

Assessment of functionality status of household tap connections in rural areas (2020-21)

State report

West Bengal



Submitted to:

National Jal Jeevan Mission

Department of Drinking Water and Sanitation

Ministry of Jal Shakti

Report prepared by:

NIELSEN (INDIA) PRIVATE LIMITED

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1. Introduction

Announced in 2019, the Jal Jeevan Mission – Har Ghar Jal (JJM – HGJ) is implemented by Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti in partnership with States/ UTs. JJM aims to provide a Functional Household Tap Connection (FHTC) to every rural home in the country by 2024. A household tap connection is said to be functional when the tap water supply is of adequate quantity (minimum 55 lpcd) and prescribed quality (as per BIS:10500) on regular and long-term basis. Further, JJM seeks to promote holistic management of local water sources and not just provide tap water connections.

The DDWS had engaged Nielsen (India) Private Limited to undertake 'Functionality Assessment' of household tap connections. The assessment covered household tap connections in 6,992 villages across 704 districts from 31 States/ UTs. The survey was undertaken in November – December 2020.

2. Objectives of the study

The main objectives were an assessment of Functionality of Household Tap Connections (FHTCs) under JJM on various parameters; ascertaining, in the form of data, on-ground progress of JJM in terms of adequate quantity of prescribed quality of drinking water supplied to rural households on regular basis; and engaging with Gram Panchayats and/ or its sub-committees of the sample villages and soliciting their feedbacks and recommendations for improving the programme implementation; and to suggest measures for mid-course correction for improvement in functionality of household tap connections.

3. Approach and Methodology

The approach followed was to assess the functionality of household tap connections (within premises) and in-village drinking water supply infrastructure. The selection of sample villages was from the JJM-Integrated Management Information System (IMIS) data-base of villages having at least 15 household tap connections. In each sample village, the largest PWS scheme was sampled. The survey was planned as in-person Computer Aided Personal Interview (CAPI) survey, and included an on-ground assessment of the functionality of sample PWS schemes and tap connections attached to the same. The survey included measurement of the quantity of water received at the household level through the tap connection, as well as water testing to check whether the quality of the drinking water is as per the BIS standards, using Field Test Kits (FTKs) and H₂S vials. The study also collected supply side information, including assessment of the quantity of water supplied by the scheme, operation and maintenance arrangements, availability and functionality of scheme level infrastructure and the aspects related to source and system sustainability.

A sample of 10 villages from every district in the State were selected following probability proportionate to size (PPS) systematic random sampling method ensuring due representation of SC/ SC majority villages as well as quality-affected villages. In each selected village, households for the survey were selected at head end, middle and tail end of the selected piped water supply network. In West Bengal the survey was conducted in 1883 households from 201 villages in 21 districts.

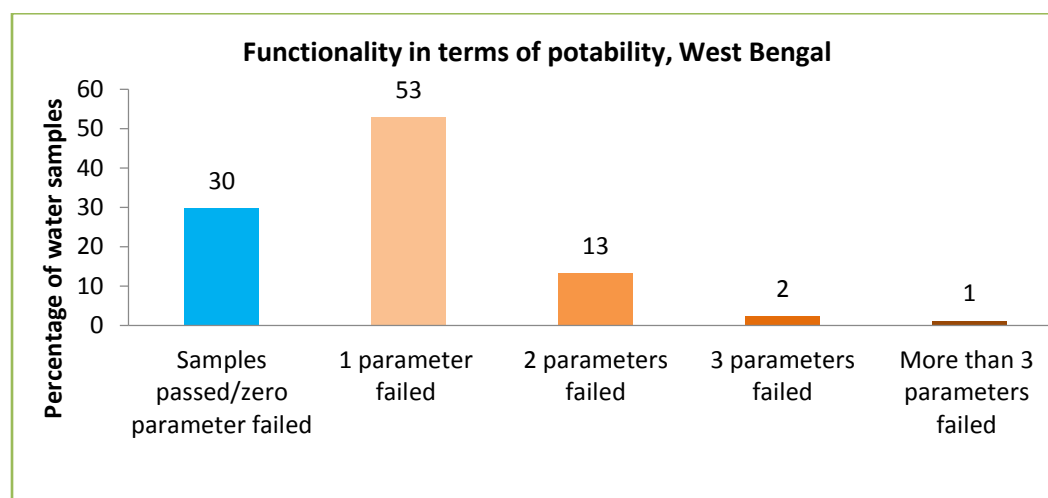
4. Key Findings

SL.	INDICATOR	West Bengal	India
Household level			
1	Average household size	5.0	5.6
2	Percent of households using tap connection for drinking purpose	85.8	88.9
3	Percentage of households reported working tap connections (supply at least one day in last 7 days)	87.2	93.6
4	Number of water supply days in a usual week		
4a	1 – 2 days	2.3	7.6
4b	3 – 4 days	2.9	10.4
4c	5 – 6 days	1.5	1.5
4d	7 days	93.3	80.5
5	Number of water supply days in the last week		
5a	0 days	1.1	2.4
5b	1 – 2 days	2.0	9.7
5c	3 – 4 days	4.0	14.8
5d	5 – 6 days	4.9	4.9
5e	7 days	88.0	68.1
6	Percentage of households reporting reliability of water supply days	85.8	86.5
7	Percentage of households reporting tap connections functioning continuously for more than 15 days in a month for last 12 months	95.4	84.6
8	Average number of times water is supplied on the days of supply		
8a	1 time	8.5	56.6
8b	2 times	47.5	28.2
8c	3 times	44.0	6.1
8d	4 times/24 hours	0.0	9.1
9	Percentage of households reporting reliability of supply for different supply timings	88.9	84.3
10	Percentage of households reporting adequate water pressure for different supply timings		
10a	Morning	80.0	80.1
10b	Afternoon	82.4	84.6
10c	Evening	71.4	84.8
11	Percentage of households reported paying water tariff – separately or along with other taxes	12.4	52.8
12	Percentage of households reported receiving 55 lpcd or more	95.5	83.5
13	Percentage of households having potable water *	29.9	61.3
14	Percentage of households reporting regularity of supply	94.6	87.2
15	Percentage of households reporting functional tap connections	27.4	47.8
Village level			
16	Percentage villages having functional water and sanitation committees	11.5	48.5
17	Percentage of functional schemes in the sample villages considering all schemes (supplying water any day in the last 7 days)	86.8	86.0

