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STATUS AND CONSTRAINTS OF SAFE WATER AND HYGIENIC SANITATION PROGRAM: A STUDY OF FIVE VILLAGES OF BATIAGHATA THANA, KHULNA, BANGLADESH

Md. Mustafa Saroar*, Golam Moinuddin

Urban and Rural Planning Discipline, Khulna University, Khulna-9208, Bangladesh.

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Abstract: Immense importance of safe water and hygienic sanitation has instigated the United Nations to declare 1981-1990 as the "International Drinking Water Supply And Sanitation decade". Giving proper response with the global community, Bangladesh has launched a pragmatic program for ensuring safe water and hygienic sanitation in the early `90s. During 1981-1992, the decadal progress of the nation-wide program had been very slow. After 1992 it has gained momentum with the increased involvement of NGO's and other international agencies. But the progress is not uniform throughout the country due to some limiting factors. Specially, in the remote rural areas of southern Bangladesh, the program is yet to reach its target. This paper has identified the erroneous service delivery mechanism, lack of health awareness of the rural people along with others couple of factor as the prime impediments in the way of program expansion in the study villages of Batiaghgata thana of Khulna districts. Lastly, it puts forward some recommendations to make the program a success in the study area.

Keywords: Hygiene; Sanitation; Community health, Safe water; Motivation

Introduction

One of the essential elements of primary health care is provision for safe water and hygienic sanitation. To ensure health for all, the importance of providing safe water and hygienic sanitation can hardly be exaggerated. Because, more than 1000 million of world population living in rural areas, doesn't have adequate access to safe water supply and hygienic sanitation system (Bourne, 1982; Letitia, 1982; World Bank, 1977). Two-third of them is from the poorest countries of Asia and almost half of them suffers from diseases associated with insufficient or contaminated water, and is at risk from water-borne diseases (Subrahmanyami, 1981). 80% of all the diseases in the world are water -borne and two third of them generally occurs in the third world countries. Pollution of water in these countries causes death to some 25 million souls every year (Letitia, 1980). Among the victims, infants are worsely affected; 5 million children below 5 years of age die each year due to diarrhoea alone (Rashid *et al*., 1992). Their vital importance as a public health problem is often overlooked, because their incidence is difficult to evaluate and the severity of their health and economic consequences is often not fully understood (WHO, 1997a). On the other hand, due to persistent poverty most of the government of developing countries often fails to cope with the burgeoning problem with won fund. But, the fact is that, if 35-40% of the UN schemes for clean

* Corresponding author. Tel.: +88-(041)-720171-3; Fax: +88-(041)-731244; e-mail: <urp@ku.khulnanet.com>

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water supply and sanitation in these countries could be achieved by the year 2010, then it would be possible to reduce the death of these infants to half of the current ones (Broune, 1989).

So far as safe water and hygienic sanitation in concerned, Bangladesh is considerably affected. At least 3 million children of rural Bangladesh are suffering from diseases – which are water borne and can be prevented easily with the use of safe water and hygienic sanitation (World Health, 1991; UNICEF, 1989). But potable water situation in general in Bangladesh is not that much satisfactory. As a result every year about 3 lakh children under 5 die of diarrhoea (Rachel *et al*., 1993; GOB-UNICEF, 1991). This situation might aggravate. Because due to unsanitary / unhygienic defecation practice in rural areas, the total coliform and fecal coliform responsible for water-born diseases are higher than WHO recommended standard in surface water and possibly, in some areas, in underground water- which is responsible for the recent out break of diarrhoeal diseases (Jamal, 1997).

To break the chain of transmission of this type of water-born and excreta related diseases improved excreta disposal method must be provided together with improved water supply. The combination of these two measures will frequently be found to be the most effective means of control. Public health education will almost always be necessary to achieve the full benefit (Lititia, 1989).

Thus, in recent times, provision of safe water and hygienic sanitation has attracted the attention of the experts as two of the most forceful criteria for ensuring least healthy living. It is probably due to the fact that the lesser the standard of these two criteria, the higher the chances of spreading epidemic and related diseases (Sandy, 1997). Moreover, apart from health impact, the lacking of safe water and hygienic sanitation, both in terms of quality and quantity has detrimental impact on personal economic productivity and thus ultimately on total economy (Martins, 1996). This immense importance of water and sanitation on socio-economic life has made the United Nations to declare 1981-1990 as the "International Drinking Water Supply and Sanitation Decade" (Falkenmark, 1982).

