

WASH (Water, Sanitation and Hygiene) service monitoring in rural Bangladesh: Prospects for social mapping-based community monitoring



Supporting water sanitation and hygiene services for life

© 2024, IRC This report explores the existing WASH service monitoring system and their gaps at different levels in Bangladesh. It explains, how WASH SDG Consortium's WAI sub-programme has worked to mitigate those gaps with an interim solution of social mapping-based WASH service monitoring. One of the strategic objectives of the WASH SDG Programme in Bangladesh was to improve the quality of WASH service provision, and for this service monitoring is essential. This report also looks at opportunities to include such community-based methods in interim WASH service monitoring.

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Prospects for social mapping-based community monitoring









Ministry of Foreign Affairs



Abbreviations

APA	Annual Performance Agreement
BBS	Bangladesh Bureau of Statistics
CSO	Civil Society Organisation
DGHS	Directorate General of Health Services
DHS	Demographic and Health Survey
DPHE	Department of Public Health Engineering
FSM	Faecal Sludge Management
IMED	Implementation Monitoring and Evaluation Department
IMIS	Integrated Municipal Information System
JMP	Joint Monitoring Programme
LGD	Local Government Division
LGED	Local Government Engineering Division
LGI	Local Government Institute
MICS	Multiple Indicator Cluster survey
MP	Member of Parliament
NAP-IRF	National Action Plan for Institutional Regulatory Framework
NGO	Non-Governmental Organisation
PSB	Policy Support Branch
SDG	Sustainable Development Goal
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WASA	Water and Sewerage Authority
WAI	WASH Alliance International
WASH	Water, Sanitation, and Hygiene

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1. National WASH status of Bangladesh

Bangladesh has made remarkable progress in eliminating the practice of open defecation. As a result, Bangladesh has been successful in achieving the Millennium Development Goals (MDGs). But realising safely managed water and sanitation service levels remains a challenge. The Joint Monitoring Programme's 2022 Progress Report shows that Bangladesh has a safely managed drinking water coverage of 59% and a safely managed sanitation coverage of only 31%. The report also indicates that at the national level basic hygiene service coverage is 62% (JMP 2022).



Figure 1: WASH service coverage in Bangladesh (JMP2022)

These figures clearly indicate that despite considerable progress, achieving safely managed service for water, sanitation, and hygiene by 2030 for all in Bangladesh is a very difficult task. Especially for sanitation, there is a long way to go. Since 2021, GLAAS has listed its reporting countries in three categories. They are on track, almost on track, and acceleration needed. Bangladesh is positioned in the last category for both water and sanitation (GLAAS 2021).

Drinking-water targets (n = 73)

On track (n = 33) Argentina, Azerbaijan, Bahrain, Barbados, Belarus, Belize, Botswana, Brazil, Costa Rica, Croatia, Cuba, Egypt, El Salva Honduras, Hungary, Jordan, Lao People's Democratic Republic, Mauritius, Montenegro, Morocco, Norway, Oman, Pan Seychelles, Solomon Islands, Syrian Arab Republic, Thailand, Timor-Leste, Turkmenistan					
Almost on track $(n = 8)$	Albania, Burundi, Ethiopia, Ghana, Mali, Sao Tome and Principe, South Africa, Uruguay				
Acceleration needed (n = 32)	Bangladesh, Burkina Faso, Cabo Verde, Cameroon, Chad, Dominican Republic, Gabon, Guatemala, Haiti, Indonesia, Lebanon, Lesotho, Liberia, Madagascar, Maldives, Mauritania, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Paraguay, Philippines, Sierra Leone, Sudan, Tajikistan, Togo, United Republic of Tanzania, Uzbekistan, Zambia, Zimbabwe				

Sanitation targets (n = 64)

