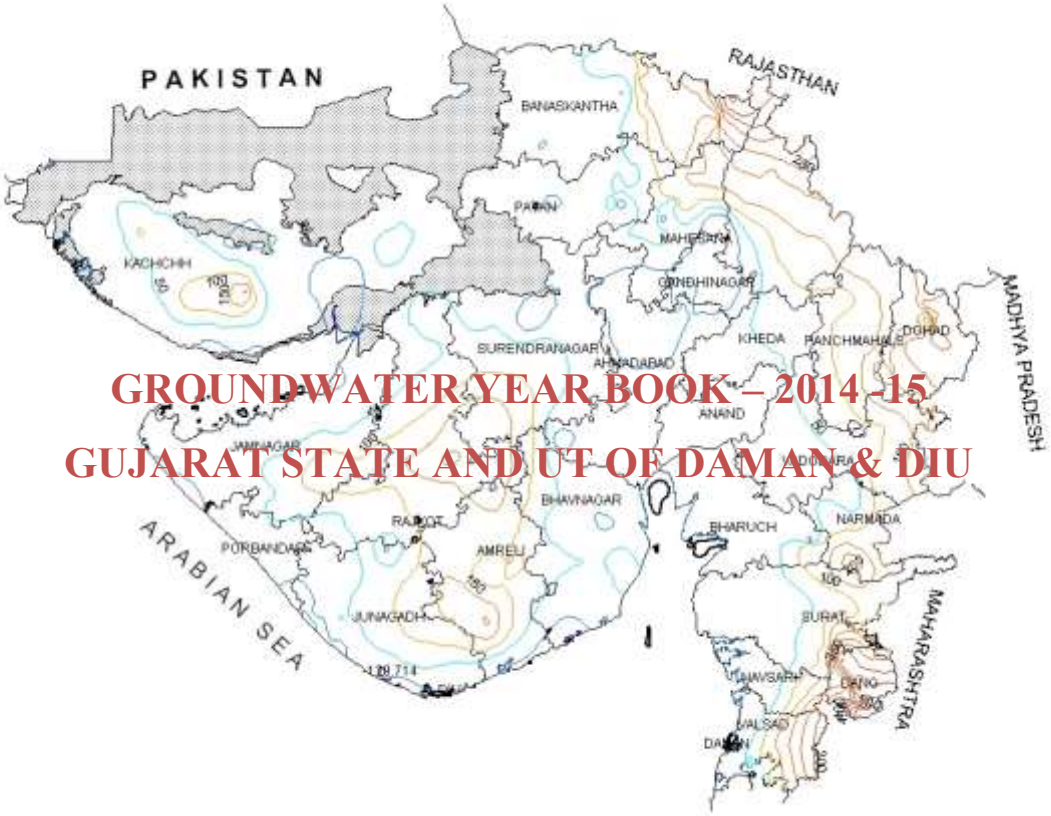
CENTRAL GROUND WATER BOARD

MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENEATION

GOVERNMENT OF INDIA



GROUNDWATER YEAR BOOK – 2014 -15

GUJARAT STATE AND UT OF DAMAN & DIU

REGIONAL OFFICE DATA CENTRE
CENTRAL GROUND WATER BOARD
WEST CENTRAL REGION
AHMEDABAD

Ferruary - 2016

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Compiled by

H N Tiwari Scientist D

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FOREWORD

Central Ground Water Board, West Central Region, issues Ground Water Year Book annually for each state by compiling the hydrogeological, hydrochemical and groundwater level data collected from the Groundwater Monitoring Wells established by the Board in Gujarat State and UT of Daman & Diu. Monitoring of groundwater level and chemical quality furnish valuable information on the ground water regime characteristics of the different hydrogeological units moreover, analysis of these valuable data collected from existing observation wells during May, August, November and January in each ground water year (June to May) indicate the pattern of ground water movement, changes in recharge-discharge relationship, behavior of water level and qualitative & quantitative changes of ground water regime in time and space. It also helps in identifying and delineating areas prone to decline of water table and piezometric surface due to large scale withdrawal of ground water for industrial, agricultural and urban water supply requirement. Further, water logging prone areas can also be identified with historical water level data analysis. This year book contains the data and analysis of ground water regime monitoring for the year 2014-15.

The behavior of groundwater levels as analyzed from the existing Groundwater Monitoring Wells data and the chemical quality of groundwater is discussed in this report along with the thematic maps depicting the ground water scenario for different periods of measurements. The depth to water level, water level fluctuations, water table and water quality maps have been prepared and presented in this report along with detailed discussion on each map.

The scientific officers of the Regional office have systematically collected field data from the Groundwater Monitoring Network Wells four times during the viz., May, August, November and January and the analysis of same has been presented in this report along with changes in different seasons and long term changes in water level. The water samples were collected during May 2014 were analysed in the Regional Chemical Laboratory of West Central Region Ahmedabad to bring out chemical characteristic of groundwater.

I hope the report would be extermly useful to various agencies engaged in groundwater development and management for fruitful planning in time and space.

(Anoop Nagar)
Regional Director

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GROUNDWATER YEAR BOOK, (2014-15)
GUJARAT AND UT OF DAMAN & DIU

EXECUTIVE SUMMARY

- Central Ground Water Board has set up a network of 1215 Groundwater Monitoring Wells including 395 piezometers. Initially the monitoring commenced with the establishment of 82 observation wells spread uniformly over the entire state, in the year 1969 and since then number of stations were added regularly so as to get proper hydrological information of different hydrogeological and geo-morphological units.

- The density of groundwater monitoring wells is 189 Sq Km/well in Gujarat, whereas in UT of Daman & Diu, it is approximately 8 Sq. Km. per well.

- The average decadal rainfall varies from about 2404 mm in Valsad to about 474 mm in Kachchh.

- Gujarat is one of the frequent drought prone states of India. Several consecutive droughts have been experienced during last 20 years, 1986-88 was the longest and the most severe drought period experienced in the past.

- The average rainfall for 2014 is 881 mm, which is 14.68 percent less than the decadal average.

- Groundwater levels are being monitored four times in a year, and representative water samples for quality (inorganic constituents) are collected during pre-monsoon (May) period.

- 66% of the wells have depth to water levels in the range of 5 to 20 mbgl (meter below ground level) during pre-monsoon 2014. The water levels were deeper in Banaskantha, Mahesana, Sabarkantha and adjoining area of Gandhinagar, southeastern part of Kachchh and Amreli, Bhavnagar districts.

- Deeper water levels were observed mainly in the over exploited and Critical talukas.

- The shallow water levels of less than 5 mbgl were observed along the coast, Rann of Kachchh and in parts of Valsad, The Dangs, Surat and Bharuch districts.

- The water table rests in different parts of the state between 21.6 mbmsl (meter below mean sea level) and more than 626.9 mamsl (meter above mean sea level)during pre monsoon period. The ground water flow direction of ground water is towards south west in north and south Gujarat, west from central portion in Kachchh & Saurashtra.

- The long term ground water scenario indicates rise in water levels in about 63 percent of stations during pre monsoon 2014, whereas rise of water level is recorded in 52% of wells during post monsoon.

- Deep confined aquifers exist in north Gujarat and they are grouped into, first confined aquifer ranging in depth from 78 to 162 mbgl and second confined aquifer ranging in depth from 154 to 274 mbgl.

- In parts of Mahesana and Gandhinagar districts, depth to piezometric surface during pre monsoon is more than 54 mbmsl in the first confined aquifer and it is more than 70 mbmsl in second confined aquifer noticed in and around Mahesana, Gandhinagar, Ahmedabad and Patan districts.

- The water levels are declining at an average rate of 2m per year in deeper aquifers in north Gujarat. Steep declines have been observed during the last five years.

- In general ground water quality is good in hard rock areas occupying eastern hilly part of the state, central part of Kachchh and Saurashtra plateau. In soft rock and unconsolidated formations ground water quality is variable.

- The quality of ground water deteriorates in discharge area. Quality of ground water is inferior along the coast, the Rann and in the low-lying saline tract between Saurashtra and main land Gujarat.

- The deterioration in ground water quality in the coastal areas is mainly due to over drawals causing seawater ingress which needs to be arrested.

- In Mahi Right Bank Canal and Ukai – Kakrapar canal command areas, water logging has surfaced and needs to be addressed suitably by adopting appropriate conjunctive use strategies.

- Alarming declines in groundwater levels of Central Gujarat plains and in select areas of Saurashtra and Kachchh warrant immediate attention for taking-up of recharge schemes to arrest further declines and augment the groundwater resources. The artificial recharge of groundwater especially in North Gujarat, Kachchh and in major part of Saurashtra is a necessity.

- Pointed attention of the administrators and policy makers is drawn towards adoption of artificial recharge, public awareness and other appropriate measures for ensuring adequate groundwater availability and sustainability.

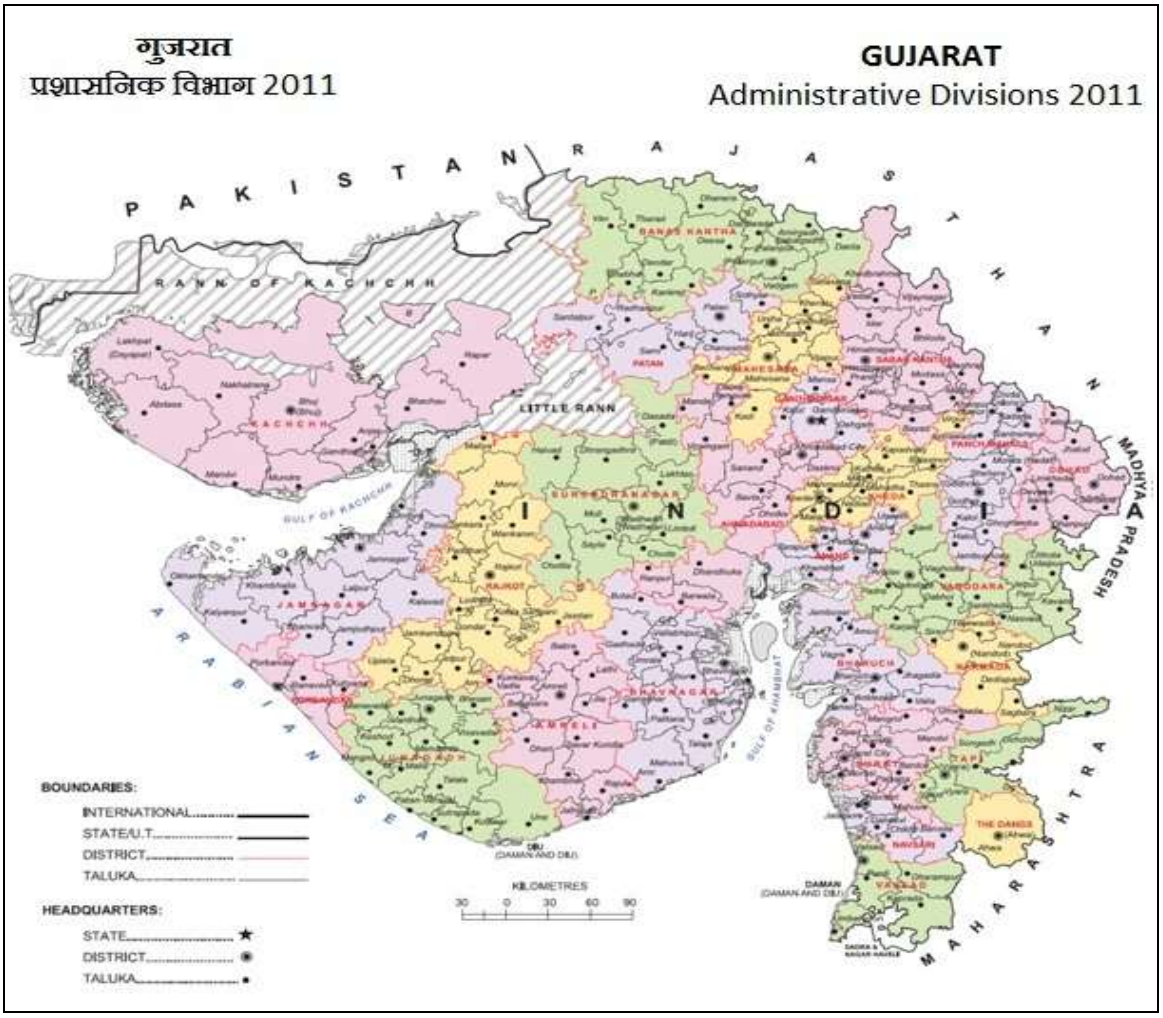
GROUNDWATER YEAR BOOK, 2014-15, GUJARAT STATE AND UT OF DAMAN & DIU

1.0 INTRODUCTION

The West Central Region of Central Ground Water Board has jurisdiction over the State of Gujarat (1,96,024 Sq. Km.) and Union Territory (UT) of Daman & Diu (112 Sq. Km.) covering an area of 1,96,136 sq km. The Gujarat State is situated between North latitudes 20° 06' 00" to 24° 42' 00" and East longitudes 68° 10' 00" to 74° 28' 00" (**Fig**. **1**). Gujarat has nearly 1600 km long coastline, which is the longest as compared to any other state in the country. It is extending from Lakhpat in north to Daman in south. The State has common boundaries with the states of Rajasthan, Madhya Pradesh and Maharashtra and shares international border with Pakistan in northwest. UT of Daman & Diu has an area of 106 sq. km. Diu is an Island just south of Saurashtra coast and Daman is situated west of Vapi in the south.

There are 18,225 villages and 348 towns in Gujarat including 16 towns with more than 1,00,000 population. The total population is 60,383,628 of which 31,482,282 are males and 28,901,349 are females (2011 census). Out of the total population, the population of the Scheduled Caste is 4,074,447 and that of the Scheduled tribe is 8,917,174. The total population of U.T. of Daman & Diu is 243,247 of which 150,301 are males and 92,976 are females (2011 Census).

Map showing administrative divisions of Gujarat State Figure : 1

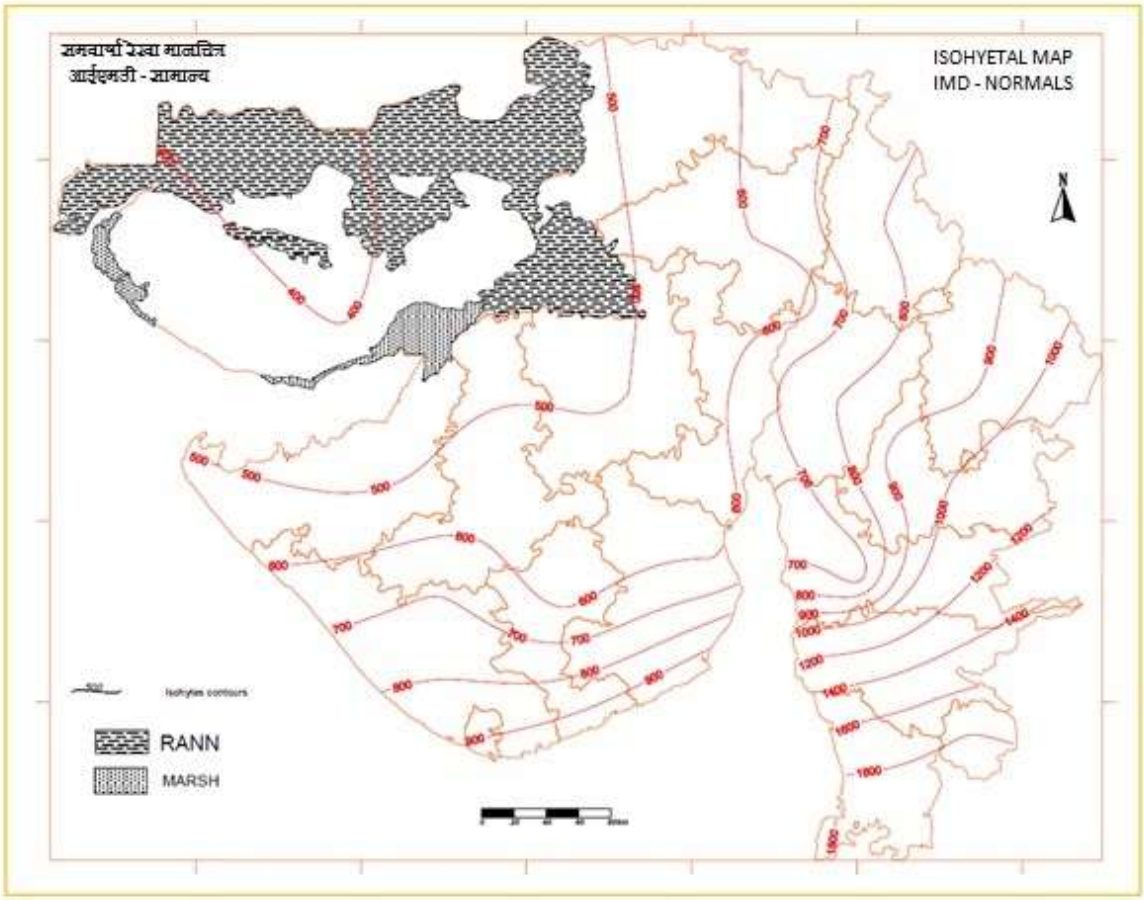


The tribal areas are located all along the interstate boundary, extending from Banaskantha district in the north to The Dangs district in the south. The tribal belt has a total geographical area of 29,560 Sq. Km. and is shown in **Fig. 1**.

The diverse physiographic, climatic, topographic and geologic conditions have given rise to diversified ground water situations in different parts of the state. Occurrence and movement of groundwater is controlled by rock formations of varied composition and structure and range in age from Archean to Recent. Similarly, the landform varies from the hilly tract to the uplands of Kachchh and Saurashtra, the alluvial plains extend from Banaskantha in the north to Valsad in the south, the low lying coastal tract surrounding the Kachchh and Saurashtra uplands and the marshy to saline tracts of the Rann of Kachchh and little Rann of Kachchh. The topography and rainfall virtually control the runoff and ground water recharge.

Droughts are frequent in north Gujarat, Saurashtra and Kachchh regions due to poor and erratic rainfall. The climate varies from humid in the south through sub-humid in the central part to semi-arid and arid in the northern and western parts. The state receives rainfall mainly during southwest monsoon period. The normal rainfall shows steep reduction from 1883 mm in the extreme south (Valsad) to 386 mm in Kachchh district. The distribution of normal rainfall in the state is depicted in **Fig. 2.**

Map showing distribution of IMD normal rainfall Figure :2



During 2014 Gujarat received 14.68 % less the average rainfall (Annexure I). All districts 16 districts including UT of Daman and Diu has received average rainfall + - 20% as compared to decadal average annual rainfall (2004-2013). While Nine districts Amreli,Banaskantha,Bharuch, Dohad, Kachchh, Navsari, Surat, The dangs

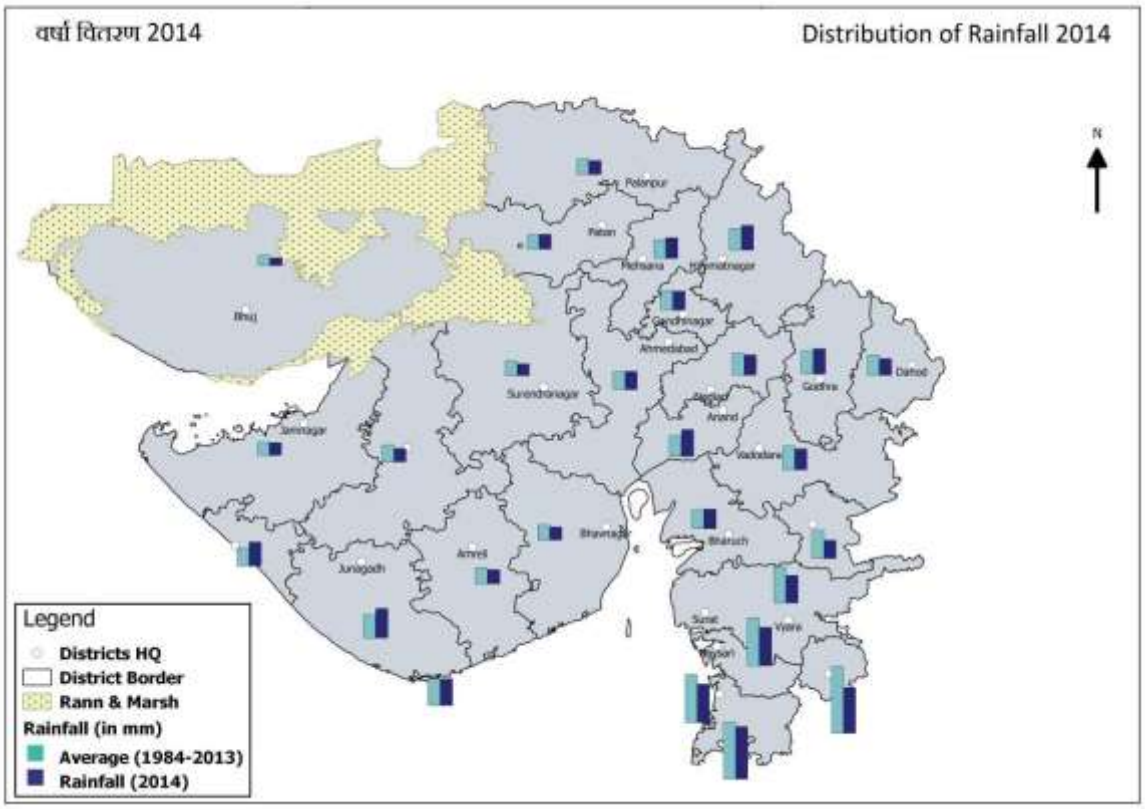
and Vadodara has received 20-40% less annual rainfall as compared to decadal average annual rainfall (2004-2013). The Narmada district received 40.58% less rainfall as compared to decadal average raianfall. Only Surendranagar district has received 20.65% more rainfall then decadal average rainfall (2004-2013). viz–a-viz annual rainfall during 2014 in the state is presented in **Table 1** and map representing distribution of rainfall district wise in bars is presented as **Fig. 3**.

Table - 1

District wise Average Rainfall in the Gujarat state

District	2014	Average Rainfall in mm (2004 to 2013)	Departure % (Year 2014)
Ahmedabad	676	744	-9.16
Amreli	524	778	-32.62
Anand	998	876	13.99
Banaskantha	514	667	-22.91
Bharuch	727	973	-25.27
Bhavnagar	541	656	-17.48
Dahod	614	789	-22.21
Gandhinagar	712	812	-12.29
Jamnagar	574	704	-18.46
Junagadh	1052	1002	4.97
Kheda	764	838	-8.82
Kutchh	298	474	-37.13
Mehsana	776	738	5.14
Narmada	685	1153	-40.58
Navsari	1439	1980	-27.33
Panchmahal	804	841	-4.39
Patan	556	642	-13.42
Porbandar	892	764	16.81
Rajkot	557	686	-18.82
Sabarkantha	818	920	-11.07
Surat	918	1484	-38.15
Surendranagar	672	557	20.65
The Dang	1706	2178	-21.67
UT of Daman	2318	2171	6.77
UT of Diu	905	983	-7.93
Vadodara	787	1068	-26.32
Valsad	1961	2404	-18.41
STATE	**881**	1033	-14.68

Fig:- 3 Distribution of rainfall in Gujarat state and UT of Daman & Diu



Central Ground Water Board, as a part of its national programme, has established a network of observation wells in the state of Gujarat and U.T. of Daman and Diu for periodic monitoring of groundwater levels and to study its quality variation in time and space. 1199 groundwater monitoring wells including 390 piezometers (Pz) are presently being monitored in the state of Gujarat, and 16 groundwater monitoring wells including 5 Pz are being monitored in the U.T. of Daman and Diu. The distributions of monitoring wells in different districts are given in **Table 2**.

Two distinct hydro-geological units are identified in Gujarat viz., hard rocks and soft rocks. The distributions of monitoring wells in different hydro-geological units are given in **Table 3**.

Large rivers like Narmada, Mahi, Tapi, and Sabarmati flow through the state and form their own basins. Other minor rivers have been grouped together to form river basins. In all, eight river basins have been identified by the All India Soil Survey & Land Use Department as listed below:

1. Sabarmati river basin.
2. Mahi river basin.
3. Narmada river basin.
4. Tapti river basin.
5. Luni and other drainage in the Great Rann of Kachchh
6. Draining in to Gulf of Kachchh
7. Southern Kathiawar
8. Sharavati to Tapti

The sub basins of these major river basins and the distribution of ground water monitoring wells in these different river basins are given in Annexure II a and Annexure-IIb. Map showing Hydrograph stations monitored during the year and their distribution in different basin and the district is presented as **Fig. 4**.

Figure : 4 Distribution of GWMNS in the districts and major river basins

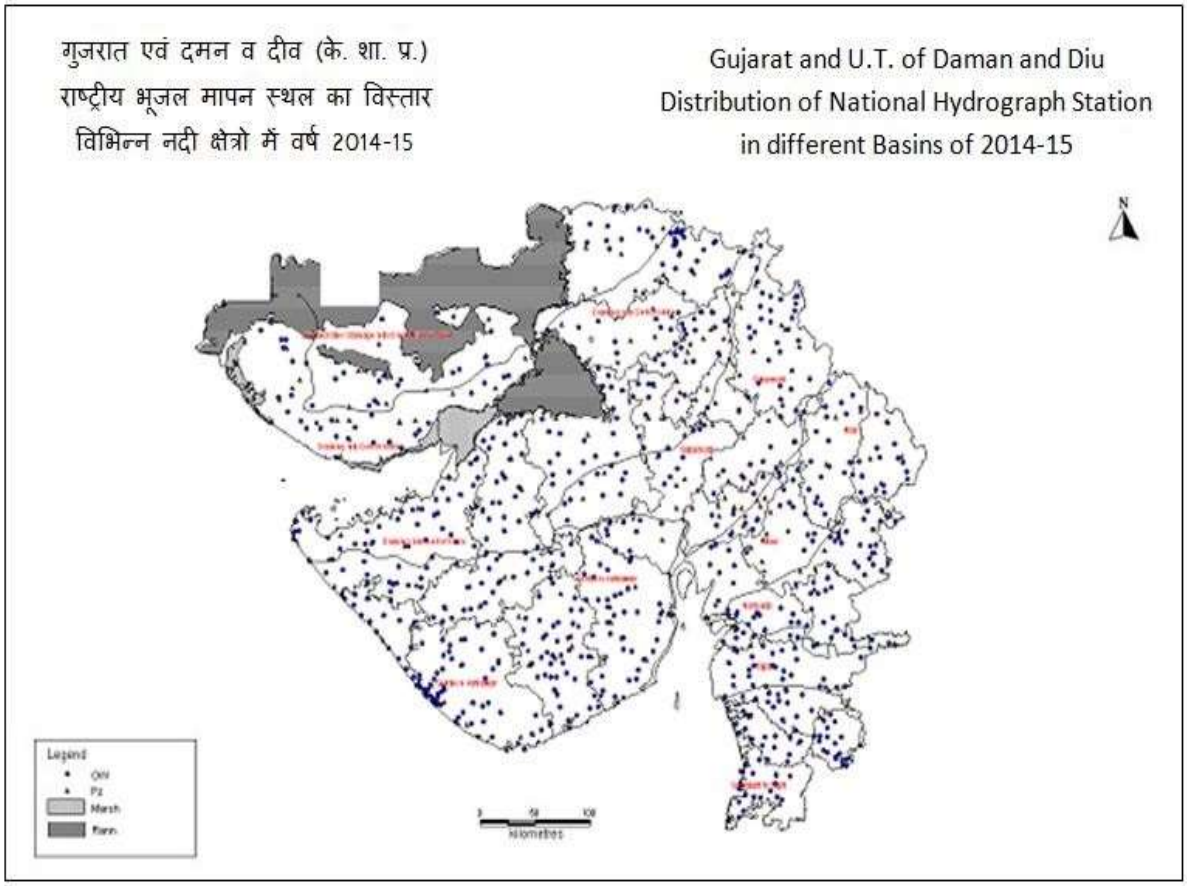


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Table-2 DISTRICT WISE DISTRIBUTION OF OF GROUND WATER MONITORING WELLS MONITORED DURING 2014-15

Sl. No.	District	As on May 2014			As on rest of the field season 2014-15			Monitored During MAY- 2014			Monitored During AUGUST- 2014			Monitored During November - 2014			Monitored During January - 2015		
		DW	Pz	Total	DW	Pz	Total	DW	Pz	Total	DW	Pz	Total	DW	Pz	Total	DW	Pz	Total
1	Ahmedabad	18	54	72	17	54	71	17	26	43	16	31	47	16	34	50	17	30	47
2	Amreli	47	16	63	47	16	63	41	11	52	44	12	56	45	11	56	41	12	53
3	Anand	19	15	34	18	15	33	15	13	28	13	9	22	14	15	29	10	14	24
4	Banaskantha	21	52	73	20	52	72	18	36	54	18	33	51	16	28	44	14	31	45
5	Bharuch	38	6	44	36	6	42	30	6	36	27	5	32	30	6	36	32	6	38
6	Bhavnagar	41	12	53	41	12	53	42	7	49	42	8	50	37	7	44	41	6	47
7	Dohad	21	6	27	24	6	30	26	7	33	24	6	30	22	6	28	21	6	27
8	Gandhinagar	3	30	33	3	30	33	2	24	26	2	26	28	2	28	30	2	29	31
9	Jamnagar	51	7	58	50	7	57	49	6	55	38	4	42	44	4	48	49	5	54
10	Junagadh	59	15	74	59	15	74	56	11	67	47	11	58	47	8	55	49	11	60
11	Kachchh	50	19	69	50	19	69	45	14	59	47	11	58	47	12	59	46	10	56
12	Kheda	15	13	28	15	13	28	12	12	24	14	8	22	12	12	24	10	13	23
13	Mahesana	17	44	61	17	44	61	16	39	55	16	37	53	17	32	49	15	33	48
14	Narmada	22	6	28	21	6	27	15	6	21	15	6	21	14	6	20	17	6	23
15	Navsari	19	2	21	19	2	21	21	2	23	17	2	19	20	2	22	22	2	24
16	Panchmahals	35	9	44	39	9	48	37	7	44	37	8	45	34	8	42	34	8	42
17	Patan	14	23	37	15	23	38	10	20	30	9	20	29	8	21	29	11	19	30
18	Porbandar	27	4	31	30	4	34	26	4	30	26	2	28	26	2	28	30	3	33
19	Rajkot	52	7	59	52	7	59	49	6	55	52	6	58	49	6	55	52	6	58
20	Sabarkantha	45	12	57	45	12	57	43	11	54	46	11	57	45	12	57	47	12	59
21	Surat	56	6	62	57	6	63	57	5	62	44	5	49	40	5	45	49	6	55
22	Surendranagar	48	9	57	44	9	53	35	6	41	35	6	41	37	6	43	41	6	47
23	TheDangs	25	2	27	25	2	27	24	2	26	21	2	23	25	2	27	22	2	24
24	Vadodara	43	19	62	45	19	64	38	22	60	27	19	46	39	18	57	39	21	60
25	Valsad	21	2	23	20	2	22	18	2	20	20	2	22	21	2	23	19	2	21
State Total		**807**	**390**	**1197**	**809**	**390**	**1199**	**742**	**305**	**1047**	**697**	**290**	**987**	**707**	**293**	**1000**	**730**	**299**	**1029**
UT OF DAMAN AND DIU																			
1	U.T.of Daman	8	1	9	8	1	9	8	1	9	6	0	6	8	1	9	8	1	9
2	U.T. of Diu	3	4	7	3	4	7	3	2	5	3	4	7	3	3	6	3	2	5
	UT Total	**11**	**5**	**16**	**11**	**5**	**16**	**11**	**3**	**14**	**9**	**4**	**13**	**11**	**4**	**15**	**11**	**3**	**14**
Grand Total		**818**	**395**	**1213**	**820**	**395**	**1215**	**753**	**308**	**1061**	**706**	**294**	**1000**	**718**	**297**	**1015**	**741**	**302**	**1043**

Table 3

DISTRIBUTION OF GROUND WATER MONITORING WELLS IN DIFFERENT HYDROGEOLOGICAL UNITS 2014-2015

S.No	DISTRICT	Hard Rock		Soft Rock		Total		
		DW	PZ	DW	PZ	DW	PZ	Total
1	Ahmedabad	4	0	13	54	17	54	71
2	Amreli	38	12	9	4	47	16	63
3	Anand	1	0	17	15	18	15	33
4	Banaskantha	7	1	13	51	20	52	72
5	Bharuch	11	3	25	3	36	6	42
6	Bhavnagar	32	9	9	3	41	12	53
7	Dohad	24	6	0	0	24	6	30
8	Gandhinagar	0	0	3	30	3	30	33
9	Jamnagar	27	7	23	0	50	7	57
10	Junagadh	37	15	22	0	59	15	74
11	Kachchh	9	3	41	16	50	19	69
12	Kheda	3	3	12	10	15	13	28
13	Mahesana	0	0	17	44	17	44	61
14	Narmada	19	6	2	0	21	6	27
15	Navasari	9	1	10	1	19	2	21
16	Panchmahals	32	9	7	0	39	9	48
17	Patan	0	0	15	23	15	23	38
18	Porbandar	17	2	10	2	27	4	31
19	Rajkot	36	4	16	3	52	7	59
20	Sabarkantha	36	5	9	7	45	12	57
21	Surat	35	3	23	3	58	6	64
22	Surendranagar	14	1	32	8	46	9	55
23	The dangs	25	2	0	0	25	2	27
24	Vadodara	24	10	21	9	45	19	64
25	Valsad	17	2	3	0	20	2	22
	Gujarat TOTAL	**457**	**104**	**352**	**286**	**809**	**390**	**1199**
UT OF DAMAN AND DIU								
1	U.T.of Daman	8	1	0	0	8	1	9
2	U.T. of Diu	0	0	3	4	3	4	7
U.T. Total		**8**	**1**	**3**	**4**	**11**	**5**	**16**
Grand Total		**465**	**105**	**355**	**290**	**820**	**395**	**1215**

2.0 HYDROGEOLOGY

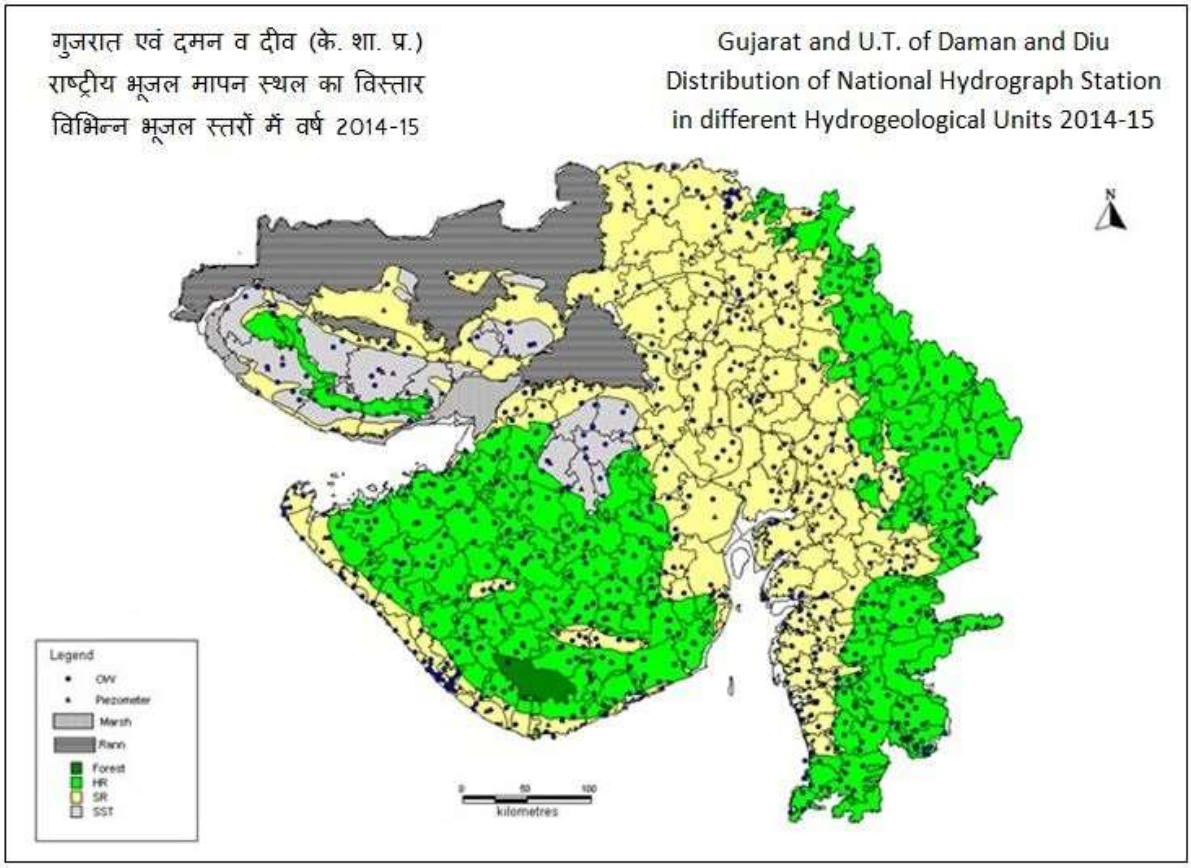
The high relief areas in the eastern and north-eastern parts of the state occupied by the Deccan Traps and the Archeans respectively have steep topographic gradients resulting in high run-off, and therefore, provide little scope for groundwater recharge. The groundwater potential in this terrain is limited. The large alluvial tract extending from Banaskantha district in the north to Surat and Valsad districts in the south constitutes the largest and most potential groundwater reservoir in the state. The aquifers are extensive, thick, hydraulically connected and are moderate to high yielding. To the west of this alluvial tract, especially around the discharge areas, characteristic artesian free flow conditions are observed. Almost the entire

Saurashtra and Kachchh regions are occupied by a variety of hard and fissured formations which include basalt and consolidated sedimentary formations with semi-consolidated sediments along the low-lying coastal areas. The compact and fissured nature of rocks gives rise to discontinuous aquifers with moderate yield potential. The friable semi-consolidated sandstone forms an aquifer with moderate yield potential. The coastal and deltaic areas in the state form a narrow linear strip and are underlain by Tertiary sediments and Alluvium. Though highly potential aquifers occur in these areas, salinity is a constraint for groundwater development. Groundwater withdrawal requires to be strictly regulated so that it does not exceed the annual recharge and also that it does not disturb the hydro-chemical balance leading to seawater ingress. The quality of groundwater in both hard rock and alluvial terrain is, by and large suitable except, in the coastal areas, estuarine tract and the Rann where the degree of mineralisation in ground water is rather high and salinity is common. Salinity in groundwater is also noticed in the arid and semi-arid tract. The different conditions of groundwater occurrence in the state have led to divergent groundwater situations in the areas occupied by different geological formations (**Fig. 5**). The formation-wise hydrogeological characteristics in the state of Gujarat has been broadly summarised in the **Table 4.**

Table 4. Distribution of hydrogeological formations in Gujarat and their Potential

Age	Rock Formation	Distribution	Hydrogeological Characteristics
Porous Formation			
Quaternary to upper Tertiary	Impure limestones, limestones, sandstones, conglomerates, pebble beds, silt stones, sands, pebbles, gravels etc.	Ahmedabad, Amreli, Banaskantha, Bhavnagar, Bharuch, Kachchh, Kheda, Jamnagar, Junagadh, Rajkot, Mahesana, Surendranagar and Valsad Districts	Unconfined shallow aquifer, leaky confined/ confined and deeper aquifer. Large to moderate yield prospects:10 to 40 lps, Storativity: 1.6x10E-4 to 7.3x 10E-4, Hydraulic Conductivity: 5 to 20m/day, Transmissivity: 50 to 2000m2/day
Mesozoic	Sandstones, Shales, Limestones and Grits	Kachchh, Surendranagar, Sabarkantha and Vadodara districts	Discontinuous aquifers with limited thickness of 50 to 300 meters. Limited yield prospects <15 lps, Hydraulic Conductivity: 2 to 10m/day, Transmissivity: 50 to 1000m2/day
Fissured formation			
Mesozoic to Palaeozoic	Basalt with intertrappean clays	Uplands of saurashtra, Kachchh Region, scattered patches in Panchmahals, Sabarkantha and Vadodara districts, Continuous belt in eastern part of Bharuch, Surat and Valsad districts	Ground water occurrence restricted to weathered and fractured zones, limited to 200m, moderate yield prospects: 5 to 15 lps
Archaean and Pre-Cambrian	Granites, Gneiss, Marbles, Schists, Phyllites and Slates	Banaskantha, Sabarkantha, Panchmahals, vadodara and Kheda districts.	Ground water occurrence restricted to weathered and fractured zones having secondary porosity, limited yield prospects of 2 to 5 lps.

Figure: 5 Map showing major hydrogeological units and distribution of Ground Water Monitoring Network Stations.



2.1 Achaean and Proterozoic Formation

Rocks of Archaean and Proterozoic age occupy the north-eastern and eastern parts of the state and cover extensive areas in parts of Vadodara, Kheda, Panchmahals, Sabarkantha, Mahesana and Banaskantha districts. These rocks, which include gneiss, schist, phyllite, quartzite and metamorphosed igneous intrusives do not form good aquifers due to their poor porosity and permeability. Dug wells, dug-cum-bore wells and bore wells are feasible only in favourable sites where sufficient weathered mantle and/or fractures and joints occur. The wells tapping these aquifers have maximum depth of 30 to 40 mbgl beyond which groundwater occurrence is not common. The yield of wells in these rocks varies from a few cubic meters to 100 cubic meters per day at minimal drawdown.

2.2 Mesozoic Formation

Jurassic and Cretaceous formations include Pachchham, Chari, Katrol and Bhuj Series in Kachchh, Dhrangadhra and Wadhwan sandstones in northeastern part of Saurashtra, Bagh beds along the Narmada River and Himmatnagar sandstones in Sabarkantha district. Pachchham and Chari Series are predominantly calcareous while Wadhwan sandstones and Bagh beds include some limestone. The rest are arenaceous and consist of inter-bedded sandstone and shale sequences. The most important and productive aquifer among these formations occurs in the Bhuj Series consisting of predominantly friable, soft, medium to coarse grained sandstone

occurring at depths of few meters to as much as 300 meters. Tube wells constructed up to 200 mbgl in this formation yield 70 to 170 m^3/hour for drawdown of about 10m. The salinity distribution in groundwater in Upper Bhuj aquifers is generally uniform with low concentration of dissolved solids in the upland and non-irrigated areas. Salinity gradually increases towards area of intensive irrigation and discharge area.

The Dhrangadhra sandstones comprise of about 400 m thick, fine to coarse grained sandstones inter-bedded occasionally with carbonaceous shale. Tubewells tapping about 100 m of aquifer thickness in this formation within a depth of 212 mbgl yield limited to moderate discharge of the order of 14 to 80 m^3/hour. Basic sills of 30 to 50 m thickness are found intruded in the Lower Dhrangadhra formation in the northern part of Surendranagar and Rajkot districts at Gala, Sathapur and Chuli villages. Normally, the sills mark the lower limit of fresh groundwater occurrence. In the northern part of Rajkot district and eastern part of Jamnagar districts, these sandstones have been encountered at depths of 200 – 250 mbgl below Traps, in semi- confined conditions.

The Himmatnagar sandstones are exposed in a narrow belt between Eklara and Ranasan villages in Sabarkantha district. They also occur below the traps near Dhansura (23° 24': 75° 15') at depths of 60 to 100 mbgl. Patches of these sandstones occur under the alluvial cover near Sanseli (22° 42'; 75° 25'), Madhwas (23° 24'; 73° 27') and Gugalpur (22° 15': 73° 28') and on the northern bank of Goma River. Although these sandstones are generally fine grained, hard and compact, coarse friable sandstones are observed at places near Kapadvanj. These sandstones, when saturated to moderate depths, form potential aquifers. Tubewells tapping these aquifers yield up to 50 m^3/hour.

2.3 Deccan Trap

These are essentially basaltic lava flows with a general horizontal to near horizontal disposition over a very wide area. From groundwater potential point of view, these rocks constitute moderately promising aquifers. The jointed and fractured basalts hold and transmit water in moderate quantities. The thickness of traps ranges from 100 to 150 m in Kachchh to more than 1000 m in Cambay basin.

The yields in dug wells tapping the basalts vary from insignificant quantities to 30 m^3/day. Higher yields have been observed at hydrogeologically favourable locations. The yield of the dug wells can be enhanced considerably by lateral and/or vertical borings. The discharge of tube wells is reported to decline at places due to presence of unsaturated porous zones at depth. The quality of groundwater in traps is generally potable.

2.4 Tertiary Formation

These rocks are exposed between Narmada and Tapi rivers in parts of Bharuch and Surat districts. They also occur in the coastal tracts of Saurashtra and Kachchh.

Gaj beds belonging to Miocene occur all along the Saurashtra coast. These consist of limestone, clay and grit mostly gypsiferous with thin sand layers. Drilling at Okha (22°28': 69°16') and Veraval (20°54': 70°25') has shown that locally, the Gaj beds extend beyond 300 m depth and the deeper zones yield meagre quantities of saline groundwater.

The quality of groundwater in Gaj beds along Saurashtra coast is slightly inferior on account of intercalated clay bands and inherent salinity of Gaj beds, which were deposited under marine conditions. However, the quality of ground water in the

upper Gaj limestone is better. The chloride content in groundwater ranges from 100 to 200 mg/l between Veraval, Sil (21° 11': 70° 03') and around Porbandar.

Dwarka beds, comprising of gypsiferous and calcareous red colour clays and sandy limestone are about 150 m thick. Groundwater in the Dwarka beds is of poor quality with chloride content ranging from 500 to 700 mg/l. Yield of dug wells are of the order of 37 m^3/day and tube wells yield about 22 m^3/day for a drawdown of about 4 m. In the Kachchh region, the sandstones of Manchhar series form good aquifers. Tubewells, ranging in depth from 116 to 169 mbgl, yield between 68 to 136 m^3/hour and the chloride content ranges between 96 and 612 mg/l. However, the Tertiary rocks, in general, do not form promising aquifers for groundwater development because of the inferior quality of groundwater. In southern Gujarat (Narmada-Tapti area), the tertiary rocks comprises of sandstone, shale and limestone intercalated with gravel which locally exceed 100 m in thickness. Ground water in these rocks is mostly brackish to saline and yields are in shallow tube wells.

2.5 Quaternary Formation

The Quaternary formations include milliolite limestone, alluvium and aeolian deposits. The milliolite limestone is of limited thickness and its occurrence is confined to the coastal tract of Saurashtra. The alluvial and aeolian deposits extend as one continuous plain, from north to south and also as valley-fills in the hard rock terrain.

Highly cavernous milliolite limestone is locally a very productive aquifer. Dug wells tapping these limestones are capable of yielding up to 200 m^3/day. These are the repositories of potable groundwater in an otherwise saline coastal belt of Saurashtra. Quaternary sediments occupy an area of about 86,680 sq km. Their thickness in the Cambay Basin is estimated to be of the order of 500 m. However, towards north in the districts of Mahesana Banaskantha and Sabarkantha, the thickness reduces to less than 50 m near the hilly tract. In general, the thickness of the alluvium in north Gujarat ranges from 40 to 500 m. In the southern Gujarat plains, the alluvium mostly overlies the basalts and the tertiary sediments. Its thickness ranges from a few meters near the rock outcrops to over 75 m in the lower reaches. The Quaternary sediments vary in character and composition. In the Cambay basin, these are predominantly composed of clay, silt and sand with "kankar". The proportion of gravels, pebbles and boulders, etc., increases towards the hilly tracts. Such areas, forming the piedmont terrain, extend for 10 to 20 km from the hills into the plains.

A number of abandoned river channels and valley fills occur in the rocky areas. These are of great significance for the development of ground water in an otherwise less promising terrain.

Groundwater in the alluvium occurs under unconfined conditions at shallow depths. In deeper horizons, it occurs under semi-confined to confined and artesian conditions. Detailed study in Mahesana, Banaskantha, Rajkot, Surendranagar, Kheda, Sabarkantha, Kachchh and Ahmedabad districts has revealed that multiple aquifers exist in major part of the alluvial plains of Gujarat up to a depth of 500 m.

These aquifers have their areas of recharge in the piedmont terrain and the hilly areas towards the east and northeast. Most of the aquifers coalesce into one phreatic aquifer in the recharge area but are identified as separate aquifers occurring under artesian conditions in the central part of the basin and in the discharge areas towards west and southwest. In parts of Mahesana and Banaskantha districts, the quaternary sediments is up to 600 m thick, comprising of

10 to 125 m thick younger alluvial deposits (Pleistocene to Recent) and 100 to 475 m thick older alluvial deposits (Pliocene to Pleistocene). The entire alluvial sequence has been divided into five major aquifers viz., A (up to 125m) or phreatic aquifer and B, C, D and E (between 125 and 600 m depth) or confined aquifers.

Due to over-exploitation, the water levels in the phreatic aquifer have declined alarmingly rendering them almost dry. Presently, first and second confined aquifers are the most exploited. The decline of water level in these aquifers is more than 40 m since 1961at most of the area. The yield of tube wells tapping users confined aquifer vary from 20 to 40 lps.

3.0 GROUND WATER SCENARIO

Systematic and regular monitoring of groundwater levels brings out the changes taking place in the groundwater regime. The maps so generated are of immense help for regional groundwater flow modelling which serves as a groundwater management tool to provide the necessary advance information to the user agencies to prepare contingency plans in case of unfavourable groundwater recharge situation. The data also has immense utility in deciding the legal issues arising out of conflicting interests of groundwater users.

The monitoring of ground water levels has been carried out at groundwater monitoring wells four times in a year simultaneously throughout the State during the following periods.

a) May - 20th to 30th (water level of pre-monsoon period).
b) August - 20th to 30th (peak monsoon water level).
c) November - 1st to 10th (water levels of post-monsoon period).
d) January - 1st to 10th (the recession stage of water level).

Water level data of the ground water monitoring wells collected during the year 2014 – 2015 has been utilized to prepare various maps showing depth to water level and fluctuation of water level. Depth to water level maps are useful in dealing with problems of water logging and artificial recharge, where the relative position of water level with reference to the ground surface is of critical importance. Water level fluctuation maps (rise or fall) are indispensable for estimation of change in storage in the aquifer.

For the purpose of presentation, Gujarat state has been divided into three regions, namely, (a) the Kachchh region comprising Kachchh district, (b) the Saurashtra region comprising Amreli, Bhavnagar, Junagadh, Jamnagar, Porbander Rajkot and Surendranagar districts, and (c) the mainland Gujarat. The mainland Gujarat has been further subdivided into two regions, namely, North Gujarat comprising , Ahmedabad, Anand, Dahod, Banaskantha, Gandhinagar, Kheda, Mahesana, Panchmahals, Patan and Sabarkantha districts, and South Gujarat comprising Bharuch, Narmda, Navsari, Surat, The Dangs Vadodara and Valsad districts. The Union Territory of Daman & Diu has been described separately. The water level data of these open wells and piezometers are presented in the Annexure III-a and III-b.

The data is analysed for each set of measurement, and report prepared which include following maps to understand the groundwater regime in the state.

1. Depth to water level
2. Seasonal fluctuation - water level fluctuation in comparison to pre-monsoon.
3. Annul fluctuation - water level fluctuation in comparison to same month in the previous year.
4. Decadal fluctuation - water level fluctuation in the month of measurement with reference to the decadal average for the same month.

3.1 Depth to Water Level (Unconfined Aquifer)

A graphical analysis was done to understand the water level behaviours of the ground water monitoring wells in the different categories of the water levels during every monitoring period and the same is depicted in **Fig. 6 (a,b,c,d)**.

Fig 6 a

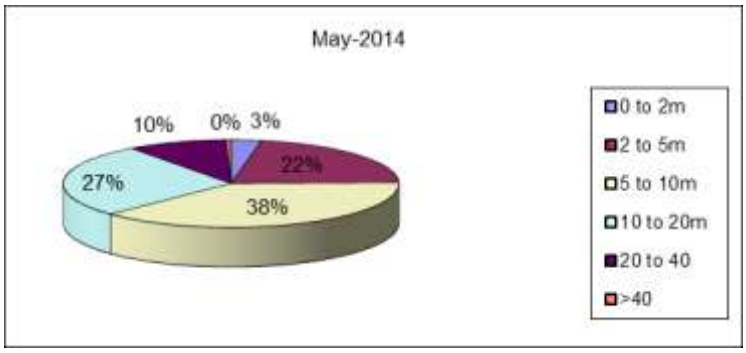


Fig 6 b

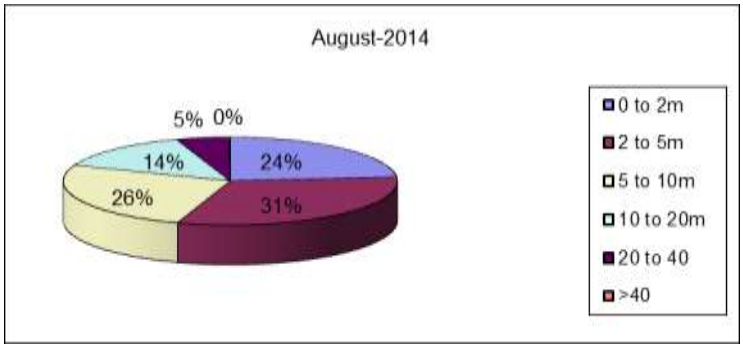


Fig 6 c

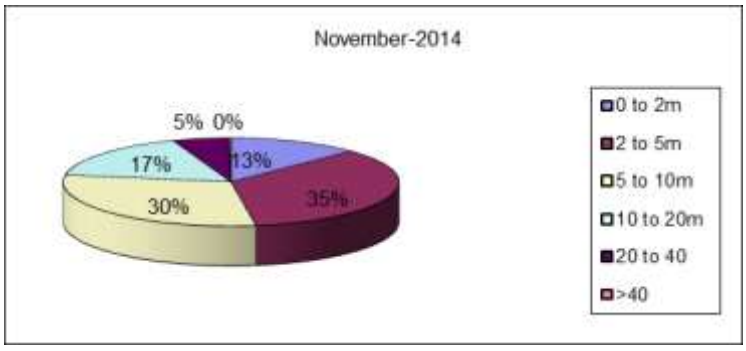
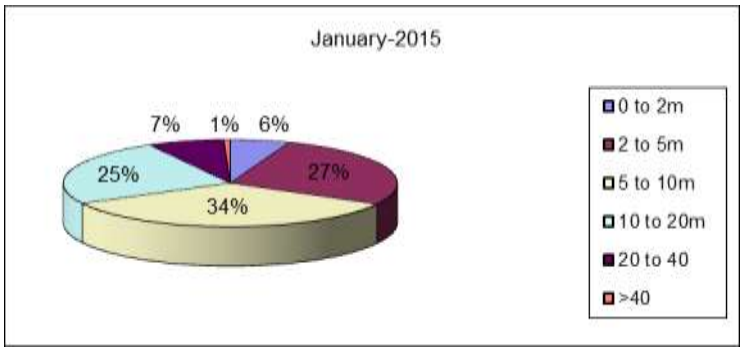


Fig 6 d



3.1.1 Depth to Water Level May 2014

In the pursuance of Fig no. 7 and table no. 5 the depth to water level during may 2014 in Gujarat 90% of the area has depth ton water level less than 20 mbgl. Water levels of more than 20 mbgl is observed in all of the districts except The Dangs, Dahod, Bharuch, Surat and UT of Daman and Diu. Deeper water level more than 40 mbgl are observed in parts of Amreli, Banaskantha, Gandhinagar and Sabarkantha districts. The shallowest water level recorded is 0.05 mbgl at Varamkheda village in Dohad district. The deepest water level recorded is 61.15 m bgl at Deesa in Banaskantha district.

In North Gujarat, about 86% of the area falls in the water level less than 20 m bgl. Shallow water levels (lesser than 5 mbgl) are observed in the area near the Gulf of Cambay and the area along the little Rann of Kachchh. Deeper water levels ranges 20 to 40 mbgl are experienced in major part Banaskantha, Mahesana districts and adjoining area of Ahmedabad, Anand, Gandhinagar, Kheda and Sabarkantha districts. The deepest water level of 61.15 mbgl is recorded at Deesa in Banaskantha district, whereas shallowest water level of 0.67 mbgl has been recorded at Varamkheda in Dohad district

In South Gujarat, more than 96% of the area has recorded water level less than 20 mbgl. Deeper water levels of more than 20 m bgl is mainly observed in parts of Vadodara district and adjoining areas of Narmada district. The deepest water level of 32.61 mbgl is recorded at Sundarpura in Narmada district whereas the shallowest water level of 0.05 mbgl has been recorded at Wadoli in Surat district.

In Saurashtra region, about 87% of the area shows water levels less than 20 mbgl. Water levels of 20 to 40 m are found as isolated patches scattered all over the region. The shallowest water level, 0.60 mbgl, has been recorded at Pipli village in Surendranagar district and the deepest water level of 42.85 mbgl recorded at Moojhar in Amreli district.

In Kachchh region, more than 90 % of the area, the water level is less than 20 mbgl. The water level more than 20 m occur as isolated patches scattered in the central and eastern part of the Kachchh district. The deepest water level of 29.10 mbgl is recorded at Gagodar and the shallowest water level of 1.00 mbgl has been recorded at Lilpur.

The depth to water level is in the range of 2.21(Khaiwad Daman) to 8.75(Morwad) mbgl in Daman and 4.07(Diu) to 6.25 (Chakerteeth) mbgl in Diu

3.1.2 Depth to Water Level August 2014

The depth to water level of unconfined aquifer range from near ground level to 56.98 mbgl (Amarpura in Gandhinagar district) during August 2014 (**Fig 8)**. Details of depth to water level in different range, from 0-2 m, 2 to 5 m, 5 to 10 m, 10 to 20m, 20 to 40 m and more than 40 mbgl is presented in table – 6. The perusal of the depth to water level reveals that 55% of the area of the state falls in the water level ranges 0 to 5 mbgl whereas 5 to 20 mbgl water level are observed in 40% of the area in Gujarat state and UT of Daman & Diu. Water levels of 20 to 40 mbgl are observed in Ahmedabad, Anand, Mahesana, Banaskantha, Sabarkantha, Kachchh, Amreli, Gandhinagar, Bhavnagar, Navsari, Narmada, Patan, Kheda and Vadodara districts in isolated patches. Deeper water levels more than 40m bgl are observed in northern part of Gandhinagar as isolated patch. The shallowest water level, near to ground level has been recorded at Victor of Amreli and Alwani of Junagadh district

In North Gujarat, about 89% of the area falls within the water level of 20 mbgl. Shallow water levels (lesser than 5 m bgl) are observed in the area near the Gulf of Cambay and the area along the little Rann of Kachchh and in eastern part of north Gujarat region such as in Panchmahals, Dohad and Sabarkantha district. Deeper water levels ranges from 20 to 40 mbgl in major part of Banaskantha, adjoining area of Ahmedabad, Kheda and Gandhinagar and as isolated patches in Mahesana and Sabarkantha districts. Deeper water levels more than 40m bgl are observed in northern part of Gandhinagar as isolated patch. The deepest water level of 56.98 m bgl is recorded at Amarpura in Gandhinagar district whereas The shallowest water level, near to ground level has been recorded at Tarkanda in Panchmahal district.

In South Gujarat, more than 98% of the area has recorded water level below 20 mbgl of which 78% alone has the water level in the range of 0 – 5 mbgl. Deeper water levels of 20 – 40 mbgl are mainly observed as isolated patch in parts of Vadodara district. The deepest water level of 29.43 m bgl is recorded at Sundarpura in Narmada district whereas the shallowest water level of 0.03 magl at Panoli in Bharuch district.

In Saurashtra region, about 96% of the area shows water levels in less than 20 m bgl and water levels of 20 to 40 m are found as isolated patch in Amreli and Bhavnagar districts. The shallowest water level, near to ground level has been recorded at Victor of Amreli and Alwani of Junagadh district and the deepest water level of 38.35 m bgl recorded at Dhanagani in Amreli district.

In Kachchh region, in about 93 % of the area, the water level ranges less than 20m bgl. Central east part of the area shows water level ranges 20 to 40 mbgl occur as isolated patches. The deepest water level of 27.80 m bgl is recorded at Gagodar and the shallowest water level of 0.24 m bgl has been recorded at Haboi.

The depth to water level in Daman ranges from 0.75 mbgl at Dalwana to 2.90 mbgl at Morwad where as in Diu area depth to water levels range is 3.50 mbgl in Vanakbara to 6.48 mbgl in Diu.

Fig- 7

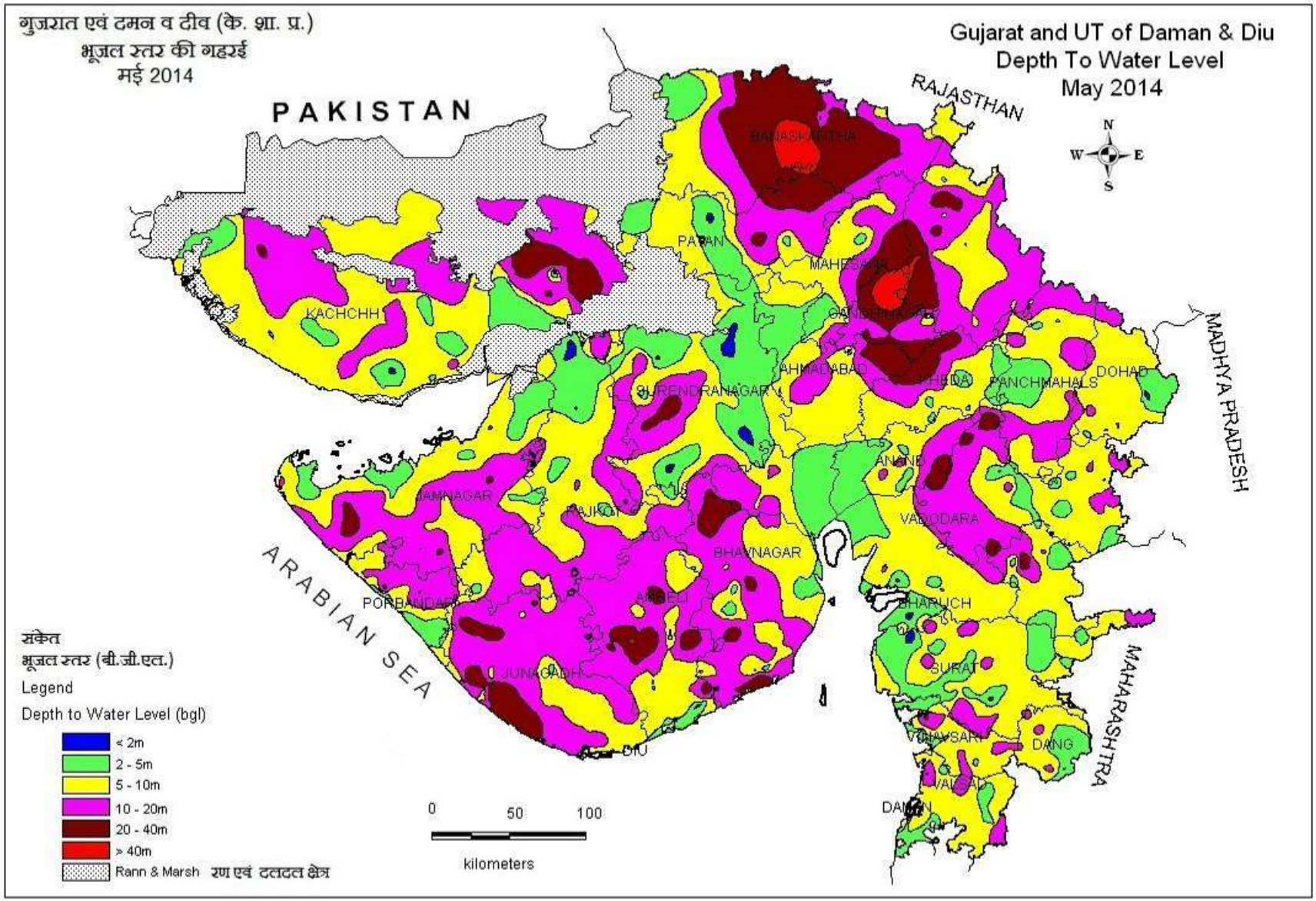

गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर की गहरई
मई 2014
Gujarat and UT of Daman & Diu
Depth To Water Level
May 2014
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
KACHCHH
PATAN
MAHESANA
AHMADABAD
SURENDRANAGAR
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
PORBANDAR
AMRELI
JUNAGADH
DIU
BHARUCH
SURAT
NAVSARI
DANG
VALSAD
DAMAN
N
W
E
S
संकेत
भूजल स्तर (बी.जी.एल.)
Legend
Depth to Water Level (bgl)
< 2m
2 - 5m
5 - 10m
10 - 20m
20 - 40m
> 40m
Rann & Marsh रण एवं दलदल क्षेत्र
0
50
100
kilometers

Fig- 8

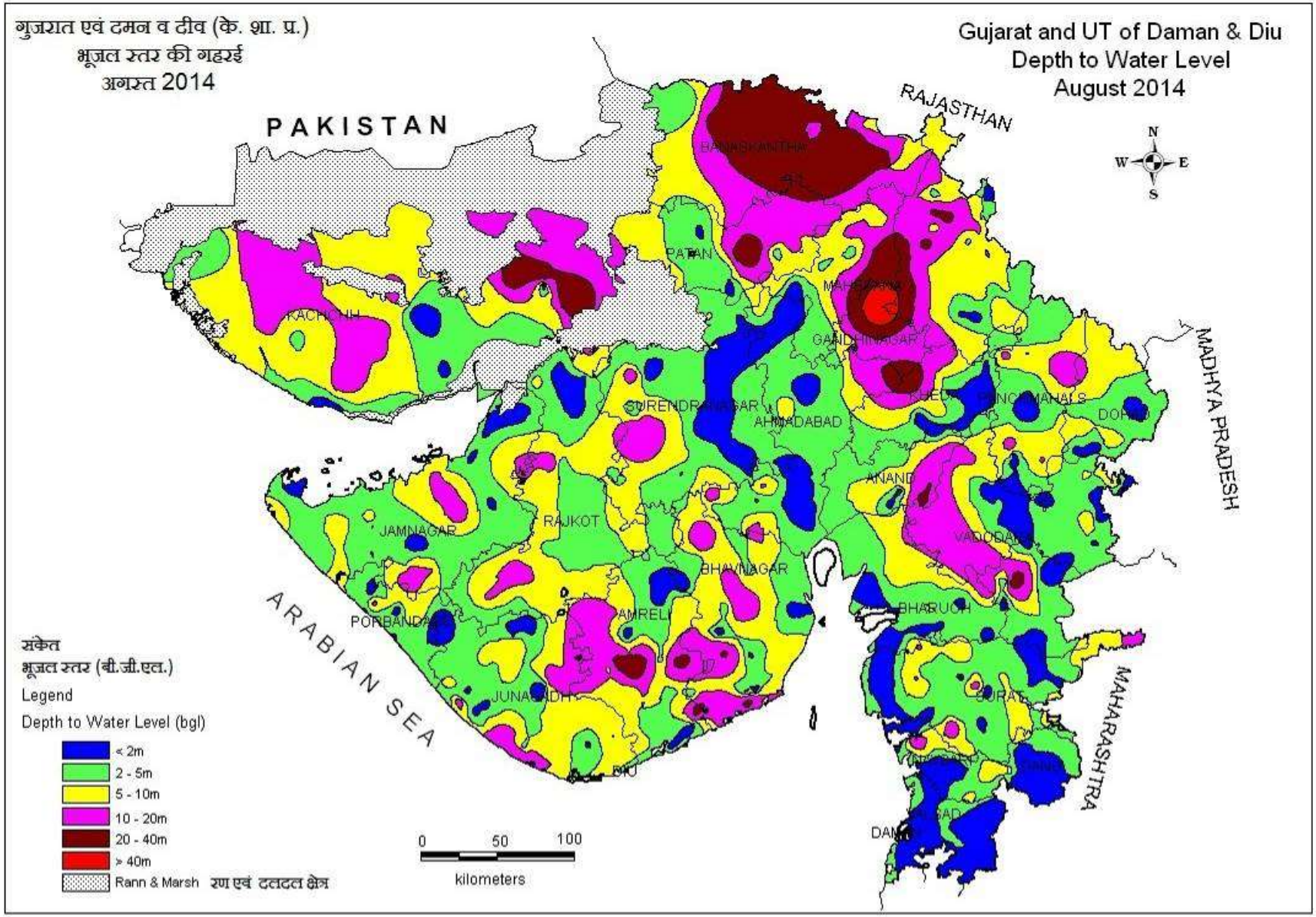

गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर की गहराई
अगस्त 2014
Gujarat and UT of Daman & Diu
Depth to Water Level
August 2014
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
KACHCHH
PATAN
GANDHINAGAR
SURENDRANAGAR
AHMADABAD
ANAND
JAMNAGAR
RAJKOT
VADODARA
BHAVNAGAR
PORBANDAR
AMRELI
BHARUCH
JUNAGADH
DIU
DAMAN
N
W
E
S
संकेत
भूजल स्तर (बी.जी.एल.)
Legend
Depth to Water Level (bgl)
< 2m
2 - 5m
5 - 10m
10 - 20m
20 - 40m
> 40m
Rann & Marsh रण एवं दलदल क्षेत्र
0
50
100
kilometers

Table-5

WELL WISE CATEGORISATION OF DEPTH TO WATER LEVEL - MAY 2014

Sl.No.	District	No. of Wells Analysed	DTWL in mbgl		No of well in different Ranges					
			Min	Max	0 to 2 (m)	2 to 5(m)	5 to 10(m)	10 to 20(m)	20 to 40(m)	>40(m)
1	Ahmedabad	24	2.51	22.30	0 0.00%	10 25.00%	6 48.83%	5 16.67%	3 12.50%	0 0.00%
2	Anand	11	2.37	23.92	0 0.00%	5 45.45%	2 18.18%	2 18.18%	2 18.18%	0 0.00%
3	Banaskantha	25	2.96	61.15	0 0.00%	1 4.00%	5 20.00%	9 36.00%	9 36.00%	1 4.00%
4	Dohad	22	0.67	12.25	1 5.00%	4 20.00%	13 65.00%	4 20.00%	0 0.00%	0 0.00%
5	Gandhinagar	5	12.25	57.75	0 0.00%	0 0.00%	0 0.00%	3 60.00%	1 20.00%	1 20.00%
6	Kheda	17	2.85	36.95	0 0.00%	6 33.33%	8 44.44%	1 5.56%	2 11.11%	0 0.00%
7	Mahesana	24	2.38	33.55	0 0.00%	6 25.00%	12 50.00%	5 20.83%	1 4.17%	0 0.00%
8	Panchmahals	28	3.08	21.87	0 0.00%	5 17.86%	15 53.57%	7 25.00%	1 3.57%	0 0.00%
9	Patan	10	1.50	23.05	1 10.00%	4 40.00%	1 10.00%	3 30.00%	1 10.00%	0 0.00%
10	Sabarkantha	37	4.12	40.47	0 0.00%	2 5.41%	15 40.54%	13 35.14%	6 16.22%	1 2.70%
North Gujarat		**203**	**0.67**	**61.15**	**2 0.98%**	**43 20.98%**	**77 37.56%**	**52 25.37%**	**26 12.68%**	**3 1.46%**
11	Bharuch	31	1.10	10.68	2 6.45%	10 32.26%	17 54.84%	2 6.45%	0 0.00%	0 0.00%
12	Narmada	16	2.25	32.61	0 0.00%	5 31.25%	6 37.50%	3 18.75%	2 12.50%	0 0.00%
13	Navsari	21	3.09	24.90	0 0.00%	8 38.10%	9 42.86%	3 14.29%	1 4.76%	0 0.00%
14	Surat	56	0.05	19.94	2 3.57%	15 26.79%	27 48.21%	12 21.43%	0 0.00%	0 0.00%
15	The dangs	26	2.33	12.36	0 0.00%	7 26.92%	14 53.85%	5 19.23%	0 0.00%	0 0.00%
16	Vadodara	40	1.67	26.60	1 2.50%	9 22.50%	16 40.00%	11 27.50%	3 7.50%	0 0.00%
17	Valsad	20	3.06	20.85	0 0.00%	7 35.00%	9 45.00%	3 15.00%	1 5.00%	0 0.00%
South Gujarat		**210**	**0.05**	**32.61**	**5 2.38%**	**61 29.05%**	**98 46.67%**	**39 18.57%**	**7 3.33%**	**0 0.00%**
18	Amreli	44	1.11	42.85	2 4.55%	5 11.36%	10 22.73%	17 38.64%	9 20.45%	1 2.27%
19	Bhavnagar	40	1.99	28.00	1 2.50%	8 20.00%	9 22.50%	14 35.00%	8 20.00%	0 0.00%
20	Jamnagar	54	2.69	25.00	0 0.00%	13 24.07%	19 35.19%	17 31.48%	5 9.26%	0 0.00%
21	Junagadh	58	3.87	39.00	0 0.00%	1 1.69%	19 32.20%	27 45.76%	11 18.64%	0 0.00%
22	Porbandar	25	1.84	26.98	1 4.00%	3 12.00%	9 36.00%	10 40.00%	2 8.00%	0 0.00%
23	Rajkot	54	1.60	20.94	3 5.56%	10 18.52%	22 40.74%	18 33.33%	1 1.85%	0 0.00%
24	Surendranagar	40	0.60	25.01	7 17.50%	14 35.00%	14 35.00%	3 7.50%	2 5.00%	0 0.00%
Saurashtra		**315**	**0.60**	**42.85**	**14 4.44%**	**54 17.14%**	**102 32.38%**	**106 33.65%**	**38 12.06%**	**1 0.32%**
25	**Kachchh**	**49**	**1.00**	**29.10**	**2 4.08%**	**9 18.37%**	**16 32.65%**	**17 34.69%**	**5 10.20%**	**0 0.00%**
26	DAMAN	9	2.21	8.75	0 0.00%	3 33.33%	6 66.67%	0 0.00%	0 0.00%	0 0.00%
27	DIU	2	4.07	6.25	0 0.00%	1 50.00%	1 50.00%	0 0.00%	0 0.00%	0 0.00%
Daman & Diu		**11**	**2.21**	**8.75**	**0 0.00%**	**4 36.36%**	**7 63.64%**	**0 0.00%**	**0 0.00%**	**0 0.00%**
Grand Total		**788**	**0.05**	**61.15**	**23 2.92%**	**171 21.70%**	**300 38.07%**	**214 27.16%**	**76 9.64%**	**4 0.51%**

RODC, CGWB - WCR, Ahmedabad

Table-6

WELL WISE CATEGORISATION OF DEPTH TO WATER LEVEL - AUGUST 2014

Sl.No.	District	No. of Wells Analysed	DTWL in mbgl		No of well in different Ranges					
			Min	Max	0 to 2 (m)	2 to 5(m)	5 to 10(m)	10 to 20(m)	20 to 40(m)	>40(m)
1	Ahmedabad	22	0.12	20.40	9 33.33%	6 25.00%	5 29.17%	1 12.50%	1 0.00%	0 0.00%
2	Anand	11	0.16	22.32	3 27.27%	2 18.18%	3 27.27%	1 9.09%	2 18.18%	0 0.00%
3	Banaskantha	22	2.23	34.43	0 0.00%	1 4.55%	5 22.73%	7 31.82%	9 40.91%	0 0.00%
4	Dohad	20	0.50	9.75	4 20.00%	7 35.00%	9 45.00%	0 0.00%	0 0.00%	0 0.00%
5	Gandhinagar	5	8.85	56.98	0 0.00%	0 0.00%	1 20.00%	2 40.00%	1 20.00%	1 20.00%
6	Kheda	14	0.40	29.87	7 38.89%	3 16.67%	2 11.11%	1 5.56%	1 5.56%	0 0.00%
7	Mahesana	22	0.50	33.49	1 4.55%	6 27.27%	11 50.00%	3 13.64%	1 4.55%	0 0.00%
8	Panchmahals	28	0.05	17.40	4 14.29%	12 42.86%	7 25.00%	5 17.86%	0 0.00%	0 0.00%
9	Patan	9	1.12	30.35	2 22.22%	2 22.22%	2 22.22%	2 22.22%	1 11.11%	0 0.00%
10	Sabarkantha	33	1.05	24.70	3 9.09%	4 12.12%	13 39.39%	10 30.30%	3 9.09%	0 0.00%
North Gujarat		**186**	**0.05**	**56.98**	**33 17.74%**	**43 23.12%**	**58 31.18%**	**32 17.20%**	**19 10.22%**	**1 0.54%**
11	Bharuch	24	0.03	7.82	10 41.67%	10 41.67%	4 16.67%	0 0.00%	0 0.00%	0 0.00%
12	Narmada	13	0.63	29.43	5 38.46%	3 23.08%	2 15.38%	1 7.69%	2 15.38%	0 0.00%
13	Navsari	19	0.40	21.70	8 42.11%	8 42.11%	2 10.53%	0 0.00%	1 5.26%	0 0.00%
14	Surat	43	0.30	18.13	7 16.28%	23 53.49%	7 16.28%	6 13.95%	0 0.00%	0 0.00%
15	The dangs	22	0.22	9.70	17 77.27%	3 13.64%	2 9.09%	0 0.00%	0 0.00%	0 0.00%
16	Vadodara	32	0.10	20.62	9 28.13%	10 31.25%	8 25.00%	4 12.50%	1 3.13%	0 0.00%
17	Valsad	19	0.19	4.75	12 63.16%	7 36.84%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
South Gujarat		**172**	**0.03**	**29.43**	**68 39.53%**	**64 37.21%**	**25 14.53%**	**11 6.40%**	**4 2.33%**	**0 0.00%**
18	Amreli	42	-0.05	28.35	5 11.90%	13 30.95%	10 23.81%	7 16.67%	7 16.67%	0 0.00%
19	Bhavnagar	38	0.35	21.70	8 21.05%	10 26.32%	12 31.58%	6 15.79%	2 5.26%	0 0.00%
20	Jamnagar	39	0.54	13.23	9 23.08%	16 41.03%	8 20.51%	6 15.38%	0 0.00%	0 0.00%
21	Junagadh	43	-0.05	17.10	8 13.56%	12 20.34%	16 27.12%	7 11.86%	0 0.00%	0 0.00%
22	Porbandar	23	0.43	12.02	6 26.09%	9 39.13%	6 26.09%	2 8.70%	0 0.00%	0 0.00%
23	Rajkot	52	0.58	13.80	5 9.62%	22 42.31%	21 40.38%	4 7.69%	0 0.00%	0 0.00%
24	Surendranagar	40	0.21	16.89	12 30.00%	16 40.00%	7 17.50%	5 12.50%	0 0.00%	0 0.00%
Saurashtra		**277**	**-0.05**	**28.35**	**53 19.13%**	**98 35.38%**	**80 28.88%**	**37 13.36%**	**9 3.25%**	**0 0.00%**
25	**Kachchh**	**44**	**0.24**	**27.80**	**4 9.09%**	**9 20.45%**	**12 27.27%**	**16 36.36%**	**3 6.82%**	**0 0.00%**
26	DAMAN	6	0.75	2.90	4 66.67%	2 33.33%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
27	DIU	3	3.50	6.48	0 0.00%	1 33.33%	2 66.67%	0 0.00%	0 0.00%	0 0.00%
Daman & Diu		**9**	**0.75**	**6.48**	**4 44.44%**	**3 33.33%**	**2 22.22%**	**0 0.00%**	**0 0.00%**	**0 0.00%**
Grand Total		**688**	**-0.05**	**56.98**	**162 23.55%**	**217 31.54%**	**177 25.73%**	**96 13.95%**	**35 5.09%**	**1 0.15%**

RODC, CGWB - WCR, Ahmedabad

3.1.3 Depth to Water Level November 2014

The depth to water level of unconfined aquifer ranges from near ground level to 57.65 mbgl (Amarpura district Gandhinagar) during November 2014 **(Fig 9 and table no 7)**. The perusal of the water level reveals that 94% of the total well analysed has water level less than 20 mbgl, in Gujarat state and UT of Daman & Diu. Water levels of 20 to 40 mbgl are observed in Ahmedabad, Anand, Banaskantha, Gandhinagar, Kheda, Mahesana, Sabarkantha, Narmada, Vadodara, Amreli, Bhavnagar, Junagarh and Kachchh districts in isolated patches. The shallowest water level recorded is 0.03 mbgl at Dudhai in Jamnagar district. The deepest water level recorded is 58.90 mbgl at Amarpura in Gandhinagar district.

