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Achievement of MDGs on Poverty and Health in Rural Bangladesh

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Abstract

The paper discusses the achievements of MDGs on poverty and health status of rural people in Bangladesh. Chronic hunger and famine and suffering from food shortage were a common feature in 1970s. Today Bangladesh is not a food shortage country like 1970s and the poor as the study reveals feel free from hunger and famine conditions. So goal 1 of MDG to eradicate severe poverty and hunger has achieved, but considering the target for Bangladesh to bring poverty down to 25% in 2015, will not be achieved because 41.4% (40% at national level) live under poverty line. With regard to health, the study reveals that on an average 45% of the people from the age group of 6 months infants to 60 years above old men are malnourished and underweight. An overwhelming majority people in the rural areas have no access to MBBS doctors for medical care services. The main health care providers to them are either private quack physicians or government community clinic led by the same quack physicians. However maternal and infant death has come down to a reasonable extent.

Key terms: MDG, Poverty, Poverty indicators, Health and Medical care services.

1. Introduction

The paper deals with the impact of MDGs to reduce poverty and to improve health status of Bangladeshi villagers. It discusses poverty and health status in the light of poverty indicators identified by the United Nations because the indicators are not only the measuring rod of poverty but these is the causes for ill health also.

The poverty leads to increased danger to health, because it forces people to live in environments that make them sick without decent shelter, clean water or adequate sanitation. For this reason the study of poverty is regarded as one of the key focuses of public health. The studies so far done established the fact that those with low incomes have lower health

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status than those with higher incomes. People living in poverty have a higher prevalence of disability and chronic illness and shorter life expectancy than those at a higher income levels. (http://www.answers.com/topic/poverty-and-health).

1.1 MDGs

In September 2000, 193 UN member states attending Millennium Summit, signed the UN Millennium Declaration to free people specially the developing countries from extreme poverty and multiple deprivations by 2015. The Declaration consisted of 8 international development goals. Since the goals originated from the UN Millennium Declaration they are known as the Millennium Development Goals (MDGs). The MDGs are the following:

Goal 1: Eradicate extreme poverty and hunger
Goal 2: Achieve Universal primary education
Goal 3: Promote gender equality and empower women
Goal 4: Reduce child mortality
Goal 5: Improve maternal health
Goal 6: Combat HIV/AIDS, malaria and other diseases
Goal 7: Ensure environmental sustainability
Goal 8: Develop a global partnership for development (Wikipedia, the on line free encyclopedia).

To achieve the 8 goals, 19 targets and a series of measurable indicators for each target were fixed. The MDGs are thus a set of numerical and time-bond targets to be achieved by 2015, taking 1990 as the base year. The eight goals clearly indicates that first seven goals are concerned directly or indirectly with poverty and health, "while eighth goal is essentially a commitment of global partnership, a compact of rich and poor countries, to work together to achieve the first seven goals." (Bhuyan 2005:2).

1.2 Poverty and Health

Poverty is the lack of basic needs such as food especially balanced food, clean water, health care, education, shelter and employment. In other words, poverty is an economic condition in which a person is unable to enjoy a minimum standard of living due to his or her small amount of earnings to buy the basic necessities of life. The visible effects of poverty are malnutrition, ill health, poor housing conditions, illiteracy, and the like. A common method used to measure poverty is income. A person is considered poor if his or her income level falls below some minimum level to afford the basic needs. This minimum level is usually called the "poverty line". However, the income to satisfy basic needs varies across time and societies. Therefore, poverty line varies in time and place; and

each country uses poverty line which is appropriate to its level of development, societal norms and values. Thus poverty line or poverty threshold is the minimum level of income deemed necessary to achieve an adequate standard of living in a given country. For this reason, the poverty line is higher in developed countries than in developing countries. The indicator of international poverty line has in the past been roughly income of a person US $1 a day. In 2008 the World Bank revised the figure as US $ 1.25. The nominal value of US $ 1 is equal to Bangladesh currency Tk. 70 in 2010. But according to PPP (purchasing power parity) values (in 2010), the nominal value of US dollar is multiplied by 3 against Bangladesh currency. Hence PPP value of Tk.70 is equal to US $ 3. So the poverty line in Bangladesh in the light of international poverty line US $ 1.25, is roughly Tk. 23.33 (2010).

