

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

State report

Gujarat



Submitted to:
National Jal Jeevan Mission
Department of Drinking Water and Sanitation
Ministry of Jal Shakti

Report prepared by:
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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 Gujarat, the survey was conducted in 4,576 households from 330 villages in 33 districts.

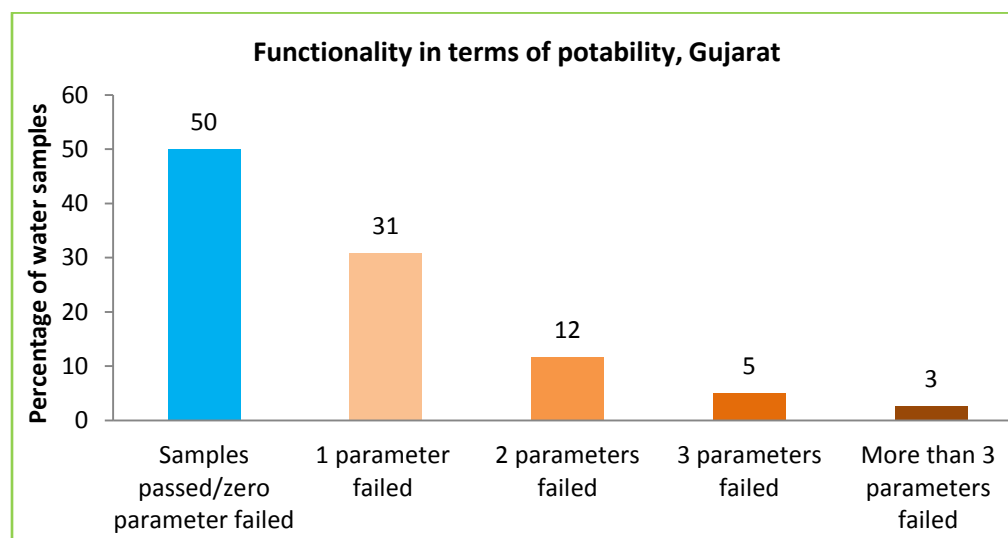
4. Key Findings

SL.	INDICATOR	Gujarat	India
Household level			
1	Average household size	5.6	5.6
2	Percent of households using tap connection for drinking purpose	91.9	88.9
3	Percentage of households reported working tap connections (supply at least one day in last 7 days)	95.7	93.6
4	Number of water supply days in a usual week		
4a	1 – 2 days	6.4	7.6
4b	3 – 4 days	6.4	10.4
4c	5 – 6 days	0.4	1.5
4d	7 days	86.9	80.5
5	Number of water supply days in the last week		
5a	0 days	0.6	2.4
5b	1 – 2 days	11.9	9.7
5c	3 – 4 days	23.4	14.8
5d	5 – 6 days	2.1	4.9
5e	7 days	61.9	68.1
6	Percentage of households reporting reliability of water supply days	93.3	86.5
7	Percentage of households reporting tap connections functioning continuously for more than 15 days in a month for last 12 months	93.8	84.6
8	Average number of times water is supplied on the days of supply		
8a	1 time	76.6	56.6
8b	2 times	22.3	28.2
8c	3 times	0.3	6.1
8d	4 times/24 hours	0.8	9.1
9	Percentage of households reporting reliability of supply for different supply timings	90.2	84.3
10	Percentage of households reporting adequate water pressure for different supply timings		
10a	Morning	89.2	80.1
10b	Afternoon	90.1	84.6
10c	Evening	93.2	84.8
11	Percentage of households reported paying water tariff – separately or along with other taxes	91.0	52.8
12	Percentage of households reported receiving 55 lpcd or more	83.8	83.5
13	Percentage of households having potable water *	49.7	61.3
14	Percentage of households reporting regularity of supply	74.0	87.2
15	Percentage of households reporting functional tap connections	31.8	47.8
Village level			
16	Percentage villages having functional water and sanitation committees	97.0	48.5
17	Percentage of functional schemes in the sample villages considering all schemes (supplying water any day in the last 7 days)	84.9	86.0
18	Percentage of in-village schemes having O&M undertaken by village water	97.1	83.1

SL.	INDICATOR	Gujarat	India
	and sanitation committee or by Panchayat		
19	Percentage of sample schemes reported having faced challenges in the last one year		
19a	Inadequate infrastructure	26.3	40.2
19b	Poor water availability at the source	49.7	33.0
19c	Poor maintenance	38.0	46.2
19d	Natural calamity	49.1	63.4
20	Percentage of schemes reporting measure to improve source sustainability	64.7	59.9
21	Number of sample villages found with no scheme (defunct/under construction/not handed over/not constructed)	22	751

Figures 1, 2 and 3 depicts the functionality aspects of the household tap connections in Gujarat. 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.

