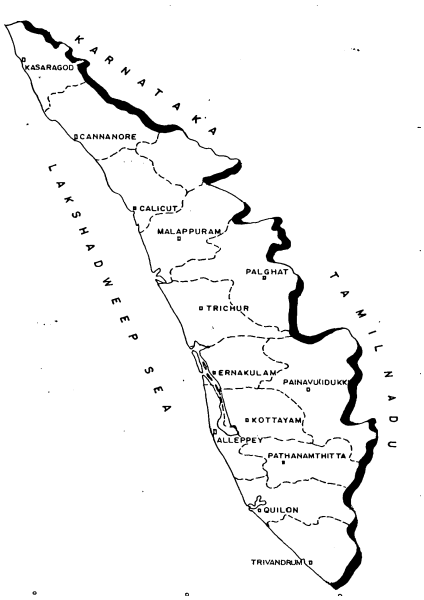
REPORT NO. / 2019-20

REPORT ON GROUNDWATER MONITORING IN KERALA DURING APRIL 2020



CENTRAL GROUND WATER BOARD
MINISTRY OF JALSHAKTI
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
GOVERNMENT OF INDIA
KERALA REGION

THIRUVANANTHAPURAM
JUNE 2020

REPORT ON GROUND WATER MONITORING IN KERALA STATE DURING APRIL 2020

CONTENTS

1. INTRODUCTION

Kerala State is a narrow stretch of land lies between North latitudes $08^0$18' and $12^0$48' and East longitudes $74^0$52' and $77^0$22' covering an area of 38863sq.km, which is bordered by the Lakshadweep Sea on the western side and Tamil Nadu and Karnataka States on the eastern side. The length of the State from north to south is 560 km and the average width is 70 km, with a maximum of 125 km.

Due to urbanisation and industrialisation the stress on groundwater has increased in past few years, which resulted in problems like decline in water table and contamination of groundwater at many places. The shortage of rainfall in recent years and the increased utilisation of ground water caused concern among the public that water may become scarce commodity in future.

In order to assess the real situation of ground water conditions, it is very essential to monitor the groundwater level and water quality over time and space. Due to covid lockdown during the month of April 2020 Central Ground Water Board was not able to monitor the water levels from established 1602 Ground Water Monitoring Wells (GWMW) throughout the Kerala State, hence the water level data monitored from 616 nos. wells established by State Ground Water Department were utilized for accesing ground water level through out the state during the above mentioned periods. Water level is being monitored four times a year during January, April, August and November months and water quality is being monitored from the water samples collected from GWMW during April. The total number of GWMW as on 31.03.2020 is 1602. Out of these, 1381 are dug wells tapping phreatic aquifer and 221 are borewells / tubewells tapping deeper aquifers of confined /semi-confined nature. These GWMW are spread over in all the physiographic divisions of the State.

The data monitored by State Ground Water Department, Kerala State were analysed to understand the depth to water level scenario in the State, annual fluctuation in the water levels due to the monsoon recharge, long term trend in water levels and the nature of the quality of ground water. Depth to water level maps and water level fluctuation maps are prepared using the data tapping phreatic aquifer.

2. HYDROGEOLOGY

The occurrence and movement of ground water is mainly controlled by factors like physiography, slope, soil and geological setting of the area.

Physiography

Physiographically the State is divided into three major units viz. the lowland, the midland and the high land. The lowlands are those areas where the elevation is less than 7.6m above mean sea level (amsl) whereas the elevation of the midland ranges from 7.6 to 76 m amsl and that of the highland is more than 76 m amsl. Along the highlands there are two distinct plateau regions - Wayanad plateau and Munnar plateau.

Geology

Geologically 88% of the State is underlain by crystalline rocks of Archaean age, which is a part of the peninsular shield. The crystalline complex of Kerala is composed of charnockites, gneisses, schists, migmatites and rocks of the Wayanad supracrustals. Along the western portion of the State the crystalline rocks are overlain by the sedimentary formations of Tertiary age and Recent alluvial formations. The Tertiary sequence of formations has been divided into four beds viz. Alleppey, Vaikom, Quilon and Warkali, the age of which ranges from Eocene to Lower Miocene. Laterites of Sub-Recent age derived from the crystalline as well as sedimentary formations are seen all along the midlands. Along the coastal plains, the sedimentaries and laterites are overlain by alluvium of Recent age. The geological succession in Kerala is given in Table 1.

Table 2.1: Geological Succession of Kerala

AGE	FORMATION	LITHOLOGY
Recent	Alluvium	Sands, Clays, riverine alluvium etc. and flood plain deposits of Kuttanad area
Sub-recent	Laterite	Derived from crystallines and sedimentaries
Tertiary	Warkali	Sand stones, clays with lignite seams
	Quilon	Limestone marl and clay
	Vaikom	Sandstones with pebbles and gravel beds, clay and lignite
	Alleppey	Carbonaceous clay and fine sand
Undated	Intrusive	Dolerites, Gabbros, Granites, Quartzo-feldspathic Veins
Archaean	Wayanad group	Granitic gneiss, Schists etc.
	Charnockites	Charnockites and associated rocks
	Khondalites	Khondalites suite of rocks and its associates

Occurrence of Groundwater

Ground water occurs under phreatic as wells as in confined and semi-confined conditions. The weathered crystallines, laterites and the alluvial formations form the major phreatic aquifers, whereas the deep fractures in the crystallines and the granular zones of the Tertiary sedimentary formations form the confined and semi-confined aquifers.

Most widely distributed lithological unit is the laterite, which forms potential aquifer along valley and the thickness of this formation varies from a few meters to about 30m. The depth to water level in the formation ranges from less than a meter to 25 mbgl. Wells with the yields in the range of 0.5 - 6 m^3 per day are feasible in this formation.

Thick zones of weathered crystallines are seen along midland region. The midland area sustains medium capacity dug wells for irrigation. Along the hill ranges, the crystalline rocks are covered by thin weathered zone. Along topographic lows dug wells are feasible that can cater to domestic needs. Bore wells tapping deeper fractured aquifer are feasible along potential fractures in the midland and hill ranges. Potential fractures are seen down to 240 mbgl and the most productive zone is between 60 and 175 mbgl. The discharge of these bore wells range between 36,000 and 1, 25,000 lph.

Of the four Tertiary beds, the two beds viz. the Vaikom and the Warkali form potential aquifers. The oldest Alleppey beds contain brackish water as inferred from electrical logs, whereas the Quilon beds are poor aquifers. The Vaikom aquifer is seen all along the coast between Quilon and Ponnani and the piezometric surface ranges from 1 to 18 m above msl. The aquifer is extensively developed between Quilon and Kayamkulam. The aquifer contains fresh water south of Karuvatta in Alleppey district and also in isolated pockets in Ernakulam district. The Warkali aquifer is seen south of Cochin. The piezometric head in the aquifer varies from 2.6 m amsl to 10 m bmsl. The aquifer is largely developed in and around Alleppey.

The alluvium forms potential aquifer along the coastal plains and ground water occurs under phreatic and semi-confined conditions in this aquifer. The thickness of this formation varies from few meters to above 100 m and the depth to water level ranges from less than a meter to 6 mbgl. Filter point wells are feasible wherever the saturated thickness exceeds 5 m.

3. HYDROMETEOROLOGY

Rainfall is the major source of ground water recharge and the rainfall pattern plays an important role on the water levels in the phreatic as well as to the deeper aquifers. The rainfall data received from India Meteorological Department, Thiruvananthapuram for the period from 01-04-2020 to 31-05-2020 (Summer Season) is analysed.

The rainfall occurred during the period 01-04-2020 to 31-05-2020 ranged from 125.10 mm in Kasaragod district to 687.63 mm in Pathanamthitta district. The state has received an average rainfall of 360.44 mm which is 8.3% more in comparison to the normal.

Rainfall Distribution

The actual rainfall received during the period is compared with its normal. Rainfall distribution was excess in three districts viz. Kottayam, Pathanamthitta and Trivandrum. Rainfall distribution was normal in seven districts viz. Alappuzha, Ernakulam, Idukki, Kollam, Kozhikode, Malappuram and Wayanad, deficient in remaining four districts viz. Kannur, Kasaragod, Palakkad and Thrissur. Nine districts show positive departure. The details are given in table - 3.1

Table -3.1 Departure of Rainfall during the monitoring Season with its normal (1st April to 31st May-2020)

#	Name of the District	Actual (mm) (1st April to 31st May-2020)	Normal (mm) (1st April to 31st May-2020)	Difference in mm	Departure in %	IMD Classification
1	Alappuzha	467.70	404.93	62.77	16	Normal
2	Kannur	210.50	267.99	-57.49	-21	Deficient
3	Ernakulam	378.89	368.17	10.71	3	Normal
4	Idukki	387.69	381.51	6.17	2	Normal
5	Kasaragod	*125.10*	258.91	-133.81	-52	Deficient
6	Kollam	437.76	392.83	44.93	11	Normal
7	Kottayam	568.01	387.66	180.36	47	Excess
8	Kozhikode	337.70	328.89	8.81	3	Normal
9	Malappuram	235.11	291.70	-56.59	-19	Normal
10	Palakkad	151.50	219.46	-67.96	-31	Deficient
11	Pathanamthitta	*687.63*	428.91	258.71	60	Excess
12	Trivandrum	561.54	323.86	237.69	73	Excess
13	Trichur	230.54	351.34	-120.80	-34	Deficient
14	Wayanad	266.49	254.34	12.14	5	Normal

Comparison of rainfall of the present monitoring season with the previous year of the same period

The rainfall occurred during the period 01-04-2020 to 31-05-2020 was compared with the same period of the previous year ie. 01-04-2019 to 31-05-2019. All the districts received comparatively higher amount of rainfall than the previous year monitoring season. During this summer season all districts received higher rainfall compared to the same season of the previous year. The details are given in table-3.2 and in Fig-3.1

Table-3.2 Comparison of rainfall occurred during (2020) and previous year (2019) of the period April & May