Poverty is also referred to absolute poverty or over all poverty. The absolute poverty is also used as synonym for extreme poverty. Absolute poverty is the absence of enough resources (such as money) to secure basic life necessities. According to a UN declaration that resulted from the World Summit on Social Development in Copenhagen in 1995, absolute poverty is a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education, information and access to services (UN, 1995, quoted in Cordon 2005). Does absolute poverty include deprivation of all these basic needs? Gordon's paper (2005) titled "Indicators of Poverty & Hunger" prepared for UN Expert Group Meting on Youth Development replies the question that deprivation of any two or more of these basic human needs is absolute poverty.

Health is the level of functional or metabolic efficiency of a living being. In the case of human being, it is the general condition of a person's mind, body and spirit, usually meaning to be free from illness, injury or pain. The World Health Organization defines health as a state of complete physical, mental, and social well-being and not merely the absence of disease. Body Mass Index (BMI) is a tool to measure the health status of a person. Body Mass Index (BMI) of a youth of sound health must not be below of 18.5 i.e. the below is underweight and malnourished; 18.5-24.9 is normal; 25-29.9 is overweight; and 30 and above is obesity (UN 1995 quoted in Cordon 2005).

In the present paper, poverty line has been demarcated according to income of international standard and PPP values of Bangladesh currency Taka against US dollar. In other words, the poverty line in Bangladesh in the light of international poverty line US $ 1.25, is Tk. 23.33 (2010). The UN's indicators of poverty have also been examined in a selected area of rural Bangladesh to study poverty and health status of villagers.

2. Methodology

To study poverty and health status of Bangladeshi villagers, a ward at the village level was selected purposively. Ward is an electoral constituency for a member of Union Parishad (UP), the lowest tier of rural local government in Bangladesh. There are 4401 unions and every union is divided into 9 wards. The selected ward is situated in Shoulmari Union under Jaldhaka upazila (sub-district) of Nilphamari district in the northern part of the country. An investigator, who is a Graduate in Public Administration, was appointed to conduct survey the selected ward with a short questionnaire. The respondents were the heads of families. The survey took more than one month during August and September 2010. In addition to survey technique, raw data of various survey reports viz. Survey of Primary School 2010, Survey of Secondary Education Quality Access Enhancement Project (SEQAEP) 2009, Child Survey 2010, Survey of Public Health Department 2009 and Union Survey 2010 were used. The official records of local community clinic were also consulted.

3. Findings of the Study

3. 1. Poverty Status

a. SES of Families/Population and Poverty Line

The total number of population of the selected ward is 3109 of which 1562 (50.24%) are male and 1547 (49.76%) are female. There are 582 families of which 541 (92.96%) are single families and the rest 41 (7.04%) are joint families. The lowest family size is 3 members and the highest 9 members. On an average 5.34 persons live in a family. The total number of voters (18 years and above) as of October, 2009 is 1932, male 965 and female 967. Of the total population 214 (6.88%) who neither can sign, nor can read. The rest all including those who can only sign but can not read are literate (2895 i.e. 93.12%) according to the literacy definition of Bangladesh.

The daily lowest income of a family consisting of 4 members is Tk. 75; and highest daily income is Tk. 1500 consisting 7 members. Of the total families, 241 (41.4%) consisting of 1251 (40.02%) persons live below poverty line of international standard as mentioned above. For the advantage of discussion, the families living over poverty line have been divided into three groups according to their income viz. lower middle class—having average income of a person Tk. 32-150/-; middle class--Tk.151-300/-; and rich--Tk. 301/- and above. There are 159 (27.32%) lower middle class families with 782 persons (25.15%); 159 (27.32%) middle class families with 720 (23.16%) persons; and 32 (5.5%) rich families having 256 (8.23%) persons (Table 1).

Table 1 Distribution of Families / Population according to Income

Category of Family	Daily per head Income	No. of Family	No. of Family members
Below Poverty Line	Below Tk. 31	241 (41.4%)	1251 (40.02%)
Lower Middle Class	Tk. 32-100	159 (27.32%)	782 (25.15%)
Middle Class	Tk. 101- 200	150 (25.77%)	720 (23.16%)
Rich	Tk.201 & above	32 (5.5%)	256 (8.23%)
Grant Total		582 (100.00%)	3109 (100.00%)

Source: Field Survey

It may be mentioned here that forthcoming discussion of the study has developed based on this four income classifications of families/population.