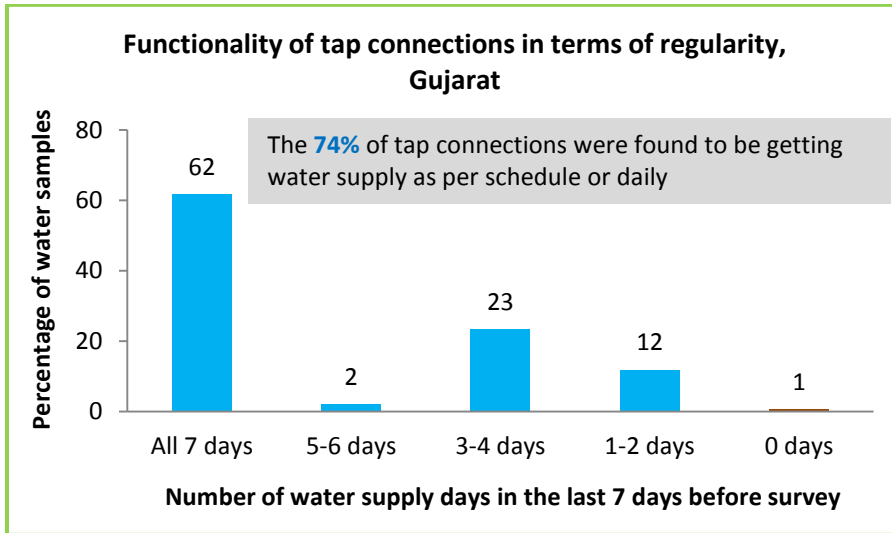
Fig 1: Functionality of the household tap connection in terms of potability - Gujarat



Base: Households with water quality testing done, N: 298

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.

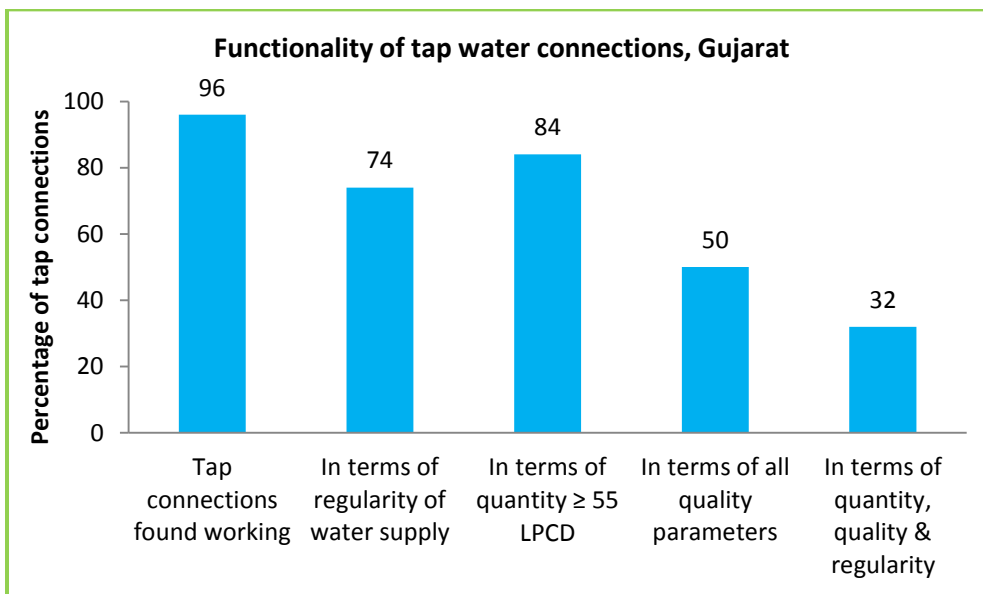
Fig 2: Functionality of the household tap connection in terms of regularity - Gujarat



