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Biannual  
Report



# Social Monitoring Report

DEPARTMENT OF PUBLIC HEALTH ENGINEERING

Jan'20 – June'20

[A report on WASH facilities and its social impact under PEDP-4]

Primary Education Unit, DPHE, Dhaka



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## ABBREVIATIONS & ACRONYMS

ADB	:	Asian Development Bank
AusAID	:	Australian Agency for International Development
CIDA	:	Canadian International Development Agency
DFID	:	Department for International Development (of the United Kingdom)
DP	:	Development Partner
DPEO	:	District Primary Education Officer
DPE	:	Directorate of Primary Education
DPHE	:	Department of Public Health Engineering
DTW	:	Deep Tube Well
EFA	:	Education For All
EMF	:	Environmental Management Framework
EU	:	European Union
GOB	:	Government of Bangladesh
IDA	:	International Development Association
JARM	:	Joint Annual Review Mission
JCM	:	Joint Consultation Meeting
JICA	:	Japan International Cooperation Agency
LGD	:	Local Government Division
MIS	:	Management Information System
MLGRD&C	:	Ministry of Local Government, Rural Development and Cooperatives
MoPME	:	Ministry of Primary and Mass Education
MOU	:	Memorandum of Understanding
PEDP-4	:	Fourth Primary Education Development Program
SDTW	:	Semi Deep Tube Well
SEC	:	Small Ethnic Community
STW	:	Shallow Tube Well
SIDA	:	Swedish International Development Agency
TSP	:	Tube Well with Submersible Pump
UNICEF	:	United Nations International Children's Emergency Fund
WB	:	World Bank



## **EXECUTIVE SUMMARY**

The prime objective of PEDP-4 is to ensure an efficient, inclusive and equitable primary education system through a child friendly physical learning environment. Infrastructural development in terms of construction of class rooms and wash blocks, installation of safe drinking water points plays an important role in achieving the sustainable physical learning environment. Department of Public Health Engineering (DPHE) is solely responsible to provide these facilities in the primary schools of Bangladesh. As per MoU signed in between DPE and DPHE in September 15, 2019, DPHE will install 15,000 new water points and construct 58,000 Wash Blocks in the primary schools of Bangladesh throughout the program tenure of 5 years. Furthermore, DPHE will conduct water quality tests of earlier installed 65,000 water points and major maintenance of wash blocks which were constructed under PEDP-3. From January'2020 until June'2020 DPHE installed 183 new water points although no new Wash Blocks were constructed during this period. In this tenure, DPHE conducted major maintenance of 689 wash blocks.

The sole purpose of this study is to identify any concern or issue related to the social safeguard due to the installation of water points and major maintenance of wash blocks from Jan'20 until June'20. The study is based on the social safeguard screening conducted during construction and post implementation stages. The screening format is prepared after the approved SMF guidelines of DPE for PEDP-4. The screening included different social safeguard indicators such as displacement of people due to land acquisition, threat on cultural tradition/ way of life, restrict access to common properties, effect on places/objects of cultural/religious significance, provision of toilet for disabled student, accessibility of disabled student to toilets, provision of safe drinking water to children etc.

The screening was conducted by DPHE officials at the Upazilla level which were duly verified in district level and compiled in DPHE headquarter. It is fact that COVID-19 situation slowed down the overall construction and implementation progress. However, the social monitoring screening confirmed no significant instances or issues that may hamper or influence the social safety during the reporting tenure. Being an implementing agency, DPHE would like to uphold this status in its ongoing and upcoming works related to infrastructural development.



## **1. Introduction**

Child friendly physical learning environment is the prerequisite of an efficient, inclusive and equitable primary education system. The latter being the prime objective of PEDP-4, it is utmost important to ensure adequate infrastructure as well as improved water supply and sanitation facilities in the primary schools of Bangladesh on the basis of actual needs. This will not only help in improving the physical learning environment but also reduce the dropout rate through a gender friendly inclusive education system. Fourth Primary Education Development Program (PEDP-4) is the continuation of Government's approach in thriving the excellence of children through the fulfillment of several distinct milestones including construction of need based infrastructures for sanitation and water supply. The program is supported by significant contributions from Government as well as Development Partners (DPs). Department of Public Health Engineering (DPHE) under Local Government Division (LGD) of Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C) is solely responsible to provide the facilities for quality water supply and sanitation in the primary schools of Bangladesh. As per MoU signed in between DPE and DPHE in September 15, 2019. DPHE will perform the following activities in the next five years with an aim to provide safe drinking water and sanitation services in the primary schools under PEDP-4.