In North Gujarat, about 92% of the total well analysed falls with in the water level range of 20 mbgl. Shallow water levels (lesser than 5 mbgl) are observed in the area near the Gulf of Cambay and the area along the little Rann of Kachchh and in eastern part of north Gujarat region such as in Panchmahals, Dohad and Sabarkantha district. Deeper water levels ranges 20 to 40 mbgl are experienced in major part Banaskantha, the adjoining area of Ahmedabad, Kheda and Gandhinagar and as isolated patch in Mahesana and Ahmedabad districts. The deepest water level of 57.65 mbgl at Amarpura in Gandhinagar district whereas shallowest water level of 0.28 mbgl has been recorded at Varamkheda in Dohad district.

In South Gujarat, more than 97% of the area has recorded water level within 20 mbgl of which 90 % alone has the water level in the range of 2 – 10 mbgl. Deeper water levels of 20 – 40 mbgl are mainly observed as isolated patch in parts of Vadodara, Navsari and Narmada districts. The deepest water level of 27.77 mbgl is recorded at Sundarpura in Narmada district whereas the shallowest water level of 0.05 mbgl has been recorded at Sama in Vadodara City.

In Saurashtra region, about 95% of the total well shows water levels less than 20 mbgl and water levels of 20 to 40 mbgl are sporadically disbursed as isolated patches in Amreli, Bhavnagar and Junagarh district. The shallowest water level recorded is 0.03 mbgl at Dudhai in Jamnagar district and the deepest water level of 36.58 mbgl recorded at Kerala in Amreli district.

In Kachchh region, in about 92% of the total well analysed, the water level ranges within 20 mbgl in major part of the district. Central east part of the area shows water level ranges 20 to 40 mbgl, which cover about 8% of total well in Kachchh region and occur as isolated patches. The deepest water level of 27.18 mbgl is recorded at Gagodar and the shallowest water level of 0.34 mbgl has been recorded at Haboi.

The depth to water level is within the range of 1.87(Jampore) to 6.31 mbgl (Bhimpor ka falia) in Daman and minimum water level in Diu is 3.70 mbgl at Jalawali with deepest water level in Chakrateeth 6.60 mbgl in Diu.

3.1.4 Depth to Water Level January 2015

A perusal of **Fig 10** and **Table 8** revels that the depth to water level of unconfined aquifer ranges from 0.24 mbgl at Haboi in Kachchh district to 60.52 mbgl in Deesa district Banaskantha during January 2015. Details of depth to water level in different range, i.e. from 0-2 m, 2 to 5 m, 5 to 10 m, 10 to 20m, 20 to 40 m and more than 40 mbgl is presented in table – 8. The perusal of the Depth To Water map reveals that about 33% of the total well analysed falls in the water level range of 0 to 5 mbgl whereas water level of 5 to 20 mbgl is observed in 59% of Gujarat state and UT of Daman & Diu. Water levels of 20 to 40 mbgl are observed in Anand, Banaskantha, Kheda, Gandhinagar, Panchmahal, Sabarkantha, Narmada, Navsari, Vadodara and in hole Saurastra and Kachchh region as isolated patches. The deepest water level more than 40 mbgl is recorded in Banaskantha, Gandhinagar and Mahesana district.

In North Gujarat, about 89% of the total well analysed falls with in the water level range of 20 mbgl of which alone 68% represent the water level range of 0 – 10 mbgl. Shallow water levels (lesser than 5 mbgl) are observed in the area near the Gulf of Cambay and the area along the little Rann of Kachchh and in eastern part of north Gujarat region such as in Panchmahals, Dohad and Sabarkantha district. Deeper water levels ranges 20 to 40 mbgl are experienced in major part of Banaskantha district, the adjoining area of Kheda and Gandhinagar and as isolated patch in Sabarkantha district. The deepest water level of 60.52 mbgl at Deesa in Banaskantha district whereas shallowest water level of 0.27 mbgl has been recorded at Varamkheda in Dahod district.

In South Gujarat, about 90% of the area has recorded water level less than 10 mbgl of which 54% alone has the water level in the range of 0 – 5 mbgl. Deeper water levels of 20 – 40 mbgl mainly observed as isolated patch in major parts of Vadodara and in Navsari and Narmada districts. The deepest water level of 35.85 mbgl is recorded at Sundarpura in Narmada district whereas the shallowest water level of 0.63 mbgl has been recorded at Malegaon in The Dangs district.

In Saurashtra region, about 90% of the total well shows water levels less than 20 mbgl and water levels of 20 to 40 mbgl are sporadically disbursed as isolated patches in all area of the region. The shallowest water level, 0.66 mbgl, has been recorded at Victor of Amreli district. The deepest water level of 37.36 mbgl recorded at Kerala in Amreli district.

In Kachchh region, more than 95% of the total well analysed, the water level ranges in less than 20 mbgl in major part of the district. Central part from east to west of the area shows water level ranges 20 to 40 mbgl, which cover only about 5% of total well in Kachchh region and occur as isolated patches. The deepest water level of 27.00 mbgl is recorded at Kudu and the shallowest water level of 0.24 m bgl has been recorded at Haboi.

The depth to water level is within the range of 1.97(Jampore) to 6.53 mbgl (Bhimpor ka falia) in Daman and minimum water level in Diu is 4.19 mbgl at Jalawali with deepest water level in Chakrateeth 5.80 mbgl in Diu.

Fig- 9

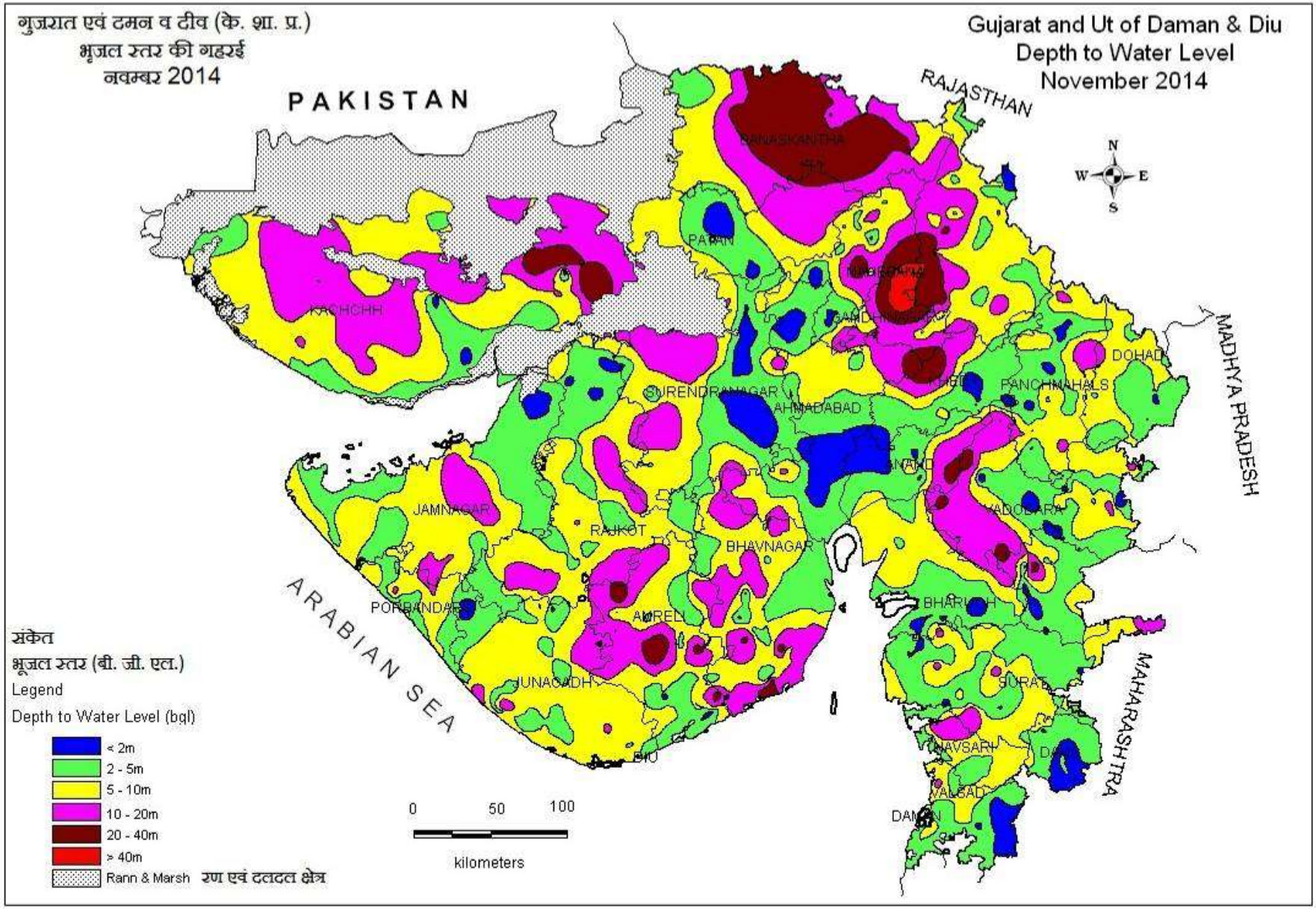

गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर की गहराई
नवम्बर 2014
Gujarat and Ut of Daman & Diu
Depth to Water Level
November 2014
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
KACHCHH
PATAN
SURENDRANAGAR
AHMADABAD
DOHAD
PANCHMAHALS
JAMNAGAR
RAJKOT
BHAVNAGAR
PORBANDAR
AMRELI
JUNAGADH
DIU
BHARUCH
NAVSARI
VALSAD
DAMAN
N
S
W
E
संकेत
भूजल स्तर (बी. जी. एल.)
Legend
Depth to Water Level (bgl)
< 2m
2 - 5m
5 - 10m
10 - 20m
20 - 40m
> 40m
Rann & Marsh रण एवं दलदल क्षेत्र
0
50
100
kilometers

Fig- 10

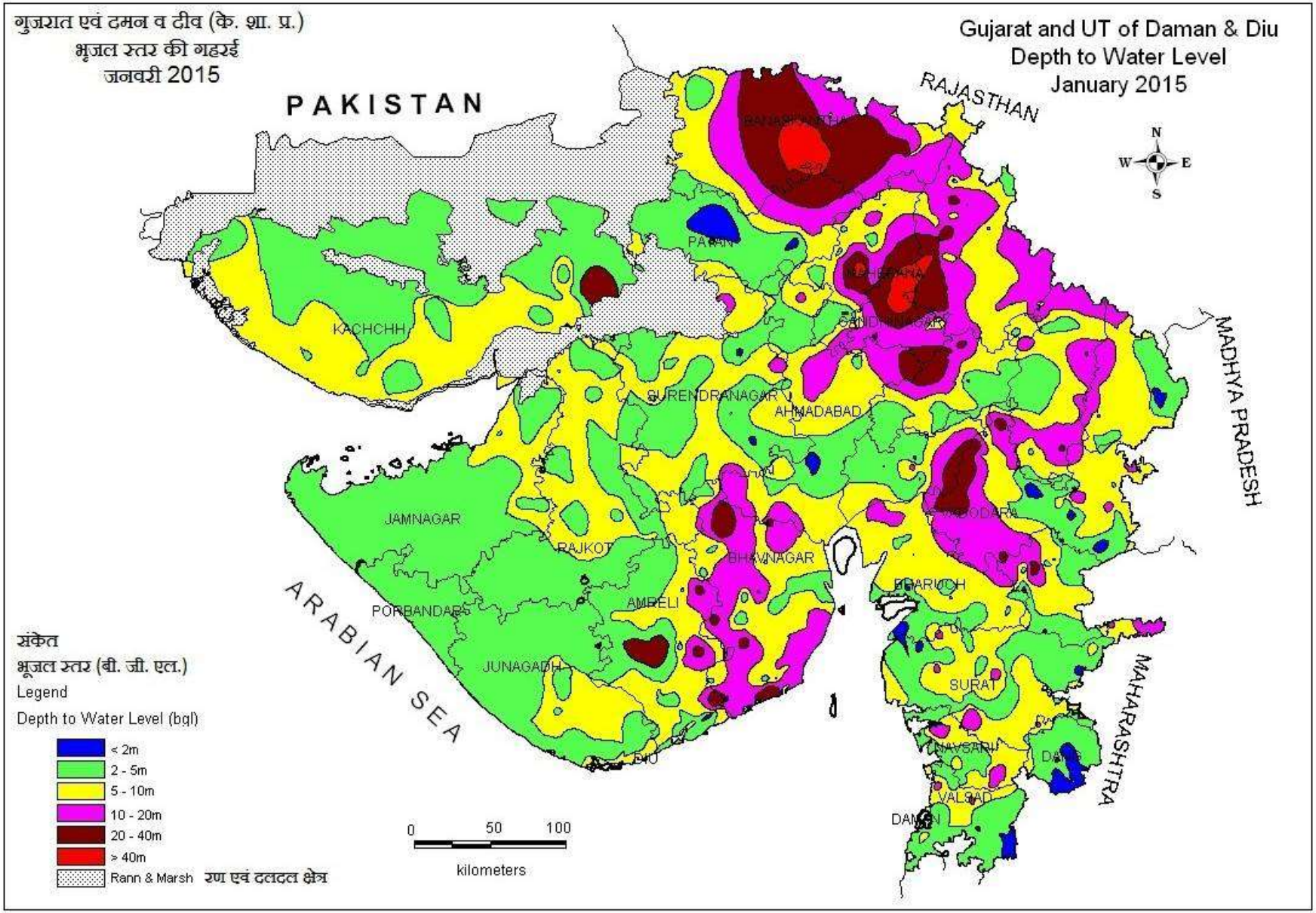

गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर की गहरई
जनवरी 2015
Gujarat and UT of Daman & Diu
Depth to Water Level
January 2015
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
KACHCHH
PATAN
SURENDRANAGAR
AHMADABAD
JAMNAGAR
RAJKOT
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
SURAT
NAVSARI
VALSAD
DAMAN
DIU
N
W
E
S
संकेत
भूजल स्तर (बी. जी. एल.)
Legend
Depth to Water Level (bgl)
< 2m
2 - 5m
5 - 10m
10 - 20m
20 - 40m
> 40m
Rann & Marsh रण एवं दलदल क्षेत्र
0
50
100
kilometers

Table-7

WELL WISE CATEGORISATION OF DEPTH TO WATER LEVEL - NOVEMBER 2014

Sl.No.	District	No. of Wells Analysed	DTWL in mbgl		No of well in different Ranges					
			Min	Max	0 to 2 (m)	2 to 5(m)	5 to 10(m)	10 to 20(m)	20 to 40(m)	>40(m)
1	Ahmedabad	25	8.00	20.40	5 20.00%	9 36.00%	8 32.00%	2 8.00%	1 4.00%	0 0.00%
2	Anand	13	0.41	23.10	4 30.77%	5 38.46%	2 15.38%	1 7.69%	1 7.69%	0 0.00%
3	Banaskantha	25	4.23	36.00	0 0.00%	1 4.00%	5 20.00%	10 40.00%	9 36.00%	0 0.00%
4	Dohad	28	0.28	10.16	3 15.00%	13 65.00%	11 55.00%	1 5.00%	0 0.00%	0 0.00%
5	Gandhinagar	7	4.05	57.65	0 0.00%	1 20.00%	3 60.00%	0 0.00%	1 20.00%	2 40.00%
6	Kheda	21	1.00	35.50	3 16.67%	12 66.67%	4 22.22%	1 5.56%	1 5.56%	0 0.00%
7	Mahesana	25	0.60	33.45	4 16.00%	7 28.00%	9 36.00%	4 16.00%	1 4.00%	0 0.00%
8	Panchmahals	43	1.02	18.50	8 18.60%	18 41.86%	10 23.26%	7 16.28%	0 0.00%	0 0.00%
9	Patan	8	0.30	16.60	2 25.00%	1 12.50%	2 25.00%	3 37.50%	0 0.00%	0 0.00%
10	Sabarkantha	53	0.70	39.00	2 3.77%	11 20.75%	20 37.74%	16 30.19%	4 7.55%	0 0.00%
North Gujarat		**248**	**0.28**	**57.65**	**31 12.50%**	**78 31.45%**	**74 29.84%**	**45 18.15%**	**18 7.26%**	**2 0.81%**
11	Bharuch	32	0.12	8.13	5 15.63%	16 50.00%	11 34.38%	0 0.00%	0 0.00%	0 0.00%
12	Narmada	18	0.81	27.77	6 33.33%	7 38.89%	3 16.67%	1 5.56%	1 5.56%	0 0.00%
13	Navsari	20	1.73	20.84	1 5.00%	12 60.00%	6 30.00%	0 0.00%	1 5.00%	0 0.00%
14	Surat	56	0.89	18.67	6 10.71%	21 37.50%	24 42.86%	5 8.93%	0 0.00%	0 0.00%
15	The dangs	25	0.40	10.12	11 44.00%	10 40.00%	3 12.00%	1 4.00%	0 0.00%	0 0.00%
16	Vadodara	48	0.05	26.06	6 12.50%	16 33.33%	15 31.25%	7 14.58%	4 8.33%	0 0.00%
17	Valsad	20	1.38	12.77	4 20.00%	8 40.00%	7 35.00%	1 5.00%	0 0.00%	0 0.00%
South Gujarat		**219**	**0.05**	**27.77**	**39 17.81%**	**90 41.10%**	**69 31.51%**	**15 6.85%**	**6 2.74%**	**0 0.00%**
18	Amreli	50	0.30	36.58	3 6.00%	17 34.00%	12 24.00%	10 20.00%	8 16.00%	0 0.00%
19	Bhavnagar	45	1.55	27.61	4 8.89%	13 28.89%	14 31.11%	9 20.00%	5 11.11%	0 0.00%
20	Jamnagar	46	0.03	16.70	2 4.35%	21 45.65%	15 32.61%	8 17.39%	0 0.00%	0 0.00%
21	Junagadh	50	0.34	27.18	3 5.08%	11 18.64%	13 22.03%	19 32.20%	4 6.78%	0 0.00%
22	Porbandar	27	1.53	12.00	2 7.41%	12 44.44%	10 37.04%	3 11.11%	0 0.00%	0 0.00%
23	Rajkot	49	1.05	16.90	5 10.20%	18 36.73%	19 38.78%	7 14.29%	0 0.00%	0 0.00%
24	Surendranagar	41	0.05	16.60	12 29.27%	14 34.15%	9 21.95%	6 14.63%	0 0.00%	0 0.00%
Saurashtra		**308**	**0.03**	**36.58**	**31 10.06%**	**106 34.42%**	**92 29.87%**	**62 20.13%**	**17 5.52%**	**0 0.00%**
25	**Kachchh**	**50**	**0.34**	**27.18**	**3 6.00%**	**11 22.00%**	**13 26.00%**	**19 38.00%**	**4 8.00%**	**0 0.00%**
26	DAMAN	9	1.87	6.31	2 22.22%	5 55.56%	2 22.22%	0 0.00%	0 0.00%	0 0.00%
27	DIU	4	3.70	6.60	0 0.00%	3 75.00%	1 25.00%	0 0.00%	0 0.00%	0 0.00%
Daman & Diu		**13**	**1.87**	**6.60**	**2 15.38%**	**8 61.54%**	**3 23.08%**	**0 0.00%**	**0 0.00%**	**0 0.00%**
Grand Total		**838**	**0.03**	**57.65**	**106 12.65%**	**293 34.96%**	**251 29.95%**	**141 16.83%**	**45 5.37%**	**2 0.24%**

RODC, CGWB - WCR, Ahmedabad

Table-8

WELL WISE CATEGORISATION OF DEPTH TO WATER LEVEL - JANUARY 2015

Sl.No.	District	No. of Wells Analysed	DTWL in mbgl		No of well in different Ranges					
			Min	Max	0 to 2 (m)	2 to 5(m)	5 to 10(m)	10 to 20(m)	20 to 40(m)	>40(m)
1	Ahmedabad	25	1.21	16.65	1 4.00%	12 48.00%	3 12.00%	9 36.00%	0 0.00%	0 0.00%
2	Anand	10	1.57	23.03	3 30.00%	4 40.00%	1 10.00%	1 10.00%	1 10.00%	0 0.00%
3	Banaskantha	20	3.88	60.52	0 0.00%	1 5.00%	6 30.00%	7 35.00%	5 25.00%	1 5.00%
4	Dohad	22	0.27	11.90	2 9.09%	4 18.18%	12 54.55%	4 18.18%	0 0.00%	0 0.00%
5	Gandhinagar	6	10.14	57.15	0 0.00%	0 0.00%	0 0.00%	3 50.00%	1 16.67%	2 33.33%
6	Kheda	18	1.82	34.00	1 5.56%	7 38.89%	8 44.44%	0 0.00%	2 11.11%	0 0.00%
7	Mahesana	24	1.50	54.00	2 8.33%	7 29.17%	10 41.67%	4 16.67%	0 0.00%	1 4.17%
8	Panchmahals	30	2.17	21.30	0 0.00%	8 26.67%	13 43.33%	6 20.00%	3 10.00%	0 0.00%
9	Patan	10	0.52	16.81	2 20.00%	4 40.00%	2 20.00%	2 20.00%	0 0.00%	0 0.00%
10	Sabarkantha	40	2.80	0.00	0 0.00%	3 7.50%	20 50.00%	9 22.50%	7 17.50%	1 2.50%
North Gujarat		**205**	**0.27**	**60.52**	**11 5.37%**	**50 24.39%**	**75 36.59%**	**45 21.95%**	**19 9.27%**	**5 2.44%**
11	Bharuch	36	0.96	13.55	2 5.56%	16 44.44%	14 38.89%	4 11.11%	0 0.00%	0 0.00%
12	Narmada	21	1.34	30.85	2 9.52%	10 47.62%	4 19.05%	3 14.29%	2 9.52%	0 0.00%
13	Navsari	22	1.93	20.98	1 4.55%	11 50.00%	7 31.82%	2 9.09%	1 4.55%	0 0.00%
14	Surat	51	1.15	19.20	3 5.88%	24 47.06%	17 33.33%	7 13.73%	0 0.00%	0 0.00%
15	The dangs	23	0.63	10.58	7 30.43%	13 56.52%	2 8.70%	1 4.35%	0 0.00%	0 0.00%
16	Vadodara	47	0.68	30.39	5 10.64%	13 27.66%	19 40.43%	4 8.51%	6 12.77%	0 0.00%
17	Valsad	19	1.50	12.88	3 **15.79%**	10 **52.63%**	4 **21.05%**	2 **10.53%**	0 **0.00%**	0 **0.00%**
South Gujarat		**219**	**0.63**	**30.85**	**23 10.50%**	**97 44.29%**	**67 30.59%**	**23 10.50%**	**9 4.11%**	**0 0.00%**
18	Amreli	50	0.66	37.36	2 4.00%	9 18.00%	17 34.00%	14 28.00%	8 16.00%	0 0.00%
19	Bhavnagar	43	2.05	35.80	0 0.00%	14 32.56%	10 23.26%	13 30.23%	6 13.95%	0 0.00%
20	Jamnagar	50	2.03	24.38	0 0.00%	12 24.00%	15 30.00%	19 38.00%	4 8.00%	0 0.00%
21	Junagadh	60	1.70	34.84	2 3.39%	2 3.39%	22 37.29%	27 45.76%	7 11.86%	0 0.00%
22	Porbandar	27	2.70	20.18	0 0.00%	6 22.22%	8 29.63%	12 44.44%	1 3.70%	0 0.00%
23	Rajkot	47	2.45	21.75	0 0.00%	5 10.64%	23 48.94%	17 36.17%	2 4.26%	0 0.00%
24	Surendranagar	42	1.20	22.15	4 9.52%	12 28.57%	16 38.10%	9 21.43%	1 2.38%	0 0.00%
Saurashtra		**319**	**0.66**	**37.36**	**8 2.51%**	**60 18.81%**	**111 34.80%**	**111 34.80%**	**29 9.09%**	**0 0.00%**
25	**Kachchh**	**43**	**0.24**	**27.00**	**3 6.98%**	**3 6.98%**	**17 39.53%**	**18 41.86%**	**2 4.65%**	**0 0.00%**
26	DAMAN	9	1.97	6.53	1 **11.11%**	6 **66.67%**	2 **22.22%**	0 **0.00%**	0 **0.00%**	0 **0.00%**
27	DIU	2	4.19	5.80	0 **0.00%**	1 **50.00%**	1 **50.00%**	0 **0.00%**	0 **0.00%**	0 **0.00%**
Daman & Diu		**11**	**1.97**	**6.53**	**1 9.09%**	**7 63.64%**	**3 27.27%**	**0 0.00%**	**0 0.00%**	**0 0.00%**
Grand Total		**797**	**0.24**	**60.52**	**46 5.77%**	**217 27.23%**	**273 34.25%**	**197 24.72%**	**59 7.40%**	**5 0.63%**

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3.2 Seasonal Water Level Fluctuation

To study the effect of monsoon on the groundwater regime and subsequent utilisation of groundwater for various needs like agriculture, irrigation, Domestic etc., changes in depth to water levels with respect to May data are studied. The change in groundwater in the region over different periods is presented in **Fig. 11(a,b,c)** and a summary of each observation is discussed below.

SEASONAL FLUCTUATION OF WATER LEVEL DURING 2014-2015

Figure 11 a

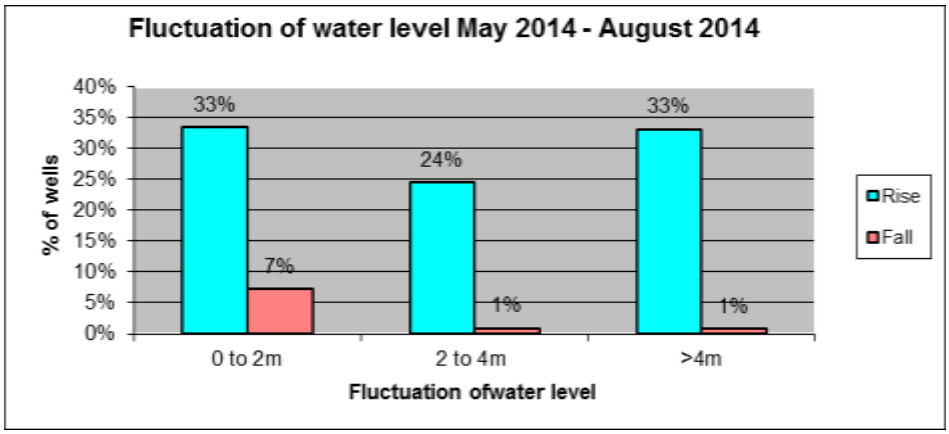


Figure 11 b

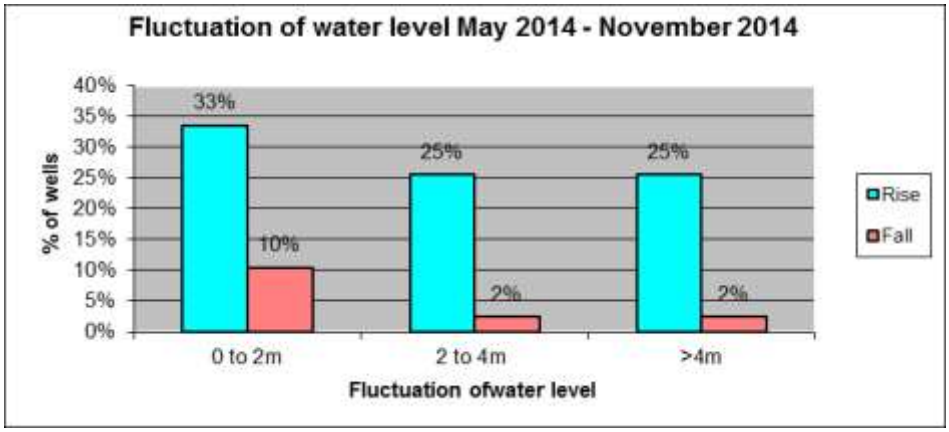
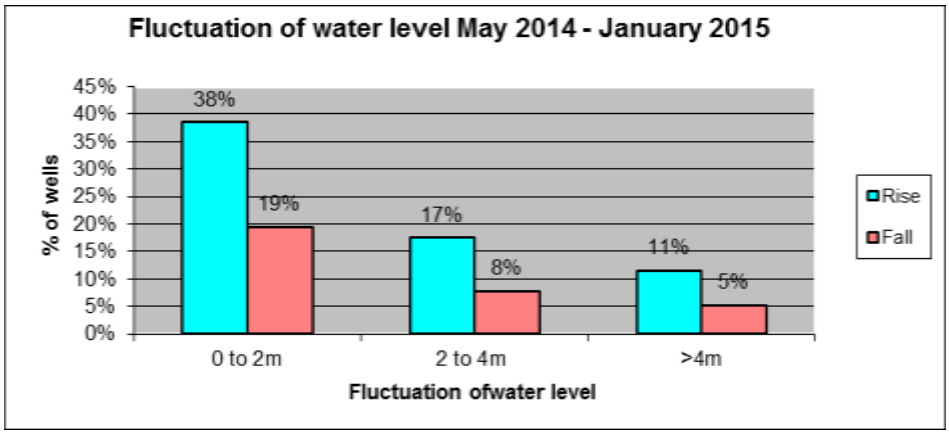


Figure 11 c



3.2.1 May 2014 to August 2014

A perusal of **Fig 12** and **Table 9** reveals that 91% of the Gujarat state and UT of Daman & Diu shows a rise in water level. Rise in water level with in range of 0 – 2 m is observed in about 32.57% area of the state and 24.27% in the range of 2 – 4 m. More than 4 m rise is shown in 33.03% of the state and UT of Daman & Diu. Fall in water level is mainly observed in parts of Kachchh, western parts of Saurashtra, small isolated patches scattered in rest of the area of Gujarat. Fall is mainly in the range of 0 – 2 m and it covers about 7% area of the state and UT of Daman & Diu. The maximum rise of 32.39 m is recorded at Goraj in Junqagarh district whereas the maximum decline of 7.3 m is recorded at Harij in Patan district.

About 89% of the area observed rise of water level in the North Gujarat and most of which (66% area) is in the range Less than 4m of fluctuation of water level. Rise of water level more than 4m observed in 23% of the area. Fall of 0 – 2 m range is observed in 10 % area of the region in adjoining area of Banaskantha, Gandhinagar and Sabarkantha districts as isolated patches. The maximum rise of 18.88 m observed at Salangpor in Ahmedabad district and fall is 7.3 m in Harij of Patan district.

In South Gujarat region, 95% area shows rise in water level and in the range more than 4m covers 37% area in the region. Rise of water level in 2 to 4 and less than 2m covers an area of about 58 % of the region. Fall in water level is observed maximum in the range of 0 – 2 m in 4% of the area. The maximum rise of 17.68 m observed at Valsad in Valsad district and fall is 2.31 m in Tawali of Surat district.

About 92% of the Saurashtra region has experienced rise of water level and in the range of 0 – 2 m covers about 31%. Rise of water level more than 4 m is predominantly found in 42% of the area. Fall of 0 to 2m is observed in small isolated patches (6% area) and total fall is only 8%. The maximum rise of 32.39 m observed at Goraj in Junagadh district and fall is 5.06 m in Gordhanpura of Jamnagar district.

In Kachchh region, 56% of the area is covered by a rise in water level of 0-2 m. About 77% of area shows Rise in water level. Fall of less than 2 m is observed in 19% of the area located in eastern and western part of the district. The maximum rise of 13.52 m in Shivlakha and maximum fall of 5.25 m observed at Sukhpar in Kachchh region.

In UT of Daman only rise in water level is observed in August 2014 as compered to May 2014 and maximum rise is 7.45 m at Bhimpor ka falia but in UT of Diu rise and fall both observed during the above mention period rise is 2.41 m at Diu dug well and fall of 0.15 m at Charkarteeth Pz.

3.2.2 May 2014 to November 2014

The seasonal water level fluctuation shows rise in 86% of the total wells monitored in the Gujarat state and UT of Daman & Diu area during the Pre and Post Monsoon 2014. Fall in water level is observed mainly in Kachchh, Saurashtra and central part of Gujarat due to local phenomena. In the state, the maximum rise of 27.70 m is recorded at Goraj in Junagadh district whereas the maximum decline of 10.00 m is observed at Vithalgarh in Surendranagar district. (Fig 13 and Table 10).

In North Gujarat region, rise in water level observed in entire area except 8 observation station of Banaskankha, Gandhinagar and Sabarkantha district. Out of the total well analysed and maximum rise (72%) is less than 4 m. The maximum rise of 14.87 m recorded at Sathamba in Sabarkantha district and the maximum fall of 5.19 m is at Amirgarh in Banaskantha district.

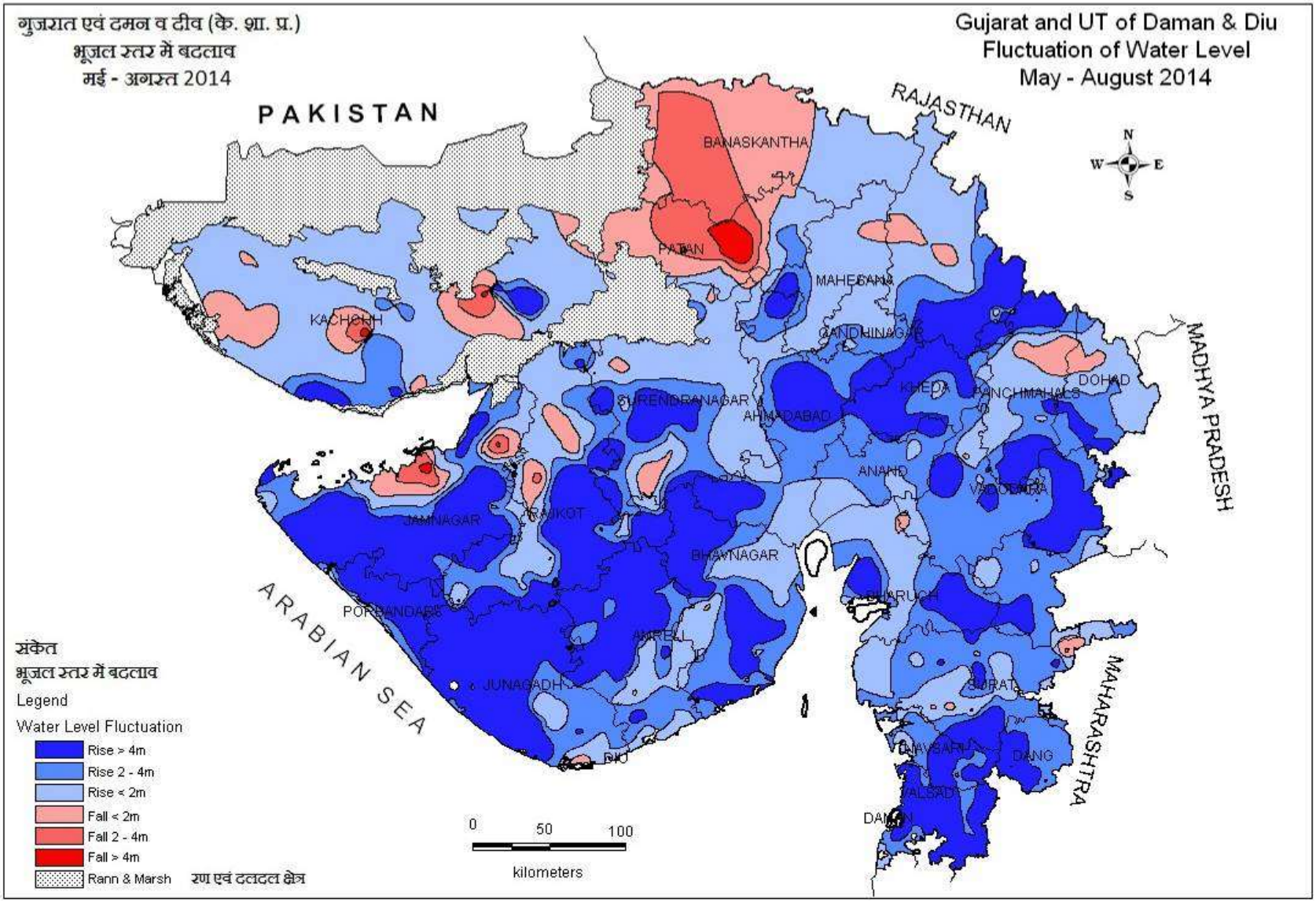
The 92% of the total well in the area of South Gujarat have recorded rise and maximum (40%) is less than 2 m. The fall is only in 8% of total well and maximum (7%) in the range of 0 – 2 m. The maximum rise of 14.19 m is observed at Panwad in Vadodara district and maximum fall is 2.98 m at Dahegam in Bharuch district.

Over all 80% of total well analysed show rise in water level in the entire Saurashtra. Fall is mainly in the range of 0 – 2 m and is found in isolated patches and cover 11% of the total area of region. The maximum rise of 27.70 m is recorded at Goraj in Junagadh district whereas the maximum decline of 10.00 m is observed at Vithalgarh in Surendranagar district.

In Kachchh 56% of the total well analysed recorded rise in water level. The fall is mostly in the range of 0 – 2 m recorded in about 33% of the total well. Rise is observed in all parts of the region and mostly in the range of 0-2 m and equal to the fall in the area. The maximum rise is 11.8 m recorded at Shivlakha and maximum fall is 7.40 m at Ratanpur in Kachchh district.

In UT of Daman only rise in water level has been observed with a maximum at Dalwada (5.27 m) and in UT of Diu only fall in water level has been observed with maximum at Diu dug well.

Fig- 12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भूजल स्तर में बदलाव
मई - अगस्त 2014
Gujarat and UT of Daman & Diu
Fluctuation of Water Level
May - August 2014
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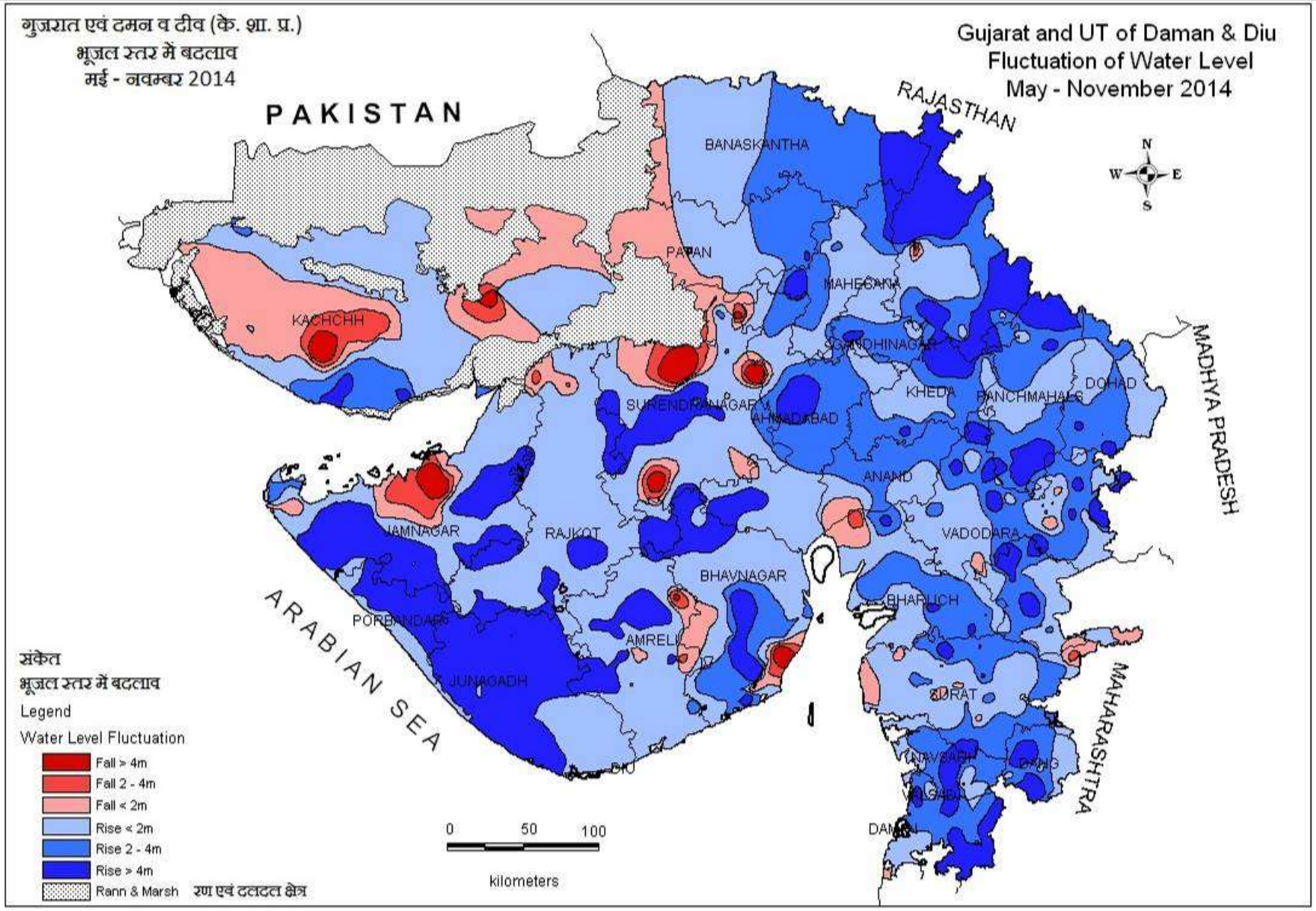
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
KACHCHH
GANDHINAGAR
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
SURAT
DIU
NAVSARI
DANG
VALSAD
DAMAN
N
S
E
W
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Rise > 4m
Rise 2 - 4m
Rise < 2m
Fall < 2m
Fall 2 - 4m
Fall > 4m
Rann & Marsh
रण एवं दलदल क्षेत्र
0
50
100
kilometers

Fig- 13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Fall > 4m
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Fall < 2m
Rise < 2m
Rise 2 - 4m
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Rann & Marsh रण एवं दलदल क्षेत्र
0
50
100
kilometers

Table -9

CATEGORISATION OF CHANGES IN WATER LEVEL BETWEEN MAY 2014 TO AUGUST 2014

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	19	0.09	18.88	-	-	3	8	7	0	0	0	18	0
							15.79%	42.11%	36.84%	0.00%	0.00%	0.00%		
2	Anand	9	1.52	6.00	-	-	3	5	1	0	0	0	9	0
							33.33%	55.56%	11.11%	0.00%	0.00%	0.00%		
3	Banaskantha	22	0.12	3.41	0.01	1.54	13	1	0	5	0	0	14	5
							59.09%	4.55%	0.00%	22.73%	0.00%	0.00%		
4	Dohad	20	0.02	5.37	0.67	0.67	7	7	5	1	0	0	19	1
							35.00%	35.00%	25.00%	5.00%	0.00%	0.00%		
5	Gandhinagar	5	0.28	3.4	-	-	2	3	0	0	0	0	5	0
							40.00%	60.00%	0.00%	0.00%	0.00%	0.00%		
6	Kheda	14	1.05	8.36	-	-	2	5	7	0	0	0	14	0
							14.29%	35.71%	50.00%	0.00%	0.00%	0.00%		
7	Mahesana	22	0.06	6.34	0.21	0.21	18	2	1	1	0	0	21	1
							81.82%	9.09%	4.55%	4.55%	0.00%	0.00%		
8	Panchmahals	26	0.42	13.55	0.1	1.27	9	4	7	5	0	0	20	5
							34.62%	15.38%	26.92%	19.23%	0.00%	0.00%		
9	Patan	8	0.13	2.9	0.1	7.3	3	3	0	1	0	1	6	2
							37.50%	37.50%	0.00%	12.50%	0.00%	12.50%		
10	Sabarkantha	29	0.13	16.09	0.04	3.41	8	4	12	4	1	0	24	5
							27.59%	13.79%	41.38%	13.79%	3.45%	0.00%		
North Gujarat		**174**	**0.02**	**18.88**	**0.01**	**7.3**	**68**	**42**	**40**	**17**	**1**	**1**	**150**	**19**
							39.08%	24.14%	22.99%	9.77%	0.57%	0.57%		
11	Bharuch	24	0.04	9.53	0.13	0.13	10	7	6	1	0	0	23	1
							41.67%	29.17%	25.00%	4.17%	0.00%	0.00%		
12	Narmada	12	0.58	4.88	-	-	3	5	4	0	0	0	12	0
							25.00%	41.67%	33.33%	0.00%	0.00%	0.00%		
13	Navsari	19	1.51	9.34	0.46	0.46	3	8	7	1	0	0	18	1
							15.79%	42.11%	36.84%	5.26%	0.00%	0.00%		
14	Surat	43	0.11	8.17	0.21	2.31	17	12	10	3	1	0	39	4
							39.53%	27.91%	23.26%	6.98%	2.33%	0.00%		
15	The dangs	22	1.77	9.07	-	-	1	9	12	0	0	0	22	0
							4.55%	40.91%	54.55%	0.00%	0.00%	0.00%		
16	Vadodara	30	0.78	13.08	0.31	0.52	4	13	11	2	0	0	28	2
							13.33%	43.33%	36.67%	6.67%	0.00%	0.00%		
17	Valsad	18	0.33	17.68	-	-	1	6	11	0	0	0	18	0
							5.56%	33.33%	61.11%	0.00%	0.00%	0.00%		
South Gujarat		**168**	**0.04**	**17.68**	**0.13**	**2.31**	**39**	**60**	**61**	**7**	**1**	**0**	**160**	**8**
							23.21%	35.71%	36.31%	4.17%	0.60%	0.00%		
18	Amreli	40	0.12	15.1	0.91	0.91	15	7	17	1	0	0	39	1
							37.50%	17.50%	42.50%	2.50%	0.00%	0.00%		
19	Bhavnagar	37	0.01	20.1	0.25	0.25	12	11	12	1	0	0	35	1
							32.43%	29.73%	32.43%	2.70%	0.00%	0.00%		
20	Jamnagar	38	0.42	19.74	1.23	5.06	8	5	20	1	2	2	33	5
							21.05%	13.16%	52.63%	2.63%	5.26%	5.26%		
21	Junagadh	40	0.29	32.39	-	-	3	10	27	0	0	0	40	0
							7.50%	25.00%	67.50%	0.00%	0.00%	0.00%		
22	Porbandar	21	0.76	16.71	-	-	5	3	13	0	0	0	21	0
							23.81%	14.29%	61.90%	0.00%	0.00%	0.00%		
23	Rajkot	48	0.11	14.3	0.04	2.61	21	6	13	7	1	0	40	8
							43.75%	12.50%	27.08%	14.58%	2.08%	0.00%		
24	Surendranagar	34	0.03	14.61	0.06	1.8	15	8	5	5	0	0	29	5
							44.12%	23.53%	14.71%	14.71%	0.00%	0.00%		
Saurashtra		**258**	**0.01**	**32.39**	**0.04**	**5.06**	**79**	**50**	**107**	**15**	**3**	**2**	**237**	**20**
							30.62%	19.38%	41.47%	5.81%	1.16%	0.78%		
25	**Kachchh**	**43**	**0.2**	**13.52**	**0.05**	**5.25**	**24**	**4**	**4**	**8**	**0**	**2**	**32**	**10**
							55.81%	9.30%	9.30%	18.60%	0.00%	4.65%		
Total		**643**	**0.01**	**32.39**	**0.01**	**7.3**	**210**	**156**	**212**	**47**	**5**	**5**	**579**	**57**
							32.66%	24.26%	32.97%	7.31%	0.78%	0.78%		
26	Daman	6	0.74	7.45	-	-	1	2	3	0	0	0	6	0
							16.67%	33.33%	50.00%	0.00%	0.00%	0.00%		
27	Diu	2	0.15	0.15	2.41	2.41	1	0	0	0	1	0	1	1
							50.00%	0.00%	0.00%	0.00%	50.00%	0.00%		
UT of Daman & Diu		**8**	**0.15**	**7.45**	-	-	**2**	**2**	**3**	**0**	**1**	**0**	**7**	**1**
							25.00%	25.00%	37.50%	0.00%	12.50%	0.00%		
Grand Total		**651**	**0.01**	**32.39**	**0.01**	**7.3**	**212**	**158**	**215**	**47**	**6**	**5**	**586**	**58**
							32.57%	24.27%	33.03%	7.22%	0.92%	0.77%		

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Table -10

CATEGORISATION OF CHANGES IN WATER LEVEL BETWEEN MAY 2014 TO NOVEMBER 2014

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	22	0.51	8.05	-	-	9	7	5	0	0	0	21	0
							40.91%	31.82%	22.73%	0.00%	0.00%	0.00%		
2	Anand	9	0.28	3.63	-	-	3	6	0	0	0	0	9	0
							33.33%	66.67%	0.00%	0.00%	0.00%	0.00%		
3	Banaskantha	24	0.16	7.13	0.03	5.19	5	4	4	6	0	1	13	7
							20.83%	16.67%	16.67%	25.00%	0.00%	4.17%		
4	Dohad	22	0.15	4.88	-	-	9	10	3	0	0	0	22	0
							40.91%	45.45%	13.64%	0.00%	0.00%	0.00%		
5	Gandhinagar	5	0.1	5.08	1.15	1.15	1	1	2	1	0	0	4	1
							20.00%	20.00%	40.00%	20.00%	0.00%	0.00%		
6	Kheda	16	0.27	7.38	-	-	6	6	4	0	0	0	16	0
							37.50%	37.50%	25.00%	0.00%	0.00%	0.00%		
7	Mahesana	22	0.3	6.24	-	-	11	10	1	0	0	0	22	0
							50.00%	45.45%	4.55%	0.00%	0.00%	0.00%		
8	Panchmahals	27	0.65	12.23	2.35	2.35	9	11	4	0	1	0	26	1
							33.33%	40.74%	14.81%	0.00%	3.70%	0.00%		
9	Patan	6	0.73	4.15	-	-	4	1	1	0	0	0	6	0
							66.67%	16.67%	16.67%	0.00%	0.00%	0.00%		
10	Sabarkantha	36	0.1	14.87	0.08	4.58	13	6	15	1	0	1	34	2
							36.11%	16.67%	41.67%	2.78%	0.00%	2.78%		
North Gujarat		**189**	**0.1**	**14.87**	**0.03**	**5.19**	**70**	**62**	**39**	**8**	**1**	**2**	**173**	**11**
							37.04%	32.80%	20.63%	4.23%	0.53%	1.06%		
11	Bharuch	28	0.08	5.12	2.98	2.98	14	9	4	0	1	0	27	1
							50.00%	32.14%	14.29%	0.00%	3.57%	0.00%		
12	Narmada	15	0.08	7.83	-	-	8	3	4	0	0	0	15	0
							53.33%	20.00%	26.67%	0.00%	0.00%	0.00%		
13	Navsari	19	0.18	7.66	0.18	0.18	8	7	3	1	0	0	18	1
							42.11%	36.84%	15.79%	5.26%	0.00%	0.00%		
14	Surat	53	0.08	5.9	0.08	2.91	25	17	4	6	1	0	46	7
							47.17%	32.08%	7.55%	11.32%	1.89%	0.00%		
15	The dangs	25	1.00	10.84	-	-	4	14	7	0	0	0	25	0
							16.00%	56.00%	28.00%	0.00%	0.00%	0.00%		
16	Vadodara	38	0.12	14.19	0.05	1.79	14	8	8	6	0	0	30	6
							36.84%	21.05%	21.05%	15.79%	0.00%	0.00%		
17	Valsad	20	0.13	10.36	0.1	0.25	6	6	6	2	0	0	18	2
							30.00%	30.00%	30.00%	10.00%	0.00%	0.00%		
South Gujarat		**198**	**0.08**	**14.19**	**0.05**	**2.98**	**79**	**64**	**36**	**15**	**2**	**0**	**179**	**17**
							39.90%	32.32%	18.18%	7.58%	1.01%	0.00%		
18	Amreli	41	0.12	8.47	0.07	5.2	13	8	11	5	1	2	32	8
							31.71%	19.51%	26.83%	12.20%	2.44%	4.88%		
19	Bhavnagar	38	0.41	21.95	0.63	6.72	15	9	8	3	1	1	32	5
							39.47%	23.68%	21.05%	7.89%	2.63%	2.63%		
20	Jamnagar	46	0.05	18.15	0.04	6.28	9	7	16	6	4	2	34	12
							19.57%	15.22%	34.78%	13.04%	8.70%	4.35%		
21	Junagadh	45	0.45	27.7	4.46	4.46	6	5	33	0	0	1	44	1
							13.33%	11.11%	73.33%	0.00%	0.00%	2.22%		
22	Porbandar	23	0.45	15.3	0.05	0.85	4	4	13	2	0	0	21	2
							17.39%	17.39%	56.52%	8.70%	0.00%	0.00%		
23	Rajkot	46	0.04	12.2	0.06	6.21	11	6	13	9	4	3	30	16
							23.91%	13.04%	28.26%	19.57%	8.70%	6.52%		
24	Surendranagar	36	0.01	15.81	0.17	10.00	13	7	6	5	1	4	26	10
							36.11%	19.44%	16.67%	13.89%	2.78%	11.11%		
Saurashtra		**275**	**0.01**	**27.70**	**0.04**	**10**	**71**	**46**	**100**	**30**	**11**	**13**	**219**	**54**
							25.82%	16.73%	36.36%	10.91%	4.00%	4.73%		
25	**Kachchh**	**45**	**0.08**	**11.8**	**0.04**	**7.4**	**15**	**4**	**5**	**15**	**3**	**2**	**24**	**20**
							33.33%	8.89%	11.11%	33.33%	6.67%	4.44%		
Total		**707**	**0.01**	**27.70**	**0.03**	**10**	**235**	**176**	**180**	**68**	**17**	**17**	**595**	**102**
							33.24%	24.89%	25.46%	9.62%	2.40%	2.40%		
26	Daman	9	0.29	5.27	-	-	5	2	2	0	0	0	9	0
							55.56%	22.22%	22.22%	0.00%	0.00%	0.00%		
27	Diu	2	-	-	0.35	0.63	0	0	0	2	0	0	0	2
							0.00%	0.00%	0.00%	100.00%	0.00%	0.00%		
UT of Daman & Diu		**11**	**0.29**	**5.27**	**0.35**	**0.63**	**5**	**2**	**2**	**2**	**0**	**0**	**9**	**2**
							45.45%	18.18%	18.18%	18.18%	0.00%	0.00%		
Grand Total		**718**	**0.01**	**27.70**	**0.03**	**10**	**240**	**178**	**182**	**70**	**17**	**17**	**604**	**104**
							33.43%	24.79%	25.35%	9.75%	2.37%	2.37%		

RODC, CGWB - WCR, Ahmedabad

3.2.3 May 2014 to January 2015

A perusal of **Fig 14** and **Table 11** reveals that about 69% of the total well in the Gujarat state and UT of Daman & Diu area have recorded rise in water level between May 2014 and January 2015. Fall in water level is observed mainly in Kachchh, Saurashtra and in eastern part of Gujarat in small isolated patches distributed sporadically all over Gujarat state. In the state, the maximum rise of 19.95 m is at Paliyad in Bhavnagar district whereas the maximum decline of 14.00 m is observed at Goverdhanpura of Jamnagar district.

In North Gujarat region, water level rises mainly observed in 78% of the total well analysed and maximum rises (52%) are in less than 2 m. Fall of water level observed in all districts of the region except Anand and Dohad. The maximum rise 10.42 m recorded at Satamba in Sabarkantha district and the maximum fall is also observed in Sabarkantha at Gadha (5.86 m).

The 79% of the total well in the area of south Gujarat have recorded rise and maximum (67%) in the range of 0 to 4 m of rise in the region. The fall is only 21% of total well and maximum (16%) in the range of 0 – 2 m. The maximum rise of 10.10 m is observed at Fali in Valsad district and maximum fall of 11.95 m at Vadtalav in Vadodara district.

Over all 56% of total well analysed are shown rise in water level in the entire Saurashtra region. About 40% of areas have shown rise of water level less than 4 m and 29% shows less than 2 m and are found in all the districts of Saurashtra region. Fall of water level is observed in all over the region with fall more than 2 m is observed in 24% of the region. The maximum rise of 19.95 m is at Paliyad in Bhavnagar district whereas the maximum decline of 14.00 m is observed at Goverdhanpura of Jamnagar district.

In Kachchh, 55% of the total well analysed recorded fall in water level. The fall is mostly in the range of 0 – 2 m and of about 43% of the total well. Rise of water level less than 2 m has observed in 29% of the area.The maximum rise is 11.36 m in Shivlakha and maximum fall is 5.07 m at Sukhpar in Kachchh district.

In UT of Daman only rise in water level is observed in January 2015 as compered to May 2014 and maximum rise is 5.11 m at Dalwada but in UT of Diu rise and fall both observed during the above mention period rise is 0.45 m at Charkarteeth Pz and fall of 0.12 m at Diu dug well.

Fig- 14

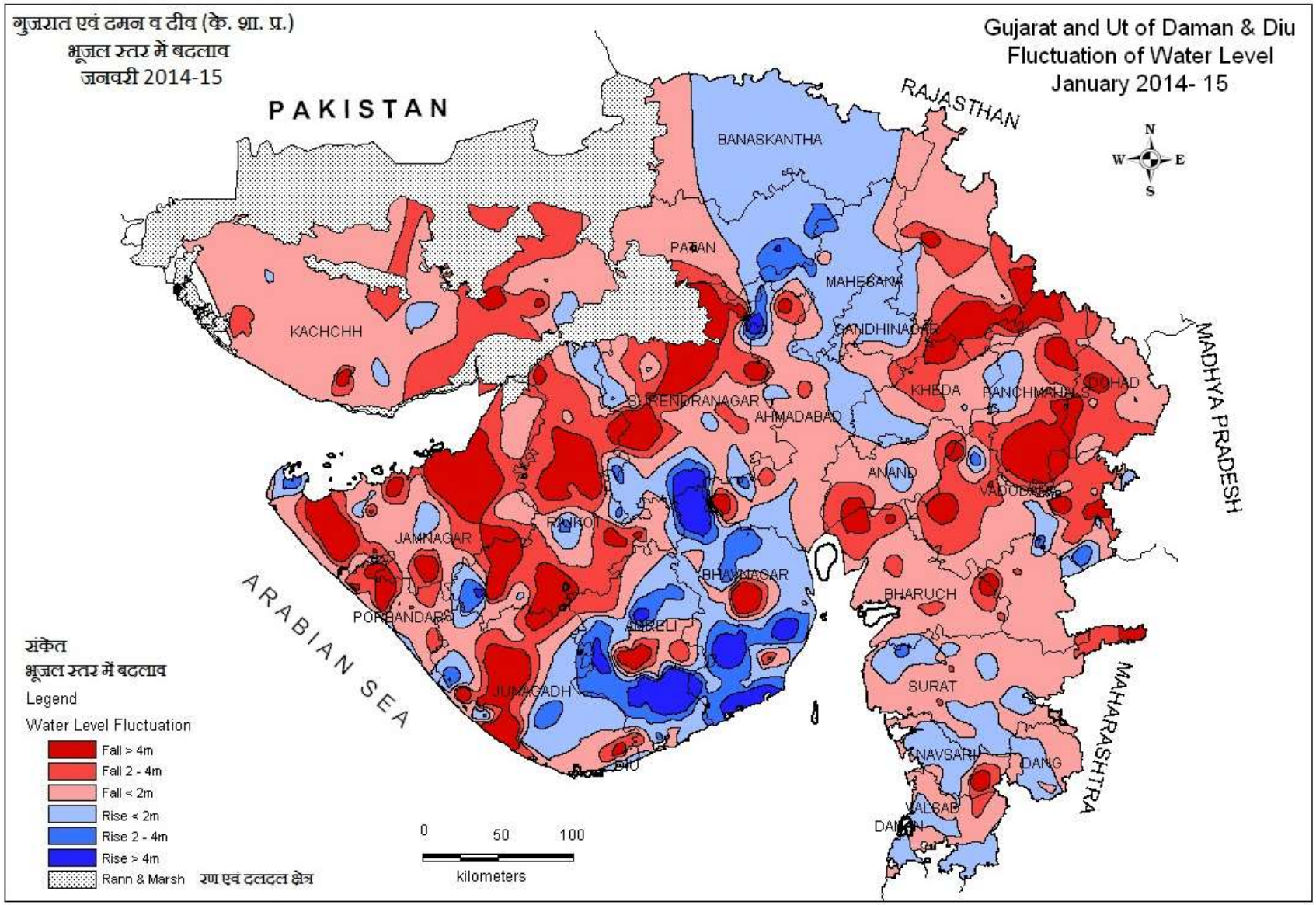

गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर में बदलाव
जनवरी 2014-15
Gujarat and Ut of Daman & Diu
Fluctuation of Water Level
January 2014- 15
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
GANDHINAGAR
KACHCHH
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
RAJKOT
JAMNAGAR
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
SURAT
NAVSARI
DANG
VALSAD
DAMAN
DIU
N
W
E
S
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh रण एवं दलदल क्षेत्र
0
50
100
kilometers

Table -11

CATEGORISATION OF CHANGES IN WATER LEVEL BETWEEN MAY 2014 TO JANUARY 2015

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	21	0.13	9.95	0.1	4.98	12	1	3	2	0	1	16	3
							57.14%	4.76%	14.29%	9.52%	0.00%	4.76%		
2	Anand	9	0.06	2.94	-	-	7	2	0	0	0	0	9	0
							77.78%	22.22%	0.00%	0.00%	0.00%	0.00%		
3	Banaskantha	20	0.07	5.03	0.11	1.24	6	2	2	9	0	0	10	9
							30.00%	10.00%	10.00%	45.00%	0.00%	0.00%		
4	Dohad	22	0.09	4.85	0.02	3.83	15	0	1	3	3	0	16	6
							68.18%	0.00%	4.55%	13.64%	13.64%	0.00%		
5	Gandhinagar	5	0.05	2.44	-	-	4	1	0	0	0	0	5	0
							80.00%	20.00%	0.00%	0.00%	0.00%	0.00%		
6	Kheda	16	0.11	5.87	-	-	10	5	1	0	0	0	16	0
							62.50%	31.25%	6.25%	0.00%	0.00%	0.00%		
7	Mahesana	22	0.57	4.55	0.49	0.49	12	7	2	1	0	0	21	1
							54.55%	31.82%	9.09%	4.55%	0.00%	0.00%		
8	Panchmahals	28	0.13	2.74	0.15	4.57	13	3	0	7	3	1	16	11
							46.43%	10.71%	0.00%	25.00%	10.71%	3.57%		
9	Patan	8	0.43	4.3	0.19	0.19	5	1	1	1	0	0	7	1
							62.50%	12.50%	12.50%	12.50%	0.00%	0.00%		
10	Sabarkantha	36	0.39	10.42	0.36	5.86	15	6	5	5	3	1	26	9
							41.67%	16.67%	13.89%	13.89%	8.33%	2.78%		
North Gujarat		**187**	**0.05**	**10.42**	**0.02**	**5.86**	**99**	**28**	**15**	**28**	**9**	**3**	**142**	**40**
							52.94%	14.97%	8.02%	14.97%	4.81%	1.60%		
11	Bharuch	30	0.17	3.5	0.17	7.76	12	5	0	11	1	1	17	13
							40.00%	16.67%	0.00%	36.67%	3.33%	3.33%		
12	Narmada	15	0.5	4.84	0.83	3.99	4	4	1	3	1	0	9	4
							26.67%	26.67%	6.67%	20.00%	6.67%	0.00%		
13	Navsari	21	0.01	6.61	0.02	8.3	8	7	2	3	0	1	17	4
							38.10%	33.33%	9.52%	14.29%	0.00%	4.76%		
14	Surat	49	0.08	6.39	0.07	3.15	24	12	4	8	1	0	40	9
							48.98%	24.49%	8.16%	16.33%	2.04%	0.00%		
15	The dangs	23	0.75	9.3	-	-	6	12	5	0	0	0	23	0
							26.09%	52.17%	21.74%	0.00%	0.00%	0.00%		
16	Vadodara	39	0.13	6.85	0.03	11.95	15	7	6	3	2	3	28	8
							38.46%	17.95%	15.38%	7.69%	5.13%	7.69%		
17	Valsad	19	0.01	10.1	0.026	0.84	5	4	6	4	0	0	15	4
							26.32%	21.05%	31.58%	21.05%	0.00%	0.00%		
South Gujarat		**196**	**0.01**	**10.10**	**0.02**	**11.95**	**74**	**51**	**24**	**32**	**5**	**5**	**149**	**42**
							37.76%	26.02%	12.24%	16.33%	2.55%	2.55%		
18	Amreli	41	0.25	12.8	0.08	12.5	17	4	8	7	2	2	29	11
							41.46%	9.76%	19.51%	17.07%	4.88%	4.88%		
19	Bhavnagar	37	0.15	19.95	0.06	10.56	16	4	3	4	6	3	23	13
							43.24%	10.81%	8.11%	10.81%	16.22%	8.11%		
20	Jamnagar	50	0.1	6.6	0.09	14.00	13	6	3	13	3	8	22	24
							26.00%	12.00%	6.00%	26.00%	6.00%	16.00%		
21	Junagadh	51	0.04	12.97	0.08	3.38	18	10	10	9	3	0	38	12
							35.29%	19.61%	19.61%	17.65%	5.88%	0.00%		
22	Porbandar	25	0.02	7.9	0.05	4.25	7	4	4	5	3	1	15	9
							28.00%	16.00%	16.00%	20.00%	12.00%	4.00%		
23	Rajkot	45	0.09	8.6	0.3	11.78	5	2	6	8	13	11	13	32
							11.11%	4.44%	13.33%	17.78%	28.89%	24.44%		
24	Surendranagar	36	0.06	13.21	0.01	10.00	6	3	2	13	8	4	11	25
							16.67%	8.33%	5.56%	36.11%	22.22%	11.11%		
Saurashtra		**285**	**0.02**	**19.95**	**0.01**	**14**	**82**	**33**	**36**	**59**	**38**	**29**	**151**	**126**
							28.77%	11.58%	12.63%	20.70%	13.33%	10.18%		
25	**Kachchh**	**42**	**0.11**	**11.36**	**0.16**	**5.07**	**12**	**5**	**2**	**18**	**4**	**1**	**19**	**23**
							28.57%	11.90%	4.76%	42.86%	9.52%	2.38%		
Total		**710**	**0.01**	**19.95**	**0.01**	**14**	**267**	**117**	**77**	**137**	**56**	**38**	**461**	**231**
							37.61%	16.48%	10.85%	19.30%	7.89%	5.35%		
26	Daman	9	0.08	5.11	-	-	5	2	2	0	0	0	9	0
							55.56%	22.22%	22.22%	0.00%	0.00%	0.00%		
27	Diu	2	0.45	0.45	0.12	0.12	1	0	0	1	0	0	1	1
							50.00%	0.00%	0.00%	50.00%	0.00%	0.00%		
UT of Daman & Diu		**11**	**0.08**	**5.11**	**0.12**	**0.12**	**6**	**2**	**2**	**1**	**0**	**0**	**10**	**1**
							54.55%	18.18%	18.18%	9.09%	0.00%	0.00%		
Grand Total		**721**	**0.01**	**19.95**	**0.01**	**14**	**273**	**119**	**79**	**138**	**56**	**38**	**471**	**232**
							37.86%	16.50%	10.96%	19.14%	7.77%	5.27%		

RODC, CGWB - WCR, Ahmedabad

3.3 Annual Water Level Fluctuation

Annual Fluctuation in the water levels of the ground water monitoring wells during different monitoring periods were analysed graphically and depicted in **Fig. 15 (a,b,c & d)**.

Fig : 15 a

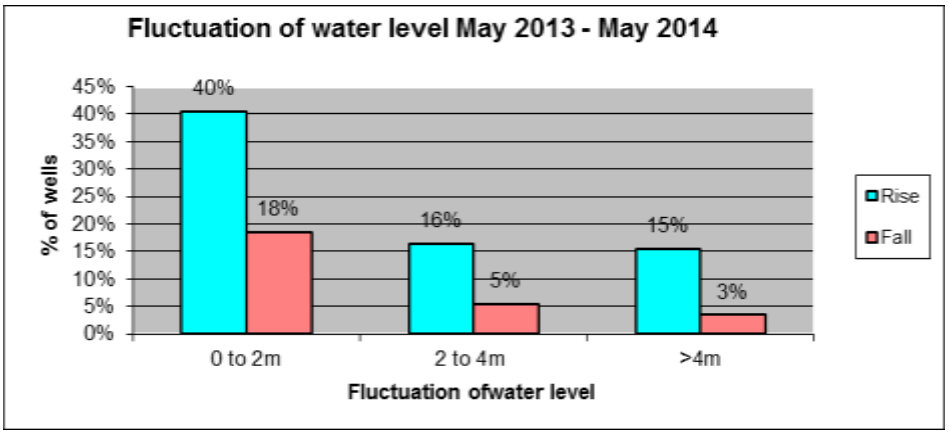


Fig : 15b

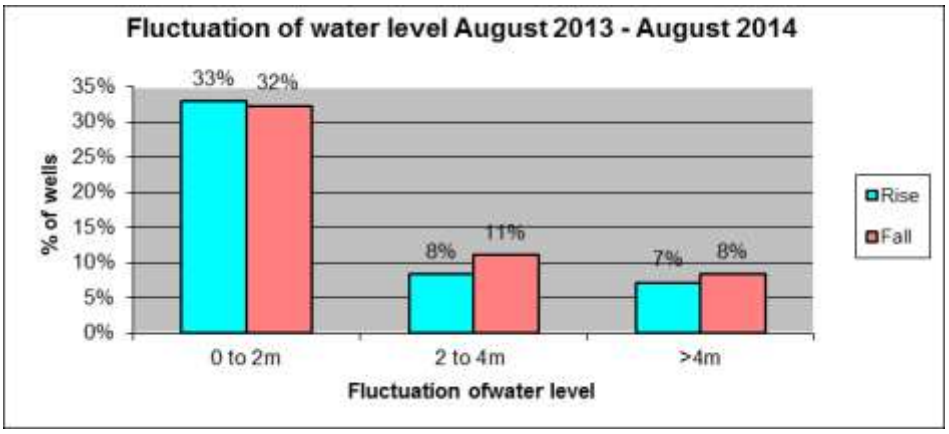


Fig: 15c

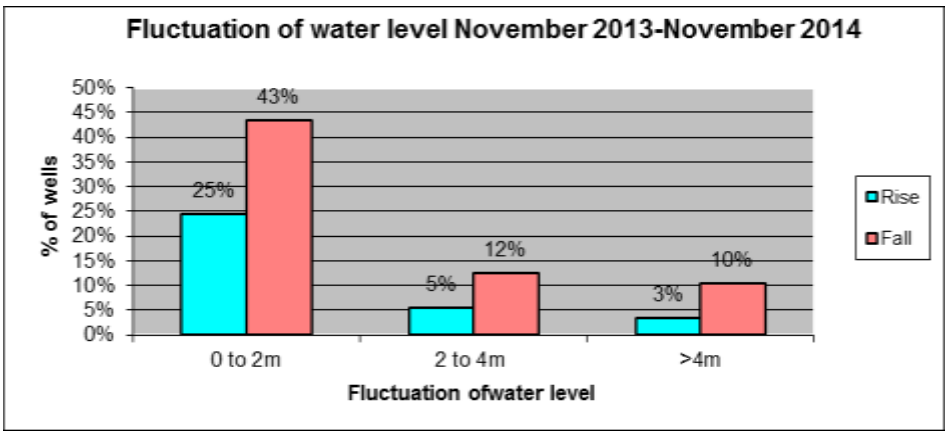
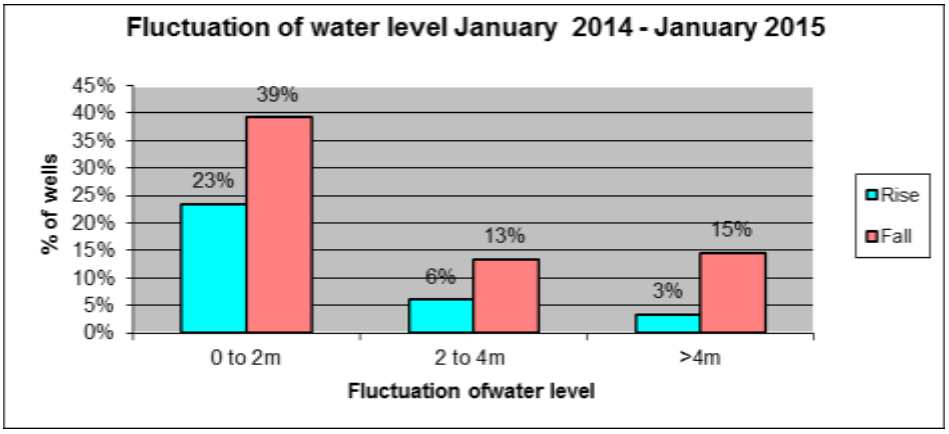


Fig : 15d



3.3.1 May 2013 to May 2014

A perusal **of Fig 16** and **Table 12** reveals that 74% of the state shows a rise in water level. Rise of 0-2 m is observed in about 39% area of the state. More than 4m rise is (15% area of the state) in adjoining area of Jamnagar, Porbandar, Surendranagar, Amreli and Junagarh in Saurashtra region, and in Kachchh. Fall in water level is observed mainly in parts of North Gujarat , small isolated patches scattered in rest of the area of Gujarat. Fall is also mainly in the range of 0-2 m and covers about 18% of area of the state. The maximum rise of 15.80 m is recorded in Porbandar district, whereas the maximum decline of 17.47 m is recorded in Bhavnagar district.

About 72% of the area observed rise of water level in the North Gujarat and most of which (45% area) is in the range of 0 to 2m. Rise of more than 4 m is mostly seen as isolated patches in the region. Fall of water level mostly observed in Banaskantha and Patan districts. In other areas fall mostly observed as isolated loactions. The maximum rise 8.63 m at Dosaj in Mahesana district where as fall of 17.42 m is observed at Harij of Patan district.

South Gujarat region shows rise in water level in the range of 0-2 m and covers an area of about 46 % of the region. fall in water level is observed in the range of 0-2 m in 22 % of area. Rise more than 2 m has observed at few locations. The maximum rise 10.49 m at Ghayaj in Vadodara district where as fall of 13.35 m is observed at Chhaliyar also in Vadodara district.

About 30% of the Saurashtra region has experienced rise of 0-2 m range. rise of more than 4 m is predominantly found in Porbandar, Amreli, Jamnagar, Junagarh and Bhavnagar and covers an area of 25 % area of the region. 0-2 m fall is observed in 21% area of the region. The maximum rise of 15.80 m is recorded in Ranavav of Porbandar district, whereas the maximum decline of 17.47 m is recorded in Paliyad of Bhavnagar district.