Base: All Households, N: 4575

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 - Gujarat

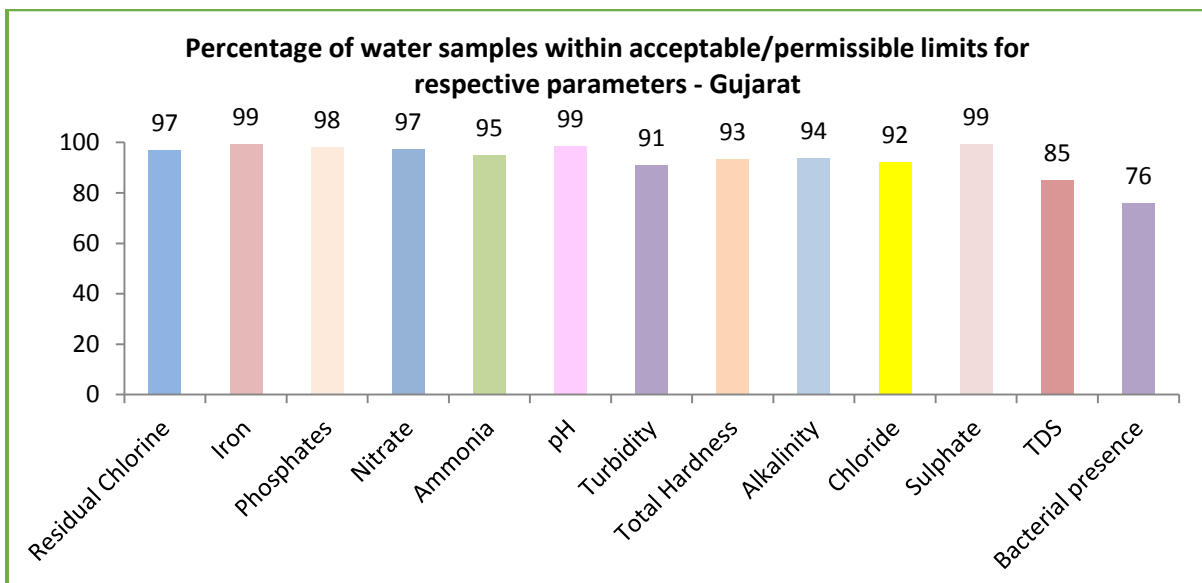


Base: Total count of tap connections considered for functionality assessment, N: 4341

A total of 298 water samples were tested in Gujarat as per BIS: 10,500 standards for all 13 parameters. 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 (97% or more) had Residual Chlorine, Iron, Phosphates, Nitrate, pH and Sulphate within acceptable/ permissible limits. The key water quality issues were bacteriological (total coliform) presence in 24 percent of the water samples, TDS in 15 percent of the samples, and 5 – 9 percent of the samples affected by Turbidity, Chloride, Total Hardness, Alkalinity and Ammonia beyond acceptable/ permissible limits.

Fig 4: Percentage of water samples within acceptable/permissible limits for respective parameters - Gujarat



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



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



5. Conclusions

Gujarat has only 32 percent functional tap connections and this is low as compared with the national average. A high proportion (83.8%) of tap connections are estimated to supply more than 55 lpcd or more water and about 74 percent of tap connections were found to be supplying water daily or as per schedule. However, the proportion of taps being provided with potable water supply (49.7%) is low. 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 low proportions of taps being supplied with potable water. If the separate combinations of the functionality attributes are analyzed, it is seen that households having quantity and potability as per the JJM guidelines, as well as potability and regularity combinations are low (40.9% households having adequate quantity and potable water; 35.8% households having potable water received on a regular basis; while 65.6% households had adequate quantity of water supply on a regular basis).

The key water quality issues were bacteriological (total coliform) presence in 24 percent of the water samples, TDS in 15 percent of the samples, and 5 – 9 percent of the samples affected by turbidity, chloride, total hardness, alkalinity and ammonia beyond acceptable/permissible limits.

The proportion of households reporting currently working tap connections in Gujarat is high (95.7%). On an usual basis, almost 87 percent of the households have reported receiving water supply on a daily basis. Compared to the usual situation however, a much lower proportion (61.9%) have reported daily water supply in the last week before the survey date. However, almost all (93.3%) of the households have reported that water supply is reliable as per the scheduled days of supply.

More than three fourths of the households (76.6%) have reported that water is supplied once a day and the rest mostly twice a day. About 90 percent of the households have reported that water supply timings are reliable. The water pressure is reported to be adequate for all the different water supplies in a day. About 84 percent households have mentioned that they had received water supply on a continuous basis for 15 days a month for the last 12 months.

Almost all households (91%) have reported paying water tariff. As per the JJM guidelines, the State Government needs to ensure 100% fund requirement for operation and maintenance of the schemes are met by the Agency responsible for water supply provision to function as a utility.