SL.	INDICATOR	West Bengal	India
18	Percentage of in-village schemes having O&M undertaken by village water and sanitation committee or by Panchayat	50.0	83.1
19	Percentage of sample schemes reported having faced challenges in the last one year		
19a	Inadequate infrastructure	28.0	40.2
19b	Poor water availability at the source	28.8	33.0
19c	Poor maintenance	41.5	46.2
19d	Natural calamity	80.5	63.4
20	Percentage of schemes reporting measure to improve source sustainability	68.7	59.9
21	Number of sample villages found with no scheme (defunct/under construction/not handed over/not constructed)	18	751

Figures 1, 2 and 3 depicts the functionality aspects of the household tap connections in West Bengal. Figure 1 presents the details of the potability aspects – the proportion of samples which have qualified as per all 13-15 parameters, as well as the proportion of sample which have failed due to one/two/three/more than three parameters.

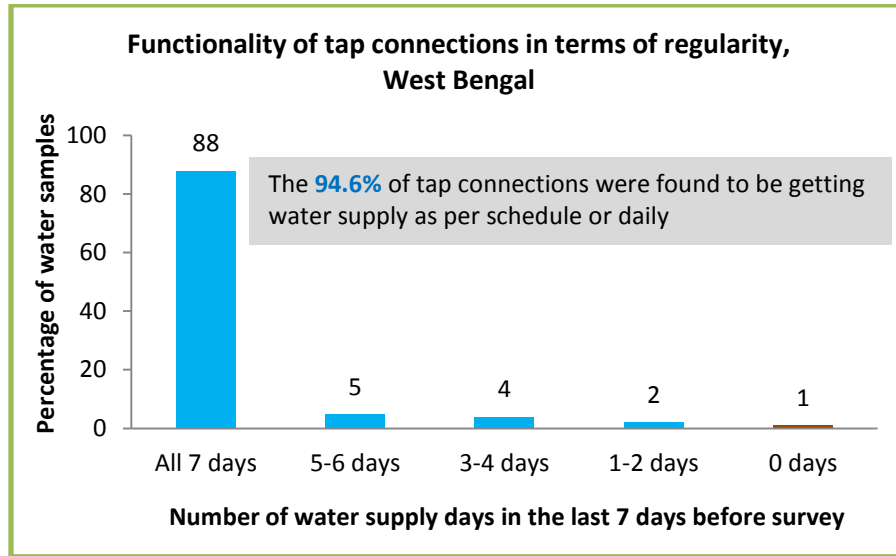
Fig 1: Functionality of the household tap connection in terms of potability - West Bengal



Base: Households with water quality testing done, N: 164

Figure 2 presents functionality in terms of regularity, and presents the water supply situation in the last 7 days (before survey date). This includes information on the proportion of taps supplying water on all 7 days, 5-6 days, 3-4 days, 1-2 days and zero days in the last 7 days. As not all schemes are planned to supply water daily, the information of the proportion of taps supplying water daily or as per the water supply schedule is also presented.

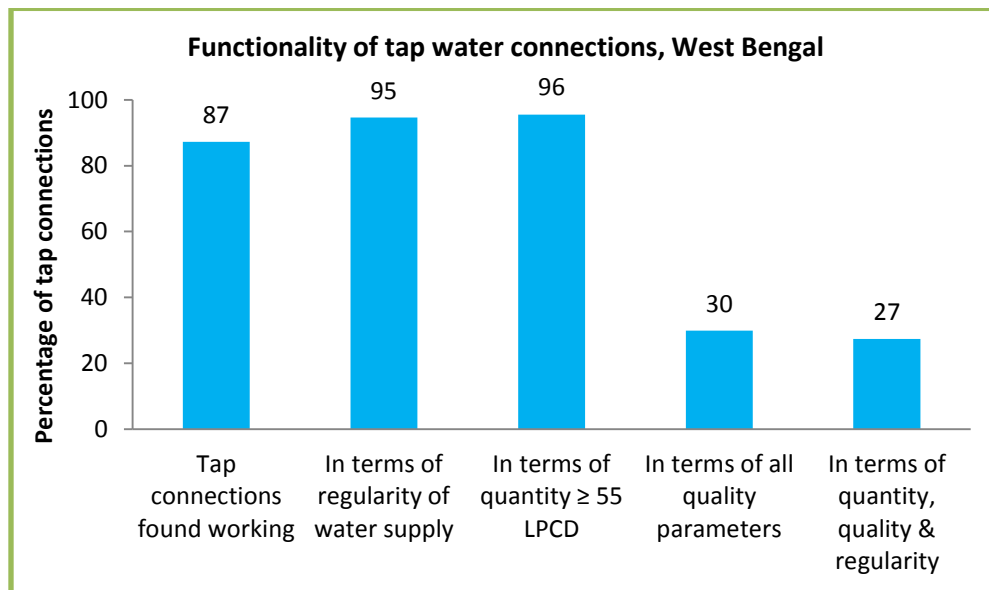
Fig 2: Functionality of the household tap connection in terms of regularity - West Bengal



Base: All Households, N: 1883

Figure 3, presents the summary situation of the working tap connections (defined as supplying water atleast on one day in the last 7 days), the functionality in terms of the proportion of tap connections which have qualified regularity, quantity, quality parameters, and the proportion which have qualified all 3 parameters.