Considering the crucial role of safe water and hygienic sanitation on community health, the erstwhile West Pakistan government, with the direct assistance from United Nations, in early 50`s, launched some steps to eradicate the problem of safe water and hygienic sanitation. Those efforts were very rudimentary and produced very little success up to late 70s (UNICEF, 1987). Even in 1982-83 when Department of Public Health Engineering (DPHE) was launching UNICEF assisted program, the rate of success in ensuring safe water and hygienic sanitation among the rural mass was observed only 7-9% and 2-5% respectively (DPHE-WHO, 1986; DPHE, 1986; UNICEF, 1983). However, later on, with the increased involvement of the NGO's and International bodies specialized in public health, the above rate started to show upward sign of progress. In the Fourth five year plan (1990-95) of Bangladesh, the target for these two sector (safe water and hygienic sanitation) was one tubewell for every 108 person and one hygienic latrine for every 13 person. Directives were establish in such directions so that household coverage under sanitation program in the rural areas can be increased up to 35% and water supply up to 28%. (GOB, 1990). At the very late stage of this plan period, it was observed that nationwide 34% of the households were habituated to sanitary latrine (Annon, 1997) and only 26% of the total rural population have got access to tubewells for all household works (Annon, 1997). All these suggest that till to date success in this respect is yet to reach up to the mark for least satisfaction of all concerned. Both political and Socio-economic reasons of diverse nature contributed in achieving such little success. Lack of holistic and realistic approach of the government implementing machinery in making these approaches popular among the rural people is one of them. This paper is an endeavor to explore the status of the safe water and hygienic sanitation program as well as the impediments of program expansion in the rural areas of Khulna.

Status of the Program in Khulna region: A Review

Department of Public Health Engineering (DPHE,) early in 1982-`83 started a scheme of providing sufficient volume of safe water and hygienic sanitary material among the rural mass of Khulna region (Later, back in 1991 the region was sub-divided into two distinct jurisdictions namely Khulna and Barisal division). From its very inception the program was initiated on pilot basis. During that period, UNICEF provided DPHE with both technical and financial assistance. DPHE used to supply rings and slabs of sanitary toilet free of cost (except for installation charge)-to the interested individuals; of course from 90s it has changed its policy and started to supply sanitary equipment among the beneficiaries at a subsidized rate (about 50%). In 1988-1989 special directives were issued from the higher authority of the government to expedite the nationwide program. Khulna region was one of the priority regions. It is due to the fact that most of the area of the then Barisal district and notable part of Khulna district at that time were susceptibly vulnerable to after flood epidemics like diarrhoeal diseases. Still to some extent, such disasters are inevitable in some parts of Khulna and Barisal district during the rainy season. This statement is supported by WHO's (1997b) recent publication: World Health Report 1996. It noted that in the early months of 1993 causes an estimated 1-lakh diarrhoeal cases and 1000 deaths in southern Bangladesh.

Epidemics through diarrhoea were common scenario in this part of the country, mainly due to the lack of knowledge of primary health care and hygienic sanitation. Besides the remote location of some densely populated localities in this region were inaccessible by motorized vehicle but by time consuming water vessels. Owing to this difficulty the public body responsible for dissemination of the program often felt reluctant to do so. Thus a sizable number of vulnerable people of various section were and still are deprived of getting the advantages of this holistic program and leading a sub-standard life so far as safe water and hygienic sanitation is concerned. Along with this, social backwardness, superstition etc also contributed in restricting the expansion of this program and kept the rural masses in isolation from the program benefit. Without properly addressing the aforesaid problems the program could not be a successful one. Recognizing this fact, for eradicating such problems, DPHE, UNICEF and some other notable NGO's adopted strategies for building awareness among the rural mass, that may be termed as software side of this program. The program of awareness building started in the middle of '90's and the success of such attempt is yet to reach its target. Currently sanitation coverage in Khulna district is 64% and tubewell coverage by household under safe water program (Including use of tubewell water for drinking and other household work) is about 60% on average (Annon, 1995).

Table 1. Water use pattern in Khulna district.

District	Source of drinking water(%)				Source of water for House hold Work(%)			
	Tube well	Tap	Ring Well	Other	Tubewell	Tap	Ring well	Other
Khulna	74.7	0.4	0.0	24.8	23.4	0.0	3.1	74.3

Source: UNICEF, 1996.

Table 2. Sanitation status of Khulna district.