Functional water and sanitation committees have been reported in almost all villages (97%), and wherever available, almost all (84.9%) have reported taking responsibility for operation and maintenance activities of the PWS schemes. As reported by the communities 'natural calamities, and poor availability of water at the source' were the main challenges faced by the schemes. Almost two thirds of the schemes had taken some 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.	Aravalli	Bhiloda	Vejpur	Malekpur	SK-4 Part- I (B.V.)	MVS	Scheme is defunct	Scheme is not functional since last 2 years
2.	Aravalli	Malpur	Nathavas	Nathavas	SK 3 Part 1 RWSS	MVS	No scheme	No scheme in the village
3.	Dang	Waghai	Bhendmal	Moti Dabdar	Motidabdar WSS	SVS	Scheme is defunct	Scheme is not functional since last 4 years
4.	Devbhoomi Dwarka	Bhanvad	Dhebar	Dhebar	Dhebar SSA List-Dhebar	SVS	No scheme	People use their own borewell
5.	Dohad	Dahod	Gadoi	Gadoi	Hand Pump	SVS	No scheme	People use hand pump
6.	Dohad	Devgad Bariya	Bhutpagla	Bhut Pagalan	Mangoi	MVS	Scheme is defunct	Scheme is not functional since last 2 years
7.	Dohad	Dhanpur	Kotambi	Kotambi	Kotambi	SVS	No scheme	People use hand pump
8.	Dohad	Jhalod	Kanji Sarasvani	Devjini Saras	Machhannala	MVS	Scheme is defunct	All pipelines are broken and damaged
9.	Mahisagar	Kadana	Bach Kariya	Bachkari a (No	Recharging - Bore Blasting	SVS	Scheme is defunct	People use their own hand pump or borewell
10.	Mahisagar	Lunawada	Nani Palli	Nani Palli	Hindoliya Reg. W.S.S.	SVS	Scheme is defunct	Scheme is not functional since last
11.	Mahisagar	Santrampur	Khodadara	Kosamba	Mini Water Supply Scheme	SVS	Scheme is defunct	People use their own hand pump or borewell
12.	Mahisagar	Santrampur	Simaliya	Simaliya	Open Well Nr. Anganwadi and Pargi Virabhai Motibhais	SVS	Scheme is defunct	People use their own hand pump or borewell
13.	Navsari	Jalalpore	Dandi	Dandi	Talav Falia W.S.SCH	SVS	Scheme is defunct	This village have no any scheme. NRI people donated fund and panchayat using this fund for water supply
14.	Panch Mahals	Ghoghamba	Gamani	Gamani	PM 3 A Regional W.S.S.	MVS	No scheme	People use their own hand pump or borewell
15.	Panch Mahals	Ghoghamba	Vavkulli	Vav Kulli	PM 3 A Regional W.S.S.	MVS	No scheme	People use their own hand pump or borewell
16.	Panch Mahals	Morvahadaf	Kasanpur	Kasanpur	Hareda Regional Water Supply Scheme	MVS	Scheme is defunct	Pump is damaged
17.	Sabar Kantha	Khedbrahma	Kheroj	Mota	Khedbrahma Stage II	MVS	No scheme	No scheme in the 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
				Baval				
18.	Sabar Kantha	Khedbrahma	Nava Mota	Nava Mota	Khedbrahma Stage II	MVS	No scheme	No scheme in the village
19.	Sabar Kantha	Khedbrahma	Sebliya (M)	Patadiya	Patadiya	SVS	No scheme	No scheme in the village
20.	Surendranagar	Sayla	Garambha di	Garambha di	S-2,S-3 Part-2 DDP	MVS	No scheme	No scheme in the village
21.	Surendranagar	Thangadh	Jamvali	Jamvali	Dhanki Ratanpar NC32-33-34 Bulk Line	MVS	Scheme is defunct	This village was having water supply since long back but there is no scheme functional now in this village.
22.	Vadodara	Vadodara (City & Rural)	Ankodiya	Ankodiya	Vadodara North Zone RWSS	MVS	No scheme	No scheme in the village

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

S.No	District name	Block name	Panchayat name	Village name	Name of largest scheme in the village	Type	Remarks
1.	Surendranagar	Chotila	Navagam(Bam)	Navagam (Bama)	Dhanki Ratanpar NC32-33-34 Bulk Line	MVS	No FHTC. Water supply through tap stand only
2.	Valsad	Umbergaon	Solsumbha	Solsumba	Umargam SP Repair Zone 3	MVS	No FHTC. Water supply through tap stand only

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.	Dohad	Dhanpur	Nadu	Nalu	Nalu	SVS
2.	Panch Mahals	Morvahadaf	Vandeli	Vandeli	Hareda Regional Water Supply Scheme	MVS
3.	Panch Mahals	Shehera	Sajivav	Sajivav	Panam Reg.W.S.S.	MVS