- Install 15,000 new drinking water sources.
- Replace/repair drinking water sources (if necessary).
- Water quality testing of 65,000 water points installed earlier by DPHE.
- Construction of 58,000 new Wash Blocks.
- Major maintenance of wash blocks.
- Operation and maintenance (O/M) of water points.

## **2. Purpose of current report**

The basic intent of this report is to identify and resolve any anticipated social safeguard issues related to the land use and impacts that may arise during the installation of water sources or construction of Wash Blocks in the primary schools of Bangladesh. This report will encompass and summarize the findings of the social screening conducted during the installation of water points and major maintenance of Wash Blocks in the primary schools of Bangladesh from the tenure of January'20 to June'20. During implementation of the project, social monitoring screening was conducted based on the Social Management Framework (SMF) of PEDP-4.

## **3. Indicators of social safeguard as per SMF under PEDP-4**

This report covers different distinct social monitoring indicators based on the approved SMF of PEDP-4. Followings are some of major indicators (not limited though) which were considered.



- To investigate whether physical facilities in the school causes any adverse impact on indigenous people, as well as private land owners and public land users.
- To identify if the implementation of new infrastructures causes any threats on cultural tradition or way of life.
- To assess whether the access to common property resources and livelihood activities are severely restricted due to the installation of water sources and construction of Wash Blocks.
- To explore whether the places/objects of cultural and religious significance are affected due to the infrastructural development.
- To examine whether the Wash Blocks are accessible to disabled people and imparts separate private access to male teachers & boys and female teachers & girls.
- To ensure that the installed water sources provide safe and adequate water and does not create any social nuisance in terms of drainage congestion.

A thorough screening on the above indicators were carried out during the reporting tenure.

## 4. Methodology

With an aim to investigate the impact of infrastructural development on social safeguard, a through screening was carried out in the respective primary schools by the concerned sub-assistant engineers of DPHE. The screening results were duly verified by the respective assistant engineers and a database was prepared at Upazilla level. Executive engineers at district level complied the verified database obtained from Upazilla level and sent them to DPHE Head Quarter at the MIS (Management Information System) unit, where the database was finally compiled and report was prepared under the supervision of focal point of PEDP-4.

Data for social safeguard screening during the installation of water sources and maintenance of Wash Blocks have been collected from the schools through DPHE official sources using the structured format (copy enclosed in Appendix A of this report). Data collected from grass root level have been entered into 'Master Social Survey Outcome' Spreadsheet by DPHE MIS UNIT and kept structured for database and reporting. A flow diagram of the screening method is depicted in Fig. 1.

