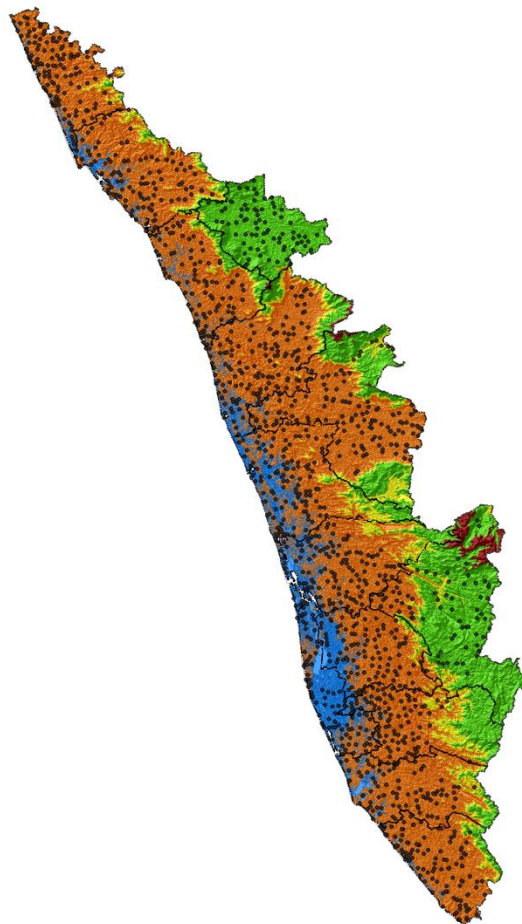


**TECHNICAL REPORT SERIES**



**GOVERNMENT OF INDIA  
MINISTRY OF WATER RESOURCES  
CENTRAL GROUND WATER BOARD**

# **GROUND WATER YEAR BOOK OF KERALA (2017-2018)**



**KERALA REGION  
THIRUVANANTHAPURAM**

**NOVEMBER 2018**



# GROUND WATER YEAR BOOK OF KERALA (2017-2018)

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## FOREWORD

Ground water is an important source of water for meeting the drinking, agricultural and industrial needs in India. Over the last few decades, the use of ground water in the country has increased manifold, exerting pressure on the limited resources available and threatening their long-term sustainability in many places. Kerala, though blessed with copious rainfall and abundant surface water resources, depends heavily on the limited ground water resources to meet its drinking and domestic water requirements, especially in the rural habitations. In the recent past, scarcity of drinking water resources during summer months is being faced by several habitations in the State with increasing regularity.

Kerala State has limited ground water development prospects owing to the largely undulating topography and predominance of crystalline rocks devoid of any primary porosity. Increasing demand of fresh water resources due to change in life styles, agricultural practices and urbanisation has resulted in increasing stress on the ground water regime in several areas of the State. Contamination of ground water resources from natural and anthropogenic sources is also emerging as a major threat to the sustainability of ground water resources in many areas. Anticipated impact of impending climate change and sea level rise also has the potential to change the ground water regime in the State. Scientific management of ground water resources of the State has become imperative to ensure prevention of further ground water depletion and contamination and to ensure its long-term sustainability.

To build a realistic ground water management strategy, assessment of ground water availability and its quality is a pre-requisite. With this in view, Central Ground water Board has established a network of Ground Water Monitoring Wells (GWMW) tapping different aquifers in the State. Presently, there are 1668 GWMW in Kerala State, out of which 1402 are dug wells tapping phreatic aquifers and 266 are bore wells /tube wells tapping deeper semi-confined/confined aquifers, which are monitored four times a year. The document “**Ground Water Year Book Kerala (2017-18)**” is a compilation of water level and water quality data collected from these wells during 2017-18. The behaviour of water level during the four monitoring periods and their fluctuations – both seasonal and long term, have been analysed and included in this report. Besides this, behaviour of piezometric heads of deeper aquifers in hard rock as wells as in sedimentary aquifers have also been discussed. The chapter on Hydrochemistry brings out the ground water quality of water samples collected from the wells tapping the phreatic aquifer.

The efforts of the Officers of CGWB, Kerala Region, Thiruvananthapuram in collecting the data and the meticulous work done by the team of officers comprising Dr. N. Vinayachandran, Scientist-D, Shri.M.Santhana Subramani Scientist- C, Shri Sreehari Sarangan, AHG, Smt. V. N. Sreelatha, Sc- D, and Smt. Bindu J. Viju, Scientist- B in compiling this document deserve appreciation. I hope this compilation will be of use to planners, policy makers and stakeholders in the field of ground water in Kerala.

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**Thiruvananthapuram**  
**November 2018.**

**(V. Kunhambu)**  
**Regional Director**

## I INTRODUCTION

The awareness among the public about the importance of the groundwater has increased during the recent years. The need for groundwater being felt by all sectors because of the shortage of surface water sources to mitigate the growing needs of the society. Recently the problems of decline in water table, contamination of groundwater, seawater intrusion etc are being reported 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. Central Ground Water Board is monitoring water level and quality through a network of Ground Water Monitoring Wells distributed throughout the State. The monitoring started from the year 1969 for nine monitoring wells and the numbers of monitoring wells were increased during the subsequent years and became 224 by the year 1979 and the number became 460 by the year 1988. Presently the total number of Ground Water Monitoring Wells (GWMWs) through out the Kerala State is 1668. 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 GWMWs during April.

Kerala State is a narrow stretch of land covering 38863 sq.km area bordering 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. It lies between North latitudes  $08^{\circ}18'$  and  $12^{\circ}48'$  and East longitudes  $74^{\circ}52'$  and  $77^{\circ}22'$ .

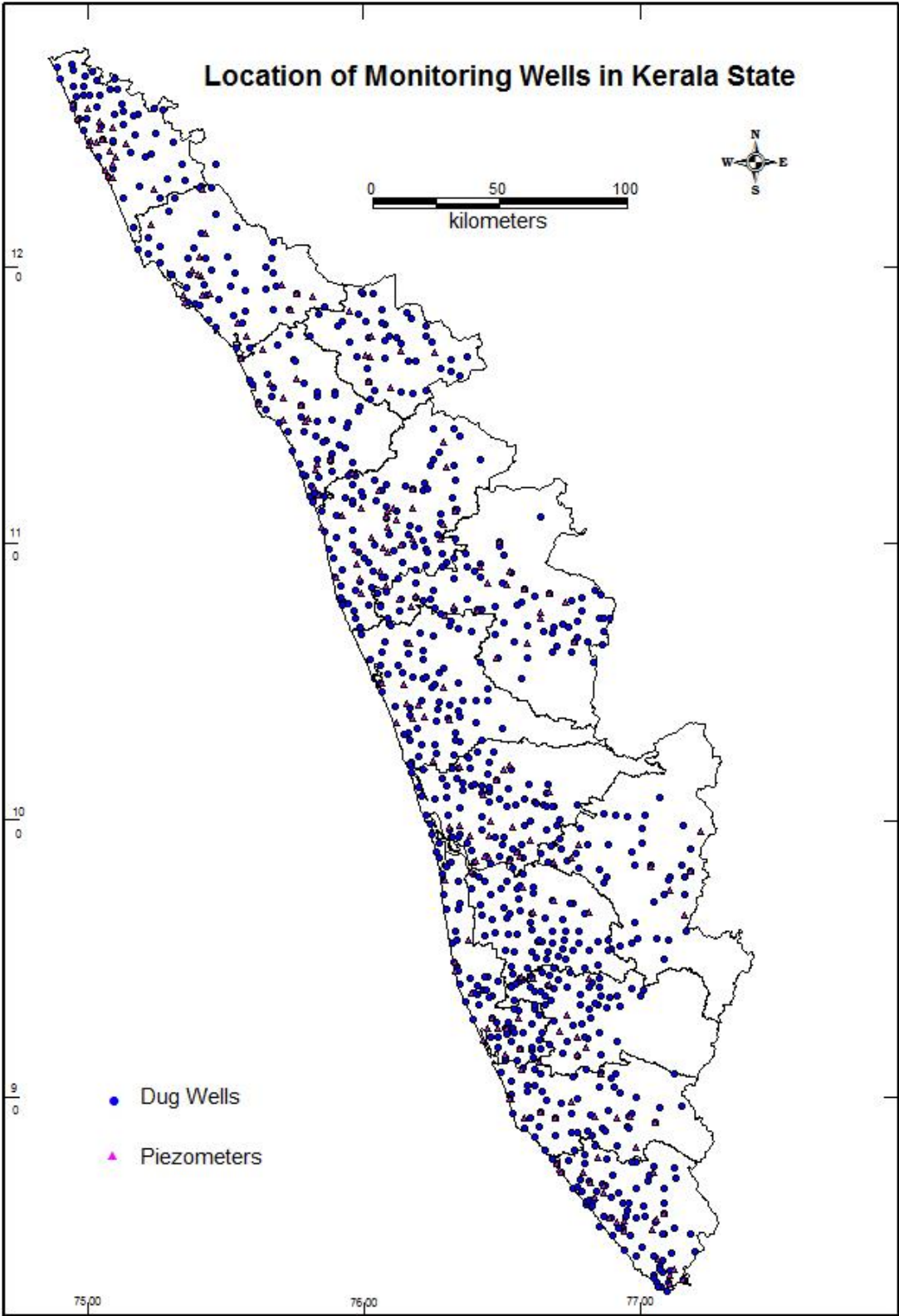
The total number of GWMWs as on 31.3.2018 is 1668. Out of these, 1402 are Dug wells tapping phreatic aquifers and 266 are Borewells /Tubewells tapping deeper aquifers of confined / semi-confined nature. These GWMWs are spread over all the physiographic divisions of the State. About 62% of the GWMWs fall in the midland region, 18% in coastal plains, 15% in highlands and 5% in Plateau region. Among the GWMWs tapping phreatic aquifer, 65% are tapping laterite, 17% tapping weathered and fractured crystallines, 15% tapping coastal alluvium and 3% tapping riverine alluvium. The data of these GWMWs 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 and the salient features are brought out in this report. Maps of depth to water level, water level fluctuation with respect to April and decadal mean are prepared using the data of GWMWs tapping phreatic aquifer. Some hydrographs representing phreatic, semi-confined and confined aquifers in sedimentary and hard rock aquifers are also incorporated in this report.

The district wise break-up of GWMWs are given in the Table 1.1 and locations are shown in Figure 1.1. The water level data collected during the year 2017– 18 of GWMWs (dug wells) are given in Annexure-I. The hydro-chemical data of water samples collected during April 2017 are given in Annexure- II.

**Table 1.1: District wise breakup of Ground Water Monitoring Wells in Kerala State as on 31-03-2017**

Sl. No.	Name of district	No. of GWMW as on 31-03-2017			Density km <sup>2</sup> /GWMW
		Dug Wells	Piezometers	Total	
1.	Thiruvananthapuram	114	22	136	12.1
2.	Kollam	108	20	128	12.4
3.	Pathanamthitta	82	14	96	11.1
4.	Alappuzha	81	22	103	12.6
5.	Kottayam	99	8	107	19.2
6.	Idukki	69	8	77	31
7.	Ernakulam	123	18	141	15.1
8.	Thrissur	120	20	140	13.7
9.	Palakkad	120	42	162	18.0
10.	Malappuram	121	22	143	17.3
11.	Kozhikode	84	20	104	18.2
12.	Wayanad	75	9	84	15.5
13.	Kannur	100	16	116	20.8
14.	Kasaragod	106	25	131	14.5
	<b>Total</b>	<b>1402</b>	<b>266</b>	<b>1668</b>	

Fig No 1.1



## II HYDROGEOLOGY

The occurrence and movement of ground water is mainly controlled by many factors such as physiography, geology, climate etc and are described in the following paragraphs.

### Physiography

Physiographically the State is divided into three major units viz. the coastal plains, the midlands and the hill ranges. The coastal plains have an elevation of less than 7.6m whereas the elevation of the midland ranges from 7.6 to 76 m and that of the hill ranges is more than 76 m above mean sea level (amsl). Along the hill ranges two distinct plateau regions are seen, the important being the Wayanad plateau, which covers major part of Wayanad district, the general elevation of which is above 700 m amsl. The other plateau is the Munnar plateau in Idukki district, the elevation of which is about 1000 m amsl.

### 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 have been divided into four beds viz. Alappuzha, Vaikom, Quilon and Warkalli, the age of which ranges from Eocene to Lower Miocene. Laterites of Sub-recent age derived from the crystallines as well as sedimentary formations are seen all along the midlands. Along the coastal plains, sedimentaries and laterites are overlain by alluvium of Recent age. The geological succession in Kerala is given in Table 2.1.

**Table 2.1: Geological Succession of Kerala**

AGE	FORMATION	LITHOLOGY
Recent	Alluvium	Sand, clay, riverine alluvium etc. and flood plain deposits of Kuttanad area
Sub-recent	Laterite	Derived from crystalline and sedimentary rocks
	Warkalli	Sand stone, clays with lignite seams
	Quilon	Limestone, marl and clay
	Vaikom	Sandstone with pebbles and gravel beds, clay and lignite
	Alappuzha	Carbonaceous clay and fine sand
Undated	Intrusives	Dolerite, Gabbro, Granites, Quartzo-feldspathic Veins

Archaean	Wayanad group	Granitic gneiss and Schists
	Charnockites	Charnockites and associated rocks
	Khondalites	Khondalites suite of rocks and its associates

### Occurrence of Groundwater

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

Thick zones of weathered crystallines are seen along midland region. The depth to water level in the weathered crystallines in the midland area ranges from 3 to 16 mbgl. The midland area sustains medium capacity dug wells for irrigation. Along the hill ranges, the crystalline rocks are covered by thin weathered zone. Mostly dug wells that can cater to domestic needs are feasible along topographic lows. Bore wells tapping deeper fracture 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 lies between 60 and 175 mbgl and the discharge of bore wells range between 36,000 and 1,25,000 lph.

Of the four Tertiary beds, the two beds viz. the Vaikom and Warkalli form potential aquifers. The oldest Alappuzha 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 Alappuzha district and also in isolated pockets in Ernakulam district. The annual flow in the aquifer is computed as 43 MCM, of which 10 MCM is brackish. The Warkalli aquifer is seen south of Cochin. The piezometric head in the aquifer varies from 2.6 m above msl to 10 m below msl. The aquifer is largely developed in and around Alappuzha. The annual flow in the aquifers is computed as 63 MCM and the draft is around 22 MCM.

Laterites are the most widely distributed lithological unit in the State and the thickness of the 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. Laterite forms potential aquifers along valleys and can sustain medium duty irrigation wells with the yields in the range of 0.5 - 6 m<sup>3</sup> per day.

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.



### III RAINFALL DISTRIBUTION IN KERALA DURING 2017-18

#### Introduction rain

Rainfall is the major source of ground water recharge and the rainfall pattern plays an important role on the water levels in the phreatic aquifers and in the deeper aquifers. The rainfall data received from India Meteorological Department, Thiruvananthapuram for the period from April 2017 to March 2018 is analysed and discussed in this report.

#### Annual rainfall distribution

The total rainfall ranged from 1755 to 3158 mm during the period from April 2017 to March 2018. The maximum rainfall was recorded in Kozhikode district and the minimum in Thiruvananthapuram district. During the southwest monsoon season, Thiruvananthapuram district recorded 764 mm and Kasaragod district recorded 2646 mm, which are the lowest and highest rainfall respectively. During the northeast monsoon season, Wayanad district recorded the lowest rainfall of 165 mm and Kollam district recorded the highest rainfall of 950 mm.

#### Monthly rainfall distribution

The monthly rainfall data for all the fourteen districts are given in Table 3.1. The state used to receive sufficient rainfall during the months of June to September i.e. southwest monsoon in all the 14 districts. Almost all the districts recorded with deficient rainfall during the month of October to December due to the influence of north-east monsoon season.

#### Normal rainfall vs. actual rainfall

The actual rainfall during different seasons has been compared with the normal rainfall of the seasons to find out the variation of the rainfall and is discussed in detail in the following paragraphs.

#### Summer period

The seasonal rainfall and their percentage departure from normal rainfall are given in Table 3.2. During the months of April-May 2017, the departure of pre-monsoon rainfall varied from - 67 to 21 % in different districts. As per the IMD norms, five districts were recorded with normal and only one district recorded with excess types of rainfall, seven districts received deficient and remaining one district recorded largest deficient rainfall during this period. The maximum departure towards negative side was

observed in Kasaragod district with a maximum deviation of - 67% from the normal. Excess rainfall was received only in Kollam district. There is no scanty rainfall observed. The details are presented in Figure 3.1(a) and table. 3.2

### **South-west monsoon period**

During the southwest monsoon season from June to September 2017, the departure of rainfall in the districts varied from -37% to 2%. The maximum deficit rainfall recorded in Wayanad district out of all fourteen rainfall districts. Record time for all the districts, thirteen district recorded normal rainfall and the one district received deficient rainfall. The details are given in Figure 3.1(b) and table.3.2.

### **North-east monsoon period**

During the northeast monsoon season from October to December 2017, the departure of rainfall varied from 49 % to - 59 % in different districts. The maximum departure towards deficient rainfall recorded in Palakkad district. Only three districts recorded excess rainfall during this season, six districts recorded deficient and one district recorded large deficient type of rainfall. Normal rainfall is observed in four districts during the period and the details are presented in Figure 3.1(c) and table.3.2.

### **Winter period**

During the months of January to March 2018, the departure of rainfall varied from 163% to -46 %.

The maximum departure towards large excess rainfall recorded in Kasaragod district. Four districts recorded large excess rainfall during this season, four districts recorded excess rainfall and three districts recorded deficient type of rainfall. Normal rainfall is observed in three districts during this winter season.

This may be mainly recent development of climate. The details are presented in Figure 3.1(d) and table.3.2.

### **Seasonal rainfall contribution to the total rainfall of the year 2017-18**

The seasonal rainfall contributions to the total rainfall in percentages are given in Table 3.3 and shown in Figure 3.2. The pattern shows that the southwest monsoon season's contribution is increasing from south to north whereas, during the northeast monsoon season the rainfall is increasing from north to south. The other two seasons do not follow any specific pattern.

The rainfall during April and May contributes 3 % to 16.90 %, south-west monsoon season from June to September 43.50% to 89.90 %, north-east monsoon season

from October to December 6.10 % to 38 % and January to March 0.5% to 4.7 % in different districts.

### **Comparison of 2017-18 rainfall with previous year rainfall**

The rainfall in various seasons of 2017-18 has been compared with the previous year rainfall for the assessment of the change in the ground water regime. The details are given in the following paragraphs.

#### **Summer season**

The rainfall of April and May 2017 has been compared with the summer rainfall of 2016 and the departure is given in Table 3.4 and Figure 3.3. The departure in summer rainfall in the district varied from 83.4 % to -42 %. The maximum negative departure is observed in Thiruvananthapuram district and the minimum in Kottayam district. Five districts during the season received positive departure and the maximum positive departure is observed in Wayanad district. Comparatively, this summer season recorded excess rain rainfall than the previous year summer season.

#### **Southwest monsoon season**

The rainfall during June to September in 2017 has been compared with that in 2016 and the departure is given in Table 3.4 and Figure 3.3. The departure varied from 15.6 % to 60.1%. All fourteen districts recorded excess rainfall in comparison with the previous year southwest monsoon season. The average rainfall during the season is 1850 mm which is 70% of the annual rainfall.

#### **Northeast monsoon season**

The rainfall during October to December 2017 has been compared with that 2016 and the departure is given in Table 3.4 and Figure 3.3. The departure varied from 28.7 % to 493.7 %. All the fourteen districts recorded much excess rainfall in comparison with previous year northwest monsoon season.

#### **Winter season**

The rainfall during January to March of 2018 has been compared with the rainfall of January to March 2017 and the departure is given in Table 3.4 and Figure 3.3. The departure varied from 70.2 % to -254.90 %. During the winter season, only two districts was recorded large excess rainfall and two districts recorded normal rainfall and remaining thirteen districts were recorded deficient rainfall in comparison with the previous year winter season. Record time the state has received excess rainfall during this season and this may be mainly due to climate change.