Annexure 4: Indicative proportion of functional tap connections by districts

S.No	District	Percentage of Functional Taps
1.	Ahmadabad	17.3
2.	Amreli	11.9
3.	Anand	97.0
4.	Aravalli	35.0
5.	Banas Kantha	43.3
6.	Bharuch	0.0
7.	Bhavnagar	22.0
8.	Botad	26.8
9.	Chhotaudepur	66.0
10.	Dang	45.0
11.	Devbhoomi Dwarka	1.7
12.	Dohad*	39.0
13.	Gandhinagar	88.0
14.	Gir Somnath	27.3
15.	Jamnagar	14.8
16.	Junagadh	16.3
17.	Kachchh	24.3
18.	Kheda	88.9
19.	Mahesana	10.0
20.	Mahisagar	32.0
21.	Morbi	5.3
22.	Narmada	47.4
23.	Navsari	65.2
24.	Panch Mahals	75.6
25.	Patan	17.3
26.	Porbandar	24.0
27.	Rajkot	5.3
28.	Sabar Kantha	68.0
29.	Surat	10.0
30.	Surendranagar	1.0
31.	Tapi	32.6
32.	Vadodara	10.4
33.	Valsad	11.1

* 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.	Bharuch	Ankleshwar	Telwa	Telva
2.	Bharuch	Jambusar	Nobar	Nobar
3.	Bhavnagar	Bhavnagar	Bhandariya	Bhandariya
4.	Bhavnagar	Mahuva	Naip	Naip
5.	Botad	Gadhada	Pipal	Pipal
6.	Devbhoomi Dwarka	Kalyanpur	Bhopalka	Bhopalka
7.	Gir Somnath	Talala	Semar Vav	Semarvav
8.	Gir Somnath	Una	Kesariya	Kesariya
9.	Jamnagar	Jamjodhpur	Gigni	Gingni
10.	Mahesana	Kadi	Bhalthi-Dharampur	Bhalthi
11.	Mahesana	Kadi	Rajpur	Rajpur
12.	Mahesana	Mahesana	Akhaj	Akhaj
13.	Mahesana	Mahesana	Langhanaj	Langhnaj
14.	Mahesana	Satlasna	Isakpura	Shahupura (Ga)
15.	Mahesana	Unjha	Unava	Unava
16.	Mahesana	Vijapur	Biliya	Biliya
17.	Mahesana	Vijapur	Pilwai	Pilvai
18.	Mahesana	Visnagar	Kansa	Kansa
19.	Narmada	Tilakwada	Fatepur Vajiria	Fatepur (Vaji)
20.	Navsari	Gandevi	Mendhar	Mendhar
21.	Rajkot	Gondal	Shemla	Shemla
22.	Rajkot	Jetpur	Rabarika	Rabarika
23.	Rajkot	Paddhari	Sarapdad	Sarapdad
24.	Rajkot	Upleta	Mojira	Mojira
25.	Surat	Olpad	Olpad	Olpad
26.	Tapi	Uchchhal	Khabda	Khabda
27.	Valsad	Vapi	Chharwada	Chharwada
Villages with failed water samples for pH test				
1.	Amreli	Lilia	Bavada	Bavada
2.	Gandhinagar	Kalol	Govindpura (Veda)	Govindpura (Veda)
3.	Mahisagar	Lunawada	Varadhari	Vardhari
4.	Patan	Santalpur	Varahi	Varahi
Villages with failed water samples for Total Hardness test				
1.	Aravalli	Bayad	Ganeshpura	Ganeshpura (Ambaliyara)

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S.No.	District name	Block name	Gram panchayat name	Village name
2.	Banas Kantha	Danta	Vasi	Vasi
3.	Bharuch	Ankleshwar	Sakkarpur	Sakkarpur
4.	Bharuch	Bharuch	Bholav	Bholav
5.	Bharuch	Bharuch	Palej	Palej
6.	Bharuch	Jhaghadia	Siyali	Shiyali
7.	Devbhoomi Dwarka	Khambhalia	Lakhasar Pir	Pir Lakhasar
8.	Devbhoomi Dwarka	Okhamandal	Mevasa	Mevasa
9.	Junagadh	Junagadh	Anandpur	Anandpur
10.	Morbi	Wankaner	Hasanpar	Hasanpar
11.	Navsari	Jalalpore	Vesma	Vesma
12.	Rajkot	Gondal	Shemla	Shemla
13.	Sabar Kantha	Idar	Revas	Revas
14.	Surat	Kamrej	Derod	Delod
15.	Surat	Mangrol	Hathoda	Hathoda
16.	Vadodara	Karjan	Kanthariya	Kanthariya
17.	Vadodara	Padra	Chokari	Chokari
18.	Vadodara	Vadodara(City & Rural)	Sankarda	Sankarda
19.	Vadodara	Waghodia	Jesangpura	Sikandarpura
20.	Valsad	Umbergaon	Khatalvada	Khattalwada
Villages with failed water samples for total Alkalinity test				
1.	Bharuch	Ankleshwar	Sakkarpur	Sakkarpur
2.	Bharuch	Ankleshwar	Tariya	Taria
3.	Bharuch	Bharuch	Palej	Palej
4.	Bharuch	Jhaghadia	Ratanpur	Haripara (Sar)
5.	Jamnagar	Dhrol	Khengarka	Khengarka
6.	Narmada	Tilakwada	Fatepur Vajiria	Fatepur (Vaji)
7.	Rajkot	Gondal	Shemla	Shemla
8.	Surat	Palsana	Chalthan	Chalthan
9.	Tapi	Songadh	Kanara	Kanala
10.	Tapi	Valod	Delvada	Delvada
11.	Vadodara	Desar	Himmatpura	Dungripura
12.	Vadodara	Karjan	Kanthariya	Kanthariya
13.	Vadodara	Padra	Chokari	Chokari
14.	Vadodara	Padra	Mujpur	Mujpur
15.	Vadodara	Savli	Gothada	Gothada
16.	Vadodara	Savli	Tundav	Tundav