SL.No.	Name of the District	1st April to 31st May-2020	1st April to 31st May-2019	Difference
1	Alappuzha	467.70	98.83	368.87
2	Kannur	210.50	72.10	138.40
3	Ernakulam	378.89	182.31	196.57
4	Idukki	387.69	161.56	226.13
5	Kasaragod	*125.10*	*64.00*	61.10
6	Kollam	437.76	147.03	290.73
7	Kottayam	568.01	129.80	438.21
8	Kozhikode	337.70	86.30	251.40
9	Malappuram	235.11	123.30	111.81
10	Palakkad	151.50	143.10	8.40
11	Pathanamthitta	*687.63*	*372.07*	315.56
12	Trivandrum	561.54	171.90	389.64
13	Trichur	230.54	150.60	79.94
14	Wayanad	266.49	251.84	14.64

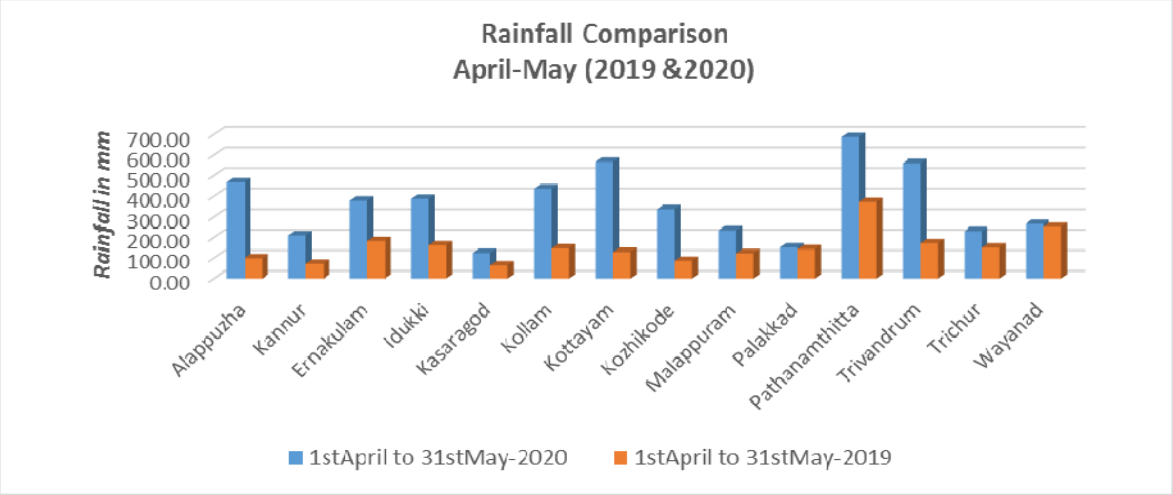


Fig:-3.1 Comparison of rainfall occurred during and previous year of the same period April & May.

Comparison of rainfall of the present monitoring season with previous monitoring season.

The rainfall occurred during the period from 01-04-2020 to 31-05-2020 (Summer Season) was compared with the rainfall during 01-01-2020 to 31-03-2020 (Winter Season). The rainfall variation ranges from -1.90 mm at Kozhikode to 179.77 at Pathanamthitta district during Winter season. All the districts received comparatively higher amount of rainfall than the previous monitoring season of the same year. The details are given in table-3.3 and in Fig-3.2

Table-3.3 Comparison of Rainfall current (1st April to 31st May-2020) and previous (1st Jan to 31st March-2020) monitoring season

SL.No.	Name of the District	1st April to 31st May-2020	1st January to 31st March-2020	Difference
1	Alappuzha	467.70	63.80	403.90
2	Kannur	210.50	5.30	205.20
3	Ernakulam	378.89	89.61	289.27
4	Idukki	387.69	66.01	321.67
5	Kasaragod	125.10	3.70	121.40
6	Kollam	437.76	94.04	343.71
7	Kottayam	568.01	92.29	475.73
8	Kozhikode	337.70	1.90	335.80
9	Malappuram	235.11	11.49	223.63
10	Palakkad	151.50	23.20	128.30
11	Pathanamthitta	687.63	179.77	507.86
12	Trivandrum	561.54	81.76	479.79
13	Trichur	230.54	35.86	194.69
14	Wayanad	266.49	22.71	243.77

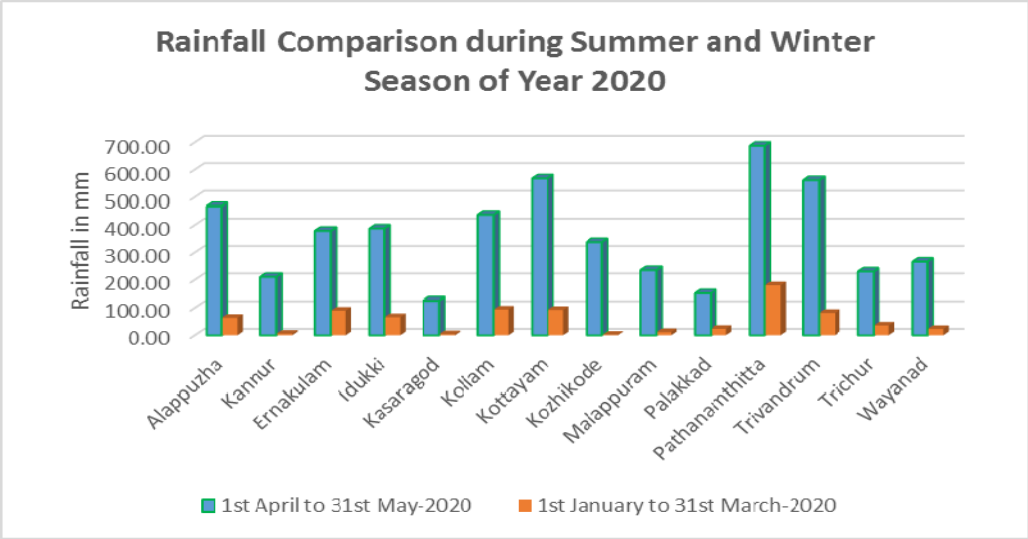


Fig:-3.2 Comparison of rainfall occurred during and previous monitoring season

Comparison of rainfall of this monitoring season with its normal rainfall

The rainfall occurred during the period 01-04-2020 to 31-05-2020 was compared with its normal. The rainfall variation ranges from percent departure 73 % at Trivandrum district to - 52% at

Kasaragod. Seven districts received normal category of rainfall (Fig.3.4). Three districts received excess and four district has received deficient category of rainfall.. The comparison of rainfall of this monitoring season rainfall with normal rainfall is depicted in Fig-3.3 and departure from normal is depicted in Fig-3.4

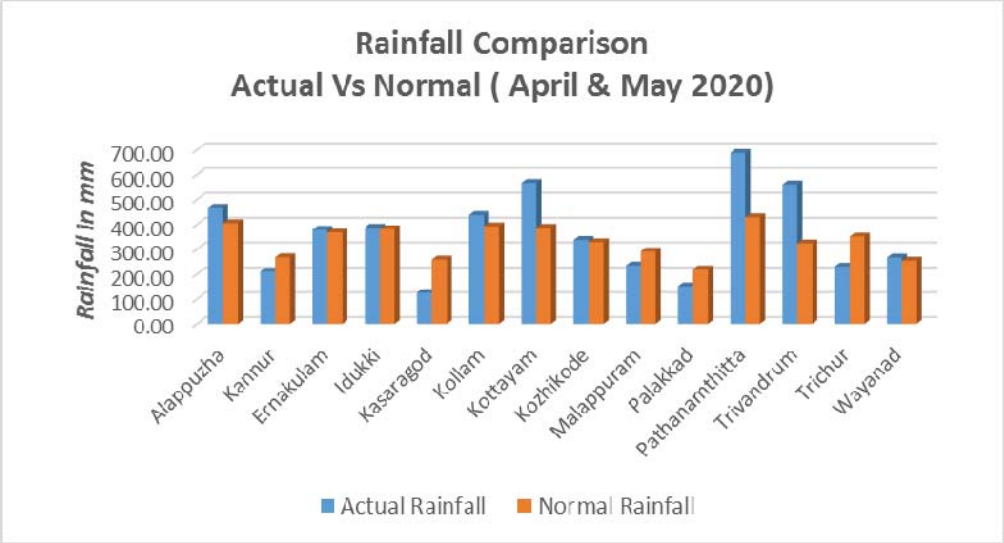
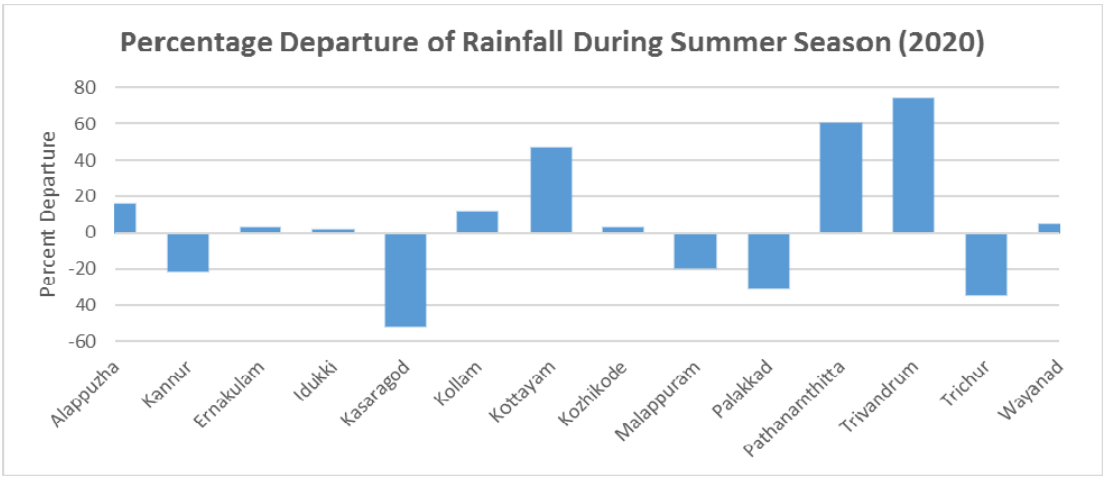


Fig:-3.3 Comparison of rainfall of this monitoring season with its normal rainfall



IMD CLASSIFICATION

+20 % or more Excess, +19 % to -19 % Normal, -20 % to -59% Deficient, -60 % to -99% Scanty, -100% No Rain

Fig-3.4 Departure of rainfall from its normal during current monitoring season

4. DEPTH TO WATER LEVEL SCENARIO DURING APRIL 2020

The depth to water level mostly depends on the hydrogeological conditions of the area as well as topography, rainfall pattern etc. In coastal plains the depth to water level is generally restricted to 6 mbgl. In midland areas, where the undulating topography is seen, the depth to water level generally varies from near ground level to 16.58 mbgl. The variation is mostly due to topographical variations, thickness of lateritic overburden etc. In areas where laterites are underlain by sedimentary aquifers of Tertiary age, the water level goes very deep, even to the extent of 35.25 mbgl.