On track ($n = 16$)	Argentina, Belize, Brazil, Cabo Verde, Costa Rica, Dominican Republic, Honduras, Jamaica, Lao People's Democratic Republic, Lesotho, Montenegro, Nepal, Oman, Seychelles, Thailand, Turkmenistan
Almost on track $(n = 8)$	Bahrain, Cambodia, Congo, El Salvador, Hungary, Indonesia, Paraguay, South Africa
Acceleration needed (<i>n</i> = 40)	Albania, Bangladesh, Belarus, Bhutan, Bosnia and Herzegovina, Botswana, Burkina Faso, Burundi, Chad, Côte d'Ivoire, Cuba, Ethiopia, Georgia, Ghana, Guatemala, Guinea, Jordan, Lebanon, Liberia, Madagascar, Malawi, Maldives, Mauritania, Mauritius, Niger, Nigeria, Pakistan, Papua New Guinea, Peru, Philippines, Sao Tome and Principe, Sierra Leone, Sudan, Syrian Arab Republic, Tajikistan, Togo, United Republic of Tanzania, Uruguay, Zambia, Zimbabwe

Figure 2: Status of the countries in achieving SDG 6.1 and 6.2 (GLAAS 2021)

1.1 WASH service monitoring and its importance in Bangladesh

Ideally, WASH service monitoring is supposed to look at coverage, status and quality of water, sanitation, and hygiene services for the inhabitants in all geographies and settings of the country. To ensure water and sanitation services that last, monitoring must (IRC, 2015):

- Focus on the level of services provided over time (rather than on coverage or the number of facilities, quality, and service levels),
- Be part of a national monitoring and information system (rather than be limited to isolated project efforts to ensure that project targets are met), and
- Support planning and remedial actions (rather than stop at the level of reporting with little or no follow-up).

Regular monitoring of WASH indicators is essential to understand the level of WASH service coverage as well as to measure whether WASH programmes at local level are on track for certain criteria (service levels) and meet agreed upon sector targets (Dey and Baetings, 2022). Regular basis reporting of WASH progress is also required so that all actors can understand the progress that is being made. Bangladesh is a densely populated country, and within its small territory, there is significant difference between urban and rural areas. There are small towns which are regarded as municipalities, but which are rural in nature. The country is also geographically diverse. The Bangladesh Delta Plan 2100 (BDP, 2019) has divided the country into seven climate hotspots. These zones are different from each other in their geographic nature and the manifestation of climate change is also different in those zones.

JMP 'LADDERS' FOR MONITORING



Figure 3: JMP WASH Ladder - Summary

	IMP LADDERS					
DRINKING WATER	SANITATION	HYGIENE				
CAFELVA						
SAFELY N	ANAGED					
Drinking water from an improved water source which is located on premises, available when needed and free from faecal and priority chemical contamination	Use of improved facilities which are not shared with other households and where excreta are safely disposed in situ or transported and treated off-site					
	BASIC					
Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing	Use of improved facilities which are not shared with other households	Availability of a handwashing facility on premises with soap and water				
	LIMITED					
Drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip including queuing	Use of improved facilities shared between two or more households	Availability of a handwashing facility on premises without soap and water				
UNIMP	ROVED	NO FACILITY				
Drinking water from an unprotected dug well or unprotected spring	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines	No handwashing facility on premises				
SURFACE WATER	OPEN DEFECATION	Note: Handwashing facilities may be fixed or mobile and include a sink with				
Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal	Disposal of human facces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste	tap water, buckets with taps, tap water, buckets with taps, tipp-taps, and jugs or basins designated for handwashing. Scop includes bar scop, jugid scop, powder detregent, and scopy water but does not include ash, soil, sand or other handwashing agents. Household surveys increasingly include a section on hygiene pradices where the surveyor visits the handwashing fability and observes if water and scop are present. Observa- tion of handwashing materials by surveyors represents a more reliable proxy for handwashing behaviour than asking individuals whether they wash				
water, boreholes or tubewells, protected dug wells, protected springs and packaged or delivered water	From an inproved facilities include: flush/pourflush to piped sewer system, septic tanks or pit latrines, vertilated improved pit latrines, composting toilets or pit latrines with slabs	their hands. The small number of cases where households refuse to give enumerators permission to observe their facilities are excluded from JMP estimates.				

