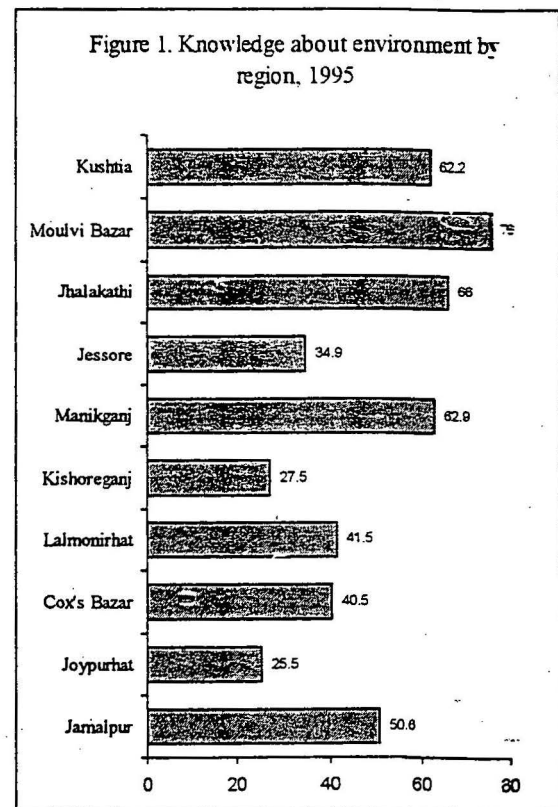


Environmental Awareness in Rural Bangladesh: Levels and Differentials

Abstract: This report assesses the level of environmental awareness in the rural communities of Bangladesh. Findings reveal that nearly half of the people were aware about the change of environment and its implications although the knowledge about the specific aspects of environmental change is poor. Regional as well as socio-economic differentials in environmental awareness were very high. NGOs played an important role in raising the awareness level. The study suggests that a concerted effort should be initiated including both the public and private development organizations to routinely disseminate the consequences of environmental disaster.

Introduction

Like other developing countries, environmental hazards are major health threats in Bangladesh. But the importance of educating people about the consequences of environmental change is getting recognized only recently among policy makers in Bangladesh. It is widely believed that people are generally ignorant about the risks of environmental disaster and that environmental problems are the results of the development process itself. It is important, therefore, that people should be made aware about the processes and consequences of environmental change. This report assesses the awareness level of the people and the process of environmental change in the rural communities in Bangladesh. In this study, the process of environmental change in rural setting is viewed as the effects of rural industrial activities, use of firewood to produce energy, mechanized farming, and deforestation.



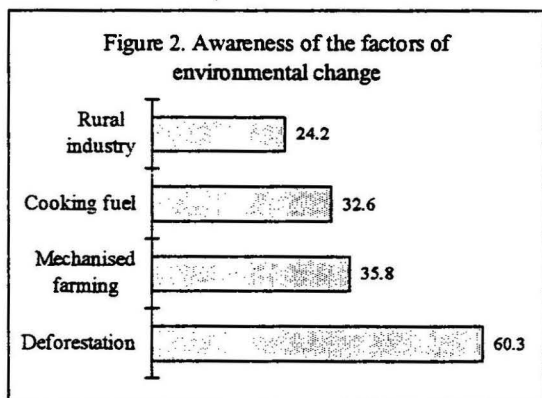
Data and Method

Data for this study came from *Watch*, a nationally representative intensive monitoring system of BRAC, covering 70 villages in ten regions of Bangladesh. All the household heads were eligible to be included in the sample. Systematic random

sampling technique was followed to select sample households. The selected sample household heads were interviewed in September 1995. The sample size was 1,556.

Findings

More than half (52.1%) of the study population were familiar with the term 'environment' and had basic knowledge about its implications. This familiarity, however, varied by region ranging from 76% in Moulvi Bazar to 25% in Joypurhat (Figure 1). Awareness about the process of change, however, was poor except the case of deforestation (Figure 2). Nearly 35.8% people were aware that the indiscriminate adoption of mechanized farming such as the use of pesticides, chemical fertilizers, deep tubewell, etc. was a major factor of environmental change. The awareness of the role of rural industries in damaging the nature was very low (24.2%). About a third of the population were aware that the use of cooking fuel, mostly firewood, was an added factor of environmental disaster.



When various aspects of the process of environmental change are differentiated by region in Table 1, the differences appeared to be very wide. The role of rural industries in polluting environment was most prevalent in Kushtia region (54.8%) followed by Moulvi Bazar (42.7%) while the people of Cox's Bazar and Kishoreganj regions were least aware about this problem. The people of the northeastern region of Moulvi Bazar (62.7%) appeared to be most aware that excess use of firewood as cooking fuel could have a damaging effect on environment while only a fifth of the population was aware

about this kind of environmental disaster in Manikganj and Jamalpur.