Fig 3: Overall functionality of the household tap connection - West Bengal

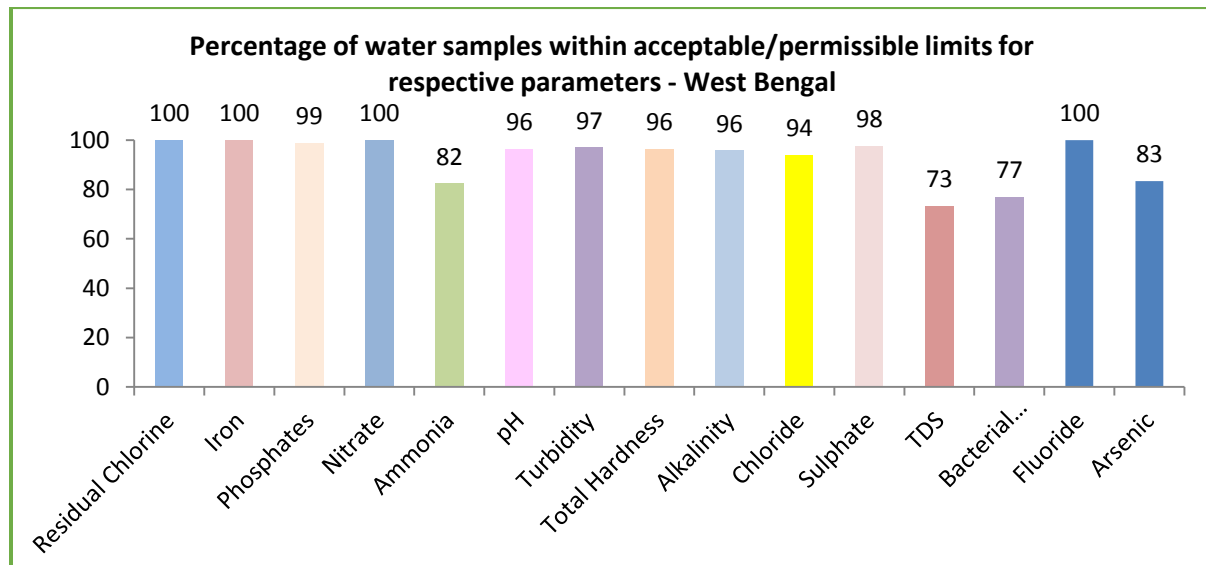


Base: Total count of tap connections considered for functionality assessment, N: 1787

A total of 164 water samples were tested as per BIS: 10,500 standards for all 13 parameters. Of these samples, 2 samples included testing for Fluoride and 6 samples for Arsenic. All the water samples were taken from a randomly selected head end household of selected sample PWS schemes in the sample villages of West Bengal – one sample for each of separate water sources in the village. The figure below shows the proportion of samples in which different parameters were found within acceptable/permissible limits.

As can be seen, almost all the samples (98% or more) had Residual Chlorine, Iron, Phosphates, Nitrate and Sulphate within acceptable/permissible limits. Ammonia, Total Hardness, ph, Turbidity, TDS, Bacterial presence (Total Coliform) and Alkalinity were the key issues. Nearly one fifth of the samples tested in Arsenic affected villages were not found to be within acceptable limits.

Fig 4: Percentage of water samples within acceptable/permissible limits for respective parameters – West Bengal



Pic 1: Household survey being undertaken in one of the villages in West Bengal



Pic 2: Water quality sample testing being undertaken in a village in West Bengal



5. Conclusions

West Bengal had much lower functional tap connections (27.4%) as compared with the national average. About 96 percent of the households were estimated to be provided 55 lpcd or more water supply and 95 percent of the tap connections have reported a daily water supply or supply on scheduled days. However, the proportion of households receiving potable water is less - about 30 percent. Since the tap connections considered to be functional were as per the JJM guidelines of including adequate quantity (55 lpcd or more), potability (as per BIS:10500 standards) and regularity of water supply (all

days or as per the water supply schedule), the reason that a lower proportion of households had functional tap connections is mostly due to the lower proportion of households having a combination of potability and regularity (29.4% households having adequate quantity and potable water; 29.2% households having potable water received on a regular basis; while 90.7% households had adequate quantity of water supply on a regular basis).

The main issues with the samples which were not found potable were Ammonia, Total Hardness, ph, Turbidity, TDS, Bacterial presence and Alkalinity being above permissible limits.

For most of the schemes water supply was scheduled as daily supply but there seems to be variation from the schedule. A much lower proportion of those reporting a usual daily water supply (93.3%), has reported receiving water supply on a daily basis in the last 7 days (88.0%). Forty-eight percent of the households have reported being supplied water twice a day and 44 percent thrice a day. A majority of the households have reported a reliability of water supply timings as well as adequate water pressure.

However, despite good quality water supply service delivery, only 12 percent households have reported paying water tariff. As per the JJM guidelines, the State Government needs to ensure 100 percent fund requirement for operation and maintenance of the schemes are met by the Agency responsible for water supply provision to function as a utility.

A little more than one tenth of the villages have reported having water and sanitation committees – of these villages, in 50 percent, the water and sanitation committees were actually taking responsibility for operation and maintenance activities of the PWS schemes. As reported by the communities 'natural calamities and poor maintenance' were the main challenges faced by the schemes. About two third of the schemes had taken any initiatives for source sustainability.