3.2. Indicators of Poverty: Deprivation of Basic Human Needs

i. Food

In a poor society among the deprivation of basic human needs food ranks first. Balanced diet in adequate quantity is necessary for sound health, but our survey reveals that no family including rich was found to take balanced diet. UN World Food Programme estimated in a on line report, April 14, 2009 that 48.6% of the Bangladesh's 20 million children aged 6 months to 5 years are chronically malnourished, a devastating problem caused by food shortages and high prices. The report also reveals that one household in four was suffering from food insecurity which is defined by FAO as inadequate physical, social or economic access to sufficient, safe and nutritious food for an active and healthy life.

Though in our study area 41.4% families live below poverty line, no case of severe hunger and starvation was found in the study area. Perhaps this is because there are special programmes to eradicate severe poverty and hunger. The programmes are: Tk.300/- as monthly allowance to aged people (63 in number), widows (12), disables (08), and maternity (04). Likewise, a family is given 25 kg wheat under VGD (16) and also 4 women get monthly salary Tk. 1600/- as RMP (cell phone interview with UP member concerned). There are also programmes of Test Relief and Food for Works. So it may be said that the study area has achieved goal 1 of MDGs to eradicate severe poverty and hunger, but considering the target of Bangladesh to bring poverty down to 25% in 2015, it is not possible, because still 41.4% people live below poverty line.

The heads of all types of family were asked about their food security. According to their reply, all of 241 (41.41%) poor families with 1251 (40.02%) population have no security of food. On the other hand all rich and middle class families including 100 lower middle class families

totaling 282 (48.45%) having 1487 (47.83%%) persons have food security. The rest 59 (10.14%) families from lower middle class with 271 (8.72%) persons have temporary food security (Table 2).

Table 2 Distribution of Families in respect of Food Security

Category of Family	Security	Temporary Insecurity	Insecurity
Below Poverty Line (poor)	-		241 (41.4%)
Lower Middle Class	100 (17.18%)	59 (10.14%)	-
Middle Class	150 (25.77%)	-	-
Rich	32 (5.5%)	-	-
Grant Total	282 (48.45%)	59 (10.14%)	241 (41.4%)

Source: Field Survey

ii. Safe Drinking Water

Clean and safe drinking water is essential for good health. Hence access to clean and safe drinking water, protected from contamination, is a basic human right. It should not come from rivers, ponds and unprocted dug wells, and must be available nearby the people. Drinking water supply in Bangladesh relies mainly on groundwater. In rural areas, more than 97% of the population relies on groundwater for its drinking water supply, which is an unusually high level of access for a low-income country. In rural areas the breakdown is: less than 0.6% piped inside and outside dwelling, 96% tube wells, 1% dug wells, and more than 2% ponds, lakes and rivers.

Our survey indicates that only 2 (0.34%) families maintain motor pump for water through pipe inside the dwelling and the rest families are dependent on tube wells for water. There are 470 tube wells for 580 families in the ward. This means on an average 1 tube well is used by 1.23 families. No person was found to use drinking water from other unhygienic sources such as open well, pond and river. Similarly no arsenic tube well was detected in the area. So in the case of safe drinking water, the achievement of MDG in the ward under study fulfilled the target.

iii. Sanitation Facilities

Poor sanitation facility is another cause for ill health. Sanitation facility should be as one that hygienically separates human excreta from human contact. So, the ttoilet or latrine must be made hygienically and also be accessible in or near the home in which people live. Ten years back, the people of the ward had no sanitary latrine and a very few families had unhygienic hanging latrines. Majority used open defecation including bushes specially bamboo bushes, Jute field, street and embankment sides. Pit latrine with slab was started during 1980s. Currently as our data indicate there are 12 (2.06%) families who have sanitary latrines, 470 (8.87%) families maintain pit latrines with slabs and 40 (6.87%) families

jointly use pit latrine. The rest 60 (10.31%) families have no latrine of any type; and they use open defecation. However Bangladesh has fixed 2013 as sanitation facilities for all and this target is expected to achieve in the study area.