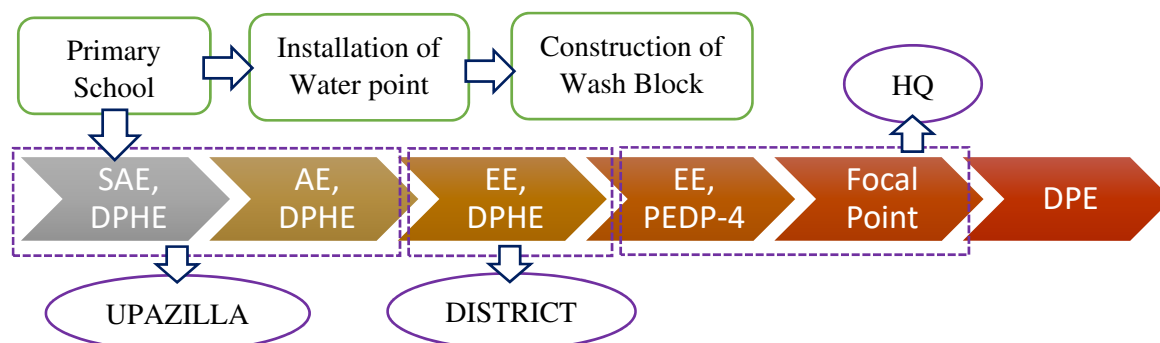


Fig. 1. Method of social safeguard screening



## 5. Role of DPHE in comprehensive monitoring

The subcomponents of PEDP-4 especially the infrastructural implementation are comprehensively monitored by several parties from commencement to operation. Fig.2 shows the monitoring scheme in PEDP-4 operated by different agencies. Being an implementing agency DPHE is involved significantly from construction till post-construction monitoring. Role of DPHE is depicted in Fig.3. It can be noted that the defect liability period for installed water points and constructed wash blocks are 02 and 01 year respectively. This implies that contractor is responsible to rectify any sort of defects within this time frame counting from the date of handover of tube well and wash block. In order get a clear picture of ongoing and completed works, DPHE district office arranges monthly monitoring meeting with all concerned officers and staffs of that district. Executive Engineers thus address the issues of monitoring to the assistant/ sub assistant engineers monthly. Officers of concerned district used to visit the site frequently in order to monitor the ongoing and completed works and also focus on the social safeguard aspect. Visit from Focal Point's Office and DPHE Head quarter happens frequently.

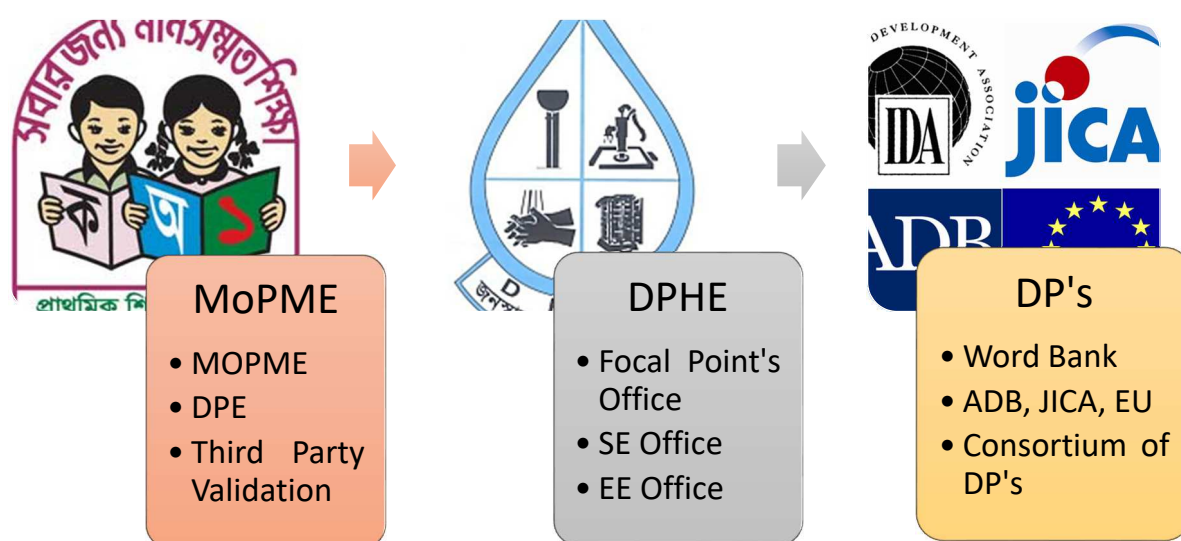
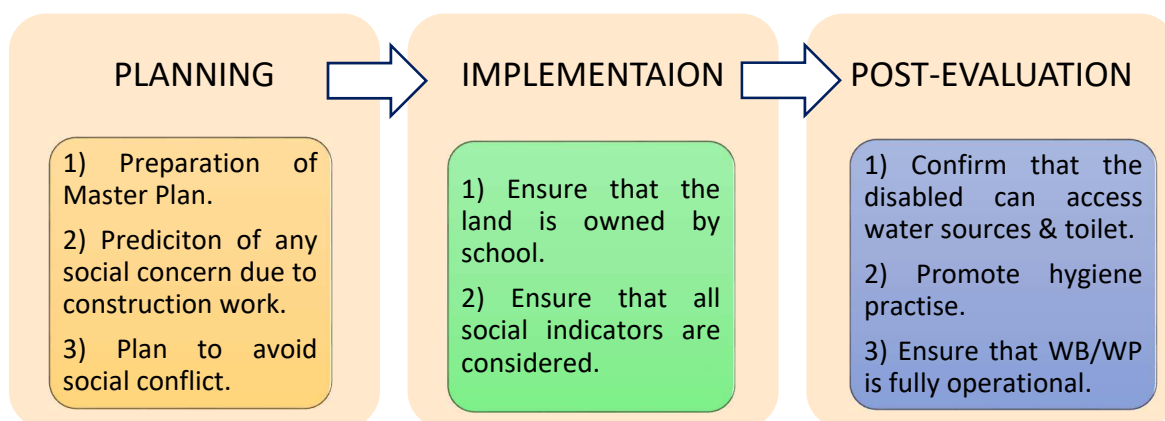