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S.No.	District name	Block name	Gram panchayat name	Village name
17.	Vadodara	Vadodara(City & Rural)	Sankarda	Sankarda
18.	Valsad	Umbergaon	Khatalvada	Khattalwada
Villages with failed water samples for Chloride test				
1.	Ahmadabad	Bavla	Gangad	Gangad
2.	Ahmadabad	Daskroi	Miroli	Miroli
3.	Ahmadabad	Dholka	Girand	Girand
4.	Ahmadabad	Dholka	Vautha	Vautha
5.	Ahmadabad	Sanand	Sanathal	Sanathal
6.	Ahmadabad	Viramgam	Melaj	Melaj
7.	Bharuch	Ankleshwar	Sakkarpor	Sakkarpor
8.	Bharuch	Bharuch	Bholav	Bholav
9.	Bharuch	Bharuch	Palej	Palej1
10.	Bharuch	Hansot	Panjroli	Panjroli
11.	Devbhoomi Dwarka	Okhamandal	Mevasa	Mevasa
12.	Mahesana	Satlasna	Isakpura	Shahupura (Ga)
13.	Mahesana	Unjha	Unava	Unava
14.	Mahesana	Visnagar	Kansa	Kansa
15.	Morbi	Wankaner	Hasanpar	Hasanpar
16.	Patan	Chanasma	Ranasan	Ranasan
17.	Patan	Radhanpur	Pedashpura	Karsangadh
18.	Patan	Saraswati	Kotavad	Kotavad
19.	Patan	Sidhpur	Sevalani	Sevalni
20.	Surat	Mangrol	Hathoda	Hathoda
21.	Surendranagar	Dasada	Nagvada	Nagvada
22.	Surendranagar	Dhrangadhra	Jasmatpur	Jasmatpur
23.	Vadodara	Padra	Chokari	Chokari
Villages with failed water samples for Ammonia test				
1.	Ahmadabad	Daskroi	Miroli	Miroli
2.	Devbhoomi Dwarka	Bhanvad	Rozda	Rojhda
3.	Devbhoomi Dwarka	Okhamandal	Mevasa	Mevasa
4.	Gir Somnath	Talala	Semar Vav	Semarvav
5.	Narmada	Tilakwada	Fatepur Vajiria	Fatepur (Vaji)
6.	Navsari	Chikhali	Sadakpore	Sadakpor
7.	Rajkot	Gondal	Shemla	Shemla
8.	Rajkot	Jasdan	Adhiya	Adhiya