UNICEF **JMP**

Figure 4: JMP 'Ladder' for Monitoring WASH

If we look at the JMP 2022 data for WASH services in rural and urban areas of Bangladesh, no common pattern can be identified. Percentages of access to safely managed water and sanitation services are higher in rural areas. In contrast, the percentage of access to unimproved sanitation services is also higher in rural areas. In the case of hygiene, the percentage of access to basic handwashing services (access to handwashing facility with water and soap) is higher in urban areas. The percentage of people with no access to a handwashing facility is also lower in urban areas.



Figure 5: Comparison of rural and urban WASH service coverage (JMP 2022)

JMP doesn't present disaggregated data for sub-national level. Hence, from the JMP data, it is not possible to show the difference in WASH service levels of the different geographical of Bangladesh. But the MICS (Multi-indicator cluster survey) 2019 can give us an indication. The national coverage for safely managed drinking water services was 47.9%, for Satkhira, which is a coastal district, the coverage was 15.1%. Similarly, national basic sanitation coverage was 64.4%, for Bandarban, which is a district in the hills, the coverage was 38.9%.

From the above discussion, we can see that progress cannot be achieved at the same pace for the different geographies and different administrative areas. As a result, dynamic planning is needed for the areas that are lagging behind. For such dynamic planning, dynamic monitoring is needed. Especially for a country that is not on track to achieve SDG targets 6.1 and 6.2, dynamic service monitoring is more important.



Figure 6: Climate vulnerable hotspots of Bangladesh

This report will explore the existing WASH service monitoring system and the gaps at different levels. It will also explain, how the WASH SDG Consortium's WAI sub-programme has tried to mitigate those gaps with an interim solution of social mapping-based WASH service monitoring. This report will also explore opportunities to include such community-based methods for interim WASH service monitoring.

2. Institutional roles and responsibilities

As per the Local Government Act 2009, City Corporations and Municipalities are responsible for provision of water and sanitation services except in cities where Water and Sewerage Authorities (WASA) are present. City Corporations and Municipalities are Local Government Institutes for urban areas run by elected local government representatives (LGI Act 2009). Water and sanitation fall under the responsibility of the concerned departments (water supply and conservancy department) of the City Corporations and Municipalities. Among the twelve (12) City Corporations, four (4) have separate Water and Sewerage Authorities (WASA) – namely in Dhaka, Chittagong, Khulna and Rajshahi – for the provision of water and sanitation services. WASAs are public authorities established under the WASA Act of 1996.

Besides the City Corporations and Municipalities, there are rural areas which are governed by Union Parishads. The work of the Union Parishads is guided by the Union Parishad Act of 2009. The Act gives partial responsibility to the Union Parishad for water supply, sanitation and septage management. The Local Government Institutions operating in the rural areas fall under the Ministry of Local Government, Rural Development and Cooperatives. Partial responsibility for water supply and sanitation also falls under the Department of Public Health Engineering (DPHE) which is an executive department under the same ministry. The actual monitoring of WASH services and WASH service providers is not a clear responsibility of any of these institutions. None of the relevant acts and departmental directives of these two departments (Union Parishads and DPHE) clearly mention service monitoring as their responsibility (Dey and Baetings, 2022).

The newly commissioned 2020 Pro-Poor Strategy for the Water and Sanitation Sector of Bangladesh exerts some passive responsibility for water and sanitation service monitoring to Local Government Institutes (LGIs). The strategy has no direct service monitoring element. However, the strategy gives the responsibility of selecting the hard-core poor households that are living without basic minimum water and sanitation services to the respective LGIs (Pro-poor Strategy 2020). The LGIs (City Corporations, Municipalities and Union Parishads) need to identify the real hard-core poor households as per the criteria first, then they need to select which of these households are not accessing water and/or sanitation services based on the criteria for basic minimum level of service listed in the strategy. Proper selection of households would eventually require service quality monitoring in the respective area (Dey and Baetings, 2022).

