As many development agencies are now working in the CHT, regular surveillance will provide policy makers and programme planners with crucial information needed to design interventions to improve health and nutrition and alleviate poverty in this region.

TABLE 3 Household demography and socio-economic status in 2000

DEMOGRAPHIC AND SOCIO-ECONOMIC FACTORS	CHT	RURAL BANGLADESH
No. household members (mean)	5.8	5.5
Female decision maker (%)	4	4
Monthly income (Takas) per household member (median)		
Manual labor as main source of income (%)	267	389
Clean source of drinking water* (%)	53	22
Closed latrine (%)	28	98
Parent education** (%)	9	37
Father	52	49
Mother	26	46

* Water obtained from hand pump, deep tube well or tap. ** At least one year of formal education

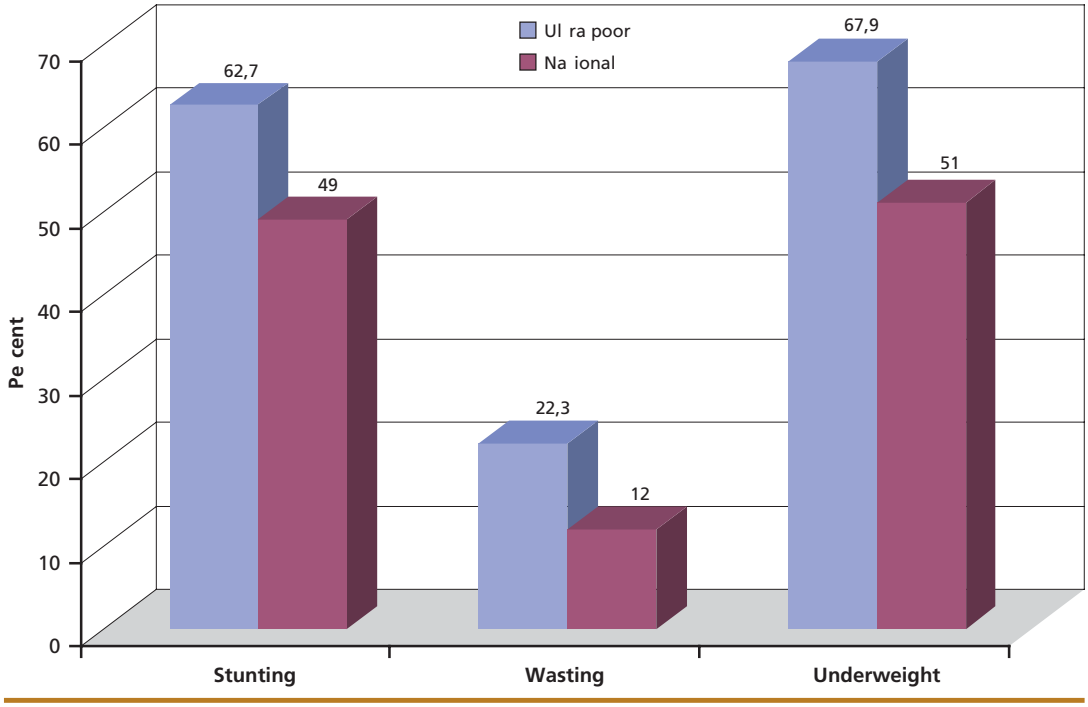
The ultra poor

People belonging to the bottom two expenditure quintiles are considered ultra poor and, according to the direct calorie intake (DCI) method, consume less than 1600 kcal each day, making them the most vulnerable section of the population. A household is considered ultra poor if it fulfills at least three of the criteria (Halder and Mosley, 2004) listed below.

- has negligible assets beyond the home they live in
- owns no more than 10 decimals of land, including the homestead
- has a female-headed household or household with a divorced, abandoned or widowed woman
- has adult women who labour outside the homestead
- has a main male income earner who is physically not able to work regularly
- has schoolage children who labour

