Loughborough University

This item was submitted to Loughborough's Research Repository by the author.
Items in Figshare are protected by copyright, with all rights reserved, unless otherwise indicated.

National baseline survey on sanitation in Bangladesh: an exemplary event of collaborative partnership

PLEASE CITE THE PUBLISHED VERSION

PUBLISHER

© WEDC, Loughborough University

VERSION

VoR (Version of Record)

PUBLISHER STATEMENT

This work is made available according to the conditions of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0) licence. Full details of this licence are available at: https://creativecommons.org/licenses/by-nc-nd/4.0/

LICENCE

CC BY-NC-ND 4.0

REPOSITORY RECORD

Ahmed, Afroza, and A.Y. Siddiqi. 2019. “National Baseline Survey on Sanitation in Bangladesh: An Exemplary Event of Collaborative Partnership”. figshare. https://hdl.handle.net/2134/30128.

30th WEDC International Conference, Vientiane, Lao PDR, 2004

PEOPLE-CENTRED APPROACHES TO WATER AND ENVIRONMENTAL SANITATION

National baseline survey on sanitation in Bangladesh: An exemplary event of collaborative partnership

A. Ahmed and A. Y. B. I. Siddiqi, Bangladesh

In response to the MDG and WSSD targets, Government of Bangladesh, having formed an effective partnership with Development partners including UNICEF, NGO's and other stake holders, have declared Bangladesh's target of achieving total sanitation, whereby, every household in the nation will have facilities of sanitary latrine by 2010. The target will be fulfilled in three phases by 2005, 2008 and 2010. It is realized that in order to set the sanitation target at the grassroots level, it is very important to know the present status of sanitary latrines. To design the intervention it is also important to know the reasons as to why such a vast number of people do not have latrine at all. It was further felt that the elected leaders of the Local Government institutions (LGI's) should be involved in all activities towards total sanitation. With this in mind, under the leadership of Local Government Division of the Ministry of LGRD&C, nationwide baseline survey was conducted covering all household under the leadership of LGI's with the assistance of concerned Government departments with minimum financial involvement and within a few weeks. The successful conduction of the survey induced the confidence of the local government institutions for managing nation wide events. The baseline survey was also instrumental to sensitize the grassroots about the sanitation issues.

Background

The United Nations General Assembly set eight Millennium Development Goals (MDGs) in 2000, of which two are directly related to sanitation:

Goal 4:

- Reduce by two-thirds the mortality rate among children under five.

Goal 7:

- Integrate the principles of sustainable development into country policies;
  reverse the loss of environmental resources
- Reduce by half the proportion of people without sustainable access to safe drinking water
- Achieve significant improvement in the lives of at least 100 million slum dwellers by 2020.

Two years later, in 2002, World Summit on Sustainable Development (WSSD) held in Johannesburg recognized the need for improvement in sanitation as an urgent priority. All participating nations in that summit, including Bangladesh, agreed to pursue the following specific sanitation target in the Implementation Plan of WSSD:

- By 2015, reduce by half the number of people, currently 2.4 billion, who do not have access to basic sanitation facilities.

In Bangladesh, it is estimated that only 43% urban and 10% rural households use a water seal latrine. If simple pit latrines are included, the coverage figure rises to 61% urban and 41% rural. This equates to a national average of urban and rural of approximately 43%. However, there are some under-served areas, which give rise to particular concern. For example, it is estimated that only 14% of slum households in the metropolitan cities have sanitary latrines (water seal 6.6% and pit latrine 6.9%). Therefore, the vast majority of the people living in urban slums and a little over half of people living in other areas continue to use unsanitary latrines or practice open defecation. There is also widespread use of hanging latrines, which pose a particular threat to both health and the environment. Personal hygiene is also a concern, when it is estimated that only 7% of people wash hands with soap and water after defecation.

In achieving greater sanitation coverage, the sanitation campaign played a very positive role in Bangladesh. During 1994 to 1998, the Government of Bangladesh, with the support from UNICEF observed a specific programme on sanitation issue as national concern and importance. A project called Social Mobilization Programme (SOCMOB) was launched also in 1990's. Due to these efforts, sanitation coverage showed an upward trend which, however declined again after discontinuation of SOCMOB in 1998.