Ground water in the state occurs under unconfined , semi-confined and confined conditions. The unconfined aquifer is mainly developed through dug wells while the semi-confined and confined aquifer are developed through tube wells/ bore wells.

During the month of April 2020, the depth to water level in the State varied widely from 0.21 to 16.57 mbgl in dug wells, water level data monitored from bore well exist within the state is in the range of 0.48 to 38.13 m bgl and Tube wells shows in the range of 0.76 to 35.25 m bgl respectively. Shallow water level in the range of 0 – 2 mbgl is mainly seen in Alappuzha district, coastal tracts of Ernakulam, Thrissur , Kollam districts and in the valley portion located in Kottayam and Idukki districts. The areas falling in the midland region generally show water level in the range of 2 – 10 mbgl. Water level of more than 10 m bgl is seen as isolated patches in Thiruvananthapuram, Kasaragod, Kannur and Malappuram distircts. The district-wise well frequency for different ranges of depth to water level during April 2020 has been prepared and is given in Table 4.1. The analysis of the data reveals that 83.15 % of the monitoring wells have water levels within the range of 0.1 to10 mbgl. Deeper water level (> 15 mbgl) is seen in Thiruvananthapuram district as isolated pockets which can be attributed to the local hydrogeological conditions such as thick lateritic overburden and the wells situated at elevated areas. The map showing the depth to water level in Kerala State during April 2020 is given in Figure 4.1.

Table 4.1 : District Wise Well Frequency For Different Ranges Of Depth To Water Level For April 2020

District	No. of Wells Analysed	Depth to Water level(mbgl)		No. & Percentage of Wells Showing Depth to Water Table (mbgl) in the Range of					
		Min	Max	0.0 – 2.0	2.0 – 5.0	5.0 – 10.0	10.0 – 20.0	20.0 – 40.0	> 40.0
ALAPPUZHA	18	0.96	12.61	5 27.77%	8 44.44%	4 22.22%	1 5.55%	0	0
ERNAKULAM	36	0.25	10.06	8 22.22%	9 25.00%	18 50.00%	1 2.77%	0	0
IDUKKI	20	1.71	12.9	1 5%	11 55%	07 35%	1 5%	0	0
KANNUR	33	1.65	16.58	3 9.09%	7 21.21%	15 30.61%	8 24.24%	0	0
KASARGOD	40	3.35	16.07	0	3 7.50%	17 42.5%	20 50.00%	0	0
KOLLAM	22	0.7	12.02	3 13.63%	6 27.27%	9 40.90%	4 18.18%	0	0
KOTTAYAM	21	1.00	13.75	4 19.04%	6 28.57%	11 52.38%	0	0	0
KOZHIKODE	30	1.63	13.28	1 3.33%	08 26.66%	19 63.33%	2 6.66%	0	0
MALAPPURAM	26	3.38	15.45	0 0.0%	6 23.07%	14 53.84%	06 23.07%	0	0
PALAKKAD	31	1.98	11.03	1 3.22%	12 38.70%	15 48.38%	3 9.67%	0	0
PATHANAMTHITTA	14	2.25	10.05	0	12 85.71%	1 7.14%	1 7.14%	0	0
THIRUVANANTHAPURAM	30	1.31	15.69	2 6.66%	7 23.33%	15 50.00%	06 20.00%	0	0
THRISSUR	31	1.78	11.99	3 9.67%	11 35.48%	13 41.09%	4 12.90%	0	0
WAYANAD	25	0.21	11.25	4 16.00%	6 24.00%	11 44.00%	4 16.00%	0	0
TOTAL	**380**	**0.21**	**16.58**	**35 (9.21%)**	**112 (29.47%)**	**169 (44.47%)**	**61 (16.05%)**	**0**	**0**

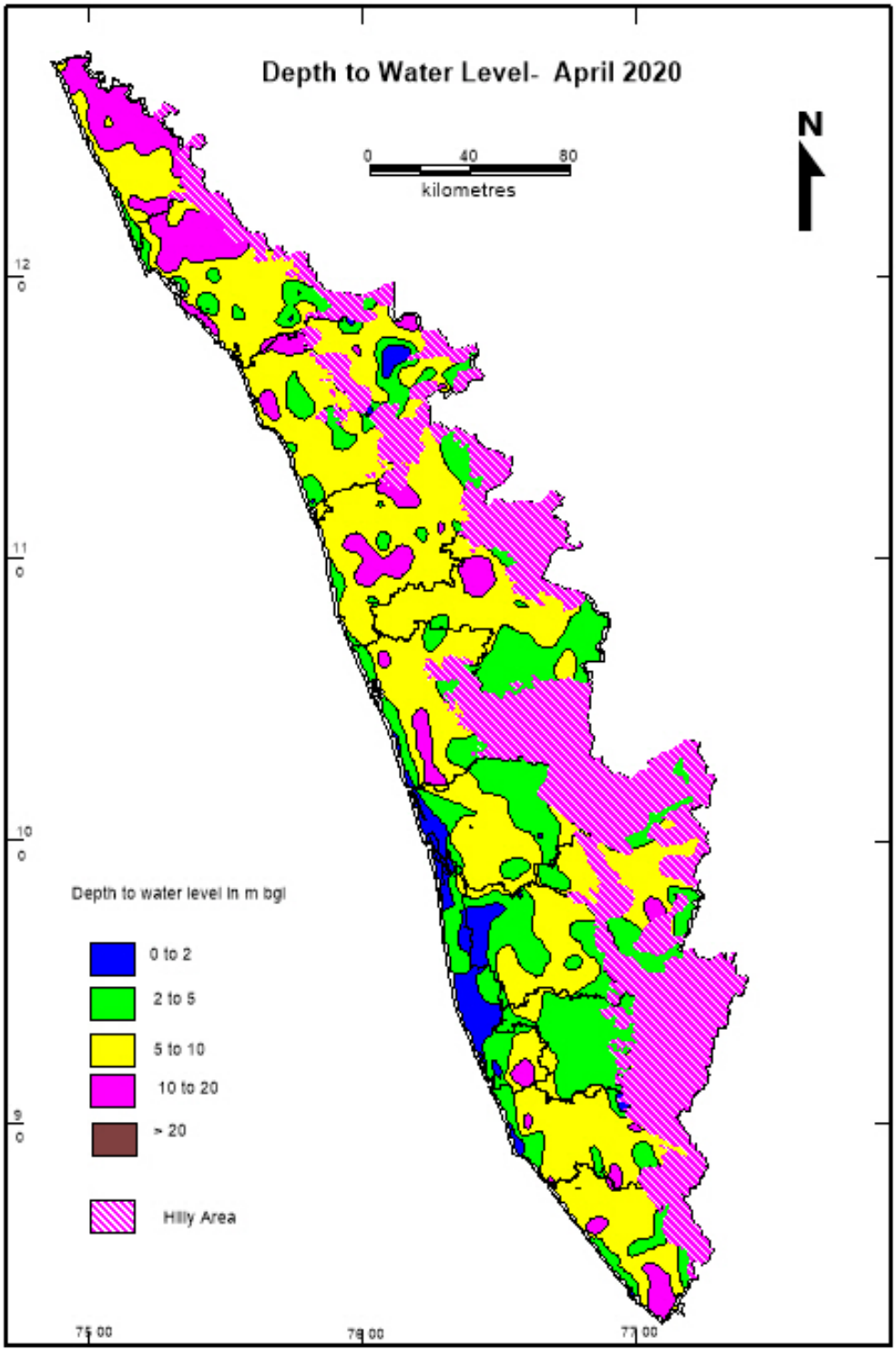


Figure 4.1: Depth to Water Level during April 2020

5. WATER LEVEL FLUCTUATION

Comparison of water level data of different periods gives an insight about the recharge potential of the aquifer which in turn depends upon physiography, climate and type of aquifer. Moreover water level fluctuation is an important parameter in Ground Water Resource Estimation. In this report, annual water level fluctuation for the period April 2020 with respect to April 2019 and comparison with decadal mean (April 2020 vs mean of April 2010-2019) are described.

5.1 WATER LEVEL FLUCTUATION BETWEEN APRIL 2020 AND APRIL 2019

Annual water level fluctuation has been calculated by comparing the water level data during April 2019 with April 2020. Comparison indicates that majority of the dug wells shows a rise in water level which is represented by 70.41 % of total wells monitored. Fall is predominant in Idukki, Thiruvananthapuram, Kasargod, Kottayam, Palaghat and Malappuram districts in the range of 0-2 m bgl (23.96 %). Rise in water level in the range of 0-2 m bgl is mainly noticed in Kasargod, Kannur, Palaghat, Thrissur and Wayanad districts. The map of Kerala showing fluctuation between April 2019 and April 2020 is given in Fig:5.1. District-wise well frequency for different ranges of water level fluctuation (April 2020 and April 2019) is given in Table 5.1.

