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ENHANCING SANITATION PRACTICES THROUGH COMMUNITY PARTICIPATION

M. S. U. Mazumder[1] and L. A. Khair[2]

ABSTRACT

The main purpose of the study was to assess the sanitation practices through GO & NGOs social mobilization program. Data were collected from Putimari, Nitai and Cnandkhana unions of Kishorganj upazila under Nilphamari District during the period from April 2007 to April 2008. After introducing social mobilization program the latrine condition and its maintenance quality in the household was drastically improved. The people of Putimari, Nitai and Cnandkhana had 40%, 42% and 36% persona latrine, respectively. The remaining respondents of each union used joint latrine before introducing social mobilization program. But after introducing social mobilization program, the joint latrine ownership was drastically decreased in 35, 34 and 32 percent, respectively. Year after year the sanitary latrine installation rate was rapidly increased from 268. 245 and 233 to 665, 536 and 510 in Putimari, Nitai and Chandkhana unions, respectively. There is a positive relationship between social mobilization program and latrine ownership (chi-square value is 208.23**).

Key Words: Sanitation facilities, diarrhea diseases, awareness, community participation

INTRODUCTION

In Bangladesh, surface water is abundantly available, accessible and convenient to use for most of the population. Often children are inseparable associated with the water environment, making almost daily concept with ponds, ditches, canals and rivers (UNICEF, 1987). But the microbiological quality of the water is unacceptable low (Rahim *et al*, 1995). Less than 75% of the population has provisions for sanitary disposal of faces. Waterborne and water related diseases account for probably over 80% of all illnesses (Basaran, 1995). One strategy of the government and UNICEF, Bangladesh is to bring on board new partners for both communications activities and service delivery in the WSS sector (BD Govt. & UNICEF, 1991). Non-government organizations (NGOs) have come forward to improve the water and sanitation situation in Bangladesh successfully but sporadically complementing the efforts of the government.

In the National Sanitation Strategy 2005 it is mentioned that as in many other developing countries, sanitation remains a major challenge in Bangladesh. Low sanitation coverage (33 %) in Bangladesh posses a serious public health concern. It is estimated that 71% rural households and 40% urban households use open unhygienic latrines (National Sanitation Campaign, 2003). Every year 125,000 children under five die in Bangladesh from diarrhea diseases, i.e., 342 children every day. Water Aid Bangladesh said the actual sanitation coverage in the country is not more than 39 percent (BBS, 2008). The Government has made a commitment to achieve proper sanitation conditions with 100 percent coverage by 2010, far ahead of the Millennium Development Goal, which targeted 50 percent coverage by 2015. The government has made it compulsory for the upazila administration to spend 20 percent funds of the Annual Development Program (ADP) for raising the sanitation coverage and 90 percent of the allocation must be used for procurement of sanitary latrines for free distribution among the hardcore poor (BBS, 2008). The DPHE report of October 2003 shows latrine coverage is 25.33% in Kishorganj upazila (National Sanitation Campaign. 2003). In 2006 through the same institution report, it was found that situation has increased up to 55.65 percent. But the coverage does not fulfill the sanitation definition approved by the Bangladesh Government itself. Awareness level among the poor people of the district on use of hygienic latrine is very low, which caused serious health hazard among

[1] Assistant Professor, Dept. of Agricultural Extension and Information System, Sher-e-Bangla Agriculcutural University, Dhaka, [2]Project Coordinator, RDRS, Nilphamari, Bangladesh.

children and ultra poor people of the district. In accordance with the Government of Bangladesh "100% sanitation" will mean to include: no open defecation, hygienic latrines available to all, use of hygienic latrines by all, proper maintenance of latrines for continuous use and improved hygienic practice. So, it is an urgent need of the time to follow the 100% sanitation. Considering the above circumstances this paper attempts to determinate the sanitation behavior practices through community participation by conducting the research to determine the impact on sanitation condition, latrine ownership and year wise sanitation behavior. This paper also attempts to determine the relationship between the latrine ownership and before and after involvement with social mobilization program.