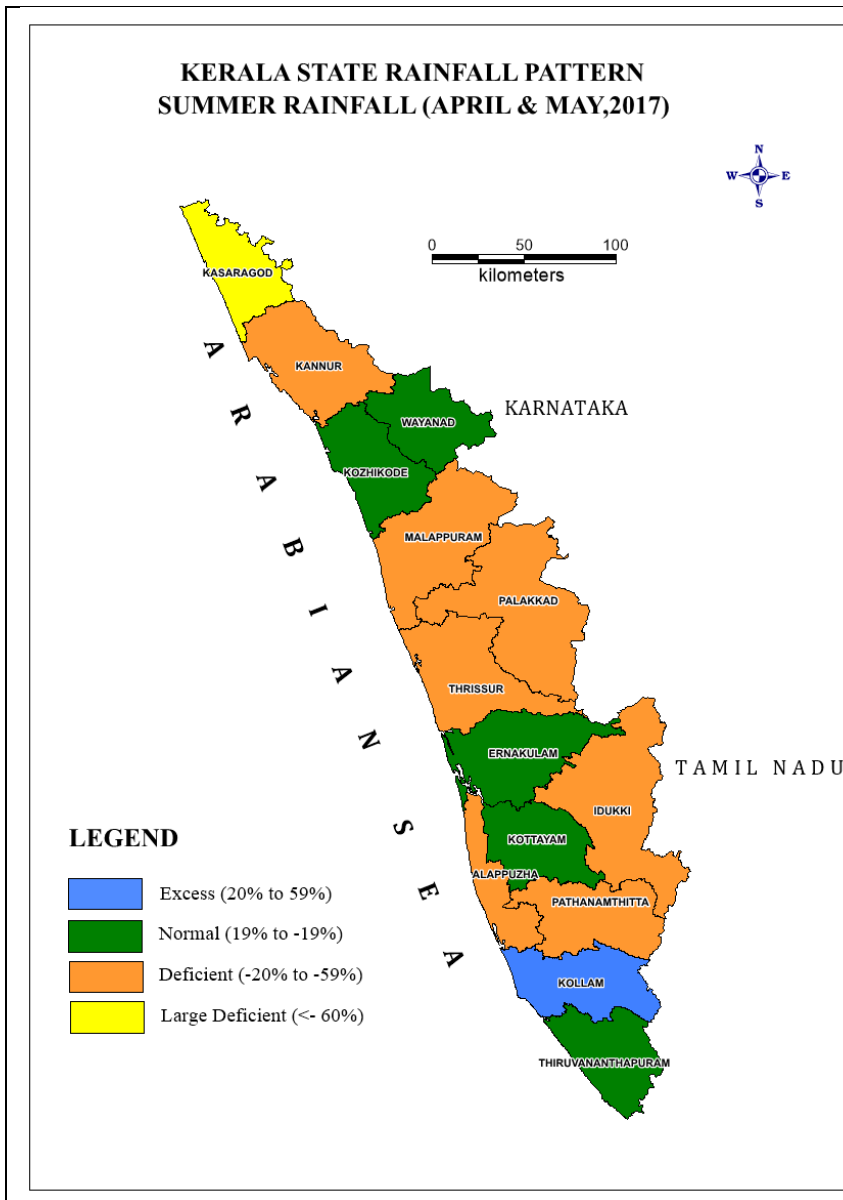


Fig 3.1(a)

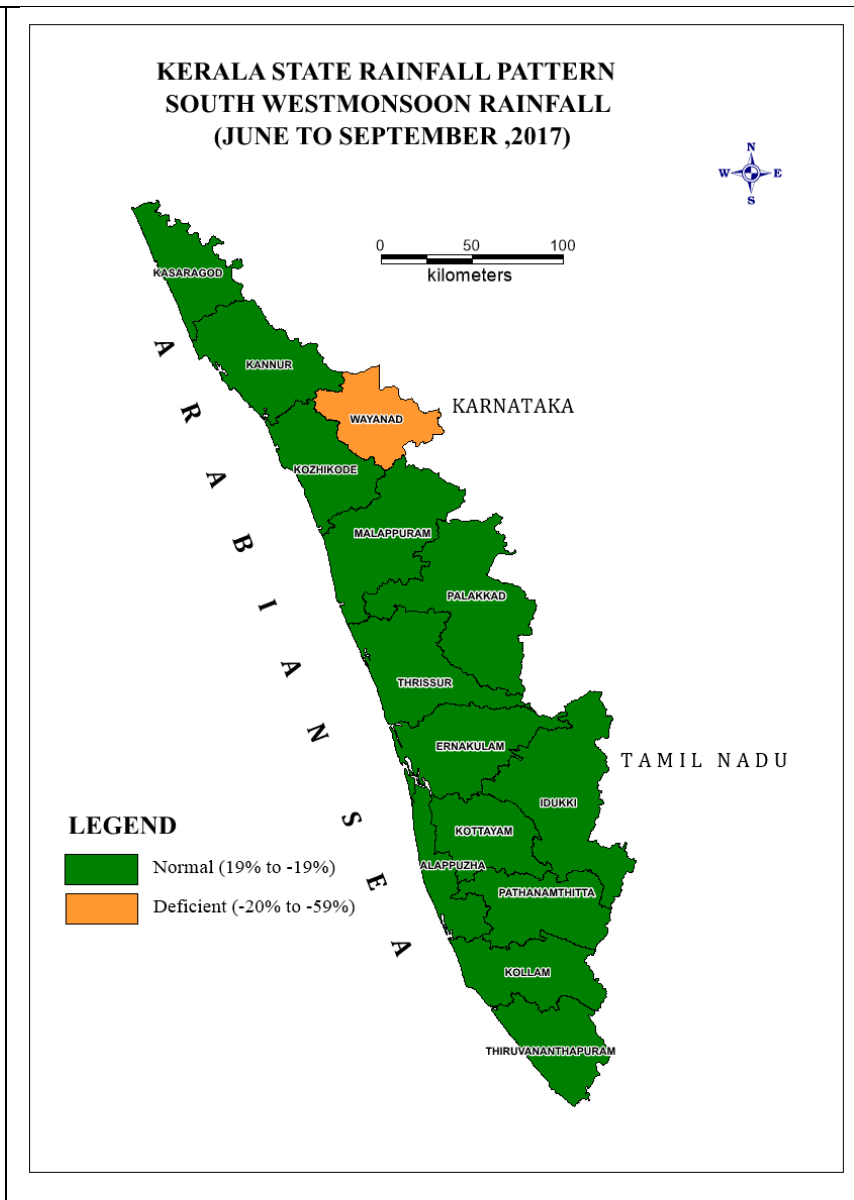


Fig 3.1(b)

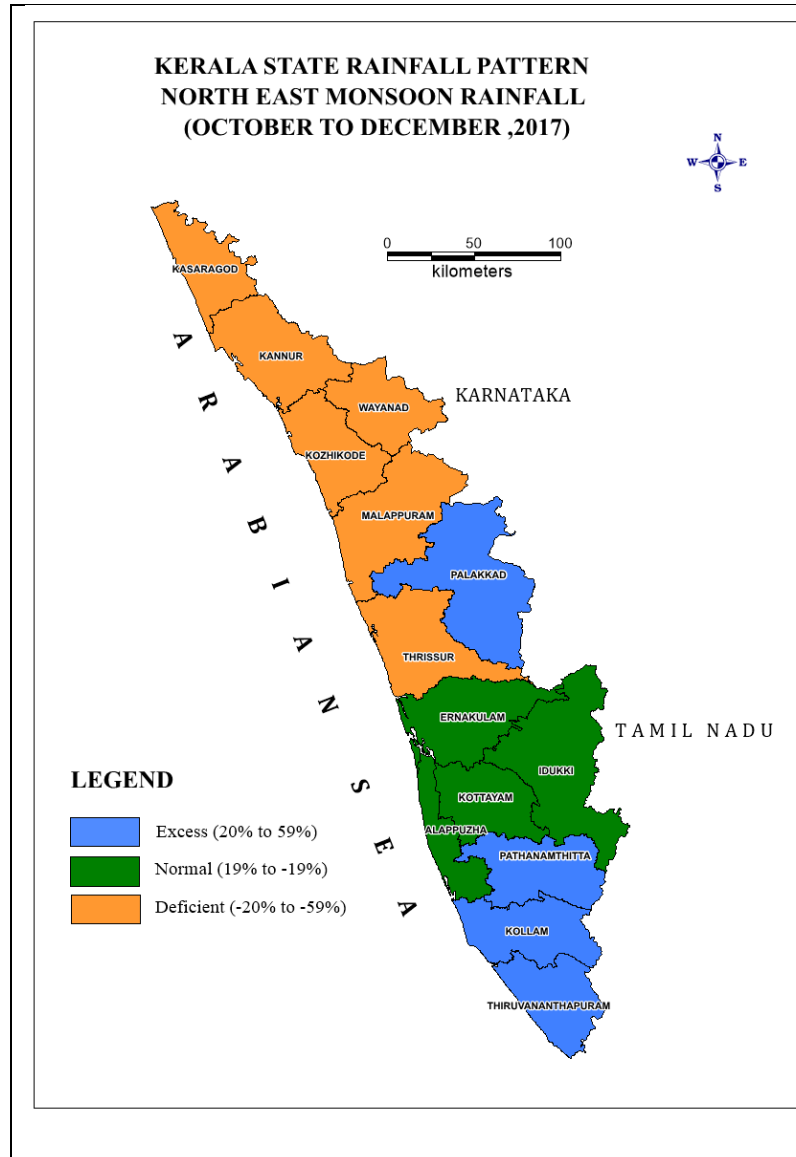


Fig 3.1(c)

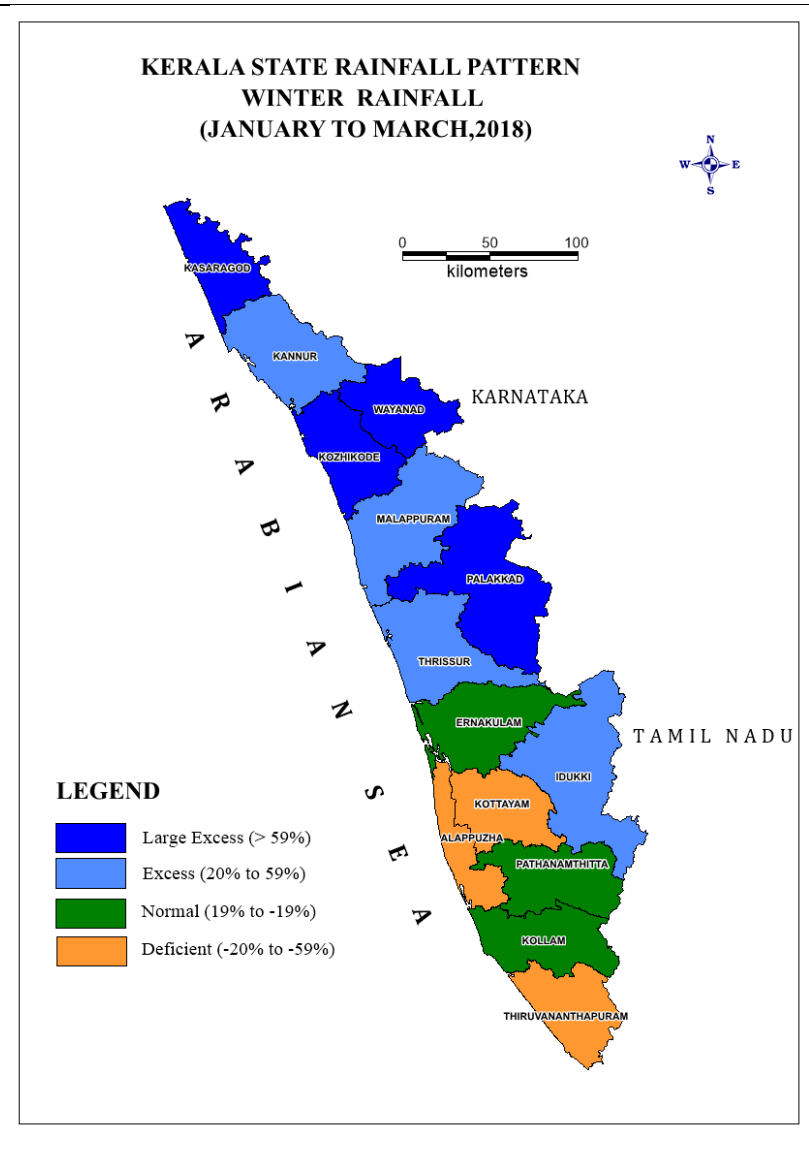


Fig 3.1(d)

**Table 3.1**

**Monthly Rainfall Distribution during 2017-18**  
(Figures in mm)

		2017									2018			
		April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
1	Alappuzha	40.3	287.9	544.7	280.4	323.5	438.5	226.2	195.2	63.5	1.5	14.8	37.5	2454
2	Kannur	48.2	181.2	694.3	623.6	553	430.4	170.9	69.4	5.9	2	0	12.6	2791.5
3	Ernakulam	31.4	306	706.3	435.4	415.8	445.3	293	217.8	28.1	1.4	7	51.1	2938.6
4	Idukki	71.1	210	517.9	293.4	713.1	534.5	285.3	117.1	91	1.8	41.5	51.5	2928.2
5	Kasaragod	15.5	71.8	858.7	752.8	702.8	331.4	126.2	39.5	14.4	0	4.8	26	2943.9
6	Kollam	137.7	356.8	532.5	128.5	282.4	412.2	322.5	369	258.5	3.5	8.6	110.7	2922.9
7	Kottayam	58.2	315.9	654	342.3	450.3	482.4	287.3	267.4	79.1	0.2	5	38.3	2980.4
8	Kozhicode	68.1	251.8	822.5	662.9	544.6	491.6	216.2	46.1	9.1	7.7	0.8	36.7	3158.1
9	Malappuram	26.6	122.9	568.8	427	459.7	472.7	211.1	95.6	37.1	0	5.9	19.1	2446.5
10	Palakkad	28.3	139.5	433.2	317.2	398	375.6	102.8	35.2	38.9	0	25.7	46.6	1941
11	Pathanamthitta	100	260.1	553.7	204.8	454.3	541.2	427	389.3	76	4.7	42.7	101	3154.8
12	Thiruvananthapuram	54.2	228.3	318.8	52.9	123	269.3	241.4	274.7	151.2	9.2	13.1	19.3	1755.4
13	Thrissur	12.9	175.7	674.8	419.3	427.2	354.7	188	113	15.5	0	3.7	30.6	2415.4
14	Wayanad	60.9	182.8	343.2	419.6	435	454.2	118.5	37.5	9.1	0	11.2	62.4	2134.4

**IMD Classification**

**Large Excess: +60% and above, Excess : +20% to +59%, Normal : +19% to -19%, Deficient : -20% to -59%, Large Deficient : -60% or less, No rain : -100%**

**Table 3.2****Seasonal Rainfall, Normal Rainfall and the percentage Departure in 2017-18 in Kerala State**

		Summer Season			S.W. Monsoon Season			N.E. Monsoon Season			Winter season		
		2017			2017			2017			2018		
		April + May	Normal	% Dep	June to September	Normal	% Dep	October to December	Normal	% Dep	January to March	Normal	% Dep
1	Alappuzha	328.2	432.7	-24	1587.1	1745.9	-9	484.9	572.1	-15	53.8	90.5	-41
2	Kannur	229.4	292.9	-22	2301.3	2669	-14	246.2	345.1	-29	14.6	12.1	21
3	Ernakulam	337.4	412.4	-18	2002.8	2065	-3	538.9	489.3	10	59.5	63.2	-6
4	Idukki	281.1	383	-27	2058.9	2276.2	-10	493.4	564.2	-13	94.8	79.1	20
5	Kasaragod	87.3	264.5	-67	2645.7	3007.5	-12	180.1	337.9	-47	30.8	11.7	163
6	Kollam	494.5	407	21	1355.6	1332.3	2	950	638.6	49	122.8	113.8	8
7	Kottayam	374.1	417.9	-10	1929	1897.3	2	633.8	535.1	18	43.5	80.2	-46
8	Kozhicode	319.9	337.5	-5	2521.6	2603.1	-3	271.4	422.2	-36	45.2	21.3	112
9	Malappuram	149.5	308.1	-51	1928.2	2060.4	-6	343.8	448.3	-23	25	18.3	37
10	Palakkad	167.8	257.4	-35	1524	1572.7	-3	176.9	428	-59	72.3	31.9	127
11	Pathanamthitta	360.1	479.6	-25	1754	1715.7	2	892.3	624.2	43	148.4	138.9	7
12	Thiruvananthapuram	282.5	333.3	-15	764	871.3	-12	667.3	522.7	28	41.6	75.9	-45
13	Thrissur	188.6	368.3	-49	1876	2197.5	-15	316.5	469.4	-33	34.3	27.9	23
14	Wayanad	243.7	257.9	-6	1652	2632.1	-37	165.1	332.5	-50	73.6	30.6	141

**IMD Classification**

**Large Excess: +60% and above, Excess : +20% to +59%, Normal : +19% to -19%, Deficient : -20% to -59%, Large Deficient : -60% or less, No rain : -100%**

Table 3.3

## Seasonal Rainfall Distribution and their Percentage Contribution to Annual Rainfall (2017-18)

		April & May		June to September		October to December		January to March		mm
		2017		2017		2017		2018		
		Rainfall	%	Rainfall	%	Rainfall	%	Rainfall	%	
1	Alappuzha	328.2	13.4	1587.1	64.7	484.9	19.8	53.8	2.2	2454
2	Ernakulam	229.4	8.2	2301.3	82.4	246.2	8.8	14.6	0.5	2791.5
3	Idukki	337.4	11.5	2002.8	68.2	538.9	18.3	59.5	2.0	2938.6
4	Kannur	281.1	9.6	2058.9	70.3	493.4	16.8	94.8	3.2	2928.2
5	Kasaragod	87.3	3.0	2645.7	89.9	180.1	6.1	30.8	1.0	2943.9
6	Kollam	494.5	16.9	1355.6	46.4	950	32.5	122.8	4.2	2922.9
7	Kottayam	374.1	12.6	1929	64.7	633.8	21.3	43.5	1.5	2980.4
8	Kozhicode	319.9	10.1	2521.6	79.8	271.4	8.6	45.2	1.4	3158.1
9	Malappuram	149.5	6.1	1928.2	78.8	343.8	14.1	25	1.0	2446.5
10	Palakkad	167.8	8.6	1524	78.5	176.9	9.1	72.3	3.7	1941
11	Pathanamthitta	360.1	11.4	1754	55.6	892.3	28.3	148.4	4.7	3154.8
12	Thiruvananthapuram	282.5	16.1	764	43.5	667.3	38.0	41.6	2.4	1755.4
13	Thrissur	188.6	7.8	1876	77.7	316.5	13.1	34.3	1.4	2415.4
14	Wayanad	243.7	11.4	1652	77.4	165.1	7.7	73.6	3.4	2134.4

**IMD Classification**

**Large Excess: +60% and above, Excess : +20% to +59%, Normal : +19% to -19%, Deficient : -20% to -59%, Large Deficient : -60% or less, No rain : -100%**



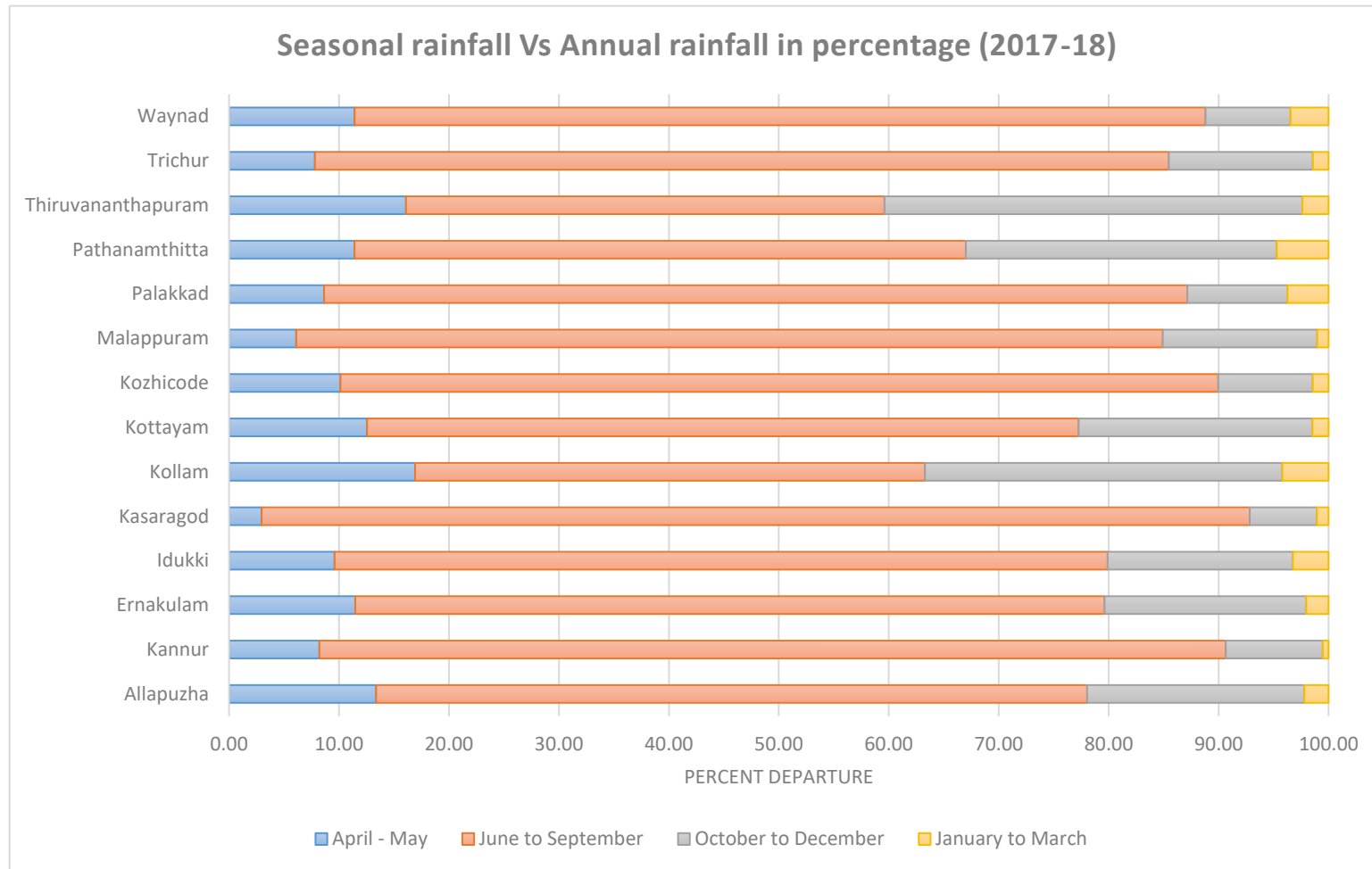
**Table 3.4****Comparison of 2017-18 Seasonal Rainfall with the Previous Year Seasonal Rainfall of 2016-17**