There was a common concern of the major stakeholders about this low sanitation trend and the resulting serious health issues, particularly affecting the children. Thus, another attempt was made in early 2002 to find the way out of this

situation. Government of Bangladesh (GOB) attached appropriate priority to the neglected subject of sanitation and launched a hygiene and sanitation movement throughout the country. A strong political will was evident as the Head of Government inaugurated the sanitation campaign and the political leaders carried it forward in remote constituencies on the written requests from ministries of Local Government, Rural Development and Cooperatives (LGRDC). All stakeholders were in the campaign and in no time, a strong partnership was established with the Government on one side and the Development partners, NGO's and civil society on the other. Local Government Institutions and the Field level Government officials and leaders of Political, Social and Religious arenas were also involved in the campaign. Various agencies, NGO's and other stakeholders launched simultaneous sanitation campaign in Bangladesh with a view to reinforcing the programme thrust of different partners. Accordingly, a concept note on the National Sanitation Campaign was developed by UNICEF and presented to the Honorable Minister and Secretary of the LGRDC Ministry in October 2002. The concept was scrutinized in the joint meeting of the coalition partners and following issues were selected for being addressed during the Campaign:

- Launch a nationwide sanitation campaign involving all stake holders.
  Baseline survey involving the LGI's to be
  Conducted throughout the country.
- Extensive campaign for awareness rising for good hygiene practices.
- Quitting of open defecation.
- Replacement of hanging latrines by sanitary latrines.
- Motivation of children in latrine use.
- Washing both hands with soap/ash/soil after defecation, after cleaning baby's bottom, after disposal of child's faeces, and before eating and handling food.
- Helping the ultra poor in provision of proper sanitation facilities.

In order to carry out the activities of the National Sanitation Campaign, a National Task Force was formed headed by the Secretary of the Local Government Division. A secretariat was established to support the National Task Force.

Having observed the positive response and enthusiasm of all concerned, including the development partners, NGOs, local government institutions, local administration Political, Social and Religious leaders etc. The Government of Bangladesh, in consultation with the coalition partners declared the target for achieving 100% sanitation in Bangladesh by 2010 as against MDG and WSSD which is by halving the number of people without sanitary latrine by 2015. The target will be fulfilled in three phases by 2005, 2008 and 2010.

This is an ambitious target because to achieve this, the pace of sanitation coverage in Bangladesh should be 8% per annum which is only 1% per annum at the present moment.
All partners of the coalition scaled up their activities on sanitation in a coordinated manner and various actions taken in this regard included mapping of the existing sanitation programme by the different Go, NGO and development partners, series of orientation meetings to sensitize the different Task Force at different levels on the campaign, observance of National Sanitation Month in October 2003 and South Asian Conference on Sanitation (SACOSAN) also in October, 2003.

National baseline survey

However, the most important and useful step was the base line survey. It was realized that in order to achieve the sanitation target of Bangladesh it was important to set the sanitation target at the grassroots level. And to achieve the target, it was very important to know the present status of sanitary latrines at different levels. To design the interventions related to sanitation, it was also important to know the reason as to why so many people did not have a sanitary latrine. With these in mind and to ascertain the actual present coverage of sanitation, the extent of deficit, the pattern of use of latrines and reasons behind the shortfall of sanitary provisions, a baseline survey was conducted under leadership of LGI's throughout the country covering all households during August 2003 to September 2003. In essence, this was a sanitation census, not a sample survey.

The survey was conducted by local government institutions with the help of field level Government officials, particularly the officials of Department of Public Health Engineering (DPHE) and the Local Government Engineering (LGED) who were responsible for the recording of data and the subsequent compilation. NGOs also participated along with all stakeholders who were briefed extensively throughout the country by the coalition team, headed by the Ministers and Secretary of the LGRDC. National, district, upazila and union level Task Forces were formed to organize the baseline survey and other sanitation motivational activities.

WES Section of UNICEF-Bangladesh coordinated the national baseline survey and was involved from the development, printing and distribution of the survey forms, and the preparation of the analytical report. UNICEF also supported the division and district level briefing sessions on the baseline survey process. All the elected representatives, government officials, journalists, NGOs and representatives from all the sectors took part in the briefing meetings at the different levels and extended their support for the successful completion of the baseline survey.

The objectives of the survey were:

- To learn about the current sanitation condition at the ward, union, upazila, district and national levels.
- To set the target for achieving 100 percent sanitation at the different levels in three phases (2005, 2008 and 2010).

Survey process

Development of survey tools

After the formation of National Task Force in early 2003, a

task group was formed under UNICEF-Bangladesh to develop the tools and methodology of the baseline survey on sanitation. Data collection forms were prepared for recording sanitation data collected from the survey.