iv. Shelter

According to UN requirements, living in dwellings with 3 or more people per room is overcrowding. The floors must not be made of dirt, mud or clay and also roofing should not be inadequate. The present survey report reveals that out of the total families 32, all from rich group (5.5%) have houses with 91 rooms, pucca (brick built) floor and wall, but roofs are made of teen sheet. There is no full pucca house including roof in the study area. The rest of all families (94.5%) have houses made of teen sheet with inadequate roofing, walls are made of bamboo and *katcha* floor i.e. muddy and dirty. There was no living room/house made of thatches, except the cow sheds and kitchens. On the average 4 persons live in a room, whether rich or poor. Thus in respect of UN requirement for living houses, it is uncertain to achieve the target in the study area.

v. Education

One of the main education-related MDGs is universal primary school enrollment. The goal is to ensure that the net primary enrollment rate shall reach to 100% by 2015. Bangladesh has made good progress in this respect. There are 487 children between 6-10 years age group in our study area. Of them 413 (84.80%) are enrolled in primary schools and 74 (15.20%) are enrolled to non-formal school of a NGO. There are two primary schools and one high school. There are 443 boys and girls in the age group of 11-15; and of them 74 (16.70%) never attended in any schools. Considering the data on the rate of primary school enrollment, it may be said that the study area may achieve the target of MDG 2 i.e. the universal primary school enrollment by 2015.

vi. Access to Information

Information system has an important role in development. So everyone must have access to newspapers, radios, televisions, computers, or telephones at home. Our survey data reveal that 12 (2.06%) families keep daily news papers, all of them are business men and their main objective is to attract customers to their shops. There are 103 families (17.70%) who own television and 18 (3.09%) radio; and there are 227 mobile sets in the ward. A family maintains more than one mobile set. Thus with respect to information, the achievement of target is very poor.

3. 3. Health Status

a. BMI

So far we have discussed the poverty status of Bangladeshi villagers in the light the indicators of poverty identified by UNO. Now we shall discuss the heath status of villagers living in the environment of deprivation of basic human needs as stated above. It has been mentioned earlier that that Body Mass Index (BMI) is a tool to measure the health status of a person. BMI of a person of sound health must not be below of

18.5 i.e. the below is underweight and malnourished; 18.5-24.9 is normal; 25-29.9 is overweight; and 30 and above is obesity. We are not expert in BMI calculation. We simply calculate our data on online BIM calculator and note down the result.

Our random survey over 52 families (rich-10, middle class-12, lower middle class-14, and poor-16) reveals that 50% children in the age group of 6 months to-5 years; also 35% children in the age group of 6-15; 25% youths in the age group of 16-25 and similarly 45% and 55% people respectively in the age group of 26-40 and 41 and above are underweight according to BMI tool and they are also malnourished. Nobody was found as obese.

b. Diseases

The HIV/AIDS, severe diarrhea and malaria were not found in the study area during survey period. The incidence of diseases like tuberculosis and black fever has come down to zero level. So the target of MDG 6 has already achieved there. The diseases found at that time were anemia (especially the children between 6 months-10 years), cold, fever, ENT problems, food poisoning, dysentery, skin disease, paralysis, respiratory disease, infectious disease, bone fracture, diabetes, blood pressure, headache and cardiovascular disease.

c. Smocking

Smocking is detrimental to health, but it is widely found in the study area. The percentage of smoking is higher among the male than the female. Early Marriage (boy below 21 years and girl below 19 years) is also detrimental to health and it is prohibited in the country. Shoulmari union was declared on April 2010 free from early marriage. But the present survey reveals that it is true in the case of boys, but still around 25% of girls mostly from among the poor families are married below 19 years.

d. Access to Health Care Services

Eating, exercising, and sleeping are essential for maintaining good heath. However, when a person is ill he/she may be cured from diseases by using medicine. Hence treatment must be received for illnesses and during pregnancy.

There are government health care providers in the rural areas of Bangladesh. The government health care providers are found at union, upazila (sub-district) and district level. But their number is not sufficient for the people and poor people have no easy access to the health care providers. There is a government hospital having some MBBS doctors along with 20 beds in Jaldhaka upazila headquarters. There are also 3 community clinics at Shoulmari union, one clinic meant for 3 wards. The community clinic which covers the study area is run jointly by a Health Assistant and a Family Planning Assistant. The former is a male who passed HSC without any training in medical care. The latter one is a female passed SSC and has experience of training in medical care for a few days. So they also fall in the group of quack doctors. Secondly, medicines of first aid are supplied by the government to the clinics, but

these medicines are quite insufficient (interview with Health Assistant over cell phone). As result, private quack village doctors are the main health care providers in the ward under study.