MATERIALS AND METHODS

The principal method used in this study was field survey through structured interview schedule. The study was conducted in three unions namely, Putimari, Nitai and Chandkhana union from Kishorganj upazila under Nilphamari District. The target populations were the study areas' households, who have hygienic/unhygienic/open latrine and who made these latrine by their won finance after involvement in several intensive social mobilization program conducted by the GOs and/or NGOs authority through counseling, motivational training such as method demonstration program, sanitation awareness building related different video program etc. The total populations were treated as sample of the study. Data were collected through face to face interview by the researcher himself. Collected data were coded, compiled, tabulated and analyzed in accordance with the objective of the study. The sanitation behavior practices were analyzed before and after engaged with social mobilization programs in the context of latrine condition, ownership, maintenance quality and number of sanitary latrine. It was analyzed from before 1999 to 2006 and later. These changes were computed by using different measuring scales, which were considered necessary for arriving at the conclusion.

RESULTS AND DISCUSSION

Impact on sanitation condition: Government and non-government organizations' social mobilization program had a positive impact on latrine condition of the household respondents after their involvement which is furnished in Table 1.

Table 1. Number and percentage distribution of the family according to their latrine condition before and after introducing community participation program

Name of the union	Total house holds	Latrine condition	Before introducing community participation program		After introducing community participation program	
			No. of family users	Percentage	No. of family users	Percentage
Putimari	6298	Hygienic	1015	16	3046	48
		Unhygienic	1975	31	2222	35
		Open latrine	3308	53	1030	17
Nitai	5887	Hygienic	1119	19	3260	55
		Unhygienic	1978	34	1834	31
		Open latrin	2790	47	793	14
Chadkhana	5527	Hygienic	975	18	2836	51
		Unhygienic	1438	26	1721	31
		Open latrine	3114	56	970	18
Total	17712	Hygienic	3109	17.6	9142	51.6
		Unhygienic	5391	30.4	5777	32.6
		Open latrine	9212	52	2793	15.8

The results presented in table 1 indicate that before involvement in social mobilization program, majority of the households (84%, 81%, 82%) were used open latrine (establish in open place) or unhygienic latrine (place closed by hedge but not environmentally accepted) in Putimari, Nitai and Chandkhana union, respectively. Though, if the household were solvent, they had no enough idea about the bad effect of open or unhygienic latrine. A few number of household (16%. 19% and 18%) were aware about hygienic latrine and they were used such type of latrine before involvement with social mobilization program. But after buildup awareness through social mobilization program with the help of government and non-government organizations' officials, more or less half of the households (48%, 55% and 51%) were used hygienic latrine followed by 35%, 31% and 31% unhygienic and 17%, 14% and 18% used open latrine in Putimari, Nitai and Chandkhana union, respectively. This might be due to after involvement in different social mobilization program, the household respondents were more aware about their sanitation facilities.

Impact on latrine ownership: Impact of latrine ownership was determined by considering number of families had changed their latrine ownership (personal/joint) after involvement in social mobilization program in the study areas.

Table 2 reveals that before introducing social mobilization program through government and non-government officials, 40. 42 and 36% family had personal latrine and 60, 58 and 64% family had joint latrine in Putimari, Nitai and Chadkhana union, respectively.

Table 2. Number and percentage distribution of the family according to their latrine ownership before and after introducing community participation program

Name of the union	Total households	Latrine ownership	Before introducing community participation		After introducing community participation program	
			No. of family	Percentage	No. of family	Percentage
Putimari	6298	Personal	2493	40	4064	65
		Joint	3805	60	2234	35
Nitai	5887	Personal	2455	42	3860	66
		Joint	3432	58	2027	34
Chadkhana	5527	Personal	2013	36	3736	68
		Joint	3514	64	1791	32
Total	17712	Personal	6961	39.3	11660	65.8
		Joint	10751	60.7	6052	34.2

But after introducing with social mobilization program, the joint latrine ownership was highly decreased to 35. 34 and 32 %, respectively. The causes of improvement of the situation due to counseling system of GOs and NGOs which increases household awareness about the importance and advantages of personal latrine.

Impact of year wise sanitation behavior: In 1999 and before about 268, 245 and 233 sanitary latrines were installed in Putimari, Nitai and Chadkhana union respectively. But year after year the installation rate was rapidly increased and lastly in 2006 and later the number of installed sanitary latrine was 665. 536 and 510. In 2003 to 2005 the number of installed sanitary latrine was lower than in the years of 2000 to 2002 (Table 3). It was due to those two to three years continuously several unwanted disaster like flood was occurred in the study area. As a result most of the affected respondents were economically unable to build their sanitary latrine.