Annexures to this report includes:

- List of village with no scheme/defunct schemes/under construction is placed as Annexure 1,
- List of villages with schemes supplying only through tap stand/stand posts is placed as Annexure 2,
- List of villages where 15 FHTCs were not found is placed as Annexure 3,
- Indicative proportion of functional tap connections by districts is placed as Annexure 4, and
- List of villages where samples failed for given quality parameter is placed as Annexure 5

Annexure 1: List of village with no scheme/defunct schemes/under construction

S.No	District Name	Block Name	Panchayat Name	Village Name	Name of Largest Scheme in the Village	Type	Status of the Scheme	Remarks
1.	Bankura	Chhatna	Chhatna-I	Khaira Kanali	Piped water supply scheme for 14 blocks of Bankura district (phase-I) under BRGF (special)	MVS	No scheme	There is no piped water scheme in this village.
2.	Bardhaman	Bhatar	Balgona	Bhatakul	Bhatakul W/S scheme	MVS	Scheme is defunct	Scheme is defunct from last 2 years
3.	Bardhaman	Purbasthali-II	Patuli	Patuli	Surface water based water supply scheme for arsenic affected areas of Purbasthali-II	MVS	Scheme is defunct	Scheme is not functional since last 8 months
4.	Birbhum	Illambar	Mangaldihi	Khirai	Implementation of 165 nos. Dual use solar pump piped water supply scheme(SM/05851)	MVS	No scheme	There is no piped water scheme in this village.
5.	Darjeeling	Jore Bunglow-Sukiapokhri	Permaguri Tamsang	Tumsong Tea Garden	PWS scheme for Tamang TG(GTA)	SVS	No scheme	There is no piped water scheme in this village.
6.	Maldah	English Bazar	Jadupur-I	Uttar Jadupur	Ground water based piped water supply scheme for Bara Phulbari (SM/04840)	MVS	No scheme	There is no piped water scheme in this village.
7.	Maldah	Kaliachak-II	Hamidpur	Shripur	Water supply scheme for arsenic affected areas in the district of Malda	MVS	Scheme is defunct	Scheme is defunct from last 4 years
8.	Murshidabad	Raghunathganj-I	Kanupur	Kanupur	Surface water based water supply scheme for arsenic affected areas of Raghunathganj (SM/008730)	MVS	No scheme	There is no piped water scheme in this village.
9.	Nadia	Haringhata	Mollabelia	Uttar Datta Para	Surface water based water supply scheme for Haringhata (SM/02342)	MVS	No scheme	There is no piped water scheme in this village.

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S.No	District Name	Block Name	Panchayat Name	Village Name	Name of Largest Scheme in the Village	Type	Status of the Scheme	Remarks
10.	Nadia	Nabadwip	Mayapur Barmanpur-I	Bamanpukur	Surface water based w/s scheme for arsenic affected area northern sector (Nadia dist.)	MVS	Under construction	Under construction
11.	North 24 Parganas	Amdanga	Maricha	Bhaluka	Surface water based w/s scheme for arsenic affected area of north 24 Parganas	MVS	No scheme	There is no piped water scheme in this village.
12.	Paschim Bardhaman	Barabani	Barabani	Bhaskajuri	RCFA W/S scheme (part-I)	MVS	No scheme	There is no piped water scheme in this village.
13.	Paschim Bardhaman	Barabani	Barabani	Majiara	RCFA W/S scheme (part-I)	MVS	No scheme	There is no piped water scheme in this village.
14.	Purba Medinipur	Ramnagar-I	Padima-li	Gangadharpur	Rejuvenation of Digha augmentation water supply scheme (central zone) at Digha	MVS	No scheme	There is no piped water scheme in this village.
15.	Purulia	Jhalda-li	Begun Kodar	Narayanpur Alias Lakhipur	West Bengal piped water supply project (Purulia JICA)	MVS	No scheme	There is no piped water scheme in this village.
16.	South 24 Parganas	Baruipur	Dhapdhapi-li	Alipur	Surface water based water supply scheme in arsenic affected areas of South 24 Parganas district	MVS	No scheme	There is no piped water scheme in this village.
17.	South 24 Parganas	Sonar Pur	Kalikapur-li	Sahebpur	Surface water based water supply scheme in arsenic affected areas of South 24 Parganas district	MVS	No scheme	There is no piped water scheme in this village.
18.	Uttar Dinajp	Karandighi	Bazargaon-li	Shripur	Water supply scheme for arsenic affected areas in the district of Malda	MVS	Scheme is	Scheme is defunct from last 10 years

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S.No	District Name	Block Name	Panchayat Name	Village Name	Name of Largest Scheme in the Village	Type	Status of the Scheme	Remarks
							defunct	

Annexure 2: List of villages with schemes supplying only through tap stand/standpost

S.No	District Name	Block Name	Panchayat Name	Village Name	Name of largest scheme in the village	Type	Remarks
1.	Alipurduar	Alipurduar-I	Banchukamari	Chapatali	Banchukamari piped w/s scheme (SM/03708)	MVS	No FHTC. Water supply through tap stand only
2.	Alipurduar	Alipurduar-I	Pararpar	Birpara	Birpara piped w/s scheme	SVS	No FHTC. Water supply through tap stand only
3.	Alipurduar	Alipurduar-I	Salkumar-I	Nutanpara	Banchukamari piped w/s scheme(SM/03708)	MVS	No FHTC. Water supply through tap stand only
4.	Alipurduar	Alipurduar-I	Vivekananda-I	Bholardabri	Bholardabri water supply scheme	SVS	No FHTC. Water supply through tap stand only
5.	Alipurduar	Kalchini	Latabari	Uttar Latabarii (CT)	Uttar Latabari w/s scheme	SVS	No FHTC. Water supply through tap stand only
6.	Bankura	Bankura-II	Puandarpur	Kanchanpur	Piped water supply scheme for 14 blocks of Bankura district (phase-I) under BRGF (special)	MVS	No FHTC. Water supply through tap stand only
7.	Bankura	Barjora	Ghutgoria	Ghutgaraya	Piped water supply scheme for 14 blocks of Bankura district (phase-I) under BRGF (special)	MVS	No FHTC. Water supply through tap stand only
8.	Bankura	Barjora	Maliara	Kuldiha	Piped water supply scheme for 14 blocks of Bankura district (phase-I) under BRGF (special)	MVS	No FHTC. Water supply through tap stand only
9.	Bankura	Barjora	Maliara	Maliara	Piped water supply scheme for 14 blocks of Bankura district (phase-I)	MVS	No FHTC. Water supply through tap stand only