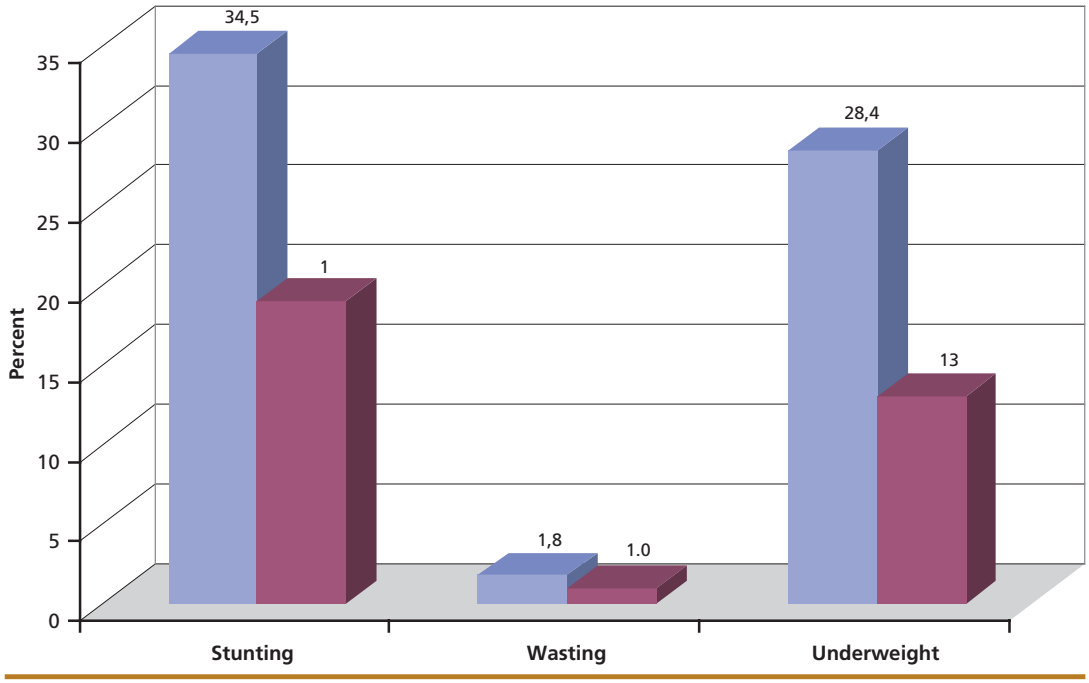
Very little information is currently available on the nutrition and health status of the ultra poor. Recently, however, BRAC conducted a nutrition survey on 200 ultra poor households, 50 households from each of the following four districts: Netrakona, Kishorganj, Gopalganj and Madaripur. Results of the survey determined the nutritional status of 455 under-5 children and 1 029 women of childbearing age. Findings included the following: approximately 66 percent of under-5 children of ultra poor households are stunted or underweight compared with the national average of 50 percent (Figure 30); severe malnutrition rates are almost double the national average (Figure 31); and prevalence of CED is widespread among ultra poor women of reproductive age, with more than half possessing a BMI less than 18.5 kg/m^2.

FIGURE 30 Prevalence of malnutrition among under-5 ultra poor children and all under-5 children nationally



Source: BRAC, 2004

FIGURE 31 Prevalence of severe malnutrition among under-5 ultra poor children and all under-5 children nationally



Source: BRAC, 2004

Conclusions

A large number of organizations – government agencies, NGOs, United Nations' bodies and academic institutions – are involved in collecting data on the nutrition and health situation of Bangladesh using established indicators. For some indicators (e.g. LBW, anaemia, iodine deficiency), the data are scarce, presumably because collection is more technical and resource intensive. At the same time, for some indicators (e.g. stunting and wasting) the data are plentiful and a good degree of repetition is seen among different organizations. When taken together, these data provide a rich information system on the extent and trends of food insecurity and vulnerability in Bangladesh.

At present, information sharing between organizations and between different wings within individual agencies is limited. Additionally, data emerging from different sources sometimes vary greatly on a given indicator (e.g. calorie intake data of BBS and INFS), resulting in confusion for policy makers and programme planners. The Bangladesh National FIVIMS initiative intends to be a mechanism to resolve such problems through data and resource sharing, which, in turn, will allow for excess resources to be channeled to other useful purposes.

The baseline information described in this report is largely disaggregated only to division levels in both rural and urban sectors, though, in a few cases, data were disaggregated to the district level. Data disaggregated to the upazila level are particularly needed to identify pockets of food insecurity and vulnerability in divisions and districts currently viewed at lower risk overall.

For example, the Sylhet division consistently shows the lowest profile of mother-to-child nutrition and caring practice (lowest breast-feeding period), while the Khulna division shows the best profile. Attaining analytical competence in disaggregating data from division levels to down to district and upazila levels through FIVIMS would be useful in identifying which specific areas in the Sylhet division deserve the most attention and which specific areas in the Khulna division may also require attention.