Out of the total families, only 21 (3.61%) of which 18 are rich and 3 middle class have access to MBBS doctors and hospital services at upazila and district level. The rest 261 families consisting of 94.39% have no access to MBBS doctors. There are two reasons for this. The visiting fees of MBBS doctors are higher which most of the people cannot afford. Secondly MBBS doctors are not available at the village level. They either live at district or upazila level. The study area is 12 km. away from upazila headquarters and 45 km. from district headquarters. As a result, an overwhelming majority consisting of 525 families (90.21%) during illness and pregnancy take treatment either by private village quack doctors (mostly allopathic, and some homeopathic and Ayurvedic) or by community clinic which are also led by quack doctors. Of the rest families 27 (4.64%) believe in *Jhar fook* (to blow on patient by saying from religious verses or *mantra*) and in hanging *tabis*, a metal small container holding a piece of paper written on it religious verses. *Jhar fook* and *tabis* is believed as supernatural power. *Jhar fook* and *tabis* are given by another type of quack doctors who are locally called *kabiraj*. A very few families consisting of 9 (1.46%) never take treatment of any kind and they automatically become cured after suffering from disease. Probably they did not suffer from fatal diseases.

The delivery at home with help of midwives is a risky task and it may cause the maternal death. But delivery at home midwives is common and its percentage is very high consisting of 95%; and the delivery in the clinics is only 5%. It is surprising that during last four years, there was no maternal death in the study area (interview with Health Assistant over cell phone). Although the midwives have no formal training, they learn their midwifery from informal sources such as female relatives or neighbours. Often, during pregnancy, childbirth, and post-partum period, midwives imposed dietary restriction on the mothers. There is a practice of withholding first breast-feeding immediate after the birth of a child. The new born baby was first fed with honey, if not honey cow-milk; and not the mother's breast feeding. There is a superstition that new born baby cannot digest the condensed milk of mother.

The infant mortality is generally regarded as a critical of population health (Phipps: 2003), but during last four years there was only one infant death in the area. This is perhaps the midwives and family members are now very aware of the fact that child death may occur from tetanus caused by the un-sterilized device used in the cutting of the umbilical cord. So they use boiled razor to cut the umbilical cord.

It is encouraging that all the babies 6 month to 5 years have been taken under vaccination programmes. Also currently birth registration is cent percent in the study area.

4. Conclusion

Hunger or suffering from food shortage was a common feature in Bangladesh during 1970s. In 1971 Bangladesh's population was 75 million when 60 per cent people lived below the poverty line. Today, the population has increased to 162 million and 40 per cent population according to national data of 2010, live under the poverty line. Almost similar finding (41.4%) is evident from our study. This indicates that the population of Bangladesh has become more than doubled in the last 40 years, but despite this the total number of poverty has come down. Though in our study area 41.4% families live below poverty line, no case of severe hunger and starvation was found in the study area. Thus considering eradication of hunger only, the goal 1 of Millennium Development has already achieved in our study area, but considering the target of Bangladesh to bring poverty down to 25% in 2015, it is not possible. Because from 1970 -2010 poverty reduced to 20% (60-40%) This means yearly poverty reduction in Bangladesh is half percent. How it can be possible to reduce 15% poverty (40-25%) in 5 years, by the year 2015.

In respect of safe drinking water, the selected area already achieved the target of MDG. Bangladesh has fixed 2013 as sanitation facilities for all; and this target as our data reveal is expected to achieve in the study area. Similarly it reveals from the data on the rate of primary school enrollment that the study area may achieve the target of MDG 2 i.e. the universal primary school enrollment by 2015. Likewise, there is no maternal and infant death. But in relation to shelter, gloomy picture is evident. About 94% people live in the houses below the UN standard. With respect to access to health care services the picture is also very gloomy. An overwhelming majority people consisting of 90.21% have no access to MBBS doctors due to poverty/distance and they take treatment of quack physicians. Consequently 50% children in the age group of 6 months to 5 years are malnourished and underweight.

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