		Summer Season April & May			S.W. Monsoon Season June to September			N.E. Monsoon Season October to December			Winter season January to March		
		2017 (mm)	2016 (mm)	% Dep	2017 (mm)	2016 (mm)	% Dep	2017 (mm)	2016 (mm)	% Dep	2018 (mm)	2017 (mm)	% Dep
1	Alappuzha	328.2	320.6	2.4	1587.1	1134.8	39.9	484.9	208.4	132.7	53.8	112.3	-52.1
2	Ernakulam	229.4	139.4	64.6	2301.3	1991	15.6	246.2	84.4	191.7	14.6	18.3	-20.2
3	Idukki	337.4	366.6	-8.0	2002.8	1569.4	27.6	538.9	295.1	82.6	59.5	115.2	-48.4
4	Kannur	281.1	331.8	-15.3	2058.9	1569.5	31.2	493.4	174.1	183.4	94.8	136.5	-30.5
5	Kasaragod	87.3	138.4	-36.9	2645.7	2252.8	17.4	180.1	71.2	152.9	30.8	18.1	70.2
6	Kollam	494.5	451.7	9.5	1355.6	950.9	42.6	950	406.8	133.5	122.8	166.1	-26.1
7	Kottayam	374.1	375.2	-0.3	1929	1330.7	45.0	633.8	252.4	151.1	43.5	158.5	-72.6
8	Kozhicode	319.9	265.8	20.4	2521.6	1887.3	33.6	271.4	74.6	263.8	45.2	29.1	55.3
9	Malappuram	149.5	159.2	-6.1	1928.2	1251.2	54.1	343.8	118.2	190.9	25	33.5	-25.4
10	Palakkad	167.8	173.3	-3.2	1524	1034.7	47.3	176.9	137.5	28.7	72.3	83.1	-13.0
11	Pathanamthitta	360.1	550.7	-34.6	1754	1095.4	60.1	892.3	425.8	109.6	148.4	329.2	-54.9
12	Thiruvananthapuram	282.5	487.2	-42.0	764	572.3	33.5	667.3	112.4	493.7	41.6	91.4	-54.5
13	Thrissur	188.6	294.7	-36.0	1876	1219.6	53.8	316.5	152.1	108.1	34.3	45	-23.8
14	Wayanad	243.7	132.9	83.4	1652	1073.8	53.8	165.1	104.8	57.5	73.6	65.1	13.1

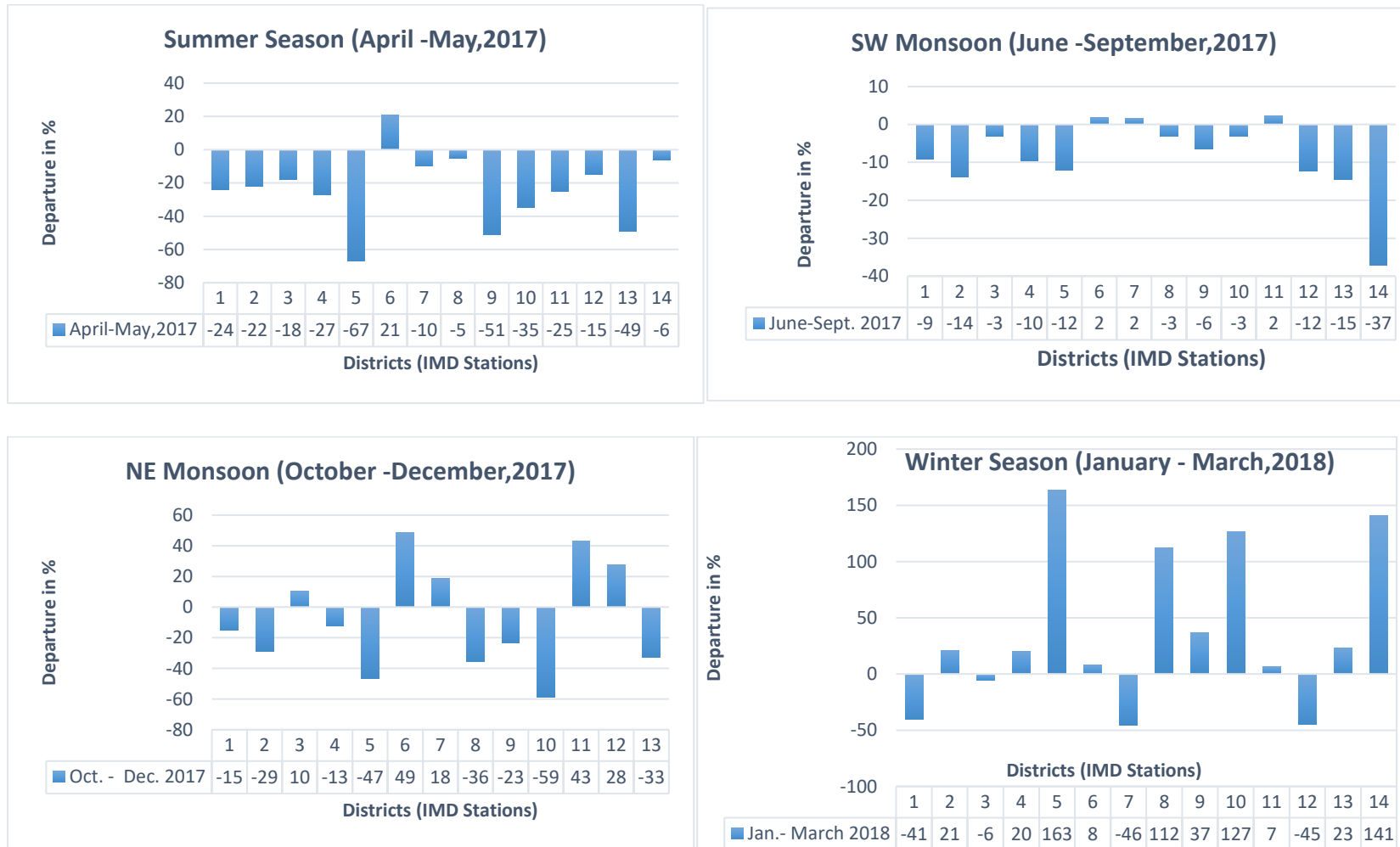
**IMD Classification**

**Large Excess: +60% and above, Excess : +20% to +59%, Normal : +19% to -19%, Deficient : -20% to -59%, Large Deficient : -60% or less, No rain : -100%**

**Fig. 3.2 Seasonal rainfall contribution to annual rainfall in percentage (2017-18)**

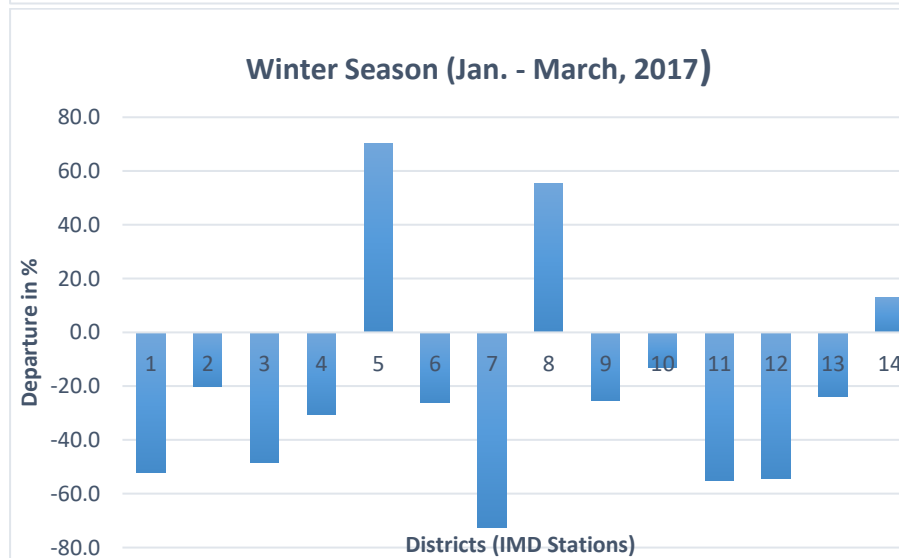
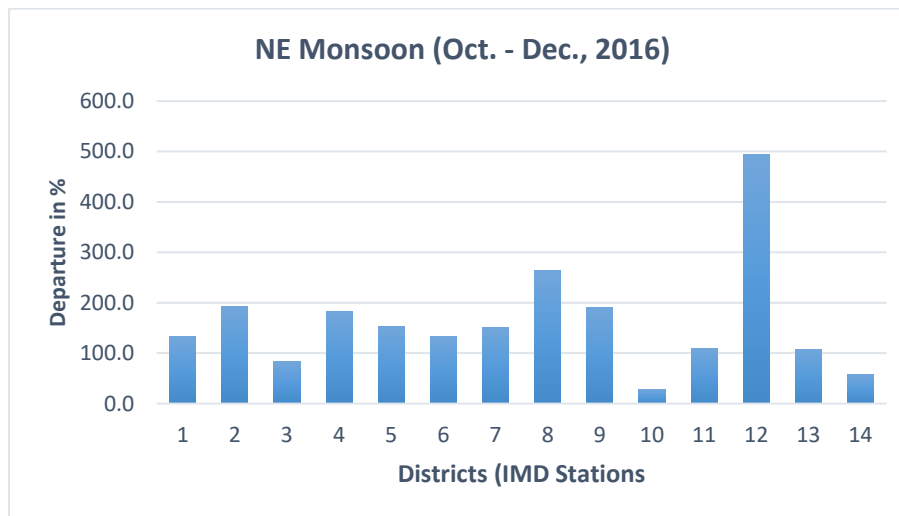
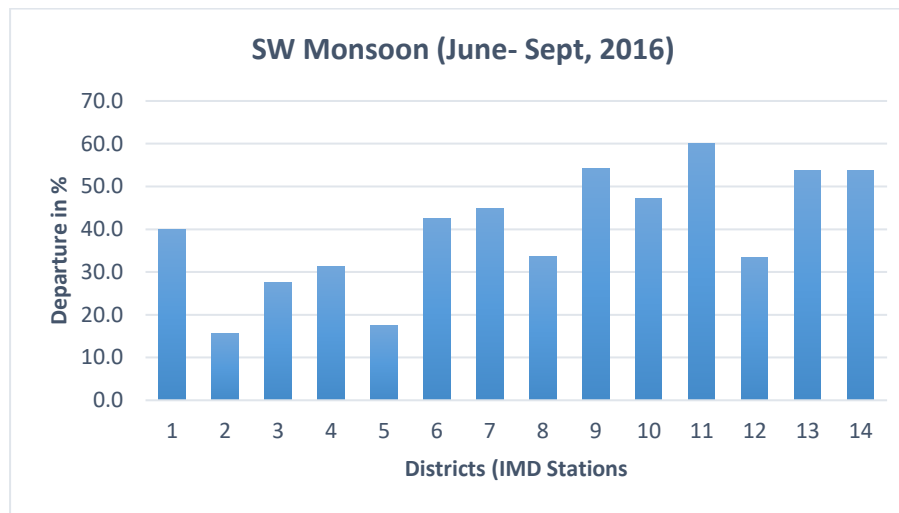
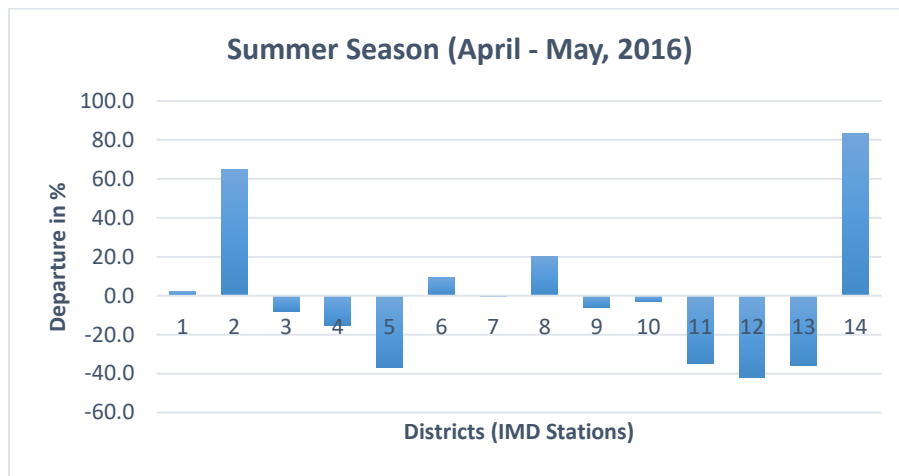


**Fig.3.3 Seasonal rainfall Departure from its Normal during the period 2017-18**



**1. Alappuzha 2.Ernakulam 3. Idukki 4.Kannur 5.Kasaragod 6.Kollam 7.Kottayam 8.Kozhikode 9.Malappuram 10.Palakkad 11.Pathanamthitta 12.Thiruvananthapuram 13.Thrissur 14.Wayanad**

**Fig.3.4 Comparison of Seasonal rainfalls of year (2017-18) with previous year (2016-17) rainfall**



**1. Alappuzha 2.Ernakulam 3. Idukki 4.Kannur 5.Kasaragod 6.Kollam 7.Kottayam 8.Kozhikode 9.Malappuram 10. Palakkad 11.Pathanamthitta 12.Thiruvananthapuram 13.Thrissur14.Wayanad**

#### **IV. DEPTH TO WATER LEVEL SCENARIO DURING 2017-18**

The depth to water level is being monitored from 1668 monitoring wells distributed throughout the State during the months of April, August, November and January. The water level measured during the month of April is taken as pre-monsoon water level and the data of August and November are taken as post-monsoon water level depending on the rainfall distribution. The water level data of GWMWs during 2017-18 is compiled in Annexure I. 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 25 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 55 mbgl. In highlands the depth to water level is in the range of few cm to 10 mbgl depending on the topography and thickness of overburden (weathered zone).

##### **DEPTH TO WATER LEVEL DURING APRIL 2017**

During the month of April 2017, the depth to water level in the State varied widely from 0.2 to 56.2 m bgl in dug wells. Shallow water level in the range of 0 – 2 m bgl is seen in Alappuzha district, coastal tracts of Ernakulam, Thrissur and Kozhikode districts and in the valley portion located in the eastern part of Idukki, Kottayam, Malappuram and Kozhikode districts. The areas falling in the midland region generally show water level in the range of 2 – 10 mbgl. Water level of more than 20 m mbgl is seen as isolated patches in Thiruvananthapuram, Palakkad, Malappuram and Kasaragod districts. The district-wise well frequency for different ranges of depth to water level during April 2017 has been prepared and is given in Table 4.1. The analysis of the data reveals that 76.43 % of the monitoring wells (GWMWs) have water levels within the range of 0.1 to 10 mbgl. Deeper water level (> 20 mbgl) is seen in Thiruvananthapuram, Palakkad, Malappuram and Kasaragod districts as isolated pockets which can be attributed to the local hydro geological 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 2017 is given in Figure 4.1. In Kollam, Kottayam, Palakkad and Thrissur districts, more than 50% of monitoring wells show water level greater than 5 m bgl.

**DEPTH TO WATER LEVEL DURING AUGUST 2017**

During the month of August 2017 the depth to water level in Kerala State in dug wells varied widely from 0.20 to 57 mbgl. Shallow water level in the range of 0 - 2 mbgl is seen in Alappuzha district, coastal tracts of Ernakulam, in the valley portion found in Idukki, Pathanamthitta, Kottayam, and Kozhikkod districts and also as small patches in remaining districts. The areas falling in the midland region generally show water level in the range of 2 - 10 mbgl. Water level of more than 20 m bgl is seen as patches in Thiruvananthapuram district only. The district-wise well frequency for different ranges of depth to water level during August 2017 has been prepared and is given in Table 4.2. The analysis of the data reveals that 91.06 % of the monitoring wells (GWMWs) shows water level within the range of 0.1 to 10 mbgl. Deeper water level (> 20 mbgl) is seen in Thiruvananthapuram (Poovar, Pulluvila and Kanjiramkulam), Kollam, Malappuram, Kannur and Kasaragod district as isolated pockets which can be attributed to the local hydrogeological conditions mainly due to thick lateritic overburden and moreover the wells are located in an elevated area. The map showing the depth to water level in Kerala State during August 2017 is given in Figure 4.2. In Kollam district it is observed that more than 50% of monitoring wells show water level greater than 5 m bgl. Deepest water level is encountered in Thiruvananthapuram district.

**DEPTH TO WATER LEVEL DURING NOVEMBER 2017**

During the month of November 2017, the depth to water level in the State varied widely from 0.1 to 47.98 mbgl in dug wells. Shallow water level in the range of 0 – 2 mbgl is seen in Alappuzha district, coastal tracts of Ernakulam, Thrissur and Kozhikkod districts and in the valley portion located in the eastern part of Idukki and Palakkad districts and also as small patches in remaining districts. The areas falling in the midland region generally show water level in the range of 2 – 10 mbgl. Water level of more than 20 m bgl is seen as isolated patches in Malappuram, Thiruvananthapuram, Kollam and Kasaragod districts. The district-wise well frequency for different ranges of depth to water level during November 2017 has been prepared and is given in Table 4.3. The analysis of the data reveals that 88.6% of the monitoring wells (GWMWs) have water levels within the range of 0.1 to 10 mbgl. Deeper water level (> 20 mbgl) is seen in Malappuram (Othukungal, Parambilpeedika), Thiruvananthapuram (Athazhamangalam, Poovar, Kanjiramkulam, Tirupuram, Veiyyoor, Mangalapuram and Melvttoor), and Kasaragod (Mavinakatta and Sasthangode) 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 November 2017 is given in Figure 4.3. In Alappuzha, Ernakulam, Idukki, Kottayam, Kozhikode, Malappuram, Palakkad, Pathanamthitta and Thrissur districts more than 50% of monitoring wells show water level lesser than 5

#### **DEPTH TO WATER LEVEL DURING JANUARY 2018**

During the month of January 2018 the depth to water level in the State varied widely from 0.39 to 25.04 mbgl in dug wells and shallow tube wells. Shallow water level in the range of 0 – 2 mbgl is seen in Alappuzha district, coastal tracts of Kollam, Ernakulam, Thrissur and Kozhikkod districts and in the valley portion located in the eastern part of Idukki districts and also as small patches in Kottayam and Pathanamthitta districts. The areas falling in the midland region generally show water level in the range of 5 – 10 mbgl. Water level of more than 20 m bgl is seen as isolated patches in Thiruvananthapuram, Malappuram and Kasaragod districts. The district-wise well frequency for different ranges of depth to water level during January 2018 has been prepared and is given in Table 4.4. The analysis of the data reveals that 82.75% of the monitoring wells (GMMWs) show water levels within the range of 0.1 to 10 mbgl. Deeper water level (> 20 mbgl) is seen in Thiruvananthapuram (Poovar, Pulluvila and Kanjiramkulam), Malappuram, Palakkad and Kasaragod 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 January 2018 is given in Figure 4.4. In Kollam, Kottayam, Thrissur and Palakkad districts, more than 50% of monitoring wells show water level greater than 5 m bgl. Deepest water level is recorded in Thiruvananthapuram district.