District	Types of Latrine (%)				Hand washing after defecation (%)			
	Water seal	Pit	Hanging	Other	Water only	Water and soap	Water and ash	Other
Khulna	18.9	12.6	18.9	49.6	1.0	9.1	89.1	1.4

Source: UNICEF, 1996.

Of course, UNICEF has ranked Khulna district from overall situation of water and sanitation practice pattern in the following status.

Table 3. Safe water and hygienic sanitation status in Khulna district.

Criteria	Goal 2000	Current Status	Challenge factors$^{\phi}$	AARC*
1. Household using safe water for drinking	80	62	18	4
2. Household having sanitary latrine	80	40	40	8

Source: UNICEF, 1995.

ϕ Challenge Factor- The gap between the goal and current status of achievement expressed as percentage. The higher the challenge factor, the more is the effort needed to achieve the goal.

* AARC- Average annual rate of change- the annual percentage increase needed in the level of coverage if the goal is to be achieved.

Materials and Methods

The present study was conducted (for the preparation of a dissertation) as a requirement of Bachelor of Urban and Rural Planning Degree (BURP) in 1997. The Batiaghata Thana of Khulna district was selected for a number of reasons primarily because tidal water and salinity directly influences this area. Thus the problems of safe water and hygienic sanitation are likely to be more acute here than any other Thana of Khulna district (Moinuddin, 1997). Further more DPHE-UNICEF launched safe water and sanitation program was operating in this area. To be unbiased, a multistage –stratified random sampling technique was adopted while designing survey sample. As primary sampling unit, "Jalma" union (Out of 7 unions) was selected. It comprises 29 villages. Among these 5 villages (15% of the 29 villages) were randomly selected as secondary sampling unit. Finally in order to achieve representativeness, 15% households from each of these five villages were randomly selected for questionnaire survey.

Table 4. Village wise survey sample.

Name of Village	Total number of Households	Sample size- 15% of Household
Sachibunia	196	29
Jharbanga	215	32
Chakrakhali	231	35
Chhaygharia	296	44
Raingamari	261	39
Total	1199	179

Source: Documents of Jalma Union Parishad Office, May 1997.

Two types of questionnaire viz. one for program beneficiaries/covered households, another for non-beneficiaries/uncovered households were administered. Questionnaire for the beneficiary groups was designed such a manner so that it could comply with three distinct types of beneficiaries i.e. it was compatible

for households having sanitary toilet(s) but does not use safe water;
for households using safe water, but not using sanitary latrine and
for those using both the services.

For the present study non-beneficiary / uncovered household means those who haven't got access or are not habituated to safe water and hygienic sanitation services.

Profile of Study Area

The study villages are located at the northern part of the Batiaghata Thana. The area lies in between 22 43'- 22 43' 30" North latitude and 89 31' -89 32' East longitude. Total population of the five

villages is 7165. 38% of them are engaged in agriculture and related farming activities which is followed by day labor 16%, small business 8.5%, boatman 8%, service 7% and others 15%. The average income of the households is significantly low, ranging Tk. 1500 -2500 per month. But the literacy rate is slightly higher as compared to national average. Average male literacy is 58% and female literacy is 37.33% (BBS, 1992). In all the five villages, the inhabitants are normally habituated to pond, canal, ditch, and tubewell water for meeting their daily water needs. But on the events of increased awareness regarding safe water and hygienic sanitation, their dependency on tube well water is increasing even though in a slow pace; nevertheless it is promising. It would be worthwhile to mention that the people here generally do not use tubewell water due to increases salinity and burgeoning threat of arsenic contamination rather they procure water from near by shallow/deep tubewell.

Situation Analysis of Safe Water Program in the Study Area

From 1982 to 1992 expansion of the program was very slow and from 1992 and onward under crush program the rate of expansion was considered fast. Sources of water for household use are gradually getting changed from unhygienic to hygienic one among the covered and uncovered households. Study revealed that even in 1990 more than 80% people were dependent on water of pond and similar sources for meeting much of their potable water demand. But such scenarios have markedly changed particularly among the program beneficiaries. Now 100% people of the covered households use tubewell water for drinking purpose. Of course, in the case of washing, bathing etc. the rate of such dependency change to improved sources is quiet low.
Only about 17% and 31% households of the beneficiaries use tubewell water for washing and bathing purpose respectively. (Table 5)

Table 5. Program beneficiaries by sources of water procurement.