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S.No	District Name	Block Name	Panchayat Name	Village Name	Name of largest scheme in the village	Type	Remarks
					under BRGF (special)		
10.	Bankura	Chhatna	Chhatna-I	Barbakra	Piped water supply scheme for 14 blocks of Bankura district (phase-I) under BRGF (special)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
11.	Bankura	Chhatna	Chhatna-I	Lakshminarayanpur	Piped water supply scheme for 14 blocks of Bankura district (phase-I) under BRGF (special)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
12.	Bankura	Saltora	Bamuntore	Behari	Piped water supply scheme for 14 blocks of Bankura district (phase-I) under BRGF (special)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
13.	Bankura	Saltora	Bamuntore	Kujkuria	Piped water supply scheme for 14 blocks of Bankura district (phase-I) under BRGF (special)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
14.	Bankura	Sonamukhi	Panchal	Kanaipura	Piped water supply schemes for Bankura district phase ii covering 8 blocks SM 05648	MVS	No FHTC. Water supply through tap stand only
15.	Bardhaman	Ausgram-I	Ausgram	Ban Nabagram	Bononabagram w/s scheme	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
16.	Bardhaman	Ausgram	Kota	Kota	Kotachandipur w/s scheme	SVS	Scheme is supplying water through

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S.No	District Name	Block Name	Panchayat Name	Village Name	Name of largest scheme in the village	Type	Remarks
	an	m-II		Chandipur			tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
17.	Bardhaman	Jamal Pur	Jaugram	Jaugram	Rejuvenation Jaugram water supply scheme(SM/04558)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
18.	Bardhaman	Purbasthali-I	Nasratpur	Jaluidanga	Nasratpur PWSS	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
19.	Birbhum	Murara-i	Rajgram	Rajgram	Implementation of 165 nos. Dual use solar pump piped water supply scheme(SM/05851)	MVS	No FHTC. Water supply through tap stand only
20.	Birbhum	Nalhati-I	Kurumgram	Kurumgram	Implementation of dual use solar pump piped water supply scheme 60 nos in the district of Birbhum (SM/05438)	MVS	No FHTC. Water supply through tap stand only
21.	Birbhum	Nanoor	Nonnagar Kadda	Khujutipara	Khujutipara water supply scheme	MVS	No FHTC. Water supply through tap stand only
22.	Coochbehar	Tufanganj-II	Bhanukumari-I	Bhanukumari	Baksirhat w/s. Scheme	MVS	No FHTC. Water supply through tap stand only
23.	Darjeeling	Matigara	Champasari	Karaibari	Kalkut water supply scheme	MVS	No FHTC. Water supply through tap stand only
24.	Darjeeling	Matigara	Champasari	Panchanai	Chamta and adj Mouza w/s scheme	MVS	No FHTC. Water supply through tap stand only

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S.No	District Name	Block Name	Panchayat Name	Village Name	Name of largest scheme in the village	Type	Remarks
25.	Darjeeling	Matigara	Champasari	Udaysing	Salbari and adj Mouza w/s scheme	MVS	No FHTC. Water supply through tap stand only
26.	Darjeeling	Matigara	Matigara-I	Kauakhal	Kawakhali and adj Mouza w/s scheme	MVS	No FHTC. Water supply through tap stand only
27.	Darjeeling	Matigara	Patharghata	Chamta	Chamta and adj Mouza w/s scheme	MVS	No FHTC. Water supply through tap stand only
28.	Darjeeling	Matigara	Patharghata	Guria	Matigarahat and adj Mouza w/s scheme	MVS	No FHTC. Water supply through tap stand only
29.	Darjeeling	Naxalbari	Naxalbari	Bhimram	Water supply scheme for Naxalbari and adj. Mouzas (phase-II)	MVS	No FHTC. Water supply through tap stand only
30.	Darjeeling	Naxalbari	Naxalbari	Geni	Water supply scheme for Naxalbari and adj. Mouzas (phase-II)	MVS	No FHTC. Water supply through tap stand only
31.	Darjeeling	Naxalbari	Upper Bagdogra	Uttar Bagdogra (CT)	Uttar Bagdogra w/s scheme	SVS	No FHTC. Water supply through tap stand only
32.	Howrah	Bagnan-I	Bagnan	Karia	Rejuvenation of Paschim Bagnan water supply scheme.	MVS	No FHTC. Water supply through tap stand only
33.	Jhargram	Gopiballavpur-II	Kuliana	Rantua Urf Kalsa	Rantua w/s scheme	MVS	No FHTC. Water supply through tap stand only
34.	Maldah	Kaliachak-II	Hamidpur	Shrighar	Water supply scheme for arsenic affected areas in the district of Malda	MVS	No FHTC. Water supply through tap stand only
35.	Murshidabad	Beldanga-II	Andul Beria-I	Andul Baria	Loknathpur water quality submission(SM/02244)	MVS	No FHTC. Water supply through tap stand only
36.	Murshidabad	Berhampore	Rangamati Chandpara	Charmahula	Char Moula water supply scheme(SM/01549)	MVS	No FHTC. Water supply through tap stand only
37.	Murshidabad	Ranigar-I	Paharpur	Moktarpur	Moktarpur water supply scheme	MVS	No FHTC. Water supply through tap stand only