**Table 4.1: District Wise Well Frequency for Different Ranges of Depth to Water Level for April 2017**

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	84	0.53	13.3	23 27.38%	48 57.14%	10 11.9%	3 3.57%	0	0
ERNAKULAM	125	0.55	14.8	19 15.2%	41 32.8%	55 45.00%	10 8.00%	0	0
IDUKKI	69	0.2	13.65	6 8.7%	38 55.073%	19 27.54%	6 8.7%	0	0
KANNUR	106	1.94	39.3	1 0.94%	21 19.81%	48 45.28%	33 31.13%	3 2.83%	0
KASARAGOD	122	2.5	25.75	0	5 4.1%	35 28.69%	80 65.57%	2 1.64%	0
KOLLAM	100	0.9	26.22	5 5%	15 15.00%	53 53.00%	24 24.00%	3 3.00%	0
KOTTAYAM	90	1.09	12.71	5 5.56%	32 33.56%	48 53.33%	5 5.56%	0	0
KOZHIKODE	89	1.07	15.64	6 6.74%	37 41.57%	40 44.94%	6 6.74%	0	0
MALAPPURAM	113	1.81	39.36	1 0.88%	18 15.93%	57 50.44%	32 28.32%	5 4.42%	0
PALAKKAD	141	1.15	56.2	2 1.42%	30 21.28%	73 51.77%	29 20.57%	5 3.55%	2 1.42%
PATHANAMTHITTA	85	1.28	15.7	2 2.35%	37 43.53%	42 49.41%	4 4.71%	0	0
THIRUVANANTHAPURAM	94	1.72	28.71	2 2.13%	18 19.15%	30 31.91%	35 37.34%	9 9.57%	0
THRISSUR	112	1.23	14.5	4 3.57%	33 29.46%	60 53.57%	15 13.39%	0	0
WAYANAD	66	1.08	20	4 6.06%	21 31.82%	22 33.33%	19 28.79%	0	0
<b>TOTAL</b>	<b>1396</b>	<b>0.2</b>	<b>56.20</b>	<b>80</b> <b>5.73%</b>	<b>394</b> <b>28.23%</b>	<b>592</b> <b>42.40%</b>	<b>301</b> <b>21.56%</b>	<b>27</b> <b>1.93%</b>	<b>2</b> <b>0.14%</b>



**Table 4.2: District Wise Well Frequency for Different Ranges of Depth to Water Level for August 2017**

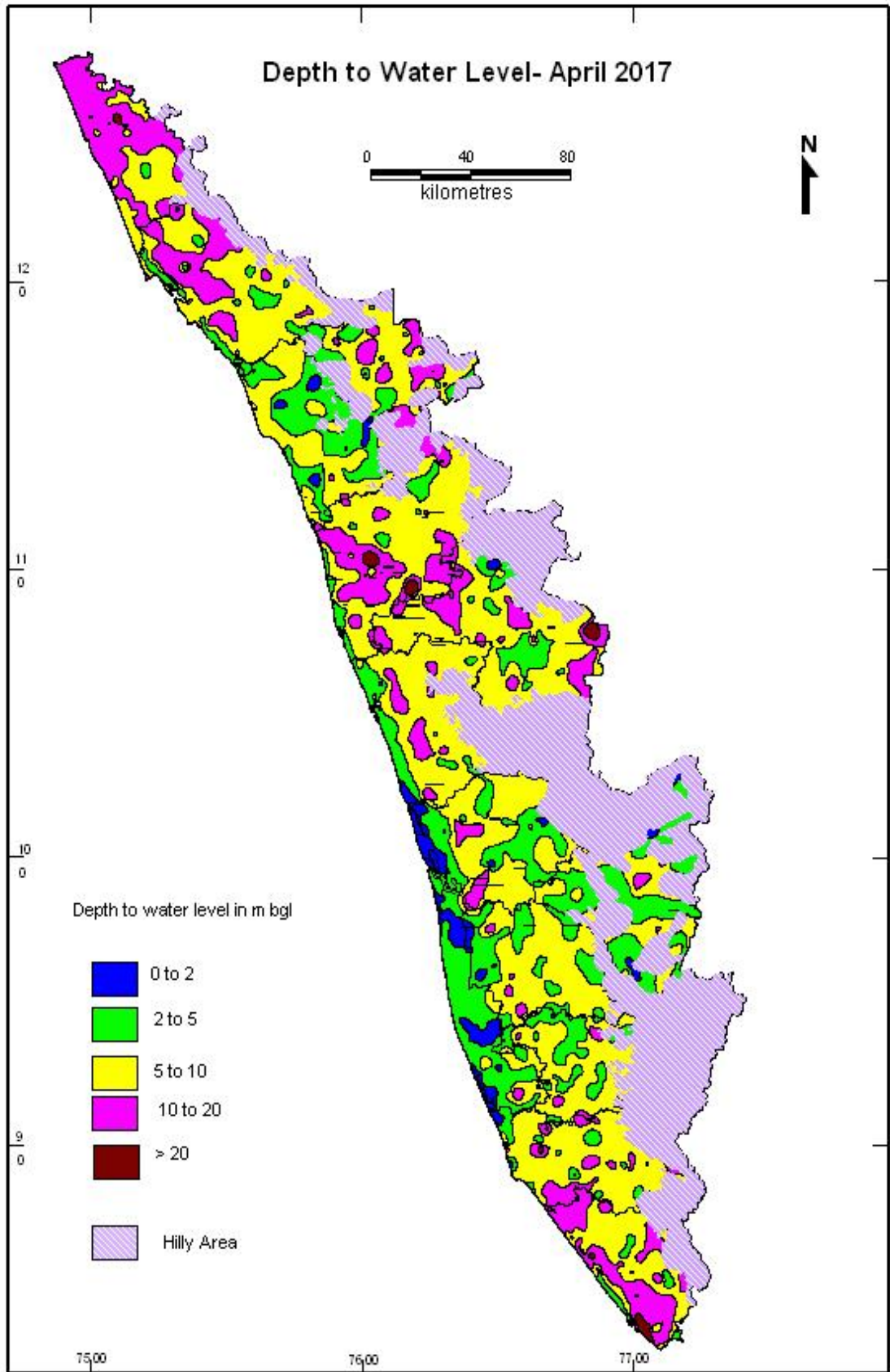
District	No. of Wells Analysed	Depth to Water level(mbgl)		No. &Percentage of Wells Showing Depth to Water Table (mbgl) in the Range of					
		Min	Max	0.0 - 2.0	2.0 - 5.0	5.0 - 10.0	10.0 - 20.0	20.0 - 40.0	> 40.0
ALAPPUZHA	89	0.02	10.95	66 74. 16%	15 16. 85%	6 6.74%	2 2.25%	0	0
ERNAKULAM	133	0.03	15.30	46 34. 59%	47 35. 34%	3 28.57%	2 1.50%	0	0
IDUKKI	69	0.10	9.30	20 28. 99%	37 53. 62%	12 17. 39%	0	0	0
KANNUR	103	0.05	20.38	20 19. 42%	32 31. 07%	40 38. 83%	10 9.71%	1 9.7%	0
KASARAGOD	121	0.20	20.90	29 23. 97%	33 27. 27%	44 36. 36%	14 11. 57%	1 0.83%	0
KOLLAM	102	0.32	20.62	12 11. 76%	22 21. 57%	60 58. 82%	7 6.86%	1 0.98%	0
KOTTAYAM	101	0.14	10.50	31 30. 69%	53 52. 48%	16 15. 84%	1 0.99%	0	0
KOZHIKODE	93	0.08	13.95	39 41. 94%	32 34. 41%	19 20. 43%	3 3.23%	0	0
MALAPPURAM	123	0.22	26.48	20 16. 26%	38 30. 89%	47 38. 21%	16 13. 04%	2 1.63%	0
PALAKKAD	116	0.40	18.95	26 22. 41%	41 35. %	41 35. 34%	8 6.90%	0	0
PATHANAMTHITTA	88	0.75	12.60	25 28. 41%	35 39. 77%	26 29. 55%	2 2.27%	0	0
THIRUVANANTHAPURAM	115	0.68	57.00	3 2.61%	26 22. 61%	41 35. 65%	35 30. 43%	9 7.83%	1 0.87%
THRISSUR	123	0.22	11.80	31 25. 30%	34 27. 64%	55 44. 72%	3 2.44%	0	0
WAYANAD	68	0.04	20.00	18 26. 47%	14 20. 59%	25 36. 76%	11 16. 18%	0	0
<b>TOTAL</b>	<b>1444</b>	<b>0.02</b>	<b>57.00</b>	<b>386 26.7%</b>	<b>459 31. 79 %</b>	<b>470 32. 54%</b>	<b>114 7.9%</b>	<b>14 0. 96 %</b>	<b>1 0.069%</b>

**Table 4.3: District Wise Well Frequency For Different Ranges Of Depth To Water Level For November 2017**

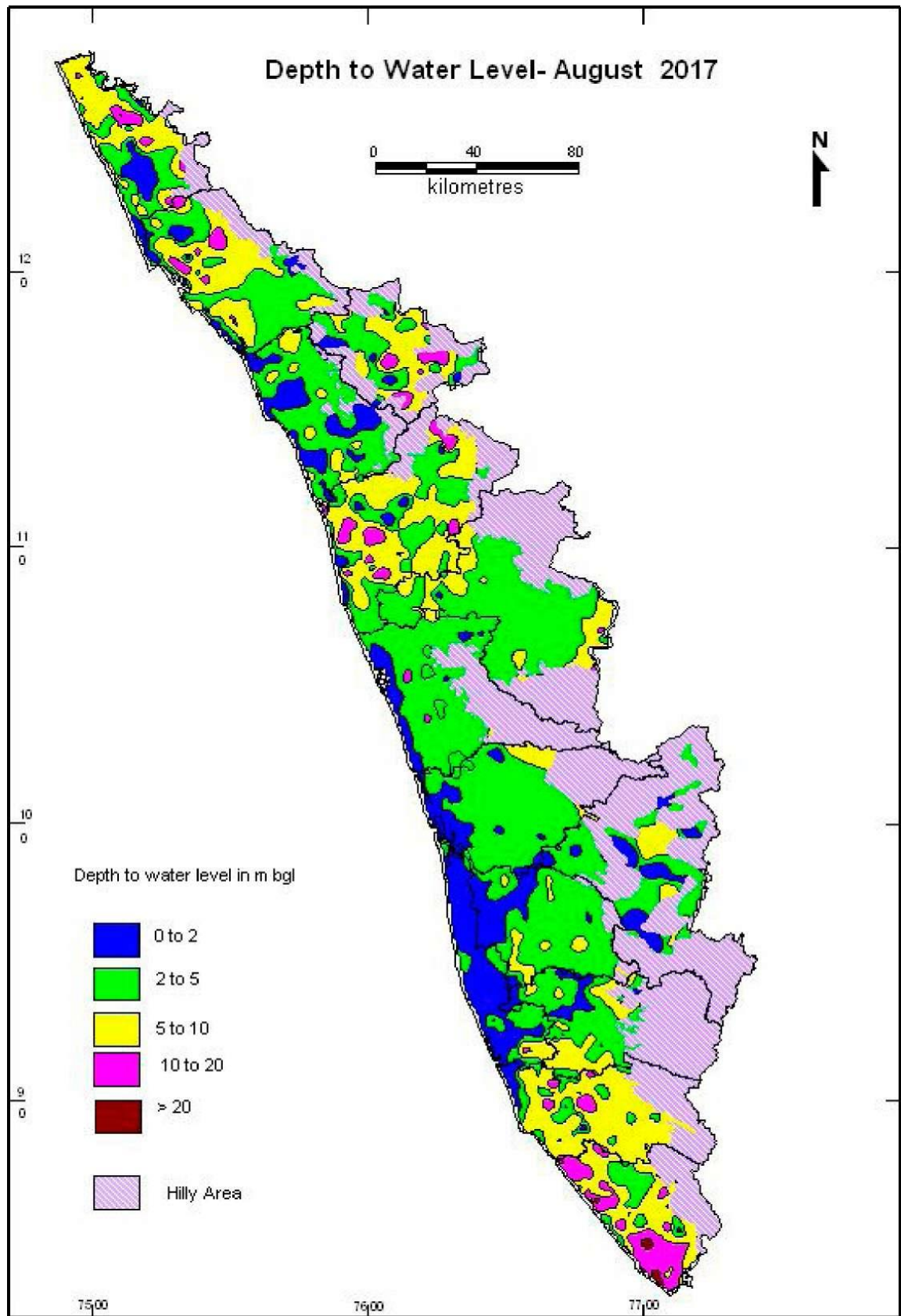
District	No. of Wells Analysed	Depth to Water level(mbgl)		No. &Percentage of Wells Showing Depth to Water Table (mbgl) in the Range of					
		Min	Max	0.0 – 2.0	2.0 – 5.0	5.0 – 10.0	10.0 – 20.0	20.0 – 40.0	> 40.0
ALAPPUZHA	89	0.14	16.5	60 67.42%	13 14.61%	9 10.11%	7 7.87%	0	0
ERNAKULAM	137	0.25	17.5	36 26.28%	46 33.58%	51 37.23%	4 2.92%	0	0
IDUKKI	74	0.31	49.4	16 21.62%	41 55.41%	15 20.27%	1 1.35%	0	1 1.35%
KANNUR	115	0.73	19.99	10 8.70%	36 31.30%	52 45.22%	17 14.78%	0	0
KASARAGOD	125	1.04	22.2	5 4.00%	14 11.20%	74 59.20%	30 24.00%	2 1.60%	0
KOLLAM	105	0.22	19.95	16 15.24%	29 27.62%	51 48.57%	9 8.57%	0	0
KOTTAYAM	102	0.1	12.25	22 21.57%	55 53.92%	22 21.57%	3 2.94%	0	0
KOZHIKODE	99	0.58	59.45	19 19.19%	42 42.42%	30 30.30%	6 6.06%	1 1.01%	1 1.01%
MALAPPURAM	129	0.39	29.02	21 16.28%	35 27.13%	54 41.86%	17 13.18%	2 1.55%	0
PALAKKAD	142	0.7	49.5	12 8.45%	60 42.25%	55 38.73%	11 7.75%	0	4 2.82%
PATHANAMTHITTA	86	0.4	14.96	30 34.88%	38 44.19%	15 17.44%	3 3.49%	0	0
THIRUVANANTHAPURAM	116	0.1	47.98	11 9.48%	31 26.72%	42 36.21%	23 19.83%	8 6.90%	1 0.86%
THRISSUR	127	0.45	22.65	25 19.69%	31 24.41%	63 49.61%	7 5.51%	1 0.79%	0
WAYANAD	79	0.72	19.2	11 13.92%	23 29.11%	30 37.97%	15 18.99%	0	0
<b>TOTAL</b>	<b>1525</b>	<b>0.1</b>	<b>59.45</b>	<b>294</b> <b>19.28%</b>	<b>494</b> <b>32.39%</b>	<b>563</b> <b>36.92%</b>	<b>153</b> <b>10.03%</b>	<b>14</b> <b>0.92%</b>	<b>7</b> <b>0.46%</b>

**Table 4.4 : District Wise Well Frequency For Different Ranges Of Depth To Water Level For January 2018**

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	82	0.48	15.65	45 54.88%	20 24.39%	7 8.54%	10 12.20%	0	0
ERNAKULAM	135	0.59	15.70	26 19.26%	40 29.63%	65 48.15%	4 2.96%	0	0
IDUKKI	67	0.39	11.94	7 10.45%	37 55.22%	20 29.85%	3 4.48%	0	0
KANNUR	106	1.35	21.18	5 4.72%	25 23.48%	52 49.06%	23 21.70%	2 1.89%	0
KASARAGOD	124	1.99	23.16	1 8.06%	12 9.68%	51 41.13%	57 45.97%	2 1.62%	0
KOLLAM	110	0.51	19.15	13 11.82%	16 14.55%	68 61.82%	13 11.82%	0	0
KOTTAYAM	101	0.42	15.66	15 14.85%	33 32.67%	50 49.5%	3 2.97%	0	0
KOZHIKODE	89	0.85	25.04	10 11.24%	43 48.31%	27 30.34%	8 8.99%	1 1.12%	0
MALAPPURAM	130	1.02	29.96	6 4.62%	33 25.38%	62 47.69%	27 20.77%	2 1.54%	0
PALAKKAD	148	1.30	51.50	6 4.05%	50 33.78%	65 43.92%	22 14.86%	2 1.35%	2 1.35%
PATHANAMTHITTA	89	0.73	17.20	9 10.11%	35 39.33%	42 47.19%	3 3.37%	0	0
THIRUVANANTHAPURAM	125	0.80	55.70	3 2.4%	34 27.2%	49 39.2%	30 24%	7 5.6%	2 1.6%
THRISSUR	131	0.93	22.45	10 7.63%	43 32.82%	59 45.04%	18 13.74%	1 0.76%	0
WAYANAD	76	1.01	19.20	6 7.89%	22 28.95%	30 39.47%	18 23.68%	0	0
<b>TOTAL</b>	<b>1513</b>	<b>0.39</b>	<b>55.70</b>	<b>162</b>	<b>443</b>	<b>647</b>	<b>240</b>	<b>17</b>	<b>4</b>