Use of Water	Sources: during 1982-92 (1st Phase)						Sources: during 1992-96					
	Pond		Well		Tubewell		Pond		Well		Tubewell	
	No	%	No	%	No	%	No	%	No	%	No	%
Drinking	71	65	17	15	22	20	-	-			110	100
Cooking	85	77	14	13	11	10	-	-			110	100
Washing	88	80	22	20	-	-	72	65	20	19	18	17
Bathing	96	87	14	13	-	-	66	60	9	8	34	31

Source: Field Survey, May 1997.

Table 6. Non-beneficiaries of the program by sources of water procurement.

Use of Water	Sources: during 1982-92 (1st Phase)						Sources: during 1992-96					
	Pond		Well		Tubewell		Pond		Well		Tubewell	
	No	%	No	%	No	%	No	%	No	%	No	%
Drinking	50	73	14	20	5	7	43	63	9	13	17	24
Cooking	50	73	19	27	-	-	55	80	9	13	5	7
Washing	69	100	-	-	-	-	69	100	-	-	-	-
Bathing	60	87	9	13	-	-	60	87	7	10	2	3

Source: Field Survey, May 1997.

On the contrary, among the non-beneficiary group/households dependency on pond water for drinking purposes has been reduced from 73% to 63% in the second phase of the on going program. It was probably due to the demonstration effect. Similarly dependency on tubewell for potable water has increased from 7% to 24% at a poor rate of progress (Table 6). It indicates a clear

message that even after one and half decade of the programs commencement the non-beneficiaries household have not registered significant changes in their daily water procurement pattern (Table 5. and 6).

Status of Hygienic Sanitation Program in the Study Area

A significant change has taken place among the program beneficiaries in terms of their habit of toilet use. During 1982-92, amongst the 110 sample households of beneficiary category, only 35% used to rely on hygienic sanitary latrine for defecation; by the year 1992-96, which rose to as high as 100% (Table 7).

Table 7. Program beneficiaries by habit of hygienic sanitation

Types of Toilet	During 1982-92 (1st Phase)		During 1992-96	
	No.	%	No.	%
Well / Pit Latrine	7	6	110	100
Water sealed Latrine	22	20	-	-
Other Hygienic Latrine	9	9	-	-
Unhygienic Latrine	72	65	-	-
Total	110	100	110	100

Source: Field Survey, May '97

On the other hand among the non-beneficiary/uncovered households the change of sanitary habits were observed insignificant. During the fast phase of this program only30% of the households used hygienic toilet and due to demonstration effect that figure has now rose to 40% during the long span of time.

Table 8. Non-beneficiaries of program by habit of hygienic sanitation.

Types of Toilet	During 1982-92 (1st Phase)		During 1992-96	
	No.	%	No.	%
Well / Pit Latrine	2	3	5	7
Water sealed Latrine	5	7	9	13
Other Hygienic Latrine	14	20	14	20
Unhygienic Latrine	48	70	41	60
Total	69	100	69	100

Source: Field Survey, May '97

Here sanitary toilet refers to such installation which is - free from spreading odor, where disposed excreta don't remains exposed to open and in some form of storage system, underneath the slab. All these scenario indicates that the provision of safe water and hygienic sanitation is yet to reach the program goal.

Beneficiaries and Non-beneficiaries Perception about the Program

From the foregoing / aforesaid discussion it is evident that out of 179 sampled household, 110 are beneficiaries and rest 69 are non-beneficiaries. All out effort has been made to find out why 69 households are not enjoying the benefit of this holistic program whereas 110 households of similar socio-economic background are taking the advantages. 23% of the beneficiaries pointed out that they are solvent enough to procure the sanitary means and 62% replied that despite their insolvency they procure the sanitary means owing to the awareness of safer and hygienic living. (Table 9).

Table 9. Beneficiaries intention for program adoption.

Reasons for safe water and Hygienic sanitation use	Response for Safe water use		Response for Hygienic sanitation use	
	No.	%	No.	%
Financial solvency	27	25	25	23
Health awareness	66	60	68	62
Others socio-economic	17	15	17	15
Total	110	100	110	100

Source: Field Survey, May 1997.

On the contrary 58% of the non-beneficiary household, who have not adopted hygienic sanitation stood in favour their financial insolvency as the basic reason for not procuring sanitary means and 38% of them recognized that they don't have awareness regarding the indirect benefit that might derive from the use of hygienic sanitation (Table 10).

Table 10. Program non-beneficiary's intention for not taking the benefit.