Table 5.1: District wise – Water Level Fluctuation and Frequency Distribution for Different Ranges from April 2019 – April 2020

District	No. of Wells	Range of Fluctuation (m)				No.& Percentage of Wells /Percentage Showing Fluctuation						Total No. of Wells	
		Rise		Fall		Rise			Fall			Rise	Fall
		Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
ALAPPUZHA	14	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0
ERNAKULAM	36	0.01	1.62	0.04	1.32	27 75.00%	0	0	09 25.00%	0	0	27	9
IDUKKI	20	0.26	1.97	0.23	2.06	5 25.00%	0	0	14 70.00%	1 5.00%	0	05	15
KANNUR	32	0.06	1.39	0.15	6.37	27 84.37%	0	0	04 12.50%	0	01 3.125%	27	05
KASARGOD	40	0.03	3.85	0.03	2.36	28 70.00%	04 10.00%	0	07 17.5%	1 2.5%	0	32	08
KOLLAM	19	0.01	1.79	0.09	0.55	13 68.42%	0	0	6 31.57%	0	0	13	06
KOTTAYAM	20	0.11	4.41	0.03	0.71	11 55.00%	2 10.00%	0	07 35.00%	0	0	13	07
KOZHIKODE	16	0.00	2.09	0.03	0.11	13 81.25%	1 6.25%	0	02 10.00%	0	0	14	02
MALAPPURAM	10	0.13	1.58	0.03	0.09	08 80.00%	0	0	02 20.00%	0	0	08	02
PALAKKAD	31	0.00	2.79	0.10	2.00	24 77.41%	2 6.45%	0	5 16.12%	0	0	26	05
PATHANAMTHITTA	14	0.07	1.18	0.05	0.76	09 64.28%	0	0	05 35.71%	0	0	09	05
THIRUVANANTHA PURAM	30	0.01	1.65	0.07	4.98	17 56.66%	0	0	11 36.66%	1 3.33%	01 3.33%	17	13
THRISSUR	31	0.00	1.26	0.10	0.99	25 80.64%	0	0	06 19.36%	0	0	25	06
WAYANAD	25	0.27	4.19	0.04	0.33	18 72.00%	3 12.00%	1 4.00%	03 12.00%	0	0	22	03
TOTAL	338	0.00	4.41	0.00	6.37	**225** 66.56%	**12** 3.55%	**01** 0.29%	**81** 23.96%	**3** 0.88%	**2** 0.59%	**238** 70.41%	**86** 25.44%

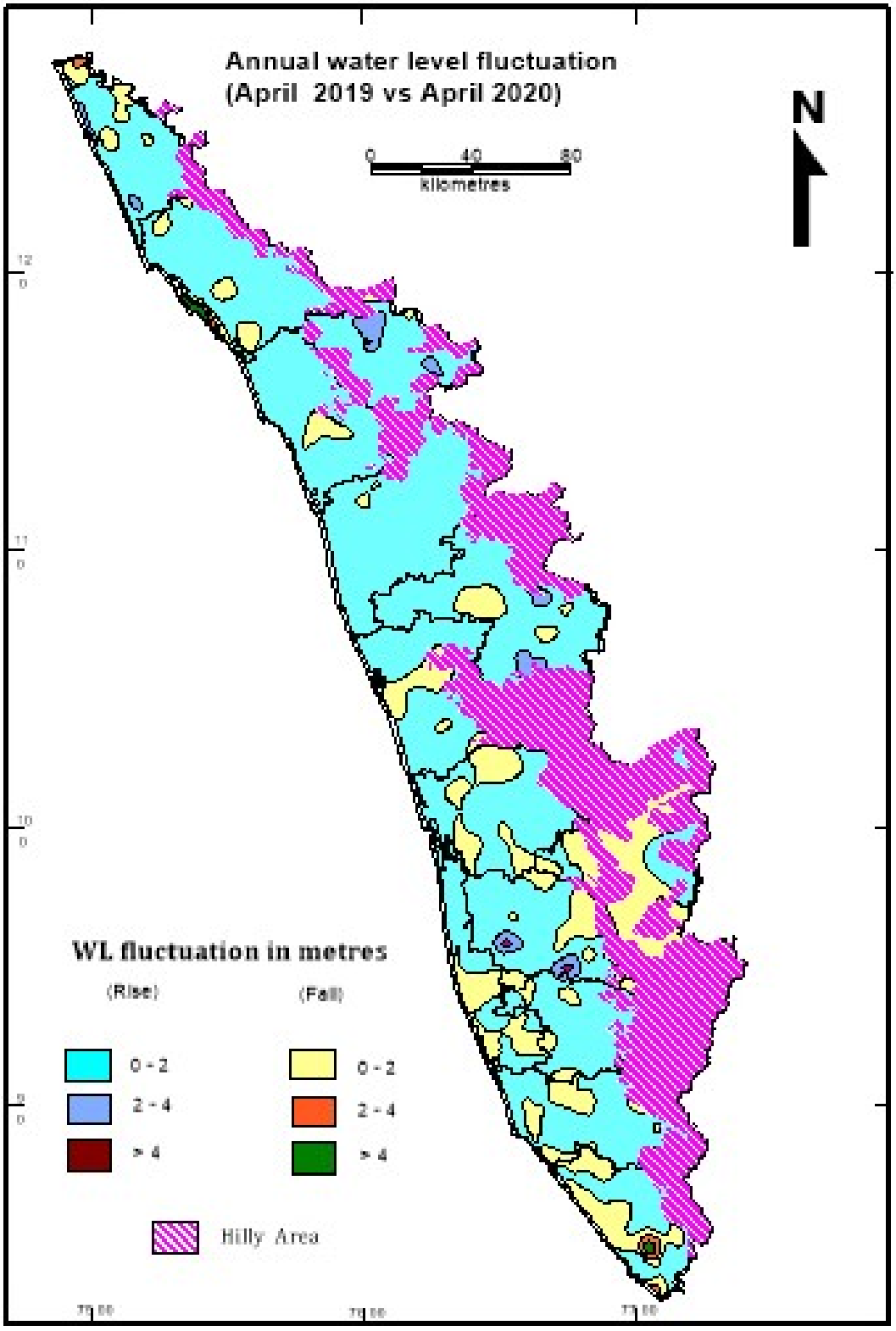


Fig 5.1: Annual Water Level Fluctuation (April 2019 Vs April 2020)

5.2 WATER LEVEL FLUCTUATION BETWEEN DECADAL MEAN (APRIL WATER LEVEL OF THE PERIOD 2010 – 2019) AND APRIL 2020

The change in water level over the last ten years period is brought out by the comparison of water level with the mean value of April 2020 measurements of the period 2010-2019.This analysis indicate that the change in water level is mostly restricted to +2 (rise) to -2 (fall) m as recorded by 88.77 % of GWMW. Rise and fall in water level share equal proportion in all districts as represented by 51.95 % and 48.04 % respectively. While considering the rise in water level of current season with mean most of the wells resembles in the 0 to 2 mts class with a percentage value of 98.96%. In Alapuzha, Ernakulam, Kollam, Palaghat, Malappuram and Thrissur districts rise in water level compared to ten years mean has been reported below 2 only, fall in the range of 0-2 m bgl is around 88 %. with Alapuzha and Kollam shows 100% with in this range. The frequency of wells showing rise and fall in different ranges (0-2m,2-4m, 4m) when compared with decade mean water level is given in Table 5.2. Figure 5.2 shows the water level fluctuation in the state for April 2020 with respect to Decadal mean (2010-2019).

Table 5.2: District wise – Water Level Fluctuation with Mean and April 2020 (April 2020 – Mean (April 2010 - 2019))

District	No. of Wells	Range of Fluctuation (m)				No.& Percentage of Wells /Percentage Showing Fluctuation						Total No. of Wells	
		Rise		Fall		Rise			Fall			Rise	Fall
		Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
ALAPPUZHA	18	0.006	1.44	0.04	0.52	9 100%	0	0	9 100%	0	0	9	9
ERNAKULAM	36	0.017	0.72	0.005	1.77	21 100.0%	0	0	15 100.%	0	0	21	15
IDUKKI	20	0.00	0.00	0.50	4.27	0	0	0	17 85.00%	2 10.00%	1 5.00%	0	20
KANNUR	33	0.00	2.41	0.05	4.84	24 92.31%	1 3.85%	1 3.85%	7 87.50%	0	1 12.50%	26	8
KASARGOD	44	0.00	2.00	0.02	*2.00*	24 92.31%	1 3.85%	1 3.85%	15 93.75%	1 6.25%	0	26	16
KOLLAM	22	0.03	0.83	0.02	1.46	10 100%	0	0	12 100%	0	0	10	12
KOTTAYAM	21	0.04	2.49	0.04	2.90	8 80.00%	1 10.00%	1 10.00%	10 83.33%	2 16.67%	0	10	12
KOZHIKODE	30	0.00	2.36	0.03	4.316	20 83.33%	2 8.33%	2 8.33%	7 87.50%	0	1 12.50%	24	8
MALAPPURAM	26	0.01	1.87	0.10	5.27	18 100%	0	0	7 87.50%	0	1 12.50%	18	8
PALAKKAD	31	0.01	1.84	0.025	*0.504*	23 100.%	0	0	8 100%	0	0	23	8
PATHANAMTHITTA	14	-	-	-	-	14 100%	0	0	0	0	0	14	0
THIRUVANANTHAPURAM	30	0.00	3.99	0.03	2.1	15 88.24%	2 11.76%	0	12 92.31%	1 7.69%	0	17	13
THRISSUR	31	0.00	0.27	0.12	2.54	1 100.0%	0	0	28 93.33%	2 6.67%	0	1	30
WAYANAD	25	-	-	0.19	13.69	0	0	0	6 24.00%	1 4.00%	18 18.00%	0	25
TOTAL	**381**	**0.00**	**3.99**	**0.005**	**13.69**	**187** 93.96%	**7** 3.51%	**5** 2.51%	**153** 83.15%	**9** 4.89%	**22** 11.95%	**199** 51.95%	**184** 48.04%