In this manner, FIVIMS intends to produce timely and correct information which will help policy makers and programme planners to formulate and implement the most appropriate and useful policies and programmes to address food insecurity and vulnerability.

Recommendations

- The Bangladesh National FIVIMS initiative, which was just instituted after some initial difficulties, should be given the utmost support from all quarters in order to support sustained growth and survival.

- To achieve sustainability, the Bangladesh government should take financial and logistic responsibility by deploying full-time analysts and other personnel, specifically for the FIVIMS Secretariat in the Programming Division; the cost incurred would be far outweighed by the benefit that will be reaped from FIVIMS.

- External support may be needed during the initial years until the FIVIMS attains maturity and the aforementioned government support.

- The FIVIMS Secretariat plays a vital role in making the initiative a successful, useful and fruitful endeavour in data collection, analysis and dissemination. Therefore, it is recommended that FIVIMS be used as an effective national platform for unhindered data sharing among different stakeholders and be entrusted with the authority to resolve data discrepancies among various organizations.

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ANNEX 1

Prevalence of underweight children aged 0–59 months in 2000

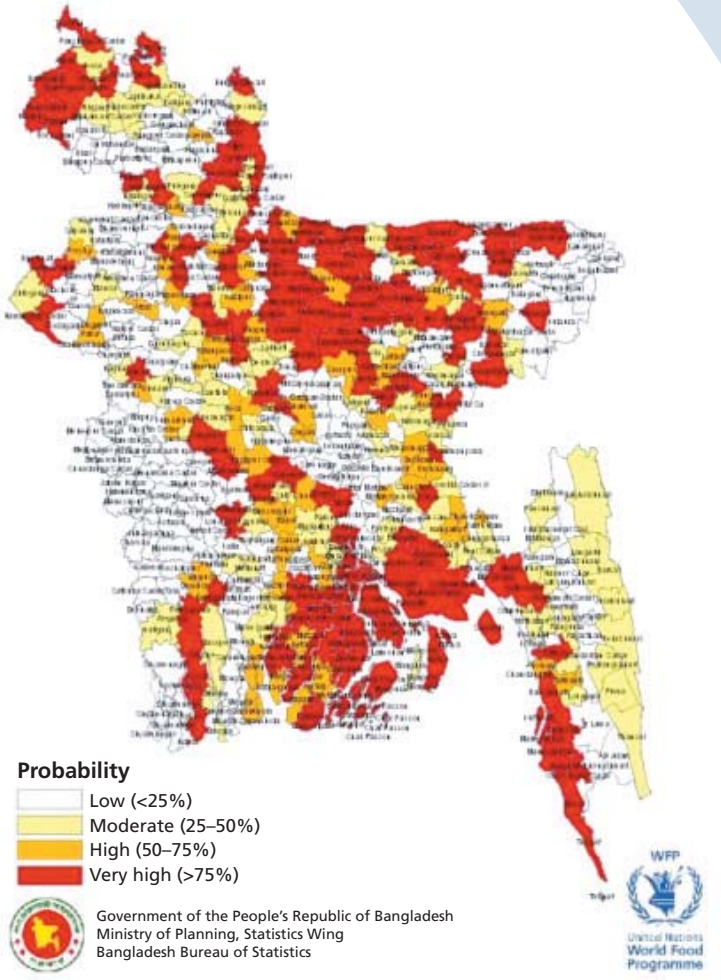
Division with percentage

- Khulna – 42%
- Chittagong – 46%
- Dhaka – 47%
- Rajshahi – 49%
- Barisal – 51%
- Sylhet – 56%

Source: Bangladesh Demographic and Health Survey, 2000 (Ministry of Health and Family Welfare, 2001) & Child Nutrition Survey of Bangladesh, 2000 (BBS/UNICEF, 2002)