The National Strategy for Water and Sanitation of 2021 has identified different water and sanitation technologies that can be considered as improved according to the JMP ladder. This can be used as the basis for WASH service quality monitoring at local level.

As per the Statistics act 2013, the Bangladesh Bureau of Statistics (BBS) is responsible all matters relating to statistics and informatics. The Bangladesh Bureau of Statistics is a dedicated department for statistics working under the Ministry of Planning. As per the act, BBS is responsible for producing and maintaining correct, accurate, and timely statistics. As a part of this, BBS should take all initiatives to conduct censuses and surveys. In that sense, data collection for WASH services is part of BBS (Statistics act 2013).

3. Monitoring practices at different levels in Bangladesh

3.1 Bangladesh Bureau of Statistics (BBS) survey

The Bangladesh Multiple Indicator Cluster Surveys (MICS) are carried out by the Bangladesh Bureau of Statistics (BBS) in collaboration with UNICEF Bangladesh, as part of the Global MICS Programme. During data collection, UNFPA Bangladesh also provides financial resources to undertake quality assurance visits. MICS provides estimates at national level with disaggregated data by division, location, sex, age, education, and wealth quintiles. The most recent survey was conducted in 2019. For the first time, the survey included the assessment of the quality of drinking water for arsenic and microbiological (E. coli) contamination levels (UNICEF, 2020).

BBS is also responsible for the Demographic and Health Surveys (DHS). The most recent DHS was carried out in 2017 and 2018 by the National Institute of Population Research and Training, Medical Education and Family Welfare Division of the Ministry of Health and Family Welfare. Drinking water sources and treatment, and sanitation are important components of the DHS and results can be found in Chapter 2 on Housing Characteristics and Household Population (BBS 2022). In 2018, BBS carried out the National Hygiene Survey and this was the first time that hygiene was incorporated in the national survey mechanism. The National Hygiene Survey 2018 report presents the findings from the data collected across five different components: households, schools, health care facilities, restaurants, and food vendors with the aim of monitoring the progress of hygiene-related indicators of the SDGs, Five Year Plan, Vision 2021, and Vision 2041.

3.2 DPHE Faecal Sludge and Solid Waste Management Dashboard

DPHE has developed a Faecal Sludge (FS) and Solid Waste Management (SWM) Dashboard as part of its effort to establish a Citywide Inclusive Sanitation (CWIS) information system. Developed with support from the Bill & Melinda Gates Foundation, the dashboard contains sanitation and FSM service information for 53 municipalities



Figure 7: DPHE FS & SWM Dashboard (Source: sanboard.gov.bd)

and eight city corporations. The sanitation indicators of this dashboard follow the JMP sanitation ladder and thus can be considered as service level indicators. It has planned to collect information from all 330 municipalities of Bangladesh. Together with a2i (aspire to innovate - a digital transformation catalyst under the Ministry of Information and Communication Technology of Bangladesh), DPHE has taken the initiative to upgrade it to a Sanitation Data Command Centre. However, as per the latest information, it has no plan to expand into rural areas or to collect information related to water services.

4. Social mapping-based WASH service monitoring in WASH SDG WAI sub-programme

4.1 Brief introduction of the WASH SDG WAI Sub-programme

The WASH SDG Programme was a five-plus year programme funded by the Dutch Government in seven countries, including Bangladesh. It was implemented by a consortium of INGOs comprising Plan International, SNV and the WASH Alliance International (WAI). The Bangladesh WASH Alliance sub-programme (WAI) was implemented in seven urban Municipalities and twenty rural Union Parishads spread over Barguna, Moulvibazar, Patuakhali and Satkhira districts. The WAI lead implementing partner was Simavi and local implementing partners were: Development Organisation for the Rural Poor (DORP), Hope for the Poorest (HP), Practical Action (PA), Stichting Landontwikkelingsproject Bangladesh (SLOPB), WaterAid Bangladesh (WAB) and Uttaran. The Dutch partners were: WASTE, IRC, Akvo, RAIN, RUAF/Hivos and Practica.