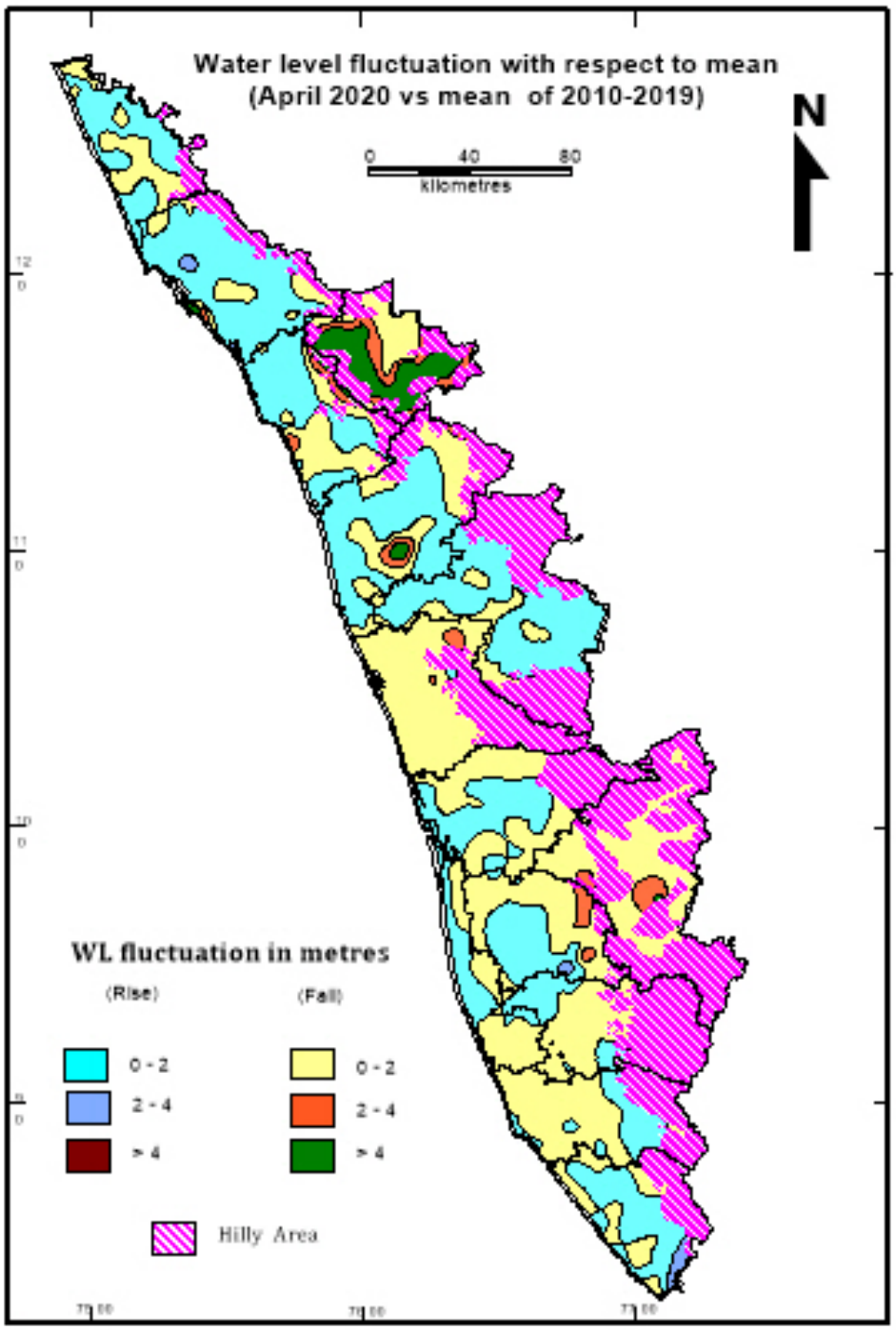


Fig.5.2 Water level fluctuation with respect to Decadal Mean (April 2020 Vs mean (April 2010-2019))

Annexure I

Station-wise Ground Water Level Data– Kerala State – April 2020

SI NO	District	LOCATION	Well Type	DWL (mbgl)
1	Trivandrum	Poojappura	Dug Well	5.49
2	Trivandrum	Thiruvallam -Kovalam	Dug Well	1.31
3	Trivandrum	Poovar	Dug Well	10.48
4	Trivandrum	Vellarada	Dug Well	3.60
5	Trivandrum	Nemom	Dug Well	5.68
6	Trivandrum	Athiyannur(Balaramapur	Dug Well	10.04
7	Trivandrum	Neyyattinkara	Dug Well	13.14
8	Trivandrum	Kallikkad	Dug Well	6.18
9	Trivandrum	Aryanad	Dug Well	4.57
10	Trivandrum	Vithura	Dug Well	2.48
11	Trivandrum	Vithura (Kallar)	Dug Well	4.40
12	Trivandrum	Nedumangad	Dug Well	8.61
13	Trivandrum	Kulathoor	Dug Well	2.00
14	Trivandrum	Pallippuram	Dug Well	3.98
15	Trivandrum	Sarkara-Chirayinkeezhu	Dug Well	5.55
16	Trivandrum	Edava	Dug Well	9.35
17	Trivandrum	Navaikulam	Dug Well	4.88
18	Trivandrum	Pazhayakunnummel	Dug Well	8.44
19	Trivandrum	Vembayam	Dug Well	9.28
20	Trivandrum	Nellanad	Dug Well	9.13
21	Trivandrum	Aruvikkara	Dug Well	3.63
22	Trivandrum	Perumkadavila	Dug Well	10.91
23	Trivandrum	Mannoorkara	Dug Well	5.49
24	Trivandrum	Thennoor	Dug Well	5.78
25	Trivandrum	Karavaram	Dug Well	6.64
26	Trivandrum	Madavoor	Dug Well	7.40
27	Trivandrum	Veiloor-Murukkumpuzha	Dug Well	15.69
28	Trivandrum	Parassala	Dug Well	9.49
29	Trivandrum	Malayinkeezhu	Dug Well	11.10
30	Trivandrum	Kadakampally	Dug Well	7.13
31	Kollam	Neendakara	Dug Well	1.17
32	Kollam	Ochira	Dug Well	2.39
33	Kollam	Kollam	Dug Well	3.45
34	Kollam	Mayyanad	Dug Well	4.09
35	Kollam	Munrothuruth	Dug Well	12.02
36	Kollam	Poothakkulam	Dug Well	10.25
37	Kollam	Kadakkal	Dug Well	11.01
38	Kollam	Kottarakkara	Dug Well	7.35
39	Kollam	Nilamel	Dug Well	1.68
40	Kollam	Veliyam	Dug Well	9.16
41	Kollam	Sasthamkotta	Dug Well	7.53

SI NO	District	LOCATION	Well Type	DWL (mbgl)
42	Kollam	Ayoor	Dug Well	4.67
43	Kollam	Edamon	Dug Well	10.72
44	Kollam	Karavaloor	Dug Well	8.54
45	Kollam	Karavoor	Dug Well	0.70
46	Kollam	Kazhuthurutty	Dug Well	6.43
47	Kollam	Kulathupuzha	Dug Well	6.36
48	Kollam	Pathanapuram	Dug Well	8.30
49	Kollam	Pattazhy	Dug Well	7.10
50	Kollam	Piravanthur	Dug Well	4.66
51	Kollam	Thenmala	Dug Well	8.00
52	Kollam	Yeroor	Dug Well	2.41
53	Pathanamthitta	Pandalam	Dug Well	5.60
54	Pathanamthitta	Madathumchal	Dug Well	3.64
55	Pathanamthitta	Keezhvaipur	Dug Well	4.32
56	Pathanamthitta	Kunnamthanam	Dug Well	10.05
57	Pathanamthitta	Chathenkerry	Dug Well	2.25
58	Pathanamthitta	Maroor	Dug Well	4.77
59	Pathanamthitta	Murinjakal	Dug Well	3.34
60	Pathanamthitta	Nedungadappally	Dug Well	5.00
61	Pathanamthitta	Adur	Dug Well	4.42
62	Pathanamthitta	Thekkamala	Dug Well	3.58
63	Pathanamthitta	Enathu	Dug Well	4.46
64	Pathanamthitta		Dug Well	2.91
65	Pathanamthitta	Konni	Dug Well	5.00
66	Pathanamthitta	Vadasserikkara	Dug Well	3.70
67	Alappuzha	Kayamkulam	Dug Well	1.39
68	Alappuzha	Kattanam	Dug Well	12.61
69	Alappuzha	Mavelikkara	Dug Well	5.02
70	Alappuzha	Nangiarkulanga	Dug Well	2.13
71	Alappuzha	Purakkad	Dug Well	1.52
72	Alappuzha	Thaneermukkom	Dug Well	0.96
73	Alappuzha	Thuravoor	Dug Well	2.90
74	Alappuzha	Karakkad	Dug Well	5.90
75	Alappuzha	Thripperunthur	Dug Well	2.84
76	Alappuzha	Puliyoor	Dug Well	9.45
77	Alappuzha	Mannar	Dug Well	3.44
78	Alappuzha	Chengannur	Dug Well	5.32
79	Alappuzha	Thiruvanvandoo	Dug Well	3.03
80	Alappuzha	Muttar	Dug Well	1.58
81	Alappuzha	Alappuzha	Dug Well	1.31
82	Alappuzha	Kainady	Dug Well	4.04
83	Alappuzha	Mannanchery	Dug Well	2.90
84	Alappuzha	OW-29	Dug Well	2.50
85	Kottayam	Pambady	Dug Well	2.59

SI NO	District	LOCATION	Well Type	DWL (mbgl)
86	Kottayam	Manimala	Dug Well	6.96
87	Kottayam	Koottickal	Dug Well	2.94
88	Kottayam	Chingavanam	Dug Well	9.76
89	Kottayam	Kottayam	Dug Well	7.32
90	Kottayam	Monippally	Dug Well	1.37
91	Kottayam	Ettumanoor	Dug Well	3.81
92	Kottayam	kanjirappally	Dug Well	5.24
93	Kottayam	Nedukunnam	Dug Well	5.50
94	Kottayam	Pala	Dug Well	6.32
95	Kottayam	Erumeli	Dug Well	4.27
96	Kottayam	Kumarakom	Dug Well	1.38
97	Kottayam	Kaduthuruthy	Dug Well	1.70
98	Kottayam	Vaikkom	Dug Well	1.55
99	Kottayam	Uzhavoor	Dug Well	4.18
100	Kottayam	Ramapuram	Dug Well	8.00
101	Kottayam	Kalaketty	Dug Well	7.91
102	Kottayam	Neeloor	Dug Well	7.94
103	Kottayam	Vazhoor	Dug Well	5.20
104	Kottayam	Poonjar	Dug Well	3.18
105	Kottayam	Mundakkayam	Dug Well	9.37
106	Idukki	Thodupuzha	Dug Well	4.92
107	Idukki	Kattappana	Dug Well	9.06
108	Idukki	Vazhathope	Dug Well	8.48
109	Idukki	Peruvanthanam	Dug Well	2.98
110	Idukki	Munnar	Dug Well	3.70
111	Idukki	Devikulam	Dug Well	5.25
112	Idukki	Arakkulam	Dug Well	8.64
113	Idukki	Vannapuram	Dug Well	6.24
114	Idukki	Nedumkandam	Dug Well	5.33
115	Idukki	Karimkunnam	Dug Well	4.12
116	Idukki	Karimannoor	Dug Well	6.63
117	Idukki	Peerumade	Dug Well	4.00
118	Idukki	Marayoor	Dug Well	3.00
119	Idukki	Elappara	Dug Well	2.42
120	Idukki	Kumily	Dug Well	4.27
121	Idukki	Muttom	Dug Well	4.60
122	Idukki	Ayyappancoil	Dug Well	12.90
123	Idukki	Udumbanchola	Dug Well	1.71
124	Idukki	Adimali	Dug Well	3.78
125	Idukki	Chakkupallam	Dug Well	2.69
126	Ernakulam	Neriyamangalam	Dug Well	8.21
127	Ernakulam	Pothanikkadu	Dug Well	4.33
128	Ernakulam	Muvattupuzha	Dug Well	7.08
129	Ernakulam	Koothattukulam	Dug Well	5.88