Simple forms were developed for the survey so that without any serious training, local government institutions could fill up the forms. Two types of color of forms, white for households with latrine and red for households without latrine were used (table 1 and 2). Separate forms were prepared for rural areas, and Pourashavas and City Corporation areas. A data compilation forms for the compilation of these data at the upper level (Upazila, District/Pourashava, City Corporation) were further developed (Fig. 1). A set of guidelines were also developed with the necessary instructions for filling up the forms (Fig. 2).

Similar forms were developed separately for the urban areas.

Pre-testing of survey questionnaires

The draft data collection forms were pre-tested in May, 2003, in six unions randomly selected from each of the six divisions in Bangladesh. The forms were then revised according to the experience gained from the pre-test.

Table 1. Data collection form for rural household with latrine

Name of Head of the Household	Type of Latrine (Put Tick mark-One Tick Only) (Fill it with Physical Verification)		Use pattern (Put Tick Mark) 1		
	Hygienic Latrine	Un-Hygienic Latrine			
	Pit, Ring slab, Sanitary latrine (1)	Latrine connected with (pond/canal, ditch) or Broken ring, Open/Hanging Latrine (2)	All Members of the Family (Above 3 yr) (3)	Women Only (4)	Occasionally like when guests come (5)
1					
2					

Table 2. Data collection form for rural household without latrine

Name of Head of the Household	Reason for not Having a Latrine (Put Tick Mark)				
	No Money (1)	No Land Available (2)	Lack of Awareness (3)	Prefer Open Defecation (4)	Unavailability of Latrine construction materials (5)
1					
2					

National Sanitation Campaign-2003

Data Compilation Sheet (Union Level)

Name of Union: _____ **Name of Upazila:** _____ **Name of Zila:** _____

Ward No	Total No of H/Hs	*Fill it from white Form*						*Fill it from Yellow Form*					
		Total No H/Hs with Latrine	Type of Latrine		Use pattern			Total No of H/Hs without latrine	Reason for not Having a Latrine (Multiple Response)				
			Hygienic Latrine	Un-Hygienic Latrine	All Members of the Family (Above 3 yr) (3)	Women Only (4)	Occasionally like when gust come (5)		No Money (1)	No Land Available (2)	Lack of Aware-ness (3)	Prefer Open Defecation (4)	Un-availability of Latrine construction materials (5)
			Pit, Ring slab, Sanitary latrine (1)	Latrine connected with (pond/canal, ditch) or Broken ring, Open/Hanging Latrine (2)									
Total													

Figure 1. Compilation sheet

Briefing and orientation session on the baseline survey

Orientation sessions on the baseline survey were held at the divisional and District level which were found to be very effective for the conduction and management of the nation wide baseline survey. The survey process at different levels and the responsibilities of different stakeholders (the local government institutions, civil administrations, NGOs etc.) were mentioned during the session. Ministers and high officials of LGD attended the briefing sessions.

Printing and distribution of survey forms

UNICEF was given the responsibility of printing and distributing of this baseline survey forms. A detail logistical plan for the printing and distribution of the different forms for the rural and urban areas in Bangladesh was developed by the Water and Environmental Sanitation (WES) section and the Supply and Procurement Section of UNICEF. UNICEF, DANIDA, DFID and WHO gave assistance in printing and distribution. Department of Public Health Engineering (DPHE) and Local Government Engineering Department (LGED) were responsible for the management of the baseline survey for the rural and urban areas respectively.

Baseline survey data collection

The data were collected and compiled separately for rural and urban households. Urban households were defined, for the purpose of this survey, as households residing in an area that is legally a part of a City Corporation or a Pourashava (Municipality). Any other household is defined as a rural household. The data collection forms for urban and rural households were identical, except that the forms for urban households included the provision to record the holding number of the respondent's household. Two colour-coded forms were prepared for both rural and urban household surveys—white for households using latrines and the red for households not using latrines.

In the rural areas, data were collected at the ward level by the ward members under the supervision of the Union Council Chairman with assistance from local NGOs and DPHE. In the urban areas, all elected Ward Commissioners under the guidance of Mayor of city corporations and chairmen of Pourashava actively took part in the survey with assistance of LGED. The Guidelines for Filling Survey Forms stipulated that not a single household should be left out of the survey. After deciding which form to use for a particular household, depending on whether the household member use latrines or not, the basic information related to household location and survey, namely, the district, upazila, union, ward number, village, name of ward member, name of surveyor and date of survey. Name of the head of household were also recorded for ready reference in future.