In Kachchh region, 39% of the area is covered by a rise in water level lesws than 2 m. About 18% of area shows fall of 0 to 2 m in central and Eastern part of the district. Rise or fall of more than 2 m has observed in isolated locations. The maximum rise 6.30 m at Kharoi and fall 10.42 m at Shivlakha.

In the UT of Diu shows only fall in water level with maximum 0.1 m at Chakrateeth. But UT of Daman recored both rise and fall the range is less the than 2m (rise 0.21 m at Jampore and fall of 0.95m at Dalwada).

3.3.2 August 2013 to August 2014

A perusal of **Fig 17** and **Table 13** reveals that 48% of the Gujarat state and UT of Daman & Diu shows a rise in water level. Rise in water level with in range of 0 – 2 m is observed in about 33% area of the state. Fall in the range of 0 – 2 m covers about 32% area of the state. Fall of more than 2 m & 4m is found in North Gujarat & Saurashtra region and in Dohad, Panchmahals Sabarkantha, Rajkot, Bhavnagar andb Junagarh districts. The maximum rise of 19.71 m is recorded in Amreli district whereas the maximum decline of 13.9 m is recorded in Ahmedabad district. During the monsoon season in 2013 the monitoring of water levels in Bharuch and Narmada districts was not done due to heavy rains so their fluctuation with the August 2014 has not been calculated.

About 64% of the area observed fall of water level in the North Gujarat and most of which (34% area) is in the range of 0 to 2m of fluctuation of water level. Fall of more than 4 m is mostly seen in 13% of the region mostly in Dohad, Pachmahals and Sabarkantha districts. Rise of 0 – 2 m range is observed in 24 % area of the region. Rise of water level in the range of 2 to 4 and more than 4 m are scattered as isolated patches in the region. The maximum decline of 13.9 m is recorded in Devalia Ahmedabad district and rise of 7.35m observed at Sarkhej in Kheda district.

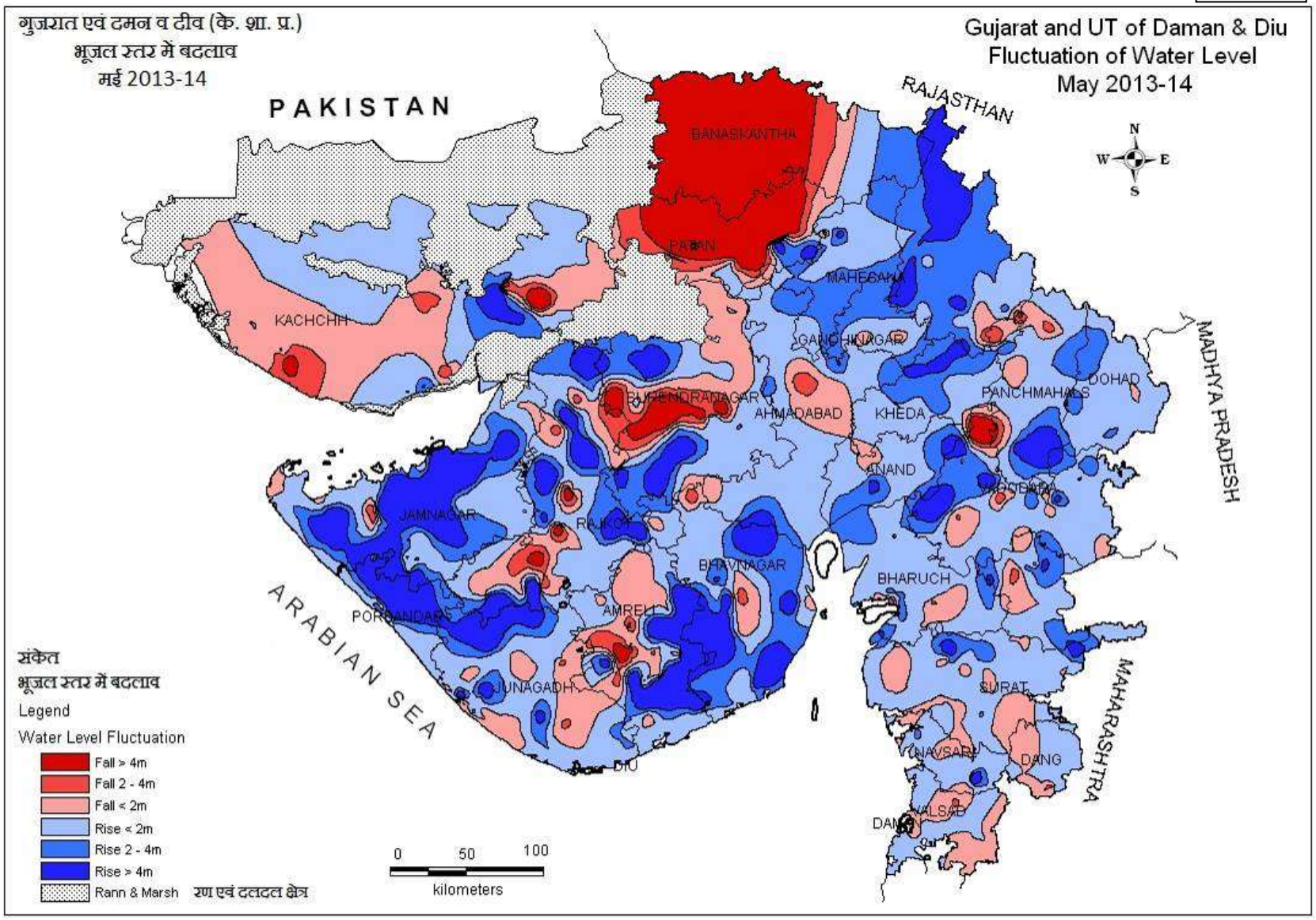
In South Gujarat region, 57% area shows rise in water level and in the range of 0 – 2 m covers 55% area in the region. Fall in water level is observed maximum in the range of 0 – 2 m in 32 % of the area out of total fall. The maximum rise of 7.65 m found in Ghayaj of Vadodara district and 4.71 m in Kathor in Surat district.

About 51% of the Saurashtra region has experienced rise of water level and in the range of >4 m is 14% of the total area. Fall of water level in 49 % with less than 2 m range is 31% of the total number of wells analysed. The maximum rise of 19.71 m found in Morjhar of Amreli district and 10.69 m in Govinpura in Junagardh district.

In Kachchh region, 41% of the area is covered by a rise in water level of less than 2 m. About 46% of area shows fall in water level of which 0 to 2 m cover 39% of the district. Fall of more than 4 m is observed in 8% of the area located in eastern and western part of the district. The maximum rise of 19.71 m found in Naliya and 6.58 m in Ratanpur Khadir.

In the UT of Daman and Diu shows only rise in water level with maximum 0.57 m at Ambawari in Daman and 5.16m at Vanakbarhin Diu.

Fig- 16


गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर में बदलाव
मई 2013-14
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PAKISTAN
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BANASKANTHA
PATAN
MAHESANA
KACHCHH
GANDHINAGAR
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
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N
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Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh रण एवं दलदल क्षेत्र
0 50 100
kilometers

Fig- 17

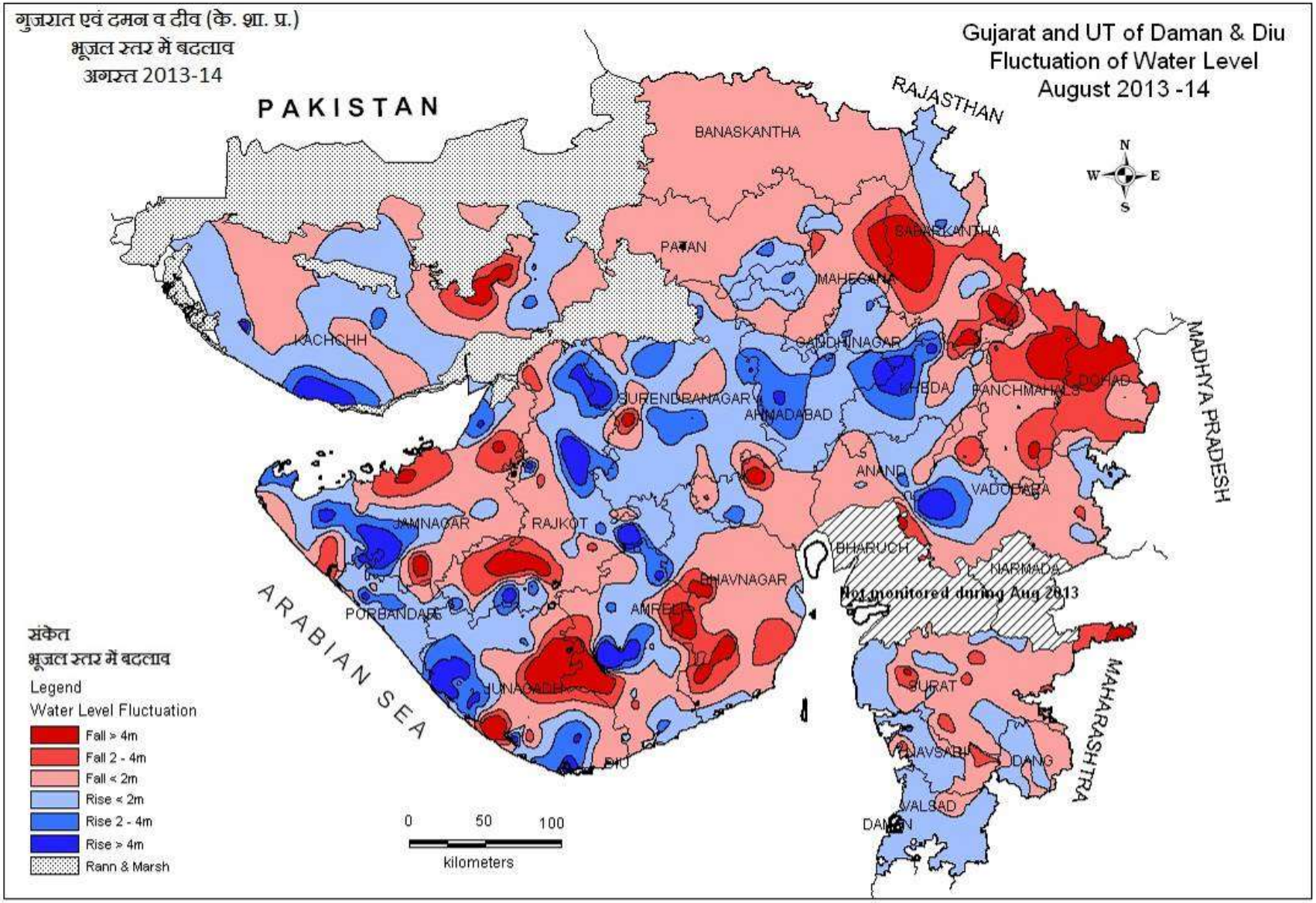

गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर में बदलाव
अगस्त 2013-14
Gujarat and UT of Daman & Diu
Fluctuation of Water Level
August 2013 -14
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
SABARKANTHA
KACHCHH
GANDHINAGAR
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHARUCH
NARMADA
BHAVNAGAR
PORBANDAR
AMRELI
Not monitored during Aug 2013
JUNAGADH
SURAT
NAVSARI
DANG
VALSAD
DIU
DAMAN
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh
0
50
100
kilometers
N
W
E
S

Table -12

CATEGORISATION OF CHANGES IN WATER LEVEL BETWEEN MAY 2013 TO MAY 2014

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	21	0.09	6.1	3.75	3.75	10	5	2	0	1	0	17	1
							47.62%	23.81%	9.52%	0.00%	4.76%	0.00%		
2	Anand	8	1.00	5.1	0.05	0.44	4	1	1	2	0	0	6	2
							50.00%	12.50%	12.50%	25.00%	0.00%	0.00%		
3	Banaskantha	24	0.06	4.19	1.01	2.26	6	7	1	4	1	0	14	5
							25.00%	29.17%	4.17%	16.67%	4.17%	0.00%		
4	Dohad	21	0.2	3.96	0.88	0.88	17	3	0	1	0	0	20	1
							80.95%	14.29%	0.00%	4.76%	0.00%	0.00%		
5	Gandhinagar	5	0.55	3.7	0.32	0.79	1	1	0	3	0	0	2	3
							20.00%	20.00%	0.00%	60.00%	0.00%	0.00%		
6	Kheda	12	0.5	4.41	3.92	3.92	7	2	2	0	1	0	11	1
							58.33%	16.67%	16.67%	0.00%	8.33%	0.00%		
7	Mahesana	23	0.56	9.63	3.45	3.45	13	7	2	0	1	0	22	1
							56.52%	30.43%	8.70%	0.00%	4.35%	0.00%		
8	Panchmahals	27	0.18	9.53	0.15	5.19	13	7	2	2	1	1	22	4
							48.15%	25.93%	7.41%	7.41%	3.70%	3.70%		
9	Patan	8	0.49	5.99	0.03	17.42	3	0	2	1	0	2	5	3
							37.50%	0.00%	25.00%	12.50%	0.00%	25.00%		
10	Sabarkantha	34	0.16	6.15	0.69	2.72	8	12	8	2	1	0	28	3
							23.53%	35.29%	23.53%	5.88%	2.94%	0.00%		
North Gujarat		**183**	**0.06**	**9.63**	**0.03**	**17.42**	**82**	**45**	**20**	**15**	**6**	**3**	**147**	**24**
							44.81%	24.59%	10.93%	8.20%	3.28%	1.64%		
11	Bharuch	31	0.01	4.34	0.08	4.01	16	8	1	3	1	1	25	5
							51.61%	25.81%	3.23%	9.68%	3.23%	3.23%		
12	Narmada	15	0.32	4.62	0.27	3.23	1	4	2	4	1	0	7	5
							6.67%	26.67%	13.33%	26.67%	6.67%	0.00%		
13	Navsari	20	0.02	8.3	0.38	0.51	11	1	1	3	0	0	13	3
							55.00%	5.00%	5.00%	15.00%	0.00%	0.00%		
14	Surat	48	0.01	6.26	0.07	1.75	24	3	2	13	0	0	29	13
							50.00%	6.25%	4.17%	27.08%	0.00%	0.00%		
15	The dangs	18	0.12	1.45	0.04	2.49	8	0	0	6	1	0	8	7
							44.44%	0.00%	0.00%	33.33%	5.56%	0.00%		
16	Vadodara	36	0.14	10.49	0.07	13.35	13	5	4	8	2	1	22	11
							36.11%	13.89%	11.11%	22.22%	5.56%	2.78%		
17	Valsad	19	0.13	1.28	0.06	2.56	12	0	0	4	1	0	12	5
							63.16%	0.00%	0.00%	21.05%	5.26%	0.00%		
South Gujarat		**187**	**0.01**	**10.49**	**0.04**	**13.35**	**85**	**21**	**10**	**41**	**6**	**2**	**116**	**49**
							45.45%	11.23%	5.35%	21.93%	3.21%	1.07%		
18	Amreli	38	0.16	14.88	0.05	7.3	6	2	10	11	3	3	18	17
							15.79%	5.26%	26.32%	28.95%	7.89%	7.89%		
19	Bhavnagar	37	0.03	11.71	0.12	17.47	12	7	11	4	1	1	30	6
							32.43%	18.92%	29.73%	10.81%	2.70%	2.70%		
20	Jamnagar	46	0.02	14.44	0.07	3.65	14	6	15	15	5	2	35	7
							30.43%	13.04%	32.61%	32.61%	10.87%	4.35%		
21	Junagadh	44	0.1	11.05	0.15	3.04	14	8	7	9	4	0	29	13
							31.82%	18.18%	15.91%	20.45%	9.09%	0.00%		
22	Porbandar	20	0.15	15.8	-	-	10	3	7	0	0	0	20	0
							50.00%	15.00%	35.00%	0.00%	0.00%	0.00%		
23	Rajkot	46	0.48	14.1	0.08	6.98	15	5	11	6	5	3	31	14
							32.61%	10.87%	23.91%	13.04%	10.87%	6.52%		
24	Surendranagar	31	0.12	9.48	0.08	10.61	7	4	5	10	0	5	16	15
							22.58%	12.90%	16.13%	32.26%	0.00%	16.13%		
Saurashtra		**262**	**0.02**	**15.80**	**0.05**	**17.47**	**78**	**35**	**66**	**55**	**18**	**14**	**179**	**72**
							29.77%	13.36%	25.19%	20.99%	6.87%	5.34%		
25	**Kachchh**	**34**	**0.01**	**6.3**	**0.05**	**10.42**	**15**	**0**	**3**	**10**	**3**	**3**	**18**	**16**
							44.12%	0.00%	8.82%	29.41%	8.82%	8.82%		
Total		**666**	**0.01**	**15.80**	**0.03**	**17.47**	**260**	**101**	**99**	**121**	**33**	**22**	**460**	**161**
							39.04%	15.17%	14.86%	18.17%	4.95%	3.30%		
26	Daman	4	0.18	0.21	0.08	0.95	2	0	0	2	0	0	2	2
							50.00%	0.00%	0.00%	50.00%	0.00%	0.00%		
27	Diu	1	-	-	0.1	0.1	0	0	0	1	0	0	1	0
							0.00%	0.00%	0.00%	100.00%	0.00%	0.00%		
UT of Daman & Diu		**5**	**0.18**	**0.21**	**0.08**	**0.95**	**2**	**0**	**0**	**3**	**0**	**0**	**3**	**2**
							40.00%	0.00%	0.00%	60.00%	0.00%	0.00%		
Grand Total		**671**	**0.01**	**15.80**	**0.03**	**17.47**	**262**	**101**	**99**	**124**	**33**	**22**	**463**	**163**
							39.05%	15.05%	14.75%	18.48%	4.92%	3.28%		

RODC, CGWB - WCR, Ahmedabad

Table -13

CATEGORISATION OF CHANGES IN WATER LEVEL BETWEEN AUGUST 2013 TO AUGUST 2014

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	20	0.30	4.79	0.19	13.9	7	4	1	6	1	1	12	8
							35.00%	20.00%	5.00%	30.00%	5.00%	5.00%		
2	Anand	9	0.09	3.02	0.1	1.8	5	1	0	3	0	0	6	3
							55.56%	11.11%	0.00%	33.33%	0.00%	0.00%		
3	Banaskantha	22	0.07	4.67	0.3	8.4	5	1	1	8	3	2	7	13
							22.73%	4.55%	4.55%	36.36%	13.64%	9.09%		
4	Dohad	19	0.04	0.42	0.28	6.93	2	0	0	4	10	3	2	17
							10.53%	0.00%	0.00%	21.05%	52.63%	15.79%		
5	Gandhinagar	5	0.71	2.41	1.46	1.46	1	3	0	1	0	0	4	1
							20.00%	60.00%	0.00%	20.00%	0.00%	0.00%		
6	Kheda	14	0.04	7.35	0.37	1.7	6	1	2	5	0	0	9	5
							42.86%	7.14%	14.29%	35.71%	0.00%	0.00%		
7	Mahesana	20	0.58	2.3	0.22	3.5	7	2	0	8	3	0	9	11
							35.00%	10.00%	0.00%	40.00%	15.00%	0.00%		
8	Panchmahals	26	0.07	0.12	0.24	13.29	2	0	0	12	5	7	2	24
							7.69%	0.00%	0.00%	46.15%	19.23%	26.92%		
9	Patan	7	0.27	2.98	0.69	1.9	3	1	0	3	0	0	4	3
							42.86%	14.29%	0.00%	42.86%	0.00%	0.00%		
10	Sabarkantha	27	0.06	2.7	0.15	9.31	3	1	0	8	7	8	4	23
							11.11%	3.70%	0.00%	29.63%	25.93%	29.63%		
North Gujarat		**169**	**0.04**	**7.35**	**0.1**	**13.9**	**41**	**14**	**4**	**58**	**29**	**21**	**59**	**108**
							24.26%	8.28%	2.37%	34.32%	17.16%	12.43%		
11	Bharuch													
			Not Monitored Due to Heavy Rains in Aug 2013											
12	Narmada													
			Not Monitored Due to Heavy Rains in Aug 2013											
13	Navsari	18	0.01	2.41	0.1	3.26	10	1	0	4	3	0	11	7
							55.56%	5.56%	0.00%	22.22%	16.67%	0.00%		
14	Surat	37	0.06	0.95	0.04	4.71	13	0	0	18	3	3	13	24
							35.14%	0.00%	0.00%	48.65%	8.11%	8.11%		
15	The dangs	18	0.01	1.39	0.01	2.01	13	0	0	4	1	0	13	5
							72.22%	0.00%	0.00%	22.22%	5.56%	0.00%		
16	Vadodara	32	0.13	7.65	0.12	4.37	16	0	1	11	2	2	17	15
							50.00%	0.00%	3.13%	34.38%	6.25%	6.25%		
17	Valsad	15	0.02	1.4	1.19	1.19	14	0	0	1	0	0	14	1
							93.33%	0.00%	0.00%	6.67%	0.00%	0.00%		
South Gujarat		**120**	**0.01**	**7.65**	**0.01**	**4.71**	**66**	**1**	**1**	**38**	**9**	**5**	**68**	**52**
							55.00%	0.83%	0.83%	31.67%	7.50%	4.17%		
18	Amreli	35	0.06	19.71	0.27	5.91	8	4	4	13	4	2	16	19
							22.86%	11.43%	11.43%	37.14%	11.43%	5.71%		
19	Bhavnagar	31	0.14	1.23	0.1	9.5	5	0	0	15	5	5	5	25
							16.13%	0.00%	0.00%	48.39%	16.13%	16.13%		
20	Jamnagar	35	0.02	5.5	0.2	7.49	8	5	4	10	5	3	17	18
							22.86%	14.29%	11.43%	28.57%	14.29%	8.57%		
21	Junagadh	37	0.03	9.6	0.05	10.69	11	5	10	7	1	3	26	11
							29.73%	13.51%	27.03%	18.92%	2.70%	8.11%		
22	Porbandar	19	0.27	10.87	0.11	4.19	10	2	3	3	0	1	15	4
							52.63%	10.53%	15.79%	15.79%	0.00%	5.26%		
23	Rajkot	48	0.04	15.14	0.16	6.85	11	5	8	13	8	3	24	24
							22.92%	10.42%	16.67%	27.08%	16.67%	6.25%		
24	Surendranagar	23	0.15	6.22	0.1	6.88	5	4	3	9	1	1	12	11
							21.74%	17.39%	13.04%	39.13%	4.35%	4.35%		
Saurashtra		**228**	**0.02**	**19.71**	**0.05**	**10.69**	**58**	**25**	**32**	**70**	**24**	**18**	**115**	**112**
							25.44%	10.96%	14.04%	30.70%	10.53%	7.89%		
25	**Kachchh**	**39**	**0.02**	**9.53**	**0.05**	**6.58**	**16**	**3**	**2**	**15**	**0**	**3**	**21**	**18**
							41.03%	7.69%	5.13%	38.46%	0.00%	7.69%		
Total		**556**	**0.01**	**19.71**	**0.01**	**13.9**	**181**	**43**	**39**	**181**	**62**	**47**	**263**	**290**
							32.55%	7.73%	7.01%	32.55%	11.15%	8.45%		
26	Daman	4	0.06	0.57	-	-	3	0	0	0	0	0	3	0
							75.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
27	Diu	2	0.01	5.16	-	-	1	0	1	0	0	0	2	0
							50.00%	0.00%	50.00%	0.00%	0.00%	0.00%		
UT of Daman & Diu		**6**	**0.01**	**5.16**	**0**	**0**	**4**	**0**	**1**	**0**	**0**	**0**	**5**	**0**
							66.67%	0.00%	16.67%	0.00%	0.00%	0.00%		
Grand Total		**562**	**0.01**	**19.71**	**0**	**13.9**	**185**	**43**	**40**	**181**	**62**	**47**	**268**	**290**
							32.92%	7.65%	7.12%	32.21%	11.03%	8.36%		

RODC, CGWB - WCR, Ahmedabad

3.3.3. November 2013 to November 2014

A perusal of **Fig 18** and **Table 14** reveals that 34% shows a rise and 66% shows fall in water level of the Gujarat state and UT of Daman & Diu. Fall in water level within range of 0 – 2 m is observed in about 43%, 2 – 4 m in 12% and more than 4 m in 11% of the total well in the state and UT of Daman and Diu. More than 4 m rise shown in Saurashtra and central part of Gujarat state. The maximum rise of 10.79 m is recorded in Amreli whereas the maximum decline of 14.73 m is recorded in Jamnagar district.

About 60% of the total well shows fall of water level in the North Gujarat and most of which (47%) shows fluctuation in the range of 0 to 2 m of water level. Rise of more than 4 m is mostly seen in the parts of Ahmedabad, Kheda Sabarkantha and Banaskantha districts in 6% of total well analysed in the region. rise of 0 – 2 m range is observed in 30% of the total well found mainly in the northern and central part of the north Gujarat regionMaximum rise 5.48 m at Anwarpura in Ahmedabad and fall 8.65 m at Vyas Vasana in Ahmedabad district.

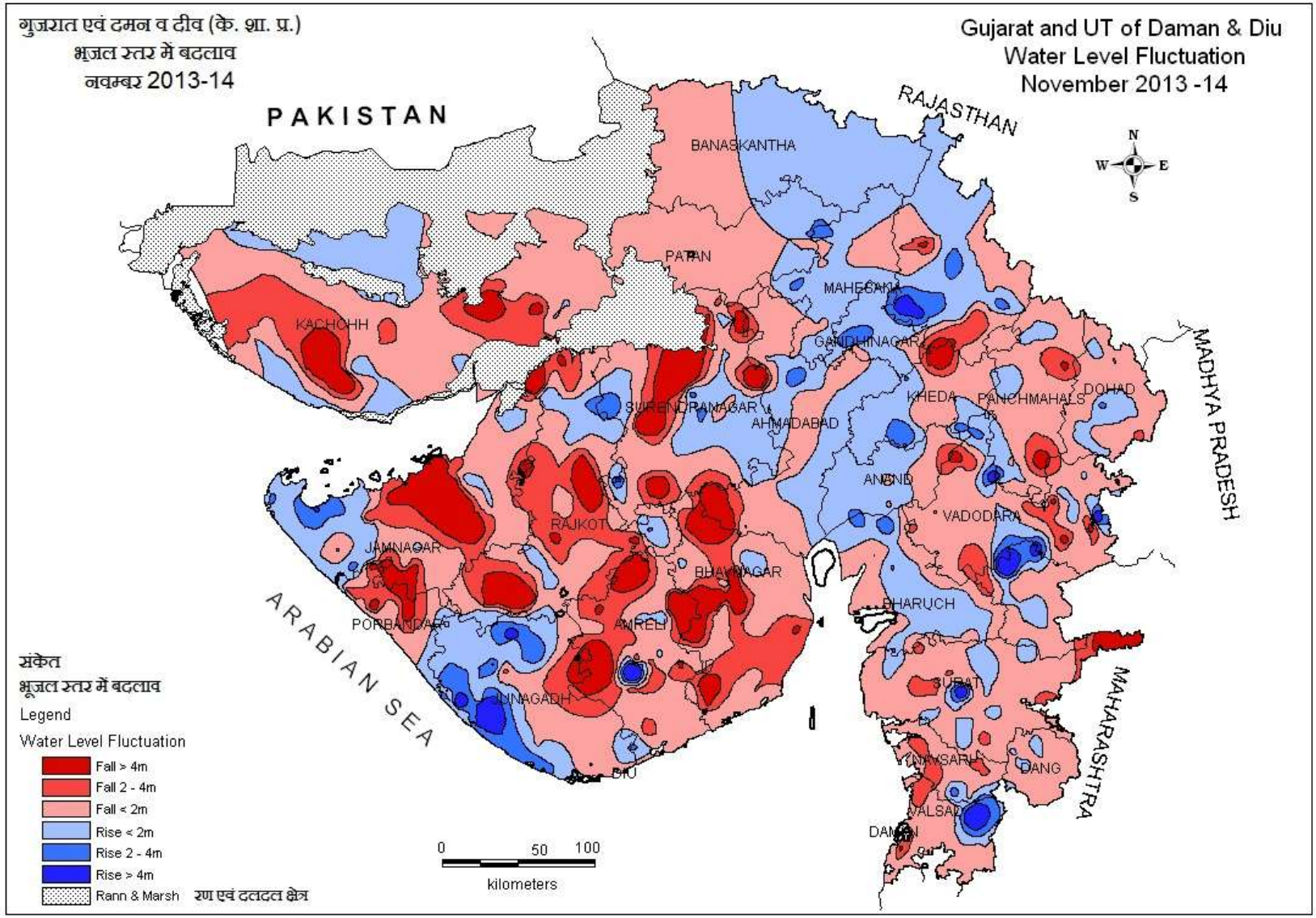
In South Gujarat region, 68% of total well analyzed shows fall in water level and in the range of 0 – 2 m represents 51% of well in the region. Fall of water level in 2 to 4 m and more than 4 m mainly observed in Surat, Valsad, and Navsari districts representing 18% of the total well in south Gujarat region. Fall in water level is observed maximum in the range of 0 – 2 m in 24 % of the total well analyzed lying mainly in Bharuch, Vadodara, Valsad and Narmada districts of the region. The maximum rise of water level 9.33 m observed at Rasela in Narmada district and maximum fall of water level 6.47 m observed at Nizar in Surat district.

About 64% of the Saurashtra region has experienced fall in water level and fall in the range of more than 4 m represents about 16% of the total well analysed. Fall of water level more than 4 m is predominantly found in all district of the region. Rise in water level found in isolated patches scattered mainly in Amreli, Rajkot, Junagardh, Jamnagar and Surendranagar district. The maximum rise of 10.79 m is recorded at Dharangani in Amreli whereas the maximum decline of 14.73 m is recorded at Changa in Jamnagar district.

In Kachchh region, 68% of the total well analysed shows fall in water level and 42% shows fall in the range of 0 – 2 m. Fall of more than 4 m is observed as isolated patches in the area located in eastern and central east part of the district. The rise in water level 32% in the range of less than 2m. Maximum rise is about 1.91m (Mudra) and fall is 3.9m(Ratanpur).

In the UT of Daman and Diu, maximum fall of 2.91 m (Warund) in Daman and 0.34 m (Chakrateeth) in Diu but not rise recorded at Daman and Diu.

Fig- 18


गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर में बदलाव
नवम्बर 2013-14
Gujarat and UT of Daman & Diu
Water Level Fluctuation
November 2013 -14
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
KACHCHH
GANDHINAGAR
KHEDA
PANCHMAHALS
DOHAD
SURENDRANAGAR
AHMADABAD
ANAND
VADODARA
RAJKOT
JAMNAGAR
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
SURAT
JUNAGADH
NAVSARI
DANG
DIU
VALSAD
DAMAN
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E
0
50
100
kilometers
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh रण एवं दलदल क्षेत्र

Table -14

CATEGORISATION OF CHANGES IN WATER LEVEL BETWEEN NOVEMBER 2013 TO NOVEMBER 2014

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	21	0.05	3.28	0.06	7.5	6	1	0	10	0	3	7	13
							28.57%	4.76%	0.00%	47.62%	0.00%	14.29%		
2	Anand	8	0.18	1.28	0.11	1.62	4	0	0	4	0	0	4	4
							50.00%	0.00%	0.00%	50.00%	0.00%	0.00%		
3	Banaskantha	24	0.02	3.2	0.18	6.53	6	1	0	9	3	3	7	15
							25.00%	4.17%	0.00%	37.50%	12.50%	12.50%		
4	Dohad	22	0.02	2.36	0.1	2.39	8	1	0	11	2	0	9	13
							36.36%	4.55%	0.00%	50.00%	9.09%	0.00%		
5	Gandhinagar	5	1.25	4.13	0.18	1.72	1	1	1	2	0	0	3	2
							20.00%	20.00%	20.00%	40.00%	0.00%	0.00%		
6	Kheda	14	0.53	3.25	0.1	8.65	1	3	0	8	1	1	4	10
							7.14%	21.43%	0.00%	57.14%	7.14%	7.14%		
7	Mahesana	21	0.18	4.02	0.13	1.18	12	1	1	7	0	0	14	7
							57.14%	4.76%	4.76%	33.33%	0.00%	0.00%		
8	Panchmahals	28	0.02	0.98	0.02	5.25	6	0	0	18	1	2	6	21
							21.43%	0.00%	0.00%	64.29%	3.57%	7.14%		
9	Patan	7	0.01	1.99	0.04	1.57	3	0	0	4	0	0	3	4
							42.86%	0.00%	0.00%	57.14%	0.00%	0.00%		
10	Sabarkantha	35	0.07	5.48	0.03	6.74	9	4	2	13	5	2	15	20
							25.71%	11.43%	5.71%	37.14%	14.29%	5.71%		
North Gujarat		**185**	**0.01**	**5.48**	**0.02**	**8.65**	**56**	**12**	**4**	**86**	**12**	**11**	**72**	**109**
							30.27%	6.49%	2.16%	46.49%	6.49%	5.95%		
11	Bharuch	28	0.02	3.5	0.21	2.04	16	5	0	6	1	0	21	7
							57.14%	17.86%	0.00%	21.43%	3.57%	0.00%		
12	Narmada	14	0.13	9.3	0.09	2.84	4	1	2	6	1	0	7	7
							28.57%	7.14%	14.29%	42.86%	7.14%	0.00%		
13	Navsari	20	0.26	3.06	0.18	3.25	1	1	0	12	6	0	2	18
							5.00%	5.00%	0.00%	60.00%	30.00%	0.00%		
14	Surat	50	0.06	7.16	0.06	6.47	14	0	1	26	6	3	15	35
							28.00%	0.00%	2.00%	52.00%	12.00%	6.00%		
15	The dangs	24	0.05	0.49	0.14	1.64	4	0	0	20	0	0	4	20
							16.67%	0.00%	0.00%	83.33%	0.00%	0.00%		
16	Vadodara	42	0.02	6.76	0.17	6.21	10	1	2	14	10	5	13	29
							23.81%	2.38%	4.76%	33.33%	23.81%	11.90%		
17	Valsad	18	7.95	7.95	0.03	4.39	0	0	1	15	1	1	1	17
							0.00%	0.00%	5.56%	83.33%	5.56%	5.56%		
South Gujarat		**196**	**0.02**	**9.30**	**0.03**	**6.47**	**49**	**8**	**6**	**99**	**25**	**9**	**63**	**133**
							25.00%	4.08%	3.06%	50.51%	12.76%	4.59%		
18	Amreli	44	0.02	10.79	0.1	12.28	5	1	1	22	8	7	7	37
							11.36%	2.27%	2.27%	50.00%	18.18%	15.91%		
19	Bhavnagar	41	1.16	1.16	0.1	13.81	1	0	0	22	9	9	1	40
							2.44%	0.00%	0.00%	53.66%	21.95%	21.95%		
20	Jamnagar	44	0.03	4.22	0.06	14.73	13	2	1	13	4	11	16	28
							29.55%	4.55%	2.27%	29.55%	9.09%	25.00%		
21	Junagadh	38	0.41	8.77	0.01	3.14	10	8	7	9	4	0	25	13
							26.32%	21.05%	18.42%	23.68%	10.53%	0.00%		
22	Porbandar	25	0.6	1.85	0.22	6.05	3	0	0	9	7	6	3	22
							12.00%	0.00%	0.00%	36.00%	28.00%	24.00%		
23	Rajkot	46	0.32	2.31	0.07	10.27	8	2	0	18	8	10	10	36
							17.39%	4.35%	0.00%	39.13%	17.39%	21.74%		
24	Surendranagar	40	0.03	5.25	0.05	11.85	15	3	1	2	0	1	26	3
							37.50%	7.50%	2.50%	5.00%	0.00%	2.50%		
Saurashtra		**278**	**0.02**	**10.79**	**0.01**	**14.73**	**55**	**16**	**10**	**95**	**40**	**44**	**88**	**179**
							19.78%	5.76%	3.60%	34.17%	14.39%	15.83%		
25	**Kachchh**	**41**	**0.04**	**1.91**	**0.18**	**8.48**	**13**	**0**	**0**	**17**	**6**	**5**	**13**	**28**
							31.71%	0.00%	0.00%	41.46%	14.63%	12.20%		
Total		**700**	**0.01**	**10.79**	**0.01**	**14.73**	**173**	**36**	**20**	**297**	**83**	**69**	**236**	**449**
							24.71%	5.14%	2.86%	42.43%	11.86%	9.86%		
26	Daman	8	-	-	0.26	2.91	0	0	0	6	2	0	0	8
							0.00%	0.00%	0.00%	75.00%	25.00%	0.00%		
27	Diu	1	-	-	0.34	0.34	0	0	0	1	0	0	0	1
							0.00%	0.00%	0.00%	100.00%	0.00%	0.00%		
UT of Daman & Diu		**9**	**0**	**0**	**0.34**	**0.34**	**0**	**0**	**0**	**7**	**2**	**0**	**0**	**9**
							0.00%	0.00%	0.00%	77.78%	22.22%	0.00%		
Grand Total		**709**	**0**	**10.79**	**0.01**	**14.73**	**173**	**36**	**20**	**304**	**85**	**69**	**236**	**458**
							24.40%	5.08%	2.82%	42.88%	11.99%	9.73%		

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3.3.4 January 2014 to January 2015

A perusal of **Fig 19** and **Table 15** reveals that 69% shows a fall and 31% shows rise in water level of the Gujarat state and UT of Daman & Diu. Fall in water level mainly within range of 0 – 2 m is observed in about 40%, of the total well in the state and UT of Daman and Diu. Rise in water level is mainly observed in, Banaskantha, Patan and Saurashtra and in southern part of Gujarat state. Rise mainly observed in the range of 0 – 2 m covers about 23% of the total well in state. Rise of water level more than 4 m is more commonly observed mainly in Saurashtra region & northern part of Gujarat state. The maximum rise of 19.45 m is recorded in Bhavnagar district whereas the maximum decline of 16.83 m is recorded in Panchmahals district.

About 74% of the total well shows fall of water level in the North Gujarat and most of which (41%) shows fall in the range of 0 to 2 m of water level. Fall of more than 4 m is mostly seen in the parts of Anand, Panchmahal and Sabarkantha districts in 13% of total well analysed in the region. Rise of 0 – 2 m range is observed in 24% of the total well observed in the area near the the area along the little Rann of Kachchh and in western part of north Gujarat region. The maximum rise of water level 7.28 m observed at Mandal in Ahmedabad district and maximum decline is 16.83 m at Bavaliya in Sabarkantha district.

In South Gujarat region, 72% of total well analysed shows fall in water level and 48% represents in the range of 0 – 2 m of total well in the region. Fall of water level in 2 to 4 m and more than 4 m mainly observed in Vadodara, Narmada and south of Surat districts representing 24% of the total well in south Gujarat region. Rise in water level is observed maximum in the range of 0 – 2 m in 26% of the total well analysed lying mainly in Dangs, Surat, Valsad and Navsari districts of the region. The maximum rise of water level 3.64 m observed at Juna Samaliya in Vadodra district and maximum fall of water level 14.80 m observed at Vadtalav also in Vadodara district.

About 65% of the Saurashtra region has experienced fall in water level and rise in the range of 0 – 2 m represents about 28% of the total well analysed. Fall of water level more than 4 m is predominantly found in Jamnagar, Junagadh, Porbandar and Rajkot district all over the region and 24% area shows maximum fall. Rise in water level also found in isolated patches scattered mainly in Bhavnagar, Amreli, and Junagarh districts. The maximum rise of 19.45 m at Paliyad is recorded in Bhavnagar district whereas the maximum decline of 16.30 m at Gordhanpura in Jamnagar in district

In Kachchh region, 83% of the total well analysed shows fall in water level and 63% shows rise in the range of 0 – 4 m. Rise of more than 4 m is observed as isolated patches in the area located in eastern and central east part of the district. 17% of observation stations shows rise less than 2m.The maximum rise of the water level is 1.38 m at Haboi and maximum decline is 11.28 m at Asmabia in Kachchh region.

In the UT of Daman shows maximum rise 4.06 m (Dalwada) and fall of 0.33 m at Dabhal and in UT of Diu, maximum rise of 2.26 m Chakrateeth and fall 0.53 m at Diu dug well.

Fig- 19

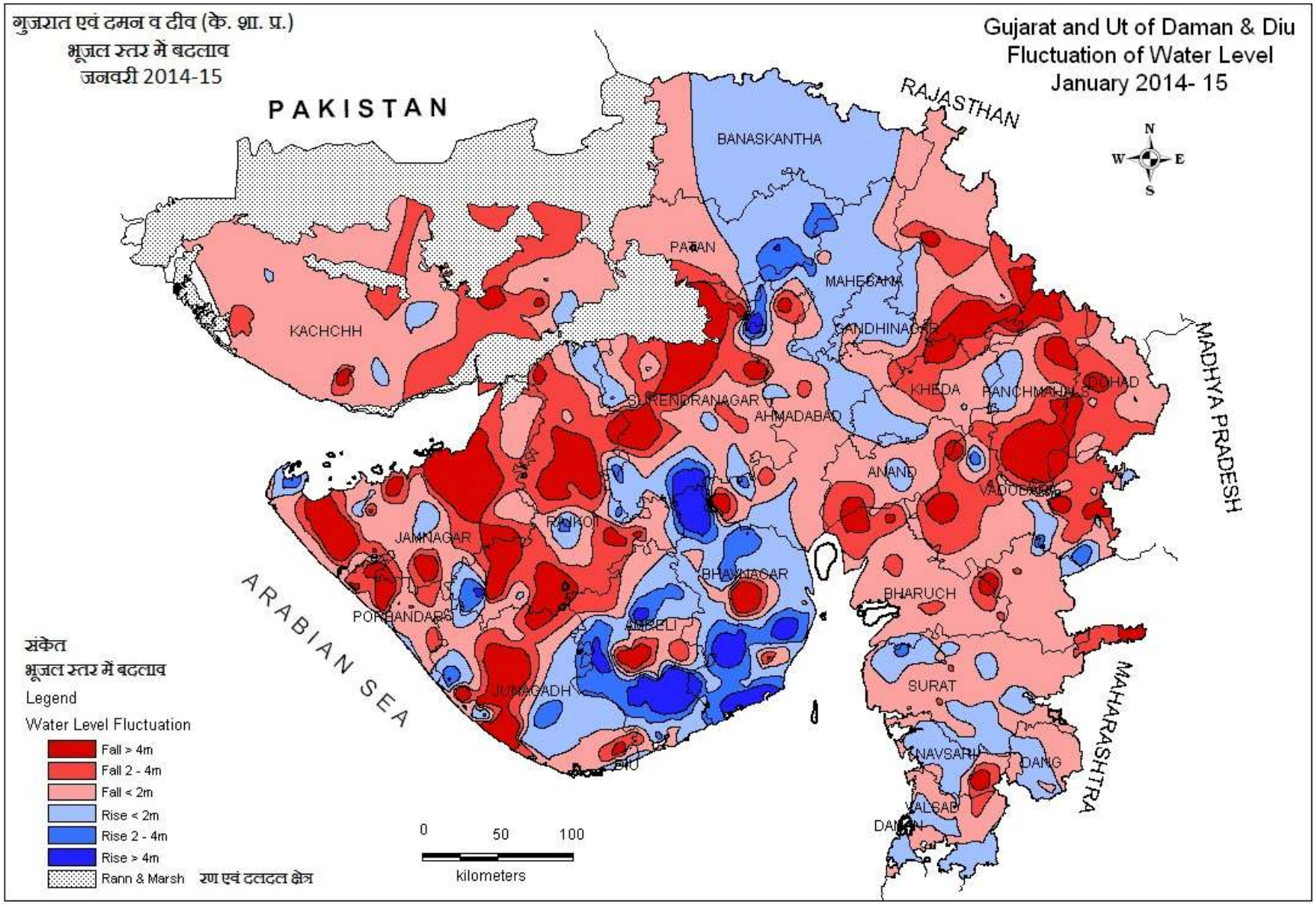
गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर में बदलाव
जनवरी 2014-15
Gujarat and Ut of Daman & Diu
Fluctuation of Water Level
January 2014- 15
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
GANDHINAGAR
KACHCHH
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
RAJKOT
JAMNAGAR
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
SURAT
JUNAGADH
NAVSARI
DANG
DIU
VALSAD
DAMAN
N
W
E
S
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh रण एवं दलदल क्षेत्र
0
50
100
kilometers

Table -15

CATEGORISATION OF CHANGES IN WATER LEVEL BETWEEN JANUARY 2014 TO JANUARY 2015

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	24	0.07	7.28	0.21	10	5	2	1	9	3	3	8	15
							20.83%	8.33%	4.17%	37.50%	12.50%	12.50%		
2	Anand	7	0.3	0.5	0.24	0.89	2	0	0	5	0	0	2	5
							28.57%	0.00%	0.00%	71.43%	0.00%	0.00%		
3	Banaskantha	20	0.21	2.93	0.11	4.57	5	2	0	9	2	2	7	13
							25.00%	10.00%	0.00%	45.00%	10.00%	10.00%		
4	Dohad	19	0.08	0.08	0.09	9.62	1	0	0	7	8	3	1	18
							5.26%	0.00%	0.00%	36.84%	42.11%	15.79%		
5	Gandhinagar	5	0.10	0.9	0.65	0.65	4	0	0	1	0	0	4	1
							80.00%	0.00%	0.00%	20.00%	0.00%	0.00%		
6	Kheda	16	0.1	0.93	0.58	7.84	4	0	0	9	1	2	4	12
							25.00%	0.00%	0.00%	56.25%	6.25%	12.50%		
7	Mahesana	20	0.32	3.71	0.29	1.32	10	5	0	5	0	0	15	5
							50.00%	25.00%	0.00%	25.00%	0.00%	0.00%		
8	Panchmahals	18	0.8	0.96	0.31	16.83	2	0	0	6	4	6	2	16
							11.11%	0.00%	0.00%	33.33%	22.22%	33.33%		
9	Patan	9	1.12	4.24	0.25	0.93	2	0	1	6	0	0	3	6
							22.22%	0.00%	11.11%	66.67%	0.00%	0.00%		
10	Sabarkantha	24	0.11	1.27	0.14	8.29	4	0	0	9	7	4	4	20
							16.67%	0.00%	0.00%	37.50%	29.17%	16.67%		
North Gujarat		**162**	**0.07**	**7.28**	**0.09**	**16.83**	**39**	**9**	**2**	**66**	**25**	**20**	**50**	**111**
							24.07%	5.56%	1.23%	40.74%	15.43%	12.35%		
11	Bharuch	29	-	-	0.33	6.29	0	0	0	21	6	2	0	29
							0.00%	0.00%	0.00%	72.41%	20.69%	6.90%		
12	Narmada	15	3.26	3.26	0.71	6.97	0	1	0	10	1	1	1	12
							0.00%	6.67%	0.00%	66.67%	6.67%	6.67%		
13	Navsari	21	0.05	1.86	0.07	9.65	11	0	0	8	1	1	11	10
							52.38%	0.00%	0.00%	38.10%	4.76%	4.76%		
14	Surat	46	0.03	2.92	0.04	4.86	15	1	0	23	6	1	16	30
							32.61%	2.17%	0.00%	50.00%	13.04%	2.17%		
15	The dangs	22	0.01	1.55	0.02	1.29	12	0	0	10	0	0	12	10
							54.55%	0.00%	0.00%	45.45%	0.00%	0.00%		
16	Vadodara	45	0.28	3.64	0.03	14.8	4	3	0	16	15	6	7	37
							8.89%	6.67%	0.00%	35.56%	33.33%	13.33%		
17	Valsad	18	0.07	1.11	0.08	2.52	9	0	0	6	2	0	9	8
							50.00%	0.00%	0.00%	33.33%	11.11%	0.00%		
South Gujarat		**196**	**0.01**	**3.64**	**0.02**	**14.80**	**51**	**5**	**0**	**94**	**31**	**11**	**56**	**136**
							26.02%	2.55%	0.00%	47.96%	15.82%	5.61%		
18	Amreli	39	0.3	17.82	0.14	7.09	5	8	7	11	3	5	20	19
							12.82%	20.51%	17.95%	28.21%	7.69%	12.82%		
19	Bhavnagar	34	0.28	19.45	0.05	11.36	13	4	8	7	0	2	25	9
							38.24%	11.76%	23.53%	20.59%	0.00%	5.88%		
20	Jamnagar	44	0.17	4.13	0.1	16.3	4	0	1	14	5	17	5	36
							9.09%	0.00%	2.27%	31.82%	11.36%	38.64%		
21	Junagadh	48	0.01	4.26	0.08	13.41	16	4	1	13	1	12	21	26
							33.33%	8.33%	2.08%	27.08%	2.08%	25.00%		
22	Porbandar	23	0.04	1.3	0.03	9.6	5	0	0	8	5	5	5	18
							21.74%	0.00%	0.00%	34.78%	21.74%	21.74%		
23	Rajkot	42	0.5	5.15	0.05	9.58	3	4	1	13	7	14	8	34
							7.14%	9.52%	2.38%	30.95%	16.67%	33.33%		
24	Surendranagar	26	0.01	2.17	0.35	13.72	5	1	0	6	7	7	6	20
							19.23%	3.85%	0.00%	23.08%	26.92%	26.92%		
Saurashtra		**256**	**0.01**	**19.45**	**0.03**	**16.30**	**51**	**21**	**18**	**72**	**28**	**62**	**90**	**162**
							19.92%	8.20%	7.03%	28.13%	10.94%	24.22%		
25	**Kachchh**	**35**	**0.07**	**1.38**	**0.02**	**11.28**	**6**	**0**	**0**	**22**	**4**	**3**	**6**	**29**
							17.14%	0.00%	0.00%	62.86%	11.43%	8.57%		
Total		**649**	**0.01**	**19.45**	**0.02**	**16.83**	**147**	**35**	**20**	**254**	**88**	**96**	**202**	**438**
							22.65%	5.39%	3.08%	39.14%	13.56%	14.79%		
26	Daman	8	0.25	4.06	0.01	0.33	3	1	1	3	0	0	5	3
							37.50%	12.50%	12.50%	37.50%	0.00%	0.00%		
27	Diu	2	2.26	2.26	0.53	0.53	0	1	0	1	0	0	1	1
							0.00%	50.00%	0.00%	50.00%	0.00%	0.00%		
UT of Daman & Diu		**10**	**0.25**	**4.06**	**0.53**	**0.53**	**3**	**2**	**1**	**4**	**0**	**0**	**6**	**4**
							30.00%	20.00%	10.00%	40.00%	0.00%	0.00%		
Grand Total		**659**	**0.01**	**19.45**	**0.01**	**16.83**	**150**	**37**	**21**	**258**	**88**	**96**	**208**	**442**
							22.76%	5.61%	3.19%	39.15%	13.35%	14.57%		

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3.4 Long Term Ground Water Scenario

Long-term behaviour of water levels was studied by analysing the data for decadal average water levels and fluctuation of water level with respect to decadal average water levels. Maps showing variation in water level scenario over the decade 2004-13 and 2005-14 for January have been prepared to evaluate the long term changes in the groundwater regime.

3.4.1 Decadal Average Depth to Water Level

Maps showing depth to water level scenario over the decade 2005-14 have been prepared to evaluate the long term changes in the groundwater regime. Average depth to water level data is given in Annexure III C and distribution of the same is discussed below.

3.4.1.1 Pre-monsoon Water Levels

Decadal average water level map for the period May 2005 to May 2014 (**Fig. 20**) reveals that the decadal average water level in Gujarat is generally 2 to 40 m bgl. Isolated pockets of Shallow water levels of less than 2 m are observed in one or two places in the state. Depth to water level more than 40 m observed in north Gujarat region.

The Decadal average Water levels in North Gujarat generally range from 10 to 40 mbgl.Deep water level more than 40 m are observed in small isolated pockets in Banaskantha, Sabarkanth, Gandhinagar and Ahmedabad districts.

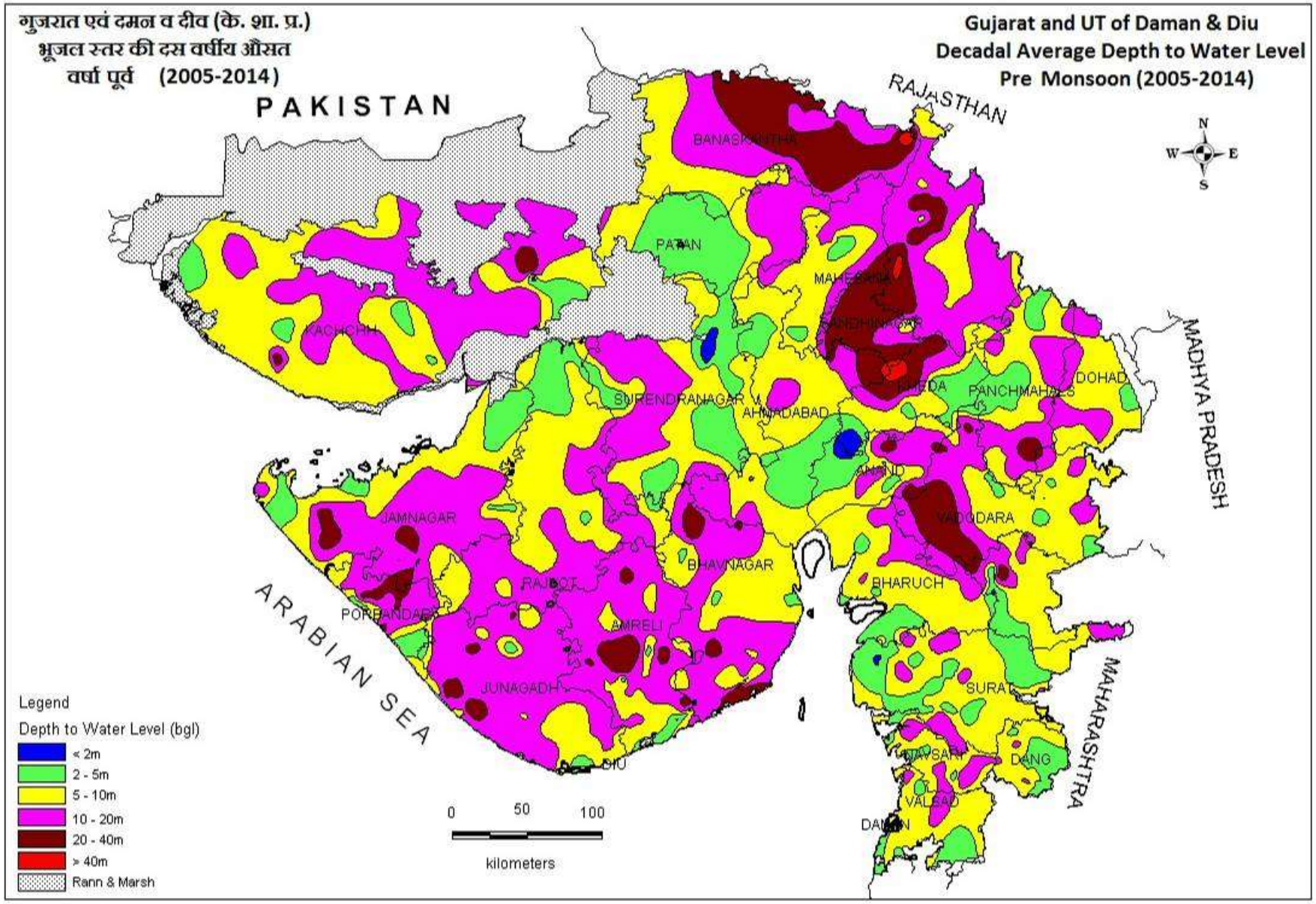
In South Gujarat average water level is less than 10 m bgl. Deep water levels of more than 20 m are observed in central part of Vadodara district and as isolated patch in Narmada district. Water level of less than 5 mbgl is found along the coast and in parts of Bharuch, The Dangs, Valsad and Surat districts.

In Saurashtra the average water level is less than 20 m with pockets having water level in the range of 20-40 m are found in all districts of Saurashtra region except Surendranagar district.

In Kachchh district ranges of the average water level is found from less than 5m to 20m. Deeper water levels of more than 20m are observed in central and eastern parts of Kachchh as in isolated patches.

In UT of Daman and Diu the water level in general is less than 10 mbgl.

Fig- 20


गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर की दस वर्षीय औसत
वर्षा पूर्व (2005-2014)
Gujarat and UT of Daman & Diu
Decadal Average Depth to Water Level
Pre Monsoon (2005-2014)
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
KACHCHH
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
BHAVNAGAR
RAJKOT
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
SURAT
NAVSARI
DANG
VALSAD
DIU
DAMAN
Legend
Depth to Water Level (bgl)
< 2m
2 - 5m
5 - 10m
10 - 20m
20 - 40m
> 40m
Rann & Marsh
0 50 100
kilometers
N
S
E
W

3.4.1.2 Post-monsoon Water Levels

Decadal average water level map for the period November 2005 to November 2014(**Fig. 21**) reveals that in major part of Gujarat state, the decadal average water level is mostly in the range of 2 m to 20 mbgl. Deep water levels of moré than 20 m are also observed mainly in Banaskantha, Mahsana and Sabarkantha districts of North Gujarat, in parts of Kheda, Gandhinagar, Vadodara and Kachchh districts. Deepest water level more than 40 mbgl found in Banaskantha and Gandhinagar districts. Shallow water levels less than 2 m are observed in south Gujarat, along the little Rann and the parts connecting to the Gulf of Cambay and in scattered pockets in Saurashtra, Kachchh and North Gujarat

In North Gujarat, the water levels during post monsoon period are generally less than 20 mbgl. Deeper water levels of more than 20 mbgl are predominant in the district of Ahmedabad, Mahesana, Kheda, Banaskantha, Gandhinagar and Sabarkantha. Area along the little Rann and a portion connecting Gulf of Cambay and the little Rann has recorded water levels of less than 2 mbgl. Shallow water levels of less than 5 mbgl are observed in major parts of Panchmahals, some parts of Dohad, Kheda and Anand districts.

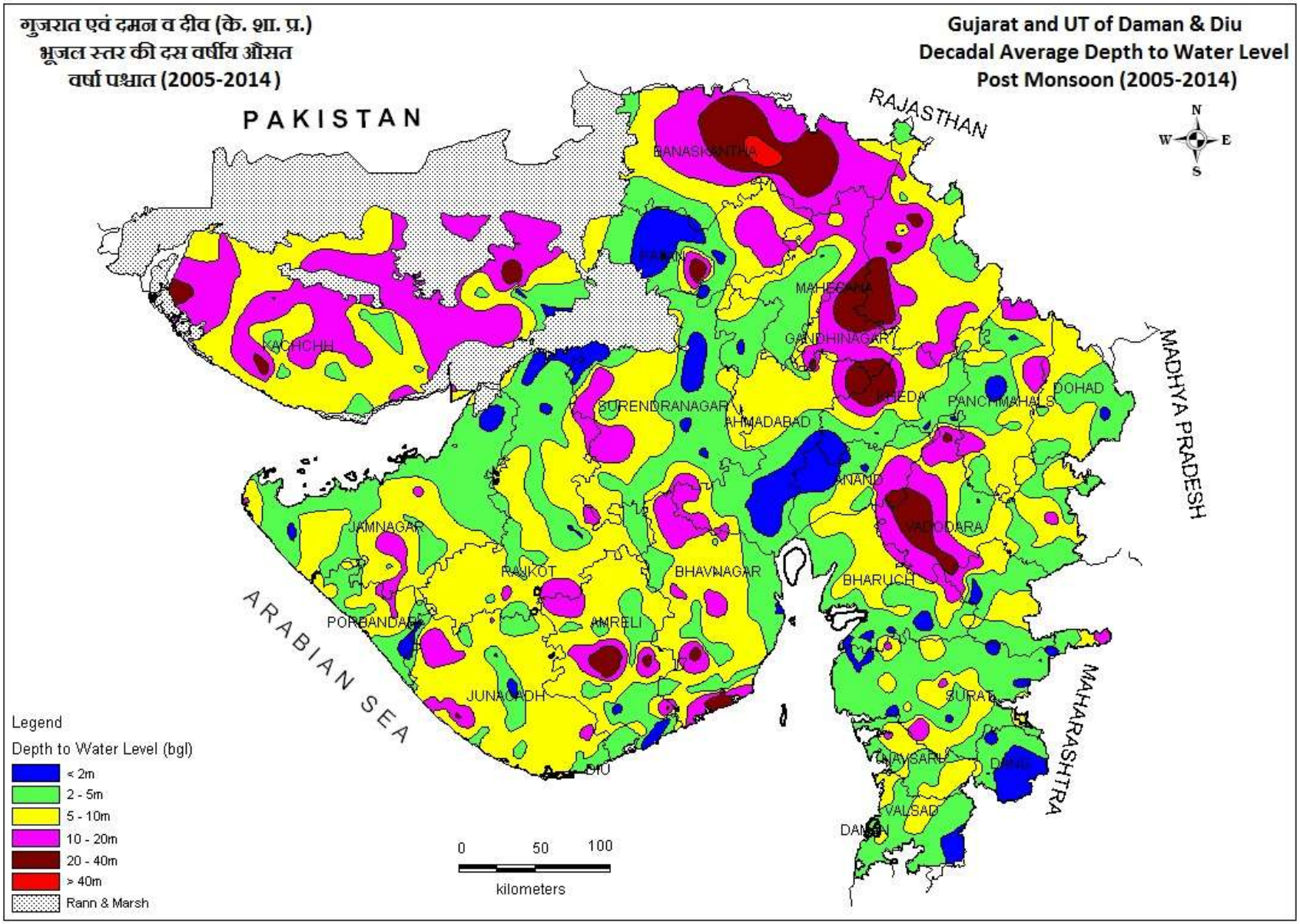
In South Gujarat water levels are generally shallower in contrast to North Gujarat areas. The water levels are generally less than 10 mbgl. Deep water levels of more than 10 mbgl are observed in central part of Navsari district. Deeper Water level more than 20 mbgl are observed mostly in Vadodara and Narmada districts. Shallow water levels of less than 5 m are recorded along the coast, The Dangs and Surat district. Water level less than 2 m are also recorded in Surat and The Dangs district.

In Saurashtra Region, water levels are in the range of 5m to 20 mbgl in general. Water levels of more than 20 m are observed in small isolated pockets in Amreli and Bhavnagar districts. Shallow water levels of less than 5 m are recorded in isolated pockets along the coastal parts and the parts connecting Gulf of Cambay with little Rann and in central parts of the Saurashtra Region.

In Kachchh district, the average water level is generally less than 10m except the eastern and central parts where the water level is about 20 m. In western parts, along cost line, water levels less than 5 mbgl is observed.

In UT of Daman and Diu average water level is less than 5 mbgl.

Fig- 21


गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर की दस वर्षीय औसत
वर्षा पश्चात (2005-2014)
Gujarat and UT of Daman & Diu
Decadal Average Depth to Water Level
Post Monsoon (2005-2014)
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
GANDHINAGAR
KACHCHH
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
SURAT
NAVSARI
DIU
VALSAD
DAMAN
N
S
E
W
Legend
Depth to Water Level (bgl)
< 2m
2 - 5m
5 - 10m
10 - 20m
20 - 40m
> 40m
Rann & Marsh
0
50
100
kilometers

3.4.1 Decadal Variations

Fig. 22 (a, b, c & d) illustrates a comparison of the changes of the water levels during different seasons with their respective decadal averages **(Annexure- III C)**

DECADAL WATER LEVEL FLUCTUATION

Fig : 22 a

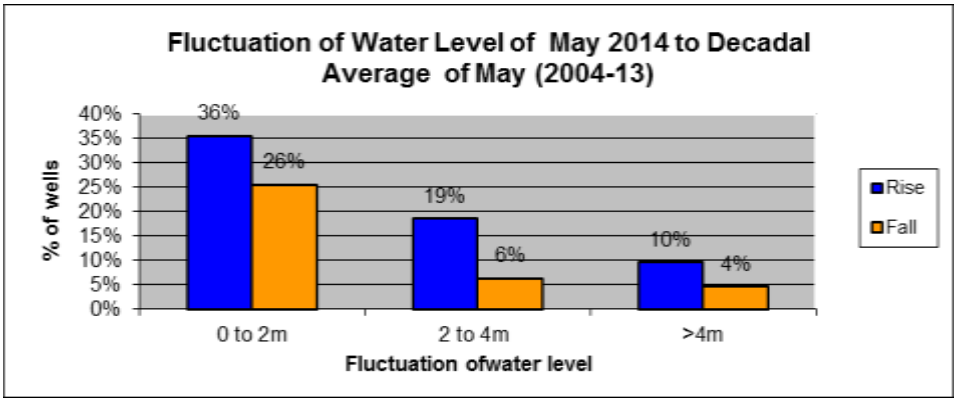


Fig : 22 b

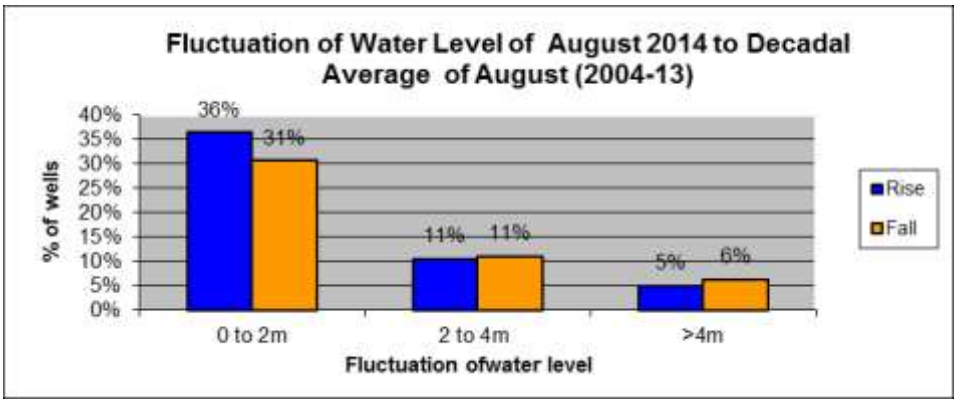


Fig : 22 c

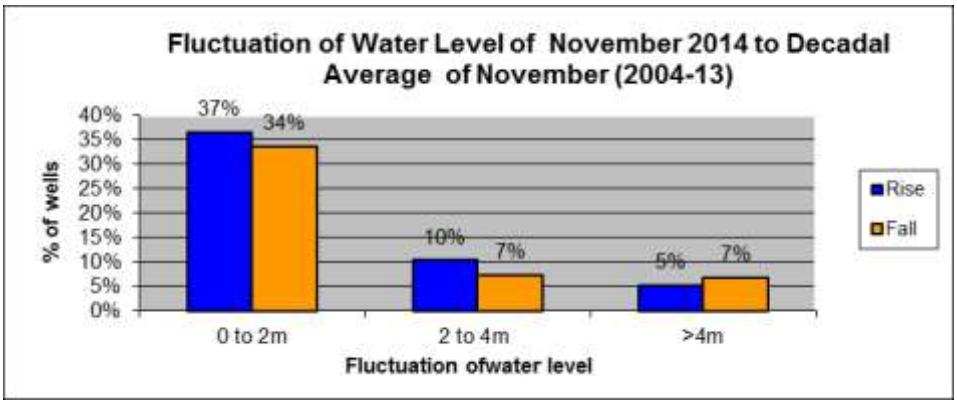
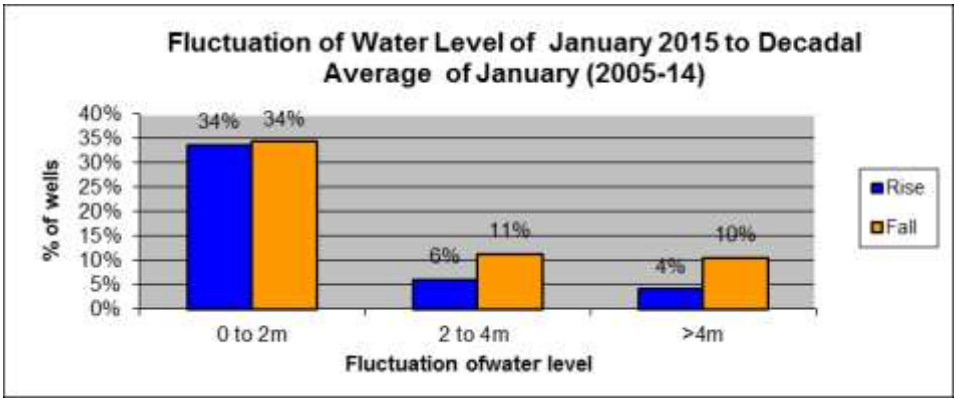


Fig : 22 d



3.4.2.1 Decadal average of May (2004-2013)to May 2014

A comparison of the water level of the May 2014 with the average water level of the May for last one decade (2004-2013) reveals that there is a rise of 67% of the wells monitored.Rise and fall is mostly in the range of 0 to 2m. Fall of more than 4m is observed in most of the districts Ahmedabad, Banaskantha, Patan, Sabarkantha, Narmada, Vadodara, Amreli, Bhavnagar, Jamnagar, Junagardh, Rajkot, Surendranagar and Kachchh districts. The maximum rise of 18.34 m is recorded at Jetpur Rajkot district whereas the maximum fall of 16.90 m is recorded at Govindpura in Rajkot district.

In North Gujarat 76% of wells show rise and mostly are in range of 0 to 2 m (38% of wells) in entire North Gujarat. The fall of water level is mostly less than 2 m and in about 18% of the wells analyzed. The maximum rise of 10.17 m is recorded at Ravas of Sabarkantha whereas the maximum fall of 16.11 m is observed at Harij in Patan district.

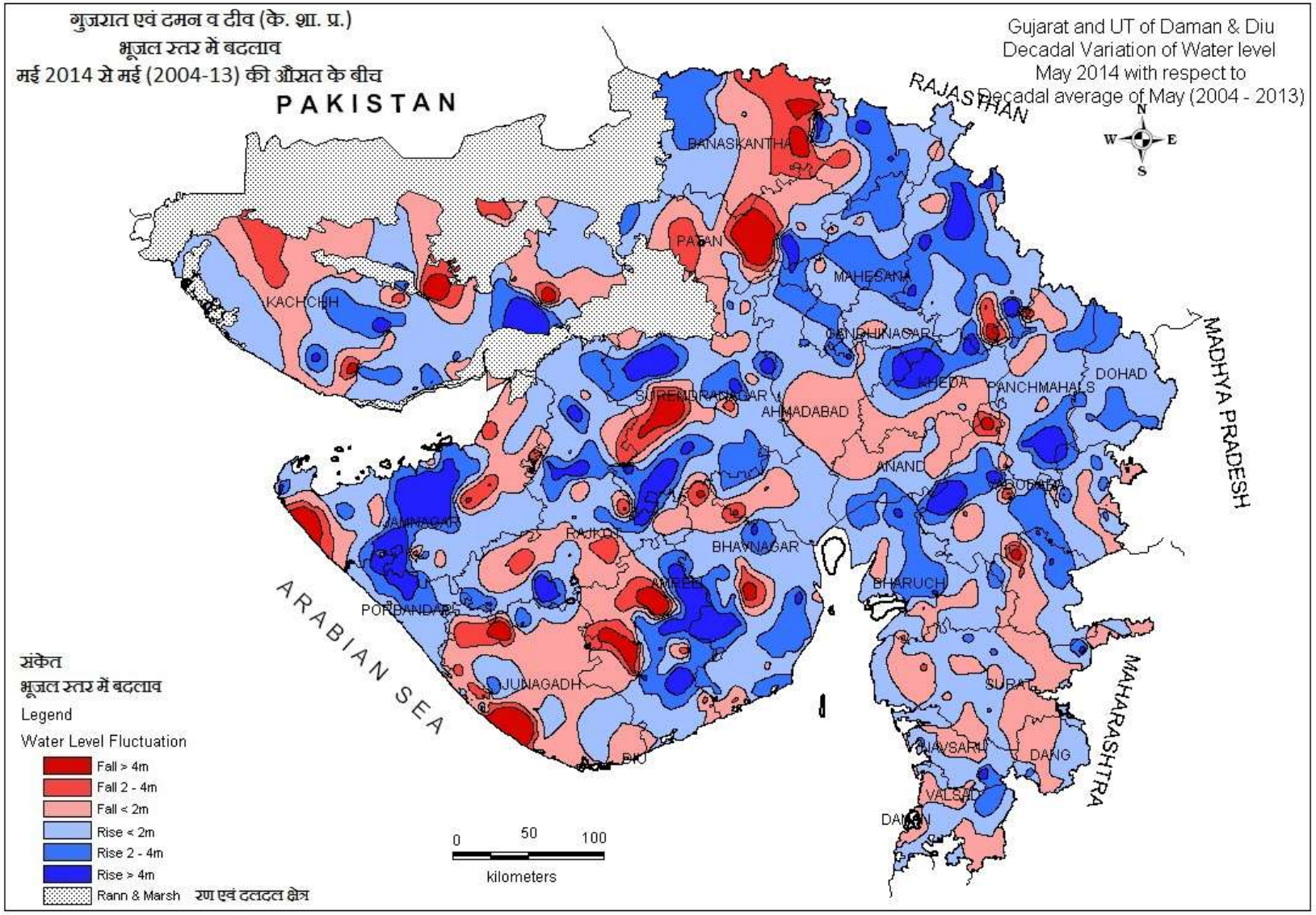
In south Gujarat the major part has experienced rise (56% of wells analyzed). The risel is mainly (37% of wells) in the range of 0 -2 m. About 40% of wells recorded rise of decadal fluctuation of water level in the range of 0 to 2 m. The maximum rise of 16.45 m is recorded at Ghayal in Vadodara whereas the maximum fall of 5.49 m is observed at Chhaliyar in vadodara district.

In Saurashtra region about 65% of wells observed rise in water level and out of which 32% wells shows rise in the range of 0 to 2m. Fall of water level are less than 2 m in 22% in whole region. The maximum rise of 18.34 m is recorded at Jetpur Rajkot district whereas the maximum fall of 16.90 m is recorded at Govindpura in Rajkot district.

In Kachchh, 65% of the wells have recorded rise in water level in the district. Rise is mostly (55% of wells) in the range of 0-4m, were fall of 0-4 m is recorded in 31% of wells. The maximum rise of 8.35 m is recorded at Samkhiri and the maximum fall of 7.03 m is at Shivlakha.

In Union Territory of Daman both rise and fall is observed. In Daman the maximum rise 1.74 m(Ambawadi) and fall 2.36m (Morwad) are observed. In Diu 0.71 m fall is recorded.