SI NO	District	LOCATION	Well Type	DWL (mbgl)
130	Ernakulam	Ramamangalam	Dug Well	5.88
131	Ernakulam	Piravom	Dug Well	6.40
132	Ernakulam	Ernakulam	Dug Well	0.52
133	Ernakulam	Mattancherry	Dug Well	0.42
134	Ernakulam	Chellanam	Dug Well	0.25
135	Ernakulam	Edappally	Dug Well	1.40
136	Ernakulam	Aluva	Dug Well	3.87
137	Ernakulam	Parur	Dug Well	2.31
138	Ernakulam	Njarakkal	Dug Well	0.83
139	Ernakulam	Angamaly	Dug Well	8.67
140	Ernakulam	Perumbavoor	Dug Well	7.40
141	Ernakulam	Pindimana	Dug Well	4.55
142	Ernakulam	Kizhakambalam	Dug Well	10.06
143	Ernakulam	Rayamangalam	Dug Well	4.16
144	Ernakulam	Kunnathunadu South	Dug Well	8.02
145	Ernakulam	Nedumbassery	Dug Well	8.60
146	Ernakulam	Manjapra	Dug Well	3.40
147	Ernakulam	Edacochin	Dug Well	0.54
148	Ernakulam	Pallipuram	Dug Well	0.64
149	Ernakulam	Amballur	Dug Well	8.79
150	Ernakulam	Thiruvankulam	Dug Well	5.37
151	Ernakulam	Aluva East	Dug Well	6.33
152	Ernakulam	Kuttamangalam	Dug Well	3.27
153	Ernakulam	Keerampara	Dug Well	1.55
154	Ernakulam	Vengola	Dug Well	7.86
155	Ernakulam	Kunnathunadu	Dug Well	7.60
156	Ernakulam	Kunnathunadu	Dug Well	7.13
157	Ernakulam	Thirumaradi	Dug Well	3.83
158	Ernakulam	Thirumaradi	Dug Well	3.01
159	Ernakulam	Elanji	Dug Well	7.56
160	Ernakulam	Eranellur	Dug Well	6.82
161	Ernakulam	Thrikkakara	Dug Well	9.45
162	Trisuur	Ollukkara	Dug Well	7.53
163	Trisuur	Puzhakkal	Dug Well	5.49
164	Trisuur	Ollukkara	Dug Well	2.40
165	Trisuur	Kodakara	Dug Well	8.91
166	Trisuur	Kodakara	Dug Well	6.49
167	Trisuur	Chalakudy,Major	Dug Well	3.74
168	Trisuur	Irinjalakuda	Dug Well	11.34
169	Trisuur	Puzhakkal	Dug Well	9.76
170	Trisuur	Wadakkanchery	Dug Well	4.97
171	Trisuur	Pazhayannur	Dug Well	6.19
172	Trisuur	Pazhayannur	Dug Well	7.10
173	Trisuur	Chowwannur	Dug Well	11.37

SI NO	District	LOCATION	Well Type	DWL (mbgl)
174	Trisuur	Chavakkad	Dug Well	2.05
175	Trisuur	Chowwannur	Dug Well	8.37
176	Trisuur	Nattika	Dug Well	3.37
177	Trisuur	Valappad	Dug Well	1.80
178	Trisuur	Mathilakam	Dug Well	4.23
179	Trisuur	Engandiyoor	Dug Well	4.48
180	Trisuur	Ollukkara	Dug Well	4.47
181	Trisuur	Kodakara	Dug Well	6.14
182	Trisuur	Mala	Dug Well	11.99
183	Trisuur	Cherpu	Dug Well	11.10
184	Trisuur	Ollukkara	Dug Well	5.58
185	Trisuur	Mullassery	Dug Well	9.18
186	Trisuur	Wadakkanchery	Dug Well	7.07
187	Trisuur	Wadakkanchery	Dug Well	6.58
188	Trisuur	Kodungallur	Dug Well	3.65
189	Trisuur	Chalakudy	Dug Well	3.02
190	Trisuur	Kodungallur	Dug Well	2.11
191	Trisuur	Kodungallur	Dug Well	1.82
192	Trisuur	Kodungallur	Dug Well	1.78
193	Palakkad	Nagalassery	Dug Well	8.22
194	Palakkad	Pattambi	Dug Well	8.08
195	Palakkad	Shornur	Dug Well	3.85
196	Palakkad	Vadakkancheri	Dug Well	4.64
197	Palakkad	Kannambra	Dug Well	4.00
198	Palakkad	Nemmara	Dug Well	3.21
199	Palakkad	Chittur	Dug Well	4.69
200	Palakkad	Palakkad	Dug Well	6.62
201	Palakkad	Mankara	Dug Well	5.73
202	Palakkad	Parli	Dug Well	9.42
203	Palakkad	Kongad	Dug Well	6.68
204	Palakkad	Mundur	Dug Well	4.26
205	Palakkad	Kalladikode	Dug Well	8.94
206	Palakkad	Pudussery	Dug Well	5.23
207	Palakkad	Cherpulacherry	Dug Well	7.59
208	Palakkad	Mannarkad	Dug Well	10.82
209	Palakkad	Pudussery	Dug Well	4.93
210	Palakkad	Agali	Dug Well	3.73
211	Palakkad	Koduvayur	Dug Well	5.46
212	Palakkad	Sreekrishnapuram	Dug Well	11.03
213	Palakkad	Ananganadi	Dug Well	6.03
214	Palakkad	Ottappalam	Dug Well	9.23
215	Palakkad	Pottassery	Dug Well	4.57
216	Palakkad	Akathethara	Dug Well	6.17
217	Palakkad	Alathur	Dug Well	1.98

SI NO	District	LOCATION	Well Type	DWL (mbgl)
218	Palakkad	Kuzhalmannam	Dug Well	4.61
219	Palakkad	Kuthannur	Dug Well	3.60
220	Palakkad	Kodakad	Dug Well	10.50
221	Palakkad	Kozhinjampara	Dug Well	2.48
222	Palakkad	Vandithavalam	Dug Well	5.42
223	Palakkad	Mannur	Dug Well	7.28
224	Malappuram	Areacode	Dug Well	9.97
225	Malappuram	Kavanoor	Dug Well	4.74
226	Malappuram	Kuzhimanna	Dug Well	5.12
227	Malappuram	Narukara	Dug Well	6.74
228	Malappuram	Kondotty	Dug Well	5.09
229	Malappuram	Kattipparuthi	Dug Well	7.46
230	Malappuram	Kuttippuram	Dug Well	4.42
231	Malappuram	Marakkara	Dug Well	14.05
232	Malappuram	Anakkayam	Dug Well	5.65
233	Malappuram	Kottakkal	Dug Well	8.70
234	Malappuram	Malappuram	Dug Well	3.38
235	Malappuram	Puzhakkattiri	Dug Well	14.25
236	Malappuram	Kalikavu	Dug Well	5.75
237	Malappuram	Nilambur	Dug Well	5.64
238	Malappuram	Perinthalmanna	Dug Well	5.56
239	Malappuram	Edappal	Dug Well	9.67
240	Malappuram	Thirunavaya	Dug Well	5.89
241	Malappuram	Tirur	Dug Well	4.65
242	Malappuram	Tirurangadi	Dug Well	9.15
243	Malappuram	Othukkungal	Dug Well	15.45
244	Malappuram	Vengara	Dug Well	12.68
245	Malappuram	Edavanna	Dug Well	11.65
246	Malappuram	Karuvarakundu	Dug Well	4.33
247	Malappuram	Pandikkad	Dug Well	4.59
248	Malappuram	Thuvvur	Dug Well	10.65
249	Malappuram	Wandoor	Dug Well	9.49
250	Kozhikkod	Pullurampara	Dug Well	6.86
251	Kozhikkod	Adivaram	Dug Well	4.41
252	Kozhikkod	Thalayad	Dug Well	3.83
253	Kozhikkod	Peruvannamoozhi	Dug Well	6.28
254	Kozhikkod	Thaleekkara	Dug Well	4.98
255	Kozhikkod	Puthiyanirathu	Dug Well	6.73
256	Kozhikkod	Parappupara	Dug Well	13.10
257	Kozhikkod	Beypore	Dug Well	3.28
258	Kozhikkod	Mavoor	Dug Well	7.50
259	Kozhikkod	Chathamangalam	Dug Well	7.45
260	Kozhikkod	Mukkam	Dug Well	8.74
261	Kozhikkod	Thamarassery	Dug Well	4.27