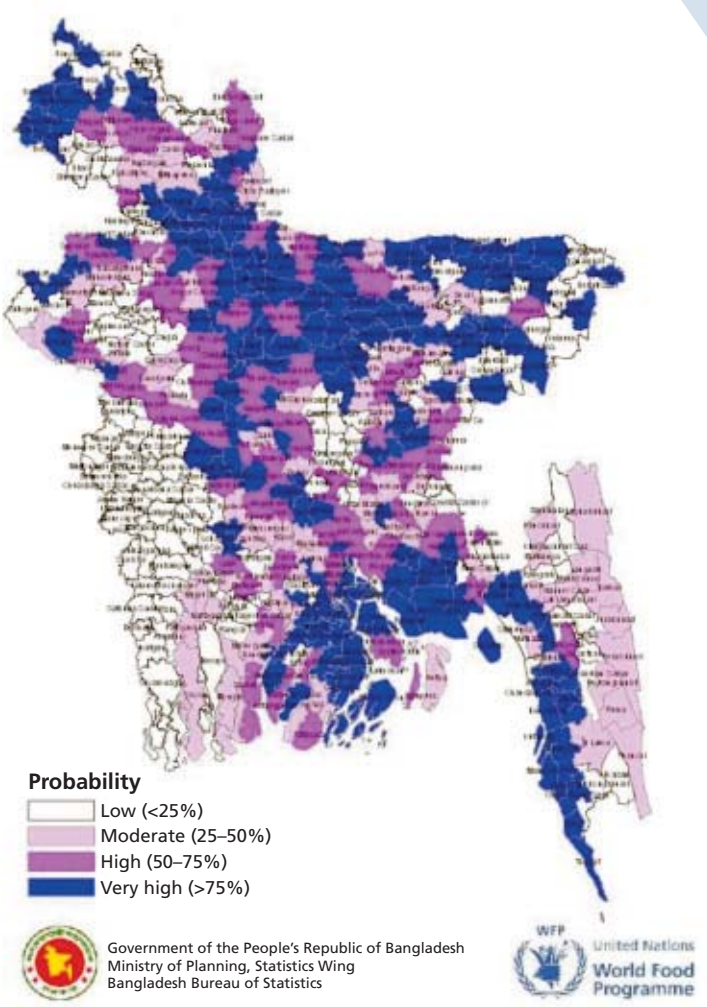
ANNEX 2

Probability of high prelevance of stunting among under–5 children



ANNEX 3

Probability of high prelevance of underweight among under–5 children



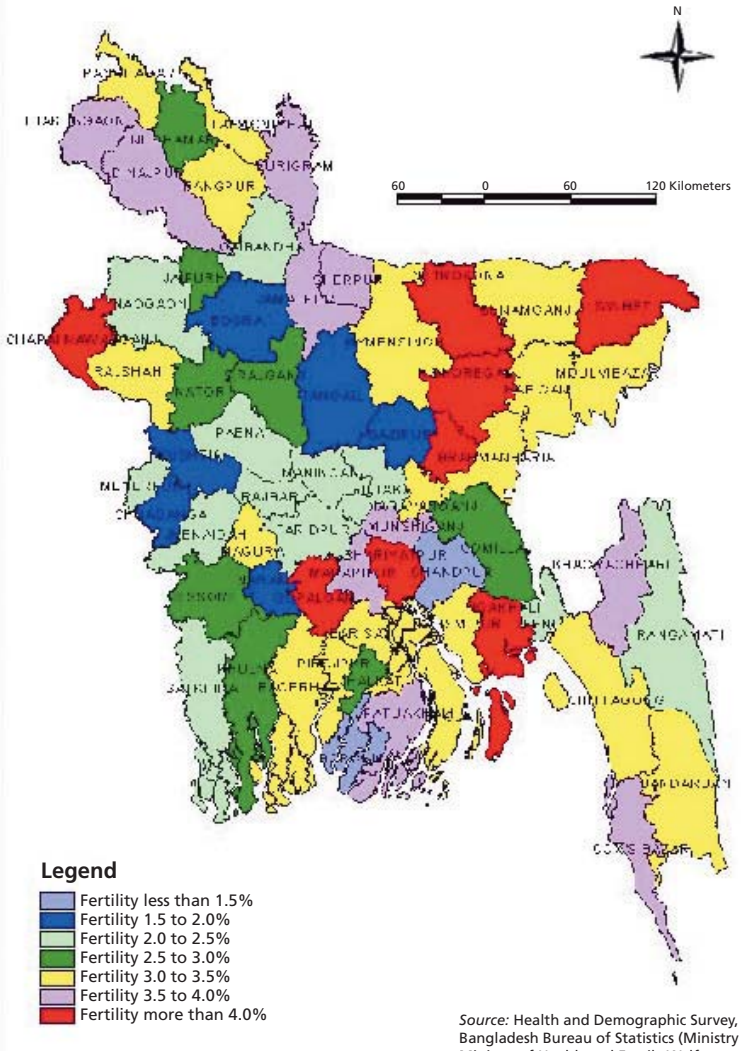
ANNEX 4

Prelevance of Chronic Energy Deficiency (CED) in women of reproductive age in 2000