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S.No	District Name	Block Name	Panchayat Name	Village Name	Name of largest scheme in the village	Type	Remarks
38.	Nadia	Nakashipara	Patikabari	Patikabari	Surface water based w/s scheme for arsenic affected area northern sector (Nadia dist.)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
39.	North 24 Paraganas	Amdanga	Chandigarh	Dariapur	Surface water based w/s scheme for arsenic affected area of North 24 Parganas	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
40.	North 24 Paraganas	Amdanga	Taraberi	Ratanpur	Surface water based w/s scheme for arsenic affected area of North 24 Parganas	MVS	No FHTC. Water supply through tap stand only
41.	North 24 Paraganas	Barasat	Chhotojagulia	Bamangachi	Surface water based water supply scheme for arsenic affected areas of Habra Gaighata and adjoining mouzas	MVS	No FHTC. Water supply through tap stand only
42.	North 24 Paraganas	Bongao	Tengra	Tengra	Bangangram water quality sub-mission scheme	MVS	No FHTC. Water supply through tap stand only
43.	North 24 Paraganas	Hingalganj	Bishpur	Bisapur	Durgapur Baylani w/s scheme	MVS	No FHTC. Water supply through tap stand only
44.	Paschim Bardhaman	Barabani	Barabani	Bhanowara (Ct)	RCFA W/S scheme (part-I)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
45.	Paschim Bardhaman	Barabani	Domohani	Domohani	RCFA W/S scheme (part-I)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not

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S.No	District Name	Block Name	Panchayat Name	Village Name	Name of largest scheme in the village	Type	Remarks
							doing water quality test from stand post at that time.
46.	Paschim Bardhaman	Barabani	Nuni	Chinchuria	RCFA W/S scheme (part-I)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
47.	Paschim Bardhaman	Barabani	Nuni	Nuni (B)	RCFA W/S scheme (part-I)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
48.	Purba Medinipur	Ramnagar-I	Padimal	Bilamria	Rejuvenation of Digha augmentation water supply scheme (central zone) at Digha	MVS	No FHTC. Water supply through tap stand only
49.	Purulia	Jhalda-II	Begun Kodar	Begun Kodar	West Bengal piped water supply project (Purulia JICA)	MVS	No FHTC. Water supply through tap stand only
50.	Purulia	Raghunath Pur-I	Babugram	Ekanja	West Bengal piped water supply project (Purulia JICA)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
51.	Purulia	Raghunath Pur-I	Nutandih	Dhatara	West Bengal piped water supply project (Purulia JICA)	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
52.	South 24 Parganas	Bishnupur-I	Rashkhali	Rashkhali	Surface water based water supply scheme in arsenic affected areas of South 24 Parganas district	MVS	No FHTC. Water supply through tap stand only

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S.No	District Name	Block Name	Panchayat Name	Village Name	Name of largest scheme in the village	Type	Remarks
53.	South 24 Parganas	Bishnupur-II	Panchanan	Nalbhag	Surface water based water supply scheme in arsenic affected areas of South 24 Parganas district	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
54.	South 24 Parganas	Budge Budge-II	Satgachhia	Satgachhia	Surface water based water supply scheme in arsenic affected areas of South 24 Parganas district	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
55.	South 24 Parganas	Budge Budge-II	South Bawali	Chak Etbari	Surface water based water supply scheme in arsenic affected areas of South 24 Parganas district	MVS	Scheme is supplying water through tap stand. No tap connection to any households till now. We were not doing water quality test from stand post at that time.
56.	Uttar Dinajpur	Itahar	Gulandar-I	Dhulahar	Dhulahar water supply scheme	MVS	No FHTC. Water supply through tap stand only
57.	Uttar Dinajpur	Itahar	Gulandar-I	Gopinathpur	Chandanpur piped water supply scheme (SM/05002)	MVS	Scheme is not functional from last 2 years

Annexure 3: List of villages where 15 FHTCs were not found

S.No	District name	Block name	Panchayat name	Village name	Name of largest scheme in the village	Type
1	Dakshin Dinajpur	Hili	Binshira	Chak Balaram	Nawapara Piped Water Supply Scheme (SM/04865)	MVS
2	Murshidabad	Suti-I	Bansbati	Hilora	Hilora Water Submission Scheme	MVS

Annexure 4: Indicative proportion of functional tap connections by districts

S.No	District	Percentage Functional Taps
1.	Alipurduar	0.0
2.	Bardhaman	25.0
3.	Birbhum	60.0
4.	Coochbehar	57.1
5.	Dakshin Dinajpur	10.2
6.	Hooghly	26.7
7.	Howrah	22.2
8.	Jalpaiguri	52.6
9.	Maldah	44.8
10.	Murshidabad	69.0
11.	Nadia	22.9
12.	North 24 Paraganas	0.0
13.	Paschim Bardhaman*	0.0
14.	Paschim Medinipur	21.5
15.	Purba Medinipur	40.0
16.	Purulia	8.9
17.	South 24 Paraganas	0.0
18.	Uttar Dinajpur	0.0

* The denominator is less than 50

Annexure 5: List of villages where samples failed for given quality parameter

S.No.	District name	Block name	Gram panchayat name	Village name
Villages with failed water samples for Turbidity test				
1.	Bardhaman	Katwa-I	Sudpur	Sudpur
2.	Birbhum	Murarai-I	Rajgram	Rajgram
3.	Dakshin Dinajpur	Hili	Binshira	Kamarghat
4.	Dakshin Dinajpur	Hili	Panjul	Bagura Fatepur
5.	Dakshin Dinajpur	Hili	Panjul	Gosaipur
Villages with failed water samples for pH test				
1.	Dakshin Dinajpur	Hili	Binshira	Kamarghat
2.	Jalpaiguri	Dhupguri	Banarhat-li	Banarhat Tea Garden (Ct)