Fig. 2 Monitoring scheme in PEDP-4

DPHE district office arranges bi-lateral coordination meeting between DPHE (EE, AE, and SAE) and DPE officials (DPEO, UEO) in every 3 months. A glimpse of the co-ordination meeting is depicted in Fig. 4 which was organized by Executive Engineer, DPHE Lakshmipur district in February 2020. In this meeting, officers from department of primary education point out the necessity of monitoring of particular school which are immediately addressed by DPHE officials. In addition, mechanics of DPHE upazilla headquarters repair the tube wells in an urgent basis when they are called for doing so from the concerned school in order to ensure that the running water supply are fully operational.



**Fig. 3 Role of DPHE in social monitoring**



**Fig. 4 Co-ordination meeting between DPE & DPHE Officials**

DPHE arranges caretaker training and provides MoPME approved 'Maintenance Manual' to the concerned schools during the handover of water points and wash blocks which covers post construction issues. Moreover, DPHE looks after the tube wells which have already passed the defect liability period of 02 (two) years. According to the order of Chief Engineer, DPHE (memo no. 1066, dated: 16/09/2013), the packages where the defects liability period is over, DPHE will still repair the tube wells within 72 hours of receiving information provided that the concerned school bears the expense of spare parts.





## 6. Social safeguard screening by DPHE (January'2020 – June'2020)

DPHE handed over a total of 240 water points during FY 2019-2020. Of them 183 water points were installed and handed over during the reporting tenure of Jan'2020 to June'2020. In addition, DPHE completed the major maintenance of 689 wash blocks during FY 2019-2020. Most (598 nos.) of which were completed during January to June, 2020. All these works were monitored based on approved Social Monitoring Framework (SMF) for PEDP-4. Table-1 summarizes the list of DPHE implemented works where screening for social safeguard was carried out.

**Table 1 Social Management Survey under PEDP-4, DPHE**

Installation/ Maintenance	water points & wash blocks covered in survey		
	July'19 - December'19	Jan'20 - June'20	Total
Water Sources	57	183	240
Maintenance of Wash Block	91	598	689

This report focuses on the construction work from the tenure of January to June, 2020. During this period, although no new wash blocks were constructed, major maintenance of 598 wash blocks which were constructed during PEDP-3 were carried out. In this period, a total of 183 water points were installed. It is fact that due to the adverse impact of COVID-19, construction works under PEDP-4 slowed down. However, the status of the water points and wash blocks received through the monitoring survey is given in following subsections.

## 7. Outcomes of social safeguard screening

### 7.1 Influence of type of water point

#### Planning from the lessons learnt in PEDP-3

It is fact that, DPHE installed water points of different options such as Deep Tube Well (DTW), Shallow Tube Well (STW), Tara Tube well, Ring Well (RW), Pond Sand Filter (PSF), Rain Water Harvesting (RHW) in PEDP-3 based on the variation in geological formation, position of aquifer /water table, saline water intrusion etc. However, all those options have certain advantages as well as multiple drawbacks. The common of which is the ease of availability of water from source and their familiarization and user friendliness to the young users.