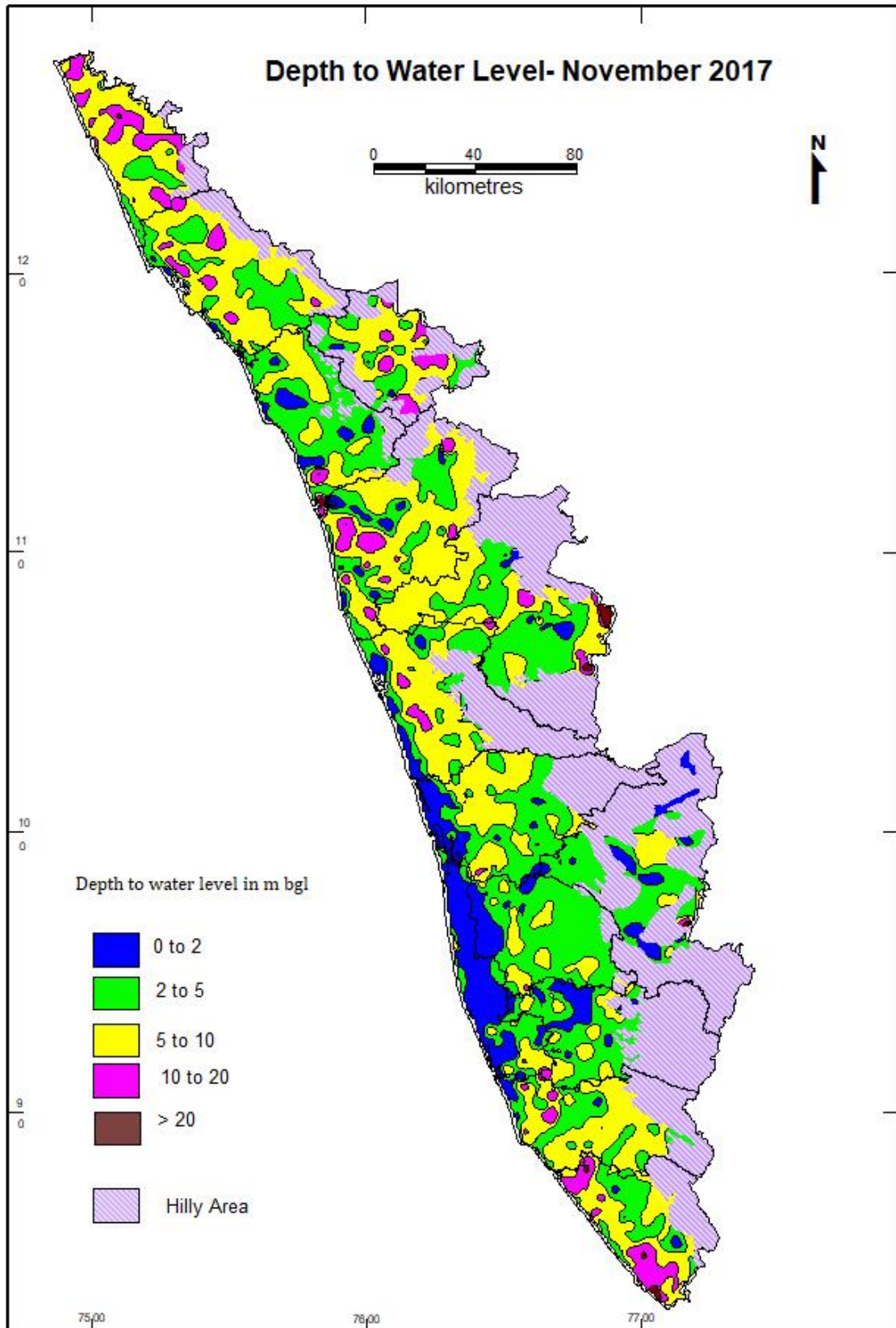


**Figure 4.1: Depth to Water Level during April 2017**

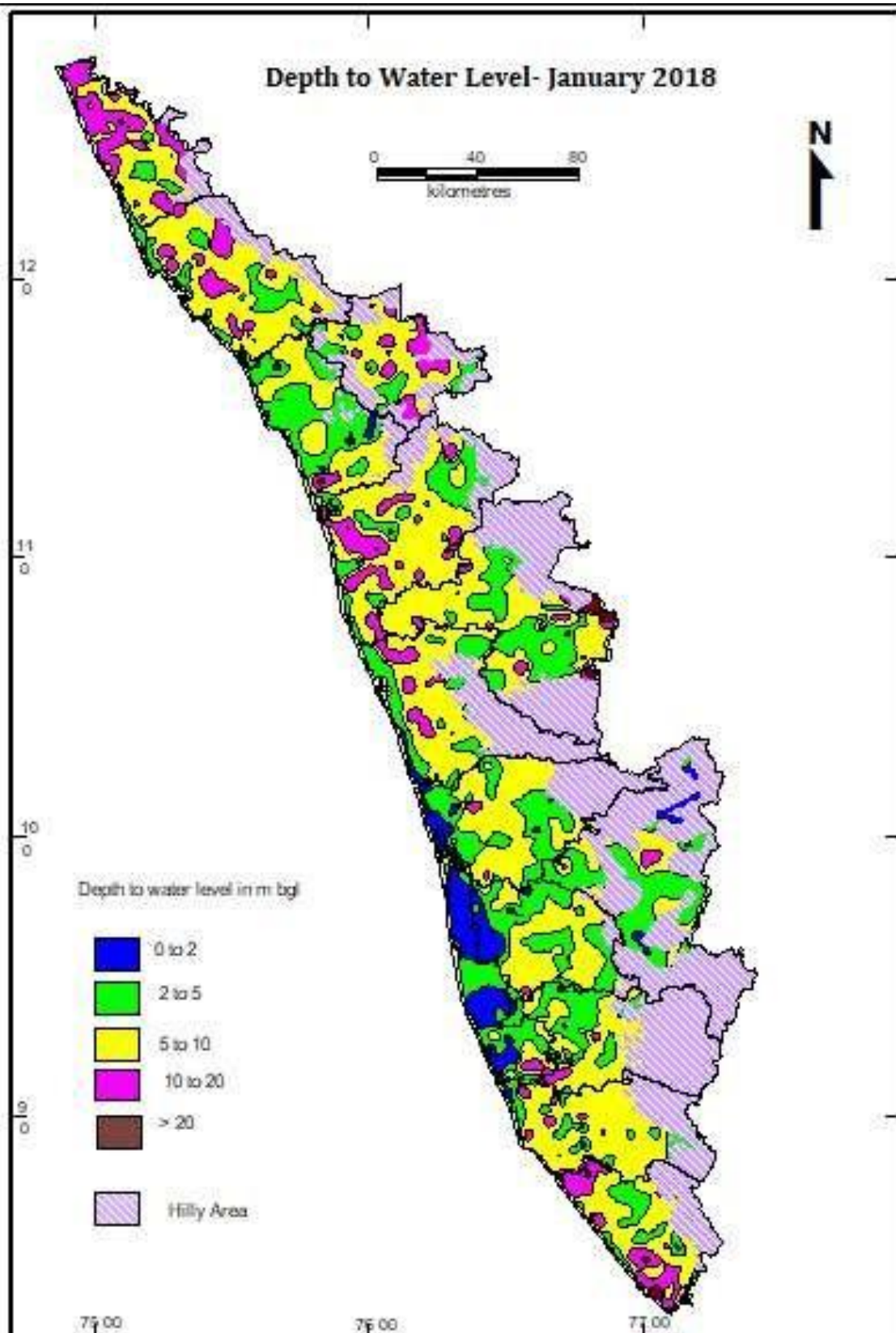


**Figure 4.2: Depth to Water Level during August 2017**





**Figure 4.3: Depth to Water Level during November 2017**



**Figure 4.4: Depth to Water Level during January 2018**

## V WATER LEVEL FLUCTUATION IN KERALA DURING 2017 – 2018

In Kerala the premonsoon water level measurements are carried out during April and postmonsoon measurements during August and November. The fourth water level measurement is during January. The estimation of water level fluctuation between premonsoon and postmonsoon is very important in the estimation of natural recharge to groundwater regime, which gives the dynamic resource of available groundwater.

The water level fluctuation between and pre and postmonsoon periods in coastal alluvium, riverine alluvium and valley fills are mostly restricted to 4 meters. In laterites water level fluctuation is generally in the range of a few centimetres to 9 metres, but mostly restricted to 4 m. In crystalline areas the water level fluctuation is in the range of a few cm to 6m.

### FLUCTUATION BETWEEN APRIL 2017 AND AUGUST 2017

Comparison of August 2017 water level with that of April 2017 indicate rise in water level in the range of 0–8.00 metres in most parts of the State whereas fall in water level also is noticed in certain small isolated pockets mainly in Thiruvananthapuram, Ernakulam and hilly tracts of Idukki and Wayanad districts. In the southern districts of Kerala the rise in water level is in the range of 0–2m as seen in major parts of the area, whereas in the northern districts of Kerala, rise in water level up to 8m is seen particularly in Kasaragod. In Kasaragod district majority of wells (73.1%) indicate rise in water level is in the range of 4–8m. Rise in water level is represented by 94.24 % of total monitoring wells. Rise in water level fluctuation of more than 4m is encountered in all districts and fall of more than 4m is seen in isolated pockets of Kasaragod, Alappuzha, Thiruvananthapuram and Wayanad districts. The map of Kerala showing fluctuation between August 2017 and April 2017 is given in Fig: 5.1. District-wise well frequency for different ranges of water level fluctuation (August 2017 and April 2017) is given in Table 5.1.

### FLUCTUATION BETWEEN APRIL 2017 AND NOVEMBER 2017

Comparison of November 2017 water level with that of April 2017 indicates rise in water level in the range of 0.02 – 4.97 metres in most parts of the State whereas fall in water level is noticed in certain small isolated pockets in all districts. Rise in water level is reflected in 92.62% of the monitoring wells. Except Ernakulam district, fall in water level is represented by less than 10% of the monitoring wells when compared to April 2017. More



than 50% of the wells show rise in water level in the range of 2-4m in Thiruvananthapuram and Kollam districts. The map of Kerala showing fluctuation between November 2017 and April 2017 is given in Fig: 5.2. District-wise well frequency for different ranges of water level fluctuation (November 2017 and April 2017) is given in Table 5.2.

### **FLUCTUATION BETWEEN APRIL 2017 AND JANUARY 2018**

Comparison of January 2018 water level with that of April 2017 of dug wells and shallow bore wells indicate a rise in water level fluctuation in the range of 0–4 metres in most parts of the State whereas fall in water level fluctuation is noticed in certain small isolated pockets in all districts. In general, the rise in water level is in the range of 0-2 m throughout all districts represented by 67.3% of the monitoring wells. Rise in water level in the range of 4 m and above is noticed in isolated pockets in Kasaragod, Kollam, Malappuram, Palakkad, Thrissur and Thiruvananthapuram districts. The map showing water level fluctuation between January 2018 and April 2017 is given in Fig: 5.3. District-wise well frequency for different ranges of water level fluctuation (January 2018 and April 2017) is given in Table 5.3.

**Table.5.1: District wise – Water Level Fluctuation and Frequency Distribution for Different Ranges  
from April 2017 – August 2017**

District	No. of Wells	Range of Fluctuation (m)				No. & Percentage of Wells /Percentage 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		
ALAPPUZHA	80	0.01	8.90	0.40	4.02	53 66.25%	20 25.00%	3 3.72%	2 2.50%	1 1.25%	1 1.25%	76	4
ERNAKULAM	122	0.03	9.31	0.10	2.16	70 57.38%	34 27.875	12 9.84%	5 4.10%	1 0.82%	0	116	6
IDUKKI	66	0.06	5.80	0.09	1.13	43 65.15%	16 24.24%	4 6.06%	3 4.55%	0	0	63	3
KANNUR	102	0.51	33.60	0.88	0.88	26 25.49%	42 41.18%	33 32.3%	1 0.98%	0	0	101	1
KASARAGOD	119	0.25	16.67	4.05	4.05	10 8.40%	21 17.65%	87 73.1%	0	0	1 0.8%	118	1
KOLLAM	88	0.07	5.77	0.12	1.09	45 51.14%	29 32.95%	8 9.09%	6 6.82%	0	0	82	6
KOTTAYAM	88	0.19	6.86	1.37	1.40	36 40.91%	35 39.77%	15 17.05%	2 2.27%	0	0	86	2
KOZHIKODE	89	0.03	8.09	0.36	0.36	32 35.96%	49 55.06%	7 7.87%	1 1.12%	0	0	88	1
MALAPPURAM	110	0.14	25.24	0.10	1.85	30 27.27%	49 44.55%	27 24.55%	3 2.73%	0	0	106	3
PALAKKAD	111	0.05	20.00	0.03	1.80	33 29.73%	43 38.74%	26 23.4%	8 7.21%	0	0	102	8
PATHANAMTHITTA	83	0.04	5.70	0.04	3.92	41 49.4%	30 36.14%	7 8.43%	3 3.61%	2 2.41%	0	78	5
THIRUVANANTHA PURAM	86	0.06	6.67	0.02	5.92	51 59.30%	7 8.14%	4 4.65%	18 20.93%	2 2.33%	3 3.49%	62	23
THRISSUR	11	0.03	7.16	0.11	1.34	38 34.23%	61 54.95%	8 7.21%	4 3.60%	0	0	107	4
WAYANAD	64	0.14	11.88	0.04	6.16	27 42.19%	26 40.63%	5 7.81%	2 3.13%	0	1 1.50%	58	3
<b>TOTAL</b>	<b>1319</b>	<b>0.51</b>	<b>5.70</b>	<b>0.02</b>	<b>6.16</b>	<b>535</b> <b>40.56%</b>	<b>462</b> <b>35.62%</b>	<b>246</b> <b>18.65%</b>	<b>58</b> <b>4.38%</b>	<b>6</b> <b>0.45%</b>	<b>6</b> <b>0.45%</b>	<b>1243</b> <b>94.24%</b>	<b>70</b> <b>5.03%</b>

Table 5.2: District wise – Water Level Fluctuation and Frequency Distribution for Different Ranges ( November 2017 – April 2017)

District	No. of Wells	Range of Fluctuation (m)				No. & Percentage of Wells /Percentage 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		
ALAPPUZHA	71	0.14	4.6	0.75	2.9	41 57.75%	24 33.80%	1 1.41%	3 4.23%	2 2.82%	0	66	5
ERNAKULAM	104	0.05	4.32	0.02	3.3	73 70.19%	11 10.58%	3 2.88%	12 11.54%	5 4.81%	0	87	17
IDUKKI	64	0.06	4.84	0.12	1.19	41 64.06%	16 25.00%	2 3.13%	5 7.81%	0	0	59	5
KANNUR	90	0.03	4.91	0.01	1.75	49 54.44%	30 33.33%	6 6.67%	5 5.56%	0	0	85	5
KASARAGOD	92	0.05	4.79	0.87	4.75	33 35.87%	43 46.74%	12 13.04%	2 2.17%	1 1.09%	1 1.09%	88	4
KOLLAM	64	0.03	4.97	0.01	0.32	23 35.94%	34 53.13%	4 6.25%	3 4.69%	0	0	61	3
KOTTAYAM	80	0.2	4.67	0.14	1.5	48 60.00%	22 27.50%	6 7.50%	4 5.00%	0	0	76	4
KOZHIKODE	82	0.02	4.67	0.03	1.77	57 69.51%	13 15.85%	4 4.88%	8 9.76%	0	0	74	8
MALAPPURAM	94	0.18	4.9	0.1	2.26	40 42. 55%	39 41.49%	11 11.70%	3 3.19%	1 1.06%	0	90	4
PALAKKAD	82	0.15	4.1	0.3	1.75	36 43.90%	39 47.56%	1 1.22%	6 7.32%	0	0	76	6
PATHANAMTHITTA	75	0.24	4.65	0.1	1.35	37 49.33%	25 33.33%	10 13.33%	3 4.00%	0	0	72	3
THIRUVANANTHAPURAM	51	0.13	4.81	0.16	4.36	15 29.41%	26 50.98%	5 9.80%	2 3.92%	2 3.92%	1 1.96%	46	5
THRISSUR	103	0.04	4.86	0.06	3.4	61 59.22%	29 28.16%	5 4.85%	6 5.83%	2 1.94%	0	95	8
WAYANAD	72	0.04	4.1	0.25	4.89	53 73.61%	12 16.67%	1 1.39%	5 6.94%	0	1 1.39%	66	6
<b>TOTAL</b>	<b>1124</b>	<b>0.02</b>	<b>4.97</b>	<b>0.01</b>	<b>4.89</b>	<b>607</b> <b>54.00%</b>	<b>363</b> <b>32.30%</b>	<b>71</b> <b>6.32%</b>	<b>67</b> <b>5.96%</b>	<b>13</b> <b>1.16%</b>	<b>3</b> <b>0.27%</b>	<b>1041</b> <b>92.62%</b>	<b>83</b> <b>7.47%</b>

**Table 5.3: District wise – Water Level Fluctuation and Frequency Distribution for Different Ranges from January 2018 – April 2017**

District	No. of Wells	Range of Fluctuation (m)				No.& Percentage of Wells /Percentage 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			
ALAPPUZHA	71	0.07	3.8	0.3	1.8	61 85.91%	5 7.04%	0	5 7.04%	0	0	0	66	5
ERNAKULAM	122	0.01	3.19	0.01	3.51	75 61.48%	8 6.55%	0	38 31.14%	1 0.81%	0	0	83	39
IDUKKI	63	0.01	3.05	0.01	2.31	34 53.96%	7 11.11%	0	20 31.74%	1 1.58%	0	1 1.58%	41	21
KANNUR	101	0.09	3.74	0.04	3.26	72 71.28%	15 14.85%	0	13 12.87%	1 0.99%	0	0	87	14
KASARAGOD	112	0.02	4.1	0.02	2.45	70 62.5%	29 25.89%	1 0.89%	10 8.92%	2 1.7%	0	0	100	12
KOLLAM	88	0.18	4.21	0.01	1.44	50 56.88%	26 29.54%	1 1.14%	11 12.5%	0	0	0	77	11
KOTTAYAM	88	0.02	3.25	0.05	1.6	53 60.22%	8 9.09%	0	24 27.27%	0	0	3 3.40%	61	24
KOZHIKODE	83	0.03	3.19	0.24	1.5	69 83.16%	6 7.2%	0	8 9.639%	0	0	0	75	8
MALAPPURAM	103	0.01	4.13	0.11	3.71	76 73.78%	16 15.53%	2 1.94%	8 7.76%	0	0	1 0.97%	94	8
PALAKKAD	123	0.1	4.5	0.04	3.55	69 56.09%	28 22.76%	2 1.62%	17 13.82%	3 2.43%	0	4 3.25%	99	20
PATHANAMTHITTA	82	0.05	3.64	0.02	3.19	64 78.04%	6 7.31%	0	10 12.19%	2 2.43%	0	0	70	12
THIRUVANANTHA PURAM	88	0.02	4.37	0.37	3.99	44 50%	33 37.5%	1 1.13%	7 7.95%	3 3.4%	0	0	78	10
THRISSUR	109	0.01	4	0.04	3.76	83 76.14%	11 10.09%	1 0.91%	11 10.09%	3 2.75%	0	0	95	14
WAYANAD	70	0.04	2.67	0.01	3.3	57 60%	4 5.71%	0	7 10%	1 1.42%	0	1 1.42%	61	8
<b>TOTAL</b>	<b>1303</b>	<b>0.01</b>	<b>5.68</b>	<b>0.01</b>	<b>4.05</b>	<b>877</b> <b>67.31%</b>	<b>202</b> <b>15.5%</b>	<b>8</b> <b>0.61%</b>	<b>189</b> <b>14.5%</b>	<b>17</b> <b>1.3%</b>	<b>0</b>	<b>10</b> <b>0.77%</b>	<b>1087</b> <b>83.42%</b>	<b>206</b> <b>15.81%</b>

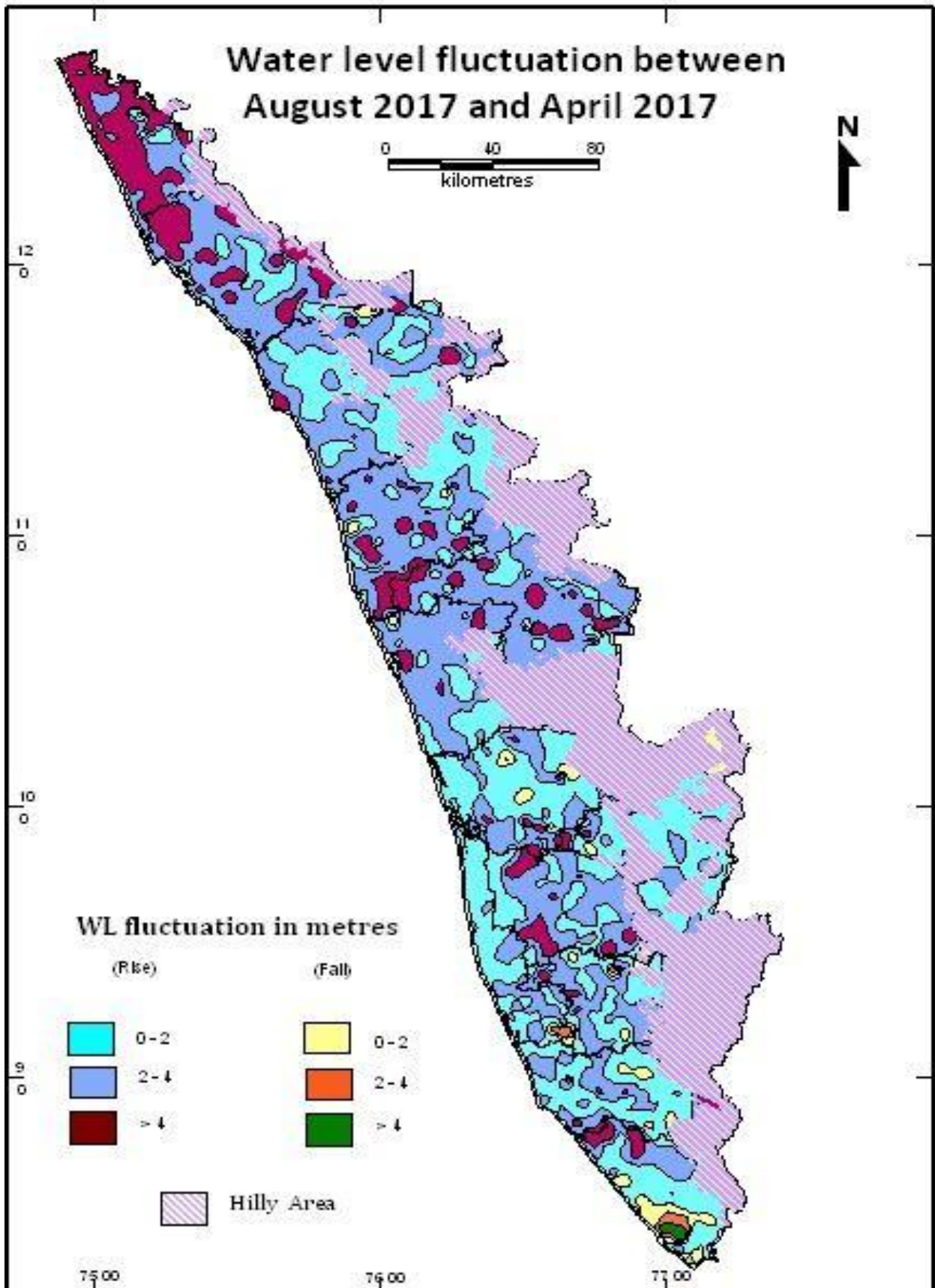
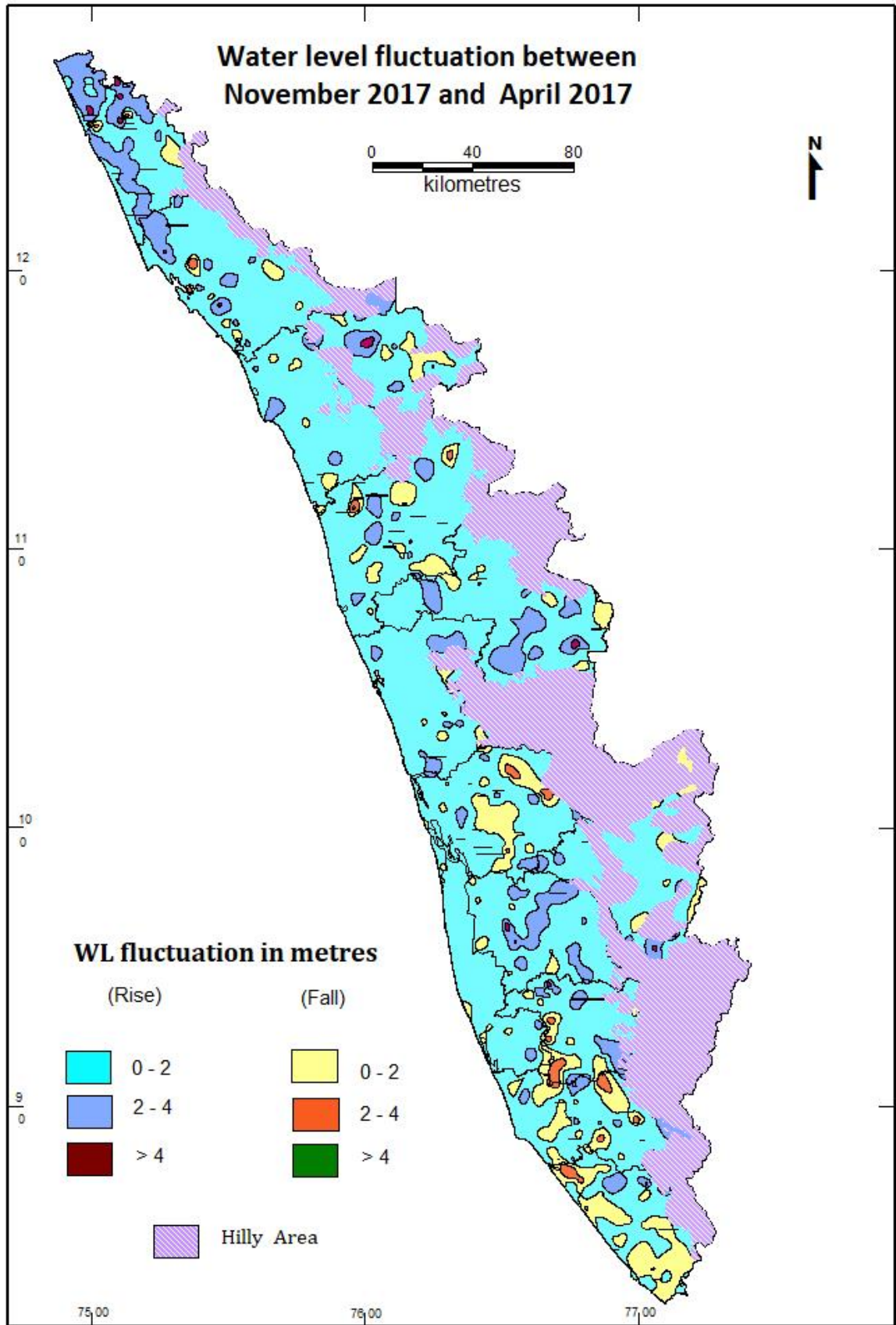