Fig- 23


गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर में बदलाव
मई 2014 से मई (2004-13) की औसत के बीच
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Decadal Variation of Water level
May 2014 with respect to
Decadal average of May (2004 - 2013)
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
KACHCHH
GANDHINAGAR
KHEDA
PANCHMAHALS
DOHAD
SURENDRANAGAR
AHMADABAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
AMRELI
BHARUCH
PORBANDAR
JUNAGADH
SURAT
NAVSARI
DANG
VALSAD
DAMAN
DIU
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh रण एवं दलदल क्षेत्र
0 50 100
kilometers
N
S
E
W

Table-16

WELL WISE CATEGORISATION OF CHANGES IN WATER LEVEL DURING MAY 2014 WITH RESPECT TO DECADAL AVERAGE OF MAY (2004 To 2013)

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	24	0.16	5.03	0.15	6.14	11 45.83%	3 12.50%	2 8.33%	5 20.83%	1 4.17%	2 8.33%	16	8
2	Anand	11	0.15	2.38	0.58	1.43	5 45.45%	2 18.18%	0 0.00%	4 36.36%	0 0.00%	0 0.00%	7	4
3	Banaskantha	25	0.11	6.86	0.75	5.37	4 16.00%	7 28.00%	5 20.00%	4 16.00%	2 8.00%	2 8.00%	16	8
4	Dohad	22	0.06	3.07	-	-	15 68.18%	7 31.82%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	22	0
5	Gandhinagar	5	0.9	1.99	0.15	1.00	2 40.00%	0 0.00%	0 0.00%	3 60.00%	0 0.00%	0 0.00%	2	3
6	Kheda	17	0.03	8.53	0.26	3.11	7 41.18%	2 11.76%	1 5.88%	6 35.29%	1 5.88%	0 0.00%	10	7
7	Mahesana	23	0.36	4.4	0.02	2.44	4 17.39%	14 60.87%	1 4.35%	3 13.04%	1 4.35%	0 0.00%	19	4
8	Panchmahals	28	0.43	8.04	0.28	6.04	13 46.43%	7 25.00%	2 7.14%	5 17.86%	0 0.00%	0 0.00%	22	6
9	Patan	10	0.34	6.14	0.58	16.11	4 40.00%	2 20.00%	1 10.00%	1 10.00%	1 10.00%	1 10.00%	7	3
10	Sabarkantha	37	0.16	10.17	0.08	6.71	11 29.73%	10 27.03%	8 21.62%	5 13.51%	0 0.00%	2 5.41%	29	7
	North Gujarat	**202**	**0.03**	**10.17**	**0.02**	**16.11**	**76** 37.62%	**54** 26.73%	**20** 9.90%	**36** 17.82%	**6** 2.97%	**7** 3.47%	**150**	**50**
11	Bharuch	31	0.19	4.5	0.07	2.6	13 41.94%	5 16.13%	2 6.45%	9 29.03%	2 6.45%	0 0.00%	20	11
12	Narmada	16	0.23	4.24	0.23	5.31	5 31.25%	2 12.50%	2 12.50%	5 31.25%	1 6.25%	1 6.25%	9	7
13	Navsari	21	0.02	7.32	0.11	0.59	12 57.14%	1 4.76%	1 4.76%	5 23.81%	0 0.00%	0 0.00%	14	5
14	Surat	52	0.01	5.04	0.01	2.34	23 44.23%	4 7.69%	1 1.92%	22 42.31%	1 1.92%	0 0.00%	28	23
15	The dangs	21	0.1	3.38	0.05	1.7	6 28.57%	1 4.76%	0 0.00%	14 66.67%	0 0.00%	0 0.00%	7	14
16	Vadodara	40	0.12	16.45	0.01	5.49	13 32.50%	7 17.50%	3 7.50%	12 30.00%	3 7.50%	2 5.00%	23	17
17	Valsad	20	0.17	3.50	0.08	2.56	9 45.00%	2 10.00%	0 0.00%	7 35.00%	1 5.00%	0 0.00%	11	8
	South Gujarat	**201**	**0.01**	**16.45**	**0.01**	**5.49**	**81** 40.30%	**22** 10.95%	**9** 4.48%	**74** 36.82%	**8** 3.98%	**3** 1.49%	**112**	**85**
18	Amreli	44	0.04	8.93	0.31	14.36	13 29.55%	7 15.91%	6 13.64%	10 22.73%	3 6.82%	5 11.36%	26	18
19	Bhavnagar	39	0.36	7.27	0.14	13.26	11 28.21%	15 38.46%	4 10.26%	5 12.82%	2 5.13%	2 5.13%	30	9
20	Jamnagar	52	0.04	14.75	0.01	9.58	20 38.46%	8 15.38%	8 15.38%	9 17.31%	4 7.69%	3 5.77%	36	16
21	Junagadh	53	0.05	4.41	0.02	16.9	13 24.53%	4 7.55%	1 1.89%	25 47.17%	7 13.21%	3 5.66%	18	35
22	Porbandar	21	0.15	11.34	0.49	0.49	12 57.14%	4 19.05%	4 19.05%	1 4.76%	0 0.00%	0 0.00%	20	1
23	Rajkot	51	0.03	18.34	0.12	4.51	16 31.37%	11 21.57%	8 15.69%	10 19.61%	4 7.84%	2 3.92%	35	16
24	Surendranagar	37	0.16	10.17	0.08	6.71	11 29.73%	10 27.03%	8 21.62%	5 13.51%	0 0.00%	2 5.41%	29	7
	Saurashtra	**297**	**0.03**	**18.34**	**0.01**	**16.90**	**96** 32.32%	**59** 19.87%	**39** 13.13%	**65** 21.89%	**20** 6.73%	**17** 5.72%	**194**	**102**
25	**Kachchh**	**49**	**0.05**	**8.35**	**0.11**	**7.03**	13 26.53%	6 12.24%	5 10.20%	14 28.57%	8 16.33%	3 6.12%	24	25
26	**Total**	**749**	**0.01**	**18.34**	**0.01**	**16.90**	**266** 35.51%	**141** 18.83%	**73** 9.75%	**189** 25.23%	**42** 5.61%	**30** 4.01%	**480**	**262**
27	Daman	9	0.17	1.74	0.63	2.36	4 44.44%	0 0.00%	0 0.00%	3 33.33%	2 22.22%	0 0.00%	4	3
28	Diu	2	-	-	0.05	0.71	0 0.00%	0 0.00%	0 0.00%	2 100.00%	0 0.00%	0 0.00%	0	2
	UT ofDaman & Diu	**11**	**0.17**	**1.74**	**0.05**	**2.36**	**4** 36.36%	**0** 0.00%	**0** 0.00%	**5** 45.45%	**2** 18.18%	**0** 0.00%	**4**	**5**
	Grand Total	**760**	**0.01**	**18.34**	**0.01**	**16.90**	**270** 35.53%	**141** 18.55%	**73** 9.61%	**194** 25.53%	**44** 5.79%	**30** 3.95%	**484**	**267**

3.4.2.2 Decadal average of August (2004 to 2013) to August 2014

A comparison of the water level of the August 2014 with the average water level of the August for last one decade (2004-2013) **Fig 24** & **Table 17** reveals that there is a rise in (52% of well analysed). Rise and fall is mostly in the range of 0 to 2 m. The fall of more than 2m observed mostly in Saurashtra region. The maximum rise of 14.19 m is recorded in Patan district whereas the maximum fall of 23.72 m is recorded in Patan district.

In North Gujarat 54% of wells have shown rise and mostly in range of 0 to 2 m (36% of wells) & 2 - 4m (12%) in entire North Gujarat. A prominent patch of fall of water level is located in all of the districts of North Gujarat. The maximum rise of 14.19 m is recorded at Sander in Patan district whereas the maximum fall of 23.72 m is recorded at Harij also in Patan district.

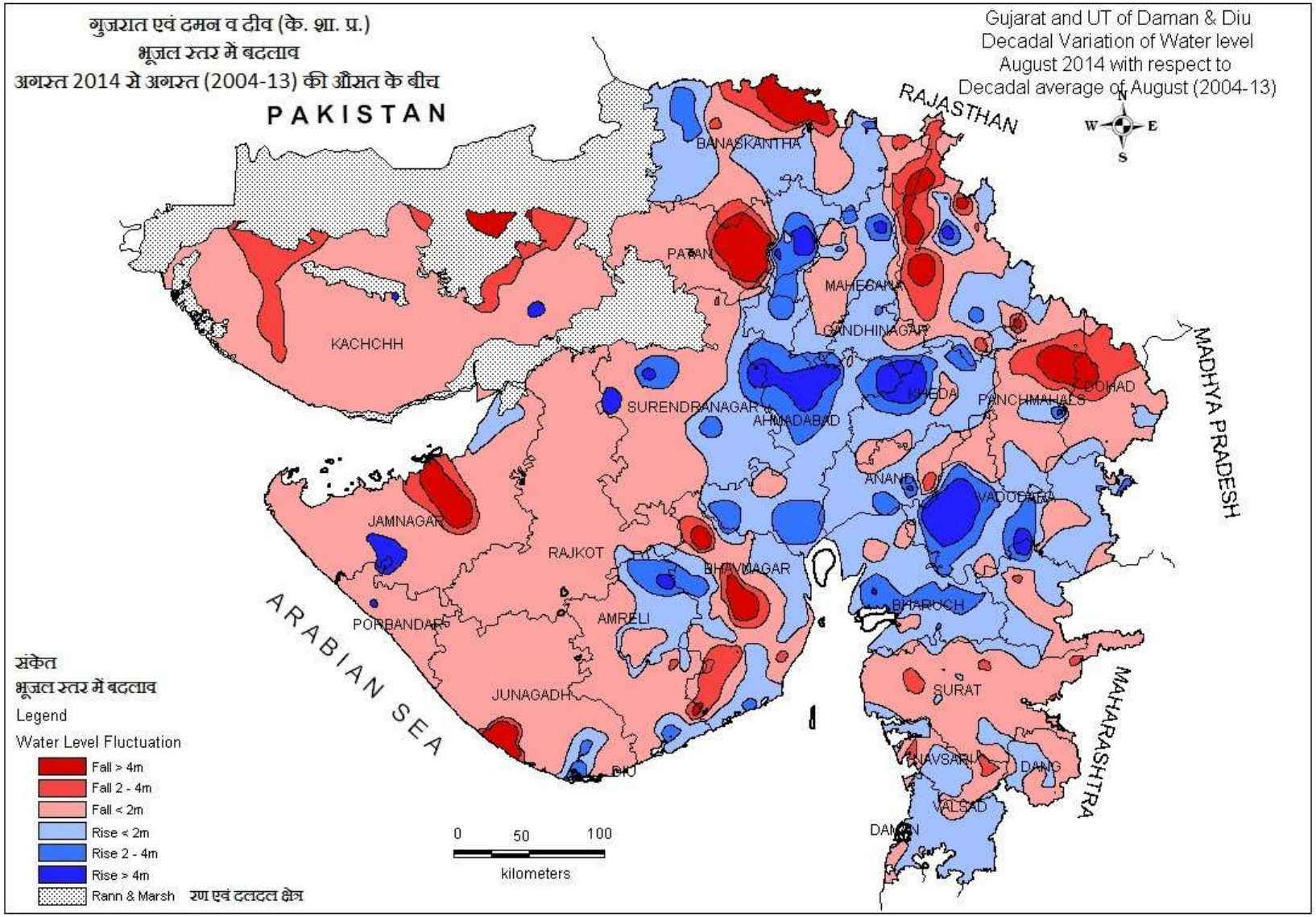
South Gujarat has experienced Rise (53% of wells analysed), the rise is mainly (44% of wells) in the range of 0 to 2 m. About 47% of wells recorded fall of decadal fluctuation of water level of which 40% of well are in the range of 0 to 2 m and scattered in whole South Gujarat region. The maximum rise of 12.07 m is recorded at Ghayaj in Vadodara district whereas the maximum fall of 3.77 m is observed at Kathor in Surat district.

In Saurashtra region rise and fall of wells observed are same but fall in water level is more than 4m is 10% and rise is 5 %. The rise in water level is mostly in Bhavnagar, Amreli, Junagarh and Surendranagar districts but fall of water level covers the entire area. The maximum rise of 10.87 m is recorded at Simar in Porbandar district and the maximum fall of 13.80 m is at Govindpura in Junagdh district.

In Kachchh, 52% of the wells analysed have recorded rise in water level in the district. Rise is mostly (30% of wells) in the range of 0 – 2 m. Fall is observed in 40% wells in the district ain the range of 0-4m. The maximum rise of 5.52 m (Shivlakha) and the maximum fall of 6.58 m (Ratanpur Khadir) are recorded.

In Union Territory of Daman both Maximum rise 0.83 m (Bhimpor ka falia) and fall 0.18 m (Khariwad Daman) and in Diu Maximum rise 5.28 m (Vanakbara) and fall 3.95 m in Diu dug well.

Fig- 24


गुजरात एवं दमन व दीव (के. शा. प्र.)
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अगस्त 2014 से अगस्त (2004-13) की औसत के बीच
Gujarat and UT of Daman & Diu
Decadal Variation of Water level
August 2014 with respect to
Decadal average of August (2004-13)
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
GANDHINAGAR
KACHCHH
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
SURAT
NAVSARI
DANG
VALSAD
DAMAN
DIU
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh रण एवं दलदल क्षेत्र
0 50 100
kilometers
N
W
E
S

Table-17

WELL WISE CATEGORISATION OF CHANGES IN WATER LEVEL DURING AUGUST 2014 WITH RESPECT TO DECADAL AVERAGE OF AUGUST (2004 To 2013)

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	22	0.47	6.95	0.48	10.65	10 45.45%	8 36.36%	2 9.09%	1 4.55%	0 0.00%	1 4.55%	20	2
2	Anand	11	0.25	4.82	0.24	3.83	6 54.55%	1 9.09%	1 9.09%	2 18.18%	1 9.09%	0 0.00%	8	3
3	Banaskantha	22	0.02	5.58	0.01	6.2	4 18.18%	4 18.18%	1 4.55%	7 31.82%	4 18.18%	2 9.09%	9	13
4	Dohad	20	0.03	1.72	0.05	3.58	4 20.00%	0 0.00%	0 0.00%	11 55.00%	5 25.00%	0 0.00%	4	16
5	Gandhinagar	5	0.68	2.19	1.2	1.2	3 60.00%	1 20.00%	0 0.00%	1 20.00%	0 0.00%	0 0.00%	4	1
6	Kheda	14	0.33	10.24	0.14	1.18	9 64.29%	0 0.00%	1 7.14%	4 28.57%	0 0.00%	0 0.00%	10	4
7	Mahesana	22	0.02	5.4	0.74	3.54	9 40.91%	4 18.18%	1 4.55%	6 27.27%	2 9.09%	0 0.00%	14	8
8	Panchmahals	27	0.1	5.01	0.31	12.61	9 33.33%	0 0.00%	1 3.70%	10 37.04%	4 14.81%	3 11.11%	10	17
9	Patan	9	0.02	14.19	0.89	23.72	2 22.22%	2 22.22%	2 22.22%	2 22.22%	0 0.00%	1 11.11%	6	3
10	Sabarkantha	33	0.39	5.83	0.14	7.3	10 30.30%	2 6.06%	2 6.06%	7 21.21%	7 21.21%	5 15.15%	14	19
	North Gujarat	**185**	**0.02**	**14.19**	**0.01**	**23.72**	**66** 35.68%	**22** 11.89%	**11** 5.95%	**51** 27.57%	**23** 12.43%	**12** 6.49%	**99**	**86**
11	Bharuch	24	0.09	4.16	0.66	2.54	14 58.33%	5 20.83%	2 8.33%	2 8.33%	1 4.17%	0 0.00%	21	3
12	Narmada	13	0.02	6.44	0.11	3.15	7 53.85%	0 0.00%	1 7.69%	4 30.77%	1 7.69%	0 0.00%	8	5
13	Navsari	19	0.12	2.41	0.06	2.98	7 36.84%	1 5.26%	0 0.00%	7 36.84%	4 21.05%	0 0.00%	8	11
14	Surat	42	0.01	0.67	0.02	3.77	8 19.05%	0 0.00%	0 0.00%	29 69.05%	5 11.90%	0 0.00%	8	34
15	The dangs	22	0.02	1.39	0.00	2.01	10 45.45%	0 0.00%	0 0.00%	11 50.00%	1 4.55%	0 0.00%	10	12
16	Vadodara	32	0.07	12.07	0.11	1.77	14 43.75%	6 18.75%	1 3.13%	11 34.38%	0 0.00%	0 0.00%	21	11
17	Valsad	17	0.08	1.19	0.3	1.56	14 82.35%	0 0.00%	0 0.00%	3 17.65%	0 0.00%	0 0.00%	14	3
	South Gujarat	**169**	**0.01**	**12.07**	**0.00**	**3.77**	**74** 43.79%	**12** 7.10%	**4** 2.37%	**67** 39.64%	**12** 7.10%	**0** 0.00%	**90**	**79**
18	Amreli	42	0.03	8.04	0.4	7.54	14 33.33%	3 7.14%	4 9.52%	9 21.43%	8 19.05%	4 9.52%	21	21
19	Bhavnagar	38	0.00	3.24	0.08	8.87	15 39.47%	3 7.89%	0 0.00%	12 31.58%	4 10.53%	4 10.53%	18	20
20	Jamnagar	38	0.19	4.37	0.01	8.19	13 34.21%	4 10.53%	1 2.63%	11 28.95%	4 10.53%	5 13.16%	18	20
21	Junagadh	42	0.07	5.19	0.08	13.8	17 40.48%	10 23.81%	1 2.38%	7 16.67%	4 9.52%	3 7.14%	28	14
22	Porbandar	19	0.1	10.87	0.01	1.09	7 36.84%	5 26.32%	3 15.79%	4 21.05%	0 0.00%	0 0.00%	15	4
23	Rajkot	49	0.5	4.19	0.52	8.86	10 20.41%	3 6.12%	1 2.04%	20 40.82%	6 12.24%	9 18.37%	14	35
24	Surendranagar	29	0.08	6.32	0.28	4.46	7 24.14%	2 6.90%	3 10.34%	13 44.83%	3 10.34%	1 3.45%	12	17
	Saurashtra	**257**	**0.00**	**10.87**	**0.01**	**13.80**	**83** 32.30%	**30** 11.67%	**13** 5.06%	**76** 29.57%	**29** 11.28%	**26** 10.12%	**126**	**131**
25	**Kachchh**	**44**	**0.26**	**5.52**	**0.07**	**6.58**	13 29.55%	6 13.64%	4 9.09%	9 20.45%	8 18.18%	4 9.09%	23	21
26	**Total**	**655**	**0.00**	**14.19**	**0.00**	**23.72**	**236** 36.03%	**70** 10.69%	**32** 4.89%	**203** 30.99%	**72** 10.99%	**42** 6.41%	**338**	**317**
27	Daman	6	0.14	0.83	0.18	0.18	5 83.33%	0 0.00%	0 0.00%	1 16.67%	0 0.00%	0 0.00%	5	1
28	Diu	3	0.27	5.28	3.95	3.95	1 33.33%	0 0.00%	1 33.33%	0 0.00%	1 33.33%	0 0.00%	2	1
	UT ofDaman & Diu	**9**	**0.14**	**5.28**	**0.18**	**3.95**	**6** 66.67%	**0** 0.00%	**1** 11.11%	**1** 11.11%	**1** 11.11%	**0** 0.00%	**7**	**2**
	Grand Total	**664**	**0.00**	**14.19**	**0.00**	**23.72**	**242** 36.45%	**70** 10.54%	**33** 4.97%	**204** 30.72%	**73** 10.99%	**42** 6.33%	**345**	**319**

3.4.2.3 Decadal average of November(2004-2013) to November 2014

A comparison of the water level of the November 2014 with the average water level of the November for last one decade (2004-2013) **Fig 25** & **Table 17** reveals that there is a rise in water level in the state (53% of total well analysed). Rise and fall is mostly in the range of 0 to 2m. Rise of more than 4m is observed as isolated patches scattered in all over the state. The maximum rise of 12.44 m is recorded in Vadodara district whereas the maximum fall of 11.85 m is recorded in Surendranagar district.

In North Gujarat 72% of wells are shown rise and mostly well are in range of 0 to 4 m (62% of wells) in entire North Gujarat. A prominent patch of fall of water level is located in Banaskantha, Pachmahals, Dohad and Ahmedabad district. The maximum rise of 10.14 m is recorded at Udad in Mahesana district whereas the maximum fall of 7.82 m is also observedat Devalia in Ahmedabad district.

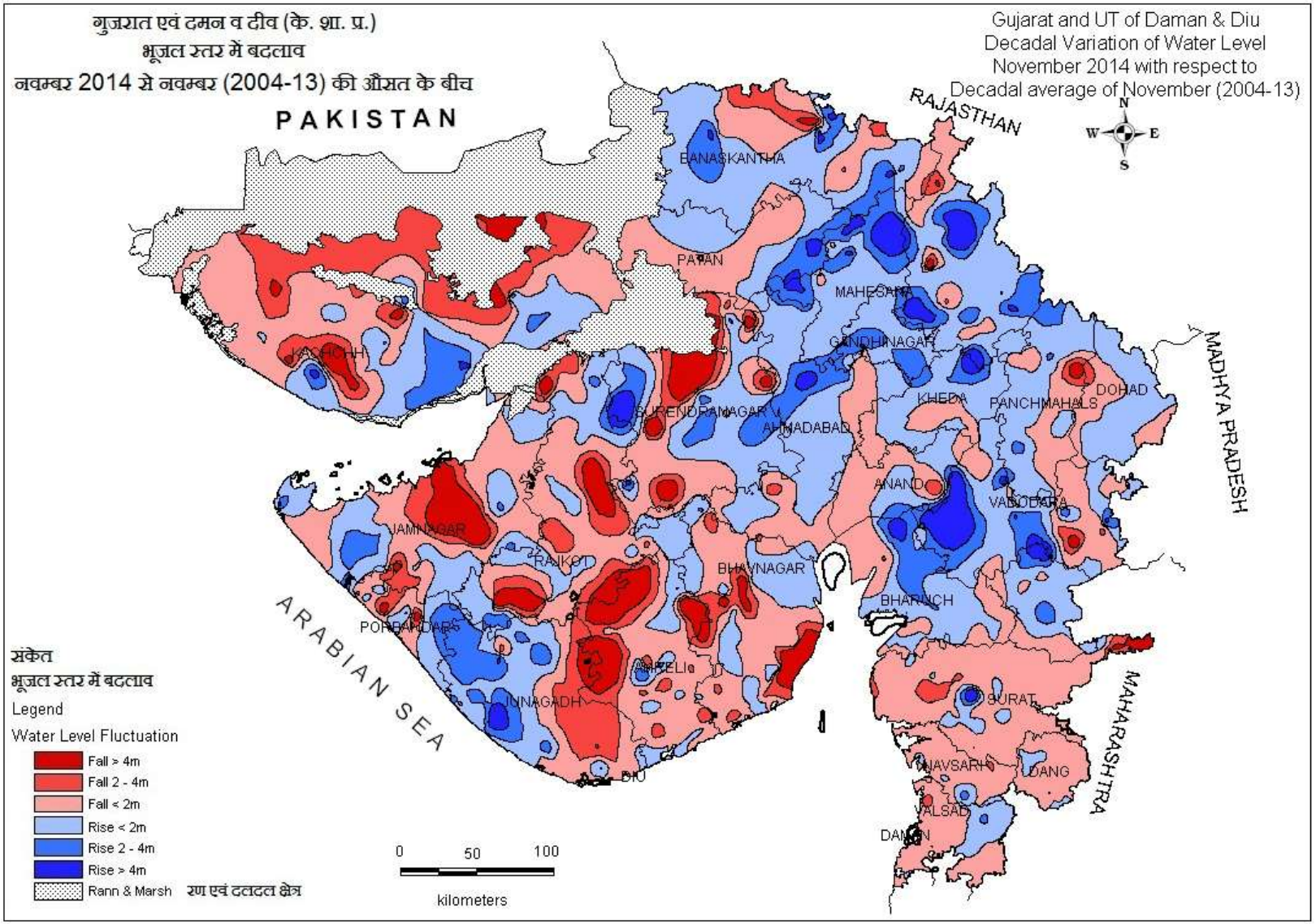
In South Gujarat, the major part has experienced fall (62% of total wells analysed). The fall is mainly (56% of wells) in the range of 0 to 2 m. More than 4 m rise is found in 5% of wells particularly in Vadodara district. About 38% of wells recorded rise in decadal fluctuation of water level of which 28% of well are in the range of 0 to 2 m and scattered in whole South Gujarat region. The maximum rise of 12.44 m is recorded at Ghayaj in Vadodara district whereas the maximum fall of 5.78 m is observed at Karmasiya also in Vadodara district.

In Saurashtra region about 48% of wells observed rise in water level and out of which 36% wells shows rise in the range of less than 2m. Fall of water level are experienced in 52% of the region. Fall more than 4 m has observed in all the region is in scattered menar. The maximum rise of 9.77 m at Mithak in Surendranagar district and the maximum fall of 11.85m is recorded at Nava Raisighpur in Surendranagar district.

In Kachchh, 45% of the total wells analysed are recorded rise in water level in the district. Rise is mostly (27% of wells) in the range of 0 – 2 m. Fall is observed in 55% of the wells analysed in which 35 % is less than 4 m. More than 4 m fall observed in central and north eastern region.The maximum rise of 5.25 m is recorded in Gandhidham and the maximum fall of 7.24 m is in Ratanpur.

In Union Territory of Diu only rise is observed with maximum of 1.68 m in dug well at Diu. In Daman the maximum rise 0.87 m at Ambawadi and fall 2.71 m at Bhipor ka falia.

Fig- 25


गुजरात एवं दमन व दीव (के. शा. प्र.)
भूजल स्तर में बदलाव
नवम्बर 2014 से नवम्बर (2004-13) की औसत के बीच
Gujarat and UT of Daman & Diu
Decadal Variation of Water Level
November 2014 with respect to
Decadal average of November (2004-13)
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
GANDHINAGAR
KACHCHH
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
SURAT
NAVSARI
DANG
VALSAD
DAMAN
DIU
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh रण एवं दलदल क्षेत्र
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kilometers
N
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Table-18

WELL WISE CATEGORISATION OF CHANGES IN WATER LEVEL DURING NOVEMBER 2014 WITH RESPECT TO DECADAL AVERAGE OF NOVEMBER (2004To 2013)

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	25	0.03	5.44	0.62	7.82	15 60.00%	3 12.00%	1 4.00%	4 16.00%	0 0.00%	1 4.00%	20	5
2	Anand	10	0.6	2.59	0.27	3.78	5 50.00%	1 10.00%	0 0.00%	3 30.00%	1 10.00%	0 0.00%	6	4
3	Banaskantha	25	0.71	5.51	0.00	6.23	5 20.00%	2 8.00%	5 20.00%	8 32.00%	3 12.00%	2 8.00%	12	13
4	Dohad	22	0.06	1.31	0.28	1.38	16 72.73%	0 0.00%	0 0.00%	6 27.27%	0 0.00%	0 0.00%	16	6
5	Gandhinagar	6	0.91	4.45	0.89	0.89	2 33.33%	2 33.33%	1 16.67%	1 16.67%	0 0.00%	0 0.00%	5	1
6	Kheda	18	0.01	2.36	0.03	1.36	11 61.11%	2 11.11%	0 0.00%	5 27.78%	0 0.00%	0 0.00%	13	5
7	Mahesana	22	0.44	10.4	0.82	1.02	9 40.91%	5 22.73%	6 27.27%	2 9.09%	0 0.00%	0 0.00%	20	2
8	Panchmahals	30	0.03	3.72	0.27	5.84	18 60.00%	3 10.00%	0 0.00%	8 26.67%	0 0.00%	1 3.33%	21	9
9	Patan	7	0.59	6.15	0.64	0.85	2 28.57%	2 28.57%	1 14.29%	2 28.57%	0 0.00%	0 0.00%	5	2
10	Sabarkantha	41	0.07	8.84	0.08	6.94	18 43.90%	5 12.20%	7 17.07%	8 19.51%	1 2.44%	2 4.88%	30	11
	North Gujarat	**206**	**0.01**	**10.40**	**0.00**	**7.82**	**101** 49.03%	**25** 12.14%	**21** 10.19%	**47** 22.82%	**5** 2.43%	**6** 2.91%	**148**	**58**
11	Bharuch	28	0.02	6.17	0.07	2.14	14 50.00%	5 17.86%	1 3.57%	7 25.00%	1 3.57%	0 0.00%	20	8
12	Narmada	15	0.08	6.74	0.42	1.25	7 46.67%	1 6.67%	2 13.33%	5 33.33%	0 0.00%	0 0.00%	10	5
13	Navsari	20	0.06	3.06	0.04	3.18	3 15.00%	1 5.00%	0 0.00%	15 75.00%	1 5.00%	0 0.00%	4	16
14	Surat	54	0.02	7.16	0.00	5.05	11 20.37%	0 0.00%	1 1.85%	37 68.52%	3 5.56%	2 3.70%	12	42
15	The dangs	25	0.04	0.99	0.00	1.24	5 20.00%	0 0.00%	0 0.00%	20 80.00%	0 0.00%	0 0.00%	5	20
16	Vadodara	45	0.00	12.44	0.02	5.75	14 31.11%	2 4.44%	6 13.33%	19 42.22%	3 6.67%	1 2.22%	22	23
17	Valsad	18	0.01	2.38	0.02	2.94	4 22.22%	1 5.56%	0 0.000%	12 66.67%	1 5.56%	0 0.00%	5	13
	South Gujarat	**205**	**0.00**	**12.44**	**0.00**	**5.75**	**58** 28.29%	**10** 4.88%	**10** 4.88%	**115** 56.10%	**9** 4.39%	**3** 1.46%	**78**	**127**
18	Amreli	49	0.05	3.95	0.02	10.61	15 30.61%	3 6.12%	0 0.00%	16 32.65%	7 14.29%	8 16.33%	18	31
19	Bhavnagar	44	0.21	2.31	0.12	11.53	15 34.09%	2 4.55%	0 0.00%	14 31.82%	7 15.91%	6 13.64%	17	27
20	Jamnagar	44	0.03	4.66	0.12	8.71	14 31.82%	4 9.09%	1 2.27%	16 36.36%	4 9.09%	5 11.36%	19	25
21	Junagadh	44	0.05	5.98	0.45	4.08	19 43.18%	12 27.27%	3 6.82%	6 13.64%	3 6.82%	1 2.27%	34	10
22	Porbandar	25	0.02	3.67	0.05	6.05	7 28.00%	3 12.00%	0 0.00%	7 28.00%	4 16.00%	4 16.00%	10	15
23	Rajkot	48	0.3	3.13	0.11	8.23	19 39.58%	3 6.25%	0 0.00%	14 29.17%	6 12.50%	6 12.50%	22	26
24	Surendranagar	41	0.05	9.77	0.06	11.85	15 36.59%	7 17.07%	2 4.88%	9 21.95%	1 2.44%	6 14.63%	24	16
	Saurashtra	**295**	**0.02**	**9.77**	**0.02**	**11.85**	**104** 35.25%	**34** 11.53%	**6** 2.03%	**82** 27.80%	**32** 10.85%	**36** 12.20%	**144**	**150**
25	**Kachchh**	**45**	**0.06**	**5.25**	**0.1**	**7.24**	12 26.67%	8 17.78%	2 4.44%	8 17.78%	8 17.78%	7 15.56%	22	23
26	**Total**	**751**	**0.00**	**12.44**	**0.00**	**11.85**	**275** 36.62%	**77** 10.25%	**39** 5.19%	**252** 33.56%	**54** 7.19%	**52** 6.92%	**392**	**358**
27	Daman	9	0.03	0.87	0.61	2.71	4 44.44%	0 0.00%	0 0.00%	3 33.33%	2 22.22%	0 0.00%	4	5
28	Diu	2	-	-	0.44	1.68	0 0.00%	0 0.00%	0 0.00%	2 100.00%	0 0.00%	0 0.00%	2	0
	UT ofDaman & Diu	**11**	**0.03**	**0.87**	**0.44**	**2.71**	**4** 36.36%	**0** 0.00%	**0** 0.00%	**5** 45.45%	**2** 18.18%	**0** 0.00%	**6**	**5**
	Grand Total	**762**	**0.00**	**12.44**	**0.00**	**11.85**	**279** 36.61%	**77** 10.10%	**39** 5.12%	**257** 33.73%	**56** 7.35%	**52** 6.82%	**398**	**363**

3.4.2.4 Decadal average of January(2005-2014) to January 2015

A comparison of the water level of the January 2015 with the average water level of the January for last one decade (2005-2014) **Fig 26** & **Table 18** reveals that there is a fall in water level in the state (46% of well analysed). Rise and fall is mostly in the range of 0 to 2m. Fall of more than 4m is observed mostly in Saurashtra and Kachchh region and occur as isolated patches scattered in North Gujarat region. The maximum rise of 10.18 m is recorded in Patan district whereas the maximum fall of 22.49 m is recorded in Junagarh district.

In North Gujarat 58% of wells are shown rise and mostly well are in range of 0 to 4 m (50% of wells) in entire North Gujarat. A prominent patch of fall of water level is located Anand, Dohad, Panchmahals and Sabarkantha districts. The maximum rise of 10.8 m is recorded at Sander in patan district whereas the maximum fall of 11.61 m is observed at Palla Rajgarh in Panchmahals district.

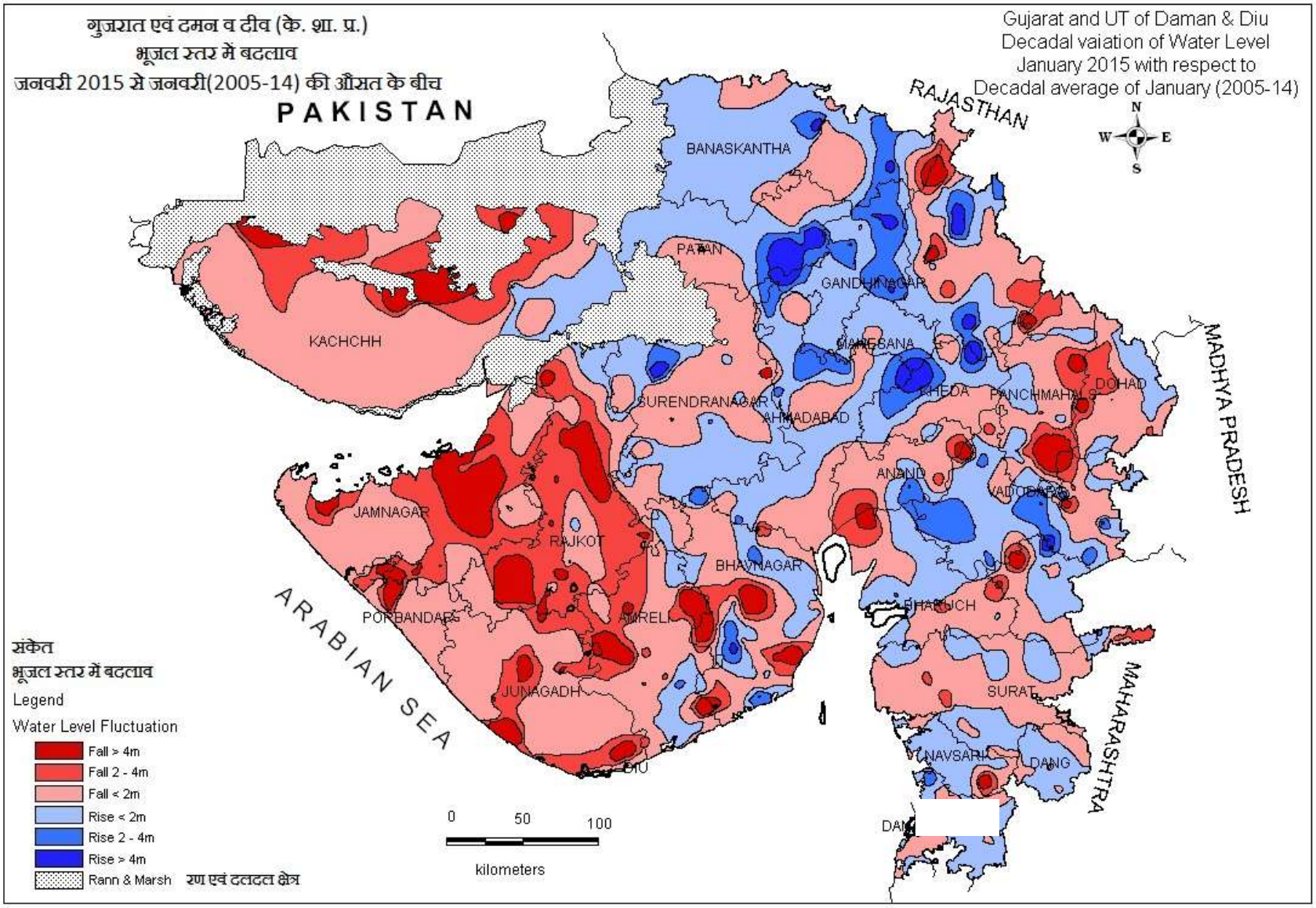
In south Gujarat, the rise 48% for this decadal variation. The rise and fall mainly in the range of 0 to 2 m (40% rise & 45% fall). More than 2 m rise is found in Vadodara and Narmada districts. The maximum rise of 6.50 m is recorded at Agar in Narmada whereas the maximum fall of 9.08 m is observed at Pipal kheda in Valsad district.

In Saurashtra region, about 68% of wells observed fall in water level and out of which 31% wells shows rise in the range of 0 to 2m. Fall of water level more than 4m are experienced in 20% of the total well in region as isolated patches. Rise in the water level in the region 32%. Rise more than 2m mostly observed in Amreli and Bhavnagar districts. The maximum rise of 7.16 m at Bhimdeval in Junagdh district and the maximum fall of 22.49 m is recorded at Govindpura also in Junagadh district.

In Kachchh, 61% of the total wells analysed are recorded fall in water level in the district. Fall is mostly (50% of wells) in the range of 0 – 4 m. Rise is mainly observed in the range of 0 – 2 m in eastern part of Kachchh and has 28% of total wells. The maximum rise of 3.99 m is recorded at Samkhiri and the maximum fall of 7.24 m at Lakhpat.

In Union Territory of Daman & Diu, rise is observed in 73% of the observation stations. The maximum rise of 1.28 m in Daman and fall 0.96 m is observed at Diu.

Fig- 26


गुजरात एवं दमन व दीव (के. शा. प्र.)
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PATAN
GANDHINAGAR
MEHSANA
KACHCHH
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
SURAT
NAVSARI
DANG
DIU
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50
100
kilometers
संकेत
भूजल स्तर में बदलाव
Legend
Water Level Fluctuation
Fall > 4m
Fall 2 - 4m
Fall < 2m
Rise < 2m
Rise 2 - 4m
Rise > 4m
Rann & Marsh
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Table-19

WELL WISE CATEGORISATION OF CHANGES IN WATER LEVEL DURING JANUARY 2015 WITH RESPECT TO DECADAL AVERAGE OF JANUARY (2005 To 2014)

Sr. No.	District Name	No of well analysed	Range of Fluctuation (m)				No. of Wells Showing Fluctuation						Total No. of Wells	
			Rise		Fall		Rise			Fall				
			Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4	Rise	Fall
1	Ahmedabad	25	0.1	4.17	0.00	3.83	11 44.00%	5 20.00%	1 4.00%	5 20.00%	3 12.00%	0 0.00%	17	8
2	Anand	10	1.01	4.14	0.04	2.75	1 10.00%	1 10.00%	1 10.00%	6 60.00%	1 10.00%	0 0.00%	3	7
3	Banaskantha	20	0.37	5.43	0.25	4.53	10 50.00%	3 15.00%	2 10.00%	4 20.00%	0 0.00%	1 5.00%	15	5
4	Dohad	22	0.02	1.89	0.08	5.91	7 31.82%	0 0.00%	0 0.00%	10 45.45%	4 18.18%	1 4.55%	18	1
5	Gandhinagar	6	0.53	4.29	0.03	0.76	3 50.00%	0 0.00%	1 16.67%	2 33.33%	0 0.00%	0 0.00%	4	2
6	Kheda	18	0.07	6.88	0.19	3.17	5 27.78%	1 5.56%	1 5.56%	10 55.56%	1 5.56%	0 0.00%	7	11
7	Mahesana	23	0.36	5.82	0.27	0.27	13 56.52%	5 21.74%	4 17.39%	1 4.35%	0 0.00%	0 0.00%	22	1
8	Panchmahals	30	0.03	1.71	0.16	11.61	13 43.33%	0 0.00%	0 0.00%	9 30.00%	5 16.67%	3 10.00%	13	17
9	Patan	10	0.4	10.18	0.28	0.7	4 40.00%	1 10.00%	2 20.00%	3 30.00%	0 0.00%	0 0.00%	7	3
10	Sabarkantha	40	0.27	7.9	0.08	9.4	15 37.50%	3 7.50%	4 10.00%	12 30.00%	3 7.50%	3 7.50%	22	18
	North Gujarat	**204**	**0.02**	**10.18**	**0.00**	**11.61**	**82** 40.20%	**19** 9.31%	**16** 7.84%	**62** 30.39%	**17** 8.33%	**8** 3.92%	**128**	**73**
11	Bharuch	30	0.28	2.24	0.00	5.43	7 23.33%	3 10.00%	0 0.00%	18 60.00%	1 3.33%	1 3.33%	10	20
12	Narmada	16	0.36	6.5	0.1	6.74	4 25.00%	0 0.00%	1 6.25%	9 56.25%	0 0.00%	2 12.50%	5	11
13	Navsari	22	0.01	1.93	0.12	9.08	14 63.64%	0 0.00%	0 0.00%	6 27.27%	1 4.55%	1 4.55%	14	8
14	Surat	51	0.02	2.19	0.01	3.22	16 31.37%	1 1.96%	0 0.00%	29 56.86%	5 9.80%	0 0.00%	17	34
15	The dangs	23	0.1	1.43	0.02	1.16	15 65.22%	0 0.00%	0 0.00%	8 34.78%	0 0.00%	0 0.00%	15	8
16	Vadodara	46	0.12	4.69	0.06	7.88	14 30.43%	8 17.39%	3 6.52%	16 34.78%	3 6.52%	2 4.35%	25	21
17	Valsad	19	0.19	3.35	0.17	2.15	11 57.89%	1 5.26%	0 0.00%	6 31.58%	1 5.26%	0 0.00%	12	7
	South Gujarat	**207**	**0.01**	**6.50**	**0.00**	**9.08**	**81** 39.13%	**13** 6.28%	**4** 1.93%	**92** 44.44%	**11** 5.31%	**6** 2.90%	**98**	**109**
18	Amreli	45	0.02	3.49	0.07	10.24	13 28.89%	3 6.67%	0 0.00%	17 37.78%	7 15.56%	5 11.11%	16	29
19	Bhavnagar	40	0.05	4.85	0.05	19.4	12 30.00%	3 7.50%	2 5.00%	13 32.50%	2 5.00%	7 17.50%	17	23
20	Jamnagar	50	0.05	5.23	0.06	14.52	7 14.00%	0 0.00%	1 2.00%	17 34.00%	12 24.00%	13 26.00%	8	42
21	Junagadh	58	0.02	7.16	0.16	22.49	18 31.03%	0 0.00%	4 6.90%	16 27.59%	9 15.52%	11 18.97%	22	36
22	Porbandar	24	0.04	4.08	0.07	9.6	5 20.83%	0 0.00%	1 4.17%	9 37.50%	5 20.83%	4 16.67%	6	18
23	Rajkot	44	0.39	2.85	0.25	11.19	6 13.64%	2 4.55%	0 0.00%	12 27.27%	11 25.00%	13 29.55%	8	36
24	Surendranagar	42	0.06	6.94	0.66	11.05	15 35.71%	2 4.76%	3 7.14%	10 23.81%	4 9.52%	8 19.05%	20	22
	Saurashtra	**303**	**0.02**	**7.16**	**0.05**	**22.49**	**76** 25.08%	**10** 3.30%	**11** 3.63%	**94** 31.02%	**50** 16.50%	**61** 20.13%	**97**	**206**
25	**Kachchh**	**42**	**0.31**	**3.99**	**0.1**	**7.24**	12 28.57%	4 9.52%	0 0.00%	12 28.57%	9 21.43%	5 11.90%	16	26
26	**Total**	**756**	**0.01**	**10.18**	**0.00**	**22.49**	**251** 33.20%	**46** 6.08%	**31** 4.10%	**260** 34.39%	**87** 11.51%	**80** 10.58%	**339**	**414**
27	Daman	9	0.27	1.28	0.45	1.88	7 77.78%	0 0.00%	0 0.00%	2 22.22%	0 0.00%	0 0.00%	7	2
28	Diu	2	0.94	0.94	0.96	0.96	1 50.00%	0 0.00%	0 0.00%	1 50.00%	0 0.00%	0 0.00%	1	1
	UT ofDaman & Diu	**11**	**0.27**	**1.28**	**0.45**	**1.88**	**8** 72.73%	**0** 0.00%	**0** 0.00%	**3** 27.27%	**0** 0.00%	**0** 0.00%	**8**	**3**
	Grand Total	**767**	**0.01**	**10.18**	**0.00**	**22.49**	**259** 33.77%	**46** 6.00%	**31** 4.04%	**263** 34.29%	**87** 11.34%	**80** 10.43%	**347**	**417**

3.5 Water Table Scenario

A detailed discussion of water table scenario during May 2014 monitoring periods is described below.

3.5.1 May 2014

The water table map for pre-monsoon period **(Fig. 27)** reveals that the water table in different parts of the state ranges between – 20.6 mbmsl and more than 623.9 mamsl. The water table mostly follows the topography of the area. Water table is highest along the eastern hilly tract of the eastern side and gradually reduces towards west/south west. Ground water flow direction is westward and southwest in north Gujarat and it turns to west in south Gujarat. Flow directions in Kachchh and Saurashtra are divergent in all directions from the centre of the regions where the height of the water table is 200 mamsl, thus making groundwater mound in the central parts of both the Regions. The elevation of the water table is more than 400 mamsl in the eastern part of the main land Gujarat. Water table of 400 mamsl and above is recorded in Dangs, Banaskantha and Sabarkantha districts. Water table below mean sea level is observed in coastal Kachchh, Saurashtra and Valsad district.

3.6 Piezometric Configuration

Northern part of the north Gujarat is underlain by the unconsolidated alluvial deposits of post Miocene age and semi consolidated Mesozoic and Tertiary sediments. These sedimentary formations form the most prolific multi-aquifer system comprising several confined aquifers. Confined aquifers in this area are grouped into, first confined aquifer ranging in depth from 78 to 162 mbgl and second confined aquifer ranging in depth from 154 to 274 mbgl. These aquifers extend from the foothill of the Aravallis in the northeast to the little Rann of Kachchh in the west. The aerial extent of this multi-aquifer system is shown in the maps by dotted line**.** The data of the depth to water level in confined aquifer is given in Annexure III B.

3.6.1 May 2014 – (First Confined Aquifer)

In the alluvial area 36 piezometers tapping the first confined aquifers were monitored and analysed during May 2014. Based on the water levels measured, a Isopiestic map was prepared **Fig 28**. A perusal of the map shows that in general depth to piezometric surface declines from east to west. A trough of more than 54 mbmsl is found in Ahmedabad districts. The elevation of piezometric head varies from 54 mbmsl at Ahmedabad city to 109 mamsl at Kheralu in Mahesana district.

3.6.2 May 2014 – (Second Confined Aquifer)

In the alluvial area 25 piezometers tapping the second confined aquifers were monitored and analysed during May 2014. Based on the water levels measured, an Isopiestic map was prepared **Fig 29**. A perusal of the map shows that in trough of more than 70 mbmsl is found in adjoining area of Patan and Mahesana. The elevation of piezometric head ranges from 62.8 mbmsl at Motipura in Maesana to 53 mamsl at Billiya in Patan district.

Fig- 27

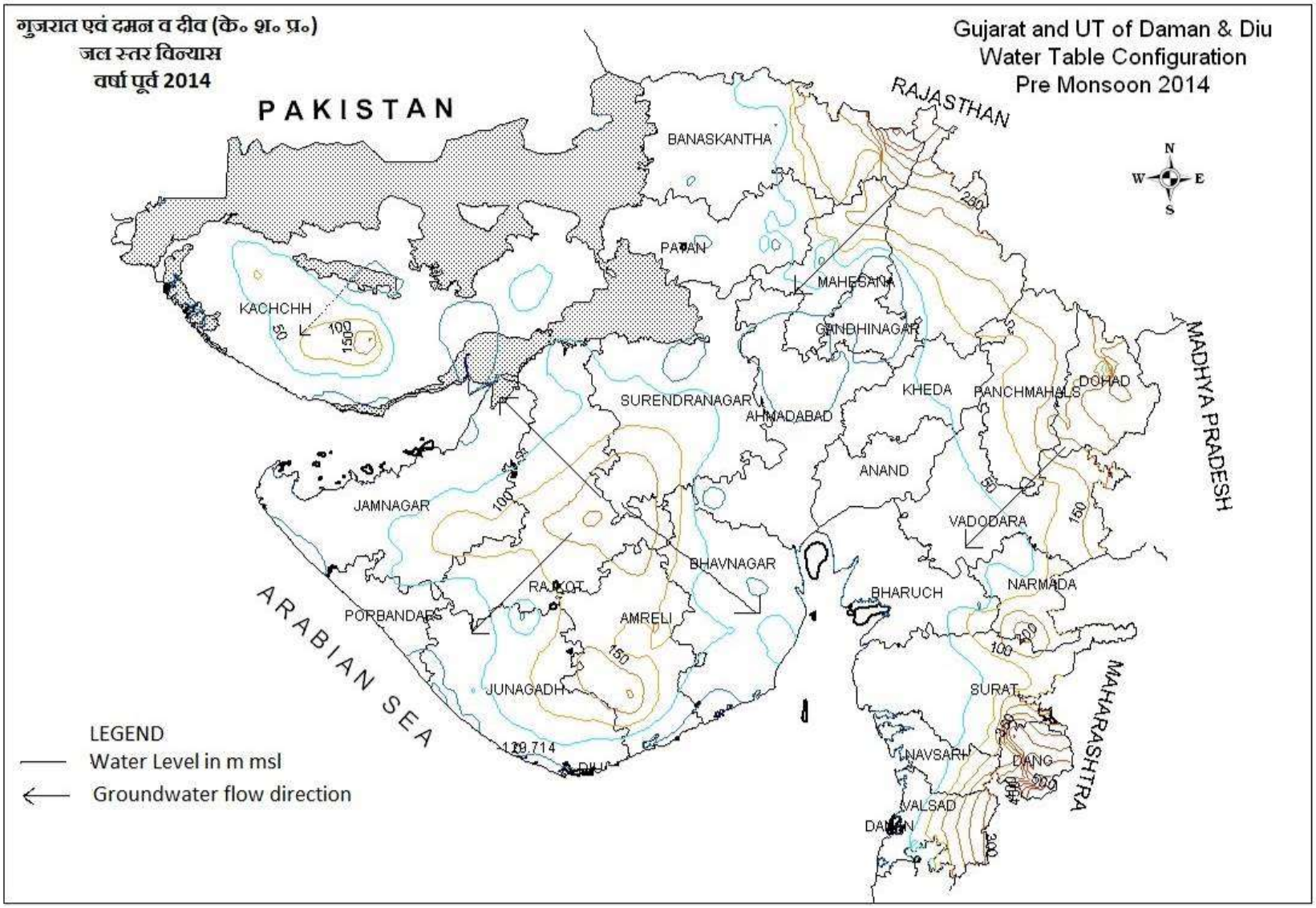

गुजरात एवं दमन व दीव (के० श० प्र०)
जल स्तर विन्यास
वर्षा पूर्व 2014
Gujarat and UT of Daman & Diu
Water Table Configuration
Pre Monsoon 2014
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
GANDHINAGAR
KACHCHH
SURENDRANAGAR
AHMADABAD
KHEDA
PANCHMAHALS
DOHAD
ANAND
VADODARA
JAMNAGAR
BHAVNAGAR
RAJKOT
PORBANDAR
AMRELI
BHARUCH
NARMADA
JUNAGADH
SURAT
NAVSARI
DANG
VALSAD
DAMAN
DIU
LEGEND
Water Level in m msl
Groundwater flow direction

Fig- 28

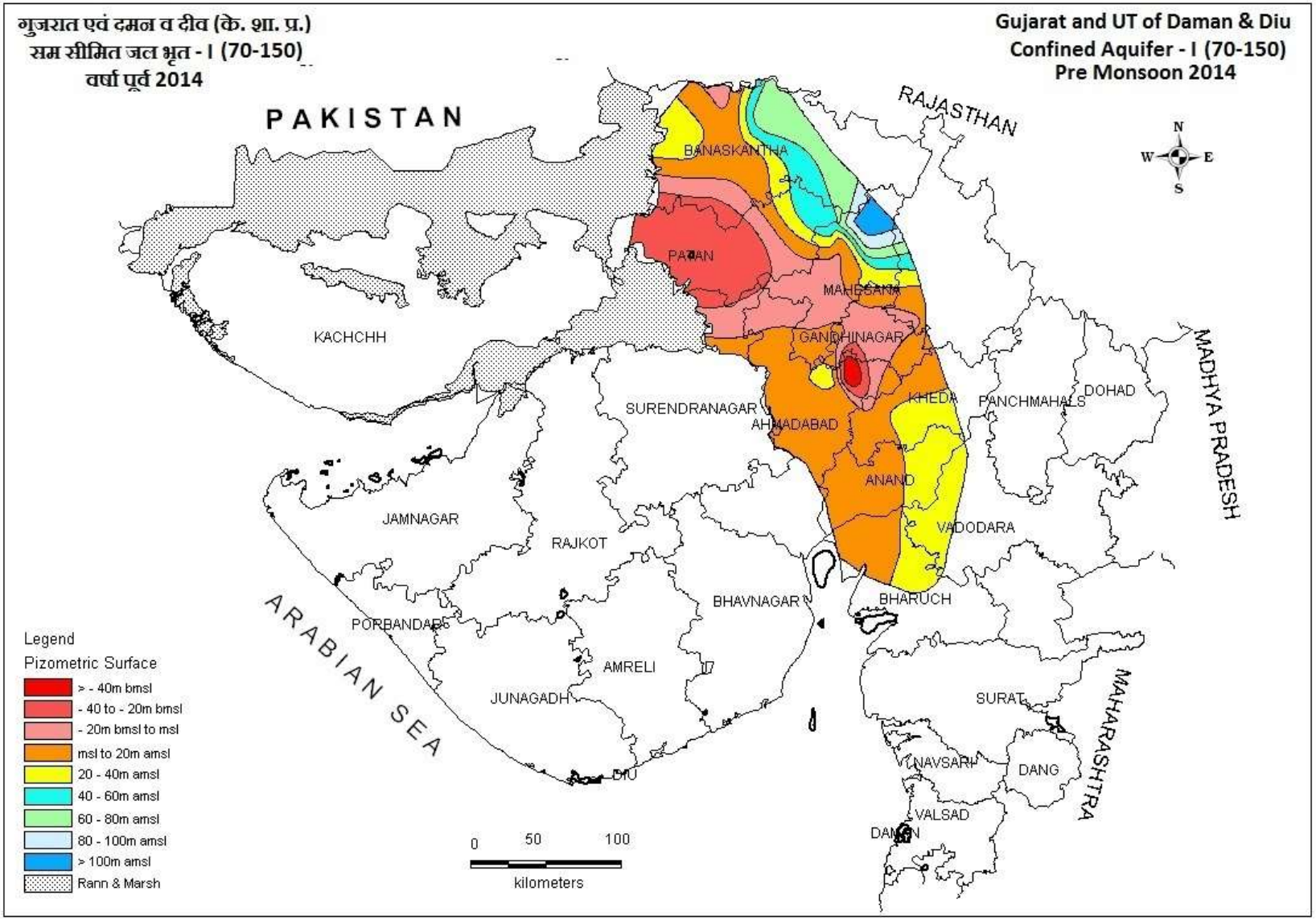
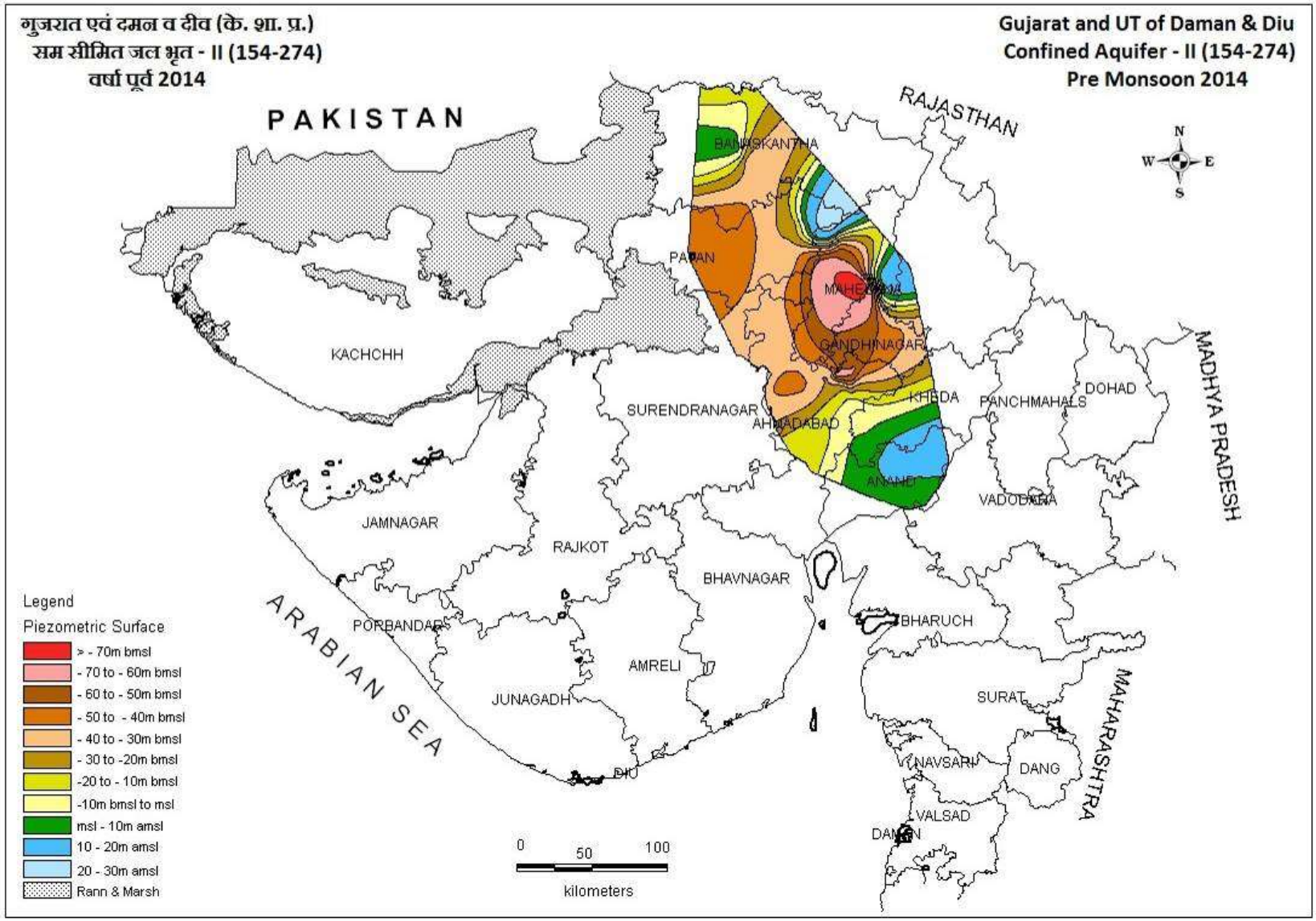

गुजरात एवं दमन व दीव (के. शा. प्र.)
सम सीमित जल भृत - I (70-150)
वर्षा पूर्व 2014
Gujarat and UT of Daman & Diu
Confined Aquifer - I (70-150)
Pre Monsoon 2014
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
GANDHINAGAR
KHEDA
PANCHMAHALS
DOHAD
SURENDRANAGAR
AHMADABAD
ANAND
VADODARA
KACHCHH
JAMNAGAR
RAJKOT
BHAVNAGAR
BHARUCH
PORBANDAR
AMRELI
JUNAGADH
DIU
SURAT
NAVSARI
DANG
VALSAD
DAMAN
N
S
W
E
Legend
Pizometric Surface
> - 40m bmsl
- 40 to - 20m bmsl
- 20m bmsl to msl
msl to 20m amsl
20 - 40m amsl
40 - 60m amsl
60 - 80m amsl
80 - 100m amsl
> 100m amsl
Rann & Marsh
0
50
100
kilometers

Fig- 29


गुजरात एवं दमन व दीव (के. शा. प्र.)
सम सीमित जल भृत - II (154-274)
वर्षा पूर्व 2014
Gujarat and UT of Daman & Diu
Confined Aquifer - II (154-274)
Pre Monsoon 2014
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
ARABIAN SEA
BANASKANTHA
PATAN
MAHESANA
GANDHINAGAR
KHEDA
PANCHMAHALS
DOHAD
KACHCHH
SURENDRANAGAR
AHMADABAD
ANAND
VADODARA
JAMNAGAR
RAJKOT
BHAVNAGAR
PORBANDAR
BHARUCH
AMRELI
JUNAGADH
SURAT
NAVSARI
DANG
DIU
VALSAD
DAMAN
N
W
E
S
Legend
Piezometric Surface
> - 70m bmsl
- 70 to - 60m bmsl
- 60 to - 50m bmsl
- 50 to - 40m bmsl
- 40 to - 30m bmsl
- 30 to -20m bmsl
-20 to - 10m bmsl
-10m bmsl to msl
msl - 10m amsl
10 - 20m amsl
20 - 30m amsl
Rann & Marsh
0
50
100
kilometers

4.0 HYDROCHEMISTRY

Hydrochemistry is an interdisciplinary science that deals with the chemistry of water in the natural environment. The classical use of chemical characteristics in hydrochemistry is to provide information about the regional distribution of water qualities. At the same time, hydrochemistry has a potential use for tracing the origin and history of water. The hydrochemistry can also be of immense help in yielding information about the environment through which water has circulated. Hydrochemistry can be helpful in knowing about residence time, flow path and aquifer characteristics, as the chemical reactions are time and space dependent.

The diverse physiographic, climatic, topographic and geologic conditions have given rise to diversified groundwater situations in different parts of Gujarat State. Physiographically, Gujarat State is categorized as the Mainland, Saurashtra and Kacchh. The groundwater quality of Gujarat is variable and complex as its quality is influenced by local geology, coastal salinity, inherent salinity, and contamination and heavy withdrawal of groundwater. Gujarat has the longest coastline in the country with several creeks, as a result, during tides sea water invades inland through these creeks which in turn has impact on groundwater quality along it's coasts. High chemical concentrations mostly occur in coastal regions due to seawater intrusion brought by upcoming or reversal in hydraulic gradient.

4.1 Groundwater Quality Monitoring

A systematic plan for conducting water quality monitoring is called Monitoring Programme, which includes monitoring network design, preliminary survey, resource estimation, sampling, analysis, data management & reporting. Monitoring of groundwater quality is an effort to obtain information on chemical quality through representative sampling in different hydro geological units. Groundwater is commonly tapped from phreatic aquifers through dug wells in a major part of the state and through springs and hand pumps in hilly areas.

Central Ground Water Board (WCR), Ahmedabad has monitored a total number of 641 water samples collected during May 2014, for basic parameters determining pH, EC, TDS, CO3, HCO3, Cl, NO3, SO4, F, Ca, Mg, TH, Alkalinity, Na, K and SAR, involving use of instruments such as pH meter, EC meter, flame photometer, UV/ Visible Spectrophotometer and titrimetric methods. Further 215 water samples received during the same period were analyzed for Fe by colorimetric method using Visible spectrophotometer.

4.2 Ground water quality scenario in the state and UT of Daman & Diu

From the analytical results it has been observed that majority of water samples collected from observation wells of CGWB in a major part of the state fall under desirable or permissible category and hence are suitable for drinking purposes. However, a small percentage of well waters are found to have concentrations of some constituents beyond the permissible limits. Such waters are not fit for human consumption and are likely harmful to health on continuous use. Based on the results it is found that groundwater in the state is mostly of calcium

bicarbonate type when the Electrical conductivity is below 750uS/cm. There are mixed cation and mixed anions type groundwater in the state when the electrical conductance is between 750 and 3200 uS/cm and waters with electrical conductance more than 3200 uS/cm are of sodium chloride type.

A total number of 856 water samples collected water samples analyzed for different chemical parameters from National Hydrograph Network Monitoring Station Samples out of which 641 were for basic parameters and 215 for iron analysis spread over 25 districts of Gujarat and UT of Daman & Diu, The overall results of hydro chemical analysis are attached in **Annexure_ IV**. District wise maximum range distribution of different pollution parameters observed during analysis is summarized in the attached **Table 20.**

Major quality findings are described as under: -

4.2.1 The Electrical conductivity

Electrical conductivity or Total dissolved solids or Salinity is the saltiness or dissolved salt contents of a water body. Different substances dissolve in water giving it taste and odour. In fact, human beings have developed senses, which are able to evaluate the potability of water. Electrical conductivity represents total number of cations and anions present in groundwater, indicating ionic mobility of different ions, total dissolved solids and saline nature of water. In general water having EC < 1500uS/cm, is considered as fresh water, EC 1500 – 15000uS/cm, is considered as Brackish water and > 15000uS/cm is considered as saline water. In general in most parts of the state the EC value is found to be very high i.e. 3200uS/cm to 15000uS/cm and more. It was observed that out of 641water samples 115 samples show EC value more than 3200 uS/cm, which indicates the gravity of salinity problem in the area. The map showing of Electrical Conductivity in state is represented in **Fig 30**.

A close observation of the **Annexure-I** reveals High **EC Values** > 3200 uS/cm have been found in 115 number of samples out of 641 total number of samples analyzed indicating saline nature of water in most part of the state. High salinity problem in Northwestern parts of the state to the extent of EC having > 15000 uS/cm, showing brackish water problem at Sindhav 16130 **Bhauruch**, Kharoi 28360 , Gagodhar 20370,**Kachh**, Motichander 20800 **Patan**. Saline nature of water is also eminent in Dalod 14520 **Ahmedabad**, Bhuva EC 12150 **(Amreli)**.Jolawadi 11700 **Diu**, Samrasar EC 11280 **(Jamnagar).** Bamanwada EC 10233 **(Junagarh),** Dholaveera 11320 **(kacchh)**, Amarnagar 14530, Modpar1 11200, Wankaner 14900 **(Rajkot**) & Sara,12576 **(Suredranagar)** having EC in the range of 10000 uS/cm- 15000uS/cm. Further EC values ranging between 3200uS/cm –10000uS/cm have been observed in places of the districts Ahmedabad, Amreli, Anand, Banaskantha,Bharuch, Bhavnagar, Dohad, Diu Jamnagar, Junagadh, Kacchh, Kheda, Mehsana, Narmada, Navsari, Patan, Porbander, Rajkot, Sabarkhantha, Surendranagar, and Vadodara In most other parts of the state water is almost fresh with respect to EC and salinity.

4.2.2 Chloride

Chloride is present in all natural waters being highly soluble and moves freely through soil and rock. In groundwater Chloride content is mostly below 250 mg/l except in cases where inland salinity is prevalent and in coastal areas. BIS have recommended a desirable limit of 250mg/l of chloride in drinking water; this concentration limit can be extended to 1000 mg/l of chloride in cases where no alternative source of water with desired concentration is available. The map showing distribution of Chloride in the state is represented in **Fig 31**.

A close observation of the **Annexure-I**, High **Chloride** > 1000mg/L have been found in 78 number of samples out of 641 total number of samples analyzed indicating saline nature of water in most part of the state. That maximum chloride value is observed in western parts of the state to the extent of Chloride having >5000 mg/L, showing high salinity problem at Sindhav 5814mg/l (Bharuch). Kharoi 8190mg/l,Gagodhar 5850mg/L Kacchh, Motichander 6878mg/l (Patan) . Chloride values ranging between 1000 –5000 mg/L have been found in , Dalod 4361mg/L,Kumarkhan 2730mg/L, ,Viramgam2 1383mg/l (Ahmedabad), Bhuva 3408mg/l, Fifad 1576mg/L (Amreli).Panoli 1347mg/l, Sahol 1914mg/L, Pakhajan 1063mg/L (Bharuch), Bhombali 1882mg/l, Ghogha 1669mg/l Vallbhipur 1562mg/L, Jalia 1093mg/L (Bhavnagar), Garbara 1136mg/L Dahod, Jolawadi 3728mg/L Diu, Varwada 2592mg/l, Mojap 1882mg/l Samrasar 3657mg/l, Kalyanpur 1527mg/l , Bhatia 1740mg/L, Jambuda 1349mg/L, Kajoda 1122mg/L (Jamnagar),Antroli 3479mg/l, Khambaliya1 1250mg/l ,Kukaswada 2414mg/l ,Lohej 2840mg/l, Shardagram 3195mg/l , Bamanwara 3373g/l, Chorwad 3515mg/l,Maktupur1177550mg/l, SII bander 2201mg/L, Kanek 2556mg/l ,Arena 2663mg/L (Junagarh) , Lilpur 1737mg/l, Ughedi 2056mg/L, Bambhedai 1387mg/L, Suthri 1347mg, Vadala 1099mg/L, Dholaveera 2552mg/L Sukhpar 1950mg/L Mothala 1914 mg/L Khavda 1844mg/L Khotra 1418mg/l Devisar 1276mg/L (Kacchh) ,Muliyad 2304mg/l (Kheda), Unad 1 2304mg/l, Unawa 1064mg/L (Mahesana), Navsari 1879mg/l (Navsari) , Radhanpur2 1204mg/l, Piprala 1170mg/L (Patan), Balej 1392mg/l, Bhavpura 1619mg/l, , Oddar 1775mg/l, Kandorna 1321mg/l, Kuchadi 1250mg/l Mojieana 2024mg/l, , Ratadi 1250mg/l Palkhada 1392mg/L, Kadei 1122mg/L, Miayani 1008mg/L Kalej 2911mg/L, Ratanpur 2166mg/L (Porbander), Amarnagar 4864mg/l,,Kamlapur 1243mg/l,Modpar1 3550mg/L Wakaner 4828mg/L, Ganod 1953mg/L, Pedhla 1846mg/L l(Rajkot), Silwad 1243mg/l, (Sabarkhantha), Sara 3621mg/l, Moti makadi 1065mg/l, Dhandhalpur 1207mg/L, Dharangadhra 1172mg/L, Sudamda 1065mg/L (Surendranagar), Govindpura 2127mg/l (Vadodara). In most of the other places chloride problem is not eminent.

Fig-30

गुजरात एवं दमन व दीव (के. शा. प्र.)
राष्ट्रीय भूजल मापन स्थल में विद्युत चालकता का विस्तार (मई 2014)

Gujarat and UT of Daman & Diu
Iso Conductivity (May 2014)

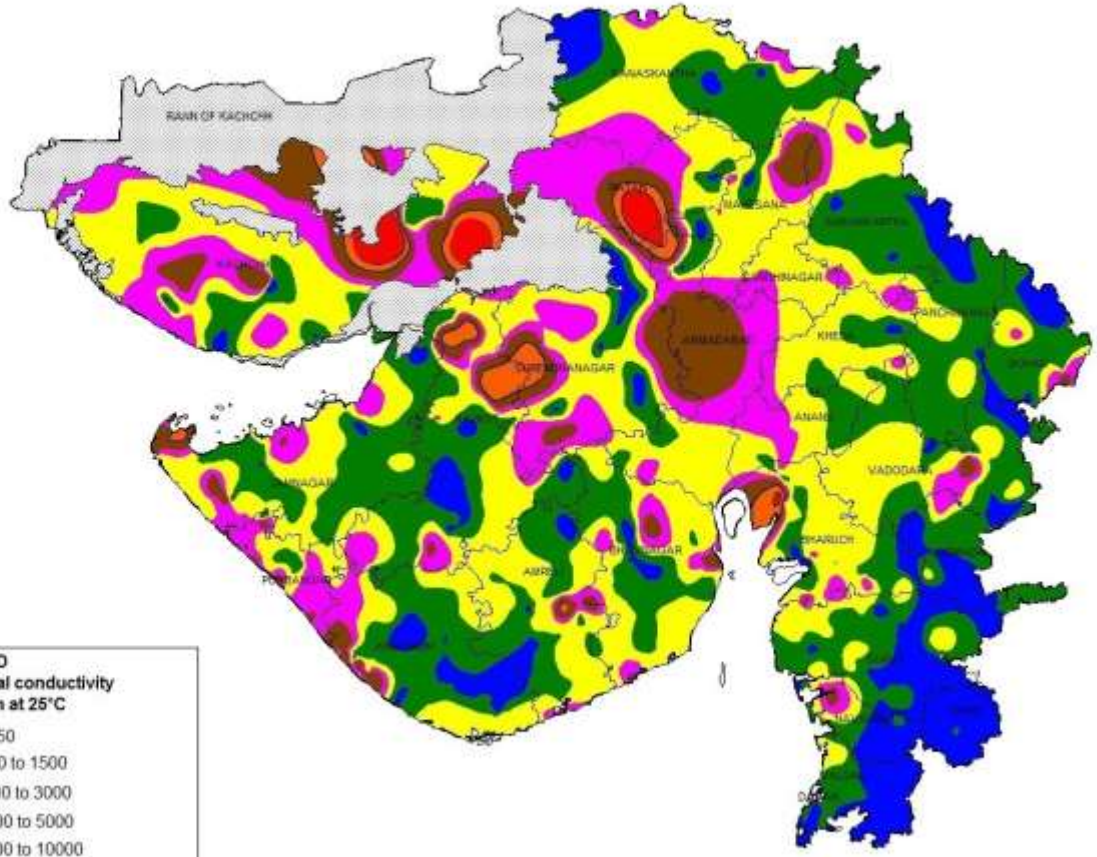
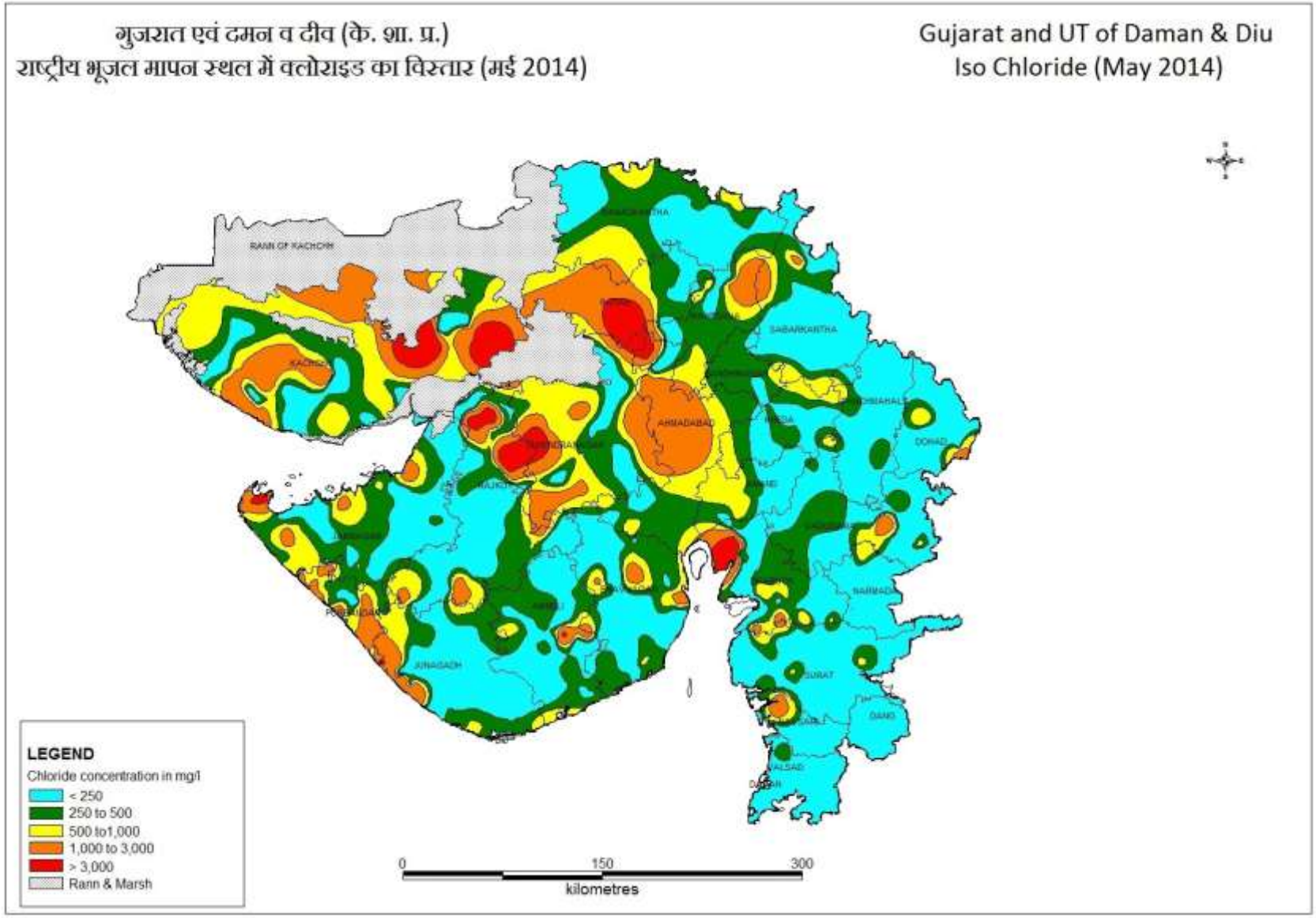


Fig-31


गुजरात एवं दमन व दीव (के. शा. प्र.)
राष्ट्रीय भूजल मापन स्थल में क्लोराइड का विस्तार (मई 2014)
Gujarat and UT of Daman & Diu
Iso Chloride (May 2014)
RANN OF KACHCHH
SABARKANTHA
AHMADABAD
DOHAD
NARMADA
JUNAGADH
SURAT
DAMAN
VALSAD
LEGEND
Chloride concentration in mg/l
< 250
250 to 500
500 to1,000
1,000 to 3,000
> 3,000
Rann & Marsh
0
150
300
kilometres

4.2.3 Nitrate

Nitrate is a naturally occurring compound that is formed in the soil when nitrogen and oxygen combine. The primary source of all nitrates is atmospheric nitrogen gas. This is converted into organic nitrogen by some plants by a process called nitrogen fixation. Dissolved nitrogen in the form of nitrate is the most common contaminant of groundwater. Nitrate in groundwater generally originates from non point sources such as leaching of chemical fertilizers and animal manure, groundwater pollution from septic and sewage discharges etc. It is difficult to identify the natural and man-made sources of nitrogen contamination of ground water. Some chemical and microbiological processes such as nitrification and denitrification also influence the nitrate concentration in ground water. The map showing distribution of nitrate in the state is represented in **Fig 32**.

As per the BIS standard for drinking water the maximum desirable limit of nitrate concentration in groundwater is 45 mg/l .Though nitrate is considered relatively non-toxic, a high nitrate concentration in drinking water is an environmental health concern arising from increased risks of methaemoglobinemia particularly to infants. Adults can tolerate little higher concentration.