SI NO	District	LOCATION	Well Type	DWL (mbgl)
262	Kozhikkod	Quilandi	Dug Well	6.68
263	Kozhikkod	Perambra	Dug Well	2.03
264	Kozhikkod	Vadkara	Dug Well	5.87
265	Kozhikkod	Mahe	Dug Well	7.90
266	Kozhikkod	Puthuppadi	Dug Well	9.96
267	Kozhikkod	Kozhikkode town	Dug Well	4.30
268	Kozhikkod	Njelinjam parambu	Dug Well	1.63
269	Kozhikkod	Ferock policestation	Dug Well	9.40
270	Kozhikkod	Hospital Vellayikkode	Dug Well	5.33
271	Kozhikkod	Palakkutty-Koduvally	Dug Well	5.46
272	Kozhikkod	Balussery	Dug Well	7.29
273	Kozhikkod	Koorachundu	Dug Well	5.33
274	Kozhikkod	Ulliyery	Dug Well	5.84
275	Kozhikkod	Nadapuram	Dug Well	6.95
276	Kozhikkod	Arikkulam	Dug Well	9.15
277	Kozhikkod	Maniyoor	Dug Well	13.28
278	Kozhikkod	Madappalli	Dug Well	5.20
279	Kozhikkod	Chemachery	Dug Well	4.32
280	Wayanad	Anchukunnu	Dug Well	8.55
281	Wayanad	Achooranam	Dug Well	6.28
282	Wayanad	Ambalavayal	Dug Well	4.25
283	Wayanad	Cheeral	Dug Well	11.15
284	Wayanad	Chundale	Dug Well	7.07
285	Wayanad	Kaniambetta	Dug Well	1.48
286	Wayanad	Kidanganad	Dug Well	7.97
287	Wayanad	Kottappadi	Dug Well	3.71
288	Wayanad	Kunnathidavaka	Dug Well	1.01
289	Wayanad	Mananthavady	Dug Well	5.60
290	Wayanad	Mullenkolly	Dug Well	11.25
291	Wayanad	Muppainad	Dug Well	8.61
292	Wayanad	Nenmeni	Dug Well	10.05
293	Wayanad	Noolpuzha	Dug Well	3.24
294	Wayanad	Padinharethara	Dug Well	9.05
295	Wayanad	Panamaram	Dug Well	2.18
296	Wayanad	Periya	Dug Well	7.28
297	Wayanad	Poothadi	Dug Well	0.21
298	Wayanad	Purakkadi	Dug Well	6.53
299	Wayanad	Sulthanbathery	Dug Well	4.50
300	Wayanad	Thavinhal	Dug Well	1.63
301	Wayanad	Thirunelly	Dug Well	3.10
302	Wayanad	Thondernad	Dug Well	6.01
303	Wayanad	Thrissilery	Dug Well	8.22
304	Wayanad	Vellamunda	Dug Well	10.43
305	Kannur	Ancharakandi	Dug Well	8.90

SI NO	District	LOCATION	Well Type	DWL (mbgl)
306	Kannur	Chelora	Dug Well	1.95
307	Kannur	Chirakkal	Dug Well	6.47
308	Kannur	Kannapuram	Dug Well	2.49
309	Kannur	Kannur11	Dug Well	15.84
310	Kannur	Madaayi	Dug Well	13.54
311	Kannur	Aalakode	Dug Well	11.65
312	Kannur	Andhur	Dug Well	2.57
313	Kannur	Kankole	Dug Well	12.57
314	Kannur	Kolancherei	Dug Well	8.92
315	Kannur	Kooveri	Dug Well	16.58
316	Kannur	Kuttoor	Dug Well	10.75
317	Kannur	Malapattam	Dug Well	4.18
318	Kannur	Payyannur	Dug Well	2.70
319	Kannur	Peringom	Dug Well	7.46
320	Kannur	Sreekandapuram	Dug Well	8.27
321	Kannur	Thaliparamba	Dug Well	9.50
322	Kannur	Vayakkara	Dug Well	9.06
323	Kannur	Vayathur	Dug Well	5.92
324	Kannur	Aralam	Dug Well	1.85
325	Kannur	Eruvatti	Dug Well	9.30
326	Kannur	Kannavam	Dug Well	5.43
327	Kannur	Kelakam	Dug Well	8.40
328	Kannur	Kolari	Dug Well	8.25
329	Kannur	Kolavelloor	Dug Well	10.25
330	Kannur	Koodali	Dug Well	6.09
331	Kannur	Kottiyoor	Dug Well	2.20
332	Kannur	Manathana	Dug Well	4.98
333	Kannur	Mangattidum	Dug Well	4.10
334	Kannur	Panoor	Dug Well	7.23
335	Kannur	Peringathoor	Dug Well	10.52
336	Kannur	Vekkalam	Dug Well	1.65
337	Kannur	Vilamana	Dug Well	9.40
338	Kasargod	Cheemeni	Dug Well	10.29
339	Kasargod	Pallikkara	Dug Well	9.90
340	Kasargod	Udma	Dug Well	8.13
341	Kasargod	Mavungal	Dug Well	9.15
342	Kasargod	Belur	Dug Well	9.21
343	Kasargod	Balal	Dug Well	8.27
344	Kasargod	Beemanady	Dug Well	5.52
345	Kasargod	Periya	Dug Well	5.27
346	Kasargod	Bandadka	Dug Well	Dry
347	Kasargod	Mulleria	Dug Well	14.10
348	Kasargod	Badiyadka	Dug Well	10.93
349	Kasargod	Mangalpady	Dug Well	10.63

SI NO	District	LOCATION	Well Type	DWL (mbgl)
350	Kasargod	Uppala	Dug Well	11.72
351	Kasargod	Bela	Dug Well	Dry
352	Kasargod	Enmakaje	Dug Well	10.61
353	Kasargod	Vorkady	Dug Well	10.43
354	Kasargod	Kunjathur	Dug Well	9.28
355	Kasargod	Bayar	Dug Well	13.20
356	Kasargod	Kumbadaje	Dug Well	16.07
357	Kasargod	Nellikatta	Dug Well	8.80
358	Kasargod	Delampady	Dug Well	
359	Kasargod	Beembungal	Dug Well	9.46
360	Kasargod	Malakallu	Dug Well	7.34
361	Kasargod	Kanhangad	Dug Well	3.40
362	Kasargod	Nileshwar	Dug Well	10.81
363	Kasargod	Choyangode	Dug Well	9.29
364	Kasargod	Kasaragod	Dug Well	5.78
365	Kasargod	Paivalike	Dug Well	10.11
366	Kasargod	Permude	Dug Well	dry
367	Kasargod	Muliyar	Dug Well	15.72
368	Kasargod	Thekkil	Dug Well	14.60
369	Kasargod	Bedadka	Dug Well	8.73
370	Kasargod	Kuttikole	Dug Well	14.10
371	Kasargod	Trikaripur	Dug Well	4.09
372	Kasargod	Cheemeni	Dug Well	12.64
373	Kasargod	Rajapuram	Dug Well	6.06
374	Kasargod	Panathady	Dug Well	10.37
375	Kasargod	Panathur	Dug Well	10.85
376	Kasargod	Balal	Dug Well	6.12
377	Kasargod	Nattakal	Dug Well	12.60
378	Kasargod	Chittarikkal	Dug Well	3.35
379	Kasargod	Kinanoor	Dug Well	10.32
380	Kasargod	Chengala	Dug Well	12.04
381	Kasargod	Koipady	Dug Well	8.94
382	Trivandrum	Azhoor	Tube Well	4.50
383	Trivandrum	Sharkkara	Tube Well	11.00
384	Trivandrum	Kadakampally	Tube Well	5.58
385	Trivandrum	Kadakampally	Tube Well	6.50
386	Kollam	Panmana	Tube Well	3.40
387	Kollam	Kollam West	Tube Well	32.38
388	Kollam	Mayanad	Tube Well	4.13
389	Kollam	Mundrothuruthu	Tube Well	12.26
390	Kollam	Paravoor	Tube Well	9.20
391	Kollam	Poothakkulam	Tube Well	17.48
392	Kollam	Mynagappally	Tube Well	35.25
393	Kollam	Kottiyam	Tube Well	28.36

SI NO	District	LOCATION	Well Type	DWL (mbgl)
394	Alappuzha	01 CPCRI,Kayamkulam	Tube Well	4.30
395	Alappuzha	04 Charumoodu	Tube Well	18.16
396	Alappuzha	05 Chingoly	Tube Well	0.76
397	Alappuzha	06 Karthikappally	Tube Well	
398	Alappuzha	07 Nangiarkulangara	Tube Well	
399	Alappuzha	08 Thrikkunnappuzha	Tube Well	0.81
400	Alappuzha	09 Vallikkavu	Tube Well	5.62
401	Alappuzha	10 Puliyoor	Tube Well	9.98
402	Alappuzha	12 Mannar	Tube Well	6.27
403	Alappuzha	13 Pallippad	Tube Well	4.26
404	Alappuzha	14 Karuvatta	Tube Well	3.26
405	Alappuzha	15 Purakkad	Tube Well	1.97
406	Alappuzha	16 Ambalappuzha	Tube Well	3.76
407	Alappuzha	18 Ramankary	Tube Well	3.87
408	Alappuzha	19 Moncombu	Tube Well	
409	Alappuzha	20 Alappuzha	Tube Well	6.05
410	Alappuzha	21 Aryad-south	Tube Well	2.49
411	Alappuzha	23 Kattoor	Tube Well	1.50
412	Alappuzha	24Thanneermukkom	Tube Well	1.08
413	Alappuzha	26 Vayalar	Tube Well	3.07
414	Alappuzha	28 Thuravoor	Tube Well	
415	Alappuzha	31 Ezhupunna	Tube Well	1.63
416	Alappuzha	32 Chandiroor	Tube Well	
417	Alappuzha	33 Aroor	Tube Well	
418	Alappuzha	35 Pennukkara	Tube Well	4.49
419	Alappuzha	36 Punthala	Tube Well	4.49
420	Alappuzha	37Mavelikkara	Tube Well	10.80
421	Alappuzha	38Pallippuram	Tube Well	4.45
422	Trivandrum	Malayinkeezhu	Bore well	8.08
423	Trivandrum	Kallikkad	Bore well	3.12
424	Trivandrum	Keezharoor	Bore well	0.49
425	Trivandrum	Amboori	Bore well	9.28
426	Trivandrum	Kallikkad	Bore well	13.23
427	Trivandrum	Aryanad	Bore well	3.73
428	Trivandrum	Vithura	Bore well	13.45
429	Trivandrum	Anad	Bore well	19.33
430	Trivandrum	Peringamala	Bore well	8.37
431	Trivandrum	Theakada	Bore well	4.07
432	Trivandrum	Nellanad	Bore well	8.27
433	Trivandrum	Vattappara	Bore well	13.89
434	Trivandrum	Karakulam	Bore well	8.69
435	Trivandrum	Vilappil	Bore well	15.63
436	Trivandrum	Kulathummal	Bore well	7.62
437	Trivandrum	Vattiyoorkavu-Peroorkad	Bore well	10.34