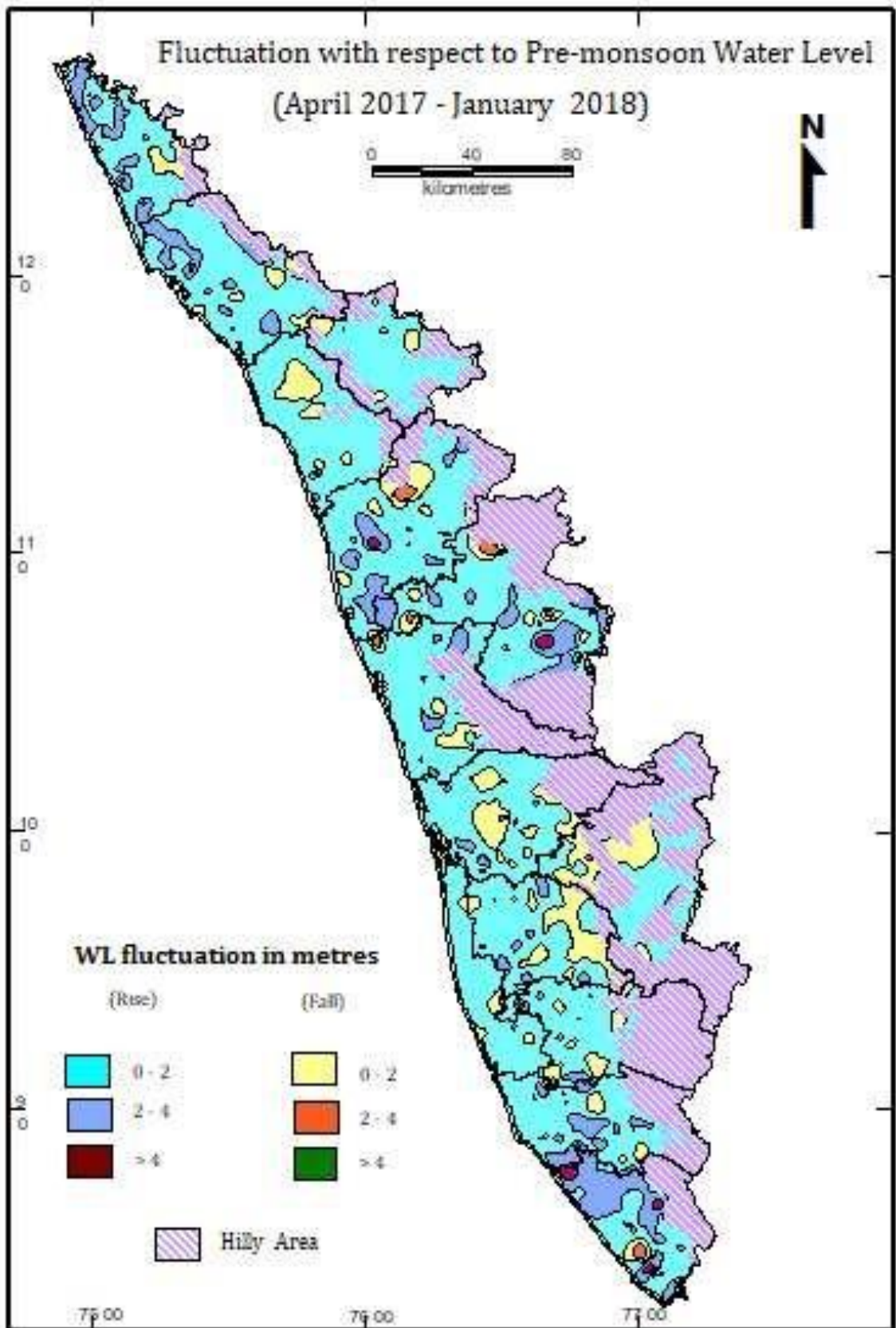
Fig5.1: WaterLevelFluctuation(August2017VsApril 2017)



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**Fig 5.2: Water Level Fluctuation (November 2017 Vs April 2017)**





**Fig5.3:WaterLevelFluctuation(January 2018VsApril 2017)**

## **VI. WATER LEVEL FLUCTUATION BETWEEN APRIL 2017 AND APRIL 2016**

Annual Ground water level fluctuation has been calculated by comparing the water level data during April 2017 with April 2016. Comparison indicates that majority of the dug wells shows a fall in water level which is represented by 57.90 % of total wells monitored. Fall in water level is equally distributed in all districts. The continuity and uniformity of falling trend is attributed to the deficiency in rainfall in all these districts. In Ernakulam , Kannur and Kasargod districts , the rise in water level is above 50% of total wells. Among the wells showing fall in water level fluctuation, about 51% of the wells show fall in the range of 0-2 m. The map of Kerala showing fluctuation between April 2016 and April 2017 is given in Fig.6.1. District-wise well frequency for different ranges of water level fluctuation (April 2016 and April 2017) is given in Table 6.1.

## **WATER LEVEL FLUCTUATION BETWEEN AUGUST 2017 AND AUGUST 2016**

Annual Ground water level fluctuation has been calculated by comparing the water level data during August 2017 with August 2016. Comparison indicates that majority of the dug wells shows a rise in water level which is represented by 75.62 % of total dug wells monitored. Fall is mainly noticed in Thiruvananthapuram and Kannur and eastern parts of malappuram and its northern extension in Wayanad districts. Rise in water level fluctuation of more than 4 m is encountered in isolated pockets of Kasaragod, Kollam, Kottayam, Malappuram, Palakkad, Pathanamthitta, Thiruvananthapuram, Thrissur and Wayanad districts and fall of more than 4 m is observed few locations in Kollam, Malappuram, Palakkad, Thiruvananthapuram, Thrissur and Wayanad districts. The map of Kerala showing fluctuation between August 2017 and August 2016 is given in Fig:6.2. District-wise well frequency for different ranges of water level fluctuation (August 2017 and August 2016) is given in Table 6.2

## **WATER LEVEL FLUCTUATION BETWEEN NOVEMBER 2017 AND NOVEMBER 2016**

Annual Ground water level fluctuation has been calculated by comparing the water level data during November 2017 with November 2016. Comparison indicates that majority of the dug wells shows a rise in water level which is represented by 81.49% of total wells monitored. In all the districts, more than 50% of the monitoring wells show rise in water level in the range of 0-2m when compared to previous year. Rise in water level fluctuation in the range of 2-4 m is most predominant in southern districts mainly Thiruvananthapuram and Kollam. Fall is represented by only 18.50% of the monitoring wells which is mainly noticed as pockets in all districts. The map of Kerala showing fluctuation between November 2017 and November 2016 is given in Fig: 6.3. District-wise well frequency for different ranges of water level fluctuation (November 2017 and November 2016) is given in Table 6.3



**WATER LEVEL FLUCTUATION BETWEEN JANUARY 2018 AND JANUARY 2017**

Annual Ground water level fluctuation has been calculated by comparing the water level data during January 2018 with January 2017 for dug wells and shallow bore wells. Comparison shows a rise in water level in 76.81 % of total dug wells monitored. Rise in water level fluctuation is predominant in all districts and fall is observed as small patches in seven districts particularly Kasaragod, Palakkad, Malappuram, Thrissur and Thriuvananthapuram. The map of Kerala showing fluctuation between January 2018 and January 2017 is given in Fig.6.4. District-wise well frequency for different ranges of water level fluctuation (January 2018 and January 2017) is given in Table 6.4.

**Table 6.1: District wise – Water Level Fluctuation and Frequency Distribution for Different Ranges  
from April 2016 – April 2017**

District	No. of Wells	Range of Fluctuation (m)				No.& Percentage of Wells /Percentage 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		
ALAPPUZHA	77	0.01	0.65	0.01	1.91	7 9.09%	0	0	68 88.31%	0	0	7	68
ERNAKULAM	118	0.05	2.65	0.05	4.25	71 60.17%	2 1.69%	0	38 32.20%	3 2.54%	1 0.85%	73	42
IDUKKI	69	0.05	5.61	0.01	2.60	34 49.28%	3 4.35%	1 1.45%	29 42.03%	2 2.90%	0	38	31
KANNUR	102	0.01	3.17	0.02	8.45	53 51.96%	2 1.96%	0	43 42.16%	2 1.96%	2 1.96%	55	47
KASARAGOD	116	0.01	7.95	0.01	8.67	62 53.45%	2 1.72%	2 1.72%	42 36.21%	4 3.45%	4 3.45%	66	50
KOLLAM	88	0.01	5.62	0.02	16.17	40 45.45%	3 3.41%	1 1.14%	35 39.77%	6 6.82%	2 2.20%	44	43
KOTTAYAM	89	0.10	3.08	0.04	2.50	32 35.96%	6 6.74%	0	47 52.81%	3 3.37%	0	38	50
KOZHIKODE	88	0.02	1.38	0.03	2.12	44 50.00%	0	0	42 47.73%	1 1.14%	0	44	43
MALAPPURAM	91	0.01	7.15	0.02	8.14	26 28.57%	3 3.30%	1 1.10%	50 54.95%	5 5.49%	6 6.59%	30	61
PALAKKAD	118	0.05	13.50	0.04	6.80	28 23.73%	3 2.54%	3 2.54%	62 52.54%	14 11.86%	3 2.54%	34	79
PATHANAMTHITTA	83	0.02	4.92	0.04	4.03	23 27.71%	0	2 2.41%	53 63.86%	3 3.61%	1 1.20%	25	57
THIRUVANANTHA PURAM	84	0.02	3.27	0.07	10.18	11 13.10%	1 1.19%	0	51 60.71%	13 15.48%	8 9.52%	12	72
THRISSUR	108	0.01	1.76	0.01	5.23	42 38.89%	0	0	58 53.70%	4 3.70%	2 1.85%	42	64
WAYANAD	66	0.01	9.25	0.02	2.19	17 25.76%	2 3.03%	2 3.03%	40 60.61%	4 6.06%	0	21	44
<b>TOTAL</b>	<b>1297</b>	<b>0.10</b>	<b>0.65</b>	<b>0.01</b>	<b>16.17</b>	<b>490</b> <b>37.77%</b>	<b>27</b> <b>2.08%</b>	<b>12</b> <b>0.92%</b>	<b>658</b> <b>50.73%</b>	<b>64</b> <b>4.93%</b>	<b>29</b> <b>2.23%</b>	<b>529</b> <b>40.78%</b>	<b>751</b> <b>57.90%</b>

**Table 6.2. District wise – Water Level Fluctuation and Frequency Distribution for Different Ranges  
from August 2016– August 2017**

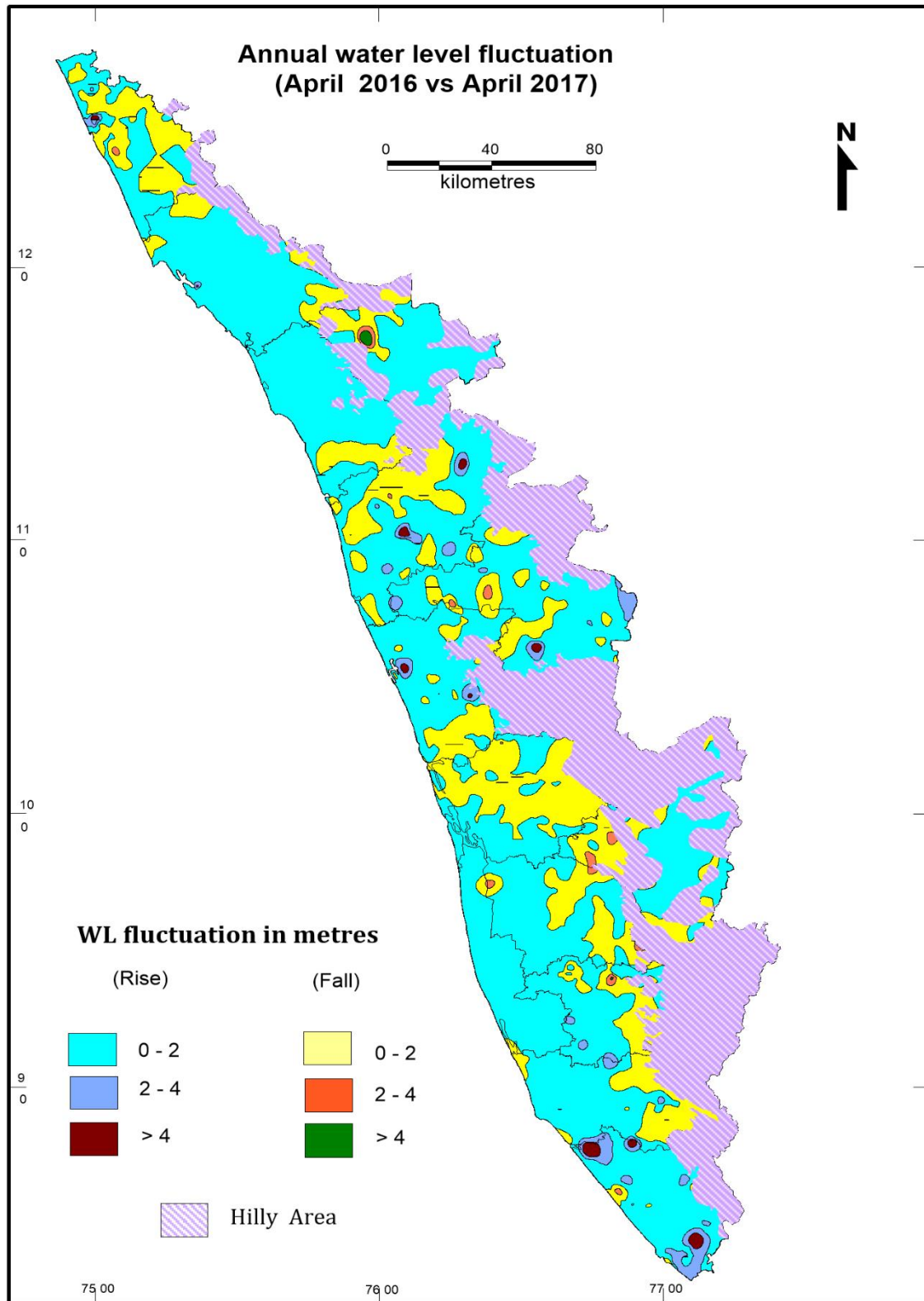
District	No. of Wells	Range of Fluctuation (m)				No. & Percentage of Wells /Percentage Showing Fluctuation						Total No. of Wells	
		Rise		Fall		Rise			Fall				
		Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
ALAPPUZHA	77	0.01	2.30	0.02	2.25	62 80.52%	2 2.60%	0	11 14.29%	2 2.60%	0	64	13
ERNAKULAM	126	0.01	3.50	0.01	0.90	97 76.98%	10 7.94%	0	19 15.08%	0	0	107	19
IDUKKI	69	0.10	2.53	0.20	3.60	55 79.71%	2 2.90%	0	7 10.14%	2 2.90%	0	57	9
KANNUR	99	0.01	3.44	0.08	2.48	67 67.68%	10 10.10%	0	17 17.17%	3 3.03%	0	77	20
KASARAGOD	118	0.01	5.81	0.05	3.35	77 65.25%	25 21.19%	4 3.39%	9 7.63%	2 1.69%	0	106	11
KOLLAM	86	0.05	5.60	0.03	7.56	51 59.30%	2 2.33%	1 1.1%	28 32.56%	1 1.16%	2 2.33%	54	31
KOTTAYAM	100	0.05	5.00	0.05	3.34	78 78.00%	9 9.00%	1 1.00%	10 10.00%	1 1.00%	0	88	11
KOZHIKODE	92	0.01	3.61	0.02	0.94	73 79.53%	3 3.26%	0	15 16.30%	0	0	76	15
MALAPPURAM	122	0.02	6.19	0.01	5.84	77 63.11%	16 13.11%	5 4.10%	18 14.75%	5 4.10%	1 0.82%	98	24
PALAKKAD	104	0.05	14.60	0.08	8.10	43 41.35%	12 11.54%	5 4.81%	33 31.73%	5 4.81%	3 2.88%	60	41
PATHANAMTHITTA	85	0.05	5.28	0.02	2.88	53 62.35%	19 22.35%	2 2.35%	9 10.59%	2 2.35%	0	74	11
THIRUVANANTHA PURAM	110	0.07	26.48	0.04	8.47	19 17.27%	1 0.91%	1 0.91%	60 54.55%	16 14.55%	13 11.82%	21	89
THRISSUR	1190	0.04	4.69	0.03	6.71	104 87.39%	3 2.52%	1 0.84%	9 7.56%	1 0.84%	1 0.84%	108	11
WAYANAD	67	0.01	9.99	0.02	7.44	43 64.18%	5 7.46%	1 1.49%	15 22.39%	2 2.99%	1 1.49%	49	18
<b>TOTAL</b>	<b>1374</b>	<b>0.10</b>	<b>2.30</b>	<b>0.01</b>	<b>8.47</b>	<b>899</b> <b>65.42%</b>	<b>119</b> <b>8.66%</b>	<b>21</b> <b>1.52%</b>	<b>260</b> <b>18.92%</b>	<b>42</b> <b>3.05%</b>	<b>21</b> <b>1.52%</b>	<b>1039</b> <b>75.61%</b>	<b>323</b> <b>23.51%</b>