Table 3. Number and percent of year wise sanitary latrine installation from before 1999 to 2006 and later

Name of the unions / Year	No. of Sanitary latrine users in Putimari	No. of Sanitary latrine users in Nitai	No. of Sanitary latrine users in Chadkhana	Total
Before 1999	268	245	233	746
2000-2002	386	358	323	1067
2003-2005	286	250	238	774
2006 and later	665	536	510	1711

Impact on latrine maintenance quality: Impact of latrine maintenance quality was determined by considering number of family users had changed their maintenance quality (well/bad/no maintenance) after involvement in social mobilization program in the selected area.

Table 4. Number and percentage distribution of the family according to their latrine maintenance quality before and after introducing community participation program

Name of the union	Total house holds	Latrine maintenance quality	Before introducing community participation program		After introducing community participation program	
			No. of family users	Percentage	No. of family users	Percentage
Putimari	6298	Well	907	14	3064	49
		Poor	1986	32	2343	37
		No maintenance	3405	54	891	14
Nitai	5887	Well	692	12	2860	49
		Poor	1784	30	2098	36
		No maintenance	3411	58	929	15
Chadkhana	5527	Well	811	15	2736	50
		Poor	1502	27	2135	38
		No maintenance	3214	58	656	12
Total	17712	Well	2410	13.6	8660	48.9
		Poor	5272	29.8	6576	37.1
		No maintenance	10030	56.6	2476	14

Table 4 shows that before introducing social mobilization program 54, 58 and 58 percent family were not involved in latrine maintenance activities followed by 32, 30 and 27 percent practiced poor maintenance and 14, 12 and 15 percent well maintenance in Putimari, Nitai and Chadkhana union respectively. Bin after introducing social mobilization program, near to half of the families (49%, 49% and 50%) were involved in proper latrine maintenance activities and they improved their latrine maintenance quality. It may be due to the majority of the household respondents were followed the suggestions of government and non-government officials through social mobilization program. The rest major portion of the respondents was uplifting their latrine maintenance quality. Only few of the respondents did not improve their latrine quality. It seems to be due to though the household members were more aware about the sanitation behavior, but still they are not financially solvent.

Relationship between social mobilization program and latrine ownership:
Data contained in Table 5 were the basis for testing the null hypothesis. It was found that social mobilization program has a significant impact on latrine ownership.
Data presented in Table 5 indicates that before involvement with social mobilization program the personal latrine owner was 39 percent but after it was rapidly increased to 66 percent. Accordingly, before involving with social mobilization program the joint latrine owner was 61 percent and after it was decreased to 34 percent.

Table 5. Association between social mobilization program and latrine ownership

Latrine ownership	Social mobilization program		d.f.	Chi-squarer value
	Before	After		
Personal	6961 (39%)	1 1 660 (66 %)	1	208.24 **
Joint	10751 (61 %)	6052 (34 %)		
Total	17712	17712		

** Indicates significant at 1% level of significance

The chi-square value was 208.24, which was highly significant at 1 % level of significance. So null hypothesis was rejected and it was concluded that there was a positive relationship between social mobilization program and latrine ownership i.e. this program was capable to uplifting tilt-sanitation status of target respondents.

Based on the findings of the study, it is concluded that after buildup awareness through social mobilization program with the help of government and non-government organizations" officials, the latrine condition and its maintenance quality of the house hold was improved than ever before. After attaining social mobilization program the number of personal latrine owner also highly increased with decreasing rate of joint latrine ownership. Day after day the sanitary latrine coverage areas were expanded. Significant amount of change in sanitation condition was observed i.e. special emphasize should be done on GO and NGOs' social mobilization program.

REFERENCES

Basaran A. 1995. WHO experience on water and sanitation intervention related to diarrhoeal disease in Bangladesh. Proceedings of the workshop on Water and Sanitation Intervention Related to Diarrhoeal Disease in Bangladesh. Dhaka, Bangladesh.

Government of Bangladesh-UNICEF. 1991. Rural Water Supply and Sanitation Program 1992-1995.

National Sanitation campaign. 2003. Report on the Nationwide Baseline Survey on Sanitation Local Government Division. Ministry of Local Government Rural Development & Cooperative. Government of Bangladesh in cooperation with department of Public Health and Engineering.

Rahim L, Aziz KMS and Islam MS. 1995. Current Environmental Pollution by Human Fecal Contamination, Proceedings of SAARC Seminar on Protecting the Environment from Degradation. Dhaka, Bangladesh.

UNICEF. 1987. An Analysis of the Situation of Children in Bangladesh, BRAC printers, Bangladesh.