Source: Bangladesh Demographic and Health Survey, 2000
Ministry of Health and Family Welfare, 2001

ANNEX 5

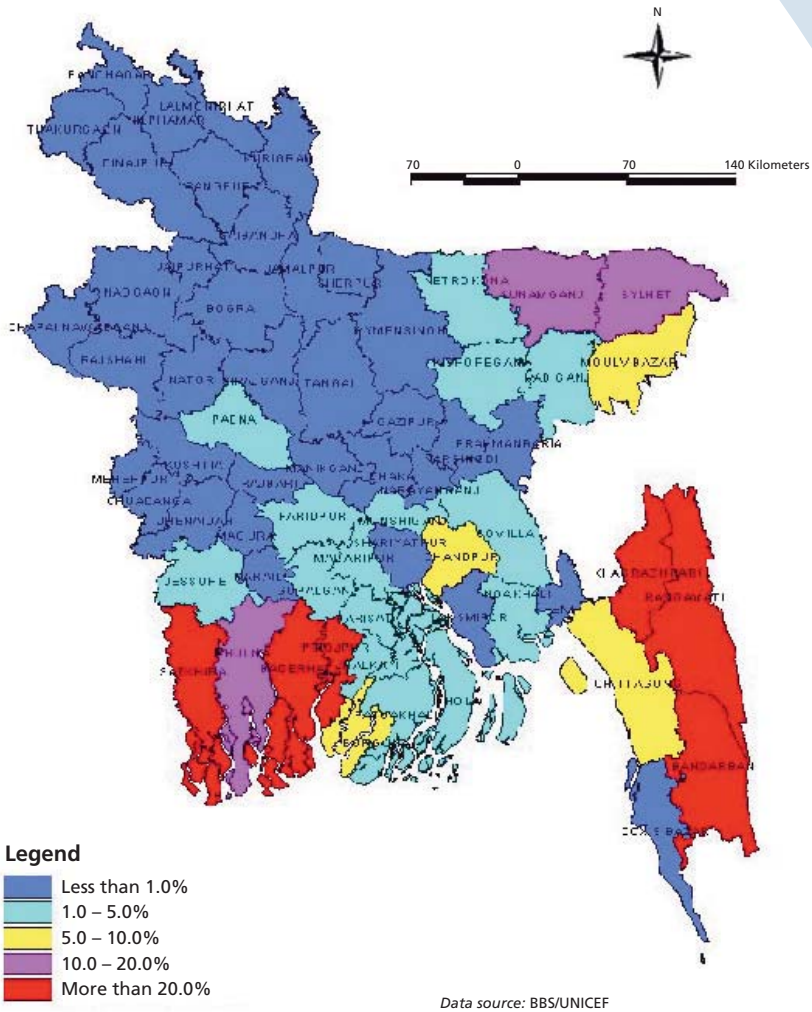
Total Fertility Rate (TFR) in 2000



Source: Health and Demographic Survey, 2000
Bangladesh Bureau of Statistics (Ministry of Planning) and
Ministry of Health and Family Welfare