Figure 8: Example of a social map from Barguna (Picture-DORP)

4.2 What is social mapping

WAI sub-programme partners have introduced social mapping for regular WASH service monitoring in Union Parishads and Municipalities. Social mapping is a popular method in participatory action research. A social map is generally used to depict the living conditions and the nature of housing and social infrastructure: roads, drainage system, schools, railway tracks, religious buildings, post office, well, community hall etc. of a particular location. A social map differs from regular maps in two major aspects: 1. It is made by local people and not by experts. 2. It is not drawn to scale. It depicts what the local people believe to be relevant and important for them (State of Youth, 2024). A social map helps to find and visualise information that will assist people in understanding their current situation and to decide what needs to be done to improve that situation. A social map is often developed at community level in a participatory way (Dey, Saha & Krukkert, 2020).

WAI sub-programme local partners DORP, SLOPB and Uttaran have promoted it in their working areas. Social mapping was used to identify and visualise the availability and quality of water, sanitation, and hygiene infrastructure (services). The World Health Organization/UNICEF Joint Monitoring Programme (JMP) WASH service ladders were used for this purpose. The social mapping exercises were also used to look at a number of related issues such as the functionality of water infrastructures, the type of harsh climate events, and the availability of private WASH service providers.

DORP, SLOPB and Uttaran have provided orientation to elected local government officials and community people about social mapping. In the social mapping process, community people were sitting with an elected LGI representative of that area to draw the map. The map contains households with colours for distinguishing the water, sanitation, and hygiene services the households are accessing. Instead of visiting the households, the social map provides the information needed to discern the service level. Once the map is drawn, the community sits with the LGI representative once every six months to check the progress and update the map.



Figure 9: A community person is showing a social map (Picture-Simavi)

IRC provided technical support to the WAI sub-programme partners to digitise the social mapping-based WASH service monitoring data. IRC has developed a spreadsheet tool in which social map data from different locations and different time intervals can be entered. In this process, one spreadsheet file can be used for one particular location (a Union Parishad or a municipality). It has a number of tabs that can be used to fill in social map data collected at periodic intervals. This means that one template file can be copied and used for different locations and for a number of years (see figure 8).