Reasons for safe water and Hygienic sanitation use	Response for Safe water use		Response for Hygienic sanitation use	
	No.	%	No.	%
Financial insolvency	45	65	40	58
Doesn't feel the necessity/Lack of health awareness	18	26	26	38
Others socio-economic	6	9	3	4
Total	69	100	69	100

Source: Field Survey, May 1997.

From their (non-beneficiaries) responses, one might misunderstand that non-beneficiaries are not adopting sanitary means since they are mere not solvent enough to procure the same. But such generalized statement is not supported by their monthly income pattern. Study finding shows that the average monthly income of the beneficiary household's is Tk 2583 and that of non-beneficiary household is Tk. 2542. Similarly it has revealed that 44% of the beneficiary household's monthly income ranges between Tk.1500-2500, whereas 43% of the non-beneficiary households' income ranges within the same margin. Most beneficiaries of this income range posses hygienic sanitary means but the non-beneficiaries don't. Thus the situation of the non-beneficiary group is not as bad as it is uttered while describing their reasons for not adopting the program benefit. So financial solvency or insolvency may not be the root cause for adopting or not adopting the benefit of the program. Root causes might lay elsewhere; probably the level of awareness regarding the hygienic living. 38% of the households of the non-beneficiary category recognized that they are not conscious about the consequences of the use of unhygienic sanitation. Probably this percentage would be more than they are being found during field survey and this might be the root cause for slower adoption of the program among the non-beneficiary household. This postulation also finds its firm footing, from the comparison of the sources of money for both groups for procuring the program benefit. Beneficiaries who are aware about the benefit of hygienic living and whose socio-economic background are as same as that of non-beneficiaries, has taken loan from local NGO's for procuring the program benefit. But none of the non-beneficiaries (claming themselves as financially insolvent) under-took such initiative. So it is established that financial solvency or insolvency is not crucial to get the advantage of the program; rather awareness and willingness are of very much crucial in doing so.

Table 11. Beneficiary and Non-beneficiary by monthly income.

Income range (in Tk)	Beneficiary household		Non-beneficiary household	
	No.	%	No.	%
Below 1500	15	13	7	10
1500-2500	48	44	29	43
2500-3500	32	29	21	30
3500-4500	11	10	12	17
4500 and above	4	4	-	-
Total	110	100	69	100

Source: Field Survey, May 1997.

Impediments in Program Expansion

From the foregoing discussion it is evident that although some success has been achieved, still there exists considerable lack of awareness among the common mass particularly among the non-beneficiaries regarding the vulnerability of using unsafe water and unhygienic sanitary means. They are unaware of the affect of water use and sanitation habit on living pattern. The nature and type of toilets, which they are using, displays an unhygienic pattern of living, which in a sense is most massy. In most cases these toilets are hanging on static water bodies like derelict ponds, ditches or arranged aside the bank of water course like canals from where many of them often fetch water for meeting their potable water needs. They hardly care about the year round dependency on such contaminated sources which could drag them into the grief of chronic diseases / water born diseases like Diarrhoea. Rather they believe that sufferings from diarrhoeal diseases are very common particularly in wet season and they consider it as an integral part of life.

Most amusingly, many of these vulnerable people have admitted that they are still in the darkness regarding the direct contribution of safe water use and hygienic sanitation to control certain diseases that might arise from the use of unhygienic one. That's why, many solvent people particularly of non-beneficiary category feels reluctant to spend money for procuring hygienic sanitary kits. Some of them just procure the same thinking it as a symbol of social status.

Basic Philosophy of Intervention

To enhance the level of awareness of rural mass regarding the use of safe water and hygienic sanitation, the negative impacts that might arise with the use of unsafe water and unhygienic sanitation must be clearly explained to them. They must be convinced to make the program a success in the grass root level. In this respect, while campaigning for motivating the common people, two things might be highlighted to convince them. First of all, how living environment is deteriorated with the use of unsafe water and unhygienic sanitation and secondly how, living condition affect the sound living by reducing economic productivity and personal income and ultimately puts strain on personal saving. Here productivity refers to the working capacity of one. When no working hour/day is lost due to illness or similar other reasons, the situation is considered as highest productivity. People should be motivated in such a way, that water of canal. ditch or pond has more chances of getting contaminated by the runoff / seepage from near by unhygienic toilets particularly in the wet season. If this contaminated water is being used for drinking, cooking, bathing, washing or similar other domestic purposes, one might be in more risk of being adversely affected than the user of safe water and hygienic sanitation. If a family has only a single earning member and if he/she gets affected by water born diseases like diarrhoea, dysentery etc. then he/she would be bound to remain out of job/work until complete recovery. This would reduce his/her productivity at least during the acute ailment period. Loss of productivity for a day or a couple of days means simply loss of income for that or those days, which intern would affect the living standard/pattern of the victim's entire family.