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S.No.	District name	Block name	Gram panchayat name	Village name
9.	Surendranagar	Chuda	Navi Morwad	Navi Morwad
10.	Tapi	Kukarmunda	Balmba	Balambe
11.	Tapi	Uchchhal	Khabda	Khabda
12.	Tapi	Valod	Shahpor	Nansad
13.	Valsad	Valsad	Binwada	Binwada
Villages with failed water samples for Phosphate test				
1.	Banas Kantha	Suigam	Limbuni	Limbuni
2.	Devbhoomi Dwarka	Khambhalia	Thaker Sherdi	Thakar Sherdi
3.	Morbi	Morvi	Lutavadar	Lutavadar
4.	Morbi	Morvi	Shaktsanala	Saktasanala
5.	Surat	Mangrol	Hathoda	Hathoda
Villages with failed water samples for residual Chlorine test				
1.	Gir Somnath	Kodinar	Barda	Barda
2.	Gir Somnath	Kodinar	Vithalpur	Vithalpur
3.	Jamnagar	Dhrol	Khengarka	Khengarka
4.	Rajkot	Gondal	Shemla	Shemla
5.	Rajkot	Jasdan	Adhiya	Adhiya
6.	Rajkot	Kotda Sangani	Veraval	Veraval
7.	Rajkot	Rajkot	Nakaravadi	Nakaravadi
8.	Rajkot	Upleta	Mojira	Mojira
9.	Valsad	Valsad	Untdi	Untdi
Villages with failed water samples for Iron test				
1.	Gandhinagar	Kalol	Govindpura (Veda)	Govindpura (Veda)
2.	Kachchh	Bhuj	Rayadhanpar	Trambau
Villages with failed water samples for Nitrate test				
1.	Banas Kantha	Palanpur	Dhelana	Dhelana
2.	Bharuch	Ankleshwar	Sakkarpor	Sakkarpor
3.	Bhavnagar	Mahuva	Chhapari	Chhapri
4.	Chhotaudepur	Chhota Udepur	Oliamba	Padharvant
5.	Jamnagar	Dhrol	Khengarka	Khengarka
6.	Patan	Radhanpur	Pedashpura	Karsangadh
7.	Rajkot	Gondal	Shemla	Shemla
8.	Tapi	Uchchhal	Khabda	Khabda
Villages with failed water samples for Sulphate test				
1.	Bharuch	Ankleshwar	Sakkarpor	Sakkarpor
2.	Surat	Mangrol	Hathoda	Hathoda
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.	Ahmadabad	Daskroi	Miroli	Miroli
2.	Ahmadabad	Dholka	Girand	Girand
3.	Ahmadabad	Dholka	Vautha	Vautha
4.	Ahmadabad	Sanand	Sanathal	Sanathal
5.	Aravalli	Bayad	Odha	Odha
6.	Aravalli	Bayad	Ganeshpura	Ganeshpura (Ambaliyara)
7.	Aravalli	Bhiloda	Veypur	Ghanti
8.	Banas Kantha	Danta	Vasi	Vasi
9.	Bharuch	Ankleshwar	Sakkarpor	Sakkarpor
10.	Bharuch	Ankleshwar	Tariya	Taria
11.	Bharuch	Bharuch	Bholav	Bholav
12.	Bharuch	Bharuch	Palej	Palej1
13.	Bharuch	Hansot	Panjroli	Panjroli
14.	Bharuch	Jhaghadia	Ratanpor	Haripara (Sar)
15.	Bharuch	Jhaghadia	Siyali	Shiyali
16.	Chhotaudepur	Chhota Udepur	Motisadhli	Harpalpura
17.	Chhotaudepur	Jetpur Pavi	Khatas	Khatas
18.	Devbhoomi Dwarka	Okhamandal	Mevasa	Mevasa
19.	Jamnagar	Dhrol	Khengarka	Khengarka
20.	Mahesana	Vijapur	Pilwai	Pilvai
21.	Mahesana	Visnagar	Kansa	Kansa
22.	Mahisagar	Balasinor	Pandva	Pandva
23.	Morbi	Wankaner	Hasanpar	Hasanpar
24.	Panch Mahals	Shehera	Mithapur	Mithapur
25.	Patan	Saraswati	Kotavad	Kotavad
26.	Patan	Sidhpur	Sevalani	Sevalni
27.	Porbandar	Porbandar	Gorsar	Mocha
28.	Porbandar	Ranavav	Khirsara	Khirsara
29.	Rajkot	Gondal	Shemla	Shemla
30.	Sabar Kantha	Idar	Revas	Revas
31.	Surat	Kamrej	Derod	Delod
32.	Surat	Mandvi	Kakadapar	Kakdapar
33.	Surat	Mangrol	Hathoda	Hathoda
34.	Surendranagar	Dhrangadhra	Jasmatpur	Jasmatpur
35.	Tapi	Nizar	Nizar-2	Nizar
36.	Tapi	Valod	Delvada	Delvada
37.	Vadodara	Desar	Himmatpura	Dungripura