For households using latrines, information on type of latrine (hygienic or unhygienic) and the latrine use pattern (used by all members of the household, used by only female members of the household or used occasionally, such as, by guests) were recorded after verification. Hygienic latrines were classified as water seal latrines, pit latrines and sanitary latrines while unhygienic latrines included open/hanging latrines, latrines with broken rings or latrines connected with water bodies. If a number of households were using the same latrine, the same latrine-related information was recorded for all the households sharing the latrine, thus counting the latrine a multiple of times. If a household had more than one latrine, information on one latrine was recorded. If multiple latrines in the same household included both hygienic and unhygienic latrines, the information on the hygienic latrine was noted. These guidelines were printed in Bangla with figures of latrines as shown in Figure 2.

After collection of same, the data were aggregated at the union, upazila, pourashava/city Corporation and district levels using the appropriate data compilation form (Table 3).

Monitoring of the survey

High level members from the Ministry of Local Government, Rural Development and Cooperatives (LGRD&C) under the leadership of the then Secretary of Local Government Division, Ministry of LGRD&C were assigned to validate survey data on a sample basis. The survey data were collected at the Ward/Union, Upazila/Pourashava level in order to proper utilization of the survey for achieving the 100% sanitation by 2010.

Figure 2. Guideline



Table 3. Share of households with hygienic, unhygienic or no latrines.					
Area/Region	Number of Households	Households with Hygienic Latrines (%)	Households with Unhygienic Latrines (%)	Total Households with Latrines (%)	Households With No Latrines (%)
Nation	2,13,94,093	33.22	24.80	57.95	41.99
Rural	1,83,26,332	28.77	24.33	53.10	46.90
Urban	30,67,761	59.77	27.62	87.39	12.61
City Corps.	12,16,424	69.92	27.55	97.47	2.53
Pourashavas	18,51,337	53.10	27.66	80.76	19.24

Table 4. Type of latrine use.				
Area/Region	Number of Households with Latrines	Latrine Used by All (%)	Latrine Used Only by Women (%)	Latrine Used Only Occasionally (%)
Nation	1,24,11,542	94.71	2.23	0.35
Rural	97,30,706	95.42	2.61	0.37
Urban	26,80,836	91.97	0.86	0.27
City Corps.	11,85,697	89.73	0.38	0.20
Pourashavas	14,95,139	95.75	1.24	0.34

Table 5. Reasons for not having a latrine.						
Area/Region	Number of Households with no Latrines	Lack of Money (%)	Lack of Space (%)	Lack of Awareness (%)	Preference for Open Defecation (%)	Lack of Material (%)
Nation	89,82,551	73.23	10.64	25.13	4.23	1.99
Rural	85,95,626	72.90	10.30	25.32	4.27	2.05
Urban	3,86,925	80.47	18.26	20.85	3.32	0.59
City Corps.	30,727	67.91	31.53	23.04	5.53	3.20
Pourashavas	3,56,198	81.55	17.12	20.66	3.13	0.37

Table 6. Best and worst areas in terms of latrine coverage				
Level of Analysis	Best Case		Worst Case	
	Area	Household with Latrine (%)	Area	Household with Latrine (%)
Rural				
Division	Barisal	80.52	Rajshahi	39.49
District	Jhalokathi	92.16	Bandarban	14.67
Upazilla	Rajarhat (Kurigram Dist.)	98.89	Companiganj (Sylhet District)	9.6
Urban				
City Corp.	Dhaka CC	99.05	Barisal CC	89.31
Pourashava	Lalmohan (Bhola Dist.)	100.00	Jaldhaka (Nilphamari Dist.)	19.48

Preparation of the survey report

An analytical report on the National Sanitation Survey, based on the data compiled by Department of Public Health (DPHE) Local Government Engineering Department (LGED) was prepared by UNICEF in early 2004. The report contains the results of descriptive statistical analysis of the data aggregated at the upazila, district, division and national levels. For rural data, the best and worst case upazilas in each district, division and the country are noted; so are the best and worst case districts in each division and the country, and the best and worst case among the six divisions. For urban data, the best and worst case city corporation in the country and the best and worst pourashava in each division and the country are noted. Best and worst case is the unit of analysis within

Table 7. Best and Worst Areas in Terms of Hygienic Latrine Coverage

Level of Analysis	Best Case		Worst Case	
	Area	Household with Latrine (%)	Area	Household with Latrine (%)
Rural				
Division	Barisal	37.03	Rajshahi	23.74
District	Jhalokathi	52.60	Bandarban	7.08
Upazilla	Rajarhat (Kurigram Dist.)	98.58	Thanchi (Bandarban)	2.0
Urban				
City Corp.	Dhaka CC	81.55	Sylhet	47.09
Pourashava	Savar (Dhaka Dist.)	87.79	Jaldhaka (Nilphamari Dist.)	11.07

the given region (upazila, district, division, City Corporation or Pourashava) meant the highest and lowest percentage of households using latrines of any nature, and using latrines of the hygienic types. With the households that have access to latrines, the pattern of use of the latrines is investigated in terms of percentage of households where the latrines are used by all members (above three years of age), by only female member or only occasionally etc so as to obtain a clear picture to be used during motivation.