Recommended Strategies

Technological advances in water supply and sanitation in recent years offers cost effective solutions that can be adopted to local circumstances and which can greatly improve health and environmental condition. Necessary arrangement should be made in such a manner so that the common people can get easy access to safe water and hygienic sanitation. In the light of this the following recommendations are put forwarded to make the program a success.

Hardware Side Development: Once hygienic sanitary means are supplied free of cost for demonstration effect. At present the DPHE supplies hygienic sanitary means to interested individual at a 50% off price of actual worth. The basic philosophy behind shifting from free of cost to a paying system was that whenever one pays for service he/she becomes conscious about the benefit occurring from that. At the same time he/she feels sense of belongingness or establishes ownership over that service which psychologically forces him to properly maintain it unless he/she incurs demurrage. Opportunity to procure sanitary kits from DPHE at 50% off price should encourage the common people but there were much complains from the part of intendment beneficiaries/service receiver. They argued that, despite, 50% subsidy, DPHE costs Tk.635 for sanitary toilets with one ring and four slabs excluding installation charge. But the commercial producers are ready to supply the same sanitary arrangement at a price of Tk.700. The intended beneficiaries demanded that the production cost is not more than Tk.700 for these sanitary kits. At a 50% off price DPHE should fix to Tk.350 for these sanitary kits to encourage the intended service receivers. Another much uttered complain was that, procuring sanitary means from DPHE is a lengthy process due to its unnecessary procurement procedure. In this respect it is recommended that DPHE and other concerned organizations should take appropriate measures to supply quality sanitary kits at cheaper rate than current one. For the time being it may incur more subsidy. But in the long run this will indirectly contribute to expedite the nationwide program of safe water and hygienic sanitation. Because it may be an effective encouragement for the intended beneficiaries for shifting their unsafe habits towards a safe one. Besides, in areas where ponds, wells are being used as prime sources of water due to arsenic and iron contamination in tubewell or shallow tubewell water, measure should be taken to make water of such ponds and wells contamination free. And only then the people can fetch safe water from these sources at least for drinking and cooking purposes. In this respect widely known low cost pond-sand filtration can be adopted.

Software Side Development: It has been proved that motivational camping has profound impact on rural mass. To increase the coverage of the program motivational campaigning may be introduced in an extensive and diversified scale. Such campaigning may highlight and demonstrate the benefit of safe water and hygienic toilet use and susceptibility of diseases associated with the use of unsafe one. More over, it is a common practice among the program beneficiaries to break the gooseneck of the toilet slab in order to channelise the excreta easily to the pit beneath. But design consideration here is as such that this gooseneck formation is meant to contain certain amount of water for preventing the spread of odor from beneath the slab. This negative practice among the program beneficiaries spreads odor and in the long run, disease. This is a major setback in ensuring the program goal. The reason behind such practice is that these groups use only one pot of water for washing after defecation and for channelising the excreta towards the pit. But for channelising the excreta and to prevent the odor to spread from beneath the pit, according to DPHE, at least 3 gallons of water is needed. These beneficiaries are not being made aware of this fact. Besides there exist no standards regarding the safe distance between household and toilets. So, for ensuring program benefits to its full extent, such technicalities need to be clearly disseminated among these unaware beneficiaries. Catchy slogan that might convince the people positively in this regard may be disseminated in the air. In this respect local NGO, CBO, DPHE, FPAB and the likely Govt. machinaries can launch integrated program of awareness building. Particularly, the local NGOs and CBOs can play a pivotal role in awareness building through their motivational approach of "*Uthan Baithak*"(courtyard meeting)

Concluding Remarks

From the study it becomes clear, that safe water and hygienic sanitation program can definitely improve the rural community health situation. But for achieving such objective, this program needs to be redesigned. In other words, for achieving pragmatic success the entire program should be more voluntary service oriented. As the benefits of this program are quite social in nature, so the orientation of the program should be peoples welfare oriented. Social benefits indirectly render economic benefit because improved community health means improved production to the economy and least cost for health purpose. Considering this hypothesis the program of safe water and hygienic sanitation may be initiated with new vision.

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