High Nitrate > 45mg/L,(**Annexure I**) have been found in 177 number of samples out of 641 total number of samples analyzed indicating high nitrate pollution due to use of nitrogen containing fertilizer, domestic and agriculture waste and man made anthropogenic activities. Nitrate value as high as 900mg/l Dhandalpur (Surendernagar).720mg/L Nemaria (Narmada) Further nitrate values have been found in the range of 100mg/l– 500mg/l at 250mg/l Rajpada (Ahmedabad),330mg/l Goradka, 300mg/l Bhuva,200mg/l Bagasara,190mg/l Mandal,170mg/l Untvad, 260mg/L Tajpur, 155mg/L Badhda, 145mg/L Vankiya, 135mg/L Trakuda, 110mg/L Dharangani, 110mg/L Kunkavav (Amreli).115mg/L Ghora (Anand), 180mg/l Kavi, 120mgl Lohara (Bharuch), 380mg/l Ghogha, 280mg/L Trapaj, 270mg/L Bhudel, 190mg/L Gariyadhar, 130mg/L Dudhala, 130mg/L Vavdi,(Bhavnagar),205mg/l Dahod UrbanII, , 115mg/l Dahod I 180mg/L Wadia (Dahod), 135mg/L Gomtimata Diu, 250mg/l Bed, 110mg/l Dwarka,175mg/l HaripurII 125mg/l Juvanpur,175mg/l Kalawad,, 175mg/L Ambardi, 135mg/L Vadtara, 105mg/L Changa (Jamnagar),155mg/L Khorada, 135mg/L Seriakhan, 105mg/L Mangrol 1, 105mg/L Kansari, 130mg/L agatrai (Junagardh), 200mg/l Samkhiyari, 120mg/L Gagodar (kacchh), 115mg/l Alina,(Kheda),150mg/L Unjha (Mehsana), 230mg/L Almawadi (Narmada), 120mg/l Kandorna, 440mg/l Palkheda , 105mg/L Lamba (Porbander), 152mg/l Kamlapur, 230mg/l Movaiya, 110mg/L Umrali (Rajkot),145g/l Boral,200mg/l Choriwad, 120mg/l Silwad, , 145mg/l Gadada, 140mg/l Kesarpur-Idar,160mg/l Khedbramah,155mg/l Matoda, 190mg/l Revas, 180mg/l Wadali,150mg/L Boriya (Sabarkhantha), 125mg/L Mandvi2 (Surat), 250mg/l Sukhpar, 110mg/l Motimoladi, 400mg/l Sudamda (Suredranagar),115mg/L Devat (Thadagam) (Vadodara)

In addition to above critically nitrate affected locations, 111 water samples at different locations have been found to contain nitrate in the range of 45mg/l- 100mg/l representing of nitrate content . In most of other places having nitrate < 45mg/l there is no problem with respect to nitrate pollution

4.2.4 Fluoride

Fluorine is a fairly common element but it does not occur in the elemental state in nature because of its high reactivity. Fluorine is the most electronegative and reactive of all elements that occur naturally within many type of rocks. It exists in the form of fluorides in a number of minerals of which fluorspar, cryolite, fluorite & fluorapatite are the most common.

Most of the fluoride found in groundwater is naturally occurring from the breakdown of rocks and soils or weathering and deposition of atmospheric particles. Most of the fluorides are sparingly soluble and are present in groundwater in small amount. The type of rocks, climatic conditions, nature of hydro geological strata and time of contact between rock and the circulating groundwater affect the occurrence of fluoride in natural water. Presence of other ions particularly bicarbonate and calcium ions also affects the concentration of fluoride in groundwater. The map showing distribution of Fluoride in the state is represented in **Fig 33**.

It is well known that small amount of fluoride (>1.0 mg/l) have proven to be beneficial in reducing tooth decay. Community water supplies commonly are treated with sodium fluoride or fluorosilicates to maintain fluoride level ranging from 0.8 to 1.2 mg/l to reduce the incidences of dental carries. However, high concentrations (>1.5mg/l) have resulted in staining of tooth enamel while at still higher levels of fluoride (> 5.0 mg/l) further critical problems such as stiffness of bones. BIS has recommended an upper desirable limit of 1.0 mg/l of fluoride concentration in drinking water, which can be extended to 1.5 mg/l in case no alternative source of drinking water is available. Water having fluoride concentration more than 1.5mg/l is not suitable for drinking purposes.

High Fluoride >1.5mg/l, (**Annexure _I**) which is mainly attributed due to geogenic conditions, have been observed in 60 water samples out of 641 water samples analyzed. Fluoride values to the extent of 3.25mg/l Barvala, 3.10mg/L Dalod, 2.40mg/l
Kumarkhan,1.75mg/l Tagadi, 2.20mg/L Dhanduka (Ahmedabad**)**, 2.20mg/l Luvariya, 1.70mg/L Punjapadar, 1.90mg/L Victor, 2.05mg/L kadiyali (Amreli,),2.00mg/l Ras (Anand), 2.60mg/l Ganapipli, 4.20mg/L khoda (Banaskantha),2.10mg/l Sajod, 1.70mg/L Sindhav (Bharuch), 4.40mg/l Ayodhayapuram,, 2.20mg/L Lonjdhara, 2.00mg/L Panvi,2.40mg/L Vallabhipur (Bhavnagar**)**, 3.00mg/l Garbara, 2.90mg/l Badpa,2.40mg/l Dahod Urban2,2.70mg/l Dahod2, 2.00mg/l Khandaniya, (Dohad**)**, 2.10mg/l Serthapara (Gandhinagar), 3.48mg/l Samrasar 1.74mg/L Bhogat, 2.00mg/l Kalyanpur, 1.54mg/l Mojap, 3.20mg/l Ambaliya (Jamnagar),2.30mg/l Una2 (Junagardh), 2.20mg/l Kharoi (Kacchh**)**, 1.76mg/l Kheralu1 (Mahesana**)**, 2.70mg/l Dhanol nani, 2.10mg/l Natapur (Panchmahal), 2.50mg/l Piprala, (Patan), 2.10mg/l Olikhera(Porbandar), 4.70mg/l Amarnagar, 1.70mg/L Pedla, 1.60mg/l Maliya, 1.80mg/l Morvi, 1.60mg/l Movaiya,2.25mg/l Lajai, 2.00mg/l Ganod, 3.40mg/l Upleta, 4.50mg/l Wakaner, 2.60mg/l Bhadragarh (Rajkot), 2.80mg/l KesarpurTalod, 3.50mg/l Sabalwad, 2.14mg/l Gadha, 2.30mg/l Harsol (Sabarkhantha), 1.60mg/lHalwad2, 3.60mg/l Ratanpur, 1.80mg/L Sukhpar, 4.40mg/l Muli, 5.000mg/l Surendranagar2 (Suredranagar**), 1.78**mg/l Motichikhali, 1.80mg/l Chotaudaipur, 2.40mg/l Vagudan, 3.20mg/l Masor, 1.68mg/l Vejpur (Vadodara), have been observed indicating prominence of fluoride problem in these areas.

Fig-32

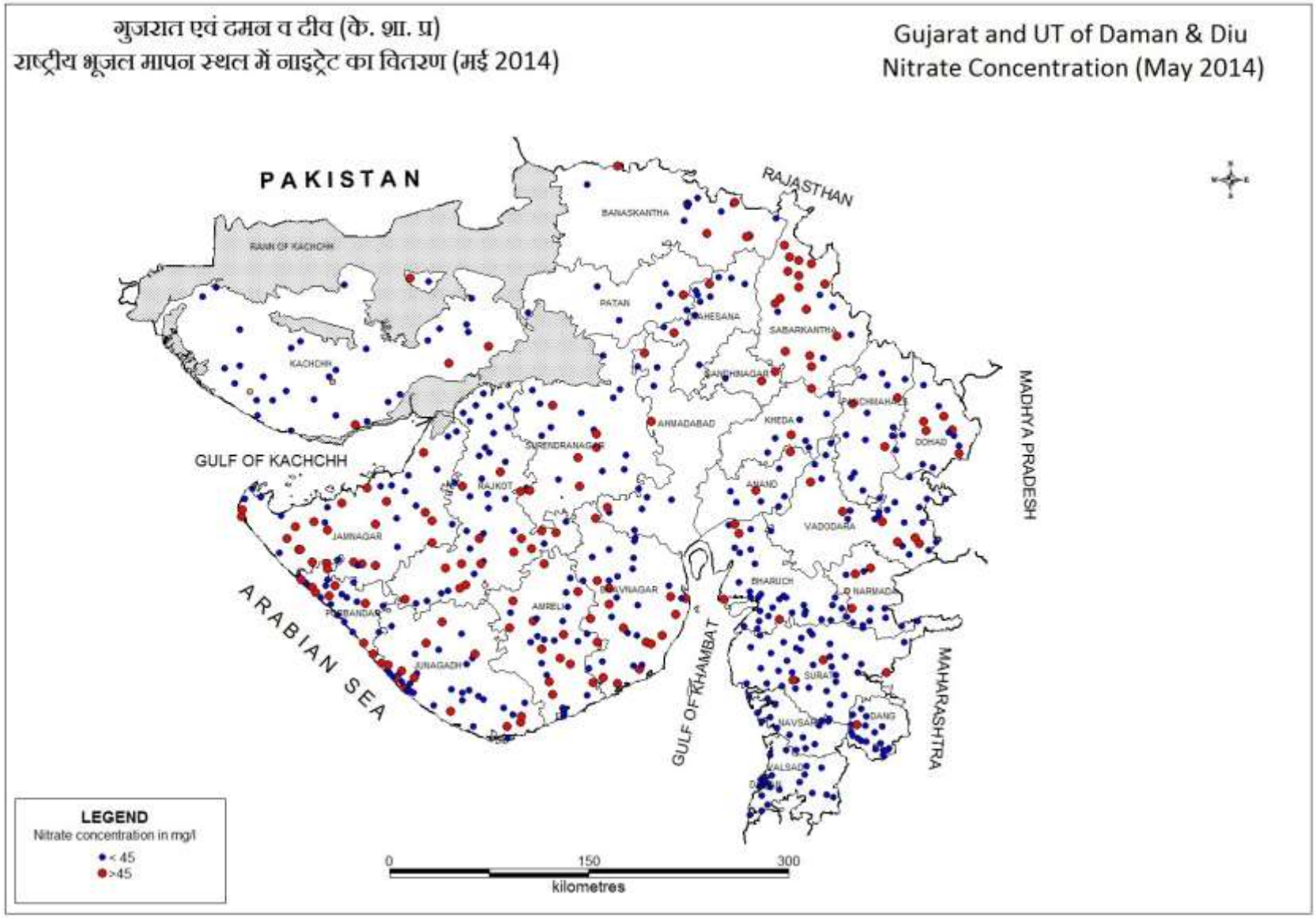
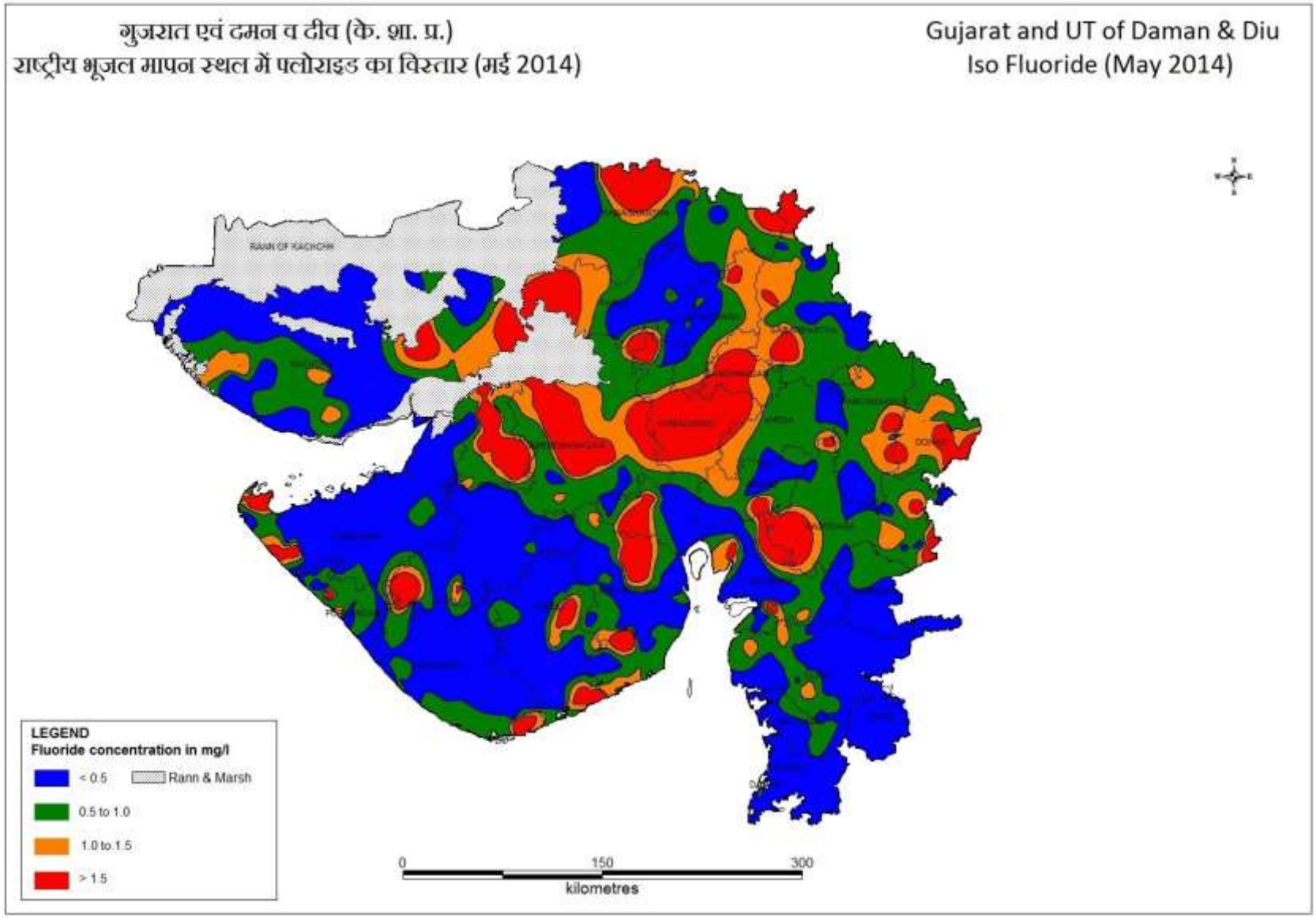

गुजरात एवं दमन व दीव (के. शा. प्र)
राष्ट्रीय भूजल मापन स्थल में नाइट्रेट का वितरण (मई 2014)
Gujarat and UT of Daman & Diu
Nitrate Concentration (May 2014)
PAKISTAN
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
GULF OF KACHCHH
ARABIAN SEA
GULF OF KHAMBAT
BANASKANTHA
PATAN
MAHESANA
SABARKANTHA
GANDHINAGAR
PANCHMAHAL
KHEDA
DOHAD
AHMADABAD
SURENDRANAGAR
RAJKOT
ANAND
VADODARA
JAMNAGAR
BHAVNAGAR
BHARUCH
NARMADA
PORBANDAR
AMRELI
JUNAGADH
SURAT
NAVSARI
DANG
VALSAD
KACHCHH
LEGEND
Nitrate concentration in mg/l
< 45
>45
0
150
300
kilometres

Fig-33


गुजरात एवं दमन व दीव (के. शा. प्र.)
राष्ट्रीय भूजल मापन स्थल में फ्लोराइड का विस्तार (मई 2014)
Gujarat and UT of Daman & Diu
Iso Fluoride (May 2014)
RANN OF KACHCHH
LEGEND
Fluoride concentration in mg/l
< 0.5
Rann & Marsh
0.5 to 1.0
1.0 to 1.5
> 1.5
0
150
300
kilometres

4.2.5 Iron

Iron is a common constituent in soil and groundwater. It is present in water either as soluble ferrous iron or the insoluble ferric iron. Water containing ferrous iron is clear and colorless because the iron is completely dissolved. When exposed to air the water turns cloudy due to oxidation of ferrous iron into reddish brown ferric oxide.

The concentration of iron in natural water is controlled by both physico-chemical and microbiological factors. It is contributed in ground water mainly from weathering of ferruginous minerals of igneous rocks such as hematite, magnetite and sulphide ores of sedimentary and metamorphic rocks. The permissible iron concentration in groundwater is less than 1.0mg/l as per the BIS Standard for drinking water.

A total number of 215 water samples from selected Groundwater monitoring wells were collected separately for iron analysis after filtration and hydrochloric acid treatment. Out of these samples 36 number of samples have been found to contain Fe value > 0.3mg/l (**Fig. 34**). Iron value as high as 6.25mg/l Nirnavi 1.50mg/l Mahegam (Bharuch),2.04mg/l Thada (Dahod),6.40mg/l Bhanwad (Jamnagar), 1.70mg/l Kesod (Junagardh), 4.90mg/l Gaghodhar, 2.50mg/l Kuda, (Kachchh), 1.00mg/l Umran, 3.50mg/l Jankh, 2.00mg/l Almawadi, 1.00mg/l Chuli (Narmada), 2.55mg/l Sarsva (Panchmehal), 2.40mg/l Kuchadi (Porbander) .are observed locations with high magnitude of iron problem. Further 23 water samples having iron between 0.3-1.0mg/l may be considered permissible for drinking purpose in absence of alternative source. rest of the samples may be treated as totally safe with regard to iron pollution.

Fig-34

गुजरात एवं दमन व दीव (के. शा. प्र.)
राष्ट्रीय भूजल मापन स्थल में आयरन का वितरण (मई 2014)

Gujarat and UT of Daman & Diu
Iron Concentration (May 2014)

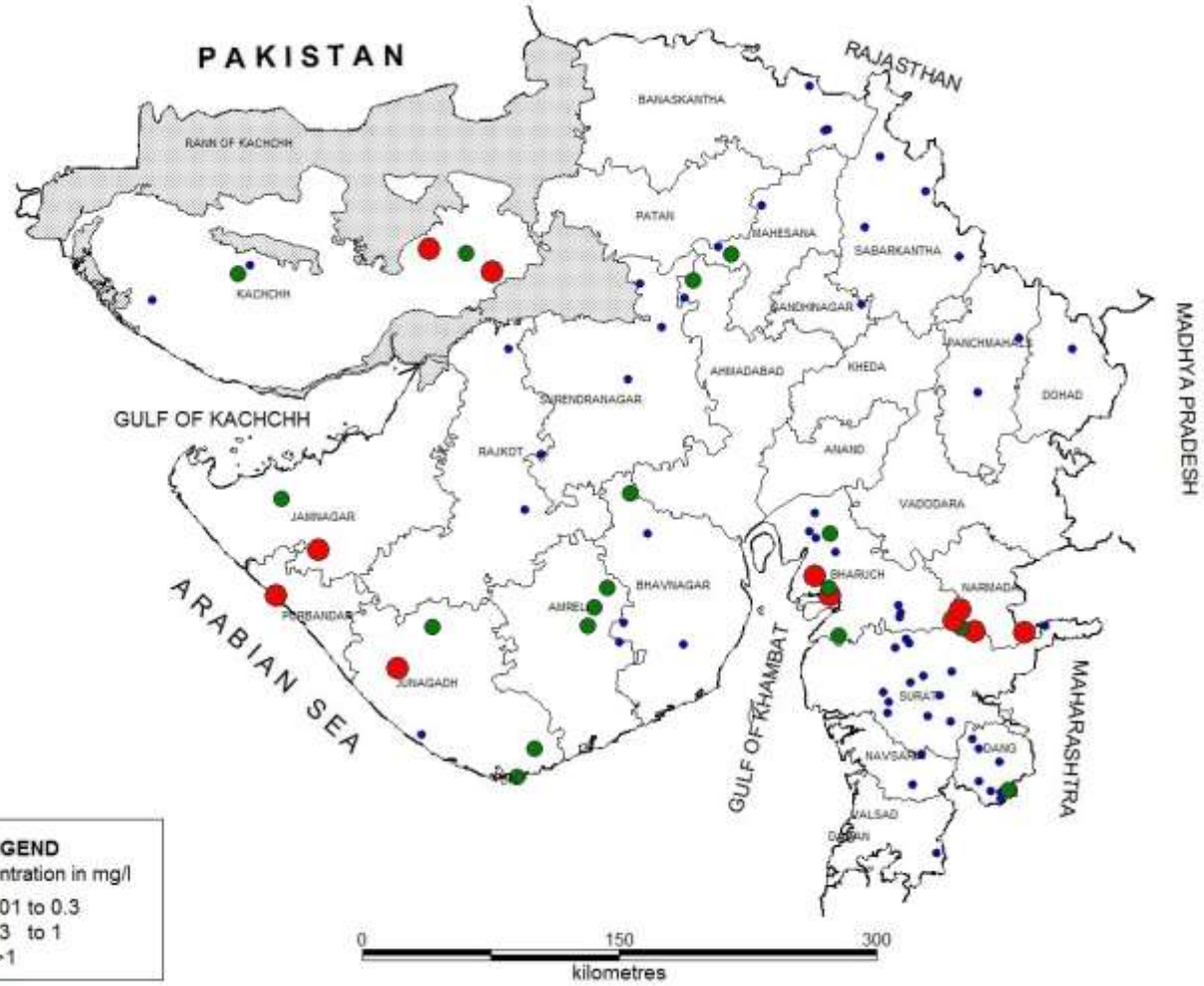


Table 20

Distrct wise range distribution of pollutioin parameters observed during HGNWS monitoring 2014

S.N.	District	Total No of samples analysed for Basic	No of samplese with EC > 3200 uS/cm	No of samplese with Cl > 1000mg\L	No of samples with NO3 > 45mg/L	No of samplese with F > 1.5 mg\L	samples analysed for Iron	No of samples with > 0.3 mg\L
1	Ahmedabad	11	5 (Max.14520,Dalod)	3 (Max.4361,Dalod)	2 (Max.250,Rajpara)	5(Max.3.25,Barwala)	2	1(Max 0..40,Dalod)
			6(Min.698,Endla)	8(Min.35,Endla)	9(Min.2,Endla)	6(Min.0.25,Gamph)		1(Min.0.10,Mandal 2)
2	Amreli	34	5 (Max.12150,Bhua)	2(Max.3408,Bhuva)	14 (Max.330,Goradka)	4 (Max.2.05,Kadiyali)	13	3(Max.0.76,Punjapadar)
			29(Min.580,Chavand)	32(Min.36,Chavand)	20(Min.3,Victor)	30(Min.0.08,Goradka)		10(Min.0.00,Piyavav)
3	Anand	11	2(Max.4278,Kansari 1)	0 (Max.993,Kansari 1)	2 (Max.115,Ghora)	1(Max.2.00,Ras)	0	
			9(min.680,Utiyapara)	11(Min.42,Utiyapara)	9(Min.2,Utiyapara)	10(Min.0.0.15,Utiyapara)		
4	Banaskantha	14	2(Max. 3942,Amirgarh)	0 (Max. 993,Amirgarh)	6 (Max.100,Amirgarh)	2(Max.4.20,Khoda)	8	0(Max.0.05,Amirgarh)
			12(Min.517,Bharol 1)	14(Min.35,Bharol 1)	8(Min.6,Bharol 1)	12(Min.0.10,Bharol 1)		8(Min.0.00,Kidotar)
5	Bharuch	35	6(Max.16130,Sindhav)	4(Max.5814,Sindhav)	4(Max.180,Kavi)	2 (Max. 2.10,Sajod)	19	5 (Max.6.25,Nirnavi)
			29(Min. 490,Arethi)	31(Min. 21,Arethi)	31(Min. 1,Roza tankariya)	33(Min.0.03,Roza tankariya)		14(Min.0.00,Bharuch)
6	Bhavnagar	35	7(Max.7366,Bhumbali)	4(Max.1882,Bhumbali)	16 (Max. 380,Ghogha)	4(Max. 4.40,Ayodhyapuram)	12	1(Max.0.65,Tardhera)
			28(Min.404,Timbi 2)	31(Min. 43,Timbi 2)	19(Min.2,Datha)	31(Min.0.10,Timbi 2)		11(Min.0.00,Longadi)
7	Daman	7	0(Max.1460,Warkhund)	0 (Max. 262,Warkhund)	0 (Max.42,Jempore)	0 (Max 0.70,Warkhund)	0	
			7(Min.701,Dalwada)	7(Min.43,Manawad)	7(Min.1,Dalwada)	7(Min.0.14,Manwad)		
8	Dahod	19	1 (Max. 5303,Garbada)	1 (Max.1136, Garbara)	5 (Max. 205,Dahodurban2)	5 (Max.2.90,Badpa).	8	1(Max 2.04,Thada)
			18(Min.437,Thada)	18(Min.14,Dahod 2)	14(Min. 3, limbdi 2)	14(Min.0.55,Dahod urban 3)		7(Min.0.00 Dahod urban 3)
9	Diu	3	2(Max.11700,Jolawadi)	1(Max.3728,Jolawadi)	1 (Max. 135,Gomtimata)	0(Max.0.70,Gomtimata).	3	1(Max 0.57,Diu)
			1(Min.1208,Diu)	2(Min.135,Diu)	2(Min.1 3,Diu)	3(Min.0.15,Jolawadi)		2(Min.0.00 Gomtimata)
10	Gandhinagar	2	0 (Max. 3100,Serthapara)	0 (Max. 319,Serthapara)	1 (Max.100,Paliya)	1 (Max. 2.10,Serthapara).	2	0(Max.0.00,Serthsapara)
			2(Min.1906,Paliya)	2(Min.227,Paliya)	1(Min.34,Serthapara)	1(Min.1.10,Paliya)		2(Min. 0.00Paliya)
11	Jamnagar	40	9(Max.11280,Samrasar)	7(Max.3657,Samrasar)	19 (Max. 250,Bed)	5 (Max. 3.48, Samrasar)	5	2 (Max.6.40,Bhanwad)
			31(Min. 645,Vizarkha)	33(Min.64,Vizarkha)	21(Min. 2,Pindara)	35(Min. 0.12,Vizakha)		3(Min.0.00,Kalwad)
12	Junagadh	50	13(Max.10233,Bamanwada)	11 (Max. 3515,Chorwad)	18(Max. 155,Khorada)	1 (Max. 2.30, Una)	12	3(Max. 1.70,Keshod)
			37(Min. 519,Jagrala)	39(Min. 28, Jagrala)	32(Min. 2, Jagrala)	49(Min. 0.05,Alwani)		9(Min.0.00, Kukaswasda)
13	Kachchh	41	19 (Max. 28360,Kharoi)	13(Max. 8190,Kharoi)	5 (Max. 200,Samkhiyari)	1 (Max.2.20,Kharoi)	13	6(Max 4.90,Gagodar)
			22(Min. 590,Sedat)	28(Min. 57, Mandvi)	36(Min. 0, Sedat)	40(Min.0.00 Bhadreshwar)		7(Min.0.00,Kharagoga)

14	Kheda	12	2 (Max.6945,Muliyad)	1 (Max.2304,Muliyad)	1 (Max. 115,Alina)	0 (Max. 0.92,Kalesar)	0	
			10(Min.663,Balasinor 1)	11(Min. 28,Alindra)	11(Min. 1,Nadiyad 2)	12(Min.0.10,Bariyavi)		
15	Mahesana	15	3 (Max. 9124,Unad 1)	2(Max.2304, Unad 1)	4 (Max. 150, Unjha)	1 (Max. 1.76,Kheralu)	12	1 (Max. 0.85,Asjol)
			12(Min. 512,Tarabh)	13(Min.28,Asjol)	11(Min. 2,Tarabh)	14(Min.0.08,Asjol)		11(Min.0.00,Bhandupara)
16	Narmada	16	1 (Max. 4700,Namariya)	0(Max. 908,Namaria)	4 (Max. 720,Nemaria)	0 (Max. 0.87, Suderpura)	8	6(Max. 3.50,Jhankh)
			15(Min. 390,Besana)	16 (Min. 14,Besana)	12 (Min. 0,Khota amba)	16(Min0.02,Khadiapara)		2(Min0.00,Heerapur)
17	Navsari	16	1 (Max 6000,Navsari)	1 (Max. 1879,Navsari)	0 (Max. 24,Unai)	0 (Max. 1.07,Dhanav)	5	0(Max. 0.03,Moti Valzar)
			15(Min. 520,Khergam)	15(Min. 35,Manavkhadak)	16(Min.1,Sarikhurd)	16(Min.0.15,Dandi)		5(Min.0.00,Unai)
18	Panchmahals	26	0(Max. 3014,Dhanol Nani)	0 (Max. 483,Godhara urban)	4 (Max. 66,Suliyat)	2(Max. 2.70,Dhanol nani)	11	1(Max. 2.55,Sarsawa)
			26(Min. 463,Jawan)	26(Min.57,Limidiya peti)	22(Min. 3, Khadki)	24(Min. 0.15,Shivrajpur)		10(Min.0.00,Khadki)
19	Patan	8	3 (Max.20800,Motichander)	3 (Max.6878,Motichander)	1 (Max.48,Sander)	1 (Max. 2.50,Piprala)	0	
			5(Min. 595,Sander)	5(Min.57,Sander)	7(Min.Radhanpur 2)	7(Min.0.00,Dharmoda)		
20	Porbandar	35	15(Max.8500,Kalej)	12(Max.2911,Kalej)	13 (Max.420,Palkhada)	1(Max.2.10,Kolikhera)	2	2(Max.2.40,Kuchhadi)
			20(Min.806,Patla)	23(Min.92,Kevadra)	22(Min.3,Kadegi)	34(Min.0.05,Pata)		0(Min.0.85,Patla)
21	Rajkot	48	8(Max.14900,Wakaner1)	6 (Max.4864 ,Amarnagar)	15(Max. 230,Movaiya)	10(Max.4.75,Amarnagar)	5	0 (Max.0.08,Sardhar1)
			40(Min.189,Lodhika1)	42(Min.36,Gavridad)	33(Min.1,Jamwali)	38(Min.0.00,Ribda)		5(Min.0.00,Dadia)
22	Sabarkantha	31	3(Max. 4371,Silwad	1 (Max. 1243, Silwad)	23 (Max.200,Choriwad	4(Max.3.50,Sabbalwad)	17	1(Max.0.78,Sabbalwad)
			28(Min. 701,Virpur2j	30(Min.43,Virpur2)	8(Min. 0,,Kherwada)	27(Min.0.25,Kherwada)		16(Min.0.00,Malpur)
23	Surat	41	0 (Max. 2973,Gangadhara)	0(Max.745,Wadoli)	3(Max 125,Mandvi2)	0(Max.1.17,Allu)	23	0(Max. 0.20,Gangatha)
			41(Min.390,Vyara 1)	41(Min.7,Kalkui)	38(Min. 3,Jaisingpura)	41(Min.0.10,Palsana)		23(Min.0.00,Digas)
24	Surendranagar	23	6 (Max. 12576,Sara)	5 (Max. 3621,Sara)	8 (Max. 900,Dhandhalpur)	5(Max.5.00,Surendranagar2)	12	0 (Max.0.06,Bajana)
			17(Min.549,Jhinjhuwada)	18(Min.64,Bajana)	15(Min.3,Vanala)	18(Min.0.40,Dheduki)		12(Min.0.00,Muli)
25	The dangs	21	0 (Max. 820,Ahwa 1)	0 (Max. 156,Ahwa)	1(Max.46,Chincingoatha)	0 (Max.. 0.40,Jakana)	15	1(Max.0.60,Dhumkal)
			21(Min.350,Jakana)	21(Min.14,Baripada)	20(Min.1,Dhumkal)	21(Min.0.05,Aherdi)		14(Min.0.00,waghai)
26	Vadodara	31	2 (Max. 7163,Govindpura)	1 (Max.2127,Govindpura)	6(Max.115,Devat)	5 (Max. 3.20, (Masor)	4	1(Max.0.45,ONGC Campus)
			29(Min.514,Kevadi)	30(Min.21,Kaprali)	25(Min.3,Kevadi)	26(Min.0.15,Suskal)		3(Min.0.00,Rasulpur)
27	Valsad	16	0 (Max.1850, Teethal)	0 (MAX. 333,Muli 1)	0 (Max.17,Vapi)	0 (Max.1.05,Tumb)	4	0 (Max.0.25,Fali)
			16(Min.200,Kapardha)	16(Min.21,Kanadu)	16(Min.1,Muli 1)	16(Min.0.05,Kapardha)		4(Min.0.00,,Lakadmal)
	Gujrat & UT of	641	115(Max. 28360,Kharoi,)	78 (Max. 8190,Kharoi,)	177(Max. 900,Dhandhalpur)	60(Max.5.00,Surendranagar 2)	215	36 (Max.6.40,Bhanwad)
	Daman & Diu		526(Min.189,Lodhika 1)	563(Min.7,Kalkui)	464(Min.0,Kherwada)	581(Min.0.00,Ribda)		179(Min.0.00,Lakadmal)

Annexure: IIa

SITE_NAME	SITE_TYPE	BASIN_NAME	SUB_BASIN_NAME
Barvala	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhangadh_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhariyad	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bopal_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bopal_Pz_II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bopal_Pz_III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Charanki	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dalod	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Devalia	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dhandhuka1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Endla	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Gamph	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Ghuma	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ghuma_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Ghuma_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Godhavi	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Hansalpur	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Hansalpur_Pz-I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Hansalpur_Pz-II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Hansalpur_Pz-III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Hazipur Garden_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Hazipur Garden_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Hazipur Garden_Pz_III	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Ingoli_Pz	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Jhanjharwa_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Jholapur_Pz_I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Jholapur_Pz_II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jholapur_Pz_III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kankariya_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Kankariya_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Kumarkhan	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kundal	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch

Kundali	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Mandal1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mandal2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Navrangpura	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Pachcham_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Rajpada	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Rampara	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Ranpur2	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Salangpor	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Sanand I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sanand II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sanand iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sanand1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Shilaj_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Shilaj_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Shilaj_Pz_III	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Sitapur	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Tagadi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Tagadi1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Thori mubarak	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ughraj_Pz	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ughraj1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Vagad(Repl)_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vasai_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vasai_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vatwa	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vatwa Pz-I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vatwa Pz-II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vatwa Pz-III	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Viramgam	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Viramgam II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Viramgam III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Viramgam1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Viramgam2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Vithalpur	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch

Watchafalia	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Amreli	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Amreli_Pz	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Amritvel_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Ankadia mota	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Babra	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Babra_Pz	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Babra1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Badhda	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bagasara	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhavardi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhavardi1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bherai	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhudani	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhuva	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Chalala	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Charkhadia_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Charkhadia1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Chavand	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dalkhania	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dhantardi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dharangani	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dhari	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dhari_Pz	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Gokharwala	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Goradka	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Govadka	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Hamapur_Pz	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Haripur_Pz_I	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Haripur_Pz_II	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Ingorala	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Ishwaria	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Jafrabad	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Jesar_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Jesar1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat

Jhar	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Jira	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Junasavar_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Kerala	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Khamba	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Khamba_Pz	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Khamba1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Lathi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Liliya_Pz_I	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Liliya_Pz_II	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Lotpur	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Luvariya	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Malila	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Mandal	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Morjhar	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Motabamodra_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Munjiasar Mota	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Munjiasar Mota1	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Nageshri	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Nageshri_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Nana jhinjhuda	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Nana jhinjhuda1	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Nanakankot	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Nesdi_Pz	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Oliya	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Piyava	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Punjapadar	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Saladi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Salena	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Savarkundla	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Savarkundla1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Shedhavadar	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Simiran	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Tajpur	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Thavi i	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat

Thavi ii	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Thavi iii	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Timbi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Timbi1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Timbi2	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Trakuda	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vaghania juna	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vankiya	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vankiya1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vavdi_Pz	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Victor	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Virpur	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Adas_Pz	Tube Well	Mahi	Upto Kadana Dam
Anand	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Anklav_Pz_I	Tube Well	Mahi	Upto Kadana Dam
Anklav_Pz_II	Tube Well	Mahi	Upto Kadana Dam
Anklav2	Dug Well	Mahi	Upto Kadana Dam
Ashi_Pz	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bandhani	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bhadran	Dug Well	Mahi	Upto Kadana Dam
Borsad I	Tube Well	Mahi	Upto Kadana Dam
Borsad_Pz_II	Tube Well	Mahi	Upto Kadana Dam
Dali	D C B	Mahi	Upto Kadana Dam
Davalpura_Pz	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Dharmaj	D C B	Sabarmati	Lb Of Sabarmati Upto Hathmati
Ghora	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Golana	Tube Well	Mahi	Upto Kadana Dam
Golana	Tube Well	Mahi	Upto Kadana Dam
Hariyan_Pz	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Kansari1	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Kathana_Pz_I	Tube Well	Mahi	Upto Kadana Dam
Kathana_Pz_II	Tube Well	Mahi	Upto Kadana Dam
Laxmipura	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Navapura	Dug Well	Mahi	Upto Kadana Dam
Pansora_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati

Pansora_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Petlad_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Petlad_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Ras	Dug Well	Mahi	Upto Kadana Dam
Sarsa_Pz_I	Tube Well	Mahi	Upto Kadana Dam
Sarsa_Pz_II	Tube Well	Mahi	Upto Kadana Dam
Sarsa2	Dug Well	Mahi	Upto Kadana Dam
Siswa_Pz_I	Tube Well	Mahi	Upto Kadana Dam
Siswa_Pz_II	Tube Well	Mahi	Upto Kadana Dam
Sojitra_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Sojitra_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Tarapur Pz-I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Tarapur Pz-II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Tarapur2	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Tarapur2	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vasad	Dug Well	Mahi	Upto Kadana Dam
Walmi_ I	Tube Well	Mahi	Upto Kadana Dam
Walmi_ II	Tube Well	Mahi	Upto Kadana Dam
Agdol	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Agthala	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Agthala	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Ambaji_Pz	Bore Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Amirgadh	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Aserda_Pz	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Asodar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Balodhar_Pz-I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Balodhar_Pz-II	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Balodhar_Pz-III	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhabhar iii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch

Bhabhar Pz-I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhabhar ii	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhabhar Pz-II	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhadli kotha	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bharol	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bharol1	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhorol_Pz_I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Biyok_Pz-I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mainly Luni
Biyok_Pz-II	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Chandisar	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Chitrasani	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Choudungri	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dalwana_Pz_I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dalwana_Pz_II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Danta	Bore Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Danta1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dantiwada	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dantiwada	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Deesa1	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Deesa2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Deesa2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dhanera Pz- II	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dhanera Pz-I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dhanera1	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dhaneri	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dharnodhar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch

Dharnodhar_Pz-I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dhima	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Gangodra	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Iqbalgarh	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jalotra	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jalotra Pz-I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Jalotra Pz-II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jegal	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jerda Pz-I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Jerda Pz-II	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Jhat	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jhat vadli	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jorapura	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kamboi PZ-I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kamboi-PZII	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kansari	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Khimmat	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Khimmat	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Khoda	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Khorada	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kidotar	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kuchwada	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Lakhani i	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Lakhani ii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Lakhani iii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Mahi ow	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mahi pz	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch

Mahi tw iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mahi tw_II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mahi twi	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mahi_Pz	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Manglore	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Masali	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Mavsari I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mainly Luni
Mavsari ii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mainly Luni
Meda	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mitha	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mitha	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Miyal ii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Miyal iii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Miyal pz-i	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Mohabbat gadh	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Motasada	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Moti mahudi	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Nenava	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Palanpur_Pz	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Palanpur1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Palanpur2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Panthawada	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Rah	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Rah Pz-III	Tube Well	Luni and other drainage into Great Rann of Kutch	Mainly Luni
Rah_Pz I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mainly Luni

Rah_Pz II	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Rampura	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ramun	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Rasna	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Rasna(Repl)_Pz_I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mainly Luni
Rasna1	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Rasna2	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ratanpur2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Rupal_Pz_I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Rupal_Pz_II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Samalwada	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Sankad	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Santorwada	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sihori i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sihori ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sodapur	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Suigam	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Tharad1	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Tharad1	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Thawar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Unchasan	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Unchasan	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Vadgamda	D C B	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Vav ii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch

Vav i	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Vav2	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Amod	Dug Well	Mahi	Upto Kadana Dam
Arethi	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Bhadkodra	Dug Well	Mahi	Upto Kadana Dam
Bharuch	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Bharuch I	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Bharuch Ii	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Bhensli	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Dahegam	Dug Well	Mahi	Upto Kadana Dam
Dahej	Dug Well	Mahi	Upto Kadana Dam
Gandhar	Dug Well	Mahi	Upto Kadana Dam
Hansot	Tube Well	Tapti	Sea Confluence To Ukai
Hinglot	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Ilav	Dug Well	Tapti	Sea Confluence To Ukai
Jambusar	Tube Well	Mahi	Upto Kadana Dam
Jambusar1	Dug Well	Mahi	Upto Kadana Dam
Jambusar2	Dug Well	Mahi	Upto Kadana Dam
Jesajpur	D C B	Narmada	Confluence With Sea To Navgam Dam
Jetpur1	Dug Well	Tapti	Sea Confluence To Ukai
Jhagadia	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Juna borbhata	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Kadodara	Tube Well	Mahi	Upto Kadana Dam
Kalak	Dug Well	Mahi	Upto Kadana Dam
Kaswa	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Kavachiya	Dug Well	Tapti	Sea Confluence To Ukai
Kavi	Dug Well	Mahi	Upto Kadana Dam
Kondh	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Luhara	Dug Well	Mahi	Upto Kadana Dam
Mahegam	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Mahegam1	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Modoliya	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Mokhdi	Dug Well	Tapti	Sea Confluence To Ukai

Motwan	Dug Well	Tapti	Sea Confluence To Ukai
Mulad	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Navetha	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Netrang	Bore Well	Narmada	Confluence With Sea To Navgam Dam
Netrang(Rep)_Pz	Bore Well	Narmada	Confluence With Sea To Navgam Dam
Netrang1	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Nirnavi	Dug Well	Mahi	Upto Kadana Dam
Panoli	Dug Well	Tapti	Sea Confluence To Ukai
Raymal	Dug Well	Tapti	Sea Confluence To Ukai
Roja tankaria	Dug Well	Mahi	Upto Kadana Dam
Sajod	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Sarod	Dug Well	Mahi	Upto Kadana Dam
Simodra	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Talodra	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Tankari	Dug Well	Mahi	Upto Kadana Dam
Utraj	Dug Well	Tapti	Sea Confluence To Ukai
Valia	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Ambala	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhavnagar1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhudel	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhumbhali	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhuteshwar	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhutia	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Chok	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Datha	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dhasa	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dudhala	D C B	Southern Kathiawar	Draining Into Gulf Of Khambat
Gadhada1	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Gadhada2	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Gadhula	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Gadhula1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Gariyadhar	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Ghogha	Dug Well	Mahi	Upto Kadana Dam
Ghogha1	Dug Well	Mahi	Upto Kadana Dam
Jalia	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat

Kardej	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Khijadiya	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Kobidi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Longadi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Lonjdhara	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Lundra	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Mahuva	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Mahuva1	D C B	Southern Kathiawar	Draining Into Gulf Of Khambat
Malanka	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Malvav	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Motivadal	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Ningala	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Noghanvadar	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Palitana1	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Palitana2	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Paliyad	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Paliyad1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Paliyad2	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Panchpipla	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Panvi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Panvi1	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Pasvi	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Porbada	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Randola	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Sajnasar	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Sandhida	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Satanes	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Shantinagar	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Sihor	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Surkha	Tube Well	Mahi	Upto Kadana Dam
Talaja i	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Talaja ii	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Talaja1	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Talaja2	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Tansa	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat

Tardhera	D C B	Southern Kathiawar	Draining Into Gulf Of Khambat
Tatam	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Timbi2	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Trapaj	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Umrala	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vallabhipur1	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vallbhipur	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vartij	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Virdi	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Ambawadi	Dug Well	Sharavati to Tapti	Savitri To Tapti
Bhimpor k.falia	Dug Well	Sharavati to Tapti	Savitri To Tapti
Dabhel	Dug Well	Sharavati to Tapti	Savitri To Tapti
Dalwada	Dug Well	Sharavati to Tapti	Savitri To Tapti
Daman	Bore Well	Sharavati to Tapti	Savitri To Tapti
Jempore	Dug Well	Sharavati to Tapti	Sharavati To Savitri
Khariwad daman	Dug Well	Sharavati to Tapti	Savitri To Tapti
Khariwad daman1	Dug Well	Sharavati to Tapti	Savitri To Tapti
Morwad	Dug Well	Sharavati to Tapti	Savitri To Tapti
Ringwada	Dug Well	Sharavati to Tapti	Sharavati To Savitri
Warkund	Dug Well	Sharavati to Tapti	Savitri To Tapti
Chakarteeth_Pz	Tube Well	Sharavati to Tapti	Savitri To Tapti
Diu	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vanakbarh_Pz	Tube Well	Sharavati to Tapti	Savitri To Tapti
Dabhava	Dug Well	Mahi	Upto Kadana Dam
Dadhela	Dug Well	Mahi	Upto Kadana Dam
Dahod	Bore Well	Mahi	Kadana Dam To Jakham Confluence
Dahod1	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Dahod2	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Devgadh Baria	Dug Well	Mahi	Upto Kadana Dam
Devgadh bariya	Bore Well	Mahi	Upto Kadana Dam
Dhanpur	Dug Well	Mahi	Upto Kadana Dam
Fatepura(Karodia)	Bore Well	Mahi	Upto Kadana Dam
Garbara	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Jhalod	Bore Well	Mahi	Kadana Dam To Jakham Confluence
Jhalod1	Dug Well	Mahi	Kadana Dam To Jakham Confluence

Kanjetha	Dug Well	Mahi	Upto Kadana Dam
Khandania	Dug Well	Mahi	Upto Kadana Dam
Limbdi2	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Limkheda	Bore Well	Mahi	Upto Kadana Dam
Mirakhedi	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Panchwada	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Pipero	Bore Well	Mahi	Upto Kadana Dam
Salaya1	Dug Well	Mahi	Upto Kadana Dam
Sukhsar	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Tokarba	Dug Well	Mahi	Upto Kadana Dam
Varamkheda	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Wadia	Dug Well	Mahi	Upto Kadana Dam
Charada_Pz_I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Chatral	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Chiloda_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Chiloda_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Dahegam I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Dahegam II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Kalol(Nest)_Pz_I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kalol(Nest)_Pz_II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kalol(Nest)_Pz_III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kalol(Rep)_Pz_II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kalol_Pz_IV	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kasturinagar(IFFCO)	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Mansa	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Nardipur i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Nardipur ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Palaj_Pz-I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Palaj_Pz-II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Palaj_Pz-III	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Paliya	D C B	Sabarmati	Lb Of Sabarmati Upto Hathmati
Sardhao i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sardhav ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Amran_Pz	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Amran1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar

Aramda	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Asota Mota	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Bed	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Bed1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Bedanpur	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Bhatia	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Bhatiya	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Changa	D C B	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dharampur2	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dharsanvel	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dharsanvel1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dhrol1	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dhrol2	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dudhai2	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dwarka	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Falla	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Gajana	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Gordhanpur	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Haripur2	D C B	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Haryana	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Jam Ambardi	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Jambuda	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Jamnagar1	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Jamnagar2	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Jodia	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Juvanpur	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Kajuda	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Kalavad1	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Kalavad2	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Kalawad	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Khambalia	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Khambaliya	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Khambhaliya	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Kolva1	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Kuvadia	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar

Lalpur	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Lalpur1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Latipur	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Machhlivad	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Mojap	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Mojap1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Mota Bharudia	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Moti khavdi	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Moti matli	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Moti Rafudar	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Navi Madhi_Pz	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Nikava	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Okhamadhi	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Pindara	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Pindara1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Pirlakhasar	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Pithad	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Ravesia	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Salaya	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Samrasar	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Samrasar1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Vad panchasara	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Vadtara	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Varwada	D C B	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Vibhania	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Vijarkha	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Vinjhalpur	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dhokadva	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Dolasa	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Girgadhada	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Kesariya	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Longia	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Motisar	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Sametar	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Shapur	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat

Una1	Tube Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Una2	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Adesar (Pond)	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Adesar_Pz	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Adesar1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Adhoi_EW	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Adhoi_Pz	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anandsar_EW	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Anjar	Bore Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anjar City	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anjar Np Between 1&10	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anjar Np Garden	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anjar Np Opp. Raph. Hospt	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anjar Np Tw-2	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anjar Np Tw-4	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anjar Np-5	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Anjar1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Asambia mota_Pz	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Asambia mota1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Baladiya	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Balasar	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bandiya	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Baranda	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bela	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bela1	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhachau	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bhachau1	D C B	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bhachau2	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bhadia mota	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bhadreshwar	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bhavanipur	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area

Bherandiala	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhimasar	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bhimasar1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bhirandiala	D C B	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Bhirandiala	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhuj (Circuit House)	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhuj (Hospital)	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhuj _mes	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhuj Dot-1	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhujodi	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bidada	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Chandranagar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Chitrod	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Chopadwa-i	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Chopadwa-ii	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Chopdwa-iii	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Chubdak	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Dabhada	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dabhada1	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dayapar	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Dayapar1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Desalpur	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Desalpur1	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Deshalpur	D C B	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch

Deshalpur m.	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Deshalpur m.1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Deshalpur rapar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Devisar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Devpargadh	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Dharesi	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Dholavira	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dholavira(EW)_Pz	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dhori	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dhori1	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dinara mota	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dindayal-nagar	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dot-2	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dudhai	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Dudhai- Fresh	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Dudhai Saline	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Dudhai1	D C B	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Dunai	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Gadhsisa	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Gadhsisa1	D C B	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Gadhuli	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Gagodar	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Gandhidham	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Gandhidham1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Haboi	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Halra	Dug Well	Luni and other drainage into Great Rann of	Mostly Great Rann Of Kutch

		Kutch	
Hirapar I	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Hirapur-ii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Hirapur-iii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Jadopar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Jawaharpur	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Jhura	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kakarwa	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kalyanpur2	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kanmir	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kanmir1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kanyabe	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kanyabe1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kanyabe2	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Karagoga	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kataria	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kera1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kera2	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Khabrau	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kharai	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kharoi	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Khavada	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Khavda	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Khedoi	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Khedoi1	D C B	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Khedoi2	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area

Kotadi	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kotaya	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kotda jadvapur	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kothara	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Kuda	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kukma	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kukma- II	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kukma- II	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kukma iii (cazri)	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kumbhardi	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kumbhariya	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Lakhond	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Lakhpat	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Lakhpat_Pz	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Lilpur	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Lodai	D C B	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Lodarani	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Lohariya	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Madhapar	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Madhapar	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Madhapar1	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Madhapar2	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Mandvi	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area

Mandvi (Mahadev Temple)	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mandvi (Shitla Mata)	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mandvi1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Manfara	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Manfara1	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Manzil	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Mata no madh	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mathada	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mathada1	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mathak	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mathak1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mau Moti	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mokha	D C B	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Morjhar1	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Mota baraya	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mothala	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Moti cher	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mundra	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mundra1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Mundra2	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
N. sarovar	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Nadapa	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Nagalpar (Nakhatrana)	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Nagalpar 3 (kpt TW-2)	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Nagalpar Moti	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Nagalpur 1	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Nakhatrana	D C B	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Nakhatrana1	D C B	Luni and other drainage into Great Rann of	Mostly Great Rann Of Kutch

		Kutch	
Nakhtrana	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Naliya	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Naliya (Bus S)	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Nandela Wandh	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Narayan Sarovar I	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Narayan Sarovar II	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Narayansarovar	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Naredi (kotada Roha)	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Netra-1	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Netra-8 (khersara)	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Nirona	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Nirona1	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Nirona2	D C B	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Nirona2	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Nirona2	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Panandro Cp I	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Panandro Cp II	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Rapar	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Rapar1	D C B	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Rapar2	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Ratanpur	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Ratanpur khadir	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Ratanpur(maum.)	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area

Rathanpurkhadir	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Rawapar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Raydhanpur	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Raydhanpur_Pz	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Reha	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Rudramata	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Samkhiari	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Sedat	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Selari	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Selari	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Shinaya	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Shinogra Tw-3	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Shivlakha	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Sindhodi mata	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Sinogra- II	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Sukhpar	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Tera	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Trambo (raydhanpur-2)	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Varedia	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Vinjhan	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Vinjhan1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Alina	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Balasinor	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Balasinor1	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bar	Dug Well	Mahi	Upto Kadana Dam
Bhaner (deep)	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bhaner(medium)	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bhaner(shallow)	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati

Chaklashi	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Dakor	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Gadwell	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Juna vasadra	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Kalesar	Dug Well	Mahi	Upto Kadana Dam
Kapadvanj	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Khatraj	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Khatraj1	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Kheda	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Ladvel	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Limbasi	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Limbasi	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Limbasi	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Limbasi1	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Mahudha	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Matar I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Matar II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Nadiad Pz-I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Nadiad Pz-II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Nadiad2	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Nes_Pz	Tube Well	Mahi	Upto Kadana Dam
Nes_Pz(Sy)	Tube Well	Mahi	Upto Kadana Dam
Sarkhej _ I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Sarkhej _ II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Sarkhej _ Pz-III	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Sewalia	Dug Well	Mahi	Upto Kadana Dam
Shekhupura	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Thasra	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vaso	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Virpur_Pz	Bore Well	Mahi	Kadana Dam To Jakham Confluence
Vyas vasna	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Anandpura i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Anandpura iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Asjol	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ayeti	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch

Bhalpura1	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhandu i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhandu II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhandu III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhandu IV	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhandu V	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhandupara	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Budasan	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Charasan i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Charasan i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dabhora	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Daran_Pz-I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Daran_Pz-II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Daran_Pz-III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dharpura	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dosaj	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Gerita	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ghumasan_Pz-I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ghumasan_Pz-II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ghumasan_Pz-III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Gilosan	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jantral i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jantral ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jantral iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jaska(Sy_4")Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Jaska(Sy_8")Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Kadi_Pz	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kadi1	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kaipur i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kaipur ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kaipur iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kaipur iv	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kalyanpur	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Karalli (i)	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Karalli (iii)	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch

Karalli II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Karbatia i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Karbatia ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Karbatia ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Karbatiya	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Khali	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kheralu	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kheralu (deep)	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kheralu(shallow	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kheralu1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kolwada	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Maguna	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Maktupur	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Maktupur2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Maktupur2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Malekpur-Pz	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mehsana	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mehsana IV	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mehsana v	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mehsana I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mehsana II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mehsana III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Mewad	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Modhera II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Modhera i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Modhera iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Motipura_Pz_I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Motipura_Pz_II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Motipura_Pz_III	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Nandasan	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Pamol	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Pamol1	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Pamol1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Panchot	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Pilwai i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch

Pilwai ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Piora	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Rampura1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Saola i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Saola ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Saola iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sihi	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sundarpura i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sundarpura ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sundarpura iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sundarpura iv	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Suraj	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Tarabh	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Unad	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Unad1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Unawa	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Vadnagar	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Vidaj	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Visnagar	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Visnagar i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Visnagar ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Visnagar iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Visnagar iv	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Walam i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Walam ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Walam iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Walam iv	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Agar(Rep)_Pz	Bore Well	Narmada	Confluence With Sea To Navgam Dam
Agar_Pz	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Amayar	Dug Well	Tapti	Rb Ukai Dam To Purna Confluence
Baman Phalia_Pz	Bore Well	Narmada	Confluence With Sea To Navgam Dam
Bhavpura i	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Bhavpura ii	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Bujetha	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Chikada	Dug Well	Narmada	Confluence With Sea To Navgam Dam

Dediapada	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Dev mogra	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Garudeshwar	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Gola talawadi	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Hirapura	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Kanbi pitha	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Kewadia_Pz	Bore Well	Narmada	Confluence With Sea To Navgam Dam
Khota amba	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Namaria	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Nani singlot	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Rajpipla	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Rasela	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Rasulpura_Pz	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Ringani	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Selemba	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Sunderpura	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Sunderpura_Pz	Bore Well	Narmada	Confluence With Sea To Navgam Dam
Abrama	Dug Well	Sharavati to Tapti	Savitri To Tapti
Anklas	Dug Well	Sharavati to Tapti	Savitri To Tapti
Chikhali road	Dug Well	Sharavati to Tapti	Savitri To Tapti
Chinam	Dug Well	Sharavati to Tapti	Savitri To Tapti
Dandi	Dug Well	Sharavati to Tapti	Savitri To Tapti
Hanumanbari	Dug Well	Sharavati to Tapti	Savitri To Tapti
Hond	Dug Well	Sharavati to Tapti	Savitri To Tapti
Kaliyari	Dug Well	Sharavati to Tapti	Savitri To Tapti
Kantasvel	Dug Well	Sharavati to Tapti	Savitri To Tapti
Khergam	Dug Well	Sharavati to Tapti	Savitri To Tapti
Navsari	Tube Well	Sharavati to Tapti	Savitri To Tapti
Navsari1	Dug Well	Sharavati to Tapti	Savitri To Tapti
Onjal	Dug Well	Sharavati to Tapti	Savitri To Tapti
Onjal1	Dug Well	Sharavati to Tapti	Savitri To Tapti
Pipalkhed	Dug Well	Sharavati to Tapti	Savitri To Tapti
Rankuva	Dug Well	Sharavati to Tapti	Savitri To Tapti
Sari_khurd	Dug Well	Sharavati to Tapti	Savitri To Tapti
Ubhrat	Dug Well	Sharavati to Tapti	Savitri To Tapti

Unai	Dug Well	Sharavati to Tapti	Savitri To Tapti
Vansda	Bore Well	Sharavati to Tapti	Savitri To Tapti
Bavaliya	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bavaliya_Pz	Bore Well	Mahi	Upto Kadana Dam
Gadhar	Dug Well	Mahi	Upto Kadana Dam
Godhra	Bore Well	Mahi	Upto Kadana Dam
Godhra1	Dug Well	Mahi	Upto Kadana Dam
Godhra2	Dug Well	Mahi	Upto Kadana Dam
Jambughoda	Bore Well	Narmada	Confluence With Sea To Navgam Dam
Kadana	Dug Well	Mahi	Upto Kadana Dam
Kalol	Dug Well	Mahi	Upto Kadana Dam
Kothamba	Dug Well	Mahi	Upto Kadana Dam
Limbadia peti	Dug Well	Mahi	Upto Kadana Dam
Lunawada	Dug Well	Mahi	Upto Kadana Dam
Malekpur1	Dug Well	Mahi	Upto Kadana Dam
Pandarvada	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Pavagadh	Dug Well	Mahi	Upto Kadana Dam
Rajgadh1	Dug Well	Mahi	Upto Kadana Dam
Ram patel na m.	Bore Well	Mahi	Upto Kadana Dam
Ranipura	Dug Well	Mahi	Upto Kadana Dam
Santrampur	Bore Well	Mahi	Kadana Dam To Jakham Confluence
Santrampur1	Dug Well	Mahi	Kadana Dam To Jakham Confluence
Santroad	Dug Well	Mahi	Upto Kadana Dam
Shehra	Dug Well	Mahi	Upto Kadana Dam
Shivrajpur	Dug Well	Mahi	Upto Kadana Dam
Tarkanda	Dug Well	Mahi	Upto Kadana Dam
Tarvada	Tube Well	Sharavati to Tapti	Savitri To Tapti
Timbi2	Dug Well	Mahi	Upto Kadana Dam
Tuwa	Dug Well	Mahi	Upto Kadana Dam
Vejalpur	Dug Well	Mahi	Upto Kadana Dam
Asladi I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Asladi ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Baspa	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Baspa	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Baspa (Repl) i	Tube Well	Luni and other drainage into Great Rann of	Mainly Luni

		Kutch	
Baspa (Repl) ii	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Bhatsan	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhutia vasna i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bhutia vasna II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Biliya i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Biliya ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Biliya iv	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Biliya iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Biliya(Temple)_Pz_I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Biliya(Temple)_Pz_II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bolera	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Chanasma i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Chanasma II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dharmoda	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dharmoda1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dharno dharda	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dhinoj	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dhinoj1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dhinoj2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Hajipur	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Hajipur	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Harij i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Harij II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Harij iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Himanipur	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Jhajahm	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Kamliwara (ow3)	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kamliwara (tw1)	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kamliwara ow01	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kamliwara ow10	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kamliwara un5	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Khimiana i	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch

Khimiana ii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Khimiana iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Khorada/karuda	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Matarwadi I	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Matarwadi II	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Matarwadi iii	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Moti chander	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Nedra	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Patan2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Patan2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Piprala	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Piprala1	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Radhanpur	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Radhanpur1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Radhanpur2	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sami	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sami1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sami1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sander	D C B	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sankheshwar	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Santhalpur	Dug Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Shankhari	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Sidhada	Tube Well	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area
Sidhpur	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Varahi	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Vauva	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Vauva(Repl)_Pz	Tube Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Vauva1	Dug Well	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch
Vijaynagar1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Wagdod	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Wagdod1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Amar nagar	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar

Amrapur1	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bantia	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Bhadla	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Bhalgam	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Chhatar	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Chhibda	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Chhibda	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dhuva	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Gavridad	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Hadmatia	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Jamkandorna	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Kalyanpur2	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Khamta	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Khirsara1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Lajai	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Lalavadar	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Lodhika	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Lodhika1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Macchukunda	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Mahika	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Malia	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Maliya	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Modpar1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Morbi	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Morvi	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Mota dhansura	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Movaiya	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Neknam	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Nichi mandal	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Padadhari	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Padadhari1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Pipaliya Agabhi	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Rajkot	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Rajkot1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Ranpur1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar

Sarvad	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Sindhavadar	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Tankara	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Targhari	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Vangadra	Bore Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Vinchhia	Dug Well	Southern Kathiawar	Draining Into Gulf Of Khambat
Wankaner	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Wankaner1	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Wankaner-1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Wankaner2	D C B	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Bamna	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bayad_Pz	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bhadreshwar	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bhiloda_Pz	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bhiloda2	D C B	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bibipur	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Bibipur1	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Boral	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Chandap_Pz	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Chitoda	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Choriwad	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Dhansura	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Dhansura1	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Gadha	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Gamdi	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Goral	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Hamirpur	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Harsol	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Harsol1	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Himmatnagar	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Himmatnagar_Pz	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Idar	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Jhaloti	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Jivanpura	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Karanpur	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati

Kuski_Pz	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Laxmanpura	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Mahiyapur	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Malpur_Pz	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Meghraj	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Modasa	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Modasa_Pz	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Nandoj	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Panvath/porvad	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Prantij	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Prantij I	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Prantij II	Tube Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Punasan	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Rajgadh	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Revas	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Sabdajinamuvada	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Sathamba	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Shamlaji	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Takatuka	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Varvada	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vejpur_Pz	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vijaynagar	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Vijaynagar_Pz	Bore Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Virpur (Himmat)	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Virpur (Idar)	Dug Well	Sabarmati	Lb Of Sabarmati Upto Hathmati
Allu	Dug Well	Sharavati to Tapti	Savitri To Tapti
Asarma	Dug Well	Tapti	Sea Confluence To Ukai
Baben	Dug Well	Sharavati to Tapti	Savitri To Tapti
Bardoli	Tube Well	Sharavati to Tapti	Savitri To Tapti
Bed Kuva Dur	Dug Well	Tapti	Sea Confluence To Ukai
Bedchit	Dug Well	Sharavati to Tapti	Savitri To Tapti
Bhurvel (ukai)	Dug Well	Tapti	Sea Confluence To Ukai
Chavada	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Dungri	Dug Well	Tapti	Sea Confluence To Ukai
Gandhinagar	Dug Well	Tapti	Sea Confluence To Ukai

Gangtha	Dug Well	Tapti	Sea Confluence To Ukai
Hindoliya	Dug Well	Sharavati to Tapti	Savitri To Tapti
Jahangirpura	Dug Well	Tapti	Sea Confluence To Ukai
Jesingpura[sg]	Dug Well	Tapti	Sea Confluence To Ukai
Jhankhavav	Dug Well	Tapti	Sea Confluence To Ukai
Jhankhvav	Bore Well	Tapti	Sea Confluence To Ukai
Juna umarpada	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Kadod	Dug Well	Tapti	Sea Confluence To Ukai
Kadodra	Dug Well	Tapti	Sea Confluence To Ukai
Karanjvel	Dug Well	Sharavati to Tapti	Savitri To Tapti
Kasal	Dug Well	Tapti	Sea Confluence To Ukai
Kathor	Dug Well	Tapti	Sea Confluence To Ukai
Khedwada (Ashram Falia)	Dug Well	Tapti	Sea Confluence To Ukai
Kherwa	Dug Well	Tapti	Sea Confluence To Ukai
Kim road	Dug Well	Tapti	Sea Confluence To Ukai
Kim_road	Dug Well	Tapti	Sea Confluence To Ukai
Kim_road1	Dug Well	Tapti	Sea Confluence To Ukai
Kosamba	Tube Well	Tapti	Sea Confluence To Ukai
Kosamba1	Dug Well	Tapti	Sea Confluence To Ukai
Kosamba2	Dug Well	Tapti	Sea Confluence To Ukai
Kukarmunda	Dug Well	Tapti	Sea Confluence To Ukai
Laskana	Dug Well	Tapti	Sea Confluence To Ukai
Madhi	Dug Well	Sharavati to Tapti	Savitri To Tapti
Mahuva2	Dug Well	Sharavati to Tapti	Savitri To Tapti
Malda	Dug Well	Tapti	Sea Confluence To Ukai
Mandvi2	Dug Well	Tapti	Sea Confluence To Ukai
Navi pardi	Dug Well	Tapti	Sea Confluence To Ukai
Nizar	Bore Well	Tapti	Lb Ukai Dam To Purna Confluence
Nizar1	Dug Well	Tapti	Sea Confluence To Ukai
Nogama	Dug Well	Tapti	Sea Confluence To Ukai
Olpad	Tube Well	Tapti	Sea Confluence To Ukai
Olpad2	Dug Well	Tapti	Sea Confluence To Ukai
Palsana	Dug Well	Sharavati to Tapti	Savitri To Tapti
Pankheda	Dug Well	Tapti	Sea Confluence To Ukai
Puna	Bore Well	Sharavati to Tapti	Savitri To Tapti

Puna1	Dug Well	Sharavati to Tapti	Savitri To Tapti
Sachin town	Dug Well	Sharavati to Tapti	Savitri To Tapti
Sachin town1	Dug Well	Sharavati to Tapti	Savitri To Tapti
Sarbhon	Dug Well	Sharavati to Tapti	Savitri To Tapti
Songadh	Bore Well	Tapti	Sea Confluence To Ukai
Sultanabad	Dug Well	Tapti	Sea Confluence To Ukai
Surat	Tube Well	Tapti	Sea Confluence To Ukai
Surat1	Dug Well	Tapti	Sea Confluence To Ukai
Surat2	Dug Well	Tapti	Sea Confluence To Ukai
Tawali	Dug Well	Tapti	Sea Confluence To Ukai
Ten-bardoli	Dug Well	Sharavati to Tapti	Savitri To Tapti
Tokarwa	Dug Well	Tapti	Sea Confluence To Ukai
Uchchhal	Dug Well	Tapti	Sea Confluence To Ukai
Ushker	Dug Well	Tapti	Sea Confluence To Ukai
Vadade-Khurd	Dug Well	Sharavati to Tapti	Savitri To Tapti
Valod	Dug Well	Sharavati to Tapti	Savitri To Tapti
Vyara1	Dug Well	Sharavati to Tapti	Savitri To Tapti
Wadoli	Dug Well	Tapti	Sea Confluence To Ukai
Adriyana	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bajana	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Bamanbor	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Chotila	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Chotila_1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Chotila1	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Chuli	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dasada	Tube Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Dasada1	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Degam	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dhrangadhra	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dhrangadhra1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Dhrangadhra2	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Halvad1	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Halvad2	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Jhinjhuwada	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Juna Devaliya	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar

Juna Devaliya1	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Juna Devaliya2	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Juna Devaliya2	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Kharaghoda	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Kherwa	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Khodu	D C B	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Lakhtar	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Malaniyad	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Manpur	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Mathak2	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Mathak2	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Miani	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Navagam Devpura	Bore Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Naviyani	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Rajsitapur	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Ranipet	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Ratanpur1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Sara	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Sarla	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Sukhpar1	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Surel	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Tarnetar	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Vaodi	Tube Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Velavadar	Dug Well	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar
Visawadi	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Vitthalgarh	Dug Well	Draining into Gulf of Kutch	Ruper,Saraswati, Banas draining into Little Rann of Kutch
Aherdi	Dug Well	Sharavati to Tapti	Savitri To Tapti
Ahwa_Pz	Bore Well	Sharavati to Tapti	Savitri To Tapti
Ahwa1	Dug Well	Sharavati to Tapti	Savitri To Tapti
Bardipada	Dug Well	Sharavati to Tapti	Savitri To Tapti
Bari pada	Dug Well	Sharavati to Tapti	Savitri To Tapti
Bhenskatri	Dug Well	Sharavati to Tapti	Savitri To Tapti
Bori gaotha	Dug Well	Sharavati to Tapti	Savitri To Tapti
Chikhli	Dug Well	Sharavati to Tapti	Savitri To Tapti
Chinchnogaotha	Dug Well	Sharavati to Tapti	Savitri To Tapti

Chinchpada	Dug Well	Sharavati to Tapti	Savitri To Tapti
Dhumkal	Dug Well	Sharavati to Tapti	Savitri To Tapti
Gadad	Dug Well	Sharavati to Tapti	Savitri To Tapti
Ghubita	Dug Well	Sharavati to Tapti	Savitri To Tapti
Jakana	Dug Well	Sharavati to Tapti	Savitri To Tapti
Kakshala	Bore Well	Sharavati to Tapti	Savitri To Tapti
Kalibel	Dug Well	Sharavati to Tapti	Savitri To Tapti
Mahal	Dug Well	Sharavati to Tapti	Savitri To Tapti
Malegaon	Dug Well	Sharavati to Tapti	Savitri To Tapti
Mheskatri	Bore Well	Sharavati to Tapti	Savitri To Tapti
Nadak khadi	Dug Well	Sharavati to Tapti	Savitri To Tapti
Nana pada	Dug Well	Sharavati to Tapti	Savitri To Tapti
Sodmal	Dug Well	Sharavati to Tapti	Savitri To Tapti
Subir	Dug Well	Sharavati to Tapti	Savitri To Tapti
Umberpada	Dug Well	Sharavati to Tapti	Savitri To Tapti
Alladpur	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Amreshwar	Dug Well	Mahi	Upto Kadana Dam
Asala	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Asoj	Dug Well	Mahi	Upto Kadana Dam
Baladgam	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Baroda	Dug Well	Mahi	Upto Kadana Dam
Baroda1	Dug Well	Mahi	Upto Kadana Dam
Bhindol	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Bodeli	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Chavaria	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Chhaliyar	Dug Well	Mahi	Upto Kadana Dam
Chhota udepur	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Chisadia	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Chitral PZ_II	Tube Well	Mahi	Upto Kadana Dam
Chitral Pz-I	Tube Well	Mahi	Upto Kadana Dam
Chota udepur	Bore Well	Narmada	Confluence With Sea To Navgam Dam
Dabhoi	Dug Well	Mahi	Upto Kadana Dam
Devat (thadgam)	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Ferkuva	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Gamod	Tube Well	Narmada	Confluence With Sea To Navgam Dam

Ghamodi	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Ghayaj i	Tube Well	Mahi	Upto Kadana Dam
Ghayaj ii	Tube Well	Mahi	Upto Kadana Dam
Gothada	Dug Well	Mahi	Upto Kadana Dam
Govindpura	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Haldarva I	Tube Well	Mahi	Upto Kadana Dam
Haldarva Ii	Tube Well	Mahi	Upto Kadana Dam
Handod	Tube Well	Mahi	Upto Kadana Dam
Handod1	Tube Well	Mahi	Upto Kadana Dam
Handod2	Tube Well	Mahi	Upto Kadana Dam
Jojh	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Juna samalya	Dug Well	Mahi	Upto Kadana Dam
Kalitalavdi	Dug Well	Mahi	Upto Kadana Dam
Kaprali	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Karamasiya	Dug Well	Mahi	Upto Kadana Dam
Kevadi	Dug Well	Mahi	Upto Kadana Dam
Kurali i	Tube Well	Mahi	Upto Kadana Dam
Kurali ii	Tube Well	Mahi	Upto Kadana Dam
Makni	D C B	Narmada	Confluence With Sea To Navgam Dam
Masor	Dug Well	Mahi	Upto Kadana Dam
Moti chikhali	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Naswadi	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Naswadi1	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Panwad	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Patiyapura	Dug Well	Mahi	Upto Kadana Dam
Pavi	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Pitha	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Rasulpur	Dug Well	Mahi	Upto Kadana Dam
Raypura i	Tube Well	Mahi	Upto Kadana Dam
Raypura ii	Tube Well	Mahi	Upto Kadana Dam
Saidal	Dug Well	Mahi	Upto Kadana Dam
Saidivasana	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Sankarda	Tube Well	Mahi	Upto Kadana Dam
Sankarda1	Tube Well	Mahi	Upto Kadana Dam
Sankheda	Tube Well	Mahi	Upto Kadana Dam

Segwa chouki ii	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Segwa chowki I	Tube Well	Narmada	Confluence With Sea To Navgam Dam
Sengpur	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Sinor	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Tundav	Dug Well	Mahi	Upto Kadana Dam
Vadaj	Tube Well	Mahi	Upto Kadana Dam
Vadala	Dug Well	Mahi	Upto Kadana Dam
Vadodara I	Tube Well	Mahi	Upto Kadana Dam
Vadodara Ii	Tube Well	Mahi	Upto Kadana Dam
Vagudan	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Vega	Dug Well	Mahi	Upto Kadana Dam
Vejpur1	Bore Well	Mahi	Upto Kadana Dam
Vejpur2	Dug Well	Mahi	Upto Kadana Dam
Waghach	Dug Well	Narmada	Confluence With Sea To Navgam Dam
Wankaner2	Bore Well	Mahi	Upto Kadana Dam
Atul	Dug Well	Sharavati to Tapti	Savitri To Tapti
Awadha	Dug Well	Sharavati to Tapti	Savitri To Tapti
Dahli (bhilad)	Dug Well	Sharavati to Tapti	Savitri To Tapti
Dharampur1	Bore Well	Sharavati to Tapti	Savitri To Tapti
Dharampur2	Dug Well	Sharavati to Tapti	Savitri To Tapti
Kanadu	Dug Well	Sharavati to Tapti	Savitri To Tapti
Kaparda	Dug Well	Sharavati to Tapti	Savitri To Tapti
Karwad	Dug Well	Sharavati to Tapti	Savitri To Tapti
Lakadmal	Dug Well	Sharavati to Tapti	Savitri To Tapti
Manala	Bore Well	Sharavati to Tapti	Savitri To Tapti
Mandwa	Dug Well	Sharavati to Tapti	Savitri To Tapti
Motaponda	Dug Well	Sharavati to Tapti	Savitri To Tapti
Muli1	Dug Well	Sharavati to Tapti	Savitri To Tapti
Nanaponda	Dug Well	Sharavati to Tapti	Savitri To Tapti
Tithal	Dug Well	Sharavati to Tapti	Savitri To Tapti
Tumb	Dug Well	Sharavati to Tapti	Savitri To Tapti
Udwada	Dug Well	Sharavati to Tapti	Savitri To Tapti
Umargaon	Dug Well	Sharavati to Tapti	Savitri To Tapti
Valsad1	Bore Well	Sharavati to Tapti	Savitri To Tapti
Vapi	Dug Well	Sharavati to Tapti	Savitri To Tapti

Annex - IIb

DISTRIBUTION OF GROUND WATER MONITORING WELLS IN THE MAJOR RIVER BASIN

DISTRICT_NAME	BASIN_NAME	SUB_BASIN_NAME	Total
Ahmedabad	Draining into Gulf of Kutch	Rupen	17
	Draining into Gulf of Kutch Total		17
	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch	1
	Luni and other drainage into Great Rann of Kutch Total		1
	Sabarmati	Lb Of Sabarmati Upto Hathmati	22
		Rb Of Sabarmati And Upper Part Beyond Hathmati	21
	Sabarmati Total		43
	Southern Kathiawar	Draining Into Gulf Of Khambat	10
	Southern Kathiawar Total		10
Ahmedabad Total			71
Amreli	Southern Kathiawar	Draining Into Gulf Of Khambat	58
		Rivers draining into Arabian Sea (Western part)	5
	Southern Kathiawar Total		63
Amreli Total			63
Anand	Mahi	Upto Kadana Dam	18
	Mahi Total		18
	Sabarmati	Lb Of Sabarmati Upto Hathmati	15
	Sabarmati Total		15
Anand Total			33
Banaskantha	Draining into Gulf of Kutch	Rupen	31
	Draining into Gulf of Kutch Total		31
	Luni and other drainage into Great Rann of Kutch	Mainly Luni	8
		Mostly Great Rann Of Kutch	31
	Luni and other drainage into Great Rann of Kutch Total		39
	Sabarmati	Lb Of Sabarmati Upto Hathmati	1
		Rb Of Sabarmati And Upper Part Beyond Hathmati	1
	Sabarmati Total		2
Banaskantha Total			72
Bharuch	Mahi	Upto Kadana Dam	13
	Mahi Total		13

	Narmada	Confluence With Sea To Navgam Dam	19
	Narmada Total		19
	Tapti	Sea Confluence To Ukai	10
	Tapti Total		10
Bharuch Total			42
Bhavnagar	Mahi	Upto Kadana Dam	1
	Mahi Total		1
	Southern Kathiawar	Draining Into Gulf Of Khambat Rivers draining into Arabian Sea (Western part)	51 1
	Southern Kathiawar Total		52
Bhavnagar Total			53
DAMAN	Sharavati to Tapti	Savitri To Tapti Sharavati To Savitri	8 1
	Sharavati to Tapti Total		9
DAMAN Total			9
DIU	Sharavati to Tapti	Savitri To Tapti	
	Sharavati to Tapti Total		
	Southern Kathiawar	Draining Into Gulf Of Khambat	7
	Southern Kathiawar Total		7
DIU Total			7
Dohad	Mahi	Kadana Dam To Jakham Confluence Upto Kadana Dam	15 15
	Mahi Total		30
Dohad Total			30
Gandhinagar	Draining into Gulf of Kutch	Rupen	10
	Draining into Gulf of Kutch Total		10
	Sabarmati	Lb Of Sabarmati Upto Hathmati Rb Of Sabarmati And Upper Part Beyond Hathmati	9 14
	Sabarmati Total		23
Gandhinagar Total			33
Jamnagar	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar	41
	Draining into Gulf of Kutch Total		41
	Southern Kathiawar	Rivers draining into Arabian Sea (Western part)	16
	Southern Kathiawar Total		16