Key Survey Findings

Type of latrine and sanitation coverage

The survey collected data from a total of 2,13,94,093 households from across the nation. 1,24,11,542 of the surveyed households (58%) were found to be using latrines of some form or other. On the other hand, 89,82,551 (42%) households do not have access to latrines. The number of households surveyed and the share of households with hygienic or unhygienic latrines, or no latrine at all, are shown in the following Table 4.

Although 58% of Bangladesh families use latrines, the coverage of sanitation in Bangladesh has been recorded as only 33%, because these 33% actually use hygienic latrines.

Pattern of latrine use

Among households with access to latrines, 94.7% had all members using the latrines while only the female members use the latrines in 2.2% of cases. In only 0.35% of cases the latrines are used only occasionally. The nature of use of latrine in households is depicted in Table 5.

Reasons for not having a latrine

Among households with no latrines, lack of financial resources was the most frequent reason (73.2%) cited for not having a latrine. About a quarter of the households (25.1%) were not aware about the importance of having a latrine for the household. Lack of space and lack of materials were cited as reasons by 10.6% and 2% households respectively. 4.2% households reported their preference to defecate in open space. The frequencies of reasons for not having a latrine cited by households with no latrines are shown in Table 6. Respondents were free to cite more than one reason.

The best and worst areas in terms of latrine coverage

The best and worst units of analysis for different levels of aggregation in terms of share of households with latrines of any sort and hygienic latrines are shown in Table 7 and table 8 respectively.

Conclusions

The Base-line survey, conducted on sanitation situation in Bangladesh is a unique event - mainly, because it depicts an exemplary case of coalition and co-operation between all stakeholders.

Fund was spent by the donors only for printing of forms and compilation of data; GoB undertook the main survey without any extra involvement of fund, with the help of LGIs, DPHE and LGED. The survey was quick and accurate because of the involvement of all concerned, specially, the local elected leaders. Needless to say, that had such a nationwide survey been conducted through a project, it would have taken a few years and a few million dollars.

The national baseline survey is considered as one of the key instruments to institutionalize sanitation in Bangladesh. Through this nationwide survey all the local government machineries, civil administration, NGOs and other stakeholders have been activated at different levels. The survey has also created a sense of ownership and responsibilities among the different stakeholders to overcome the sanitation problems at the grass roots. The huge tasks of data collection and management were shouldered by the local government institutions and the civil administration with the support from the two sectoral agencies (DPHE & LGED) and NGOs. No funds or financial support was provided for this data collection and the management of the survey. Moreover, this family level data collection on sanitation also created awareness at the grassroots level.

The survey induces the confidence of the local government institutions for managing nation wide events. The baseline survey and activities of the sanitation campaign, sensitized all level of people regarding the sanitation problems of Bangladesh.

It is now open to the Government and the NGOs and

others to use these data and take necessary action towards provision of sanitation coverage in Bangladesh.

References

BBS and UNICEF (2000) Progotir Pathey - Bangladesh Bureau of Statistics, Statistical Division, Ministry of Planning, Dhaka.

LGD, Ministry of LGRD&C and UNICEF (2004) Report on the Nationwide Baseline Survey on Sanitation - Local Government Division, Ministry of Local Government, Rural Development and Cooperatives (LGRD&C), Government of Bangladesh (GoB) and UNICEF Bangladesh.

Contact address
Afroza Ahmed
United Nations Children's Fund (UNICEF)
Project Officer, Urban
BSL Office Complex
Water & Environmental Sanitation (WES) Section
I Minto Road, Dhaka 1000, Bangladesh
UNICEF-Bangladesh
Tel: (880-2) 933 6701-10 ext. 223
Fax: (880-2) 933 5641-42
E-mail: afahmed@unicef.org

A.Y.B.I. Siddiqi
Arsenic Policy Support Unit (APSU)
(Former Secretary to the Government of Bangladesh)
LGD/DFID
Local Consultant
Priyo Prangan (WSP)
Arsenic Policy Support Unit 2,
Paribagh, Dhaka, Bangladesh
Tel: (880-2) 9669301 Ext. 461
E-mail: aybisiddiqi@agni.com