In order to mitigate the concerns and to make the water sources more popular and user friendly, DPHE started installing Tube well with Submersible Pump (TSP) in all the primary schools under PEDP-4. This option has special features such as-

- Running water supply with storage facility.



- Multiple user can access at the same time.
- Promote hygiene practice through safe hand washing.

Comment:

Installation of tube well with submersible pump added values to its users especially young users which eventually increases the easy access to safe drinking water result in health benefit along with improved social safeguard.

## 7.2 Is there displacement of people due to land acquisition?

Since, DPHE did not construct any new wash block during the reporting tenure, no issues were encountered regarding displacement of people due to land acquisition. In addition, major maintenance of previously constructed wash blocks did not cause any dislocation. Furthermore, during planning and implementation of works related to the installation of water points, it was confirmed that all 183 water points were installed in the land owned by respective school.

Comment:

The activity related to the installation of water points and major maintenance of wash block did not require any land acquisition. As such, no displacement of people as well as no adverse impact on livelihood happen.

## 7.3 Is there any threat on cultural tradition?

Installation of 183 new water points having provision for running water supply brought a positive vibe in surrounding society as children could get easy access to safe drinking water. This ensured reduction of water borne diseases which eventually decreased the rate of absence of students from the school. The screening result confirmed that the installation of water points and major maintenance of wash blocks did not create any obstruction to the places/objects of cultural/religious significance.

Comment:

The activity related to the installation of water points and major maintenance of wash blocks did not create any threat on cultural tradition. In contrary, the activity improved the way of life as the facilities confirmed access to safe drinking water.

## 7.4 Is there any sign of improvement of way of life?

Along with the installation of tube well with submersible pump DPHE constructed 5 outlet hand washing basin in all 183 new water points with the provision of running water supply. A real time photo is depicted in Fig.5. Construction of hand washing basin has a positive impact on the way of life as it improves the habit of hand washing among the children which is an essential part of our everyday life and a learning in the current COVID-19 context. The screening result confirmed that the installation of water points with provision for hand washing basin improved the way of life.

**Comment:**

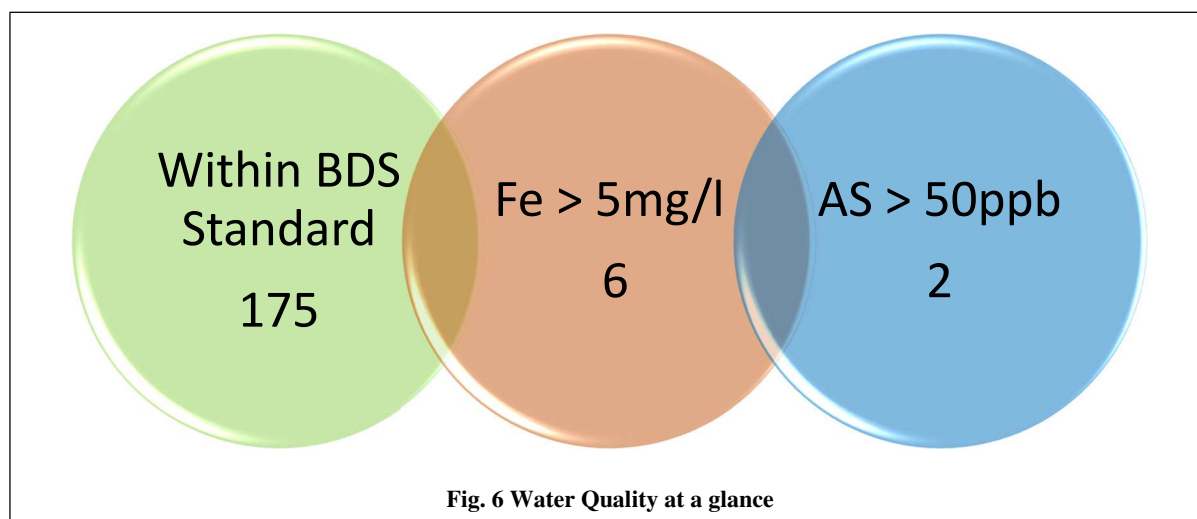
The activity related to the installation of water points with hand washing basing improved the way of life as the facilities confirmed the access to safe drinking water and promote hygiene.