Jamnagar Total			57
Junagadh	Southern Kathiawar	Draining Into Gulf Of Khambat	9
		Rivers draining into Arabian Sea (Western part)	65
	Southern Kathiawar Total		74
Junagadh Total			74
Kachchh	Draining into Gulf of Kutch	South Flowing Drainage Mostly Bhuj Area	40
	Draining into Gulf of Kutch Total		40
	Luni and other drainage into Great Rann of Kutch	Mostly Great Rann Of Kutch	29
	Luni and other drainage into Great Rann of Kutch Total		29
Kachchh Total			69
Kheda	Mahi	Kadana Dam To Jakham Confluence	1
		Upto Kadana Dam	5
	Mahi Total		6
	Sabarmati	Lb Of Sabarmati Upto Hathmati	22
	Sabarmati Total		22
Kheda Total			28
Mahesana	Draining into Gulf of Kutch	Ruper	53
	Draining into Gulf of Kutch Total		53
	Sabarmati	Lb Of Sabarmati Upto Hathmati	2
		Rb Of Sabarmati And Upper Part Beyond Hathmati	6
	Sabarmati Total		8
Mahesana Total			61
Narmada	Narmada	Confluence With Sea To Navgam Dam	22
	Narmada Total		22
	Tapti	Rb Ukai Dam To Purna Confluence	5
	Tapti Total		5
Narmada Total			27
Navsari	Sharavati to Tapti	Savitri To Tapti	21
	Sharavati to Tapti Total		21
Navsari Total			21
Panchmahals	Mahi	Kadana Dam To Jakham Confluence	3
		Upto Kadana Dam	33
	Mahi Total		37

	Narmada	Confluence With Sea To Navgam Dam	3
	Narmada Total		3
	Sabarmati	Lb Of Sabarmati Upto Hathmati	5
	Sabarmati Total		5
	Sharavati to Tapti	Savitri To Tapti	3
	Sharavati to Tapti Total		3
Panchmahals Total			48
Patan	Draining into Gulf of Kutch	Rupen	26
		South Flowing Drainage Mostly Bhuj Area	4
	Draining into Gulf of Kutch Total		30
	Luni and other drainage into Great Rann of Kutch	Mainly Luni	2
		Mostly Great Rann Of Kutch	3
	Luni and other drainage into Great Rann of Kutch Total		5
	Sabarmati	Lb Of Sabarmati Upto Hathmati	3
	Sabarmati Total		3
Patan Total			38
Porbandar	Southern Kathiawar	Rivers draining into Arabian Sea (Western part)	31
	Southern Kathiawar Total		31
Porbandar Total			31
Rajkot	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar	30
	Draining into Gulf of Kutch Total		30
	Southern Kathiawar	Draining Into Gulf Of Khambat	4
		Rivers draining into Arabian Sea (Western part)	25
	Southern Kathiawar Total		29
Rajkot Total			59
Sabarkantha	Sabarmati	Lb Of Sabarmati Upto Hathmati	45
		Rb Of Sabarmati And Upper Part Beyond Hathmati	12
	Sabarmati Total		57
Sabarkantha Total			57
Surat	Narmada	Confluence With Sea To Navgam Dam	4
	Narmada Total		4
	Sharavati to Tapti	Savitri To Tapti	25
	Sharavati to Tapti Total		25
	Tapti	Lb Ukai Dam To Purna Confluence	4

		Sea Confluence To Ukai	31
	Tapti Total		35
Surat Total			64
Surendranagar	Draining into Gulf of Kutch	North Flowing Drainage Of Jamnagar	24
		Ruper	14
	Draining into Gulf of Kutch Total		38
	Sabarmati	Rb Of Sabarmati And Upper Part Beyond Hathmati	17
	Sabarmati Total		17
Surendranagar Total			55
The dangs	Sharavati to Tapti	Savitri To Tapti	27
	Sharavati to Tapti Total		27
The dangs Total			27
Vadodara	Mahi	Upto Kadana Dam	29
	Mahi Total		29
	Narmada	Confluence With Sea To Navgam Dam	35
	Narmada Total		35
Vadodara Total			64
Valsad	Sharavati to Tapti	Savitri To Tapti	22
	Sharavati to Tapti Total		22
Valsad Total			22
Grand Total			1215

Annexure IIIa

DEPTH TO WATER UNCONFINED AQUIFERS IN GUJARAT DURING 2014-15

Sl.No.	Location	District	May-14	Aug-14	Nov-14	Jan-15
1	Bagodara_Pz_II	Ahmedabad	-	3.53	-	5.81
2	Barvala	Ahmedabad	8.75	6.50	7.60	7.73
3	Bopal_Pz_III	Ahmedabad	3.25	-	-	-
4	Dalod	Ahmedabad	6.21	6.12	5.70	4.80
5	Devalia	Ahmedabad	20.40	20.40	20.40	11.52
6	Dhandhuka1	Ahmedabad	3.45	1.42	2.43	2.83
7	Endla	Ahmedabad	3.89	0.79	1.41	2.60
8	Fedra	Ahmedabad	-	0.12	0.80	1.21
9	Gamph	Ahmedabad	2.83	0.79	1.25	2.05
10	Ghuma	Ahmedabad	4.80	-	2.32	2.20
11	Ghuma_Pz_II	Ahmedabad	5.07	2.17	2.54	3.14
12	Hansalpur_Pz-III	Ahmedabad	3.30	-	2.25	3.17
13	Jholapur_Pz_III	Ahmedabad	-	-	8.02	14.62
14	Kumarkhan	Ahmedabad	4.57	3.20	2.88	4.00
15	Kundal	Ahmedabad	11.80	0.24	6.15	11.80
16	Kundali	Ahmedabad	11.35	4.11	6.28	11.80
17	Mandal2	Ahmedabad	3.63	1.51	2.53	3.35
18	Pachcham_Pz	Ahmedabad	2.51	0.86	1.20	-
19	Rajpada	Ahmedabad	18.10	12.15	15.90	16.65
20	Salangpor	Ahmedabad	22.30	3.42	14.25	12.35
21	Sola_Pz_III	Ahmedabad	11.98	9.46	9.78	12.08
22	Tagadi1	Ahmedabad	9.82	1.64	2.47	3.24
23	Ughraj1	Ahmedabad	6.30	0.37	3.94	11.28
24	Upardhal1	Ahmedabad	11.90	7.11	6.85	11.90
25	Vagad(Repl)_Pz	Ahmedabad	-	4.62	4.80	4.94
26	Vastrapur_lake_II(2)	Ahmedabad	20.50	-	-	-
27	Viramgam2	Ahmedabad	2.98	-	1.18	2.40
28	Visalpur_Pz-II	Ahmedabad	9.00	5.35	6.58	7.17
29	Amreli	Amreli	13.21	4.89	4.74	9.19
30	Amreli_Pz	Amreli	15.05	3.60	7.50	9.85
31	Amritvel_Pz	Amreli	3.10	2.35	2.25	2.62
32	Ankadia mota	Amreli	12.35	9.80	8.11	10.96
33	Badhda	Amreli	8.82	7.85	8.70	9.45
34	Bagasara	Amreli	19.09	16.95	20.21	18.60
35	Bhavardi1	Amreli	4.50	3.65	0.75	2.44
36	Bherai	Amreli	3.39	2.91	2.79	3.11
37	Bhuva	Amreli	4.18	3.90	3.52	4.85
38	Chalala	Amreli	33.23	28.03	27.13	28.61
39	Charkhadia_Pz	Amreli	19.83	19.43	19.93	19.58
40	Charkhadia1	Amreli	18.40	17.65	18.10	18.00
41	Chavand	Amreli	6.72	0.88	4.98	7.72

42	Devaliya	Amreli	14.60	-	14.60	-
43	Dharangani	Amreli	-	28.35	27.35	27.87
44	Dhari	Amreli	14.53	8.59	10.66	-
45	Dhari_Pz	Amreli	20.98	11.50	14.22	16.88
46	Dhrai Balmukand	Amreli	-	-	10.30	15.82
47	Fifad	Amreli	-	-	4.80	5.00
48	Gopalpura Vanda Pz	Amreli	22.82	22.70	25.75	26.02
49	Goradka	Amreli	6.37	4.35	4.05	5.25
50	Govadka	Amreli	5.53	0.05	4.16	5.61
51	Hinderana	Amreli	-	-	3.70	4.48
52	Hipavadli	Amreli	-	-	7.96	8.40
53	Ingorala	Amreli	10.40	8.75	10.70	12.68
54	Ishwaria	Amreli	28.45	-	-	-
55	Jafrabad	Amreli	1.99	1.87	1.72	1.99
56	Jira	Amreli	10.40	8.40	5.22	6.25
57	Kadiyali	Amreli	-	-	3.05	5.51
58	Kerala	Amreli	35.78	25.30	36.58	37.36
59	Khamba	Amreli	6.58	5.61	3.36	4.55
60	Khamba_Pz	Amreli	11.39	12.30	7.58	9.58
61	Kunkavav	Amreli	20.05	11.85	25.25	19.69
62	Lathi	Amreli	5.56	1.61	2.15	4.62
63	Lotpur	Amreli	6.95	3.35	6.21	6.35
64	Luvariya	Amreli	10.65	4.42	3.70	9.50
65	Mandal	Amreli	28.40	24.40	25.70	35.34
66	Manila Pz	Amreli	18.35	9.88	18.42	18.54
67	Morjhar	Amreli	42.85	27.75	-	30.05
68	Nageshri	Amreli	4.61	4.05	2.95	3.90
69	Piyava	Amreli	30.01	23.95	24.32	24.59
70	Punjapadar	Amreli	7.20	2.18	5.68	8.33
71	Salena	Amreli	-	-	-	12.47
72	Sanaria	Amreli	-	-	2.60	5.22
73	Tajpur	Amreli	9.70	6.18	14.68	22.20
74	Timbi2	Amreli	-	8.74	5.42	11.32
75	Trakuda	Amreli	8.78	3.70	7.20	7.50
76	Untvad	Amreli	15.55	3.00	12.90	14.96
77	Vaghania juna	Amreli	11.02	-	4.90	7.41
78	Vanda	Amreli	-	-	4.60	-
79	Vankiya	Amreli	10.30	-	5.20	7.10
80	Vankiya1	Amreli	12.45	11.35	7.89	11.66
81	Victor	Amreli	1.11	-0.05	0.30	0.66
82	Virpur	Amreli	22.35	9.83	-	12.65
83	Adas_DW	Anand	-	-	17.20	-
84	Anand	Anand	9.19	7.67	6.58	8.19
85	Anklav2	Anand	23.38	20.51	23.10	23.03

86	Bandhani	Anand	-	2.31	2.60	3.69
87	Bhadran	Anand	-	10.18	-	-
88	Boriyani	Anand	-	-	3.22	-
89	Dali	Anand	4.06	1.21	2.10	2.99
90	Davalpura_Pz	Anand	4.38	-	1.07	1.57
91	Dharmaj	Anand	11.68	9.63	9.34	11.62
92	Ghora	Anand	6.16	0.16	2.53	3.22
93	Kansari1	Anand	11.00	8.71	-	-
94	Laxmipura	Anand	3.95	-	1.17	1.97
95	Navapura	Anand	23.92	22.32	-	-
96	Ras	Anand	2.37	0.79	1.49	1.77
97	Tarapur Pz-II	Anand	4.60	2.08	2.27	2.80
98	Tol	Anand	-	-	0.41	-
99	Ambaji_Pz	Banaskantha	12.19	10.41	6.43	8.17
100	Amirgadh	Banaskantha	9.21	7.55	14.40	10.00
101	Asodar	Banaskantha	29.32	29.32	29.32	-
102	Bharol1	Banaskantha	2.96	2.23	4.23	3.88
103	Danta	Banaskantha	9.60	8.04	5.95	8.98
104	Dantiwada	Banaskantha	26.81	27.45	26.12	27.65
105	Dantiwada	Banaskantha	34.55	34.43	34.58	34.48
106	Deesa Pzii	Banaskantha	61.15	-	-	60.52
107	Ganapipli	Banaskantha	9.10	7.30	9.50	7.70
108	Gangodra	Banaskantha	22.33	21.35	15.20	17.30
109	Iqbalgarh	Banaskantha	26.75	27.15	26.85	27.65
110	Jhat	Banaskantha	16.01	-	10.73	16.01
111	Jorapura	Banaskantha	17.18	16.59	11.85	-
112	Khoda	Banaskantha	21.73	21.19	22.30	22.30
113	Kidotar	Banaskantha	16.50	15.40	18.50	12.85
114	Kuchwada	Banaskantha	27.96	27.96	27.96	-
115	Manglore	Banaskantha	10.45	-	10.45	-
116	Meda	Banaskantha	8.06	9.60	7.90	8.17
117	Mohabbat gadh	Banaskantha	19.85	19.52	17.50	17.75
118	Naroli Pziii	Banaskantha	8.97	8.47	8.50	9.17
119	Palanpur2	Banaskantha	34.37	33.10	31.38	35.00
120	Ratanpur2	Banaskantha	15.94	16.24	14.30	14.48
121	Sankad	Banaskantha	-	-	36.00	-
122	Sodapur	Banaskantha	17.10	13.69	13.29	16.29
123	Tharad Pziii	Banaskantha	13.39	13.40	12.40	14.63
124	Vadgamda	Banaskantha	28.50	28.50	28.50	-
125	Arethi	Bharuch	7.65	2.75	6.50	7.27
126	Bharuch	Bharuch	3.93	1.84	2.05	2.88
127	Bhensli	Bharuch	1.34	-	-	0.96
128	Chhindra	Bharuch	-	-	-	13.55
129	Dahegam	Bharuch	4.40	4.36	7.38	12.16

130	Hansot	Bharuch	4.92	2.38	-	3.10
131	Ilav	Bharuch	8.19	-	5.93	4.69
132	Jambusar	Bharuch	5.75	-	5.15	6.09
133	Jambusar2	Bharuch	5.42	-	-	-
134	Jetpur1	Bharuch	3.41	-	2.02	1.01
135	Jokhla	Bharuch	-	-	0.12	-
136	Juna borbhata	Bharuch	6.12	4.48	5.02	8.30
137	Kalak1	Bharuch	-	-	5.95	4.42
138	Kaswa	Bharuch	5.03	1.66	2.61	3.50
139	Kavachiya	Bharuch	5.73	1.40	3.52	5.04
140	Kavi	Bharuch	6.50	5.37	4.22	7.21
141	Kondh	Bharuch	5.07	1.50	2.93	4.53
142	Luhara	Bharuch	3.42	2.46	2.58	3.77
143	Mahegam1	Bharuch	5.57	1.64	3.97	5.27
144	Mokhdi	Bharuch	8.86	-	4.66	6.04
145	Motwan	Bharuch	2.30	1.60	1.89	3.62
146	Mulad	Bharuch	10.60	5.51	5.48	10.43
147	Mungaj	Bharuch	-	-	-	3.95
148	Navetha	Bharuch	5.08	3.79	4.56	6.75
149	Netrang(Rep)_Pz	Bharuch	8.12	2.91	5.90	8.70
150	Netrang1	Bharuch	6.55	-	2.42	4.36
151	Nirnavi	Bharuch	10.68	1.15	7.11	8.03
152	Panoli	Bharuch	2.90	0.03	1.54	3.07
153	Raymal	Bharuch	1.10	0.84	0.48	2.20
154	Roja tankaria	Bharuch	8.71	7.39	5.43	10.06
155	Sahol	Bharuch	-	-	1.42	4.14
156	Sajod	Bharuch	4.84	3.02	3.88	5.34
157	Sarod	Bharuch	8.82	7.82	4.00	9.28
158	Simodra	Bharuch	7.57	1.70	3.77	6.06
159	Sindhav	Bharuch	-	-	8.13	6.97
160	Tankari	Bharuch	4.70	2.40	4.30	3.75
161	Utraj	Bharuch	4.60	4.73	4.52	4.23
162	Valia1	Bharuch	-	-	-	2.90
163	Ambala	Bhavnagar	23.40	17.80	17.49	20.92
164	Ayodhayapuram	Bhavnagar	-	-	7.50	9.48
165	Bhavnagar1	Bhavnagar	5.64	4.05	4.30	4.43
166	Bhudel	Bhavnagar	2.11	1.00	-	-
167	Bhumbhali	Bhavnagar	2.83	0.40	2.42	2.68
168	Bhutia	Bhavnagar	17.44	7.60	15.40	17.90
169	Bora	Bhavnagar	-	-	26.98	-
170	Chowk Pz	Bhavnagar	23.75	21.55	22.15	23.75
171	Datha	Bhavnagar	2.42	1.14	5.14	4.72
172	Dhasa	Bhavnagar	4.47	0.49	2.44	3.64
173	Dudhala	Bhavnagar	10.09	-	8.70	13.70

174	Gadhada2	Bhavnagar	-	3.70	4.30	4.41
175	Gariyadhar	Bhavnagar	12.24	11.10	13.30	22.80
176	Ghogha1	Bhavnagar	4.70	1.70	1.85	3.00
177	Jalia	Bhavnagar	17.03	7.40	13.45	19.63
178	Khijadiya	Bhavnagar	8.20	8.45	8.85	10.13
179	Kundheli	Bhavnagar	-	-	27.61	5.81
180	Longadi	Bhavnagar	4.73	1.80	2.80	3.89
181	Lonjdhara	Bhavnagar	21.99	19.42	22.62	24.90
182	Mahuva1	Bhavnagar	20.61	-	18.76	18.46
183	Malvav_Pz	Bhavnagar	28.00	21.70	22.92	25.71
184	Motivadal	Bhavnagar	4.47	3.07	3.17	3.98
185	Ningala	Bhavnagar	13.59	7.55	9.07	13.15
186	Palitana1	Bhavnagar	8.41	4.70	6.55	7.85
187	Palitana2	Bhavnagar	10.45	4.75	6.27	8.22
188	Paliyad	Bhavnagar	13.90	7.60	6.80	-
189	Paliyad2	Bhavnagar	23.61	3.51	1.66	4.16
190	Panchpipla	Bhavnagar	1.99	0.35	1.55	2.05
191	Panvi1	Bhavnagar	6.32	2.80	3.90	7.19
192	Pasvi	Bhavnagar	16.46	3.70	6.55	11.62
193	Piparla	Bhavnagar	-	-	2.65	3.70
194	Porbada	Bhavnagar	8.47	6.83	6.78	11.78
195	Sajnasar	Bhavnagar	7.83	1.55	4.00	7.25
196	Sandhida	Bhavnagar	2.63	2.60	1.70	2.25
197	Satanes	Bhavnagar	13.42	9.77	3.57	8.90
198	Shantinagar	Bhavnagar	11.02	8.00	7.30	9.90
199	Talaja2	Bhavnagar	6.18	5.53	5.33	13.98
200	Tansa	Bhavnagar	10.16	5.50	7.60	9.61
201	Tardhera	Bhavnagar	21.18	-	19.10	19.60
202	Tatam	Bhavnagar	25.92	19.52	-	35.80
203	Timbi2	Bhavnagar	13.20	12.00	12.15	12.85
204	Trapaj	Bhavnagar	13.18	9.50	19.90	16.40
205	Umrala	Bhavnagar	14.02	14.02	14.02	-
206	Vadal	Bhavnagar	-	-	4.10	6.29
207	Vallabhipur1	Bhavnagar	5.38	4.70	4.40	4.73
208	Vallbhipur	Bhavnagar	5.11	5.10	4.32	4.46
209	Vavdi	Bhavnagar	-	-	5.10	13.30
210	Ambawadi	Daman	4.77	2.35	3.71	3.88
211	Bhimpor k.falia	Daman	8.25	0.80	6.31	6.53
212	Dabhel	Daman	5.45	-	4.24	4.45
213	Dalwada	Daman	7.63	0.75	2.36	2.52
214	Daman	Daman	8.53	-	3.84	3.95
215	Jempore	Daman	3.38	0.85	1.87	1.97
216	Khariwad daman	Daman	2.21	1.47	1.92	2.13
217	Morwad	Daman	8.75	2.90	5.46	5.60

218	Warkund	Daman	6.85	-	3.71	3.87
219	Chakarteeth_Pz	Diu	6.25	6.10	6.60	5.80
220	Diu	Diu	4.07	6.48	4.70	4.19
221	Gomtimata	Diu	-	-	4.05	-
222	Jalawadi	Diu	-	-	3.70	-
223	Vanakbarh_Pz	Diu	-	3.50	-	-
224	Ambakatch	Dohad	-	-	1.96	-
225	Dabhava	Dohad	4.58	1.40	2.58	4.60
226	Dadhela	Dohad	6.13	3.85	3.29	6.03
227	Dahod	Dohad	2.97	1.10	1.73	1.66
228	Dahod2	Dohad	7.66	-	4.82	7.03
229	Devgadh Baria	Dohad	9.68	6.05	7.10	8.78
230	Devgadh bariya	Dohad	11.03	6.70	6.60	10.20
231	Dhanpur	Dohad	10.21	7.65	6.71	9.53
232	Dohad_Urban2	Dohad	-	-	5.28	-
233	Dohad_Urban3	Dohad	-	-	4.32	-
234	Fatepura(Karodia)	Dohad	10.94	-	8.10	10.75
235	Garada	Dohad	-	-	3.28	7.13
236	Garbara	Dohad	6.05	4.98	4.64	4.10
237	Jhalod	Dohad	8.95	8.21	6.94	5.47
238	Jhalod1	Dohad	6.91	7.58	5.35	-
239	Kanjetha	Dohad	9.94	4.57	5.06	9.43
240	Khandania	Dohad	12.25	9.75	10.16	11.90
241	Limkheda	Dohad	7.34	3.70	5.60	7.25
242	Mirakhedi	Dohad	5.20	2.95	2.38	6.32
243	Panchwada	Dohad	4.08	2.12	3.93	2.44
244	Pipero	Dohad	9.61	5.55	5.60	8.71
245	Salaya1	Dohad	7.96	3.82	4.72	11.79
246	Sarsava	Dohad	-	-	3.83	-
247	Sukhsar	Dohad	7.00	6.45	5.80	9.81
248	Thada	Dohad	-	-	4.97	-
249	Tokarba	Dohad	4.83	0.50	2.19	3.39
250	Varamkheda	Dohad	0.67	0.65	0.28	0.27
251	Wadia	Dohad	6.06	5.69	4.48	8.34
252	Adalaj_Pz_III	Gandhinagar	23.40	23.12	24.55	22.50
253	Amrapur Pziii	Gandhinagar	57.75	56.98	57.65	57.15
254	Dahegam II	Gandhinagar	-	-	4.05	-
255	Kasturinagar(IFFCO)	Gandhinagar	12.25	8.85	7.25	12.20
256	Lodra	Gandhinagar	-	-	53.10	51.86
257	Paliya	Gandhinagar	12.58	10.42	9.12	10.14
258	Serthapara1	Gandhinagar	14.18	11.32	9.10	12.65
259	Amaliya Chokri	Jamnagar	2.80	-	4.20	-
260	Ambardi	Jamnagar	10.29	-	6.59	11.97
261	Amran_Pz	Jamnagar	3.67	1.89	1.99	3.30

262	Amran1	Jamnagar	3.60	-	2.55	3.87
263	Aramda	Jamnagar	4.35	-	4.10	4.70
264	Balwa	Jamnagar	21.22	10.41	10.42	21.12
265	Bed1	Jamnagar	8.79	-	-	9.54
266	Bedanpur	Jamnagar	6.50	1.94	3.60	6.00
267	Bhadthar	Jamnagar	15.10	2.09	-	15.10
268	Bhanvad	Jamnagar	16.00	4.74	6.10	9.93
269	Bhatia	Jamnagar	12.23	-	-	8.69
270	Bhatiya	Jamnagar	5.77	-	-	3.18
271	Bhogat1	Jamnagar	11.15	2.19	4.75	7.80
272	Changa	Jamnagar	10.42	12.95	16.70	18.69
273	Dhrol1	Jamnagar	-	8.61	-	-
274	Dhrol2	Jamnagar	3.11	7.57	3.06	4.36
275	Dudhai2	Jamnagar	3.86	0.54	0.03	2.03
276	Dwarka	Jamnagar	7.58	7.16	8.00	7.90
277	Gordhanpur	Jamnagar	5.65	10.71	11.80	19.65
278	Haripur2	Jamnagar	16.81	1.19	2.01	10.21
279	Haryana	Jamnagar	10.30	-	-	10.30
280	Jambuda	Jamnagar	6.34	1.67	3.34	7.69
281	Jamjodhpur	Jamnagar	6.96	3.48	5.50	7.10
282	Jamnagar1	Jamnagar	6.05	4.92	6.09	11.81
283	Jamnagar2	Jamnagar	3.59	-	4.49	5.62
284	Juvanpur	Jamnagar	21.25	7.72	8.50	14.78
285	Kajuda	Jamnagar	3.68	4.91	6.05	8.48
286	Kalawad	Jamnagar	3.98	2.53	4.85	3.08
287	Kalyanpur2	Jamnagar	25.00	5.26	6.85	24.38
288	Khambhaliya	Jamnagar	4.80	3.28	6.29	4.01
289	Khirsara	Jamnagar	6.98	1.83	2.65	12.69
290	Kuvadia	Jamnagar	17.20	7.37	9.20	14.68
291	Lalpur	Jamnagar	17.76	-	-	-
292	Lalpur1	Jamnagar	7.86	5.48	10.40	8.54
293	Lambha 1	Jamnagar	9.80	-	5.80	-
294	Modpar	Jamnagar	17.40	13.23	12.00	17.40
295	Mojap	Jamnagar	8.52	3.61	6.34	7.34
296	Mota kalawad	Jamnagar	20.28	11.27	13.95	22.75
297	Motagop	Jamnagar	9.52	0.69	5.40	9.52
298	Moti khavdi	Jamnagar	5.43	8.09	9.38	11.33
299	Moti matli	Jamnagar	21.00	-	-	21.22
300	Navi Madhi_Pz	Jamnagar	12.90	-	-	-
301	Nikava	Jamnagar	4.35	2.82	4.02	3.84
302	Pindara1	Jamnagar	5.55	2.62	3.75	10.23
303	Raval	Jamnagar	5.65	-	3.17	4.38
304	Salaya	Jamnagar	2.69	2.13	2.44	3.67
305	Samrasar1	Jamnagar	4.33	0.67	2.15	3.80

306	Seth vadala	Jamnagar	8.85	2.31	4.45	8.94
307	Sumana	Jamnagar	10.60	-	13.95	13.95
308	Toda	Jamnagar	13.10	2.48	4.82	13.35
309	Vad panchasara	Jamnagar	19.78	13.03	13.55	17.05
310	Vadtara	Jamnagar	12.55	3.88	4.95	11.50
311	Varwada	Jamnagar	11.60	-	7.35	10.55
312	Vijarkha	Jamnagar	5.25	4.71	4.92	10.98
313	Vinjhalpur	Jamnagar	9.60	1.94	3.06	6.35
314	Ajotha	Junagadh	-	4.37	5.32	10.06
315	Ajotha_Pz	Junagadh	-	-	-	11.05
316	Alwani	Junagadh	3.87	-0.05	-	1.70
317	Anandpur	Junagadh	18.35	-	3.95	-
318	Ankolvadi	Junagadh	-	-	6.15	5.70
319	Ankolvadi 1	Junagadh	7.75	7.00	6.15	5.88
320	Antroli	Junagadh	6.48	-	4.33	8.73
321	Arena	Junagadh	12.13	4.84	5.65	7.78
322	Bamanwara	Junagadh	12.31	2.77	4.16	14.96
323	Bantva	Junagadh	21.90	-	-	22.30
324	Bhatsimroli	Junagadh	22.30	1.40	5.80	7.14
325	Bilkha	Junagadh	14.10	4.22	5.32	10.32
326	Budhecha	Junagadh	7.76	1.31	3.18	6.23
327	Chokli	Junagadh	25.30	-	5.92	-
328	Chorwad	Junagadh	6.27	2.78	3.39	8.03
329	Dhokadva	Junagadh	12.23	10.10	-	12.31
330	Gadu	Junagadh	39.00	-	16.27	26.70
331	Galodar	Junagadh	19.86	0.77	2.65	23.24
332	Gangda_Pz	Junagadh	9.04	6.00	-	8.20
333	Girgadhada	Junagadh	5.87	1.60	10.33	7.50
334	Goraj1	Junagadh	35.50	3.11	7.80	34.84
335	Govindpura2	Junagadh	37.60	16.50	-	30.81
336	Jambur[madhapar	Junagadh	7.31	2.51	3.01	3.46
337	Jamvala1	Junagadh	7.49	7.20	-	-
338	Junagadh	Junagadh	12.15	7.95	8.25	10.95
339	Junagadh1	Junagadh	7.77	1.97	3.08	5.95
340	Juthal	Junagadh	6.83	4.36	5.56	9.58
341	Kalej	Junagadh	17.10	6.54	7.27	10.84
342	Kanek	Junagadh	15.40	2.97	3.70	8.98
343	Kasia Naka Check Post	Junagadh	-	-	3.80	1.75
344	Kesariya1	Junagadh	12.73	-	8.19	14.70
345	Kewarda	Junagadh	12.45	2.39	7.20	11.63
346	Khambalia1	Junagadh	9.23	6.78	7.70	8.78
347	Khokharda	Junagadh	25.07	7.03	7.77	12.10
348	Khorada1	Junagadh	-	7.67	-	8.83
349	Khoras ahir	Junagadh	13.80	4.60	5.45	11.85

350	Kodinar	Junagadh	13.41	9.80	7.85	13.10
351	Kodinar1	Junagadh	17.38	10.30	10.40	10.87
352	Kukaswada	Junagadh	7.45	3.87	4.32	8.40
353	Lohej	Junagadh	8.35	-	7.90	8.50
354	Maktupur1	Junagadh	8.10	-	-	10.98
355	Mandawad	Junagadh	14.51	9.61	-	12.01
356	Mangrol	Junagadh	17.60	-	15.20	18.60
357	Mangrol1	Junagadh	15.44	10.09	10.59	13.99
358	Manketara	Junagadh	34.80	17.10	17.70	26.25
359	Mendarda	Junagadh	17.85	5.93	6.85	16.92
360	Mendarda1	Junagadh	16.00	-	7.92	13.54
361	Moraj	Junagadh	-	-	2.95	10.05
362	Patla	Junagadh	7.50	0.67	1.60	8.05
363	Prachi_Pz	Junagadh	19.02	6.50	4.05	6.47
364	Prasli	Junagadh	-	-	3.25	15.15
365	Prasnawada_Pz	Junagadh	20.58	14.00	-	-
366	Prempara	Junagadh	19.08	15.90	10.70	18.00
367	Sametar	Junagadh	-	-	-	18.50
368	Saradiya	Junagadh	9.50	-	1.25	-
369	Sepa	Junagadh	28.80	-	-	29.90
370	Seriakhan	Junagadh	20.53	-	-	17.93
371	Shardagram	Junagadh	11.75	9.36	10.15	10.99
372	Sil	Junagadh	8.01	1.98	3.54	7.49
373	Sil bandar	Junagadh	8.57	-	-	8.52
374	Talala_Pz	Junagadh	11.27	-	6.05	8.20
375	Talala1	Junagadh	11.77	5.04	6.31	8.14
376	Una1	Junagadh	-	6.20	-	16.35
377	Una2	Junagadh	6.20	5.28	4.80	4.28
378	Vadal	Junagadh	17.40	-	10.32	-
379	Vanthali ii	Junagadh	17.36	-	7.07	-
380	Visavadar	Junagadh	15.69	-	-	15.65
381	Amarpura	Kachchh	-	-	3.00	-
382	Asambia mota_Pz	Kachchh	5.38	-	-	6.79
383	Asambia mota1	Kachchh	16.45	15.10	11.87	15.60
384	Bambhdai	Kachchh	5.50	3.96	3.58	5.21
385	Bhadia mota	Kachchh	-	-	-	4.99
386	Bhadreshwar	Kachchh	4.40	5.10	4.53	6.50
387	Bhuj (Circuit House)	Kachchh	12.17	11.69	15.29	13.74
388	Chandranagar	Kachchh	7.20	5.98	7.62	7.04
389	Dayapar	Kachchh	18.20	18.50	18.70	19.33
390	Dayapar1	Kachchh	23.00	-	-	-
391	Deshalpur rapar	Kachchh	12.80	12.60	14.11	16.49
392	Devisar	Kachchh	11.90	10.87	13.30	12.75
393	Dholavira	Kachchh	11.35	10.45	10.65	11.53

394	Dhori	Kachchh	14.80	13.51	13.25	-
395	Dunai	Kachchh	11.43	11.01	8.86	10.50
396	Gagodar	Kachchh	29.10	27.80	27.18	26.76
397	Gandhidham1	Kachchh	-	4.22	3.57	-
398	Gandhidham2	Kachchh	5.70	4.47	3.90	5.98
399	Haboi	Kachchh	2.46	0.24	0.34	0.24
400	Kakarwa	Kachchh	17.45	11.65	11.15	11.07
401	Karagoga	Kachchh	1.30	-	-	1.18
402	Kharoi	Kachchh	2.85	7.20	8.19	7.92
403	Khavada	Kachchh	5.49	5.54	8.01	6.01
404	Kotadi	Kachchh	6.42	6.09	5.29	8.41
405	Kotaya	Kachchh	9.53	9.05	8.43	10.81
406	Kothara	Kachchh	4.77	4.92	5.17	5.28
407	Kuda	Kachchh	25.90	25.50	26.20	27.00
408	Kumbhariya	Kachchh	7.35	6.51	6.41	6.38
409	Lakhpat	Kachchh	11.60	10.65	9.25	13.17
410	Lilpur	Kachchh	1.00	0.70	0.78	0.64
411	Lodai	Kachchh	18.50	-	16.80	16.52
412	Luni	Kachchh	9.50	4.30	3.92	5.65
413	Mandvi (Shitla Mata)	Kachchh	8.34	0.44	3.94	6.13
414	Mata no madh	Kachchh	12.07	10.27	13.37	11.10
415	Mathak1	Kachchh	11.65	-	-	-
416	Mothala	Kachchh	3.98	3.78	5.28	5.73
417	Moti cher	Kachchh	3.91	3.06	3.81	3.80
418	Mundra	Kachchh	5.60	3.52	3.42	5.40
419	Naliya	Kachchh	8.65	8.80	8.45	9.14
420	Naliya (Bus S)	Kachchh	8.74	9.24	8.94	9.11
421	Rapar2	Kachchh	26.76	24.86	26.68	-
422	Ratanpur Khadir1	Kachchh	19.70	18.90	19.74	19.34
423	Ratanpur(maum.)	Kachchh	3.90	-	11.30	-
424	Rawapar	Kachchh	14.70	14.70	14.70	-
425	Rudramata	Kachchh	9.65	7.15	10.10	11.40
426	Samkhiari	Kachchh	2.10	3.00	3.60	4.20
427	Sedat	Kachchh	14.85	11.05	13.55	11.51
428	Shinaya	Kachchh	2.10	1.45	1.40	-
429	Shivlakha	Kachchh	22.32	8.80	10.52	10.96
430	Sukhpar	Kachchh	9.85	15.10	13.35	13.23
431	Tera	Kachchh	11.47	12.07	11.87	12.35
432	Tunga	Kachchh	-	-	2.74	-
433	Ugardi	Kachchh	-	-	20.23	-
434	Vadala	Kachchh	-	-	8.73	-
435	Vinjhan1	Kachchh	9.80	9.55	11.05	9.96
436	Alina	Kheda	9.90	7.72	-	9.24
437	Alindra	Kheda	-	-	6.74	-

438	Balasinor	Kheda	3.40	1.58	2.30	2.74
439	Balasinor1	Kheda	6.53	0.70	2.86	5.15
440	Bar	Kheda	9.36	1.95	2.79	3.49
441	Boriyavi	Kheda	-	-	3.22	-
442	Chaklashi	Kheda	4.50	-	2.04	2.48
443	Dakor	Kheda	6.90	3.30	5.20	5.98
444	Juna vasadra	Kheda	3.98	1.56	2.30	-
445	Kalesar	Kheda	4.35	0.40	1.60	2.38
446	Kapadvanj	Kheda	10.02	5.37	5.49	9.23
447	Kheda	Kheda	-	-	2.69	3.26
448	Ladvel	Kheda	2.85	1.80	1.00	1.82
449	Mahudha	Kheda	4.16	0.83	3.89	4.05
450	Muliyad	Kheda	-	-	1.22	-
451	Nadiad2	Kheda	9.42	3.95	4.70	6.30
452	Nes_Pz	Kheda	-	-	6.72	7.06
453	Sarkhej _ Pz-III	Kheda	36.95	29.87	35.50	34.40
454	Thasra	Kheda	5.61	-	2.24	2.90
455	Vaso	Kheda	6.85	-	4.82	5.87
456	Virpur_Pz	Kheda	7.20	3.15	4.66	6.33
457	Vyas vasna	Kheda	24.00	15.64	16.62	21.30
458	Asjol	Mahesana	6.84	0.50	0.60	3.85
459	Bhandupara	Mahesana	8.81	7.60	7.70	6.77
460	Budasan	Mahesana	3.92	3.51	2.10	1.50
461	Daran_Pz-III	Mahesana	3.08	2.74	1.65	2.27
462	Dharpura	Mahesana	7.53	6.96	6.15	5.46
463	Dharusana	Mahesana	-	-	33.45	54.00
464	Dosaj	Mahesana	7.16	6.82	3.96	6.43
465	Jaska(Sy_4")Pz_II	Mahesana	15.12	13.75	12.45	14.47
466	Kalyanpur	Mahesana	4.92	4.32	4.55	4.08
467	Karalli (iii)	Mahesana	10.95	10.43	10.65	10.01
468	Kheralu(shallow	Mahesana	6.63	6.00	4.35	4.70
469	Kheralu1	Mahesana	12.50	10.00	8.90	8.28
470	Maguna	Mahesana	9.54	6.80	5.95	5.66
471	Mau	Mahesana	-	-	7.10	6.40
472	Modhera iii	Mahesana	8.52	8.33	6.03	9.80
473	Panchot	Mahesana	5.41	4.63	3.10	4.24
474	Rampura Kot Juna Pz-I	Mahesana	33.55	33.49	-	-
475	Rampura1	Mahesana	7.96	6.77	6.70	7.20
476	Sihi	Mahesana	12.43	11.52	9.08	10.28
477	Tarabh	Mahesana	6.25	5.65	4.45	5.03
478	Thol Pz-IV	Mahesana	18.25	-	16.80	16.70
479	Timba_1	Mahesana	-	-	11.35	-
480	Unad1	Mahesana	9.43	9.64	8.27	9.92
481	Unawa	Mahesana	8.10	6.65	4.55	3.55

482	Unjha	Mahesana	4.80	-	-	-
483	Vidaj	Mahesana	4.12	2.81	2.00	3.44
484	Visnagar iv	Mahesana	2.38	2.29	1.46	1.81
485	Agar(Rep)_Pz	Narmada	8.64	3.76	0.81	3.80
486	Almadi	Narmada	-	-	1.37	4.25
487	Amayar	Narmada	5.42	2.48	3.21	4.92
488	Baman Phalia_Pz	Narmada	15.63	14.97	15.40	19.62
489	Chikada	Narmada	5.45	0.63	3.85	4.90
490	Chuli	Narmada	-	-	-	8.35
491	Dediapada	Narmada	-	4.35	-	7.98
492	Dev Mogra	Narmada	-	-	3.08	-
493	Garudeshwar	Narmada	11.27	8.34	9.72	10.63
494	Hirapura	Narmada	5.10	-	3.42	2.51
495	Jankh	Narmada	-	-	-	1.88
496	Kanbi pitha	Narmada	2.47	-	1.24	2.47
497	Kewadia_Pz	Narmada	2.58	1.05	2.50	4.34
498	Khaidipada	Narmada	-	-	-	2.24
499	Khota amba	Narmada	3.36	0.97	1.04	1.34
500	Namaria	Narmada	4.40	0.73	1.41	5.32
501	Nani singlot	Narmada	9.80	5.55	4.18	5.85
502	Ralda	Narmada	-	-	2.92	-
503	Rasela	Narmada	17.50	-	10.00	17.50
504	Ringani	Narmada	2.25	1.67	1.51	3.08
505	Selemba	Narmada	7.30	-	6.34	-
506	Sunderpura	Narmada	32.61	29.43	-	30.85
507	Sunderpura_Pz	Narmada	32.27	28.24	27.77	28.61
508	Umran	Narmada	-	-	-	2.44
509	Abrama	Navsari	3.19	3.65	1.73	1.93
510	Anklas	Navsari	9.63	7.03	8.78	11.00
511	Chadav	Navsari	8.85	4.82	5.93	6.10
512	Chinam	Navsari	3.09	1.18	2.91	3.11
513	Dandi	Navsari	4.06	1.30	3.01	3.10
514	Duvada	Navsari	4.71	0.97	-	4.70
515	Hond	Navsari	8.50	-	5.25	5.53
516	Kaliyari	Navsari	10.77	1.43	3.97	4.16
517	Kantasvel	Navsari	8.20	2.57	5.52	5.59
518	Khergam	Navsari	7.62	1.37	4.14	4.60
519	Limzar	Navsari	5.10	2.28	4.69	4.89
520	Manav Khadak	Navsari	3.76	2.25	3.94	4.06
521	Navsari	Navsari	24.90	21.70	20.84	20.98
522	Navsari 1	Navsari	4.62	0.62	2.56	2.72
523	Onjal	Navsari	6.19	3.82	4.99	5.21
524	Panikhadak	Navsari	12.00	3.93	4.34	8.00
525	Pipalkhed	Navsari	9.15	3.20	7.13	17.45

526	Rankuva	Navsari	7.48	0.40	-	2.73
527	Sari_khurd	Navsari	3.20	1.55	2.73	2.90
528	Ubhrat	Navsari	4.25	-	2.74	2.87
529	Unai	Navsari	-	-	4.98	5.80
530	Vansda	Navsari	10.93	7.60	7.74	7.93
531	Bavaliya	Panchmahals	8.01	8.01	4.01	7.70
532	Bavaliya_Pz	Panchmahals	21.87	8.90	-	21.30
533	Chhabanpur	Panchmahals	-	-	7.20	-
534	Dhanol	Panchmahals	-	-	1.02	-
535	Gadhar	Panchmahals	8.80	8.90	3.82	8.95
536	Godhra	Panchmahals	3.08	0.30	1.55	2.35
537	Godhra_UR1	Panchmahals	-	-	3.36	-
538	Godhra_UR2	Panchmahals	-	-	8.25	-
539	Godhra_UR3	Panchmahals	-	-	1.83	-
540	Godhra2	Panchmahals	7.97	-	6.35	8.24
541	Jambughoda	Panchmahals	6.28	4.45	5.63	6.15
542	Jambughoda1	Panchmahals	-	0.15	2.94	3.03
543	Javan	Panchmahals	-	-	6.14	-
544	Jokha	Panchmahals	-	-	4.56	-
545	Kalol_UR1	Panchmahals	-	-	10.10	-
546	Kalol_UR2	Panchmahals	-	-	10.40	-
547	Kantha	Panchmahals	-	-	1.95	-
548	Khadki_Vadiya	Panchmahals	-	-	3.77	-
549	Khanpur	Panchmahals	-	-	11.50	-
550	Kothamba	Panchmahals	5.20	3.75	2.04	2.46
551	Limbadia peti	Panchmahals	3.65	2.30	2.49	2.56
552	Lunawada	Panchmahals	9.56	10.16	6.67	9.16
553	Malekpur1	Panchmahals	4.85	2.05	1.66	2.17
554	Morwa (Hadaf)	Panchmahals	9.52	-	8.02	11.96
555	Morwa (Hadaf) Pz-I	Panchmahals	-	9.20	10.43	11.82
556	Natapur	Panchmahals	6.82	5.30	6.16	7.38
557	Palla Rajgarh Pz	Panchmahals	17.27	10.40	11.00	21.00
558	Pandarvada	Panchmahals	15.56	2.01	3.33	15.56
559	Pavagadh	Panchmahals	9.03	2.16	4.19	7.46
560	Ram patel na m.	Panchmahals	-	-	1.15	-
561	Ranipura	Panchmahals	5.78	4.15	3.75	5.47
562	Santrampur	Panchmahals	5.95	7.22	5.00	6.43
563	Santrampur1	Panchmahals	6.73	7.25	4.30	7.06
564	Santroad	Panchmahals	12.20	4.70	8.74	13.13
565	Santroad1	Panchmahals	-	-	4.20	-
566	Shehra	Panchmahals	3.31	2.15	1.22	2.70
567	Shivrajpur	Panchmahals	10.12	2.35	4.62	8.04
568	Suliyat	Panchmahals	16.15	17.40	18.50	20.72
569	Tarkanda	Panchmahals	7.40	0.05	3.02	9.80

570	Tarvada	Panchmahals	12.72	12.30	10.20	10.85
571	Timbi2	Panchmahals	5.01	1.50	1.86	4.10
572	Tuwa	Panchmahals	4.02	2.45	2.52	3.52
573	Ucharpi Pz	Panchmahals	13.89	11.80	9.90	14.24
574	Vejalpur	Panchmahals	5.37	4.45	3.98	5.23
575	Dharmoda	Patan	3.12	2.99	-	1.27
576	Dhinoj1	Patan	12.10	9.66	7.95	8.42
577	Harij iii	Patan	23.05	30.35	-	-
578	Moti chander	Patan	2.95	2.80	2.22	2.52
579	Patan2	Patan	18.08	15.48	16.60	16.81
580	Piprala_1	Patan	-	-	8.80	0.52
581	Radhanpur2	Patan	1.50	1.60	0.30	8.94
582	Sander	Patan	-	7.70	10.40	2.01
583	Sankheshwar	Patan	2.46	1.12	0.81	2.20
584	Shankhari	Patan	18.51	15.61	15.44	14.21
585	Varahi	Patan	6.20	-	-	-
586	Vauva(Repl)_Pz	Patan	3.24	-	-	3.43
587	Adityana	Porbandar	-	6.01	6.75	8.77
588	Adwana2	Porbandar	13.30	4.27	8.55	10.95
589	Babda	Porbandar	11.00	1.52	3.25	9.38
590	Bakharla	Porbandar	16.11	3.85	6.41	17.81
591	Bhod	Porbandar	20.44	6.38	9.74	12.54
592	Degam	Porbandar	15.55	12.02	11.60	13.43
593	Hanumangadh1	Porbandar	18.95	-	12.00	12.60
594	Kadegi	Porbandar	1.84	-	-	3.43
595	Kandorna	Porbandar	17.48	6.83	9.48	14.33
596	Khambodar	Porbandar	8.80	1.09	3.17	6.50
597	Kolikhada	Porbandar	26.98	10.27	11.68	20.18
598	Kuchhadi	Porbandar	2.70	1.71	2.75	2.70
599	Kutiyana_Pz	Porbandar	12.40	0.43	-	12.84
600	Kutiyana1	Porbandar	12.13	-	1.53	11.56
601	Miyani	Porbandar	7.40	6.64	4.85	7.38
602	Mocha	Porbandar	-	-	5.70	13.65
603	Mojiwana	Porbandar	9.40	2.67	4.20	-
604	Navibandar	Porbandar	-	4.02	4.58	4.52
605	Oddar	Porbandar	6.20	5.01	5.75	5.88
606	Palkhada1	Porbandar	11.78	3.94	6.38	11.83
607	Pata	Porbandar	5.55	2.01	3.05	5.35
608	Porbandar	Porbandar	5.61	-	1.80	8.26
609	Porbandar1	Porbandar	3.96	2.62	3.49	4.03
610	Ranavav2	Porbandar	8.30	0.50	2.70	3.90
611	Ratadi	Porbandar	6.84	3.68	4.94	6.24
612	Ratia	Porbandar	-	-	4.97	-
613	Simar	Porbandar	16.06	5.28	6.40	18.21

614	Tukda	Porbandar	3.03	1.48	2.28	2.71
615	Visavada Mul Dwarka	Porbandar	8.20	3.90	9.05	11.25
616	Amar nagar	Rajkot	2.68	1.50	4.95	5.95
617	Bhada jodiya	Rajkot	15.10	3.80	2.90	10.30
618	Bhadla	Rajkot	20.94	7.65	13.55	16.30
619	Bhalgam	Rajkot	17.82	3.52	7.62	9.22
620	Chhatar	Rajkot	5.70	3.80	4.75	8.10
621	Chordi	Rajkot	7.37	7.41	8.35	8.70
622	Dadia	Rajkot	12.21	5.26	10.47	12.12
623	Dhoraji	Rajkot	15.11	11.30	16.45	20.20
624	Ganod	Rajkot	2.57	1.90	2.65	7.25
625	Gavridad	Rajkot	5.26	-	-	-
626	Gogavadar	Rajkot	12.55	3.50	5.15	8.00
627	Hadmadiya	Rajkot	6.39	6.26	3.41	-
628	Hadmatia	Rajkot	-	2.59	4.25	10.20
629	Halenda	Rajkot	5.01	3.23	3.73	7.48
630	Jamwali	Rajkot	5.00	3.00	2.90	7.60
631	Jasapur	Rajkot	14.52	13.80	-	-
632	Jasdan	Rajkot	7.94	-	5.78	8.55
633	Jasdan2	Rajkot	10.72	9.16	9.15	12.65
634	Jetpur	Rajkot	7.12	-	5.30	13.20
635	Jetpur Pithad	Rajkot	14.29	9.50	-	-
636	Jetpur pithad.	Rajkot	14.29	9.36	8.81	12.46
637	Kalithad1	Rajkot	5.46	3.50	5.85	7.55
638	Kalyanpur2	Rajkot	5.38	5.11	-	9.15
639	Kamlapur	Rajkot	8.19	6.95	8.15	-
640	Khamta	Rajkot	14.30	13.45	6.50	-
641	Lajai	Rajkot	1.90	3.80	4.80	6.35
642	Lalavadar	Rajkot	14.59	4.08	4.38	7.53
643	Lodhika1	Rajkot	7.36	7.54	7.82	10.55
644	Macchukunda	Rajkot	2.78	1.87	1.05	2.45
645	Malia	Rajkot	1.60	2.09	5.05	-
646	Modpar1	Rajkot	2.71	2.46	1.58	5.46
647	Morvi	Rajkot	3.32	0.58	1.10	4.10
648	Mota Dadwa	Rajkot	13.28	4.23	6.83	10.73
649	Mota dhansura	Rajkot	7.43	5.60	9.85	10.20
650	Motagundala	Rajkot	7.54	4.05	10.62	12.65
651	Movaiya	Rajkot	5.72	6.30	6.74	17.50
652	Neknam	Rajkot	-	13.75	-	-
653	Nichi mandal	Rajkot	5.46	2.64	2.85	6.20
654	Padadhari1	Rajkot	5.35	6.40	6.45	7.20
655	Patanvav	Rajkot	12.67	2.80	3.48	8.05
656	Pedhla	Rajkot	10.44	8.95	16.65	21.75
657	Rajkot	Rajkot	7.56	-	3.06	6.30

658	Rajkot1	Rajkot	10.55	3.79	3.87	8.97
659	Ranpur1	Rajkot	12.23	2.50	16.90	17.30
660	Ribda	Rajkot	10.25	4.58	8.18	10.55
661	Sardhar1	Rajkot	-	2.50	1.93	3.60
662	Sardhar2	Rajkot	3.08	-	-	-
663	Sarvad	Rajkot	1.94	1.37	2.00	4.35
664	Sindhavadar	Rajkot	8.64	9.65	13.01	12.80
665	Targhari	Rajkot	3.89	6.50	4.77	10.50
666	Umrali	Rajkot	10.10	9.30	-	-
667	Upleta1	Rajkot	9.56	7.16	4.76	5.81
668	Upleta3	Rajkot	4.60	5.65	-	9.25
669	Vinchhia	Rajkot	3.78	3.20	2.30	4.75
670	Viranagar	Rajkot	7.21	4.53	6.33	9.83
671	Virpur1	Rajkot	9.44	9.33	3.50	12.43
672	Wankaner-1	Rajkot	6.57	6.45	6.20	9.55
673	Alwakampa	Sabarkantha	10.08	5.40	8.08	6.62
674	Anwarpura Pz	Sabarkantha	35.25	-	33.20	33.80
675	Atarsumba	Sabarkantha	7.96	11.37	-	-
676	Bayad_Pz	Sabarkantha	8.22	-	8.30	8.75
677	Bhadreshwar	Sabarkantha	24.26	24.70	22.96	26.28
678	Bhiloda_Pz	Sabarkantha	5.27	4.45	2.69	4.27
679	Bhiloda2	Sabarkantha	7.39	-	5.09	6.32
680	Boral	Sabarkantha	14.31	9.05	5.75	8.34
681	Boriya	Sabarkantha	6.37	-	5.60	6.73
682	Chandap_DW	Sabarkantha	-	-	16.63	-
683	Chandap_Pz	Sabarkantha	12.74	11.30	10.94	9.27
684	Choriwad	Sabarkantha	23.64	23.51	17.93	20.11
685	Derol Pz-II	Sabarkantha	40.47	-	39.00	42.72
686	Dhansura1	Sabarkantha	6.72	1.55	2.73	5.53
687	Gadada	Sabarkantha	-	-	6.92	-
688	Gadha	Sabarkantha	14.32	13.38	18.90	20.18
689	Hamirpur	Sabarkantha	16.40	6.10	6.24	15.50
690	Harsol1	Sabarkantha	13.84	9.60	6.36	13.45
691	Himmatnagar_Pz	Sabarkantha	9.02	-	7.33	8.43
692	Idar	Sabarkantha	8.31	6.00	3.90	7.32
693	Jhaloti	Sabarkantha	11.50	5.10	4.85	6.74
694	Karanpur	Sabarkantha	17.14	1.05	12.94	10.23
695	Kesharpura	Sabarkantha	-	-	11.87	-
696	Khedbrahma_Pz	Sabarkantha	4.12	2.05	1.92	3.37
697	Kherwada	Sabarkantha	-	-	3.64	-
698	Malpur_1	Sabarkantha	-	-	7.72	-
699	Malpur_Pz	Sabarkantha	9.40	8.76	7.80	8.92
700	Mathasuliya	Sabarkantha	-	-	5.56	-
701	Matoda	Sabarkantha	-	13.21	14.04	20.52

702	Medasana	Sabarkantha	-	-	5.35	-
703	Meghraj_1	Sabarkantha	-	-	2.90	-
704	Modasa	Sabarkantha	6.79	5.83	5.51	6.40
705	Panvath/porvad	Sabarkantha	9.96	4.38	4.37	9.96
706	Poshina2	Sabarkantha	6.16	6.20	4.97	6.85
707	Punasan	Sabarkantha	4.91	5.60	4.27	7.28
708	Ramgarh	Sabarkantha	-	-	8.03	-
709	Ratanpur	Sabarkantha	14.17	13.25	12.28	15.75
710	Revas	Sabarkantha	17.53	15.70	10.98	15.19
711	Sabalwad	Sabarkantha	-	-	12.56	-
712	Sathamba	Sabarkantha	20.17	8.30	5.30	9.75
713	Seenawad	Sabarkantha	8.22	4.00	3.76	7.60
714	Shamlaji	Sabarkantha	13.01	10.25	9.53	12.29
715	Silwad	Sabarkantha	9.60	6.65	8.15	8.72
716	Takatuka	Sabarkantha	-	11.50	11.04	-
717	Takatuka_1	Sabarkantha	-	-	10.44	-
718	Umadpura	Sabarkantha	-	-	10.62	-
719	Varvada	Sabarkantha	13.41	-	13.31	15.35
720	Vejpur_Pz	Sabarkantha	-	-	3.90	10.50
721	Vijaynagar	Sabarkantha	-	1.52	0.70	2.80
722	Vijaynagar_Pz	Sabarkantha	9.96	5.33	5.29	7.52
723	Virpur (Himmat)	Sabarkantha	-	10.50	10.73	14.50
724	Virpur (Idar)	Sabarkantha	12.78	14.25	5.93	9.35
725	Wadali	Sabarkantha	30.32	21.60	16.54	22.97
726	Waliampura Pz	Sabarkantha	36.64	-	32.20	35.40
727	Aarda Boratha	Surat	7.48	-	6.99	7.12
728	Allu	Surat	3.52	4.35	2.49	2.97
729	Bardoli	Surat	5.88	4.05	4.49	4.55
730	Bedchit	Surat	10.23	2.06	6.36	6.90
731	Bhatkol	Surat	4.26	-	3.57	3.70
732	Bhurvel (ukai)	Surat	4.15	2.09	3.21	3.43
733	Chapawadi	Surat	6.88	3.16	4.03	4.15
734	Chavada	Surat	4.04	1.35	1.89	2.02
735	Digas	Surat	8.00	4.65	5.79	-
736	Dungri	Surat	9.99	-	4.09	3.60
737	Gandhinagar	Surat	6.42	2.62	3.24	3.45
738	Gangadhra	Surat	9.27	-	8.10	10.02
739	Gangtha	Surat	-	-	9.96	10.60
740	Jesingpura[sg]	Surat	7.28	6.69	7.14	7.20
741	Jhankhavav	Surat	7.40	2.71	5.45	5.84
742	Jhankhvav	Surat	9.20	3.40	5.39	4.45
743	Juna umarpada	Surat	5.96	-	3.32	3.78
744	Kadod 1	Surat	5.01	4.72	5.09	-
745	Karanjvel	Surat	9.85	3.13	6.38	6.93

746	Kasal	Surat	6.82	2.41	6.22	6.40
747	Kathor	Surat	14.40	10.50	11.79	12.07
748	Kelkui	Surat	1.29	1.50	1.82	2.27
749	Khedwada (Ashram Falia)	Surat	6.90	5.50	6.06	6.18
750	Kherwa	Surat	6.30	-	-	2.92
751	Kosamba	Surat	19.94	18.13	18.67	19.20
752	Madhi	Surat	5.16	3.11	-	-
753	Madhi 1	Surat	8.26	-	6.21	6.66
754	Mahuva2	Surat	17.75	15.83	16.51	17.45
755	Malda	Surat	6.30	4.57	3.63	3.96
756	Mandvi2	Surat	13.45	13.00	13.10	13.28
757	Mota	Surat	2.84	2.15	3.70	-
758	Moti Sarkui	Surat	9.33	2.68	4.97	4.55
759	Motichher	Surat	5.52	0.30	4.62	4.73
760	Navi pardi	Surat	3.02	2.41	2.78	2.83
761	Nizar	Surat	14.35	11.60	15.62	14.93
762	Nizar1	Surat	10.18	8.67	9.50	9.85
763	Nogama	Surat	3.66	1.41	3.33	3.86
764	Olpad2	Surat	2.20	1.06	1.90	2.00
765	Palsana	Surat	2.45	1.04	1.73	2.13
766	Paneshwar	Surat	11.25	7.91	8.32	8.60
767	Paniwara	Surat	5.17	-	-	-
768	Puna	Surat	12.84	7.80	8.61	8.78
769	Puna1	Surat	10.20	5.29	6.90	7.73
770	Sachin town	Surat	4.23	-	3.41	3.53
771	Sarbhon	Surat	2.96	3.29	2.39	2.82
772	Sayan	Surat	6.20	-	4.68	4.80
773	Sultanabad	Surat	5.49	-	5.41	5.56
774	Surat_DW	Surat	-	-	3.20	-
775	Tadkeshwar	Surat	-	-	7.24	8.10
776	Tawali	Surat	3.20	5.51	6.11	6.35
777	Ten-bardoli	Surat	5.59	3.76	3.92	4.85
778	Tokarwa 1	Surat	8.10	3.03	5.11	-
779	Uchchhal	Surat	10.56	10.45	8.50	8.90
780	Ushker	Surat	5.64	2.60	5.76	6.00
781	Vadade-Khurd	Surat	3.20	1.02	1.06	1.25
782	Vaheval	Surat	12.01	-	6.57	-
783	Valod	Surat	4.66	3.11	2.16	2.35
784	Vyara1	Surat	4.09	3.36	3.19	4.20
785	Wadoli	Surat	0.05	-	0.89	1.15
786	Adriyana	Surendranagar	2.84	3.38	5.03	6.45
787	Anindra	Surendranagar	-	0.57	1.60	3.63
788	Bajana	Surendranagar	3.68	-	1.51	3.71
789	Bamanbor	Surendranagar	8.25	5.27	6.25	7.45

790	Chotila1	Surendranagar	7.68	5.38	4.83	7.00
791	Dasada	Surendranagar	4.98	4.73	3.65	7.35
792	Dasada1	Surendranagar	2.57	0.88	8.70	8.70
793	Dedadra	Surendranagar	7.30	-	1.35	4.70
794	Dhama	Surendranagar	-	3.08	6.00	-
795	Dhandhalpur 1	Surendranagar	1.60	3.40	8.32	6.00
796	Dheduki 1	Surendranagar	-	-	9.90	10.90
797	Dhrangadhra 2	Surendranagar	6.12	-	14.38	14.38
798	Gamda	Surendranagar	12.00	-	2.20	7.98
799	Ghansyam Gadh	Surendranagar	-	3.18	-	6.25
800	Halvad2	Surendranagar	12.13	12.76	12.56	15.86
801	Jhinjhuwada	Surendranagar	8.30	5.37	10.30	12.30
802	Juna Devaliya 1	Surendranagar	2.44	2.50	1.76	4.93
803	Kharaghoda	Surendranagar	1.50	1.47	0.85	-
804	Kherwa	Surendranagar	2.39	1.50	0.49	5.49
805	Kukavati	Surendranagar	-	2.11	-	-
806	Lakhtar	Surendranagar	1.95	-	2.28	2.65
807	Latuda	Surendranagar	6.58	1.68	1.33	5.00
808	Limbdi1	Surendranagar	1.31	0.40	1.30	1.25
809	Limbdi-Pz	Surendranagar	1.43	1.10	1.60	1.65
810	Mathak2	Surendranagar	13.16	6.30	6.70	10.15
811	Miani	Surendranagar	2.40	2.11	-	-
812	Modhvana	Surendranagar	-	-	2.77	4.85
813	Moti Moladi	Surendranagar	6.91	4.30	4.60	7.50
814	Muli	Surendranagar	8.24	6.22	4.75	9.75
815	Nava Raisngpur	Surendranagar	-	12.18	14.75	-
816	Olak	Surendranagar	4.38	2.55	3.15	4.95
817	Pipli	Surendranagar	0.60	-	0.05	1.20
818	Rajsitapur	Surendranagar	5.49	2.50	2.82	5.50
819	Ranipet	Surendranagar	-	15.05	-	22.15
820	Ratanpur1	Surendranagar	9.96	5.66	-	10.10
821	Sara	Surendranagar	2.88	2.10	2.25	3.50
822	Sarla	Surendranagar	25.01	10.40	9.20	11.80
823	Sayala	Surendranagar	5.94	6.05	5.25	6.95
824	Shiyani	Surendranagar	3.00	2.44	1.30	5.90
825	Sudamda	Surendranagar	2.65	1.85	2.63	4.05
826	Sukhpar1	Surendranagar	1.72	1.01	-	2.75
827	Surendranagar	Surendranagar	3.00	0.21	1.20	1.90
828	Surendranagar2	Surendranagar	6.88	0.73	3.30	4.50
829	Tarnetar	Surendranagar	21.00	16.86	16.60	-
830	Vanala	Surendranagar	2.10	1.93	3.39	12.88
831	Visawadi	Surendranagar	5.43	4.33	2.90	-
832	Vitthalgarh	Surendranagar	3.80	2.40	13.80	8.40
833	Warod	Surendranagar	6.28	3.65	-	13.80

834	Aherdi	The dangs	6.69	1.42	1.94	5.55
835	Ahwa_Pz	The dangs	3.72	1.95	2.72	2.97
836	Ahwa1	The dangs	4.90	1.12	1.72	1.90
837	Bari Pada	The dangs	11.96	-	1.12	-
838	Bhenskatri 1	The dangs	8.73	-	-	-
839	Bori Gaotha 1	The dangs	8.99	4.00	5.44	5.60
840	Chikhli	The dangs	10.16	1.09	1.24	1.40
841	Chinchnogaotha	The dangs	7.86	1.43	2.41	3.19
842	Chinchpada	The dangs	5.85	0.56	2.02	2.12
843	Dhumkal	The dangs	3.15	1.09	1.24	1.38
844	Gadad	The dangs	5.15	-	2.40	2.52
845	Ghubita	The dangs	2.84	0.42	0.80	1.03
846	Jakana	The dangs	4.10	1.65	1.74	1.91
847	Jamalpada	The dangs	6.71	1.88	5.25	5.43
848	Kalibel	The dangs	3.53	0.83	1.17	1.35
849	Mahal	The dangs	6.60	2.75	3.16	3.48
850	Malegaon	The dangs	2.33	0.22	0.40	0.63
851	Mheskatri	The dangs	12.35	9.70	10.12	10.58
852	Nadak khadi	The dangs	6.47	1.05	2.43	2.69
853	Nana pada	The dangs	6.60	1.39	3.41	3.54
854	Sakarpatal	The dangs	5.20	1.27	1.98	2.10
855	Sodmal	The dangs	12.36	-	2.78	3.06
856	Subir	The dangs	6.56	0.79	2.00	2.30
857	Umberpada	The dangs	5.93	0.77	2.14	2.36
858	Vaghai	The dangs	11.94	6.55	8.30	-
859	Vazat Amba	The dangs	6.56	2.08	3.97	4.07
860	Alladpur	Vadodara	8.33	6.41	8.51	5.54
861	Amreshwar	Vadodara	3.97	-	0.65	2.65
862	Asala	Vadodara	11.00	4.03	5.50	5.78
863	Baladgam	Vadodara	13.00	5.60	11.16	6.40
864	Bhindol	Vadodara	9.52	4.61	4.89	6.30
865	Bodeli	Vadodara	2.80	0.50	0.86	2.26
866	Chavaria	Vadodara	12.30	8.30	12.30	12.30
867	Chella Karamsiya Pz	Vadodara	3.30	0.82	2.00	2.52
868	Chhaliyar	Vadodara	26.60	-	20.30	24.63
869	Chhota udepur	Vadodara	4.77	1.06	2.78	4.80
870	Chisadia	Vadodara	11.88	10.60	11.88	11.75
871	Chitral PZ_II	Vadodara	-	-	24.02	24.68
872	Devat (thadgam)	Vadodara	9.30	5.11	7.10	8.41
873	Ferkuva	Vadodara	8.47	1.10	3.38	4.89
874	Ghamodi	Vadodara	-	1.45	6.45	6.13
875	Ghayaj ii	Vadodara	18.66	15.00	16.30	23.84
876	Govindpura	Vadodara	6.19	3.06	3.82	2.20
877	Jojh	Vadodara	9.73	5.57	7.25	9.41

878	Juna samalya	Vadodara	9.58	9.89	10.01	8.46
879	Kaprali	Vadodara	-	-	2.38	1.12
880	Karamasiya	Vadodara	13.20	8.79	4.28	13.20
881	Kevadi	Vadodara	5.53	2.59	4.35	3.85
882	Kosindra Pz-I	Vadodara	2.41	-	4.20	1.16
883	Makni	Vadodara	8.37	-	8.25	7.20
884	Masor	Vadodara	11.28	11.80	10.15	9.35
885	Moti chikhali	Vadodara	3.60	2.82	3.10	3.92
886	Panwad	Vadodara	14.40	1.32	0.21	7.55
887	Patiyapura	Vadodara	12.21	2.84	4.80	6.32
888	Pavi	Vadodara	4.20	-	4.45	6.22
889	Pitha	Vadodara	5.71	2.19	3.88	2.00
890	Rasulpur	Vadodara	-	-	-	3.78
891	Saidal	Vadodara	3.56	0.60	2.18	0.68
892	Saidivasana	Vadodara	-	1.54	4.82	3.81
893	Sankarda1	Vadodara	-	-	26.42	30.39
894	Sankheda	Vadodara	22.46	19.44	19.60	25.60
895	Sengpur	Vadodara	8.90	2.26	5.28	5.82
896	Sinor	Vadodara	22.21	20.02	22.90	20.96
897	Suskal	Vadodara	-	-	6.12	1.35
898	Tokri	Vadodara	8.14	-	7.80	3.04
899	Tundav	Vadodara	15.20	6.65	9.72	9.86
900	Vadodara Ii	Vadodara	5.34	-	4.60	6.10
901	Vadodara_Kevada Bag	Vadodara	-	-	5.38	-
902	Vadodara_ONGC	Vadodara	-	-	5.51	-
903	Vadodara_Sama	Vadodara	-	-	0.05	-
904	Vadshala Pz-II	Vadodara	14.36	-	-	-
905	Vadtalav Pz	Vadodara	6.95	-	7.00	18.90
906	Vagudan	Vadodara	6.60	3.66	5.58	5.84
907	Vega	Vadodara	5.46	2.10	3.40	4.00
908	Vejpur2	Vadodara	2.88	-	1.60	2.88
909	Waghach	Vadodara	-	-	9.86	6.18
910	Waghodia Pz	Vadodara	1.67	0.10	-	5.68
911	Atul	Valsad	-	1.12	-	-
912	Awadha	Valsad	3.51	0.25	1.50	4.35
913	Chavshala	Valsad	3.24	0.33	1.63	1.90
914	Dahli (bhilad)	Valsad	3.74	0.51	3.61	3.73
915	Dharampur 3	Valsad	15.35	4.75	8.68	12.70
916	Dharampur1	Valsad	10.68	4.27	6.09	6.18
917	Dungri	Valsad	10.00	-	6.94	3.65
918	Fali	Valsad	11.85	0.31	1.49	1.75
919	Kanadu	Valsad	6.27	1.41	5.59	5.70
920	Kaparda	Valsad	7.03	2.08	2.55	2.73
921	Karwad	Valsad	4.28	1.00	3.53	4.90

922	Lakadmal	Valsad	7.18	1.41	4.40	4.58
923	Mandwa	Valsad	7.25	-	1.38	1.50
924	Muli1	Valsad	3.06	0.97	3.16	3.32
925	Nanaponda	Valsad	9.48	2.30	6.61	6.70
926	Tithal	Valsad	7.76	3.30	6.96	7.10
927	Tumb	Valsad	3.64	1.46	3.38	3.55
928	Udwada	Valsad	6.67	0.19	2.68	2.85
929	Umargaon	Valsad	3.51	3.18	3.76	4.10
930	Valsad1	Valsad	20.85	3.17	12.77	12.88
931	Vapi Balitha	Valsad	9.75	0.97	7.65	-

Annexure IIIb

DEPTH TO PIEZOMETRIC SURFACE OF CONFINED AQUIFERS IN GUJARAT DURING 2014-15

S. No.	Site_Name	District	Depth to piezometer surface in m bgl			
			May-14	Aug-14	Nov-14	Jan-15
1	Bagodara_Pz_I	Ahmedabad	-	3.83	-	5.99
2	Bopal_Pz_I	Ahmedabad	97.90	48.63	77.01	79.02
3	Bopal_Pz_II	Ahmedabad	33.93	32.78	32.87	34.05
4	Ghuma_Pz_I	Ahmedabad	97.85	92.08	95.03	96.20
5	Hansalpur_Pz-I	Ahmedabad	35.00	-	35.05	57.22
6	Hansalpur_Pz-II	Ahmedabad	26.89	-	25.30	29.00
7	Ingoli_Pz	Ahmedabad	-	-	4.50	-
8	Jholapur_Pz_I	Ahmedabad	64.10	-	59.71	61.92
9	Jholapur_Pz_II	Ahmedabad	17.95	-	9.48	14.54
10	Sanand I	Ahmedabad	69.70	-	69.30	61.70
11	Sanand II	Ahmedabad	18.50	-	16.05	16.85
12	Sola(HC)_Pz_I	Ahmedabad	38.25	68.41	68.54	69.60
13	Sola_II	Ahmedabad	96.92	89.30	97.25	88.24
14	Vasai_Pz_I	Ahmedabad	24.10	24.40	23.52	26.25
15	Vastrapur(lake)_Pz_I	Ahmedabad	99.70	94.53	99.70	100.23
16	Vatwa Pz-III	Ahmedabad	28.64	26.47	27.37	28.64
17	Visalpur_Pz-I	Ahmedabad	33.86	28.43	29.22	30.34
18	Babra_Pz	Amreli	11.47	4.14	7.35	9.91
19	Hamapur_Pz	Amreli	-	42.84	-	29.99
20	Haripur_Pz_I	Amreli	5.48	3.30	4.15	5.04
21	Liliya_Pz_I	Amreli	4.00	2.82	3.10	5.02
22	Anklav_Pz_I	Anand	22.53	-	20.69	20.79
23	Anklav_Pz_II	Anand	22.62	-	21.55	21.15
24	Borsad I	Anand	15.53	12.34	13.37	14.33
25	Borsad_Pz_II	Anand	16.04	9.73	10.10	11.40
26	Hariyan_Pz	Anand	5.80	-	2.50	4.00
27	Kathana_Pz_I	Anand	13.57	12.24	11.92	12.72
28	Petlad_Pz_I	Anand	10.67	10.20	10.06	12.05
29	Petlad_Pz_II	Anand	11.28	8.96	9.82	10.56
30	Sarsa_Pz_I	Anand	-	-	13.50	-
31	Sojitra_Pz_I	Anand	-	-	2.88	4.16
32	Tarapur Pz-I	Anand	4.22	2.07	2.31	2.91
33	Walmi_ I	Anand	19.20	18.41	17.40	17.70
34	Walmi_ II	Anand	19.72	18.15	17.88	18.62
35	Balodhar_Pz-I	Banaskantha	138.12	134.93	138.50	141.45
36	Bhabhar iii	Banaskantha	36.22	36.04	35.50	36.40
37	Biyok_Pz-II	Banaskantha	35.46	35.05	35.00	-
38	Dalwana_Pz_I	Banaskantha	-	-	-	36.40
39	Deesa Pzi	Banaskantha	72.65	73.40	-	73.60

40	Dhanera Pz- II	Banaskantha	66.46	74.62	-	69.37
41	Dhanera Pz-I	Banaskantha	75.34	66.57	72.77	76.14
42	Jalotra Pz-I	Banaskantha	19.14	18.68	17.87	18.14
43	Jerda Pz-I	Banaskantha	155.08	151.80	-	157.06
44	Lakhani i	Banaskantha	74.58	72.22	74.50	75.83
45	Mahi_Pz	Banaskantha	149.36	146.93	144.50	149.93
46	Mangrol Pzi	Banaskantha	77.30	74.71	-	-
47	Mangrol Pzii	Banaskantha	18.02	17.54	18.50	17.98
48	Naroli Pzi	Banaskantha	9.02	8.52	8.55	9.34
49	Naroli Pzii	Banaskantha	7.90	7.36	7.40	8.18
50	Nenava Pz	Banaskantha	45.43	44.11	-	-
51	Palanpur_Pz	Banaskantha	40.29	38.53	39.81	39.77
52	Rah Pz-III	Banaskantha	36.27	35.83	36.50	37.33
53	Rah_Pz I	Banaskantha	45.44	44.66	41.16	44.21
54	Rah_Pz II	Banaskantha	41.14	39.67	39.50	41.74
55	Rasna(Repl)_Pz_I	Banaskantha	78.39	77.50	77.55	78.82
56	Rupal_Pz_I	Banaskantha	30.75	29.44	31.50	30.32
57	Tharad Pzi	Banaskantha	14.49	14.45	14.40	14.53
58	Tharad Pzii	Banaskantha	13.38	13.51	14.40	14.63
59	Vav ii	Banaskantha	18.92	19.30	19.45	21.66
60	Vav i	Banaskantha	23.58	23.46	23.43	23.73
61	Vinchivadi PZ-I	Banaskantha	54.98	53.43	-	56.30
62	Vinchivadi Pz-II	Banaskantha	53.75	53.20	-	55.16
63	Bharuch I	Bharuch	6.79	13.84	5.00	16.35
64	Bharuch Ii	Bharuch	16.56	4.33	4.75	5.90
65	Kadodara	Bharuch	7.93	5.60	8.20	5.42
66	Gadhada1	Bhavnagar	7.00	6.40	5.80	6.39
67	Kardej	Bhavnagar	23.73	19.80	23.28	24.12
68	Adalaj_Pz_I	Gandhinagar	97.97	95.32	97.75	97.61
69	Adalaj_Pz_II	Gandhinagar	64.34	63.83	64.85	83.48
70	Amrapur Pzi	Gandhinagar	114.80	116.74	104.40	108.23
71	Amrapur Pzii	Gandhinagar	83.61	81.83	83.80	83.91
72	Charada Pz -II	Gandhinagar	99.30	100.53	100.40	99.89
73	Charada_Pz_I	Gandhinagar	184.04	184.00	181.40	190.28
74	Chiloda_Pz_I	Gandhinagar	110.60	112.30	113.80	108.98
75	Chiloda_Pz_II	Gandhinagar	110.86	111.58	114.70	108.79
76	Dahegam I	Gandhinagar	58.40	57.36	60.60	61.68
77	Kalol(Nest)_Pz_I	Gandhinagar	64.51	63.24	96.21	95.23
78	Kalol(Nest)_Pz_II	Gandhinagar	55.07	-	123.61	123.30
79	Kalol(Nest)_Pz_III	Gandhinagar	96.15	94.78	64.74	66.04
80	Kalol(Rep)_Pz_II	Gandhinagar	55.44	54.70	52.05	53.83
81	Mansa	Gandhinagar	117.49	114.37	118.05	118.29
82	Nardipur i	Gandhinagar	95.57	92.45	94.40	96.03
83	Pethapur_Pz-I	Gandhinagar	106.48	104.50	105.35	106.85