ANNEX 6

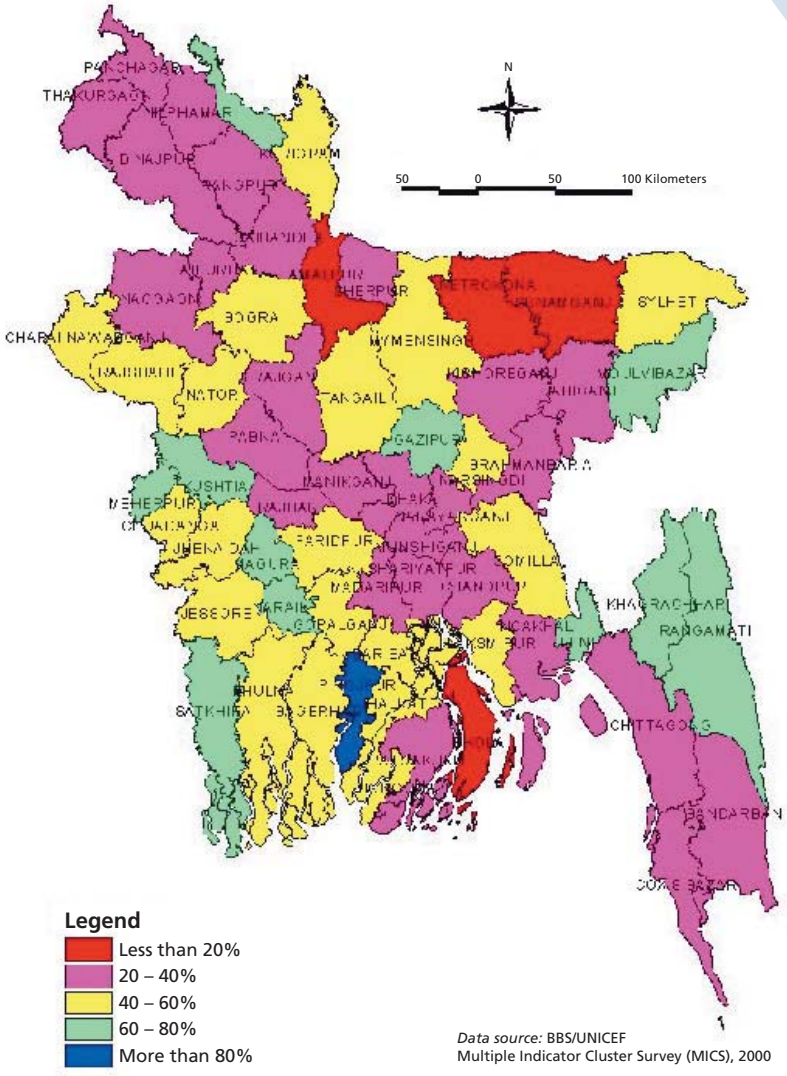
Use rate of surface water for drinking in 2000



Data source: BBS/UNICEF
Multiple Indicator Cluster Survey (MICS), 2000

ANNEX 7

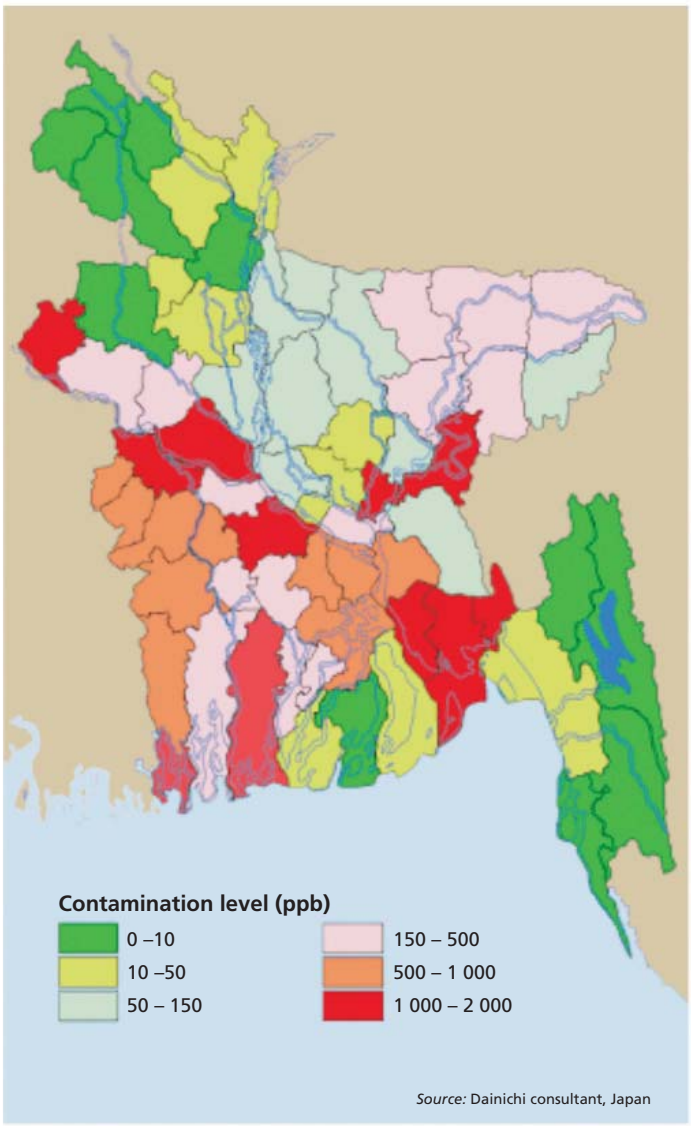
Access to safe latrine (Waterseal + Pit) in 2000



Data source: BBS/UNICEF
Multiple Indicator Cluster Survey (MICS), 2000

ANNEX 8

Arsenic contamination in 1999



Source: Dainichi consultant, Japan