**Fig. 5 Hand washing basin with TSP**

## 7.5 Do the installed water points provide safe drinking water?

During installation of water points, suitable water layers are generally selected based on the geographic location and DPHE's experience. From the screening of 183 tube wells it was found that 8 of them had the concern of excess arsenic (As) and/or, Iron (Fe) beyond the Bangladesh standard (arsenic, iron and chloride content below 50ppb, 5mg/l and 600mg/l respectively) of safe drinking water. For the rest of the cases arsenic, iron and chloride content were found satisfactory during laboratory tests. Fig. 6 shows the diagrammatic presentation of water quality test results. In addition, ample field tests were conducted in those schools during post monitoring phase by DPHE by using field kit which re-confirmed the DPHE laboratory test results. A sample copy of water test result is provided in Appendix-2.



**Fig. 6 Water Quality at a glance**

### Mitigation Measures suggested:

All the 8 water sources where the level of arsenic and/or, iron is higher than that of Bangladesh standard were suggested to install reverse osmosis (RO) filter having treating capacity of 200gpd each. DPHE zonal offices arranged and installed the said filter in those water sources and water was re-tested. The values of arsenic and iron of the treated water were found satisfactory and way below the Bangladesh standard. Fig. 7 shows the 3 outlet RO water purifier along with hand washing basin arrangement in one of those 8 schools.



**Fig. 7 RO (Reverse Osmosis) Filter arrangement with Hand Washing Basin**

### Comment:

It was confirmed that all newly installed water points provide sufficiently safe drinking water which is one of the indicator of achieving improved learning environment.

## **7.6 Are the constructed toilets accessible for disable people?**

The state of the art design of wash block includes the provision for 1(one) toilet for disabled people. This special toilet has high commode along with hand rail facility. In addition, all the wash blocks have ramp provision which facilitates easy access for the disabled people. Although DPHE did not construct any new wash block in the reporting tenure, there was no issue related to the access of disabled people in the wash blocks. Moreover, out of 689 wash blocks which were screened for major maintenance, toilet for disabled people in all wash blocks were found to be accessible for disabled student.

### Comments:

All disabled toilets were found to be operational and accessible during the post monitoring phase.



## **8. Conclusions**

This study investigates the social safeguard concerns during the implementation of water points and major maintenance of wash blocks based on the approved SMF guidelines for PEDP-4. The social monitoring screening confirmed no significant instances or issues that may hamper or influence the social safety during the reporting tenure. Being an implementing agency DPHE would like to uphold this status in its ongoing and upcoming works related to infrastructure development.





## Appendix-1: Social Screening Format

District: Moulvibazar

Upazilla: Kulaura

Name of School: Islachore Govt. Primary School

School ID: 99604039001

School Type: GPS

Type of Water Sources: TSP

Screening Questions	Base Line		Impact Without Intervention			Impact During Implementation			Impact after Implementation			Remarks
	Yes	No	+	-	N/A	+	-	N/A	+	-	N/A	
Is the land owned by school? If not, Put remarks.	✓				✓			✓			✓	
Any loss of Agricultural Land?		✓			✓			✓			✓	
Are the types of Water Points satisfactory?		✓		✓		✓					✓	
Is there displacement of people due to land acquisition?		✓			✓			✓			✓	
Is there any threat on cultural tradition/way of life?		✓			✓			✓			✓	
Are the Water Points installed?	✓				✓			✓	✓			
Was the Water quality tested?	✓				✓			✓	✓			
Do the installed water points provide safe drinking water?	✓				✓			✓	✓			
Is there any conflict with Water Supply right?		✓			✓			✓			✓	
Are there provisions of toilet for disabled students?	✓		✓			✓			✓			
Are the constructed toilets accessible for disabled students?	✓		✓			✓			✓			