84	Pethapur_Pz-II	Gandhinagar	79.07	77.12	78.18	82.57
85	Sardhav Pz -I	Gandhinagar	114.71	111.90	114.40	115.18
86	Sardhav Pz-II	Gandhinagar	135.28	132.72	134.60	136.18
87	Balasar	Kachchh	6.60	6.30	7.30	7.18
88	Bhachau	Kachchh	58.10	-	-	-
89	Gadhsisa	Kachchh	-	66.70	62.99	-
90	Khavda	Kachchh	4.35	3.65	3.50	3.67
91	Madhapar	Kachchh	47.72	47.42	47.69	47.95
92	Mandvi	Kachchh	25.05	25.75	25.60	26.01
93	Nirona	Kachchh	16.80	16.92	17.31	17.46
94	Matar I	Kheda	16.96	15.02	13.56	18.08
95	Matar II	Kheda	6.78	4.08	4.63	6.09
96	Nadiad Pz-I	Kheda	18.33	-	16.10	16.63
97	Sarkhej _ I	Kheda	30.20	35.99	28.20	27.24
98	Sarkhej _ II	Kheda	37.32	36.02	35.15	34.31
99	Bhandu III	Mahesana	19.43	17.72	6.00	-
100	Bhandu V	Mahesana	59.60	58.14	52.90	-
101	Daran_Pz-I	Mahesana	104.87	102.38	104.15	104.39
102	Daran_Pz-II	Mahesana	44.47	43.50	45.45	44.99
103	Jaska(Sy_8")Pz_I	Mahesana	56.86	54.12	53.10	57.09
104	Jotana Pzi	Mahesana	115.63	115.14	127.43	134.54
105	Jotana Pziii	Mahesana	16.46	14.62	13.00	13.48
106	Karalli (i)	Mahesana	139.20	-	-	132.09
107	Karalli II	Mahesana	41.60	39.63	40.65	42.88
108	Kheralu (deep)	Mahesana	48.88	47.60	46.70	46.77
109	Mehsana v	Mahesana	29.37	29.54	29.18	28.86
110	Mehsana I	Mahesana	153.47	156.61	157.63	149.19
111	Mehsana II	Mahesana	150.55	152.99	152.11	149.33
112	Mehsana III	Mahesana	101.32	100.72	101.67	102.82
113	Mewad	Mahesana	9.79	9.49	7.05	6.99
114	Modhera II	Mahesana	56.86	57.55	56.75	56.19
115	Motipura_Pz_I	Mahesana	51.09	51.48	49.10	49.70
116	Suraj	Mahesana	35.00	34.05	31.90	31.79
117	Thol Pz -V	Mahesana	-	-	106.65	109.40
118	Thol Pz-I	Mahesana	66.12	65.70	61.60	66.92
119	Vijapur I	Mahesana	191.28	191.28	-	-
120	Vijapur Pz-II	Mahesana	-	96.29	-	-
121	Rajpipla	Narmada	25.81	25.34	27.05	27.87
122	Rasulpura_Pz	Narmada	32.74	20.39	21.71	23.73
123	Baspa (Repl) i	Patan	67.57	-	-	68.34
124	Baspa (Repl) ii	Patan	3.70	-	-	3.29
125	Bhutia vasna i	Patan	27.25	26.55	24.47	24.60
126	Biliya(Temple)_Pz_I	Patan	-	-	73.03	23.50
127	Biliya(Temple)_Pz_II	Patan	-	46.17	46.20	45.70

128	Chanasma i	Patan	-	77.44	65.31	-
129	Chanasma II	Patan	89.41	48.40	-	82.40
130	Jangral Pzi	Patan	146.55	144.50	139.46	145.28
131	Jangral Pzii	Patan	134.40	127.30	122.75	-
132	Kakosi Pz-I	Patan	138.10	136.57	134.15	136.69
133	Kakosi Pz-II	Patan	38.00	38.13	37.58	36.15
134	Lanwa Pz-I	Patan	130.75	128.50	124.10	131.41
135	Matarwadi I	Patan	104.42	98.92	96.06	101.17
136	Matarwadi II	Patan	58.85	69.37	67.11	52.62
137	Sidhada	Patan	3.65	3.60	4.47	4.59
138	Jamkandorna	Rajkot	12.66	-	12.92	14.35
139	Lodhika	Rajkot	7.16	-	8.62	11.80
140	Morbi	Rajkot	1.72	1.91	2.20	5.20
141	Kuski_Pz	Sabarkantha	19.69	4.87	10.77	21.37
142	Dhrangadhra	Surendranagar	90.00	89.40	-	-
143	Halvad1	Surendranagar	27.90	31.98	27.45	34.45
144	Chitral Pz-I	Vadodara	25.46	23.32	24.22	26.93
145	Handod1	Vadodara	29.46	25.08	30.13	31.79
146	Raypura i	Vadodara	30.42	14.01	27.00	29.04
147	Sankarda	Vadodara	19.26	-	16.55	-
148	Segwa chouki ii	Vadodara	27.46	36.53	36.60	29.65
149	Segwa chowki I	Vadodara	41.55	35.23	36.40	-
150	Vadodara I	Vadodara	22.32	12.32	13.02	19.82
151	Vadshala Pzi	Vadodara	24.70	-	11.48	19.82

MEAN DECADAL WATER LEVELS OF THE NATIONAL HYDROGRAPH STATIONS IN GUJARAT AND UT OF DAMAN & DIU

Sl No	Location	District	lat	long	Mean(2005-2014) Pre Monsoon	Mean(2005-2014) Pre Monsoon
1	Barvala	Ahmedabad	22.15	71.89	8.63	7.05
2	Dalod	Ahmedabad	23.37	71.97	7.37	6.46
3	Devalia	Ahmedabad	22.38	71.99	15.03	-
4	Dhandhuka1	Ahmedabad	22.38	71.99	5.72	3.23
5	Endla	Ahmedabad	23.27	72.06	4.26	2.13
6	Gamph	Ahmedabad	22.36	72.17	3.40	1.70
7	Ghuma	Ahmedabad	23.03	72.45	6.13	3.86
8	Ghuma_Pz_II	Ahmedabad	23.03	72.45	8.70	5.44
9	Hansalpur_Pz-III	Ahmedabad	23.09	72.02	4.13	3.21
10	Kumarkhan	Ahmedabad	22.90	72.02	5.99	5.09
11	Kundal	Ahmedabad	22.90	72.22	-	7.60
12	Kundali	Ahmedabad	22.27	71.70	12.74	6.85
13	Mandal2	Ahmedabad	23.28	71.92	5.15	3.12
14	Pachcham_Pz	Ahmedabad	22.23	72.18	-	1.30
15	Rajpada	Ahmedabad	22.31	71.69	20.11	13.82
16	Salangpor	Ahmedabad	22.16	71.77	18.02	13.55
17	Sola_Pz_III	Ahmedabad	23.08	72.52	11.59	8.90
18	Tagadi1	Ahmedabad	22.30	71.95	8.25	3.11
19	Ughraj1	Ahmedabad	23.37	72.10	8.38	4.83
20	Upardhal1	Ahmedabad	22.85	72.15	10.69	8.50
21	Vagad(Repl)_Pz	Ahmedabad	23.04	72.53	-	6.27
22	Viramgam2	Ahmedabad	23.14	72.03	3.60	1.84
23	Visalpur_Pz-II	Ahmedabad	22.92	72.49	8.87	5.92
24	Amreli	Amreli	21.61	71.23	12.58	4.51
25	Amreli_Pz	Amreli	21.61	71.23	14.91	7.36
26	Amritvel_Pz	Amreli	21.40	71.36	3.13	2.36
27	Ankadia mota	Amreli	21.65	71.11	9.70	5.83
28	Badhda	Amreli	21.27	71.34	9.43	5.49
29	Bagasara	Amreli	21.48	70.96	13.76	9.34
30	Bhavardi1	Amreli	21.11	71.26	5.14	0.55
31	Bherai	Amreli	20.87	71.36	3.48	2.64
32	Bhuva	Amreli	21.43	71.36	5.13	3.91
33	Chalala	Amreli	21.42	71.17	28.96	27.05
34	Charkhadia_Pz	Amreli	21.39	71.29	22.18	-
35	Charkhadia1	Amreli	21.39	71.30	22.73	20.11
36	Chavand	Amreli	21.82	71.41	11.04	5.96
37	Devaliya	Amreli	21.82	71.11	12.63	7.40
38	Dharangani	Amreli	21.33	71.20	32.35	30.38
39	Dhari	Amreli	21.34	71.04	13.17	-

40	Dhari_Pz	Amreli	21.33	71.02	20.56	9.02
41	Dhrai Balmukand	Amreli	21.83	71.22	21.80	7.83
42	Fifad	Amreli	21.44	71.54	6.80	4.83
43	Gopalpura Vanda Pz	Amreli	21.38	71.49	24.50	-
44	Goradka	Amreli	21.23	71.41	13.04	4.19
45	Govadka	Amreli	21.54	71.16	8.34	3.09
46	Hinderana	Amreli	21.23	71.20	3.50	3.12
47	Hipavadli	Amreli	21.38	71.61	9.80	7.66
48	Jafrabad	Amreli	20.87	71.36	2.62	2.15
49	Jira	Amreli	21.24	71.09	9.94	4.17
50	Kadiyali	Amreli	20.91	71.36	6.61	2.79
51	Kerala	Amreli	21.40	71.22	36.74	33.13
52	Khamba	Amreli	21.15	71.24	9.09	4.46
53	Khamba_Pz	Amreli	21.14	71.25	13.47	9.36
54	Kunkavav	Amreli	21.66	70.98	18.15	17.41
55	Lathi	Amreli	21.72	71.38	7.88	2.16
56	Lotpur	Amreli	20.96	71.43	7.10	5.48
57	Luvariya	Amreli	21.63	71.40	9.86	4.45
58	Mandal	Amreli	21.10	71.58	25.67	21.21
59	Manila Pz	Amreli	21.43	71.17	18.54	17.46
60	Morjhar	Amreli	21.38	71.12	35.37	21.80
61	Nageshri	Amreli	20.93	71.35	5.91	2.88
62	Piyava	Amreli	21.38	71.47	26.96	23.63
63	Punjapadar	Amreli	21.53	71.36	12.70	4.56
64	Salena	Amreli	21.39	71.53	11.82	9.57
65	Sanaria	Amreli	21.56	71.47	-	2.60
66	Tajpur	Amreli	21.73	71.47	17.06	7.70
67	Timbi2	Amreli	21.02	71.28	11.51	5.97
68	Trakuda	Amreli	21.02	71.28	10.26	4.27
69	Untvad	Amreli	21.92	71.22	16.25	8.48
70	Vaghania juna	Amreli	21.58	70.97	10.23	3.99
71	Vanda	Amreli	21.39	71.51	6.50	4.33
72	Vankiya	Amreli	21.52	71.14	9.35	5.18
73	Vankiya1	Amreli	21.23	71.25	13.74	5.98
74	Victor	Amreli	21.01	71.54	1.71	0.60
75	Virpur	Amreli	21.25	71.15	18.55	7.55
76	Adas_DW	Anand	22.48	73.03	-	17.20
77	Anand	Anand	22.58	72.97	-	6.76
78	Anklav2	Anand	22.38	73.01	9.08	19.13
79	Bandhani	Anand	22.54	72.82	22.35	2.32
80	Bhadran	Anand	22.36	72.90	4.72	14.41
81	Boriyani	Anand	22.63	73.00	15.96	3.22
82	Dali	Anand	22.28	72.77	5.54	3.94
83	Davalpura_Pz	Anand	22.46	72.80	4.32	1.67

84	Dharmaj	Anand	22.42	72.79	11.96	9.47
85	Ghora	Anand	22.69	73.05	5.09	3.06
86	Kansari1	Anand	22.34	72.65	12.82	9.83
87	Laxmipura	Anand	22.42	72.61	2.64	0.79
88	Navapura	Anand	22.31	72.96	24.48	22.08
89	Ras	Anand	22.35	72.83	3.11	1.89
90	Tarapur Pz-II	Anand	22.49	72.66	3.90	2.17
91	Ambaji_Pz	Banaskantha	24.34	72.85	11.83	7.70
92	Amirgadh	Banaskantha	24.41	72.64	11.38	11.20
93	Bharol1	Banaskantha	24.53	71.54	5.10	4.66
94	Danta	Banaskantha	24.19	72.77	11.29	7.81
95	Dantiwada	Banaskantha	24.19	72.76	35.69	27.42
96	Deesa Pzii	Banaskantha	24.26	72.19	29.95	57.51
97	Ganapipli	Banaskantha	24.30	72.95	57.13	8.43
98	Gangodra	Banaskantha	24.44	72.37	10.59	16.78
99	Iqbalgarh	Banaskantha	24.35	72.54	21.66	26.29
100	Jhat	Banaskantha	24.49	72.35	30.34	14.77
101	Khoda	Banaskantha	24.66	71.77	20.06	18.80
102	Kidotar	Banaskantha	24.39	72.63	18.92	16.19
103	Meda	Banaskantha	24.40	72.29	13.32	11.57
104	Mohabbat gadh	Banaskantha	24.17	72.73	23.63	21.06
105	Naroli Pziii	Banaskantha	24.62	71.64	11.66	9.31
106	Palanpur2	Banaskantha	24.19	72.43	31.78	29.45
107	Ratanpur2	Banaskantha	24.18	72.75	17.44	13.92
108	Sodapur	Banaskantha	24.40	72.30	15.90	12.94
109	Tharad Pziii	Banaskantha	24.39	71.62	15.40	15.40
110	Arethi	Bharuch	21.61	73.44	-	5.62
111	Bharuch	Bharuch	21.70	73.00	7.86	3.64
112	Bhensli	Bharuch	21.73	72.75	3.66	2.32
113	Dahegam	Bharuch	22.19	72.60	7.63	6.97
114	Hansot	Bharuch	21.58	72.81	4.87	-
115	Ilav	Bharuch	21.45	72.80	5.97	4.84
116	Jambusar	Bharuch	22.05	72.81	8.04	7.99
117	Jambusar2	Bharuch	22.05	72.80	7.20	-
118	Jetpur1	Bharuch	21.49	72.71	4.27	1.96
119	Jokhla	Bharuch	21.60	73.17	-	0.12
120	Juna borbhata	Bharuch	21.68	72.98	7.28	5.51
121	Kaswa	Bharuch	21.68	72.82	7.31	4.46
122	Kavachiya	Bharuch	21.53	73.35	5.93	3.60
123	Kavi	Bharuch	22.19	72.64	7.20	5.65
124	Kondh	Bharuch	21.58	73.07	5.38	3.10
125	Luhara	Bharuch	21.68	72.56	4.58	3.37
126	Mahegam1	Bharuch	21.68	72.76	6.56	-
127	Modoliya	Bharuch	21.63	73.30	8.87	7.28

128	Mokhdi	Bharuch	21.53	73.29	9.16	4.51
129	Motwan	Bharuch	21.56	72.89	2.72	2.13
130	Mulad	Bharuch	21.68	73.02	9.06	6.47
131	Navetha	Bharuch	21.71	72.83	7.36	5.99
132	Netrang(Rep)_Pz	Bharuch	21.64	73.37	9.43	5.84
133	Netrang1	Bharuch	21.63	73.37	6.46	3.05
134	Nirnavi	Bharuch	21.79	72.67	10.42	7.03
135	Panoli	Bharuch	21.54	72.98	2.62	1.73
136	Raymal	Bharuch	21.52	72.82	2.55	1.42
137	Roja tankaria	Bharuch	21.92	72.79	10.15	7.54
138	Sajod	Bharuch	21.62	72.92	3.00	2.73
139	Sarod	Bharuch	22.16	72.76	12.58	9.28
140	Simodra	Bharuch	21.74	73.21	7.00	3.86
141	Tankari	Bharuch	21.99	72.68	4.39	2.37
142	Utraj	Bharuch	21.59	72.83	4.47	3.33
143	Ambala	Bhavnagar	21.71	71.84	-	11.85
144	Ayodhayapuram	Bhavnagar	21.96	71.89	13.12	8.08
145	Bhavnagar1	Bhavnagar	21.77	72.15	6.75	4.87
146	Bhudel	Bhavnagar	21.69	72.16	6.44	2.71
147	Bhumbhali	Bhavnagar	21.68	72.24	2.65	2.23
148	Bhutia	Bhavnagar	21.75	71.70	17.65	10.18
149	Bora	Bhavnagar	21.19	71.93	28.95	26.36
150	Chowk Pz	Bhavnagar	21.43	71.76	23.75	22.95
151	Datha	Bhavnagar	21.22	71.95	4.20	2.90
152	Dhasa	Bhavnagar	21.80	71.51	5.28	2.73
153	Dudhala	Bhavnagar	21.14	71.66	12.38	7.67
154	Gadhada2	Bhavnagar	21.97	71.58	4.79	4.13
155	Gariyadhar	Bhavnagar	21.54	71.57	18.16	8.81
156	Ghogha1	Bhavnagar	21.68	72.28	4.25	1.65
157	Jalia	Bhavnagar	21.80	71.62	-	10.50
158	Khijadiya	Bhavnagar	21.64	71.70	9.61	8.20
159	Longadi	Bhavnagar	21.21	71.88	6.17	3.34
160	Lonjdhara	Bhavnagar	22.10	71.90	24.35	19.03
161	Mahuva1	Bhavnagar	21.10	71.77	18.36	-
162	Malvav_Pz	Bhavnagar	21.16	71.91	30.44	23.90
163	Motivadal	Bhavnagar	21.20	71.55	7.75	3.33
164	Ningala	Bhavnagar	22.02	71.70	14.45	7.74
165	Palitana1	Bhavnagar	21.53	71.82	11.76	6.36
166	Palitana2	Bhavnagar	21.52	71.84	11.62	5.84
167	Paliyad2	Bhavnagar	22.26	71.56	12.56	-
168	Panchpipla	Bhavnagar	21.55	71.72	7.06	2.13
169	Panvi1	Bhavnagar	22.08	71.89	10.72	4.15
170	Pasvi	Bhavnagar	21.29	71.97	15.96	7.20
171	Porbada	Bhavnagar	21.80	71.70	11.40	8.30

172	Sajnasar	Bhavnagar	21.43	71.91	10.09	3.72
173	Sandhida	Bhavnagar	21.69	71.76	4.19	2.02
174	Satanes	Bhavnagar	21.44	71.84	14.10	1.94
175	Shantinagar	Bhavnagar	21.25	71.65	11.66	4.95
176	Talaja2	Bhavnagar	21.37	72.02	8.87	5.71
177	Tansa	Bhavnagar	21.51	72.13	-	7.42
178	Tardhera	Bhavnagar	22.23	71.60	20.10	16.08
179	Tatam	Bhavnagar	22.06	71.63	25.87	13.90
180	Timbi2	Bhavnagar	21.83	71.77	13.60	-
181	Trapaj	Bhavnagar	21.43	72.10	15.02	-
182	Umrala	Bhavnagar	21.85	71.81	11.90	8.14
183	Vadal	Bhavnagar	21.48	71.81	13.50	3.21
184	Vallabhipur1	Bhavnagar	21.88	71.88	6.03	4.64
185	Vallbhipur	Bhavnagar	21.88	71.88	6.51	5.16
186	Vavdi	Bhavnagar	21.57	72.20	9.73	2.87
187	Ambawadi	Daman	20.40	72.84	6.26	4.48
188	Bhimpor k.falia	Daman	20.46	72.87	7.00	4.27
189	Dabhel	Daman	20.41	72.89	3.63	2.04
190	Dalwada	Daman	20.44	72.85	7.78	2.52
191	Daman	Daman	20.42	72.85	7.54	3.29
192	Jempore	Daman	20.38	72.83	3.58	1.90
193	Khariwad daman	Daman	20.43	72.85	3.30	2.11
194	Morwad	Daman	20.44	72.83	6.73	4.80
195	Warkund	Daman	20.41	72.86	6.31	2.66
196	Chakarteeth_Pz	Diu	20.71	70.97	-	6.25
197	Diu	Diu	20.72	70.95	3.45	3.27
198	Dabhava	Dohad	22.58	73.90	5.05	2.65
199	Dadhela	Dohad	22.84	74.07	8.59	4.68
200	Dahod	Dohad	22.84	74.26	4.31	2.46
201	Dahod2	Dohad	22.83	74.23	8.95	5.99
202	Devgadh Baria	Dohad	22.70	73.91	11.00	7.32
203	Devgadh bariya	Dohad	22.70	73.92	12.88	7.10
204	Dhanpur	Dohad	22.63	74.10	11.97	-
205	Fatepura(Karodia)	Dohad	23.25	74.03	13.24	8.28
206	Garbara	Dohad	22.68	74.31	8.14	3.91
207	Jhalod	Dohad	23.09	74.15	10.20	7.52
208	Jhalod1	Dohad	23.09	74.13	8.70	5.97
209	Kanjetha	Dohad	22.58	74.11	10.03	6.20
210	Khandania	Dohad	22.70	73.84	12.75	9.76
211	Limkheda	Dohad	22.83	73.99	8.08	5.23
212	Mirakhedi	Dohad	22.93	74.20	6.25	2.64
213	Panchwada	Dohad	22.73	74.31	5.73	3.85
214	Pipero	Dohad	22.65	74.09	12.20	5.99
215	Salaya1	Dohad	22.81	73.89	-	4.50

216	Sarsava	Dohad	23.15	74.05	10.12	3.83
217	Sukhsar	Dohad	23.15	74.05	8.93	6.94
218	Tokarba	Dohad	22.60	74.04	6.14	3.43
219	Varamkheda	Dohad	22.80	74.28	1.96	0.73
220	Wadia	Dohad	22.90	74.05	7.40	3.33
221	Kasturinagar(IFFCO)	Gandhinagar	23.19	72.55	59.25	11.02
222	Paliya	Gandhinagar	23.18	72.84	12.47	9.78
223	Serthapara1	Gandhinagar	23.19	72.57	13.22	11.82
224	Amaliya Chokri	Jamnagar	22.24	69.13	2.80	4.20
225	Ambardi	Jamnagar	21.92	69.86	13.03	4.47
226	Amran_Pz	Jamnagar	22.82	70.55	3.78	2.28
227	Amran1	Jamnagar	22.83	70.56	4.13	1.70
228	Aramda	Jamnagar	22.43	69.04	5.52	4.49
229	Balwa	Jamnagar	21.90	69.96	20.22	10.53
230	Bed1	Jamnagar	22.44	69.90	8.06	4.56
231	Bedanpur	Jamnagar	22.68	70.32	5.21	2.84
232	Bhanvad	Jamnagar	21.93	69.80	13.11	5.92
233	Bhatia	Jamnagar	22.09	69.30	10.42	5.03
234	Bhatiya	Jamnagar	22.09	69.27	-	1.24
235	Bhogat1	Jamnagar	21.99	69.25	8.44	3.39
236	Changa	Jamnagar	22.35	70.04	14.59	10.55
237	Dhrol2	Jamnagar	22.57	70.42	4.40	2.75
238	Dudhai2	Jamnagar	22.79	70.50	3.71	1.47
239	Dwarka	Jamnagar	22.25	68.96	7.75	7.80
240	Gordhanpur	Jamnagar	22.45	70.00	9.70	4.41
241	Haripur2	Jamnagar	22.27	70.33	17.53	3.95
242	Haryana	Jamnagar	22.61	70.26	7.37	5.09
243	Jambuda	Jamnagar	22.53	70.20	6.77	3.11
244	Jamjodhpur	Jamnagar	21.91	70.03	7.93	4.92
245	Jamnagar1	Jamnagar	22.47	70.05	9.26	2.54
246	Jamnagar2	Jamnagar	22.46	70.08	6.07	2.43
247	Juvanpur	Jamnagar	22.17	69.37	24.51	9.25
248	Kajuda	Jamnagar	22.33	69.71	7.97	4.04
249	Kalawad	Jamnagar	22.22	70.38	4.41	3.01
250	Kalyanpur2	Jamnagar	22.02	69.39	24.39	8.28
251	Khambhaliya	Jamnagar	22.21	69.65	8.21	4.15
252	Khirsara	Jamnagar	21.98	69.60	14.76	4.29
253	Kuvadia	Jamnagar	22.20	69.58	15.74	7.96
254	Lalpur1	Jamnagar	22.19	69.96	14.12	4.92
255	Lambha 1	Jamnagar	21.90	69.32	9.80	5.80
256	Modpar	Jamnagar	21.86	69.81	17.46	8.92
257	Mojap	Jamnagar	22.37	68.98	8.55	6.50
258	Mota kalawad	Jamnagar	22.04	69.88	22.23	12.45
259	Motagop	Jamnagar	21.91	69.83	9.52	6.14

260	Moti khavdi	Jamnagar	22.39	69.87	9.52	6.52
261	Moti matli	Jamnagar	22.32	70.26	17.63	4.54
262	Nikava	Jamnagar	22.19	70.53	4.88	2.54
263	Pindara1	Jamnagar	22.25	69.26	6.67	3.09
264	Raval	Jamnagar	21.93	69.49	7.86	3.54
265	Salaya	Jamnagar	22.31	69.60	3.00	2.28
266	Samrasar1	Jamnagar	22.38	69.10	4.85	3.33
267	Seth vadala	Jamnagar	22.03	70.13	10.45	3.96
268	Sumana	Jamnagar	22.11	70.17	11.77	5.60
269	Toda	Jamnagar	22.06	70.38	14.83	6.13
270	Vad panchasara	Jamnagar	22.23	70.12	15.88	5.31
271	Vadtara	Jamnagar	22.21	69.50	12.60	6.33
272	Varwada	Jamnagar	22.29	68.97	16.42	10.62
273	Vijarkha	Jamnagar	22.42	70.18	8.32	3.99
274	Vinjhalpur	Jamnagar	22.15	69.60	-	4.66
275	Alwani	Junagadh	21.23	70.64	-	1.28
276	Amervel Nes	Junagadh	21.41	70.52	1.95	1.78
277	Anandpur	Junagadh	21.05	70.67	18.35	3.95
278	Antroli	Junagadh	21.24	70.01	-	3.93
279	Arena	Junagadh	21.08	70.18	10.75	5.90
280	Bamanwara	Junagadh	21.22	70.06	9.74	4.82
281	Bantva	Junagadh	21.49	70.08	18.67	13.18
282	Bhatsimroli	Junagadh	21.22	70.18	22.37	7.94
283	Bhim Deval	Junagadh	20.98	70.61	11.00	4.88
284	Bilkha	Junagadh	21.44	70.60	12.42	8.23
285	Budhecha	Junagadh	21.10	70.22	7.15	4.13
286	Chokli	Junagadh	21.60	70.54	25.30	5.92
287	Chorwad	Junagadh	21.04	70.22	6.81	3.98
288	Dhokadva	Junagadh	20.96	71.07	12.11	10.57
289	Gadu	Junagadh	21.05	70.28	36.11	21.19
290	Galodar	Junagadh	21.15	70.28	22.13	7.53
291	Gangda_Pz	Junagadh	20.86	71.17	7.92	3.80
292	Girgadhada	Junagadh	20.93	70.92	7.39	6.52
293	Goraj1	Junagadh	21.18	70.15	32.57	8.85
294	Govindpura2	Junagadh	20.95	70.40	-	4.87
295	Jambur[madhapar	Junagadh	21.03	70.61	8.62	3.14
296	Jamvala1	Junagadh	20.98	70.76	7.42	6.74
297	Junagadh	Junagadh	21.51	70.46	12.56	9.69
298	Junagadh1	Junagadh	21.52	70.46	11.53	5.57
299	Juthal	Junagadh	21.17	70.27	9.42	7.39
300	Kalej	Junagadh	21.25	70.06	14.27	8.77
301	Kanek	Junagadh	21.03	70.24	13.64	6.17
302	Kesariya1	Junagadh	20.80	70.94	-	9.61
303	Kewarda	Junagadh	21.27	70.21	14.07	8.64

304	Khambalia1	Junagadh	21.04	70.19	8.56	8.19
305	Khokharda	Junagadh	21.42	70.32	23.72	11.34
306	Khorada1	Junagadh	21.06	70.17	8.88	7.98
307	Khoras ahir	Junagadh	21.37	70.34	13.31	7.65
308	Kodinar	Junagadh	20.80	70.69	12.31	6.42
309	Kodinar1	Junagadh	20.80	70.69	14.33	8.39
310	Kukaswada	Junagadh	21.05	70.21	10.17	5.98
311	Lohej	Junagadh	21.17	70.07	7.99	7.46
312	Maktupur1	Junagadh	21.14	70.10	10.04	8.82
313	Mandawad	Junagadh	21.36	70.75	14.22	9.26
314	Mangrol	Junagadh	21.13	70.11	17.20	16.23
315	Mangrol1	Junagadh	21.13	70.12	13.76	12.51
316	Manketara	Junagadh	21.15	70.13	33.09	18.10
317	Mendarda	Junagadh	21.33	70.44	17.51	7.42
318	Mendarda1	Junagadh	21.33	70.43	15.72	7.85
319	Moraj	Junagadh	20.98	70.44	10.42	4.79
320	Patla	Junagadh	21.60	70.57	7.83	1.97
321	Prachi_Pz	Junagadh	20.92	70.61	19.30	6.60
322	Prasli	Junagadh	20.85	70.67	13.40	3.25
323	Prempara	Junagadh	21.30	70.70	17.82	9.35
324	Sametar	Junagadh	20.85	71.12	15.04	7.97
325	Saradiya	Junagadh	21.59	70.04	9.50	1.25
326	Sepa	Junagadh	21.12	70.22	24.71	16.76
327	Seriakhan	Junagadh	21.13	70.25	18.37	13.93
328	Shardagram	Junagadh	21.10	70.15	11.77	10.65
329	Sil	Junagadh	21.19	70.05	7.33	6.95
330	Sil bandar	Junagadh	21.22	70.06	9.30	6.34
331	Talala_Pz	Junagadh	21.06	70.54	10.55	6.33
332	Talala1	Junagadh	21.05	70.53	11.92	6.74
333	Una1	Junagadh	20.83	71.04	7.78	5.82
334	Una2	Junagadh	20.83	71.04	5.24	2.83
335	Vadal	Junagadh	21.61	70.50	17.40	10.32
336	Vanthali ii	Junagadh	21.47	70.33	8.77	4.11
337	Visavadar	Junagadh	21.34	70.75	14.96	8.45
338	Asambia mota1	Kachchh	22.97	69.45	10.90	7.90
339	Bambhdai	Kachchh	22.97	69.44	4.90	3.58
340	Bhadreshwar	Kachchh	22.94	69.08	8.24	6.23
341	Bhuj (Circuit House)	Kachchh	22.90	69.90	15.41	13.82
342	Chandranagar	Kachchh	23.25	69.67	7.27	5.81
343	Dayapar	Kachchh	23.45	69.40	16.34	16.28
344	Dayapar1	Kachchh	23.63	68.90	-	20.96
345	Deshalpur rapar	Kachchh	23.63	68.87	13.62	11.44
346	Devisar	Kachchh	23.75	70.68	14.91	14.10
347	Dholavira	Kachchh	23.40	69.33	9.48	7.10

348	Dhori	Kachchh	23.88	70.22	18.59	-
349	Dunai	Kachchh	23.44	69.75	10.87	8.71
350	Gagodar	Kachchh	23.43	69.75	28.29	27.16
351	Gandhidham2	Kachchh	23.05	69.50	5.85	4.10
352	Haboi	Kachchh	23.42	70.80	3.59	1.99
353	Kakarwa	Kachchh	23.08	70.15	15.48	14.17
354	Karagoga	Kachchh	23.36	69.87	3.72	3.61
355	Kharoi	Kachchh	23.48	70.40	5.32	3.86
356	Khavada	Kachchh	22.94	69.66	5.64	5.09
357	Kotadi	Kachchh	23.45	70.35	10.46	9.57
358	Kotaya	Kachchh	23.84	69.73	8.82	8.41
359	Kothara	Kachchh	23.04	69.19	5.21	4.14
360	Kuda	Kachchh	23.04	69.08	25.20	24.21
361	Kumbhariya	Kachchh	23.34	70.72	7.94	7.34
362	Lakhpat	Kachchh	23.82	68.78	8.77	5.71
363	Lilpur	Kachchh	23.51	70.65	1.30	1.03
364	Lodai	Kachchh	23.40	69.89	13.16	13.90
365	Luni	Kachchh	22.87	69.81	9.42	5.97
366	Mandvi (Shitla Mata)	Kachchh	22.83	69.33	8.03	-
367	Mata no madh	Kachchh	23.53	68.95	9.19	9.13
368	Mathak1	Kachchh	23.00	70.03	-	7.89
369	Mothala	Kachchh	23.21	69.13	3.63	3.27
370	Moti cher	Kachchh	23.76	68.68	3.88	-
371	Mundra	Kachchh	22.83	69.72	6.51	4.73
372	Naliya	Kachchh	23.26	68.84	9.31	9.45
373	Naliya (Bus S)	Kachchh	23.27	68.83	9.62	-
374	Rapar2	Kachchh	23.57	70.64	27.62	26.97
375	Ratanpur Khadir1	Kachchh	23.86	70.36	18.26	16.36
376	Rawapar	Kachchh	23.11	69.29	13.47	13.36
377	Rudramata	Kachchh	23.52	69.08	7.10	5.03
378	Samkhiari	Kachchh	23.39	69.71	8.91	4.56
379	Sedat	Kachchh	23.17	69.64	13.81	13.00
380	Shinaya	Kachchh	23.03	70.05	4.60	3.93
381	Shivlakha	Kachchh	23.38	70.62	16.12	12.12
382	Sukhpar	Kachchh	23.21	69.62	-	15.22
383	Tera	Kachchh	23.28	68.95	-	10.44
384	Ugardi	Kachchh	23.46	69.14	14.72	20.23
385	Vadala	Kachchh	22.92	69.86	11.22	8.73
386	Vinjhan1	Kachchh	23.10	69.03	8.46	-
387	Alina	Kheda	22.81	73.06	9.81	7.31
388	Alindra	Kheda	22.96	73.34	-	6.74
389	Balasinor	Kheda	22.95	73.33	4.11	2.91
390	Balasinor1	Kheda	23.17	73.41	6.93	3.89
391	Bar	Kheda	22.65	72.95	6.27	3.39

392	Dakor	Kheda	22.76	73.17	6.97	5.04
393	Juna vasadra	Kheda	23.08	73.36	4.99	3.18
394	Kalesar	Kheda	22.72	73.19	3.82	1.65
395	Kapadvanj	Kheda	23.00	73.09	13.01	7.11
396	Ladvel	Kheda	22.91	73.12	2.20	-
397	Mahudha	Kheda	22.78	72.94	4.10	2.48
398	Nadiad2	Kheda	22.68	72.88	7.36	5.06
399	Nes_Pz	Kheda	24.12	72.16	8.25	5.65
400	Sarkhej _ Pz-III	Kheda	22.99	72.88	44.54	37.80
401	Shekhupura	Kheda	22.58	72.63	1.15	0.33
402	Thasra	Kheda	22.79	73.21	4.20	2.19
403	Vaso	Kheda	22.66	72.75	6.33	4.53
404	Virpur_Pz	Kheda	23.19	73.49	9.93	5.30
405	Vyas vasna	Kheda	23.11	73.10	23.80	-
406	Asjol	Mahesana	23.51	72.18	8.82	4.41
407	Bhandupara	Mahesana	23.73	72.38	9.68	8.38
408	Budasan	Mahesana	23.29	72.38	5.51	2.32
409	Daran_Pz-III	Mahesana	23.21	72.28	3.38	2.01
410	Dharpura	Mahesana	23.55	72.11	11.49	9.70
411	Dosaj	Mahesana	23.84	72.45	9.33	8.30
412	Jaska(Sy_4")Pz_II	Mahesana	23.82	72.54	14.47	13.67
413	Kalyanpur	Mahesana	23.13	72.19	6.58	5.53
414	Karalli (iii)	Mahesana	23.80	72.49	11.54	11.12
415	Kheralu(shallow	Mahesana	23.90	72.61	9.34	6.48
416	Kheralu1	Mahesana	23.89	72.61	15.14	11.78
417	Maguna	Mahesana	23.58	72.29	8.40	5.17
418	Modhera iii	Mahesana	23.72	72.47	11.61	10.43
419	Panchot	Mahesana	23.63	72.34	7.93	5.17
420	Rampura1	Mahesana	23.73	72.80	10.94	10.69
421	Sihi	Mahesana	23.89	72.52	13.88	11.38
422	Tarabh	Mahesana	23.80	72.35	7.63	5.99
423	Thol Pz-IV	Mahesana	23.76	72.46	20.03	18.34
424	Timba_1	Mahesana	23.85	72.72	11.34	11.35
425	Unad1	Mahesana	23.77	72.36	5.38	16.27
426	Unawa	Mahesana	23.80	72.39	4.80	3.76
427	Vidaj	Mahesana	23.25	72.30	6.79	3.55
428	Visnagar iv	Mahesana	23.70	72.53	3.48	1.93
429	Agar(Rep)_Pz	Narmada	22.03	73.66	11.91	6.71
430	Amayar	Narmada	21.55	73.77	6.62	2.83
431	Baman Phalia_Pz	Narmada	21.80	73.38	18.58	15.03
432	Chikada	Narmada	21.52	73.65	5.23	2.71
433	Garudeshwar	Narmada	21.89	73.65	11.46	8.63
434	Hirapura	Narmada	21.87	73.60	5.92	3.46
435	Kanbi pitha	Narmada	21.52	73.65	3.37	1.66

436	Kewadia_Pz	Narmada	21.88	73.70	6.22	2.78
437	Khota amba	Narmada	21.73	73.48	1.74	1.25
438	Namaria	Narmada	22.04	73.62	7.08	5.41
439	Nani singlot	Narmada	21.67	73.67	9.59	6.85
440	Rasela	Narmada	21.93	73.49	13.06	11.14
441	Ringani	Narmada	21.84	73.47	2.01	1.91
442	Selemba	Narmada	21.61	73.76	8.98	7.83
443	Sunderpura	Narmada	21.85	73.54	32.07	-
444	Sunderpura_Pz	Narmada	21.84	73.54	30.22	-
445	Abrama	Navsari	20.86	72.90	5.74	2.28
446	Anklas	Navsari	20.62	73.27	9.63	8.40
447	Chadav	Navsari	20.83	73.33	9.45	4.34
448	Chinam	Navsari	20.99	72.89	3.23	2.22
449	Dandi	Navsari	20.89	72.81	4.03	2.56
450	Duvada	Navsari	20.83	73.06	4.51	5.20
451	Hond	Navsari	20.74	73.05	8.83	5.31
452	Kaliyari	Navsari	20.73	73.15	11.06	3.69
453	Kantasvel	Navsari	20.80	73.29	8.09	4.93
454	Khergam	Navsari	20.63	73.10	8.30	3.86
455	Limzar	Navsari	20.74	73.26	5.10	-
456	Manav Khadak	Navsari	20.67	73.23	3.77	4.07
457	Navsari	Navsari	20.95	72.93	24.38	19.18
458	Navsari 1	Navsari	20.96	72.94	4.86	2.42
459	Onjal	Navsari	20.83	72.84	6.26	4.00
460	Panikhadak	Navsari	20.65	73.17	12.03	5.87
461	Pipalkhed	Navsari	20.68	73.28	15.66	6.09
462	Rankuva	Navsari	20.81	73.16	-	2.44
463	Sari_khurd	Navsari	20.79	72.95	4.01	2.68
464	Ubhrat	Navsari	21.01	72.75	-	2.59
465	Unai	Navsari	21.01	72.75	8.45	4.44
466	Vansda	Navsari	20.76	73.36	11.04	5.76
467	Bavaliya	Panchmahals	23.33	73.57	8.40	4.64
468	Bavaliya_Pz	Panchmahals	23.31	73.56	17.85	4.23
469	Gadhar	Panchmahals	23.15	73.78	11.96	4.54
470	Godhra	Panchmahals	22.78	73.61	4.34	2.41
471	Godhra2	Panchmahals	22.77	73.63	6.77	5.64
472	Jambughoda	Panchmahals	22.37	73.73	6.91	5.67
473	Khanpur	Panchmahals	23.37	73.68	4.31	11.50
474	Kothamba	Panchmahals	23.02	73.52	5.70	2.48
475	Limbadia peti	Panchmahals	23.20	73.60	8.01	2.59
476	Lunawada	Panchmahals	23.13	73.61	-	5.56
477	Malekpur1	Panchmahals	23.23	73.74	3.37	1.77
478	Morwa (Hadaf) Pz-I	Panchmahals	22.93	73.85	14.12	10.21
479	Natapur	Panchmahals	22.86	73.82	7.50	5.87

480	Palla Rajgarh Pz	Panchmahals	22.52	73.70	23.30	9.82
481	Pandarvada	Panchmahals	23.38	73.63	15.32	6.96
482	Pavagadh	Panchmahals	22.49	73.56	9.99	4.64
483	Ranipura	Panchmahals	22.73	73.76	8.47	4.55
484	Santrampur	Panchmahals	23.17	73.91	9.66	5.01
485	Santrampur1	Panchmahals	23.19	73.91	9.55	4.93
486	Santroad	Panchmahals	22.80	73.81	14.34	9.32
487	Shehra	Panchmahals	22.95	73.63	3.78	1.36
488	Shivrajpur	Panchmahals	22.43	73.59	11.64	5.68
489	Suliyat	Panchmahals	23.06	73.85	17.14	14.61
490	Tarkanda	Panchmahals	22.55	73.53	11.67	3.46
491	Tarvada	Panchmahals	22.61	73.52	14.22	12.48
492	Timbi2	Panchmahals	22.51	73.51	6.60	2.35
493	Tuwa	Panchmahals	22.80	73.47	4.88	2.82
494	Ucharpi Pz	Panchmahals	23.12	73.47	15.83	9.52
495	Vejalpur	Panchmahals	22.70	73.56	5.90	3.83
496	Dharmoda	Patan	23.70	72.07	8.64	7.59
497	Dhinoj1	Patan	23.66	72.28	14.07	10.51
498	Moti chander	Patan	23.69	71.90	2.83	1.39
499	Nedra	Patan	23.59	71.78	-	32.01
500	Patan2	Patan	23.84	72.12	18.63	15.53
501	Radhanpur2	Patan	23.83	71.61	2.19	0.79
502	Sander	Patan	23.77	72.25	19.48	15.53
503	Sankheshwar	Patan	23.52	71.79	2.97	1.44
504	Shankhari	Patan	23.78	72.16	17.99	17.58
505	Adityana	Porbandar	21.71	69.71	26.85	6.30
506	Adwana2	Porbandar	21.92	69.60	13.13	8.70
507	Babda	Porbandar	21.77	69.59	11.00	2.22
508	Bakharla	Porbandar	21.77	69.66	16.11	4.73
509	Bhod	Porbandar	21.66	69.82	20.44	6.72
510	Degam	Porbandar	21.71	69.61	17.45	8.91
511	Hanumangadh1	Porbandar	21.79	69.80	22.86	10.77
512	Kadegi	Porbandar	21.45	69.98	2.31	0.65
513	Kandorna	Porbandar	21.65	69.88	18.78	10.59
514	Khambodar	Porbandar	21.81	69.60	12.31	3.87
515	Kolikhada	Porbandar	21.70	69.61	27.83	8.68
516	Kuchhadi	Porbandar	21.68	69.55	3.44	2.22
517	Kutiyana_Pz	Porbandar	21.62	70.00	14.33	4.04
518	Kutiyana1	Porbandar	21.63	70.02	12.88	4.57
519	Miyani	Porbandar	21.83	69.39	7.59	7.13
520	Mojiwana	Porbandar	21.89	69.60	14.73	2.78
521	Navibandar	Porbandar	21.45	69.79	4.56	4.33
522	Oddar	Porbandar	21.57	69.68	6.38	5.77
523	Palkhada1	Porbandar	21.76	69.49	12.56	6.81

524	Pata	Porbandar	21.30	69.94	5.69	4.10
525	Porbandar	Porbandar	21.65	69.64	5.03	2.01
526	Porbandar1	Porbandar	21.64	69.63	4.67	3.49
527	Ranavav2	Porbandar	21.68	69.75	11.93	4.19
528	Ratadi	Porbandar	21.72	69.51	7.22	4.34
529	Ratia	Porbandar	21.95	69.69	-	4.97
530	Simar	Porbandar	21.52	69.73	21.73	-
531	Tukda	Porbandar	21.79	69.45	3.23	2.17
532	Visavada Mul Dwarka	Porbandar	21.79	69.45	8.20	7.80
533	Amar nagar	Rajkot	22.93	70.81	3.88	3.26
534	Bhada jodiya	Rajkot	21.66	70.34	15.83	5.15
535	Bhadla	Rajkot	22.18	71.09	-	10.69
536	Bhalgam	Rajkot	22.44	71.08	13.89	7.00
537	Chhatar	Rajkot	22.50	70.75	5.47	3.36
538	Chordi	Rajkot	21.92	70.75	9.20	7.17
539	Dadia	Rajkot	22.09	70.73	11.23	7.02
540	Dhoraji	Rajkot	21.75	70.29	13.54	9.91
541	Ganod	Rajkot	21.68	70.18	5.30	3.11
542	Gogavadar	Rajkot	21.97	70.88	10.73	5.39
543	Hadmatia	Rajkot	22.68	70.81	6.11	4.63
544	Halenda	Rajkot	22.09	71.05	8.58	1.85
545	Jamwali	Rajkot	21.93	70.77	-	3.47
546	Jasapur	Rajkot	21.89	70.48	11.12	8.32
547	Jasdan	Rajkot	22.04	71.21	8.58	4.88
548	Jasdan2	Rajkot	22.06	71.22	12.09	6.06
549	Jetpur	Rajkot	21.76	70.62	-	5.82
550	Jetpur pithad.	Rajkot	21.78	70.63	14.29	8.50
551	Kalithad1	Rajkot	22.02	70.66	5.05	4.91
552	Kalyanpur2	Rajkot	22.66	70.73	5.80	4.38
553	Kamlapur	Rajkot	22.15	71.20	16.09	9.02
554	Khirsara1	Rajkot	22.24	70.65	-	6.81
555	Lalavadar	Rajkot	22.13	71.30	13.27	5.26
556	Lodhika1	Rajkot	22.14	70.64	8.80	4.44
557	Macchukunda	Rajkot	23.00	70.90	5.91	3.20
558	Malia	Rajkot	23.10	70.77	2.04	1.66
559	Modpar1	Rajkot	22.90	70.67	3.27	2.47
560	Morvi	Rajkot	22.82	70.84	2.76	1.74
561	Mota Dadwa	Rajkot	22.00	70.99	10.22	5.12
562	Mota dhansura	Rajkot	22.96	70.62	7.49	4.89
563	Motagundala	Rajkot	21.74	70.50	8.19	4.70
564	Movaiya	Rajkot	22.45	70.61	10.18	7.72
565	Neknam	Rajkot	22.50	70.70	-	7.18
566	Nichi mandal	Rajkot	22.86	70.95	7.37	3.59
567	Padadhari1	Rajkot	22.45	70.61	8.26	4.87

568	Patanvav	Rajkot	21.64	70.26	16.06	6.15
569	Pedhla	Rajkot	21.75	70.59	20.84	12.57
570	Rajkot	Rajkot	22.31	70.81	6.10	3.50
571	Rajkot1	Rajkot	22.30	70.80	9.18	5.20
572	Ranpur1	Rajkot	22.37	70.93	14.20	9.42
573	Ribda	Rajkot	22.13	70.77	12.38	6.17
574	Sardhar1	Rajkot	22.14	70.98	4.56	1.93
575	Sarvad	Rajkot	23.01	70.71	2.59	1.30
576	Sindhavadar	Rajkot	22.55	70.89	10.33	8.89
577	Targhari	Rajkot	22.38	70.67	8.27	5.10
578	Umrali	Rajkot	21.92	70.60	-	4.43
579	Upleta1	Rajkot	21.75	70.28	6.81	-
580	Upleta3	Rajkot	21.67	70.18	-	8.46
581	Vinchhia	Rajkot	22.21	71.38	4.36	2.75
582	Viranagar	Rajkot	22.03	71.13	8.26	6.79
583	Virpur1	Rajkot	21.85	70.70	9.69	4.71
584	Wankaner-1	Rajkot	22.62	70.93	6.27	4.65
585	Alwakampa	Sabarkantha	23.28	73.21	11.37	6.88
586	Anwarpura Pz	Sabarkantha	23.41	72.85	38.55	36.98
587	Atarsumba	Sabarkantha	23.99	73.21	10.94	7.61
588	Bayad_Pz	Sabarkantha	23.22	73.23	10.52	9.18
589	Bhadreshwar	Sabarkantha	23.75	72.98	26.65	22.43
590	Bhiloda_Pz	Sabarkantha	23.77	73.25	7.53	3.75
591	Bhiloda2	Sabarkantha	23.77	73.27	9.14	4.99
592	Boral	Sabarkantha	23.13	73.21	19.71	12.92
593	Boriya	Sabarkantha	23.24	72.94	7.21	5.52
594	Chandap_Pz	Sabarkantha	23.93	72.86	12.90	16.63
595	Choriwad	Sabarkantha	23.90	73.12	28.25	23.50
596	Derol Pz-II	Sabarkantha	23.60	72.90	43.06	39.51
597	Dhansura1	Sabarkantha	23.35	73.20	9.58	6.35
598	Gadha	Sabarkantha	23.71	72.94	19.41	17.73
599	Hamirpur	Sabarkantha	23.41	73.46	16.19	11.28
600	Harsol1	Sabarkantha	23.38	73.02	14.42	8.58
601	Himmatnagar_Pz	Sabarkantha	23.61	72.97	10.53	8.26
602	Idar	Sabarkantha	23.84	73.04	8.53	4.63
603	Jhaloti	Sabarkantha	23.95	73.34	10.11	6.05
604	Karanpur	Sabarkantha	23.33	73.30	12.88	13.04
605	Khedbrahma_Pz	Sabarkantha	24.04	73.04	6.41	2.74
606	Malpur_Pz	Sabarkantha	23.34	73.47	16.59	8.55
607	Matoda	Sabarkantha	24.11	73.01	14.55	9.30
608	Modasa	Sabarkantha	23.46	73.31	8.05	6.62
609	Panvath/porvad	Sabarkantha	23.90	73.33	9.96	5.90
610	Poshina2	Sabarkantha	24.38	73.03	7.51	4.30
611	Punasan	Sabarkantha	23.67	73.17	7.43	5.64

612	Ratanpur	Sabarkantha	24.21	73.00	13.22	10.73
613	Revas	Sabarkantha	23.82	73.12	25.51	16.99
614	Sabalwad	Sabarkantha	23.18	73.34	-	12.56
615	Sathamba	Sabarkantha	23.49	73.40	14.41	6.33
616	Seenawad	Sabarkantha	23.69	73.37	10.81	3.71
617	Shamlaji	Sabarkantha	24.01	73.12	14.24	9.91
618	Silwad	Sabarkantha	24.01	73.12	13.82	9.74
619	Varvada	Sabarkantha	23.44	73.06	14.23	11.05
620	Vejpur_Pz	Sabarkantha	22.54	73.15	20.95	6.84
621	Vijaynagar	Sabarkantha	24.01	73.33	8.36	2.34
622	Vijaynagar_Pz	Sabarkantha	24.01	73.33	14.00	6.66
623	Virpur (Idar)	Sabarkantha	23.78	72.93	13.54	-
624	Wadali	Sabarkantha	23.93	73.03	28.72	19.29
625	Waliampura Pz	Sabarkantha	23.35	72.97	36.58	35.62
626	Aarda Boratha	Surat	21.49	74.12	-	4.48
627	Allu	Surat	21.06	73.19	3.32	3.07
628	Bardoli	Surat	21.12	73.10	6.35	4.25
629	Bedchit	Surat	20.95	73.35	-	5.55
630	Bhatkol	Surat	21.38	73.00	4.76	3.26
631	Bhurvel (ukai)	Surat	21.23	73.58	4.28	2.71
632	Chapawadi	Surat	21.15	73.39	6.90	3.89
633	Chavada	Surat	21.48	73.60	3.35	1.89
634	Digas	Surat	21.25	73.03	8.45	4.39
635	Dungri	Surat	21.41	73.13	11.41	3.76
636	Gandhinagar	Surat	21.16	73.70	5.20	2.69
637	Gangadhra	Surat	21.12	73.08	8.99	8.18
638	Jesingpura[sg]	Surat	21.17	73.55	7.10	6.44
639	Jhankhavav	Surat	21.45	73.33	7.40	4.64
640	Jhankhvav	Surat	21.47	72.95	8.95	4.75
641	Juna umarpada	Surat	21.46	73.49	-	2.18
642	Kadod 1	Surat	21.22	73.22	5.33	8.67
643	Karanjvel	Surat	21.01	73.46	8.74	5.64
644	Kasal	Surat	21.32	73.13	6.03	3.88
645	Kathor	Surat	21.29	72.93	12.45	8.34
646	Kelkui	Surat	21.04	73.32	2.41	1.46
647	Khedwada (Ashram Falia)	Surat	21.28	73.47	7.25	5.88
648	Kherwa	Surat	21.42	73.96	5.40	1.40
649	Kosamba	Surat	21.47	72.95	18.85	17.10
650	Madhi 1	Surat	21.13	73.25	8.26	5.58
651	Mahuva2	Surat	21.02	73.15	17.74	16.20
652	Malda	Surat	21.37	73.35	8.38	3.38
653	Mandvi2	Surat	21.25	73.30	13.56	11.48
654	Mota	Surat	21.17	73.07	3.00	2.90

655	Moti Sarkui	Surat	21.28	73.35	9.06	5.14
656	Motichher	Surat	21.21	73.36	5.34	4.71
657	Navi pardi	Surat	21.32	72.97	3.05	3.23
658	Nizar	Surat	21.48	74.20	14.08	11.06
659	Nizar1	Surat	21.48	74.19	10.38	7.68
660	Nogama	Surat	21.29	73.21	2.55	2.21
661	Olpad2	Surat	21.34	72.76	1.83	1.92
662	Palsana	Surat	21.08	72.99	2.59	1.57
663	Paneshwar	Surat	21.45	73.20	12.43	8.28
664	Puna	Surat	20.92	73.23	11.87	8.60
665	Puna1	Surat	20.93	73.23	9.44	6.09
666	Sachin town	Surat	21.09	72.88	4.15	2.43
667	Sarbhon	Surat	21.06	73.09	4.10	3.06
668	Sayan	Surat	21.31	72.91	-	4.04
669	Sultanabad	Surat	21.09	72.73	5.76	4.30
670	Tawali	Surat	21.38	73.90	7.64	5.15
671	Ten-bardoli	Surat	21.12	73.10	6.39	3.51
672	Tokarwa 1	Surat	21.31	73.85	8.10	4.41
673	Uchchhal	Surat	21.17	73.77	11.29	7.49
674	Ushker	Surat	21.34	73.10	5.39	4.91
675	Vadade-Khurd	Surat	21.25	73.82	2.88	0.99
676	Vaheval	Surat	20.84	73.29	12.02	6.57
677	Valod	Surat	21.05	73.27	5.08	3.08
678	Vyara1	Surat	21.11	73.40	4.16	3.98
679	Wadoli	Surat	21.43	72.83	1.96	1.23
680	Adriyana	Surendranagar	23.43	71.71	-	2.71
681	Bajana	Surendranagar	23.12	71.78	2.49	1.67
682	Bamanbor	Surendranagar	22.42	71.04	-	6.01
683	Chotila1	Surendranagar	22.43	71.18	8.55	4.14
684	Dasada	Surendranagar	23.32	71.82	4.61	3.90
685	Dasada1	Surendranagar	23.32	71.83	2.01	-
686	Dedadra	Surendranagar	22.78	71.73	3.73	2.06
687	Dhandhalpur 1	Surendranagar	22.38	71.35	4.55	4.96
688	Dhrangadhra 2	Surendranagar	22.99	71.50	-	9.69
689	Gamda	Surendranagar	22.90	71.56	12.00	3.57
690	Halvad2	Surendranagar	23.02	71.19	18.95	15.10
691	Jhinjhuwada	Surendranagar	23.35	71.66	6.68	5.32
692	Juna Devaliya 1	Surendranagar	22.98	71.01	2.44	1.79
693	Kharaghoda	Surendranagar	23.19	71.75	1.68	1.15
694	Kherwa	Surendranagar	23.00	71.75	5.33	1.03
695	Lakhtar	Surendranagar	22.86	71.78	6.63	2.82
696	Latuda	Surendranagar	22.81	71.61	6.58	3.07
697	Limbdi1	Surendranagar	22.57	71.81	3.23	1.82
698	Limbdi-Pz	Surendranagar	22.57	71.81	2.60	1.75

699	Mathak2	Surendranagar	22.84	71.06	-	15.25
700	Miani	Surendranagar	23.11	71.13	-	1.16
701	Moti Moladi	Surendranagar	22.42	71.11	10.31	7.23
702	Muli	Surendranagar	22.65	71.47	8.41	6.93
703	Olak	Surendranagar	22.92	71.86	3.74	3.19
704	Pipli	Surendranagar	23.06	71.73	0.33	0.05
705	Rajsitapur	Surendranagar	22.84	71.59	7.50	3.81
706	Ratanpur1	Surendranagar	22.86	71.27	7.39	4.94
707	Sara	Surendranagar	22.80	71.20	3.22	2.18
708	Sarla	Surendranagar	22.73	71.37	17.34	8.60
709	Sayala	Surendranagar	22.53	71.48	9.68	4.91
710	Shiyani	Surendranagar	22.67	71.83	4.62	3.42
711	Sudamda	Surendranagar	22.45	71.49	3.38	2.14
712	Sukhpar1	Surendranagar	23.01	71.28	11.13	6.88
713	Surendranagar	Surendranagar	22.72	71.67	3.68	1.76
714	Surendranagar2	Surendranagar	22.72	71.61	5.49	5.68
715	Tarnetar	Surendranagar	22.64	71.22	17.14	16.20
716	Vanala	Surendranagar	22.43	71.92	4.46	3.34
717	Visawadi	Surendranagar	23.34	71.73	7.98	3.39
718	Vitthalgarh	Surendranagar	22.99	71.98	8.90	7.95
719	Warod	Surendranagar	22.56	71.65	-	4.26
720	Aherdi	The dangs	20.69	73.62	-	1.55
721	Ahwa_Pz	The dangs	20.76	73.69	3.74	2.36
722	Ahwa1	The dangs	20.76	73.68	4.58	1.45
723	Bari Pada	The dangs	20.64	73.69	11.26	1.01
724	Bori Gaotha 1	The dangs	20.81	73.50	8.99	4.82
725	Chikhli	The dangs	20.66	73.69	9.45	1.23
726	Chinchnogaotha	The dangs	20.81	73.55	7.50	2.73
727	Chinchpada	The dangs	20.64	73.78	5.54	1.39
728	Dhumkal	The dangs	20.65	73.79	4.35	1.23
729	Gadad	The dangs	20.64	73.78	4.65	2.35
730	Ghubita	The dangs	20.80	73.74	3.26	0.71
731	Jakana	The dangs	20.63	73.75	2.42	0.79
732	Jamalpada	The dangs	20.73	73.52	6.71	5.18
733	Kalibel	The dangs	20.92	73.58	2.87	1.00
734	Mahal	The dangs	20.92	73.68	5.40	3.11
735	Malegaon	The dangs	20.60	73.75	2.08	0.61
736	Nadak khadi	The dangs	20.80	73.61	5.49	2.13
737	Nana pada	The dangs	20.70	73.58	9.40	2.88
738	Sakarpatal	The dangs	20.72	73.56	5.26	1.79
739	Sodmal	The dangs	20.87	73.62	11.20	2.99
740	Subir	The dangs	20.92	73.58	6.59	1.50
741	Umberpada	The dangs	20.68	73.73	6.26	1.97
742	Vaghai	The dangs	20.76	73.50	11.94	8.00

743	Vazat Amba	The dangs	20.88	73.52	6.56	4.04
744	Alladpur	Vadodara	22.25	73.72	7.94	6.91
745	Amreshwar	Vadodara	22.23	73.48	7.12	4.26
746	Asala	Vadodara	22.38	73.93	9.94	5.40
747	Baladgam	Vadodara	22.14	74.01	12.96	9.14
748	Bhindol	Vadodara	22.20	73.90	8.26	-
749	Bodeli	Vadodara	22.27	73.72	1.65	0.91
750	Chavaria	Vadodara	22.19	73.99	12.30	10.78
751	Chella Karamsiya Pz	Vadodara	22.40	73.43	4.36	1.89
752	Chhaliyar	Vadodara	22.67	73.32	21.24	21.07
753	Chhota udepur	Vadodara	22.31	74.02	7.12	3.71
754	Devat (thadgam)	Vadodara	22.10	73.98	9.00	6.56
755	Ferkuva	Vadodara	22.37	74.21	7.53	4.83
756	Ghamodi	Vadodara	22.37	74.08	8.26	4.98
757	Ghayaj ii	Vadodara	22.23	73.05	30.34	27.36
758	Govindpura	Vadodara	22.21	73.74	5.55	3.22
759	Jojh	Vadodara	22.44	73.96	12.17	7.95
760	Juna samalya	Vadodara	22.50	73.28	12.28	9.56
761	Kaprali	Vadodara	21.98	73.94	7.03	2.51
762	Karamasiya	Vadodara	22.42	73.42	10.81	9.29
763	Kevadi	Vadodara	22.52	73.94	6.83	4.35
764	Kosindra Pz-I	Vadodara	22.15	73.76	3.21	2.37
765	Makni	Vadodara	22.23	73.68	9.45	8.31
766	Masor	Vadodara	22.14	72.91	12.99	10.26
767	Moti chikhali	Vadodara	22.01	74.08	3.40	2.95
768	Panwad	Vadodara	22.20	74.04	13.04	4.26
769	Patiyapura	Vadodara	22.28	73.44	8.23	4.86
770	Pavi	Vadodara	22.34	73.83	4.44	3.36
771	Pitha	Vadodara	22.25	73.64	8.50	5.55
772	Rasulpur	Vadodara	22.60	73.23	5.90	-
773	Saidal	Vadodara	22.28	73.50	3.71	1.90
774	Saidivasana	Vadodara	22.06	74.02	5.57	3.11
775	Sankarda1	Vadodara	23.06	72.48	35.99	30.84
776	Sankheda	Vadodara	22.54	73.18	21.44	17.95
777	Sengpur	Vadodara	22.04	73.89	9.57	5.19
778	Sinor	Vadodara	21.91	73.34	23.83	21.67
779	Tokri	Vadodara	22.15	74.03	11.50	-
780	Tundav	Vadodara	22.48	73.20	15.31	9.52
781	Vadodara Ii	Vadodara	23.70	72.37	7.37	4.84
782	Vadtalav Pz	Vadodara	22.26	73.78	10.06	9.51
783	Vagudan	Vadodara	22.07	74.14	6.88	5.98
784	Vega	Vadodara	22.16	73.41	6.69	3.65
785	Vejpur2	Vadodara	22.75	73.36	3.13	1.93
786	Waghodia Pz	Vadodara	22.36	73.38	6.20	-

787	Awadha	Valsad	20.52	73.29	6.57	3.94
788	Chavshala	Valsad	20.33	73.33	3.39	1.27
789	Dahli (bhilad)	Valsad	20.26	72.88	4.55	3.01
790	Dharampur 3	Valsad	20.54	73.17	14.07	8.04
791	Dharampur1	Valsad	20.53	73.16	10.34	5.57
792	Dungri	Valsad	20.69	72.95	11.18	6.94
793	Fali	Valsad	20.31	73.38	5.63	1.10
794	Kanadu	Valsad	20.33	72.84	6.86	3.95
795	Kaparda	Valsad	20.34	73.22	4.52	2.79
796	Karwad	Valsad	20.36	72.98	8.04	3.66
797	Muli1	Valsad	20.63	73.03	3.31	2.22
798	Nanaponda	Valsad	20.41	73.12	10.29	5.95
799	Tithal	Valsad	20.60	72.90	7.89	6.23
800	Tumb	Valsad	20.22	72.84	5.67	3.34
801	Udwada	Valsad	20.46	72.92	7.00	2.50
802	Umargaon	Valsad	20.19	72.75	4.03	3.71
803	Valsad1	Valsad	20.61	72.93	9.33	10.04
804	Vapi Balitha	Valsad	20.38	72.90	-	7.65

Annexure IV

CHEMICAL DATA OF NATIONAL HYDROGRAPH NETWORK STATIONS OF GUJARAT AND UT OF DAMAN & DIU May 2014

SN	District	Location	pH	EC	TDS	CO3	HCO3	Cl	NO3	SO4	F	Alk	Ca	Mg	TH	Na	K	Fe	SAR
				uS/cm	mg/L														
1	Ahmedabad	Barvala	7.69	**4781**	3203	0	1342	780	17	270	**3.25**	1100	40	48	300	1020	0.4		25.60
2	Ahmedabad	Dhandhuka1	7.56	790	529	0	354	43	12	36	**2.20**	290	24	10	100	140	17.2		6.09
3	Ahmedabad	Gamph	7.90	2550	1709	0	781	461	16	10	0.25	640	28	72	370	416	37.0		9.40
4	Ahmedabad	Tagadi1	7.80	1492	1000	0	439	191	17	15	**1.75**	360	32	31	210	210	5.2		6.30
5	Ahmedabad	Dalod	7.73	**14520**	9728	0	1232	**4361**	45	439	**3.10**	1010	180	216	1350	2940	33.0	**0.40**	34.79
6	Ahmedabad	Mandal2	8.06	**3581**	2399	0	573	922	10	18	0.54	470	140	96	750	490	6.9	0.10	7.78
7	Ahmedabad	Kundali	7.42	875	586	0	378	85	24	5	0.45	310	36	36	240	100	0.4		2.81
8	Ahmedabad	Rajpada	8.20	2884	1932	0	537	567	**250**	91	0.43	440	200	168	1200	160	4.5		2.01
9	Ahmedabad	Endla	7.92	698	468	0	317	35	2	37	0.50	260	28	38	230	56	9.5		1.61
10	Ahmedabad	Kumarkhan	8.10	**9840**	6593	0	1000	**2730**	**46**	628	**2.40**	820	120	216	1200	1940	25.0		24.35
11	Ahmedabad	Viramgam2	7.59	**5050**	3384	0	512	**1383**	4	198	0.80	420	120	84	650	900	9.5		15.35
12	Amreli	Govadka	7.90	1872	1254	0	268	419	26	81	0.15	220	68	80	500	195	11.6		3.79
13	Amreli	Vankiya	8.20	1150	771	0	415	92	**145**	2	0.20	340	68	56	400	88	0.3		1.91
14	Amreli	Untvad	8.00	995	667	0	305	71	**170**	2	0.26	250	92	34	370	56	0.2		1.27
15	Amreli	Bagasara	7.90	2960	1983	0	439	639	**200**	72	0.45	360	120	161	960	253	0.0		3.55
16	Amreli	Vaghania juna	8.20	1324	887	0	598	114	18	31	0.90	490	28	27	180	240	6.7	0.00	7.78
17	Amreli	Chalala	8.20	620	415	0	268	71	3	12	0.10	220	52	24	230	49	2.3		1.40
18	Amreli	Dharangani	7.80	1790	1199	0	329	362	**110**	41	0.20	270	80	71	490	197	0.3		3.87
19	Amreli	Kerala	8.20	1850	1240	0	622	249	36	54	0.35	510	44	22	200	346	2.8		10.64
20	Amreli	Morjhar	8.20	938	628	0	220	156	10	54	0.10	180	52	27	240	105	0.7		2.95
21	Amreli	Bherai	8.00	**3483**	2334	0	891	724	6	63	0.60	730	48	92	500	615	20.6	0.00	11.96
22	Amreli	Jafrabad	7.50	2854	1912	0	671	582	29	80	0.85	550	80	58	440	437	101.0	0.00	9.06
23	Amreli	Nageshri	7.90	920	616	0	305	121	23	77	0.30	250	48	54	340	84	3.9	0.00	1.98
24	Amreli	Bhavardi1	8.20	981	657	0	366	92	**52**	32	0.25	300	60	46	340	77	2.9	0.00	1.82
25	Amreli	Ingorala	8.10	700	469	0	354	36	35	7	0.25	290	56	34	280	45	0.2		1.17
26	Amreli	Khamba	8.20	917	614	0	451	50	35	28	0.19	370	52	44	310	87	0.2		2.15
27	Amreli	Trakuda	7.00	1390	931	0	439	170	**135**	35	0.10	360	124	63	570	82	1.9		1.49
28	Amreli	Badhda	8.00	1446	969	0	317	192	**155**	71	0.10	260	76	80	520	98	0.4		1.87
29	Amreli	Bhuva	7.70	**12150**	8141	0	1013	**3408**	**300**	408	0.75	830	320	109	1250	2354	146.0		28.95

30	Amreli	Charkhadia1	8.00	2432	1629	0	1110	163	38	59	1.45	910	20	12	100	524	8.1		22.78
31	Amreli	Goradka	7.70	2216	1485	0	268	341	**330**	124	0.08	220	188	105	900	93	0.5		1.35
32	Amreli	Piyava	8.20	1411	945	0	610	121	39	45	0.40	500	24	34	200	254	0.3	0.00	7.81
33	Amreli	Kunkavav	8.00	2004	1343	0	244	426	**110**	98	0.35	200	108	73	570	198	0.7		3.61
34	Amreli	Chavand	8.20	580	389	0	342	36	5	26	0.35	280	48	24	220	66	0.3		1.93
35	Amreli	Lathi	7.90	1398	937	0	451	213	17	19	0.50	370	52	41	300	188	0.0		4.72
36	Amreli	Luvariya	8.20	1307	876	0	683	92	20	57	**2.20**	560	24	7	90	314	0.0	**0.55**	14.39
37	Amreli	Tajpur	7.90	2005	1343	0	305	277	**260**	146	0.48	250	156	51	600	188	1.1	**0.63**	3.34
38	Amreli	Punjapadar	8.20	787	527	0	366	57	8	27	**1.70**	300	12	2	40	175	2.7	**0.76**	12.03
39	Amreli	Mandal	7.90	2210	1481	0	329	312	**190**	266	0.60	270	96	78	560	270	4.3		4.96
40	Amreli	Victor	8.20	1703	1141	0	598	234	3	53	**1.90**	490	16	15	100	362	12.9		15.74
41	Amreli	Charnara	7.70	**3936**	2637	0	866	880	6	172	1.50	710	40	29	220	890	11.9	0.00	26.09
42	Amreli	Fifad	7.80	**6862**	4598	0	1145	**1576**	32	245	0.55	939	88	146	820	1220	18.2	0.17	18.52
43	Amreli	Hipa vadali	8.10	2592	1737	0	1391	57	**68**	85	1.30	1140	20	22	140	565	0.2	0.00	20.76
44	Amreli	Kadiyali	7.40	**3773**	2528	0	634	895	14	41	**2.05**	520	176	49	640	560	11.9	0.00	9.62
45	Amreli	Tajpur	7.60	2200	1474	0	634	341	**95**	50	1.40	520	32	5	100	478	0.6		20.78
46	Anand	Anand	7.60	1253	840	0	598	99	18	17	0.30	490	28	70	360	140	2.5		3.21
47	Anand	Anklav2	8.12	1100	737	0	512	78	36	14	0.90	420	28	53	290	132	1.8		3.37
48	Anand	Navapura	8.06	1400	938	0	622	106	40	14	0.48	510	68	72	470	110	5.5		2.21
49	Anand	Ras	7.50	1743	1168	0	842	227	20	5	**2.00**	690	32	19	160	400	5.7		13.75
50	Anand	Kansari1	8.10	**4278**	2866	0	586	993	24	242	0.60	480	100	96	650	700	4.0		11.94
51	Anand	Laxmipura	8.00	**3367**	2256	0	793	709	30	62	1.10	650	100	48	450	600	2.1		12.30
52	Anand	Ghora	7.92	1780	1193	0	537	241	**115**	18	0.67	440	84	41	380	238	13.0		5.31
53	Anand	Adas	8.10	970	650	0	427	78	39	9	0.43	350	48	82	460	20	2.4		0.41
54	Anand	Dharmaj	7.76	2450	1642	0	964	276	**48**	32	0.22	790	32	50	290	445	1.0		11.36
55	Anand	Tol	7.60	877	588	0	439	50	5	16	0.30	360	68	22	260	86	7.2		2.32
56	Anand	Utiyapara	7.70	680	456	0	390	42	2	6	0.15	320	88	29	340	22	1.1		0.52
57	Banaskantha	Amirgadh	7.90	**3942**	2641	0	515	993	**100**	187	0.60	422	200	216	1400	330	3.7	0.05	3.83
58	Banaskantha	Iqbalgarh	8.20	680	456	0	281	64	25	20	0.25	230	52	38	290	34	0.9		0.87
59	Banaskantha	Kidotar	7.98	1661	1113	0	695	149	36	52	1.00	570	88	70	510	165	9.0	0.00	3.18
60	Banaskantha	Ganapipli	8.20	838	561	0	329	85	36	14	**2.60**	270	52	34	270	79	1.2		2.09
61	Banaskantha	Mohabbat gadh	7.80	1500	1005	0	244	347	**75**	15	1.15	200	176	31	570	94	3.2	0.05	1.71
62	Banaskantha	Ratanpur2	8.00	960	643	0	220	142	**85**	37	0.50	180	120	12	350	65	2.6	0.04	1.51

63	Banaskantha	Gangodra	7.81	1990	1333	0	366	367	40	154	1.00	300	104	58	500	239	5.2	0.00	4.65
64	Banaskantha	Jorapura	7.90	1277	856	0	268	220	38	108	0.70	220	120	46	490	87	1.7		1.71
65	Banaskantha	Sodapur	7.69	1160	777	0	366	156	19	75	1.35	300	52	22	220	184	2.3	0.00	5.39
66	Banaskantha	Meda	8.08	960	643	0	281	106	**60**	88	0.17	230	92	34	370	70	2.9		1.58
67	Banaskantha	Palanpur2	8.26	1308	876	0	464	170	**75**	37	0.67	380	28	27	180	250	0.8	0.00	8.10
68	Banaskantha	Bharol1	8.10	517	346	0	207	35	6	30	0.10	170	44	22	200	12	42.0	0.00	0.37
69	Banaskantha	Khoda	8.00	**3287**	2202	0	634	674	**90**	112	**4.20**	520	140	60	600	498	26.6		8.84
70	Banaskantha	Dantiwada 1	7.96	624	418	0	244	57	34	26	0.50	200	84	14	270	31	1.0		0.82
71	Bharuch	Roja tankaria	7.70	1488	997	0	439	227	1	24	0.03	360	76	34	330	175	35.0	0.22	4.19
72	Bharuch	Juna borbhata	8.24	1460	978	0	476	213	13	73	0.14	390	48	77	440	157	45.0		3.25
73	Bharuch	Motwan	8.10	1670	1119	0	476	298	5	56	0.48	390	48	50	330	253	8.2		6.06
74	Bharuch	Mulad	8.06	2357	1579	0	598	418	18	118	0.38	490	44	70	400	380	1.2		8.26
75	Bharuch	Panoli	7.80	**5000**	3350	0	622	**1347**	**55**	107	1.03	510	116	214	1180	650	3.0		8.23
76	Bharuch	Sajod	8.10	2160	1447	0	891	269	12	6	**2.10**	730	28	26	180	440	3.6		14.26
77	Bharuch	Bharuch	7.80	2960	1983	0	634	631	8	72	0.15	520	100	137	820	314	2.4	0.00	4.77
78	Bharuch	Kaswa	8.08	526	352	0	232	50	2	18	0.11	190	48	14	180	47	12.0		1.52
79	Bharuch	Mahegam1	8.00	496	332	0	244	28	4	12	0.25	200	40	19	180	35	6.6	**1.50**	1.13
80	Bharuch	Navetha	8.00	3095	2074	0	488	780	4	48	0.20	400	132	110	790	323	65.0		5.00
81	Bharuch	Jetpur1	8.10	1600	1072	0	695	142	17	2	0.65	570	72	46	370	193	39.0		4.36
82	Bharuch	Raymal	8.28	1290	864	0	281	284	5	46	0.45	230	56	43	320	170	11.1		4.13
83	Bharuch	Utraj	8.70	1048	702	108	24	149	4	158	0.50	200	16	42	230	162	2.5		4.64
84	Bharuch	Dahegam	7.76	1110	744	0	427	135	20	8	0.04	350	84	34	350	100	40.0		2.32
85	Bharuch	Kalak	7.60	1064	713	0	366	142	14	81	0.25	300	80	34	340	119	13.5	**0.34**	2.81
86	Bharuch	Kavi	7.90	**3250**	2178	0	854	404	**180**	240	0.32	700	20	72	350	270	600.0	0.00	6.27
87	Bharuch	Sarod	8.00	2300	1541	0	1000	206	4	36	0.58	820	52	137	700	210	5.3		3.45
88	Bharuch	Tankari	7.96	2434	1631	0	903	333	14	30	0.60	740	44	74	420	346	69.0	0.06	7.34
89	Bharuch	Talodra	8.10	1169	783	0	378	149	3	88	0.83	310	16	82	380	110	4.5	0.10	2.45
90	Bharuch	Bhensli	7.56	600	402	0	268	57	3	19	0.25	220	40	12	150	80	10.8	**0.43**	2.84
91	Bharuch	Luhara	8.20	2917	1954	0	976	369	**120**	50	0.15	800	48	101	540	340	180.0	0.00	6.36
92	Bharuch	Nirnavi	8.20	900	603	0	415	71	2	5	0.28	340	36	29	210	110	22.0	**6.25**	3.30
93	Bharuch	Arethi	7.42	490	328	0	256	21	2	13	0.25	210	48	14	180	35	0.1	0.00	1.13
94	Bharuch	Kavachiya	7.90	2600	1742	0	427	532	6	216	0.40	350	420	48	1250	42	2.6		0.52
95	Bharuch	Kondh	8.00	1613	1081	0	390	269	25	47	0.94	320	60	55	280	228	0.5		5.92