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S.No.	District name	Block name	Gram panchayat name	Village name
3.	Jalpaiguri	Matiali	Bidhannagar	Nakhati Tea Garden
4.	Nadia	Karimpur-li	Narayanpur-I	Fazil Nagar
5.	Paschim Medinipur	Keshpur	Anandapur	Anandapur
6.	South 24 Paraganas	Jaynagar-I	Dakshin Barasat	Khatsara
Villages with failed water samples for Total Hardness test				
1.	Bankura	Sonamukhi	Panchal	Kanaipur
2.	Bardhaman	Jamal Pur	Abujhati-I	Abujhati
3.	Bardhaman	Katwa-I	Sudpur	Sudpur
4.	Coochbehar	Cooch Behar li	Khapaidanga	Khapaidanga
5.	Jalpaiguri	Maynaguri	Domohani-I	Uttar Marichbari
6.	Paschim Bardhaman	Kanksa	Tilakchandrapur	Rajkusum
Villages with failed water samples for Total Alkalinity test				
1.	Bankura	Barjora	Ghutgoria	Ghutgarya
2.	Bardhaman	Jamal Pur	Abujhati-I	Abujhati
3.	Dakshin Dinajpur	Hili	Binshira	Kamarghat
4.	Dakshin Dinajpur	Hili	Binshira	Jagadishpur
5.	Hooghly	Haripal	Haripal Sahadeb	Gosha
6.	North 24 Paraganas	Barrackpur-li	Sewli	Teleni Para
7.	North 24 Paraganas	Sandeshkhali-li	Monipur	Atapur
Villages with failed water samples for Chloride test				
1.	Bankura	Barjora	Ghutgoria	Ghutgarya
2.	Bardhaman	Jamal Pur	Abujhati-I	Abujhati
3.	Coochbehar	Tufanganj-li	Bhanu Kumari-I	Bhanukumari
4.	Jalpaiguri	Dhupguri	Chamurchi	Haritalguri Tea Garden (D)
5.	North 24 Paraganas	Amdanga	Taraberia	Ratanpur
6.	North 24 Paraganas	Sandeshkhali-li	Monipur	Atapur
7.	Paschim Bardhaman	Pandaveswar	Baidyanathpur	Baidyanathpur
8.	Purulia	Raghunathpur-li	Chelyama	Cheyama
9.	Uttar Dinajpur	Itahar	Patirajpur	Chauduar
10.	Uttar Dinajpur	Raiganj	Barua	Barabarua
Villages with failed water samples for Ammonia test				
1.	Darjeeling	Matigara	Matigara-I	Kauakhali
2.	Darjeeling	Matigara	Patharghata	Guria
3.	Darjeeling	Matigara	Patharghata	Chamta

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S.No.	District name	Block name	Gram panchayat name	Village name
4.	Darjeeling	Matigara	Champasari	Karaibari
5.	Darjeeling	Matigara	Champasari	Panchanai
6.	Darjeeling	Matigara	Champasari	Udaysing
7.	Darjeeling	Naxal Bari	Naxalbari	Bhimram
8.	Darjeeling	Naxal Bari	Naxalbari	Geni
9.	Darjeeling	Naxal Bari	Upper Bagdogra	Uttar Bagdogra (Ct)
10.	Hooghly	Chanditala-li	Garalgacha	Garalgacha (Ct)
11.	Hooghly	Pandua	Itachuna-Khannyan	Mandaran
12.	Hooghly	Polba Dadpur	Harit	Bilatpur
13.	Hooghly	Polba Dadpur	Rajhat	Baral Malimpur
14.	Howrah	Bagnan-I	Khalore	Ramchandrapur
15.	Howrah	Bagnan-li	Mug Kalyanbenapur	Chandanapara
16.	Howrah	Shyampur-li	Amardaha	Bhatughar
17.	Murshidabad	Nawda	Patikabari	Mahammadpur
18.	Nadia	Krishnaganj	Gobindapur	Kadipur
19.	Nadia	Tehatta-li	Barnia	Barnia
20.	Paschim Medinipur	Ghatal	Monoharpur-li	Patharchak Gobindapur
21.	Paschim Medinipur	Ghatal	Monoharpur-li	Katan
22.	Paschim Medinipur	Keshpur	Anandapur	Anandapur
23.	Paschim Medinipur	Pingla	Maligram-V	Maligram
24.	Paschim Medinipur	Sabang	Mohar	Dubrajpur
25.	Paschim Medinipur	Sabang	Mohar	Basulya
26.	Paschim Medinipur	Sabang	Mohar	Chakmadhab
27.	Purba Medinipur	Chandipur	Chowkhali	Kotbar
28.	Purba Medinipur	Chandipur	Chowkhali	Kulapara
29.	Purba Medinipur	Kolaghat	Gopalnagar	Gopal Nagar
Villages with failed water samples for Phosphate test				
1.	Darjeeling	Matigara	Patharghata	Chamta
2.	Howrah	Bally-Jagacha	Sanpuipara Basukati	Bally(Ct)
Villages with failed water samples for Sulphate test				
1.	Coochbehar	Cooch Behar li	Madhupur	Kalapani
2.	Jalpaiguri	Matiali	Bidhannagar	Nakhati Tea Garden
3.	Maldah	Kaliachak-li	Hamidpur	Shripur
4.	South 24 Paraganas	Sagar	Das Para Sumatinagar-I	Dhaspara
Villages with failed water samples for Total Dissolved Solids test				