**Table 6.3 : District wise – Water Level Fluctuation and Frequency Distribution for Different Ranges  
from November 2017 – November 2016**

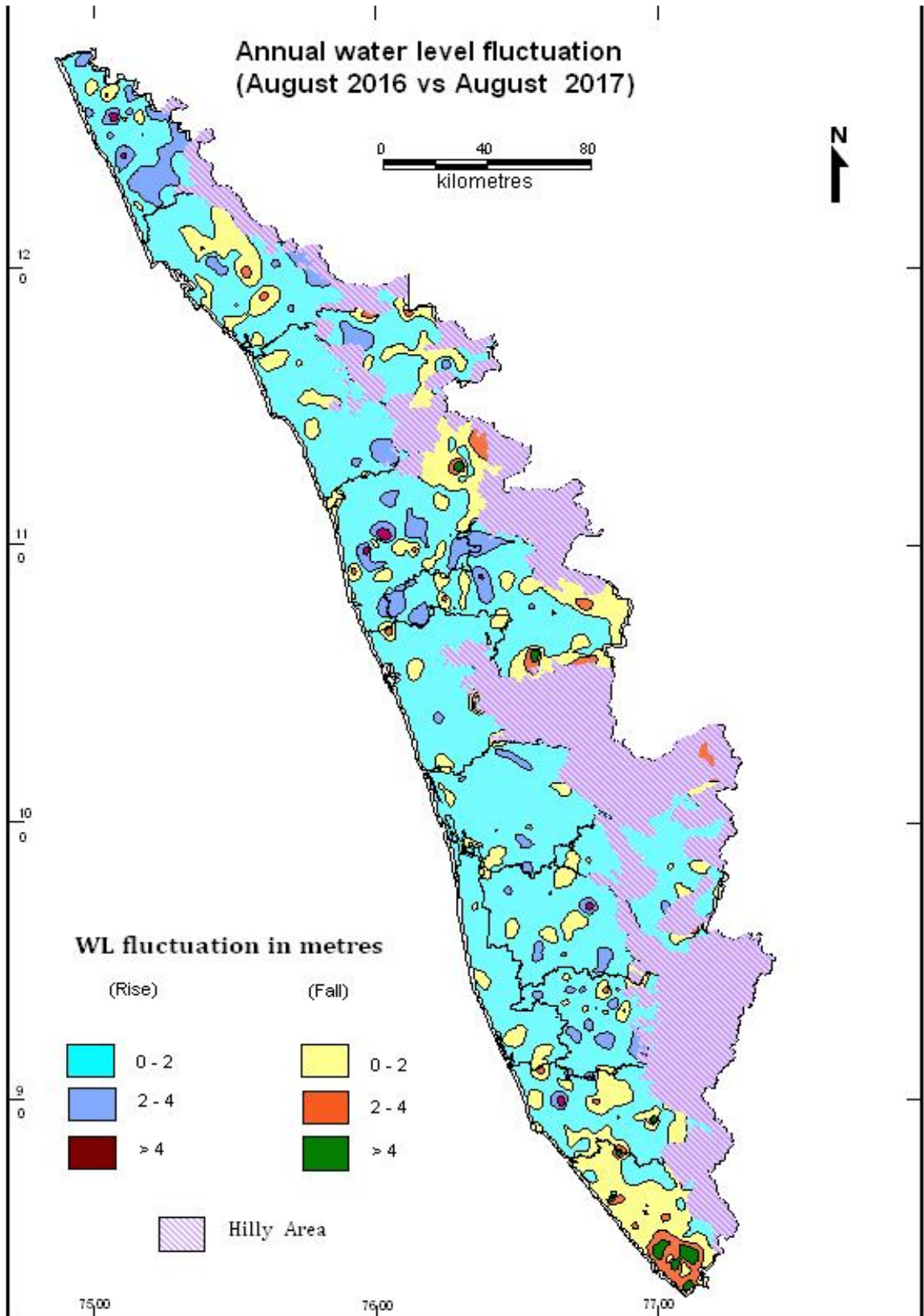
District	No. of Wells	Range of Fluctuation (m)				No.& Percentage of Wells /Percentage Showing Fluctuation						Total No. of Wells	
		Rise		Fall		Rise			Fall				
		Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
ALAPPUZHA	76	0.05	3.82	0.02	3.55	62 81.58%	6 7.89%	0	7 9.21%	1 1.32%	0	68	8
ERNAKULAM	110	0.02	3.92	0.02	2.75	80 72.73%	5 4.55%	0	23 20.91%	2 1.82%	0	85	25
IDUKKI	68	0.06	3.5	0.03	1.91	48 70.59%	3 4.41%	0	17 25.00%	0	0	51	17
KANNUR	98	0.05	4	0.06	3.65	75 76.53%	13 13.27%	0	9 9.18%	1 1.02%	0	88	10
KASARAGOD	115	0.03	4.33	0.35	4.8	92 80.00%	9 7.83%	2 1.74%	7 6.09%	3 2.61%	2 1.74%	103	12
KOLLAM	79	0.31	4.65	0.62	0.73	45 56.96%	30 37.97%	2 2.53%	2 2.53%	0	0	77	2
KOTTAYAM	95	0.05	3.33	0.05	4.2	59 62.11%	4 4.21%	0	28 29.47%	3 3.16%	1 1.05%	63	32
KOZHIKODE	86	0.05	4.58	0.02	3.7	53 61.63%	5 5.81%	1 1.16%	25 29.07%	2 2.333%	0	59	27
MALAPPURAM	105	0.02	4.28	0.12	2.47	78 74.29%	18 17.14%	2 1.90%	6 5.71%	1 0.95%	0	98	7
PALAKKAD	88	0.1	4	0.03	4.4	44 50.00%	7 7.95%	0	34 38.64%	2 2.27%	1 1.14%	51	37
PATHANAMTHITTA	77	0.02	3.58	0.02	0.32	55 71.43%	14 18.18%	0	8 10.39%	0	0	69	8
THIRUVANANTHAPURAM	77	0.08	4.25	0.52	3.07	49 63.64%	21 27.27%	1 1.30%	3 3.90%	3 3.90%	0	71	6
THRISSUR	110	0.03	3.52	0.02	0.73	89 80.91%	4 3.64%	0	17 15.45%	0	0	93	17
WAYANAD	64	0.02	4.73	0.01	2.24	39 60.94%	1 1.56%	1 1.56%	21 32.81%	2 3.13%	0	41	23
<b>TOTAL</b>	<b>1248</b>	<b>0.01</b>	<b>4.73</b>	<b>0.01</b>	<b>4.8</b>	<b>868</b> <b>69.55%</b>	<b>140</b> <b>11.22%</b>	<b>9</b> <b>0.72%</b>	<b>207</b> <b>16.58%</b>	<b>20</b> <b>1.60%</b>	<b>4</b> <b>0.32%</b>	<b>1017</b> <b>81.49%</b>	<b>231</b> <b>18.50%</b>

**Table 6.4 : District wise – Water Level Fluctuation and Frequency Distribution for Different Ranges  
from January 2017 – January 2018**

District	No. of Wells	Range of Fluctuation (m)				No. & Percentage of Wells /Percentage 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			
ALAPPUZHA	73	0.4	4.8	0.15	1.46	61 83.56%	2 2.73%	0	8 10.95%	0	0	2 2.73%	63	8
ERNAKULAM	131	0.01	3.78	0.01	1.81	86 65.64%	5 3.81%	0	37 28.24%	0	0	3 2.29%	91	37
IDUKKI	64	0.06	3.57	0.08	0.86	33 51.56%	6 9.37%	0	24 37.5%	0	0	1 1.56%	39	24
KANNUR	103	0.01	3.26	0.02	2.38	72 69.9%	4 3.88%	0	26 25.24%	0	0	1 0.97%	76	26
KASARAGOD	116	0.01	3.92	0.01	4.05	67 57.75%	5 4.31%	0	36 31.03%	3 2.58%	0	5 4.31%	72	39
KOLLAM	103	0.07	4.96	0.08	1.68	66 64.07%	25 24.27%	5 4.85%	7 6.79%	0	0	0	96	7
KOTTAYAM	98	0.03	3.95	0.02	1.46	66 67.34%	6 6.12%	0	23 23.46%	0	0	3 3.06%	72	23
KOZHIKODE	87	0.01	2.75	0.02	1.27	75 86.2%	1 1.15%		10 11.49%	0	0	1 1.15%	76	10
MALAPPURAM	113	0.01	3.72	0.08	2.09	74 65.48%	6 5.3%	1 0.88%	30 26.54%	1 0.88%	0	1 0.88%	81	31
PALAKKAD	127	0.02	4.34	0.03	2.92	68 52.71%	11 8.5%	2 1.82%	41 31.78%	3 3.1%	0	2 1.55%	81	44
PATHANAMTHITTA	84	0.05	4.35	0.1	2.97	72 85.71%	4 4.76%	1 1.19%	5 5.95%	1 1.19%	0	1 1.19%	77	6
THIRUVANANTHA PURAM	113	0.01	4.24	0.03	3.04	65 57.52%	24 21.23%	3 2.65%	20 17.59%	1 0.88%	0	0	92	21
THRISSUR	123	0.06	5.68	0.01	4.0	84 68.29%	4 3.25%	1 0.81%	31 25.20%	3 2.4%	0	0	89	34
WAYANAD	72	0.02	1.46	0.02	3.47	56 77.77%	0	0	15 20.83%	1 1.38%	0		56	16
<b>TOTAL</b>	<b>1407</b>	<b>0.01</b>	<b>5.68</b>	<b>0.01</b>	<b>4.05</b>	<b>945</b> <b>67.16%</b>	<b>103</b> <b>7.32%</b>	<b>13</b> <b>0.92%</b>	<b>313</b> <b>22.25%</b>	<b>13</b> <b>0.92%</b>	<b>0</b>	<b>20</b> <b>1.41%</b>	<b>1061</b> <b>75.41%</b>	<b>326</b> <b>23.17%</b>

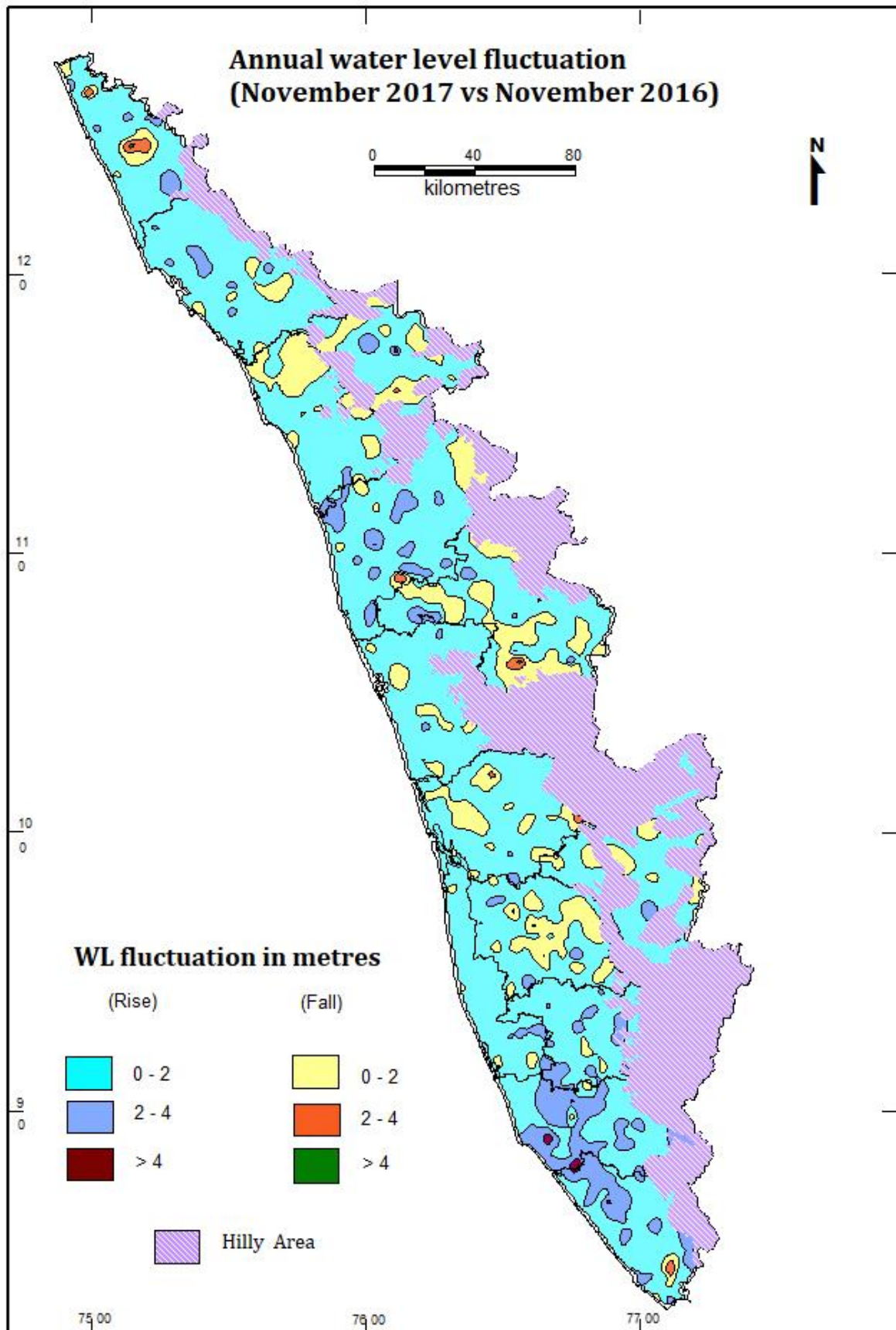


**Fig 6.1: Annual Water Level Fluctuation (April 2016 Vs April 2017)**



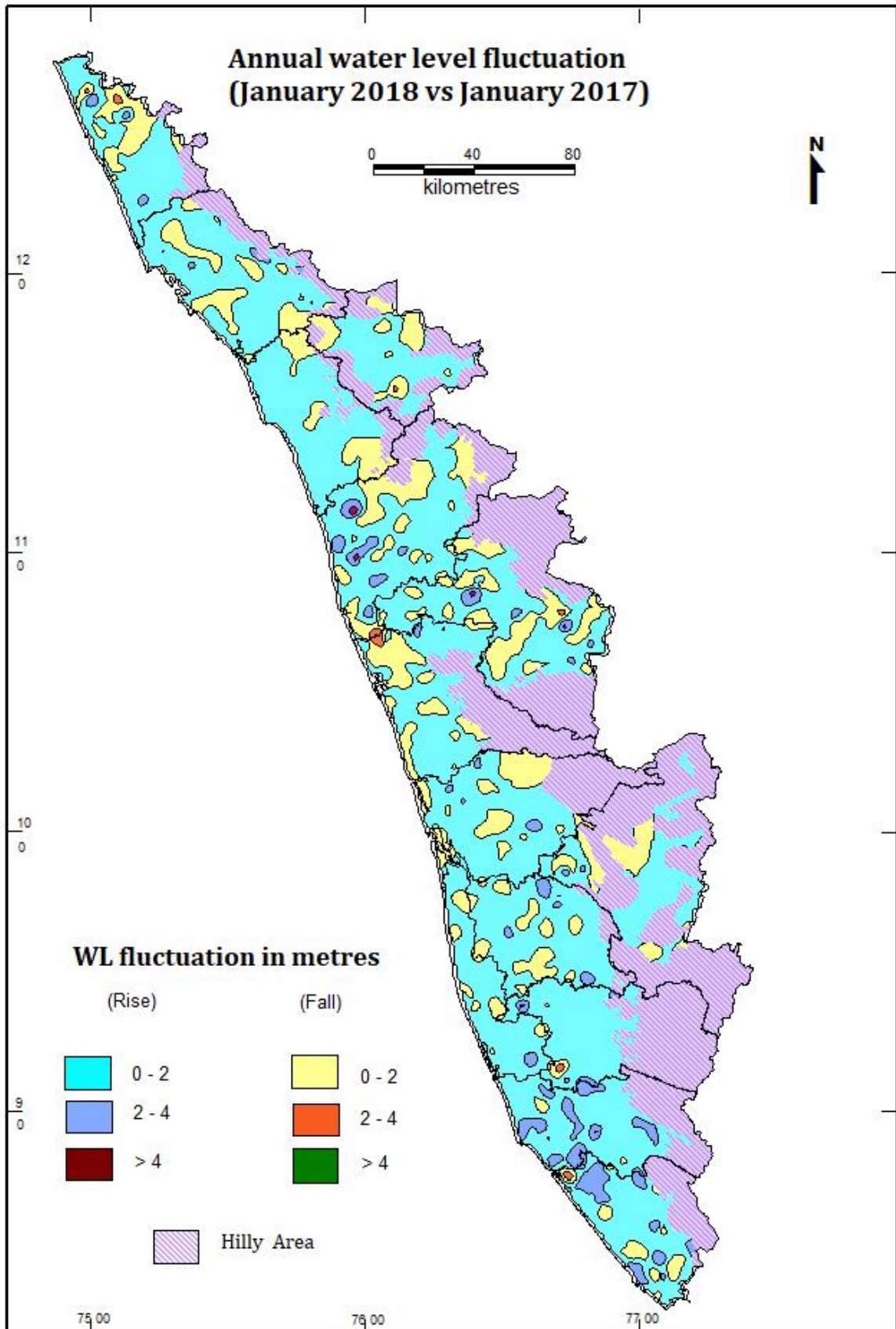
**Fig 6.2: Annual Water Level Fluctuation (August 2016 Vs August 2017)**





**Fig 6.3: Annual Water Level Fluctuation (November 2017 vs November 2016)**





**Fig 6.4: Annual Water Level Fluctuation (January 2018 Vs January 2017)**

## **VII COMPARISON OF 2017 - 18 WATER LEVELS WITH THE DECADAL MEAN (2007-2016)**

Water levels during the year 2017-18 in comparison with the decadal mean (2007-2016) value of the respective measurements is discussed in this chapter. The analysis brings out the deviations in water level from the general behaviour of water level of the past decade. In general, the change in water level is confined to the range of +2 to -2 m.

### **FLUCTUATION BETWEEN DECADAL MEAN (APRIL WATER LEVEL OF THE PERIOD 2007 – 2016) AND APRIL 2017**

The change in water level over the last ten years period is brought out by the comparison of water level of April 2017 with the decadal mean value of April measurements of the period 2007-2016. This analysis indicate that the change in water level is mostly restricted to +2 (rise) to -2 (fall) m as recorded by 89 % of GWMW. However fall in water level is predominant and continuous in all districts from Kollam to Kasaragod as represented by 70.20 % of monitoring wells. The Rise in water level is predominant in Thiruvananthapuram, Palakkad districts and some parts of Thrissur, Wayanad, Kannur and Kasargod districts. 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 7.1. Figure 7.1 shows the water level fluctuation in the state for April 2017 with respect to Decadal mean (2007-2016).

### **FLUCTUATION BETWEEN DECADAL MEAN (AUGUST WATER LEVEL OF THE PERIOD 2007–2016) AND AUGUST 2017**

The change in water level over the last ten years period is brought out by the comparison of water level of August 2017 with the mean value of August measurements of the period 2007-2016. This analysis indicate that the change in water level is mostly restricted to +2 (rise) to -2 (fall) m as recorded by 87.87% of GWMW. However rise in water level is predominant in many parts of the state as represented by 62.79% of monitoring wells. In Thiruvananthapuram district, the fall (>4 m) is predominantly seen around Pulluvila and Kanjiramkulam areas. 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 7.2. Figure 7.2 shows the water level fluctuation in the state for August 2017 with respect to Decadal mean (2007-2016).

### **FLUCTUATION BETWEEN DECADAL MEAN (NOVEMBER WATER LEVEL OF THE PERIOD 2007 – 2016) AND NOVEMBER 2017**

The change in water level over the last ten years period is brought out by the comparison of water level of November 2017 with the mean value of August measurements of the period 2007-2016.

This analysis indicates that the change in water level is mostly restricted to +2 (rise) to -2 (fall) m as recorded by 90.98% of GWMW. However, rise in water level is predominant in many parts of the state as represented by 56.14% of monitoring wells. In Thiruvananthapuram district, the fall (>4 m) is predominantly seen around Aralumode and Venganoor areas. In Palakkad district, the fall (>4 m) is predominantly observed around Eruthenpathi, Gopalapuram and Walayar area, whereas in Kasaragod the same range of fall is observed around Bovikkanam, Kundamkuzhy, Mandecapand Manjeswar. The frequency of wells showing rise and fall in different ranges (0-2m, 2-4m, >4m) when compared with decadal mean water level is given in Table 7.3. Figure 7.3 shows the water level fluctuation in the state for August 2017 with respect to Decadal mean (2007-2016).