WAI Bangladesh WASH SDG Programme Social mapping records Data entry sheet F		Upazilla: porting period:	Amtali January to June	Unio <u>: 2019</u>	n/Municipality: Partner:	Amtali Municip DORP	pality					
Note: Complete all w	white cells											
	Ward number >>			11				12				3
		Overall total	Hard-core poor HHs	HHs with a person with a disability	HHs with disaster risk	Overall total	Hard-core poor HHs	HHs with a person with a disability	HHs with disaster risk	Overall total	Hard-core poor HHs	HHs with a person with a disability
# of households		450	183	5	150	530	218	6	120	960	326	6
	# of people >>	2,169	1,063	29	871	2,544	1,164	32	638	4,565	1,770	33
	Disaster type >>				Cyclone and Tropical Storm				Cyclone and Tropical Storm			
SANITATION SERVICE	CES			11				12				13
Availability of sanit	tation facilities	Overall total		HHs with a person with a disability	HHs with disaster risk	Overall total	Hard-core poor HHs	HHs with a person with a disability	HHs with disaster risk	Overall total	Hard-core poor HHs	HHs with a person with a disability
SAFELY MANAGED	Improved facilities that are not shared with other households and where excreta are safely disposed of onsite or removed and treated offsite	90	0	0	0	106	0	0	0	192	0	0
BASIC	Improved facilities (pit latrine or septic tank with water seal and unbroken pan) which are not shared with other households	137	113	1	91	161	136	1	71	290	202	1
LIMITED	Improved facilities (pit latrine or septic tank with water seal and unbroken pan) but shared between two or more households	127	0	0	3	152	0	0	0	273	27	0
UNIMPROVED	Pit latrines without a slab or platform, hanging latrines or bucket latrines	91	70	4	56	107	82	5	49	196	97	5
OPEN DEFECATION	There is no toilet (Open Defecation)	5	0	0	0	4	0	0	0	9	0	0
	Totals	450	183		150	530	218	6	120	960	326	6
		0	0	0	0	0	0	0	0	0	0	0
	Check Totals	ок	ОК	ОК	ок	ОК	ОК	ок	ОК	ОК	ОК	ОК
		1										
HYGIENE SERVICES			#1					2				3
Availability of handwashing with soap facilities		Overall total	Hard-core poor HHs	HHs with a person with a disability	HHs with disaster risk	Overall total	Hard-core poor HHs	HHs with a person with a disability	HHs with disaster risk	Overall total	Hard-core poor HHs	HHs with a person with a disability
BASIC	Handwashing facility with soap and water at home	274	28	0	61	323	88	0	57	585	142	0
LIMITED	Handwashing facility lacking soap and/or water at home	90	19	1	11	107	61	1	19	195	66	0
NO FACILITY	No handwashing facility on premises	86	136	4	78	100	69	5	44	180	118	6
	Totals	450	183	5	150	530	218	6	120	960	326	6
		0	0	0	0	0	0	0	0	0	0	0
	Check Totals	ОК	ОК	ок	ок	ОК	ОК	ОК	ОК	ОК	ОК	ОК
	Report Wards (2) Jan-Jun 2018 Jul-Dec 20	Jan-J	un 2019	lul-Dec 2019	lan-lun	2020	I-Dec 2020	Jan-Jun 2	021 Jul-D	Dec 2021	Jan-Jun 20	+ :

Figure 10: Data entry sheet in the social map digitisation tool

WAI Banglade Social mapping	sh WASH SDG Programme g records Data entry sheet Re	Upazilla: porting period:	Amtali January to June	Unio 2019	n/Municipality: Partner:	Amtali Municip DORP	pality						
Note: Complete all w	rhite cells												
	Ward number >>			#1				12				#3	
DRINKING WATER SERVICES					#2								
A. What is the main source of drinking water?		Overall total		HHs with a person with a disability	HHs with disaster risk	Overall total	Hard-core poor HHs	HHs with a person with a disability	HHs with disaster risk	Overall total	Hard-core poor HHs	HHs with a person with a disability	
SAFELY MANAGED	Drinking water from an improved water source (piped water into the house or into the yard), which is located on premises, available when needed and free from faceal and originity chemical contamination.	85	9	0	5	97	8	0	16	174	29	0	T
BASIC	Drinking water from an improved source (piped water to public place or deep tubewell or shallow tubewell or PSF or RWH or similar system or jar) provided collection time is not more than 30 minutes for a round trip including queuing.	138	122	3	99	162	165	3	69	296	109	1	T
LIMITED	Drinking water from an improved source (piped water to public place or deep tubewell or shallow tubewell or PSF or RWH or similar system or jar) for which collection time exceeds 30 minutes for a round trip including queuing.	211	52	2	46	249	45	3	35	452	188	5	
UNIMPROVED	Unprotected dug well or unprotected spring	5	0	0	0	11	0	0	0	19	0	0	T
SURFACE WATER	Directly from river, dam, lake, pond, stream, canal or irrigation canal	11	0	0	0	11	0	0	0	19	0	0	T
	Totals	450	183	5	150	530	218	6	120	960	326	6	T
		0	0	0	0	0	0	0	0	0	0	0	Г
	Check Totals	OK	ОК	ОК	ОК	ОК	ОК	ОК	ОК	OK	ОК	ОК	
													_
DRINKING WATERS	ERVICES	0				0	1	-2		0	1	=3	
b. runcuonarano no	n-runcuonal uninking water sources	76				Overall total				overall total			÷
	If of non-functional deep tubewells	2				2				1			t
	# of functional shallow tubewells	10				8				9			t
	II of non-functional shallow tubewells	4				4				3			t
	# of functional RWH/PSF/similar systems	2				3				3			t
	# of non-functional RWH/PSE/similar systems	1				1				2			T
	Total number of functional drinking water sources												Ι
	Total number of non-functional drinking water sources	7				7		1		6			1
Totals		95				68				117			
>	Report_Wards (2) Jan-Jun 2018 Jul-Dec 20	18 Jan-J	un 2019	Jul-Dec 2019	Jan-Jun	2020 Ju	I-Dec 2020	Jan-Jun 2	021 Jul-D	Dec 2021	Jan-Jun 20	+ :	