SI NO	District	LOCATION	Well Type	DWL (mbgl)
438	Trivandrum	Parassala	Bore well	19.85
439	Trivandrum	Maranalloor	Bore well	8.24
440	Trivandrum	Kallara	Bore well	6.83
441	Trivandrum	Madavoor	Bore well	7.98
442	Trivandrum	Peringamala (Venkolla)	Bore well	0.65
443	Trivandrum	Karavaram	Bore well	7.13
444	Trivandrum	Pangode	Bore well	6.48
445	Trivandrum	Palode	Bore well	8.94
446	Trivandrum	Keezhattingal	Bore well	17.68
447	Kollam	Avaneeswaram	Bore well	7.39
448	Kollam	Chithara	Bore well	8.94
449	Kollam	Kadakkal	Bore well	11.12
450	Kollam	Karavaloor	Bore well	8.22
451	Kollam	Kottarakkara	Bore well	1.30
452	Kollam	Kulakkada	Bore well	8.99
453	Kollam	Mylom	Bore well	6.34
454	Kollam	Velinallur	Bore well	7.87
455	Kollam	Ariyankavu	Bore well	8.07
456	Kollam	Edamon	Bore well	9.12
457	Kollam	Edamullackkal	Bore well	8.43
458	Kollam	Karavoor	Bore well	8.54
459	Kollam	Thenmala(urukunnu)	Bore well	8.22
460	Kollam	Vilakudy	Bore well	11.70
461	Kottayam	Karukachal	Bore well	4.81
462	Kottayam	Kaduthuruthy	Bore well	1.10
463	Kottayam	Manimala	Bore well	3.84
464	Kottayam	Manimala	Bore well	3.65
465	Kottayam	Kanjirappally	Bore well	5.01
466	Kottayam	Karukachal	Bore well	3.89
467	Kottayam	Njeezhoor	Bore well	7.51
468	Kottayam	Veliyannoor	Bore well	1.55
469	Kottayam	Muttampalam	Bore well	18.69
470	Kottayam	Arpookara	Bore well	7.91
471	Kottayam	Madappally	Bore well	10.48
472	Kottayam	Vijayapuram	Bore well	7.08
473	Kottayam	Arpookara	Bore well	8.21
474	Kottayam	Vakathanam	Bore well	9.64
475	Kottayam	Vellilappally	Bore well	5.05
476	Kottayam	Vellavoor	Bore well	5.34
477	Kottayam	Poonjar Vadakkekara	Bore well	4.39
478	Kottayam	Kanjirappally	Bore well	2.33
479	Kottayam	Lalam (p)	Bore well	7.47
480	Kottayam	Erumeli North	Bore well	1.66
481	Kottayam	Teekoy	Bore well	23.07

SI NO	District	LOCATION	Well Type	DWL (mbgl)
482	Kottayam	Kuravilangad	Bore well	3.11
483	Kottayam	Kanjirappally	Bore well	27.67
484	Kottayam	Teekoy	Bore well	2.95
485	Idukki	Kanjar	Bore well	2.89
486	Idukki	Kumily	Bore well	16.06
487	Idukki	Kudayathoor	Bore well	3.85
488	Idukki	Poopara	Bore well	12.39
489	Idukki	Kanthalloor	Bore well	22.10
490	Idukki	Murikkassery	Bore well	16.24
491	Idukki	Mammattikkanam	Bore well	31.48
492	Idukki	Chithirapuram	Bore well	19.41
493	Idukki	Mattupetty	Bore well	7.90
494	Idukki	Udumbanchola	Bore well	8.40
495	Idukki	Upputhara	Bore well	8.46
496	Idukki	Kudayathoor	Bore well	9.09
497	Idukki	Munnar	Bore well	3.78
498	Idukki	Peerumade	Bore well	38.03
499	Idukki	Udumbannoor	Bore well	2.38
500	Idukki	Vannapuram	Bore well	8.57
501	Idukki	Vazhathope	Bore well	7.58
502	Idukki	Vazhithala	Bore well	6.38
503	Idukki	Adimali	Bore well	3.89
504	Idukki	Kumaramangalam	Bore well	5.57
505	Idukki	Pannimattom	Bore well	3.21
506	Idukki	Kanchiyar	Bore well	14.74
507	Idukki	Vandanmedu	Bore well	38.30
508	Ernakulam	Rayamangalam	Bore well	9.65
509	Ernakulam	Assamanoor	Bore well	1.37
510	Ernakulam	Chelamattom (Okkal)	Bore well	4.15
511	Ernakulam	Kodanad	Bore well	1.43
512	Ernakulam	Vengoor	Bore well	6.35
513	Ernakulam	Kadavoor	Bore well	7.99
514	Ernakulam	Palakuzha	Bore well	6.33
515	Ernakulam	Piravom	Bore well	7.12
516	Ernakulam	Onakkur	Bore well	3.84
517	Ernakulam	Neriyamangalam	Bore well	6.85
518	Ernakulam	Edakkattuvayalveliyanadu)	Bore well	6.43
519	Ernakulam	Velloorkunnam(vazhapilly)	Bore well	1.28
520	Ernakulam	Kadungalloor	Bore well	9.44
521	Ernakulam	Kakkanadu	Bore well	11.47
522	Ernakulam	Nedumbassery	Bore well	3.66
523	Ernakulam	Kothamangalam	Bore well	4.47
524	Ernakulam	Pindimana	Bore well	5.04
525	Ernakulam	Elanji	Bore well	5.45

SI NO	District	LOCATION	Well Type	DWL (mbgl)
526	Ernakulam	Keerampara	Bore well	7.57
527	Ernakulam	Kunnukara	Bore well	3.52
528	Ernakulam	Pattimattom	Bore well	6.35
529	Trissur	Vellangallur	Bore well	26.94
530	Trissur	Vellangallur	Bore well	6.09
531	Trissur	Kodakara	Bore well	8.62
532	Trissur	Irinjalakuda	Bore well	3.74
533	Trissur	Puzhakkal	Bore well	18.83
534	Trissur	Mala	Bore well	8.44
535	Trissur	Kodakara	Bore well	9.85
536	Trissur	Chowwannur	Bore well	16.09
537	Trissur	Ollukkara	Bore well	2.87
538	Trissur	Ollukkara	Bore well	5.24
539	Trissur	Pazhayannur	Bore well	14.68
540	Trissur	Pazhayannur	Bore well	38.53
541	Trissur	Pazhayannur	Bore well	12.40
542	Trissur	Puzhakkal	Bore well	4.77
543	Trissur	Wadakkanchery	Bore well	7.13
544	Trissur	Kodakara	Bore well	1.62
545	Trissur	Kodakara	Bore well	10.76
546	Trissur	Ollukkara	Bore well	10.65
547	Trissur	Puzhakkal	Bore well	19.51
548	Trissur	Puzhakkal	Bore well	12.56
549	Trissur	Ollukkara	Bore well	6.25
550	Trissur	Puzhakkal	Bore well	8.81
551	Trissur	Pazhayannur	Bore well	22.77
552	Trissur	Pazhayannur	Bore well	16.96
553	Trissur	Wadakkanchery	Bore well	6.15
554	Trissur	Chowwannur	Bore well	33.62
555	Trissur	Chowwannur	Bore well	13.53
556	Trissur	Mala	Bore well	8.32
557	Trissur	Vellangallur	Bore well	8.42
558	Trissur	Chalakudy	Bore well	8.86
559	Trissur	Chalakudy	Bore well	7.27
560	Trissur	Chalakudy	Bore well	10.54
561	Trissur	Wadakkanchery	Bore well	3.85
562	Trissur	Wadakkanchery	Bore well	29.55
563	Palakkad	Pattambi	Bore well	21.43
564	Palakkad	Nellaya	Bore well	11.76
565	Palakkad	Karimpuzha	Bore well	11.10
566	Palakkad	Nalleppilly	Bore well	19.95
567	Palakkad	Puthuppariyaram-I	Bore well	5.60
568	Palakkad	Ozhalapathy	Bore well	6.46
569	Palakkad	Pudussery	Bore well	5.60

SI NO	District	LOCATION	Well Type	DWL (mbgl)
570	Palakkad	Nagalassery	Bore well	22.34
571	Palakkad	Puducode	Bore well	15.85
572	Palakkad	Melarcode	Bore well	24.46
573	Palakkad	Vandazhi	Bore well	13.61
574	Palakkad	Lakkidi-Perur-I	Bore well	12.44
575	Palakkad	Kollengode	Bore well	4.65
576	Palakkad	Elavancherry	Bore well	4.24
577	Palakkad	Thathamangalam	Bore well	8.19
578	Palakkad	Mannur	Bore well	16.73
579	Palakkad	Kottayi	Bore well	9.93
580	Palakkad	Pottassery-II	Bore well	2.75
581	Palakkad	Karakurissi	Bore well	13.49
582	Palakkad	Ambalapara	Bore well	21.99
583	Palakkad	Vellinezhi	Bore well	10.06
584	Palakkad	Sreekrishnapuram	Bore well	12.16
585	Palakkad	Mannarkad	Bore well	11.89
586	Palakkad	Marutharode	Bore well	10.31
587	Palakkad	Koduvayur	Bore well	14.69
588	Palakkad	Kuzhalmannam	Bore well	2.93
589	Palakkad	Pattambi	Bore well	24.37
590	Palakkad	Tarur-I	Bore well	9.42
591	Palakkad	Pirayiri	Bore well	11.33
592	Palakkad	Anakkara	Bore well	10.47
593	Palakkad	Vallapuzha	Bore well	13.12
594	Palakkad	Palakkad	Bore well	14.57
595	Palakkad	Shornur	Bore well	11.63
596	Kasrgod	Cheemeni	Bore well	16.47
597	Kasrgod	Odayanchal	Bore well	5.97
598	Kasrgod	Balal	Bore well	12.15
599	Kasrgod	Beemanady	Bore well	3.54
600	Kasrgod	Bandadka	Bore well	23.33
601	Kasrgod	Mulleria	Bore well	15.21
602	Kasrgod	Badiyadka	Bore well	25.16
603	Kasrgod	Enmakaje	Bore well	16.36
604	Kasrgod	Vorkady	Bore well	25.29
605	Kasrgod	Ukkinadka	Bore well	9.27
606	Kasrgod	Pady	Bore well	18.74
607	Kasrgod	Bayar	Bore well	10.26
608	Kasrgod	Kumbadaje	Bore well	20.26
609	Kasrgod	Kalathur	Bore well	14.82
610	Kasrgod	Panayal	Bore well	12.43
611	Kasrgod	Kallar	Bore well	11.91
612	Kasrgod	Ichilangod	Bore well	10.27
613	Kasrgod	Perole	Bore well	14.38

SI NO	District	LOCATION	Well Type	DWL (mbgl)
614	Kasrgod	Cheemeni	Bore well	15.92
615	Kasrgod	Bethurpara	Bore well	16.06
616	Kasrgod	Mavungal	Bore well	9.45