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S.No.	District name	Block name	Gram panchayat name	Village name
38.	Vadodara	Karjan	Kanthariya	Kanthariya
39.	Vadodara	Padra	Chokari	Chokari
40.	Vadodara	Padra	Mujpur	Mujpur
41.	Vadodara	Savli	Gothada	Gothada
42.	Vadodara	Savli	Tundav	Tundav
43.	Vadodara	Vadodara(City & Rural)	Sankarda	Sankarda
44.	Valsad	Umbergaon	Khatalvada	Khattalwada
Villages with failed water samples for Bacteriological present/ absence test using H₂S vials				
1.	Ahmadabad	Dhandhuka	Rayka	Rayka
2.	Ahmadabad	Dholka	Girand	Girand
3.	Ahmadabad	Sanand	Fangdi	Fangdi
4.	Amreli	Amreli	Ankadia-Mota	Ankadiya Mota
5.	Amreli	Amreli	Varasada	Varasda
6.	Amreli	Dhari	Dhari	Dhari
7.	Amreli	Jafrabad	Lunsapur	Lunsapur
8.	Amreli	Kunkavav -Vadia	Vadia	Vadia
9.	Amreli	Lilia	Bavada	Bavada
10.	Amreli	Rajula	Khakhbai	Khakhbai
11.	Banas Kantha	Amirgadh	Virampur	Gavara
12.	Banas Kantha	Suigam	Limbuni	Limbuni
13.	Bharuch	Ankleshwar	Sakkarpor	Sakkarpor
14.	Bharuch	Ankleshwar	Gadkhol	Gadkhol
15.	Bharuch	Bharuch	Palej	Palej1
16.	Bharuch	Jambusar	Nobar	Nobar
17.	Bharuch	Jhaghadia	Ratanpor	Haripara (Sar)
18.	Botad	Botad	Kaniyad	Kaniyad
19.	Dang	Waghai	Khatal	Masli
20.	Devbhoomi Dwarka	Bhanvad	Rozda	Rojhda
21.	Devbhoomi Dwarka	Kalyanpur	Juvanpar	Juvanpar
22.	Devbhoomi Dwarka	Kalyanpur	Nandana	Nandana
23.	Devbhoomi Dwarka	Khambhalia	Lakhasar Pir	Pir Lakhasar
24.	Gir Somnath	Una	Kesariya	Kesariya
25.	Gir Somnath	Una	Rampara	Rampara
26.	Jamnagar	Jamjodhpur	Gigni	Gingni

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S.No.	District name	Block name	Gram panchayat name	Village name
27.	Jamnagar	Kalavad	Kharedi	Kharedi
28.	Jamnagar	Lalpur	Nanduri	Nanduri
29.	Junagadh	Junagadh	Anandpur	Anandpur
30.	Junagadh	Junagadh	Sankhdavadar	Sankhdavadar
31.	Junagadh	Keshod	Agatrai	Agatrai
32.	Junagadh	Mendarda	Nani Khodiyar	Nani Khodiyar
33.	Kachchh	Anjar	Tapar	Tapar
34.	Kachchh	Bhachau	Rajansar	Rajansar
35.	Morbi	Halvad	Dhanala	Dhanala
36.	Morbi	Morvi	Bhadiyad	Bhadiyad
37.	Morbi	Tankara	Nesda Surji	Nesda Surji
38.	Morbi	Wankaner	Hasanpar	Hasanpar
39.	Morbi	Wankaner	Pipaliyaraj	Pipaliyaraj
40.	Narmada	Garudeshwar	Pinchhipura	Pinchhipara
41.	Narmada	Sagbara	Selamba	Selamba
42.	Narmada	Tilakwada	Jalodra	Jalodra
43.	Patan	Chanasma	Ranasan	Ranasan
44.	Patan	Harij	Sodhav	Sodhav
45.	Patan	Radhanpur	Pedashpura	Karsangadh
46.	Patan	Sidhpur	Dashavada	Dashavada
47.	Porbandar	Kutiyana	Chhtrava	Chhatrava
48.	Porbandar	Porbandar	Adwana	Adwana
49.	Porbandar	Porbandar	Bhomiyavadar	Bhomiyavadar
50.	Porbandar	Porbandar	Gorsar	Mocha
51.	Porbandar	Ranavav	Khirasara	Khirsara
52.	Sabar Kantha	Idar	Revas	Revas
53.	Sabar Kantha	Vadali	Juna Chamu	Juna Chamu
54.	Surat	Kamrej	Navi Pardi	Navi Pardi
55.	Surat	Mandvi	Gamtalavkhurd	Gamtalav Khur
56.	Surat	Mangrol	Hathoda	Hathoda
57.	Surat	Olpad	Narthan	Narthan
58.	Surat	Olpad	Olpad	Olpad
59.	Surat	Palsana	Vadadla	Vankaneda
60.	Surendranagar	Chuda	Navi Morwad	Navi Morwad
61.	Surendranagar	Limbdi	Katariya	Katariya
62.	Surendranagar	Muli	Hematpar	Hematpar
63.	Vadodara	Desar	Himmatpura	Dungripura
64.	Vadodara	Desar	Himmatpura	Dungripura

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S.No.	District name	Block name	Gram panchayat name	Village name
65.	Vadodara	Padra	Chokari	Chokari
66.	Vadodara	Padra	Mujpur	Mujpur
67.	Valsad	Dharampur	Panva	Panva
68.	Valsad	Kaprada	Kaprada	Kaprada
69.	Valsad	Umbergaon	Pali	Pali
70.	Valsad	Umbergaon	Solsumbha	Solsumba
71.	Valsad	Umbergaon	Sanjan	Sanjan
72.	Valsad	Valsad	Binwada	Binwada