Muherisin  
Signature of SAE

মোঃ মোহরিসিন  
উপ-সহকারী প্রকৌশলী  
জনস্বাস্থ্য প্রকৌশল অধিদপ্তর  
কুমিল্লা মহানগরিকালনী

Signature of AE

Signature of Executive Engineer

## Appendix-2: Sample Water Quality Test Report

Government of the People's Republic of Bangladesh  
Department of Public Health Engineering (DPHE)  
Office of the Senior Chemist, Zonal Lab, Sylhet.  
Telephone No: 0821-729226; e-mail: wqmsc\_sylhetzonalab@yahoo.com

Primary Education Development Program (NNGPS & GPS)

## Laboratory Test Result

District	Upzila	Village	ID	Type of School	Water Point Type	Depth (m)	Name of School	GPS		Water Quality		Test Result			Remarks
								Latitude	Longitude	Sand	Clear	Fe (mg/L)	As (mg/L)	Cl (mg/L)	
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Moulvibazar	Komolganj	Regunathipur	604020402	1	1		Amir Ali GPS	24°23'18"	91°52'42"	1	1	0.4	0.002	15	
Moulvibazar	Komolganj	Longurpar	604020802	1	1		2No Longurpar GPS	24°19'54"	91°49'29"	1	1	1.1	0.004	17	
Moulvibazar	Komolganj	Keramo'nagar	604020504	1	1		Fulbari GPS	24°19'53"	91°48'55"	1	1	0.3	0.003	18	
Moulvibazar	Komolganj	Bhandarigaon	91604020909	1	1		2No Bhandarigaon GPS	24°14'18"	91°51'44"	1	1	1.4	0.007	16	
Moulvibazar	Komolganj	Ganganagar	91604020905	1	1		Ganganagar GPS	24°14'19"	91°50'38"	1	1	1.5	0.025	18	
Moulvibazar	Komolganj	Shingrauli	91604020405	1	1		Shingrauli GPS	24°22'41"	91°55'45"	1	1	0.3	0.005	14	
Moulvibazar	Sreemongla	Muhajerabad	6040606013	1	1		Fulchura Muhajerabad GPS	24°16'03"	91°46'07"	1	1	0.8	0.003	12	
Moulvibazar	Sreemongla	Huglichora	604069004	1	1		Huglichora GPS	24°13'41"	91°37'55"	1	1	2	0.003	14	
Moulvibazar	Kulaura	Kulaura	604030413	1	1		Rabeya Adarsha GPS	24°31'38"	92°02'05"	1	1	0.6	0.035	18	
Moulvibazar	Kulaura	Noyabazar	604031412	1	1		Noyabazar GPS	24°25'57"	91°55'56"	1	1	0.9	0.021	16	
Moulvibazar	Kulaura	Uslachora	604039203	1	1		Abdul Bari GPS	24°31'07"	92°01'43"	1	1	0.8	0.037	18	
Moulvibazar	Kulaura	Gobindapur	604031007	1	1		Gobindapur GPS	24°32'35"	91°58'20"	1	1	0.8	0.017	17	
Moulvibazar	Kulaura	Hazipur	91604030704	1	1		Hazipur GPS	24°28'19"	91°55'11"	1	1	0.6	0.027	16	
Moulvibazar	Kulaura	Silarabanu	99604039201	1	1		Silarabanu Rahimabaru GPS	24°32'50"	91°50'31"	1	1	1	0.028	14	
Moulvibazar	Kulaura	Islachara	99604039001	1	1		Islachara GPS	24°34'14"	91°58'14"	1	1	5	0.006	12	

*Signature*  
16.3.2020  
Md. Abdul Latif  
Sample Analyzer  
DPHE Zonal Laboratory Sylhet.

*Signature*  
16.03.2020  
Md. Zahidul Islam Miah  
Senior Chemist  
DPHE Zonal Laboratory Sylhet.