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S.No.	District name	Block name	Gram panchayat name	Village name
1.	Alipurduar	Alipurduar-I	Banchukamari	Banchukamari
2.	Alipurduar	Alipurduar-I	Banchukamari	Chapatali
3.	Alipurduar	Alipurduar-I	Salkumar-I	Nutanpara
4.	Alipurduar	Alipurduar-I	Pararpar	Birpara
5.	Alipurduar	Alipurduar-I	Vivekananda-I	Bholar Dabri
6.	Alipurduar	Kalchini	Latabari	Uttar Latabarii (Ct)
7.	Alipurduar	Madarihat- Birpara	Lankapara	Lankapara Tea Garden
8.	Alipurduar	Madarihat- Birpara	Birpara-li	Dalmore Tea Garden
9.	Alipurduar	Madarihat- Birpara	Hantapara	Dumchipara Tea Garden
10.	Alipurduar	Madarihat- Birpara	Birpara-I	Birpara Tea Garden
11.	Bankura	Bankura-li	Puandarpur	Kanchanpur
12.	Bankura	Barjora	Ghutgoria	Ghutgarya
13.	Bardhaman	Jamal Pur	Abujhati-I	Abujhati
14.	Bardhaman	Mangolkote	MangalkOTE	Mangalkot
15.	Coochbehar	Tufanganj-li	Bhanu Kumari-I	Bhanukumari
16.	Jalpaiguri	Dhupguri	Chamurchi	Haritalguri Tea Garden (D)
17.	North 24 Paraganas	Amdanga	Taraberia	Ratanpur
18.	North 24 Paraganas	Barasat-I	Chhotojagulia	Bamangachhi
19.	North 24 Paraganas	Barasat-I	Kashimpur	Patincha
20.	North 24 Paraganas	Barasat-I	Purbakhilkapur	Khilkapur
21.	North 24 Paraganas	Barrackpur-li	Sewli	Teleni Para
22.	North 24 Paraganas	Bongaon	Tengra	Tengra
23.	North 24 Paraganas	Hingalganj	Bishpur	Bisnur
24.	North 24 Paraganas	Sandeshkhali-li	Monipur	Atapur
25.	Paschim Bardhaman	Faridpur - Durgapur	Jemua	Tetikhala
26.	Paschim Bardhaman	Kanksa	Tilakchandrapur	Rajkusum
27.	Paschim Bardhaman	Pandaveswar	Baidyanathpur	Baidyanathpur
28.	Purba Medinipur	Chandipur	Iswarpur	Saripur
29.	Purulia	Jhalda-li	Begun Kodar	Begun Kodar

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S.No.	District name	Block name	Gram panchayat name	Village name
30.	Purulia	Neturia	Sarbari	Mahishnadi
31.	Purulia	Raghunath Pur-I	Babugram	Gobindapur
32.	Purulia	Raghunathpur-li	Chelyama	Cheyama
33.	Purulia	Raghunathpur-li	Mangalda Moutore	Gabranda
34.	South 24 Paraganas	Bishnupur-I	Rashkhali	Rashkhali
35.	South 24 Paraganas	Bishnupur-li	Patharberia Jaychandipur	Khasjhika
36.	South 24 Paraganas	Budge Budge-li	Gaya-Poali	Paita
37.	Uttar Dinajpur	Itahar	Patirajpur	Tilna
38.	Uttar Dinajpur	Itahar	Patirajpur	Chauduar
39.	Uttar Dinajpur	Itahar	Surun-I	Shurun
40.	Uttar Dinajpur	Itahar	Surun-I	Bariol
41.	Uttar Dinajpur	Itahar	Gulandar-I	Dhulahar
42.	Uttar Dinajpur	Itahar	Kapasia	Chandanpur
43.	Uttar Dinajpur	Raiganj	Bhatun	Malibari
44.	Uttar Dinajpur	Raiganj	Barua	Barabarua
Villages with failed water samples for Bacteriological present/ absence test using H2S vials				
1.	Alipurduar	Alipurduar-I	Banchukamari	Chapatali
2.	Bankura	Barjora	Maliara	Kuldiha
3.	Birbhum	Bolpur-Sriniketan	Sian Muluk	Shian
4.	Birbhum	Labpur	Dwarka	Danrka
5.	Coochbehar	Dinhata-li	Kismat Dasgram	Kismat Dasagram
6.	Dakshin Dinajpur	Hili	Panjul	Domran
7.	Dakshin Dinajpur	Hili	Binshira	Kamarghat
8.	Dakshin Dinajpur	Hili	Panjul	Nafar
9.	Dakshin Dinajpur	Hili	Panjul	Ramkrishnapur
10.	Dakshin Dinajpur	Hili	Binshira	Chak Balaram
11.	Dakshin Dinajpur	Hili	Panjul	Chak Gopal
12.	Hooghly	Chanditala-li	Naity	Adan
13.	Hooghly	Pandua	Itachuna-Khannyan	Mandaran
14.	Hooghly	Pandua	Pandua	Pandua (Ct)
15.	Hooghly	Pandua	Pandua	Pandua (Ct)
16.	Hooghly	Pandua	Pandua	Pandua (Ct)
17.	Howrah	Bagnan-I	Bagnan-I	Hijlak
18.	Howrah	Bagnan-I	Bainan	Karia
19.	Howrah	Bagnan-li	Chandrabhag	Kulitapara
20.	Howrah	Bagnan-li	Orphuly	Rana
21.	Howrah	Shyampur-li	Amardaha	Bhatughar
22.	Jalpaiguri	Dhupguri	Banarhat-li	Banarhat Tea Garden (Ct)
23.	Jalpaiguri	Maynaguri	Domohani-I	Uttar Marichbari

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S.No.	District name	Block name	Gram panchayat name	Village name
24.	Jhargram	Gopiballav Pur -li	Kuliana	Rantua Urf Kalsa
25.	Maldah	Kaliachak-iii	Krishnapur	Suzapur Mandai
26.	Maldah	Kaliachak-iii	Birnagar-li	Sultanganj (P)
27.	Maldah	Kaliachak-iii	Birnagar-li	Baishnabnagar
28.	Nadia	Chakdah	Silinda-I	Silinda
29.	Nadia	Hanskhali	Badkulla-I	Purba Khamar Simulia
30.	Nadia	Karimpur-li	Narayanpur-I	Fazil Nagar
31.	North 24 Paraganas	Barasat-I	Purbakhilkapur	Khilkapur
32.	Paschim Medinipur	Keshpur	Anandapur	Anandapur
33.	Paschim Medinipur	Keshpur	Anandapur	Anandapur
34.	Paschim Medinipur	Pingla	Maligram-V	Maligram
35.	Purulia	Raghunathpur-li	Mangalda Moutore	Gabranda
36.	Uttar Dinajpur	Itahar	Patirajpur	Chauduar
37.	Uttar Dinajpur	Itahar	Surun-I	Bariol
38.	Uttar Dinajpur	Raiganj	Bhatun	Malibari
Villages with failed water samples for Arsenic test				
1.	Murshidabad	Nawda	Patikabari	Mahammadpur