Table 1. Level of awareness of environmental polluting factors by region

Region	Awareness			
	Rural Industry	Cooking Fuel	Mech. Farming	Deforestation
Kushtia	54.8	41.5	57.4	85.6
Moulvi Bazar	42.7	62.7	57.3	44.0
Jhalakathi	13.4	42.4	42.0	60.1
Jessore	34.0	27.4	39.6	31.1
Manikganj	27.6	20.5	36.3	66.8
Kishoreganj	8.7	29.0	33.3	42.0
Lalmonirhat	29.3	14.6	31.7	28.0
Cox's Bazar	7.2	40.5	20.9	49.7
Joypurhat	9.8	35.3	19.0	73.9
Jamalpur	11.1	19.8	12.3	63.0

The awareness of environmental change as a result of the mechanization of farming through irrigation was very high in the desert-prone region of Kushtia (57.4%) than other regions such as Jamalpur (12.3%). Deforestation as a risk of environmental disaster and its potential impact were better known in Kushtia region while most of the people in Lalmonirhat were ignorant about this aspect of environmental change.

Reduction of animals and birds, desertification, and excessive flooding were frequently reported as the consequences of environmental change (Table 2). While water pollution was the most pervasive threat to health and life-style, only a few people (1.4%) had knowledge about water pollution, water scarcity and low rainfall.

Table 2. Knowledge of the consequences of the change of environment

Consequence of change	Percent of people aware
Reduction of animal, birds, etc.	18.8
Water pollution, scarcity, etc.	1.4
Desartification	14.8
Low rainfall	3.1
Scarcity of cooking fuel	7.5
Excess of flooding	12.3
Scarcity of water	4.1
Others	6.9

When the consequences of kitchen-related pollution problem were raised (Table 3), a significant proportion of the respondents mentioned eye and breathing problems, and reduction of oxygen as the outcome of deforestation.

Table 3. Knowledge of environmental pollution factors related to the use of cooking fuel

Knowledge about environment	Percent of people aware
Cutting trees	8.7
Reduction of oxygen	2.7
Breathing problem	4.0
Eye problem	16.1
Others	11.2

Of the most frequently mentioned process of pollution, occupational hazards, inappropriate use of pesticides and desertification as a result of over use of deep tubewells were found prominent (Table 4).

Table 4. Awareness of the consequences of mechanized farming

Consequences of mechanized farming	Percent of people aware
Killing insects by insecticides	12.1
Food scarcity through killing other insects	1.1
Chemicals (fertilizer, etc.) reduce fish	11.2
Desertification through deep tubewell	1.0
Occupational hazards	18.9
Breathing problem	2.6
Infertility of land	3.6
Others	6.3

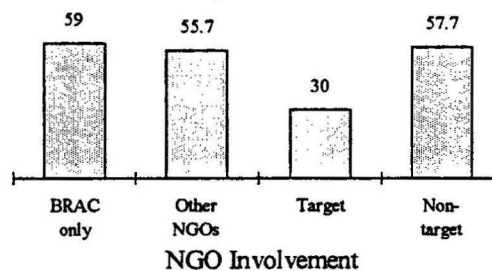
While one-fourth of the population was aware of environmental pollution through industries (Figure 2), only 17% could mention only tobacco, brick-fields and boiler related smoke as the factors of industrial pollution (Table 5). The people living in villages were not much aware about other pollution processes such as indiscriminate disposal of textile and dyeing wastes, use of firewood as fuel in the brick-field, etc.

Table 5. Awareness of the environmental change factors related with rural industries

Factors	Percent of people aware
Tobacco, brickfield, etc. related smoke	17.1
Textile waste reduces fish stock	0.5
Dyeing related water pollution	0.3
Scarcity of wood by brick field	9.2
Others	3.7

The awareness of environment was more familiar among people involved with NGO activities. Figure 3 shows that awareness level among the members of BRAC and other NGOs were significantly higher than equally poor members of the rural communities.

Figure 3. Percent of people aware about environment by NGO involvement



The role of the NGO-led development programs in informing the risk of environmental hazards was also reflected in Table 6.

Table 6. Proportion of persons aware of the process of change by NGO involvement

Indicators of change	NGO Involvement			
	BRAC	Others	Target	NTG
Cooking fuel	28.3	31.5	25.4	8.4
Mechanized farming	33.6	37.8	28.7	38.8
Rural industry	20.1	26.4	18.2	7.3
Deforestation	56.6	62.2	50.8	5.2

Awareness level widely differs by sex and social factors (Table 7). Women were less aware of

Awareness level widely differs by sex and social factors (Table 7). Women were less aware of environment and its consequences than men. Both the year of schooling and land ownership were positively associated with the awareness level of environmental disaster.

Table 7. Differentials in level of awareness by social factor

Social Factor	Awareness			
	Rural industry	Cooking fuel	Mech. farming	Deforestation
<i>Sex</i>				
Male	39.6	39.2	50.8	71.5
Female	13.6	28.1	25.5	52.7
<i>Education</i>				
No school	15.4	22.7	27.8	51.5
I - V	27.3	42.3	42.0	68.4
VI +	54.2	58.5	58.5	84.2
<i>Land</i>				
Landless	20.4	28.8	30.0	55.7
1 - 199 dec	24.6	33.5	37.7	61.8
200 +	37.5	44.5	52.0	74.0

Summary

The report suggests that nearly half of the people were aware of the change of environment and its implications although the knowledge about the specific aspects of environmental change is poor. Regional as well as socioeconomic differentials in environmental awareness were very high. NGOs played an important role in raising the awareness level. A concerted effort should be initiated including both the public and private development organizations to routinely disseminate the consequences of environmental disaster.

This report has been prepared by Abdullahel Hadi of the Research and Evaluation Division of BRAC.