Figure 11: Indicators outside WASH service levels captured in the social mapping digitisation tool

Along with JMP service level indicators for water, sanitation, and hygiene services, social maps have collected other information that are important for service sustainability. Notable examples of such indicators are common types of climate hazards in that particular area, functionality of water options (unlike sanitation, water options are often community options in rural areas of Bangladesh, making it difficult to understand the functionality of community water points from the household service level or vice versa). The tool also captures and presents the number of WASH entrepreneurs (private WASH service providers) in that particular area, which is an enabling factor for WASH service sustainability (see figure 9). These indicators can be customised for different locations based on their relevance.

The tool then shows the summary and analysed data in a dashboard. The tool file has a built-in dashboard. In the dashboard, the progress of a particular administrative unit can be easily viewed. It is also possible to compare the progress of WASH service coverage of different administrative units. Another spreadsheet has been developed in which data from all the working locations can be entered. This spreadsheet has a similar dashboard that shows the data and trends from different locations (administrative areas) in one place. Figure 10 shows the dashboard of the social map digitisation tool populated with data from the WAI working areas from the project period. It shows the progress in water, sanitation, and hygiene services during the project period and has generated progress reports for all the project locations where social mapping was done. The sub-programme has handed over these reports to the LGIs with explanation of the digitisation process.



Figure 12: Social map data digitisation tool dashboard

5. How social mapping addresses the existing gaps

Gap or challenge	How social mapping-based monitoring can complement
At present there is no service monitoring system for water in urban and rural areas	There is no LGI-based service monitoring available at present. Social mapping-based WASH service monitoring can be an alternative for that.
There is no service monitoring for sanitation in rural areas	DPHE has introduced sanitation service monitoring for urban areas. But the service is not yet there for rural areas (Union Parishads). Until DPHE expands it to Union Parishads, social mapping-based monitoring can be used by LGIs.
BBS surveys are sample based surveys and do not cover all areas	BBS surveys are sample based surveys. This is useful to understand the national trend and helpful for national level planning. However, for sub-national planning that is not useful since the need and the dynamic changes are not reflected in it. Social mapping- based monitoring can contribute to it.
Introducing new monitoring system requires a lot of capacity and resources	Social mapping is a community-based data collection process. It has certain limitations. It cannot substitute a proper service monitoring process. But in absence of proper service monitoring, it can act as an interim solution.

5.1 Way Forward

As described in the beginning, Bangladesh is struggling to achieve SDG target 6.1 and 6.2 at this moment. To achieve the 2030 targets, local level planning is important. And for evidence-based planning, local level WASH service monitoring is crucial. There are a number of monitoring initiatives for water, sanitation, and hygiene in Bangladesh. However, a proper service monitoring system covering all locations is not yet in place. DPHE's initiative to develop a sanitation data command centre and a sanitation dashboard should cover the sanitation service monitoring for urban areas once they are fully functional. Union Parishads should get the highest priority as at present there is no service level information available for rural areas. Institutional capacity needs to be built at local level so that WASH service data can be collected at this level on a periodic basis. This may require additional resources and institutional arrangements. Once institutionalised, social mapping-based service monitoring can act as interim solution for that.

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