96	Bharuch	Mokhdi	7.80	1153	773	0	488	92	13	8	0.25	400	108	41	440	51	4.1		1.06
97	Bharuch	Netrang1	8.20	747	500	0	268	92	8	46	0.24	220	68	46	360	21	0.1		0.48
98	Bharuch	Valia	7.92	**3820**	2559	0	342	922	10	486	1.20	280	260	96	1050	490	1.7	0.09	6.57
99	Bharuch	Chidra	8.00	1297	869	0	427	170	**58**	5	0.23	350	84	48	410	99	76.0	0.01	2.13
100	Bharuch	Jokhala	8.10	1150	771	0	464	71	16	125	1.15	380	68	46	360	123	1.9	0.01	2.82
101	Bharuch	Mungaj	8.12	675	452	0	329	28	3	26	0.35	270	76	24	290	23	0.3	0.00	0.59
102	Bharuch	Pakhajan	7.86	**4263**	2856	0	610	**1063**	10	106	0.15	500	200	144	1100	477	68.0	0.01	6.25
103	Bharuch	Sahol	7.50	**6120**	4100	0	195	**1914**	2	317	0.25	160	860	132	2700	242	3.8	**0.75**	2.02
104	Bharuch	Sindhav	6.90	**16130**	10807	0	769	**5814**	26	20	**1.72**	630	720	816	5200	1690	120.0	0.18	10.19
105	Bharuch	Vegra	7.90	1883	1262	0	281	433	6	68	0.15	230	68	41	340	269	34.9	0.02	6.34
106	Bhavnagar	Bhavnagar1	8.20	1451	972	0	427	227	38	34	0.35	350	40	36	250	226	0.3	0.00	6.21
107	Bhavnagar	Bhudel	8.00	**4193**	2809	0	610	881	**270**	120	0.50	500	64	180	900	553	15.8		8.01
108	Bhavnagar	Bhumbhali	7.80	**7366**	4935	0	415	**1882**	8	599	0.55	340	360	158	1550	971	27.7		10.72
109	Bhavnagar	Tardhera	7.10	2083	1396	0	854	213	**80**	26	1.10	700	100	119	740	165	17.5	**0.65**	2.64
110	Bhavnagar	Dhasa	7.80	1950	1307	0	525	305	3.5	98	0.26	430	108	68	550	194	6.2		3.60
111	Bhavnagar	Gadhada2	7.90	1125	754	0	378	114	34	61	0.15	310	100	27	360	94	0.4		2.15
112	Bhavnagar	Ningala	7.80	998	669	0	390	114	15	13	0.50	320	36	17	160	161	1.5	0.17	5.53
113	Bhavnagar	Gariyadhar	7.70	2660	1782	0	317	525	**190**	186	0.42	260	200	117	980	174	0.2	0.08	2.42
114	Bhavnagar	Ghogha	7.70	**6760**	4529	0	537	**1669**	**380**	119	0.60	440	100	109	700	1176	98.1		19.33
115	Bhavnagar	Dudhala	7.60	2227	1492	0	281	440	**130**	106	0.60	230	144	83	700	173	32.6		2.84
116	Bhavnagar	Longadi	8.10	814	545	0	342	57	2	71	0.53	280	44	22	200	110	26.0	0.00	3.38
117	Bhavnagar	Mahuva1	7.90	**3444**	2307	0	1025	483	**70**	160	1.15	840	40	14	180	725	1.8		23.49
118	Bhavnagar	Motivadal	8.00	1158	776	0	549	128	12	15	0.35	450	72	58	420	110	10.2		2.33
119	Bhavnagar	Shantinagar	7.90	2030	1360	0	512	369	12	135	0.30	420	168	88	780	146	5.9		2.27
120	Bhavnagar	Khijadiya	7.80	1425	955	0	720	121	**55**	28	0.80	590	28	15	130	326	12.8		12.43
121	Bhavnagar	Panchpipla	8.00	1150	771	0	415	135	20	17	0.80	340	48	27	230	156	0.0		4.47
122	Bhavnagar	Sajnasar	8.00	1446	969	0	305	263	**58**	45	0.42	250	100	54	470	115	1.1	0.08	2.31
123	Bhavnagar	Satanes	7.80	1451	972	0	659	121	22	13	0.40	540	128	41	480	122	7.8		2.42
124	Bhavnagar	Sandhida	8.00	745	499	0	305	92	2	10	0.35	250	64	32	290	48	2.1		1.23
125	Bhavnagar	Datha	8.00	2665	1786	0	573	554	2	82	0.70	470	40	29	220	520	2.6		15.24
126	Bhavnagar	Talaja2	8.10	1910	1280	0	500	284	**100**	58	0.35	410	40	10	140	376	0.2		13.82
127	Bhavnagar	Trapaj	7.90	1641	1099	0	342	170	**280**	115	0.60	280	124	92	690	83	0.7		1.37
128	Bhavnagar	Bhutia	7.90	1955	1310	0	317	412	**95**	53	0.30	260	152	63	640	157	0.6		2.70

129	Bhavnagar	Jalia	7.70	**4070**	2727	0	427	**1093**	**70**	113	0.50	350	304	223	1680	187	6.1		1.98
130	Bhavnagar	Porbada	8.20	890	596	0	378	99	15	29	0.75	310	72	24	280	99	3.7	0.00	2.57
131	Bhavnagar	Timbi2	8.20	404	271	0	195	43	8	12	0.10	160	32	15	140	46	1.4		1.69
132	Bhavnagar	Lonjdhara	8.20	1338	896	0	634	99	25	28	**2.20**	520	24	24	160	256	0.6		8.80
133	Bhavnagar	Panvi1	8.20	2800	1876	0	1095	341	19	55	**2.00**	898	24	24	160	599	13.3		20.59
134	Bhavnagar	Vallbhipur	7.90	**6384**	4277	0	1013	**1562**	9	118	**2.40**	830	40	73	400	1287	1.1		27.98
135	Bhavnagar	Ayodhyapuram	8.20	**4550**	3049	0	1671	611	32	151	**4.40**	1370	16	19	120	1066	0.2	0.00	42.31
136	Bhavnagar	Boda	8.10	1676	1123	0	517	121	**65**	247	1.10	424	20	10	90	377	1.5	0.00	17.28
137	Bhavnagar	Khundeli	7.90	1841	1233	0	305	362	**85**	92	0.40	250	100	90	620	144	0.2	0.00	2.51
138	Bhavnagar	Piprala	8.20	686	460	0	281	71	27	30	0.15	230	56	36	290	44	0.4		1.12
139	Bhavnagar	Vadala	8.00	922	618	0	293	99	**76**	39	0.26	240	56	46	330	71	0.0	0.00	1.70
140	Bhavnagar	Vavdi	8.00	1170	784	0	403	107	**130**	59	0.35	330	52	83	470	83	0.1	0.00	1.66
141	Dahod	Khandania	8.10	730	489	0	354	36	20	129	**2.00**	290	76	27	300	91	1.2		2.28
142	Dahod	Salaya1	8.10	841	563	0	366	78	30	36	1.00	300	28	27	180	136	0.5		4.41
143	Dahod	Kanjetha	7.60	720	482	0	329	42	34	45	0.85	270	48	27	230	81	3.1		2.32
144	Dahod	Tokarba	8.00	972	651	0	232	170	20	76	0.95	190	76	32	320	97	1.9		2.36
145	Dahod	Dahod1	8.00	927	621	0	220	92	**115**	57	0.94	180	68	29	290	81	0.0	0.00	2.07
146	Dahod	Dahod2	7.50	1376	922	0	427	14	6	207	**2.70**	350	52	41	300	137	3.3		3.44
147	Dahod	Varamkheda	7.70	747	500	0	329	99	22	22	1.30	270	40	29	220	108	3.3		3.17
148	Dahod	Sukhsar	8.10	743	498	0	366	43	32	36	0.85	300	28	22	160	123	1.4		4.23
149	Dahod	Garbara	7.70	**5303**	3553	0	586	**1136**	45	380	**3.00**	480	160	171	1100	664	36.6		8.70
150	Dahod	Panchwada	7.90	823	551	0	281	64	35	79	1.10	230	48	44	300	62	2.0		1.56
151	Dahod	Limbdi2	8.20	577	387	0	305	50	3	43	1.18	250	36	15	150	102	4.9	0.08	3.62
152	Dahod	Mirakhedi	8.10	861	577	0	342	71	**65**	40	0.82	280	56	27	250	105	0.2		2.89
153	Dahod	Dadhela	8.00	917	614	0	342	78	**48**	61	1.20	280	32	37	230	123	5.2		3.53
154	Dahod	Wadia	8.00	3200	2144	0	256	731	**180**	169	1.03	210	244	144	1200	174	10.6	0.00	2.18
155	Dahod	Badpa	8.00	1072	718	0	378	135	10	17	**2.90**	310	48	15	180	164	1.3	0.20	5.31
156	Dahod	Dahod urban 2	8.00	2095	1404	0	451	316	**205**	47	**2.40**	370	52	90	500	249	4.0	0.07	4.84
157	Dahod	Dahod urban 3	7.80	2464	1651	0	244	646	44	90	0.55	200	148	76	680	264	3.8	0.00	4.40
158	Dahod	Garadu	8.00	635	425	0	342	50	12	25	0.97	280	28	171	140	115	2.0	0.00	4.23
159	Dahod	Thada	8.00	437	293	0	195	43	15	32	1.15	160	44	22	200	32	5.1	**2.04**	0.98
160	Daman	Khariwad daman	7.72	1248	836	0	512	149	5	20	0.60	420	56	43	320	156	7.0		3.79
161	Daman	Ambabari	7.94	1148	769	0	549	113	16	11	0.29	450	132	29	450	86	10.0		1.76

162	Daman	Dabhel	7.64	712	477	0	281	92	13	4	0.27	230	76	36	340	17	0.4		0.40
163	Daman	Dalwada	7.75	701	470	0	281	106	1	7	0.55	230	52	41	300	42	0.6		1.05
164	Daman	Jempore	7.89	1150	771	0	537	71	42	15	0.60	440	100	46	440	70	7.0		1.45
165	Daman	Manwad	7.98	746	500	0	390	43	5	10	0.14	320	72	29	300	44	0.8		1.10
166	Daman	Warkhund	8.01	1460	978	0	415	262	14	14	0.70	340	64	79	490	116	8.0		2.28
167	Diu	Diu	7.90	1208	809	0	488	135	13	7	0.70	400	40	19	180	199	34.2	**0.57**	6.45
168	Diu	Gomtimata	7.80	**4065**	2724	0	573	880	**135**	158	0.70	470	80	122	700	599	44.8	0.00	9.84
169	Diu	Jolawadi	7.40	**11700**	7839	0	244	**3728**	33	719	0.15	200	560	450	3250	1404	43.8	0.00	10.71
170	Gandhinagar	Paliya	7.80	1906	1277	0	659	227	**100**	142	1.10	540	56	115	620	219	0.0	0.00	3.82
171	Gandhinagar	Serthapara1	7.60	3100	2077	0	1293	319	34	35	**2.10**	1060	160	96	800	324	36.0	0.00	4.98
172	Jamnagar	Ambardi	7.70	2120	1420	0	345	398	**175**	71	0.48	283	112	83	620	206	3.7		3.60
173	Jamnagar	Bhanvad	8.00	1099	736	0	329	135	**60**	32	0.38	270	64	41	330	99	0.4	**6.40**	2.37
174	Jamnagar	Mota kalawad	7.60	2378	1593	0	220	596	37	81	0.60	180	232	73	880	123	1.2		1.80
175	Jamnagar	Dhrol2	8.10	1706	1143	0	525	298	10	76	0.35	430	48	66	390	255	1.9	0.00	5.61
176	Jamnagar	Balwa	8.20	922	618	0	232	114	**70**	82	0.35	190	96	27	350	67	1.5		1.56
177	Jamnagar	Seth vadala	8.00	1346	902	0	317	163	31	170	0.45	260	92	54	450	113	0.9		2.32
178	Jamnagar	Bed	7.60	2414	1617	0	232	426	**250**	191	0.20	190	208	44	700	230	6.0		3.78
179	Jamnagar	Changa	8.00	1686	1130	0	207	327	**105**	112	0.26	170	108	56	500	156	1.5		3.03
180	Jamnagar	Gordhanpur	8.10	2396	1605	0	256	561	6	166	0.35	210	96	54	460	336	3.7		6.81
181	Jamnagar	Jambuda	7.90	**4711**	3156	0	525	**1349**	11	174	0.50	430	296	195	1540	464	9.4		5.14
182	Jamnagar	Jamnagar2	8.10	851	570	0	317	92	3	76	0.33	260	48	27	230	112	1.2		3.21
183	Jamnagar	Vijarkha	8.10	645	432	0	293	64	8	22	0.12	240	52	22	220	65	0.5		1.91
184	Jamnagar	Amran1	8.20	676	453	0	293	107	3	0	0.20	240	52	17	200	90	5.7		2.77
185	Jamnagar	Bedanpur	7.90	2040	1367	0	256	476	**62**	82	0.40	210	120	78	620	187	0.5		3.27
186	Jamnagar	Dudhai2	8.20	692	464	0	281	71	3	62	0.48	230	28	15	130	124	2.1		4.73
187	Jamnagar	Haripur2	8.00	1331	892	0	232	185	**175**	66	0.60	190	84	51	420	113	0.2		2.40
188	Jamnagar	Kalawad	8.00	1794	1202	0	329	277	**175**	85	0.45	270	92	85	590	141	1.8	0.00	2.52
189	Jamnagar	Moti matli	8.00	860	576	0	256	128	34	48	0.51	210	48	27	230	111	1.4		3.18
190	Jamnagar	Nikava	8.00	1400	938	0	439	220	8	36	0.38	360	72	41	350	170	11.3		3.95
191	Jamnagar	Toda	8.20	756	507	0	317	85	**60**	29	0.45	260	64	27	270	88	1.9	0.00	2.33
192	Jamnagar	Bhatia	7.40	**6852**	4591	0	183	**1740**	**60**	693	0.28	150	320	170	1500	877	0.3		9.85
193	Jamnagar	Bhogat	7.50	1840	1233	0	244	405	20	94	**1.74**	200	76	46	380	238	4.9		5.31
194	Jamnagar	Juvanpur	7.90	2700	1809	0	342	568	**125**	129	0.32	280	88	68	500	381	4.6		7.41

195	Jamnagar	Kalyanpur1	7.90	1338	896	0	281	234	**65**	80	0.26	230	64	36	310	180	0.9		4.44
196	Jamnagar	Kalyanpur2	7.80	**5755**	3856	0	488	**1527**	**80**	243	**2.00**	400	140	170	1050	853	2.6		11.45
197	Jamnagar	Pindara	8.00	1020	683	0	281	170	2	8	0.45	230	68	32	300	85	8.4		2.13
198	Jamnagar	Raval	7.70	3062	2052	0	207	781	**70**	186	0.20	170	208	83	860	311	1.0		4.61
199	Jamnagar	Kajuda	7.60	**5121**	3431	0	476	**1122**	**46**	504	0.44	390	160	170	1100	670	5.5		8.78
200	Jamnagar	Kuvadia	8.10	708	474	0	220	85	44	26	0.26	180	60	24	250	53	0.3	**0.47**	1.46
201	Jamnagar	Salaya	7.90	1472	986	0	427	206	40	29	0.20	350	92	34	370	155	23.4		3.50
202	Jamnagar	Vadtara	8.10	1205	807	0	354	163	**135**	62	0.18	290	100	7	280	192	1.2		4.99
203	Jamnagar	Vinjhalpur	8.00	1219	817	0	244	192	**65**	87	0.20	200	68	17	240	174	1.3		4.88
204	Jamnagar	Lalpur1	7.50	1600	1072	0	329	362	**70**	32	0.30	270	108	34	410	215	2.4		4.62
205	Jamnagar	Vad panchasara	8.00	1328	890	0	500	185	22	35	0.48	410	92	44	410	147	6.3		3.16
206	Jamnagar	Aramda	7.90	**4335**	2904	0	1037	838	42	60	0.60	850	120	73	600	685	54.1		12.16
207	Jamnagar	Dwarka	7.80	2172	1455	0	232	469	**110**	22	0.25	190	72	39	340	291	26.0		6.86
208	Jamnagar	Mojap	7.60	**7060**	4730	0	659	**1882**	11	62	**1.54**	540	140	97	750	1176	71.8		18.67
209	Jamnagar	Samrasar	7.60	**11280**	7558	0	403	**3657**	10	390	**3.48**	330	320	389	2400	1646	25.4		14.61
210	Jamnagar	Varwada	7.30	**8243**	5523	0	305	**2592**	**60**	345	0.75	250	260	291	1850	1156	14.4		11.69
211	Jamnagar	Ambaliya	8.00	**3654**	2448	0	622	824	4	122	**3.20**	510	56	107	580	573	16.9		10.34
212	Junagadh	Bilkha	8.20	1000	670	0	244	192	42	76	0.30	200	56	61	390	91	1.0		2.00
213	Junagadh	Junagadh1	8.00	1080	724	0	183	206	**60**	37	0.25	150	76	41	360	79	2.7	**0.85**	1.81
214	Junagadh	Keshod	8.20	1032	691	0	329	85	38	61	0.30	270	84	32	340	67	7.4	**1.70**	1.58
215	Junagadh	Kodinar1	7.30	2390	1601	0	378	525	32	97	0.75	310	128	92	700	225	1.8		3.70
216	Junagadh	Budhecha	8.20	1603	1074	0	122	369	35	143	0.50	100	84	36	360	205	4.4		4.70
217	Junagadh	Chorwad	7.20	**9823**	6581	0	122	**3515**	32	230	0.20	100	860	231	3100	1052	4.3		8.21
218	Junagadh	Juthal	8.20	835	559	0	293	107	7	8	0.30	240	76	24	290	54	2.2		1.38
219	Junagadh	Kanek	7.60	**7820**	5239	0	146	**2556**	36	223	0.25	120	980	163	3120	420	17.3		3.27
220	Junagadh	Khambalia1	7.90	**4095**	2744	0	244	**1250**	33	59	0.20	200	272	34	820	577	16.6	0.00	8.76
221	Junagadh	Kukaswada	7.60	**7124**	4773	0	146	**2414**	24	120	0.15	120	820	73	2350	627	3.5	0.00	5.62
222	Junagadh	Bantva	7.50	**3796**	2543	0	378	753	30	452	0.68	310	72	54	400	682	2.0		14.83
223	Junagadh	Antroli	7.10	**9820**	6579	0	98	**3479**	**70**	273	0.15	80	700	280	2900	1146	18.6		9.25
224	Junagadh	Arena	7.80	**7800**	5226	0	159	**2663**	**60**	231	0.15	130	600	231	2450	816	35.3		7.17
225	Junagadh	Bamanwara	7.50	**10233**	6856	0	110	**3373**	**90**	633	0.40	90	###	462	4600	479	4.0		3.07
226	Junagadh	Goraj	8.20	980	657	0	342	135	**50**	15	1.00	280	48	34	260	125	2.5		3.37
227	Junagadh	Khorada1	8.00	2800	1876	0	488	611	**155**	33	0.66	400	128	88	680	347	1.7		5.79

228	Junagadh	Lohej	7.50	**8215**	5504	0	293	**2840**	38	342	0.35	240	480	207	2050	1212	23.9		11.64
229	Junagadh	Maktupur1	7.90	**5943**	3982	0	683	**1775**	34	160	0.27	560	400	61	1250	756	326.0		9.30
230	Junagadh	Mangrol1	8.20	1933	1295	0	451	376	**105**	10	0.90	370	116	34	430	253	27.0		5.30
231	Junagadh	Manketara	8.20	1256	842	0	354	163	35	63	0.90	290	56	34	280	156	4.3		4.05
232	Junagadh	Seriakhan	8.10	1900	1273	0	195	440	**135**	56	0.28	160	144	58	600	164	1.4		2.91
233	Junagadh	Shardagram	7.50	**9372**	6279	0	207	**3195**	19	513	0.38	170	300	292	1950	1534	10.4		15.10
234	Junagadh	Sil	7.90	2905	1946	0	390	724	21	54	0.15	320	96	29	360	459	70.6		10.52
235	Junagadh	Sil bandar	7.70	**7343**	4920	0	317	**2201**	**64**	383	0.50	260	320	170	1500	1084	34.6		12.17
236	Junagadh	Mendarda1	8.20	565	379	0	281	57	4	20	0.48	230	36	39	250	40	0.3	0.00	1.10
237	Junagadh	Alwani	8.00	824	552	0	354	64	2	39	0.05	290	40	56	330	43	0.3		1.03
238	Junagadh	Jambur[madhapar	7.40	853	572	0	366	85	9	6	0.28	300	60	41	320	53	2.1		1.29
239	Junagadh	Talala1	8.00	934	626	0	342	71	22	65	0.08	280	44	54	330	63	1.0		1.51
240	Junagadh	Dhokadva	7.80	590	395	0	305	28	11	13	0.18	250	44	34	250	29	2.3		0.80
241	Junagadh	Girgadhada	7.80	778	521	0	354	57	37	8	0.35	290	52	41	300	51	0.3		1.28
242	Junagadh	Jamvala1	7.80	652	437	0	305	43	4	15	0.26	250	56	24	240	42	2.6		1.18
243	Junagadh	Una2	7.60	2931	1964	0	793	483	**75**	119	**2.30**	650	88	97	620	419	3.6		7.32
244	Junagadh	Khoras ahir	8.00	1747	1170	0	366	334	**72**	29	0.20	300	172	46	620	113	1.3		1.97
245	Junagadh	Ajotha	7.30	1405	941	0	268	263	**65**	48	0.85	220	84	58	450	115	1.4		2.36
246	Junagadh	Govindpura2	7.40	627	420	0	268	50	14	24	0.80	220	48	39	280	23	1.6	0.17	0.60
247	Junagadh	Prempara	8.10	1100	737	0	354	142	**76**	10	0.20	290	72	61	430	62	0.1		1.30
248	Junagadh	Ambervelnes	7.80	750	503	0	366	50	4	3	0.19	300	64	34	300	36	3.8	0.00	0.90
249	Junagadh	Bhimvel	8.00	1054	706	0	366	107	40	28	0.50	300	64	34	300	99	2.1	0.00	2.49
250	Junagadh	Degam	8.10	**3858**	2585	0	476	966	26	258	1.00	390	96	83	580	682	24.7		12.31
251	Junagadh	Kansari	7.30	1423	953	0	427	178	**105**	28	0.95	350	60	63	410	143	1.2	**0.40**	3.07
252	Junagarh	Agatrai	8.00	2681	1796	0	256	696	**130**	79	0.28	210	216	121	1040	162	0.9	0.00	2.18
253	Junagarh	Anandpur	7.70	2200	1474	0	207	525	**100**	84	0.50	170	160	78	720	170	0.7		2.75
254	Junagarh	Ankalvadi	7.70	612	410	0	281	57	8	2	0.20	230	48	29	240	37	1.8		1.04
255	Junagarh	Chokhli	7.90	1286	862	0	159	263	28	105	0.43	130	72	22	270	170	1.0		4.50
256	Junagarh	Jagrala	8.00	519	348	0	281	28	2	7	0.28	230	44	24	210	32	0.2	0.00	0.96
257	Junagarh	Kasiya naka	8.10	700	469	0	390	36	5	4	0.10	320	36	49	290	41	0.0		1.05
258	Junagarh	Kesariya ji	7.40	1870	1253	0	317	369	**56**	90	0.90	260	72	66	450	220	4.5	0.00	4.51
259	Junagarh	Khanderipur	8.00	618	414	0	256	99	2	15	0.20	210	28	46	260	50	0.3		1.35
260	Junagarh	Saradiya	7.60	2460	1648	0	354	540	25	145	0.35	290	128	58	560	310	3.3		5.70

261	Junagarh	Vadal	8.00	1050	704	0	281	163	**90**	38	0.70	230	72	44	360	100	0.9		2.29
262	Kacchh	Bambhedai	7.88	**4696**	3146	0	159	**1383**	1	297	0.50	130	120	120	800	744	5.0		11.44
263	Kacchh	Khorai	7.35	1129	756	0	244	206	**46**	22	0.00	200	80	29	320	108	9.5	**0.36**	2.62
264	Kacchh	Kotada	7.60	2446	1639	0	256	674	21	130	0.30	210	120	72	600	334	4.9	**0.60**	5.93
265	Kacchh	Luni	7.81	1623	1087	0	171	411	**50**	19	0.07	140	96	31	370	192	6.2		4.34
266	Kacchh	Suthri	7.86	**4725**	3166	0	378	**1347**	6	100	0.77	310	140	84	700	757	5.7	0.00	12.44
267	Kacchh	Tuga	8.10	1916	1284	0	256	439	10	48	0.68	210	52	62	390	233	12.9	0.00	5.13
268	Kacchh	Ughedi	7.98	**6892**	4618	0	171	**2056**	19	474	0.30	140	180	252	1500	960	7.5		10.78
269	Kacchh	vadala	7.98	**3976**	2664	0	342	**1099**	23	135	0.66	280	140	108	800	557	5.3	0.00	8.56
270	Kachchh	Kotaya	7.90	1153	773	0	378	149	17	79	0.95	310	20	31	180	203	0.9		6.58
271	Kachchh	Kothara	7.56	**4897**	3281	0	126	**1418**	5	290	0.00	103	220	108	1000	660	32.0		9.07
272	Kachchh	Mothala	7.70	**5921**	3967	0	207	**1914**	1	128	0.20	170	160	216	1300	800	5.2		9.65
273	Kachchh	Naliya1	7.98	1545	1035	0	598	170	6	78	1.15	490	16	31	170	300	3.9	0.08	10.00
274	Kachchh	Tera	7.45	**4956**	3321	0	854	957	27	506	1.50	700	100	120	750	860	13.6		13.65
275	Kachchh	Vinjhan1	7.82	672	450	0	256	57	0	65	0.40	210	32	36	230	60	7.8		1.72
276	Kachchh	Dholavira	7.92	**11320**	7584	0	842	**2552**	**75**	1021	0.20	690	480	240	2200	1500	200.0		13.90
277	Kachchh	Kharoi	7.78	**28360**	19001	0	366	**8190**	21	2468	**2.20**	300	120	300	1550	6000	60.0		66.26
278	Kachchh	Rathanpurkhadir	7.65	**3440**	2305	0	317	957	22	214	0.60	260	180	132	1000	400	16.0	0.00	5.50
279	Kachchh	Samkhiari	8.01	**3850**	2580	0	537	709	**200**	347	1.00	440	100	180	1000	354	160.0		4.87
280	Kachchh	Bhuj1	7.66	900	603	0	171	142	4	143	0.14	140	76	22	280	99	13.0		2.57
281	Kachchh	Khavada	7.67	**7212**	4832	0	146	**1844**	6	922	0.00	120	260	292	1850	860	20.4		8.69
282	Kachchh	Lodai	7.50	3013	2019	0	183	567	25	588	0.30	150	200	132	1050	250	15.0		3.35
283	Kachchh	Sedat	7.58	590	395	0	207	85	0	37	0.00	170	52	26	240	41	3.0		1.15
284	Kachchh	Sukhpar	7.98	**7680**	5146	0	146	**1950**	25	932	1.25	120	100	396	1900	920	4.6		9.18
285	Kachchh	Gandhidham1	7.81	790	529	0	317	99	35	1	0.21	260	64	31	290	65	11.5		1.66
286	Kachchh	Shinaya	7.75	2873	1925	0	293	780	12	44	0.44	240	120	12	350	488	3.8		11.34
287	Kachchh	Lakhpat1	7.60	**3477**	2330	0	159	815	3	435	0.00	130	180	134	1000	345	8.0		4.74
288	Kachchh	Mata no madh	7.98	968	649	0	159	149	10	155	0.35	130	68	29	290	103	7.1		2.63
289	Kachchh	Moti cher	7.92	**3251**	2178	0	122	957	5	188	0.00	100	140	144	950	330	19.1		4.66
290	Kachchh	Dunai	7.68	998	669	0	403	106	5	55	0.70	330	32	48	280	122	2.1		3.17
291	Kachchh	Kotadi	7.62	2874	1926	0	537	567	9	252	0.85	440	60	84	500	470	5.8		9.14
292	Kachchh	Mandvi-3	7.60	616	413	0	354	57	6	8	0.00	290	68	14	230	54	29.5		1.55
293	Kachchh	Ratanpur(maum.)	7.80	1282	859	0	342	156	28	143	0.85	280	28	46	260	192	5.6		5.18

294	Kachchh	Bhadreshwar	7.51	721	483	0	220	135	6	5	0.00	180	44	26	220	75	10.1		2.20
295	Kachchh	Karagoga	7.60	**4195**	2811	0	964	780	8	153	1.20	790	100	24	350	793	2.8	0.00	18.43
296	Kachchh	Chandranagar	7.98	1972	1321	0	195	383	4	282	0.43	160	88	84	570	200	8.0	0.20	3.64
297	Kachchh	Devisar	7.90	**4611**	3089	0	244	**1276**	1	324	0.80	200	160	132	950	650	15.4	**0.83**	9.17
298	Kachchh	Deshalpur rapar	7.80	2250	1508	0	220	432	13	297	0.08	180	132	106	770	160	27.0		2.51
299	Kachchh	Gagodar	7.90	**20370**	13648	0	366	**5850**	**120**	1468	1.40	300	600	657	4200	2800	150.0	**4.90**	18.78
300	Kachchh	Kuda	7.56	950	637	0	390	92	8	47	0.80	320	112	17	350	73	12.0	**2.50**	1.70
301	Kachchh	Lilpur	7.60	**6880**	4610	0	390	**1737**	40	850	0.95	320	420	276	2200	700	26.0	**0.57**	6.49
302	Kachchh	Rapar2	7.61	780	523	0	171	121	2	112	0.35	140	68	26	280	70	3.7		1.82
303	Kheda	Balasinor1	7.55	663	444	0	171	99	26	72	0.35	140	68	31	300	36	0.7		0.90
304	Kheda	Juna vasadra	8.05	**4010**	2687	0	586	922	32	254	0.35	480	200	240	1500	271	22.0		3.04
305	Kheda	Ladvel	7.92	980	657	0	366	121	5	30	0.82	300	28	22	160	145	39.0		4.98
306	Kheda	Alina	7.87	2423	1623	0	464	496	**115**	29	0.70	380	52	106	570	296	8.2		5.39
307	Kheda	Mahudha	7.60	1911	1280	0	671	284	38	2	0.68	550	44	74	420	261	5.0		5.54
308	Kheda	Nadiad2	7.61	1068	716	0	573	50	1	30	0.46	470	44	79	440	62	15.0		1.29
309	Kheda	Dakor	7.92	1872	1254	0	830	156	21	8	0.72	680	32	77	400	240	12.2		5.22
310	Kheda	Kalesar	8.00	1190	797	0	622	64	7	13	0.92	510	32	55	310	144	0.4		3.56
311	Kheda	Alindra	7.66	789	529	0	390	28	10	45	0.60	320	48	41	290	58	1.7		1.48
312	Kheda	Bariyavi	7.40	1200	804	0	378	156	6	100	0.10	310	56	48	340	139	1.2		3.28
313	Kheda	Muliyad	7.98	**6945**	4653	0	171	**2304**	4	220	0.50	140	260	228	1600	950	0.4		10.33
314	Kheda	Parvada	7.52	1200	804	0	476	120	25	4	0.70	390	56	43	320	112	27.0		2.72
315	Mahesana	Asjol	8.18	540	362	0	220	28	**60**	4	0.08	180	64	12	210	29	12.1	**0.85**	0.87
316	Mahesana	Dharpura	8.20	990	663	0	500	57	16	8	0.70	410	32	14	140	172	46.0	0.05	6.32
317	Mahesana	Budasan	7.98	2580	1729	0	695	567	26	88	0.60	570	260	72	950	250	38.0		3.53
318	Mahesana	Vidaj	7.86	2363	1583	0	573	390	**50**	100	0.20	470	140	36	500	245	157.0	0.20	4.76
319	Mahesana	Kheralu1	7.94	1796	1203	0	561	234	18	112	**1.76**	460	60	60	400	244	0.1	0.00	5.30
320	Mahesana	Rampura1	8.10	1214	813	0	537	92	5	89	0.37	440	64	34	300	170	2.1	0.00	4.27
321	Mahesana	Unad1	8.06	**9124**	6113	0	1488	**2304**	40	122	1.37	1220	200	240	1500	1460	23.0	0.00	16.39
322	Mahesana	Maguna	7.92	3081	2064	0	964	496	30	58	0.55	790	96	98	650	430	34.0		7.33
323	Mahesana	Panchot	8.06	1950	1307	0	500	362	6	21	0.25	410	52	36	280	310	73.0	0.00	8.05
324	Mahesana	Dosaj	8.20	2920	1956	0	317	709	**55**	25	0.30	260	200	36	650	319	108.0	0.00	5.44
325	Mahesana	Sihi	7.60	830	556	0	317	85	17	10	0.33	260	52	29	250	72	51.0	0.00	1.98
326	Mahesana	Unawa	8.00	**4310**	2888	0	744	**1064**	8	29	0.40	610	140	180	1100	491	74.0	0.26	6.44

327	Mahesana	Bhandupara	8.10	2286	1532	0	488	447	3	72	0.72	400	32	70	370	344	20.8	0.00	7.78
328	Mahesana	Tarabh	8.10	512	343	0	244	43	2	11	0.30	200	56	17	210	30	7.7		0.90
329	Mahesana	Unjha	7.68	**3256**	2182	0	610	496	**150**	322	1.00	500	120	108	750	422	94.0	0.00	6.70
330	Narmada	Kanbi pitha	8.10	603	404	0	305	35	2	17	0.25	250	56	31	270	23	0.1		0.61
331	Narmada	Garudeshwar	7.90	1080	724	0	476	64	**46**	28	0.48	390	88	53	440	50	3.0		1.04
332	Narmada	Hirapura	8.02	900	603	0	427	50	2	40	0.76	350	96	31	360	49	0.8	0.00	1.12
333	Narmada	Khota amba	7.90	673	451	0	354	21	0	36	0.40	290	76	31	320	18	0.0		0.44
334	Narmada	Ringani	8.25	552	370	0	256	28	4	39	0.37	210	48	34	260	16	0.2		0.43
335	Narmada	Sunderpura	7.20	1253	840	0	610	50	**70**	10	0.87	500	108	50	480	42	57.0		0.83
336	Narmada	Amayar	8.20	456	306	0	232	21	1	15	0.33	190	40	22	190	22	0.1		0.69
337	Narmada	Selemba	8.10	688	461	0	281	43	24	38	0.30	230	64	36	310	19	0.3		0.47
338	Narmada	Namaria	7.82	**4700**	3149	0	525	908	**720**	133	0.83	430	160	310	1690	349	1.8		3.69
339	Narmada	Alma wadi	7.70	1700	1139	0	183	255	**230**	180	0.19	150	164	96	810	36	1.1	**2.00**	0.55
340	Narmada	Besana	8.06	390	261	0	207	14	2	31	0.20	170	44	22	200	11	0.2	**0.45**	0.34
341	Narmada	Chuli	8.06	626	419	0	256	50	35	36	0.15	210	84	22	300	22	0.3	**1.00**	0.55
342	Narmada	Jankh	8.10	468	314	0	268	28	3	11	0.16	220	60	7	180	43	0.0	**3.50**	1.39
343	Narmada	Khadiapada	8.00	471	316	0	220	21	7	10	0.02	180	52	14	190	17	0.0	**0.85**	0.54
344	Narmada	Ralda	8.00	565	379	0	293	14	5	19	0.30	240	72	17	250	16	0.3	0.00	0.44
345	Narmada	Umran	7.90	496	332	0	220	35	17	13	0.10	180	56	22	230	13	0.0	**1.00**	0.37
346	Navsari	Unai	7.73	650	436	0	171	99	24	45	0.35	140	56	31	270	36	1.3	0.00	0.95
347	Navsari	Hond	7.65	1170	784	0	537	92	24	10	0.25	440	124	34	450	63	13.0		1.29
348	Navsari	Kaliyari	7.61	628	421	0	256	64	13	54	0.27	210	52	43	310	27	0.6		0.67
349	Navsari	Khergam	7.31	520	348	0	220	50	6	40	0.35	180	64	19	240	27	0.2		0.76
350	Navsari	Sari_khurd	7.71	1220	817	0	329	158	1	145	0.18	270	40	48	300	160	20.0		4.02
351	Navsari	Abrama	7.81	2880	1930	0	464	745	8	12	0.40	380	160	60	650	362	22.0		6.17
352	Navsari	Chinam	7.52	3140	2104	0	793	496	21	156	0.49	650	240	24	700	230	340.0		3.78
353	Navsari	Dandi	7.98	1290	864	0	427	156	22	39	0.15	350	52	38	290	143	61.0		3.65
354	Navsari	Onjal	7.95	1160	777	0	220	241	2	10	0.26	180	80	34	340	91	5.3		2.15
355	Navsari	Ubhrat	7.61	610	409	0	317	50	9	17	0.38	260	48	12	170	86	16.0		2.87
356	Navsari	Navsari1	7.66	**6000**	4020	0	232	**1879**	5	80	0.48	190	340	144	1450	696	6.2		7.95
357	Navsari	Chadav	7.70	840	563	0	354	85	12	47	0.70	290	84	38	370	47	3.0	0.00	1.06
358	Navsari	Dhanav	7.81	745	499	0	354	50	3	53	1.07	290	40	41	270	70	0.6		1.85
359	Navsari	Manavkhadak	7.91	475	318	0	244	35	2	36	0.84	200	52	22	220	33	0.5	0.03	0.97

360	Navsari	Moti Valzar	7.81	615	412	0	293	42	7	60	0.70	240	68	29	290	37	0.8	0.03	0.94
361	Navsari	Panikhadak	7.35	672	450	0	281	85	5	9	0.33	230	88	24	320	21	3.0	0.00	0.51
362	Panchmahals	Ranipura	8.10	2294	1537	0	415	412	**65**	198	1.45	340	96	117	720	217	3.9		3.52
363	Panchmahals	Godhra1	7.90	1166	781	0	305	121	44	36	1.08	250	52	20	210	133	0.7	0.11	3.99
364	Panchmahals	Tuwa	8.10	1124	753	0	305	142	35	80	0.50	250	84	20	290	127	14.5		3.24
365	Panchmahals	Shivrajpur	8.20	998	669	0	195	199	7	84	0.15	160	96	24	340	91	1.0		2.15
366	Panchmahals	Tarkanda	8.00	988	662	0	244	135	11	115	0.40	200	96	24	340	84	2.2		1.98
367	Panchmahals	Timbi2	8.10	982	658	0	342	71	39	152	0.35	280	96	34	370	93	0.2		2.10
368	Panchmahals	Kothamba	8.00	1890	1266	0	342	355	**55**	72	0.60	280	40	98	500	188	2.9		3.66
369	Panchmahals	Limbadia peti	7.90	820	549	0	451	57	6	71	1.15	370	16	44	220	144	1.0		4.22
370	Panchmahals	Malekpur1	8.20	638	427	0	281	64	11	38	0.77	230	24	32	190	84	3.7		2.65
371	Panchmahals	Santroad	8.00	668	448	0	305	64	19	44	0.82	250	36	27	200	94	1.8		2.89
372	Panchmahals	Gadhar	7.80	842	564	0	342	78	26	39	0.88	280	56	29	260	90	3.3		2.43
373	Panchmahals	Santrampur1	8.10	957	641	0	439	99	7	30	0.85	360	40	27	210	152	1.6		4.56
374	Panchmahals	Shehra	8.00	1729	1158	0	781	156	32	35	0.55	640	28	41	240	316	97.8		8.87
375	Panchmahals	Chhabanpur	8.00	846	567	0	232	121	**48**	48	0.55	190	48	22	210	112	0.9	0.09	3.36
376	Panchmahals	Dhanol nani	7.80	3014	2019	0	659	298	10	74	**2.70**	540	20	20	130	427	5.4		16.28
377	Panchmahals	Godhara uban 3	8.10	2198	1473	0	390	483	7	87	1.25	320	132	132	870	110	3.2	0.17	1.62
378	Panchmahals	Jambughora	8.00	1096	734	0	281	170	20	50	0.60	230	76	34	330	98	1.4		2.35
379	Panchmahals	Jawan	8.00	463	310	0	134	71	10	41	0.45	110	40	17	170	43	11.6	0.00	1.43
380	Panchmahals	Jokha	7.80	901	604	0	451	92	4	25	1.05	370	20	34	190	158	4.6	0.09	4.98
381	Panchmahals	Kalol urban 2	7.80	1530	1025	0	561	156	42	40	0.95	460	44	78	430	152	0.8	0.00	3.19
382	Panchmahals	Khadki	7.90	1380	925	0	573	99	3	65	1.20	470	44	59	350	154	1.3	0.00	3.58
383	Panchmahals	Khanpur	7.80	758	508	0	293	85	40	32	0.45	240	44	27	220	96	0.5	0.00	2.81
384	Panchmahals	Kotha	8.00	723	484	0	293	85	9	49	0.60	240	24	22	150	125	0.4	0.00	4.44
385	Panchmahals	Natapur	8.00	789	529	0	325	71	32	33	**2.10**	266	28	29	190	112	2.0		3.53
386	Panchmahals	Sarsava	8.00	622	417	0	293	43	29	31	0.55	240	36	22	180	82	1.8	**2.55**	2.66
387	Panchmahals	Suliyat	7.80	1090	730	0	244	135	**66**	65	0.82	200	60	29	270	113	4.9	0.06	2.99
388	Patan	Dharmoda1	7.56	2940	1970	0	915	496	26	1	0.00	750	80	36	350	520	40.8		12.08
389	Patan	Dhinoj1	7.98	1569	1051	0	293	354	40	21	0.00	240	48	43	300	230	30.0		5.77
390	Patan	Patan2	8.06	2994	2006	0	769	319	10	301	0.40	630	160	96	800	280	30.0		4.30
391	Patan	Sander	8.15	595	399	0	207	57	**48**	9	0.13	170	28	19	150	69	6.0		2.45
392	Patan	Shankhari	7.60	1053	706	0	415	149	20	17	1.03	340	24	19	140	207	9.1		7.61

393	Patan	Radhanpur2	7.70	**4422**	2963	0	561	**1204**	6	55	1.17	460	140	48	530	789	31.0		14.90
394	Patan	Moti chander	7.81	**20800**	13936	0	561	**6878**	11	804	0.08	460	460	648	3850	3350	35.6		23.47
395	Patan	Piprala	7.86	**5085**	3407	0	793	**1170**	20	233	**2.50**	650	60	84	500	960	0.6		18.67
396	Porbandar	Kadegi	7.50	**4450**	2982	0	207	**1122**	3	382	0.42	170	208	117	1000	540	5.5		7.42
397	Porbandar	Kutiyana1	7.90	1450	972	0	134	327	29	103	0.35	110	64	29	280	197	17.1		5.12
398	Porbandar	Adwana1	8.00	1334	894	0	378	199	**74**	11	0.15	310	56	63	400	122	1.3		2.65
399	Porbandar	Balej	7.40	**5226**	3501	0	256	**1392**	**80**	347	0.18	210	296	78	1060	720	24.2		9.62
400	Porbandar	Bhavpura	7.60	**5106**	3421	0	256	**1619**	**76**	14	0.25	210	344	121	1360	570	10.2		6.72
401	Porbandar	Khambodar	8.00	2520	1688	0	476	497	28	93	0.94	390	120	49	500	332	19.1		6.46
402	Porbandar	Kuchhadi	7.50	**5490**	3678	0	268	**1250**	32	610	0.55	220	104	92	640	933	68.3	**2.40**	16.03
403	Porbandar	Miyani	7.70	**3824**	2562	0	268	**1008**	42	188	0.20	220	184	15	520	630	35.5		12.01
404	Porbandar	Navibandar	7.60	**3990**	2673	0	220	980	37	328	0.60	180	144	44	540	650	33.9		12.16
405	Porbandar	Oddar	7.90	**6066**	4064	0	439	**1775**	29	506	1.36	360	140	219	1250	1012	34.1		12.45
406	Porbandar	Palkhada	7.20	**5300**	3551	0	207	**1392**	**440**	275	0.10	170	424	102	1480	607	39.4		6.86
407	Porbandar	Pata	8.20	**3392**	2273	0	500	866	**60**	92	0.05	410	168	44	600	548	18.7		9.73
408	Porbandar	Porbandar1	8.10	1910	1280	0	415	376	14	35	0.55	340	44	32	240	316	28.3		8.87
409	Porbandar	Hanumangadh	8.00	1874	1256	0	293	391	35	76	0.78	240	84	24	310	275	22.3		6.79
410	Porbandar	Ranavav	8.20	1112	745	0	281	199	42	3	0.54	230	68	24	270	130	2.4		3.44
411	Porbander	Adityana	8.20	760	509	0	183	107	37	40	0.65	150	44	17	180	90	2.8		2.92
412	Porbander	Babda	8.00	2116	1418	0	366	469	8	77	0.35	300	52	39	290	353	2.7		9.01
413	Porbander	Bakharla	7.80	2295	1538	0	354	440	**70**	143	0.55	290	128	58	560	260	9.5		4.78
414	Porbander	Bhod	8.20	855	573	0	268	114	30	25	0.50	220	88	15	280	71	2.2		1.84
415	Porbander	Galodar	8.10	960	643	0	329	114	35	17	0.24	270	68	41	340	64	0.6		1.51
416	Porbander	Kalej	7.50	**8500**	5695	0	73	**2911**	**98**	239	0.35	60	94	340	3750	367	4.8		2.61
417	Porbander	Kevadra	8.20	1010	677	0	415	92	6	46	0.65	340	96	39	400	58	7.5		1.26
418	Porbander	Kolikheda	8.20	2000	1340	0	305	497	**60**	78	**2.10**	250	16	22	130	444	1.5		16.93
419	Porbander	Lamba	7.50	**3870**	2593	0	329	923	**105**	247	0.47	270	288	107	1160	355	2.3		4.53
420	Porbander	Mocha	7.90	2224	1490	0	195	611	14	45	0.15	160	192	54	700	180	18.6		2.96
421	Porbander	Mojiwana	7.50	**6375**	4271	0	281	**2024**	**60**	79	0.56	230	320	365	2300	439	1.2		3.98
422	Porbander	Patla	8.10	806	540	0	281	107	40	7	0.33	230	56	27	250	80	1.1	**0.85**	2.20
423	Porbander	Rana Kandona	7.50	**4424**	2964	0	220	**1321**	**120**	41	0.80	180	296	92	1120	501	2.6		6.51
424	Porbander	Ratadi	7.70	**4801**	3217	0	378	**1250**	**64**	274	0.70	310	120	63	560	862	9.8		15.84
425	Porbander	Ratanpur	7.70	**8004**	5363	0	342	**2166**	5	570	0.47	280	200	121	1000	1368	29.8		18.81

426	Porbander	Ratia	7.80	2454	1644	0	329	554	**70**	70	0.35	270	128	44	500	290	79.0		5.64
427	Porbander	Shepa	8.00	1250	838	0	305	185	44	46	0.68	250	84	36	360	110	17.2		2.52
428	Porbander	Simar	8.00	1705	1142	0	281	383	31	45	0.20	230	96	27	350	230	1.9		5.35
429	Porbander	Tukra	7.50	2194	1470	0	268	454	7	99	0.23	220	48	34	260	330	79.9		8.90
430	Porbander	Visavada	7.70	2965	1987	0	281	696	13	182	1.00	230	104	49	460	445	40.4		9.02
431	Rajkot	Bhada jodiya	8.10	1390	931	0	512	156	29	41	0.75	420	32	24	180	244	1.9		7.91
432	Rajkot	Dhoraji	8.00	1336	895	0	232	249	42	79	0.00	190	96	66	510	70	2.9		1.35
433	Rajkot	Patanvav	8.20	694	465	0	342	71	6	6	0.35	280	88	12	270	57	17.3		1.51
434	Rajkot	Chordi	7.80	980	657	0	134	149	**92**	52	0.10	110	68	29	290	74	0.0		1.89
435	Rajkot	Dadia	8.10	651	436	0	244	50	**58**	14	0.25	200	60	22	240	43	0.0	0.00	1.21
436	Rajkot	Jamwali	7.90	513	344	0	171	78	1	17	0.00	140	40	17	170	46	2.3		1.53
437	Rajkot	Kalithad	7.90	354	237	0	159	36	5	25	0.50	130	28	24	170	20	2.3		0.67
438	Rajkot	Mota dadwa	7.90	2034	1363	0	220	398	**96**	160	0.35	180	132	78	650	158	3.3		2.69
439	Rajkot	Ribda	8.20	731	490	0	342	64	16	37	0.00	280	60	32	280	66	1.1		1.71
440	Rajkot	Jasapur	8.20	1060	710	0	183	142	**88**	63	0.05	150	64	39	320	78	0.3		1.90
441	Rajkot	Jasdan2	8.10	1209	810	0	244	199	19	85	0.10	200	120	7	330	119	2.0		2.85
442	Rajkot	Kamlapur	7.90	**4154**	2783	0	61	**1243**	**152**	88	0.35	50	460	49	1350	318	4.5		3.76
443	Rajkot	Lalavadar	8.00	796	533	0	293	64	**64**	26	0.45	240	64	32	290	56	1.7		1.43
444	Rajkot	Vinchhia	7.90	606	406	0	281	71	5	25	0.40	230	40	24	200	75	1.5		2.31
445	Rajkot	Viranagar	8.00	2458	1647	0	512	511	**78**	89	0.60	420	60	127	670	293	0.7		4.92
446	Rajkot	Jetpur pithad.	7.90	**3743**	2508	0	183	959	**72**	340	0.00	150	420	146	1650	130	0.2		1.39
447	Rajkot	Motagundala	8.10	757	507	0	244	128	2	15	0.65	200	44	22	200	93	0.1		2.86
448	Rajkot	Pedhla	8.10	**6108**	4092	0	220	**1846**	**60**	112	**1.70**	180	260	159	1300	776	1.6		9.36
449	Rajkot	Umrali	8.10	1400	938	0	342	192	**110**	52	0.45	280	116	41	460	110	2.3		2.23
450	Rajkot	Virpur1	8.20	632	423	0	171	121	5	7	0.00	140	40	24	200	57	3.3		1.75
451	Rajkot	Lodhika1	8.10	189	127	0	37	43	8	9	0.00	30	8	5	40	31	0.3		2.13
452	Rajkot	Malia	8.00	1667	1117	0	366	234	3	172	**1.60**	300	44	22	200	285	4.3		8.76
453	Rajkot	Mota dhansura	8.00	1257	842	0	220	234	1	66	0.65	180	52	27	240	159	8.0		4.46
454	Rajkot	Sarvad	8.10	1301	872	0	488	199	5	32	0.75	400	52	17	200	241	10.5		7.41
455	Rajkot	Amar nagar	8.00	**14530**	9735	0	342	**4864**	20	588	**4.75**	280	360	659	3600	1964	3.0		14.23
456	Rajkot	Macchukunda	8.00	1521	1019	0	329	241	20	153	0.50	270	64	54	380	189	9.2	0.01	4.22
457	Rajkot	Modpar1	8.20	**11200**	7504	0	244	**3550**	7	1170	0.00	200	300	366	2250	1953	18.7		17.90
458	Rajkot	Morvi	8.10	2690	1802	0	476	398	22	332	**1.80**	390	72	76	490	385	3.7		7.56

459	Rajkot	Nichi mandal	8.20	1519	1018	0	317	241	21	106	0.65	260	60	54	370	167	9.4		3.77
460	Rajkot	Khamta	8.20	1124	753	0	220	156	8	92	0.35	180	52	29	250	118	5.3		3.24
461	Rajkot	Movaiya	8.00	**3389**	2271	0	476	781	**230**	90	**1.60**	390	100	61	500	593	2.3		11.53
462	Rajkot	Padadhari	8.00	1130	757	0	293	178	10	37	0.05	240	52	41	300	111	4.2		2.79
463	Rajkot	Targhari	8.20	1142	765	0	281	178	11	31	0.40	230	48	41	290	109	4.4		2.78
464	Rajkot	Gavridad	8.00	366	245	0	98	36	3	54	0.00	80	32	15	140	23	2.5		0.85
465	Rajkot	Halenda	8.00	1723	1154	0	476	263	**66**	53	0.35	390	76	95	580	136	3.2		2.46
466	Rajkot	Rajkot1	7.90	1108	742	0	476	114	21	13	0.15	390	108	29	390	89	7.9		1.96
467	Rajkot	Ranpur1	8.00	1176	788	0	268	220	15	41	0.25	220	72	34	320	124	8.6		3.01
468	Rajkot	Sardhar1	8.00	2198	1473	0	744	277	14	87	0.15	610	80	59	440	307	7.8	0.08	6.36
469	Rajkot	Chhatar	8.00	1563	1047	0	256	305	35	69	0.70	210	92	61	480	123	0.1		2.44
470	Rajkot	Hadmatia	8.20	2657	1780	0	500	383	23	275	1.40	410	80	73	500	352	3.5	0.00	6.84
471	Rajkot	Kalyanpur2	7.80	1409	944	0	464	178	9	49	0.95	380	32	54	300	182	2.7		4.57
472	Rajkot	Lajai	8.10	2952	1978	0	354	675	31	239	**2.25**	290	88	68	500	476	2.3		9.26
473	Rajkot	Ganod	8.10	**6631**	4443	0	354	**1953**	**68**	235	**2.00**	290	280	134	1250	982	1.2		12.08
474	Rajkot	Upleta2	8.00	2204	1477	0	683	284	**70**	66	**3.40**	560	20	32	180	423	0.6		13.71
475	Rajkot	Bhalgam	7.90	1251	838	0	415	163	5	38	0.75	340	84	32	340	128	1.4	0.06	3.02
476	Rajkot	Sindhavadar	8.20	1553	1041	0	366	277	**60**	78	1.10	300	44	46	300	243	0.1		6.10
477	Rajkot	Wankaner-1	8.10	**14900**	9983	0	415	**4828**	21	227	**4.50**	340	360	671	3650	1772	3.2		12.75
478	Rajkot	Bhadragarh	7.68	1675	1122	0	354	234	5	185	**2.60**	290	44	29	230	275	4.1		7.88
479	Sabarkantha	Boral	7.80	2890	1936	0	512	646	**145**	94	0.55	420	120	78	620	432	0.8		7.54
480	Sabarkantha	Bhiloda2	8.06	1412	946	0	256	192	32	96	0.60	210	76	44	370	111	2.0		2.51
481	Sabarkantha	Punasan	7.65	841	563	0	232	85	**50**	35	0.40	190	56	19	220	78	0.4		2.29
482	Sabarkantha	Shamlaji	7.90	752	504	0	317	78	1	23	0.45	260	52	24	230	77	2.2	0.00	2.21
483	Sabarkantha	Takatuka	7.85	2149	1440	0	354	391	**70**	76	1.00	290	60	68	430	256	1.3	0.25	5.37
484	Sabarkantha	Dhansura	7.80	1154	773	0	451	92	**48**	36	0.75	370	40	46	290	133	0.2		3.40
485	Sabarkantha	Karanpur	7.90	704	472	0	281	85	38	23	0.75	230	36	17	160	114	0.0		3.92
486	Sabarkantha	Gadha1	7.80	2586	1733	0	353	433	**80**	160	**2.14**	289	92	44	410	338	2.6		7.26
487	Sabarkantha	Virpur2	7.90	701	470	0	244	43	40	60	0.80	200	72	19	260	45	2.0	0.01	1.21
488	Sabarkantha	Bhadreshwar1	8.00	2302	1542	0	524	298	45	186	1.10	430	76	61	440	298	2.4	0.00	6.18
489	Sabarkantha	Revas	7.90	1805	1209	0	281	227	**190**	54	0.95	230	140	58	580	86	1.2		1.55
490	Sabarkantha	Khedbramha	7.90	**3671**	2460	0	171	994	**160**	90	0.85	140	380	97	1350	200	2.6	0.08	2.37
491	Sabarkantha	Matoda	8.20	2146	1438	0	220	369	**155**	120	0.45	180	160	73	700	119	23.5		1.96

492	Sabarkantha	Silwad	8.20	**4571**	3063	0	342	**1243**	**120**	101	1.15	280	220	170	1250	465	10.3		5.72
493	Sabarkantha	Meghraj	7.82	720	482	0	244	57	1	10	0.35	200	44	22	200	43	3.9	0.14	1.32
494	Sabarkantha	Seenawad	8.00	1379	924	0	268	163	**85**	55	0.77	220	80	48	400	83	7.9		1.80
495	Sabarkantha	Harsol1	7.90	1486	996	0	634	99	**60**	69	**2.30**	520	48	53	340	206	1.0		4.86
496	Sabarkantha	Choriwad	8.00	2174	1457	0	244	348	**200**	125	0.90	200	252	48	830	74	2.5		1.12
497	Sabarkantha	Wadali	8.10	1893	1268	0	256	256	**180**	130	1.22	210	148	41	540	147	6.3		2.75
498	Sabarkantha	Atarsumba	7.90	1081	724	0	232	114	45	48	0.30	190	80	22	290	69	3.0	0.00	1.76
499	Sabarkantha	Alwakampa	7.90	1196	801	0	439	170	**46**	23	0.55	360	24	66	330	154	0.2	0.00	3.69
500	Sabarkantha	Boriya	7.90	**3413**	2287	0	207	888	**150**	161	0.50	170	200	73	800	427	1.0	0.10	6.56
501	Sabarkantha	Chandav	8.00	1298	870	0	329	142	**65**	82	1.30	270	104	32	390	103	7.3	0.08	2.27
502	Sabarkantha	Gadada	7.78	1803	1208	0	256	270	**145**	168	1.20	210	64	90	530	166	2.1	0.08	3.14
503	Sabarkantha	Kesharpur Idar	8.10	1684	1128	0	207	249	**140**	72	0.70	170	172	24	530	85	2.4	0.11	1.61
504	Sabarkantha	Kesharpur Talod	7.80	1440	965	0	488	128	**80**	24	**2.80**	400	28	34	210	216	1.2	0.00	6.48
505	Sabarkantha	Kherwada	7.70	867	581	0	256	121	0	28	0.25	210	56	29	260	70	1.5	0.27	1.89
506	Sabarkantha	Malpur	8.00	702	470	0	268	57	**70**	23	1.00	220	44	29	230	71	0.0	0.00	2.04
507	Sabarkantha	Medasana	8.10	1233	826	0	268	163	**55**	96	0.85	220	60	39	310	133	1.2	0.20	3.28
508	Sabarkantha	Sabalwad	8.10	1081	724	0	342	92	**60**	69	**3.50**	280	100	24	350	88	2.0	**0.78**	2.05
509	Sabarkantha	Umedpur	7.80	1869	1252	0	525	227	**100**	32	1.37	430	36	73	390	222	0.6		4.89
510	Surat	Allu	7.91	680	456	0	305	28	9	137	1.17	250	48	46	310	61	0.2		1.51
511	Surat	Sarbhon	7.65	1210	811	0	317	170	9	145	0.94	260	32	50	290	172	3.0	0.11	4.39
512	Surat	Ten-bardoli	7.70	870	583	0	366	50	3	67	0.43	300	40	43	280	76	2.1	0.08	1.97
513	Surat	Sachin town	7.61	1847	1237	0	317	454	4	84	0.36	260	88	91	600	184	3.2		3.27
514	Surat	Sultanabad	7.68	1074	720	0	451	128	28	37	0.20	370	44	60	360	117	24.0		2.68
515	Surat	Kathor	7.56	1440	965	0	525	156	22	87	0.45	430	44	82	450	144	1.3	0.02	2.95
516	Surat	Kasal	8.00	792	531	0	268	85	23	60	0.20	220	80	38	360	29	0.3		0.66
517	Surat	Malda	7.61	774	519	0	390	43	12	49	0.42	320	100	26	360	38	3.0		0.87
518	Surat	Mandvi2	7.70	1184	793	0	281	156	**125**	81	0.40	230	88	55	450	87	0.3	0.02	1.78
519	Surat	Ushker	7.89	890	596	0	329	71	25	56	0.33	270	64	34	300	69	1.9		1.73
520	Surat	Dungri	7.81	1600	1072	0	671	142	25	35	0.88	550	128	34	460	162	4.7	0.10	3.28
521	Surat	Gangtha	7.85	1200	804	0	512	71	33	87	0.40	420	80	65	470	78	7.3	0.20	1.56
522	Surat	Pankheda	7.78	680	456	0	305	57	34	22	0.50	250	68	36	320	29	0.3	0.04	0.70
523	Surat	Olpad2	7.50	1770	1186	0	659	206	40	20	1.17	540	32	46	270	252	66.3		6.67
524	Surat	Wadoli	7.81	2650	1776	0	134	745	4	191	0.80	110	120	144	900	220	2.7		3.19

525	Surat	Kadodra	7.91	846	567	0	342	71	6	97	0.18	280	64	31	290	91	1.0	0.00	2.32
526	Surat	Palsana	7.90	975	653	0	342	121	3	84	0.10	280	52	36	280	121	8.6	0.00	3.14
527	Surat	Bhurvel (ukai)	7.90	2316	1552	0	403	567	8	5	0.30	330	124	46	500	297	11.0		5.77
528	Surat	Jesingpura[sg]	7.50	744	498	0	451	21	3	6	0.13	370	80	41	370	18	0.8		0.41
529	Surat	Surat1	7.62	680	456	0	317	64	5	37	0.22	260	60	29	270	57	4.3		1.51
530	Surat	Tawali	7.70	700	469	0	281	57	28	73	0.15	230	72	41	350	28	1.2		0.65
531	Surat	Uchchhal1	7.61	790	529	0	305	64	**50**	60	0.20	250	72	48	380	30	0.5		0.67
532	Surat	Chavada	7.90	430	288	0	183	43	19	11	0.20	150	40	24	200	18	0.3		0.55
533	Surat	Bedchit	7.62	1384	927	0	390	206	23	108	0.78	320	60	91	530	100	0.3	0.00	1.89
534	Surat	Karanjvel	7.82	400	268	0	232	21	26	42	0.34	190	60	22	240	21	2.0	0.08	0.59
535	Surat	Vyara1	7.50	390	261	0	183	28	3	16	0.20	150	40	17	170	18	2.3		0.60
536	Surat	Bhatkol	7.60	898	602	0	354	85	5	55	1.05	290	80	14	260	99	1.2	0.00	2.67
537	Surat	Chapawadi	7.82	490	328	0	220	28	4	54	0.22	180	60	24	250	14	0.4	0.08	0.38
538	Surat	Digas	7.62	1200	804	0	598	43	36	35	0.92	490	32	53	300	147	0.5	0.00	3.69
539	Surat	Gangadhara	7.98	2973	1992	0	854	525	**55**	31	0.75	700	40	108	550	450	0.5	0.00	8.34
540	Surat	Kalkui	7.50	400	268	0	232	7	3	75	0.38	190	48	26	230	24	0.4	0.02	0.69
541	Surat	Kherwara	7.98	684	458	0	256	71	18	43	0.45	210	68	31	300	33	0.6	0.02	0.83
542	Surat	Madvi	7.91	1090	730	0	488	85	15	56	0.77	400	48	67	400	89	1.3		1.93
543	Surat	Mota	7.42	2447	1639	0	488	546	27	27	0.95	400	60	72	450	360	1.8	0.02	7.38
544	Surat	Moti Sarkui	7.68	560	375	0	244	43	24	44	0.48	200	52	29	250	36	0.4	0.00	0.99
545	Surat	Moticher	7.90	480	322	0	195	28	38	54	0.22	160	64	19	240	22	1.0		0.62
546	Surat	Nana Palvi	7.40	2250	1508	0	549	468	10	23	0.75	450	80	70	490	305	12.0	0.02	5.99
547	Surat	Paneshwar	7.68	1536	1029	0	171	354	38	111	0.20	140	148	65	640	70	0.4	0.04	1.20
548	Surat	Sayon	7.55	1690	1132	0	403	333	21	89	0.50	330	84	84	560	164	1.5	0.00	3.01
549	Surat	Vadoli	7.92	1000	670	0	451	64	2	120	1.40	370	44	62	370	102	0.2		2.31
550	Surat	Vaheval	7.92	630	422	0	244	64	20	101	0.30	200	76	36	340	34	1.4	0.03	0.80
551	Surendranagar	Bamanbor	8.00	1028	689	0	256	114	**72**	63	0.55	210	100	24	350	68	1.4	0.00	1.58
552	Surendranagar	Vanala	8.00	1310	878	0	293	135	3	187	0.60	240	48	27	230	185	4.2		5.30
553	Surendranagar	Bajana	7.90	553	371	0	232	64	7	17	0.50	190	28	20	150	72	7.0	0.06	2.56
554	Surendranagar	Jhinjhuwada	8.00	549	368	0	207	85	9	10	0.80	170	32	17	150	74	6.2	0.01	2.63
555	Surendranagar	Dhrangadhra2	8.20	**3684**	2468	0	207	**1172**	20	12	1.50	170	180	85	800	495	2.9		7.61
556	Surendranagar	Rajsitapur	8.20	552	370	0	270	85	11	14	1.25	221	28	12	120	115	5.1	0.02	4.56
557	Surendranagar	Ratanpur1	8.20	2624	1758	0	317	611	35	157	**3.60**	260	80	75	510	379	2.3	0.00	7.30

558	Surendranagar	Halvad2	8.20	2874	1926	0	378	653	13	35	**1.60**	310	128	54	550	342	18.0		6.34
559	Surendranagar	Miani	8.00	2848	1908	0	366	717	17	42	1.50	300	140	54	570	375	15.0		6.83
560	Surendranagar	Sukhpar1	8.10	**3424**	2294	0	378	710	**250**	230	**1.80**	310	80	97	600	538	1.9	0.00	9.55
561	Surendranagar	Limbdi1	7.90	602	403	0	159	149	5	26	0.40	130	40	27	210	76	3.0	0.00	2.28
562	Surendranagar	Shiyani	8.20	566	379	0	232	114	16	9	1.00	190	32	17	150	105	5.2	0.00	3.73
563	Surendranagar	Muli	7.90	2768	1855	0	647	504	**65**	36	**4.40**	530	40	24	200	530	2.1	0.00	16.29
564	Surendranagar	Sara	8.00	**12576**	8426	0	232	**3621**	8	1165	0.55	190	220	863	4100	1143	70.6	0.00	7.76
565	Surendranagar	Dheduki	8.10	678	454	0	329	78	7	6	0.40	270	84	14	270	57	18.0		1.51
566	Surendranagar	Surendranagar2	7.90	2937	1968	0	659	483	**70**	19	**5.00**	540	40	29	220	506	2.0	0.00	14.83
567	Surendranagar	Warod	8.20	2257	1512	0	598	348	26	100	1.00	490	112	78	600	237	24.8		4.21
568	Surendranagar	Dhandalpur	8.00	**6062**	4062	0	329	**1207**	**900**	166	1.05	270	200	340	1900	458	74.7		4.57
569	Surendranagar	Juna Develiya	8.20	1645	1102	0	342	249	30	136	0.90	280	60	61	400	186	8.5		4.04
570	Surendranagar	Latuda	8.20	1695	1136	0	378	298	**56**	25	1.05	310	40	54	320	225	0.4		5.47
571	Surendranagar	Moti Moladi	8.20	**3938**	2638	0	268	**1065**	**110**	153	0.75	220	260	255	1700	134	0.6		1.41
572	Surendranagar	Pipli	8.00	594	398	0	207	71	10	43	0.85	170	32	22	170	72	5.8	0.00	2.40
573	Surendranagar	Sudamda	8.20	**4570**	3062	0	256	**1065**	**400**	310	0.60	210	360	231	1850	243	2.3		2.46
574	The dangs	Aherdi	7.62	360	241	0	159	28	2	51	0.05	130	60	14	210	7	0.3	0.01	0.21
575	The dangs	Ahwa1	7.71	820	549	0	220	156	32	20	0.08	180	60	26	260	68	13.0		1.83
576	The dangs	Bari pada	7.78	410	275	0	220	14	4	8	0.30	180	44	17	180	15	0.2	0.09	0.49
577	The dangs	Bori gaotha	8.01	442	296	0	220	35	7	10	0.34	180	44	24	210	17	0.2	0.00	0.51
578	The dangs	Chikhli	7.81	402	269	0	244	14	0	11	0.10	200	44	24	210	10	0.3		0.30
579	The dangs	Chinchnogaotha	7.91	620	415	0	207	57	**46**	83	0.15	170	76	36	340	16	0.3		0.38
580	The dangs	Chinchpada	7.30	452	303	0	171	35	40	36	0.08	140	56	22	230	14	0.2	0.00	0.40
581	The dangs	Dhumkal	7.51	430	288	0	207	21	1	32	0.20	170	52	19	210	11	0.2	**0.60**	0.33
582	The dangs	Ghubita	7.62	450	302	0	232	21	2	18	0.10	190	48	22	210	14	0.2	0.11	0.42
583	The dangs	Jakana	7.82	350	235	0	98	35	40	23	0.40	80	56	0	140	22	5.6	0.27	0.81
584	The dangs	Malegaon	7.81	470	315	0	146	50	5	48	0.26	120	56	19	220	12	0.3	0.01	0.35
585	The dangs	Nadak khadi	7.52	400	268	0	195	28	5	27	0.10	160	40	14	160	33	0.2	0.00	1.13
586	The dangs	Nana pada	7.52	400	268	0	232	14	1	3	0.20	190	48	14	180	16	0.1		0.52
587	The dangs	Sodmal	7.51	402	269	0	220	28	4	8	0.28	180	44	22	200	15	0.4	0.04	0.46
588	The dangs	Subir	7.61	406	272	0	220	35	3	3	0.10	180	56	5	160	35	0.7	0.01	1.20
589	The dangs	Umberpada	7.56	440	295	0	195	28	12	21	0.10	160	48	22	210	10	0.3		0.30
590	The Dangs	Amba Pada	7.92	390	261	0	195	21	2	38	0.23	160	36	29	210	10	0.2		0.30

591	The Dangs	Jamal Pada	7.55	700	469	0	317	78	19	11	0.08	260	56	36	290	50	1.0	0.00	1.28
592	The Dangs	Sakar patar	7.50	395	265	0	195	21	2	44	0.20	160	44	26	220	8	0.2	0.00	0.23
593	The Dangs	Vazat Amba	7.98	415	278	0	232	28	5	11	0.28	190	44	20	190	26	1.5	0.00	0.82
594	The Dangs	Waghai	7.82	505	338	0	281	21	1	4	0.15	230	40	24	200	30	0.4	0.00	0.92
595	Vadodara	Chhota udepur	8.00	1309	877	0	512	142	5	61	**1.80**	420	80	43	380	145	5.9		3.23
596	Vadodara	Ferkuva	7.65	1227	822	0	427	121	30	51	0.27	350	144	36	510	42	10.1		0.81
597	Vadodara	Ghamodi	7.90	585	392	0	256	50	5	31	0.97	210	56	19	220	46	1.6		1.35
598	Vadodara	Kevadi	8.16	514	344	0	220	43	3	39	0.85	180	60	12	200	40	0.0		1.23
599	Vadodara	Amreshwar	8.00	1214	813	0	464	156	7	16	0.50	380	52	26	240	178	7.2		5.00
600	Vadodara	Bhindol	8.10	1436	962	0	683	71	25	54	0.88	560	60	74	460	129	0.0		2.62
601	Vadodara	Pavi	8.10	2490	1668	0	525	496	9	97	0.98	430	160	60	650	276	5.7		4.71
602	Vadodara	Suskal	8.28	703	471	0	122	92	44	64	0.15	100	68	14	230	48	0.7		1.38
603	Vadodara	Devat (thadgam)	7.10	1030	690	0	342	92	**115**	31	0.88	280	92	48	430	50	0.2		1.05
604	Vadodara	Moti chikhali	8.00	743	498	0	378	28	15	13	**1.78**	310	84	17	280	46	0.2		1.20
605	Vadodara	Panwad	7.96	1301	872	0	354	227	28	32	0.65	290	124	38	470	93	13.5		1.87
606	Vadodara	Saidivasana	8.10	2633	1764	0	317	603	**48**	269	0.35	260	220	120	1050	180	16.0		2.42
607	Vadodara	Vagudan	8.26	1044	699	0	500	64	9	27	**2.40**	410	88	43	400	66	8.6		1.43
608	Vadodara	Kaprali	8.20	686	460	0	342	21	40	4	0.59	280	88	19	300	22	0.0		0.55
609	Vadodara	Sengpur	8.20	740	496	0	390	21	15	12	0.40	320	96	10	280	44	0.0		1.14
610	Vadodara	Waghach	7.16	970	650	0	476	64	**60**	6	1.40	390	72	22	270	124	4.1		3.28
611	Vadodara	Masor	8.60	2340	1568	120	656	248	5	179	**3.20**	738	60	84	500	364	0.3		7.08
612	Vadodara	Alladpur	7.86	1631	1093	0	720	149	8	56	0.85	590	88	67	500	170	3.6		3.31
613	Vadodara	Bodeli	7.76	1462	980	0	464	213	30	121	0.45	380	84	31	340	228	0.7		5.38
614	Vadodara	Govindpura	7.50	**7163**	4799	0	586	**2127**	**60**	25	1.03	480	260	300	1900	780	4.4		7.78
615	Vadodara	Makni	8.10	1923	1288	0	891	149	8	50	0.60	730	120	86	660	73	117.0		1.24
616	Vadodara	Chhaliyar	8.16	880	590	0	439	43	19	65	0.77	360	60	48	350	72	0.6		1.67
617	Vadodara	Juna samalya	8.27	986	661	0	354	135	7	30	0.65	290	32	29	200	148	0.1		4.55
618	Vadodara	Rasulpur	7.80	1837	1231	0	476	305	25	63	0.45	390	100	43	430	222	22.0	0.00	4.65
619	Vadodara	Tundav	8.10	1342	899	0	451	142	**60**	15	0.50	370	72	58	420	62	68.0		1.32
620	Vadodara	Vejpur2	8.28	**3412**	2286	0	1061	638	5	14	**1.68**	870	100	60	500	600	6.2		11.67
621	Vadodara	Patiyapura	7.90	2610	1749	0	537	425	**100**	256	0.50	440	200	168	1200	90	5.9		1.13
622	Vadodara	Saidal	8.20	539	361	0	268	28	4	18	0.48	220	32	17	150	61	3.5		2.17
623	Vadodara	Ghodisimel	8.00	2040	1367	0	464	411	3	91	0.53	380	76	55	420	297	9.2	0.10	6.30

624	Vadodara	Kevdabagh	8.20	1488	997	0	647	128	30	32	1.40	530	32	17	150	287	6.3	0.20	10.19
625	Vadodara	ONGC Campus	8.10	2925	1960	0	573	638	12	251	0.90	470	140	72	650	462	8.9	**0.45**	7.88
626	Valsad	Awadha	8.01	510	342	0	183	64	12	49	0.25	150	72	22	270	15	0.1	0.00	0.40
627	Valsad	Dharampur2	7.98	600	402	0	207	85	2	13	0.38	170	60	17	220	40	0.1		1.17
628	Valsad	Lakadmal	8.21	350	235	0	159	42	4	1	0.23	130	52	12	180	7	0.7	0.00	0.23
629	Valsad	Kaparda	7.61	200	134	0	85	28	3	25	0.05	70	28	10	110	13	5.4		0.54
630	Valsad	Nanaponda	7.77	1100	737	0	256	170	5	47	0.48	210	116	26	400	49	1.1		1.07
631	Valsad	Karwad	8.02	770	516	0	366	71	3	15	0.30	300	96	19	320	46	14.0		1.12
632	Valsad	Udwada	7.81	869	582	0	323	85	5	54	0.33	265	96	38	400	22	0.6		0.48
633	Valsad	Dahli (bhilad)	7.63	810	543	0	317	28	13	101	0.05	260	72	34	320	44	0.4		1.07
634	Valsad	Kanadu	7.77	386	259	0	183	21	2	26	0.50	150	44	17	180	14	0.4		0.45
635	Valsad	Tumb	7.92	660	442	0	293	78	2	8	1.05	240	40	34	240	57	0.5		1.60
636	Valsad	Muli1	7.92	1607	1077	0	403	333	1	21	0.38	330	60	43	330	230	13.0		5.50
637	Valsad	Tithal	7.66	1850	1240	0	671	232	10	41	0.15	550	116	62	550	176	5.6		3.26
638	Valsad	Chavshala	7.52	400	268	0	159	35	8	14	0.10	130	60	7	180	10	8.2	0.00	0.32
639	Valsad	Fali	7.75	490	328	0	195	35	10	30	0.23	160	68	2	180	32	3.6	0.25	1.04
640	Valsad	umargaon	7.82	700	469	0	293	78	15	34	0.23	240	52	36	280	55	6.1		1.43
641	Valsad	Vapi	7.62	984	659	0	317	128	17	3	0.15	260	76	46	380	37	0.8		0.83