### **FLUCTUATION BETWEEN DECADAL MEAN (JANUARY WATER LEVEL OF THE PERIOD 2008 – 2017) AND JANUARY 2018**

The change in water level over the last ten years period is brought out by the comparison of water level of January 2018 with the mean value of January measurements of the period 2008-2017 of dug wells and shallow bore wells. This analysis indicates that the change in water level is mostly restricted to +2 (rise) to -2 (fall) m as recorded by 95.99 % of GWMW. However, fall in water level is predominant in southern districts mainly Thiruvananthapuram and Kollam. Rise in water level is observed as isolated patches in all districts. 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 7.4. Figure 7.4 shows the water level fluctuation in the state for January 2018 with respect to Decadal mean (2008-2017).

TABLE 7.1: DISTRICT WISE – WATER LEVEL FLUCTUATION WITH MEAN (APRIL 2007-2016) AND APRIL 2017

District	No. of Wells	Range of Fluctuation (m)				No. & Percentage of Wells /Percentage 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		
ALAPPUZHA	84	0.08	1.10	0.01	2.84	16 19.05%	0	0	67 79.76%	1 1.19%	0	16	68
ERNAKULAM	121	0.01	3.25	0.00	5.40	51 42.15%	1 0.83%	0	66 54.55%	1 0.83%	1 0.83%	52	68
IDUKKI	69	0.02	3.62	0.04	3.36	33 47.83%	3 4.35%	0	30 43.48%	3 4.35%	0	36	33
KANNUR	106	0.02	1.83	0.03	27.70	39 36.79%	0	0	59 55.66%	6 5.66%	2 1.89%	39	67
KASARAGOD	122	0.01	7.42	0.01	5.35	18 14.75%	3 2.46%	1 0.82%	81 66.39%	15 12.30%	4 3.28%	22	100
KOLLAM	95	0.04	4.16	0.04	3.81	33 34.74%	6 6.32%	1 1.05%	48 50.53%	7 7.37%	0	40	55
KOTTAYAM	89	0.03	2.33	0.01	3.87	28 31.46%	2 2.25%	0	56 62.92%	3 3.37%	0	30	59
KOZHIKODE	89	0.0	2.19	0.00	2.01	26 29.21%	1 1.12%	0	61 68.54%	1 1.12%	0	27	62
MALAPPURAM	102	0.06	2.15	0.00	8.74	17 16.67%	3 2.94%	0	69 67.65%	7 6.86%	6 5.88%	20	82
PALAKKAD	135	0.01	7.80	0.00	37.19	22 16.30%	5 3.70%	1 0.74%	74 54.81%	23 17.04%	8 5.93%	28	105
PATHANAM THITTA	85	-	1.42	0.02	3.70	34 40.00%	0	0	48 56.47%	3 3.53%	0	34	51
THIRUVANAN THAPURAM	92	0.02	1.60	0.00	6.22	11 11.96%	0	0	65 70.65%	14 15.22%	2 2.17%	11	81
THRISSUR	111	00	1.29	0.01	2.33	33 29.73%	0	0	76 68.47%	1 0.90%	0	33	77
WAYANAD	66	0.02	8.50	0.02	4.96	12 18.18%	2 3.03%	1 1.52%	43 65.15%	7 10.61%	1 1.52%	15	51
<b>TOTAL</b>	<b>1366</b>	<b>1.10</b>	<b>0.08</b>	<b>0.00</b>	<b>37.19</b>	<b>373 27.3%</b>	<b>26 1.9%</b>	<b>4 0.29%</b>	<b>843 61.71%</b>	<b>92 6.73%</b>	<b>24 1.76%</b>	<b>403 29.5%</b>	<b>959 70.20%</b>

TABLE 7.2. DISTRICTWISE-WATERLEVELFLUCTUATION WITHMEAN (AUGUST2007-2016)ANDAUGUST2017

District	No.of Wells	RangeofFluctuation(m)				No.&PercentageofWells/PercentageShowing Fluctuation						TotalNo.of Wells	
		Rise		Fall		Rise			Fall				
		Min	Max	Min	Max	0to2	2to4	>4	0to2	2to4	>4		
ALAPPUZHA	89	0.01	6.25	0.02	4.88	67 75.28%	1 1.12%	1 1.12%	16 17.98%	3 3.37%	1 1.12%	69	20
ERNAKULAM	130	0.02	3.41	0.02	0.66	103 79.23%	7 5.38%	0	20 15.38%	0	0	110	20
IDUKKI	69	0.01	1.53	0.01	3.60	53 76.81%	0	0	14 20.29%	2 2.90%	0	53	16
KANNUR	102	0.01	4.02	0.01	5.01	65 63.73%	7 6.86%	1 0.98%	26 25.49%	2 1.96%	1 0.98%	73	29
KASARAGOD	121	0.01	5.76	0.01	1.84	74 61.16%	27 22.31%	5 4.13%	15 12.40%	0	0	106	15
KOLLAM	102	0.03	3.12	0.03	4.42	44 43.14%	2 1.96%	0	53 51.96%	1 0.98%	2 1.96%	46	56
KOTTAYAM	100	0.01	3.23	0.01	3.51	77 77.00%	2 2.00%	0	19 19.00%	2 2.00%	0	79	21
KOZHICODE	93	0.01	3.31	0.02	1.91	55 59.14%	3 3.23%	0	35 37.63%	0	0	58	35
MALAPPURAM	122	0.01	5.79	0.00	5.54	59 48.36%	5 4.10%	1 0.82%	48 39.34%	6 4.92%	3 2.46%	65	57
PALAKKAD	116	0.00	12.20	0.06	11.92	43 37.07%	4 3.45%	4 3.45%	41 35.34%	18 15.52%	6 5.17%	51	65
PATHANAM THITTA	87	0.01	5.28	0.07	4.15	65 74.71%	3 3.45%	1 1.15%	16.18.39 %	1 1.15%	1 1.15%	69	18
THIRUVANAN THAPURAM	113	0.02	30.46	0.02	11.45	7 6.19%	0	1 0.88%	72 63.72%	20 17.70%	13 11.50%	8	105
THRISSUR	123	0.01	3.03	0.00	6.94	78 63.41%	1 0.81%	0	42 34.15%	1 0.81%	1 0.81%	79	44
WAYANAD	68	0.04	2.52	0.16	4.62	33 48.53%	2 2.94%	0	21. 30.88%	10 14.71%	2 2.94%	35	33
<b>TOTAL</b>	<b>1435</b>	<b>0.04</b>	<b>12.20</b>	<b>0.07</b>	<b>11.92</b>	<b>823 57.35%</b>	<b>64 4.46%</b>	<b>14 0.98%</b>	<b>438 30.52%</b>	<b>66 4.6%</b>	<b>30 2.09%</b>	<b>901 62.79%</b>	<b>534 37.21%</b>

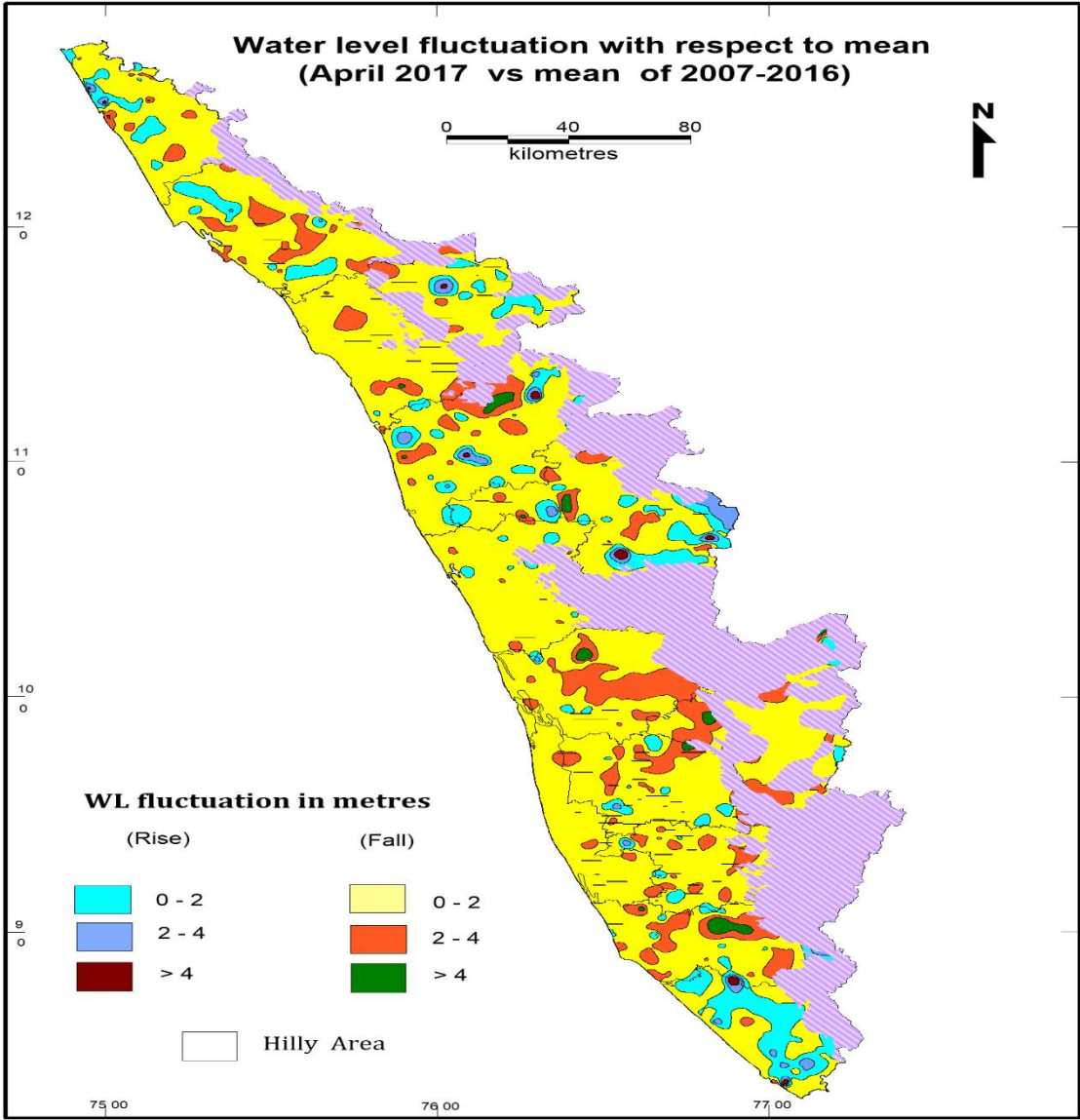
TABLE 7.3.DISTRICTWISE–WATERLEVELFLUCTUATION WITHMEAN(NOV2007-2016) AND NOVEMBER2017

District	No.of Wells	RangeofFluctuation(m)				No.&PercentageofWells/PercentageShowing Fluctuation						TotalNo.of Wells	
		Rise		Fall		Rise			Fall				
		Min	Max	Min	Max	0to2	2to4	>4	0to2	2to4	>4		
ALAPPUZHA	84	0.02	2.53	0.02	4.77	67 79.76%	1 1.19%	0	14 16.67%	0	1 1.19%	68	15
ERNAKULAM	126	0.00	2.58	0.02	2.94	58 46.03%	2 1.59%	0	65 51.59%	1 0.79%	0	60	66
IDUKKI	74	0.00	3.89	0.00	2.18	41 55.41%	2 2.70%	0	30 40.54%	1 1.35%	0	43	31
KANNUR	114	0.02	5.71	0.01	3.09	59 51.75%	5 4.39%	2 1.75%	46 40.35%	2 1.75%	0	66	48
KASARAGOD	130	0.01	3.95	0.02	4.94	75 57.69%	7 5.38%	0	42 32.31%	1 0.77%	4 3.08%	82	47
KOLLAM	100	0.05	3.80	0.13	2.07	67 67.00%	13 13.00%	0	19 19.00%	1 1.00%	0	80	20
KOTTAYAM	99	0.02	3.01	0.03	5.08	46 46.46%	3 3.03%	0	48 48.48%	1 1.01%	1 1.01%	49	50
KOZHIKODE	112	-	2.71	0.00	5.23	38 33.93%	3 2.68%	0	67 59.82%	3 2.68%	1 0.89%	41	71
MALAPPURAM	118	0.01	9.00	0.01	7.71	70 59.32%	3 2.54%	3 2.54%	39 33.05%	1 0.85%	2 1.69%	76	42
PALAKKAD	133	0.01	7.24	0.03	31.60	25 18.80%	1 0.75%	1 0.75%	89 66.92%	10 7.52%	6 4.51%	27	105
PATHANAM THITTA	85	0.04	3.89	0.02	1.27	59 69.41%	16 18.82%	0	10 11.76%	0	0	75	10
THIRUVANAN THAPURAM	122	0.01	11.75	0.06	8.03	67 54.92%	11 9.02%	2 1.64%	35 28.69%	4 3.28%	3 2.46%	80	42
THRISSUR	116	0.02	3.41	0.01	1.16	67 57.76%	1 0.86%	0	48 41.38%	0	0	68	48
WAYANAD	69	0.02	4.06	0.04	6.60	15 21.74%	1 1.45%	1 1.45%	43 62.32%	6 8.7%	2 2.90%	17	51
<b>TOTAL</b>	<b>1482</b>	<b>2.53</b>	<b>11.75</b>	<b>0.00</b>	<b>31.60</b>	<b>754 50.87%</b>	<b>69 4.65%</b>	<b>9 0.60%</b>	<b>595 40.14%</b>	<b>31 2.09%</b>	<b>20 1.34%</b>	<b>832 56.14%</b>	<b>646 43.58%</b>

**TABLE 7.4.DISTRICTWISE-WATERLEVELFLUCTUATIONWITHMEAN (JANUARY2008-2017)ANDJANUARY2018**

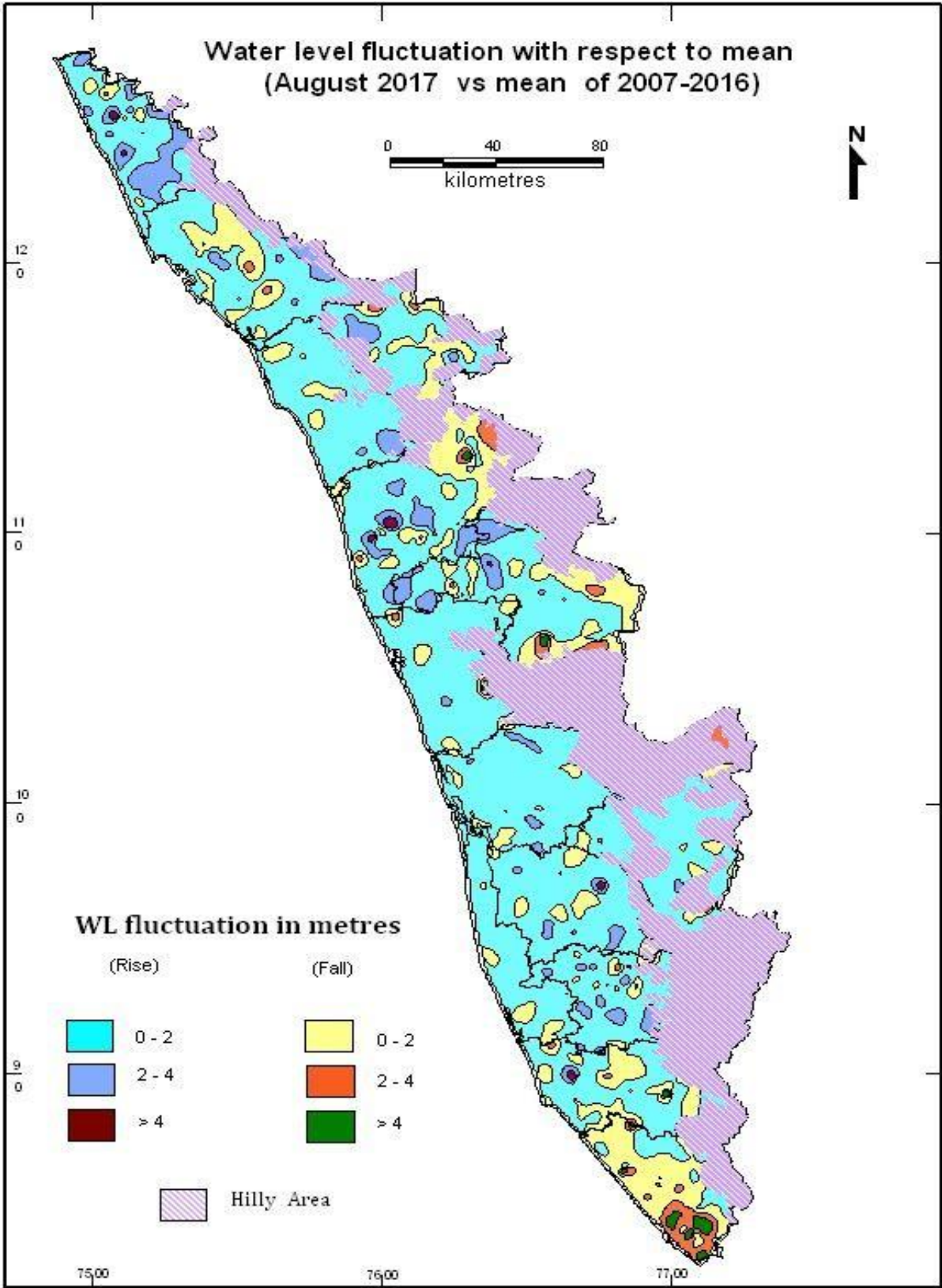
District	No.of Wells	RangeofFluctuation(m)				No.&PercentageofWells/PercentageShowingFluctuation							TotalNo.of Wells	
		Rise		Fall		Rise			Fall					
		Min	Max	Min	Max	0 to2	2 to4	>4	0 to2	2 to4	>4			
ALAPPUZHA	81	0.1	3.85	0.09	2.2	21 25.92%	2 2.46%	0	57 70.37%	1 1.23%	0	0	23	58
ERNAKULAM	134	0.03	1.99	0.01	2.25	58 43.28%	0	0	76 56.71%	0	0		58	76
IDUKKI	66	0.06	2.56	0.01	3.25	43 65.15%	1 1.51%	0	21 31.81%	1 1.51%	0		44	22
KANNUR	105	0.01	3.51	0.02	2.94	58 55.23%	2 1.90%	0	43 40.95%	2 1.9%	0		60	45
KASARAGOD	120	0.01	3.52	0.01	3.26	67 55.5%	6 5%	0	44 36.66%	2 1.6%	0	1 0.83%	73	46
KOLLAM	109	0.02	1.78	0.02	4.2	11 10.09	0	0	89 81.65%	8 7.33%	1 0.91%		11	98
KOTTAYAM	101	0.01	3.47	0.02	1.9	57 56.43%	2 1.98%	0	42 41.58%	0	0		59	42
KOZHIKODE	88	0.01	1.1	0.01	1.41	45 51.13%	0	0	41 46.59%	0	0	2 2.27%	45	41
MALAPPURAM	125	0.01	4.33	0.01	2.72	55 44%	3 2.4%	2 1.6%	61 48.8%	2 1.6%	0	2 1.6%	60	63
PALAKKAD	137	0.02	3.56	0.03	4.09	83 60.58%	9 6.56%	2 1.45%	36 26.27%	6 4.37%	0	1 0.79%	94	42
PATHANAMTHITTA	89	0.01	2.56	0.01	3.65	19 21.34%	3 3.37%	0	65 73.03%	1 1.12%	0	1 1.12%	22	66
THIRUVANANTHA PURAM	121	0.01	2.08	0.01	4.14	43 35.53%	1 0.82%	0	74 61.15%	2 1.65%	1 0.83%		44	77
THRISSUR	128	0.01	3.99	0.02	2.7	65 50.78%	5 3.98%	0	56 43.75%	1 0.78%	0	1 0.78%	70	57
WAYANAD	75	0.03	4	0.02	0.93	45 60%	8 10.67%	0	22 29.33%		0		53	22
<b>TOTAL</b>	<b>1479</b>	<b>0.01</b>	<b>5.68</b>	<b>0.01</b>	<b>4.05</b>	<b>670</b> <b>45.3%</b>	<b>42</b> <b>2.8%</b>	<b>4</b> <b>0.27%</b>	<b>727</b> <b>49.15%</b>	<b>26</b> <b>17.45%</b>	<b>2</b> <b>0.13%</b>	<b>8</b> <b>0.54%</b>	<b>716</b> <b>48.41%</b>	<b>755</b> <b>51.05%</b>



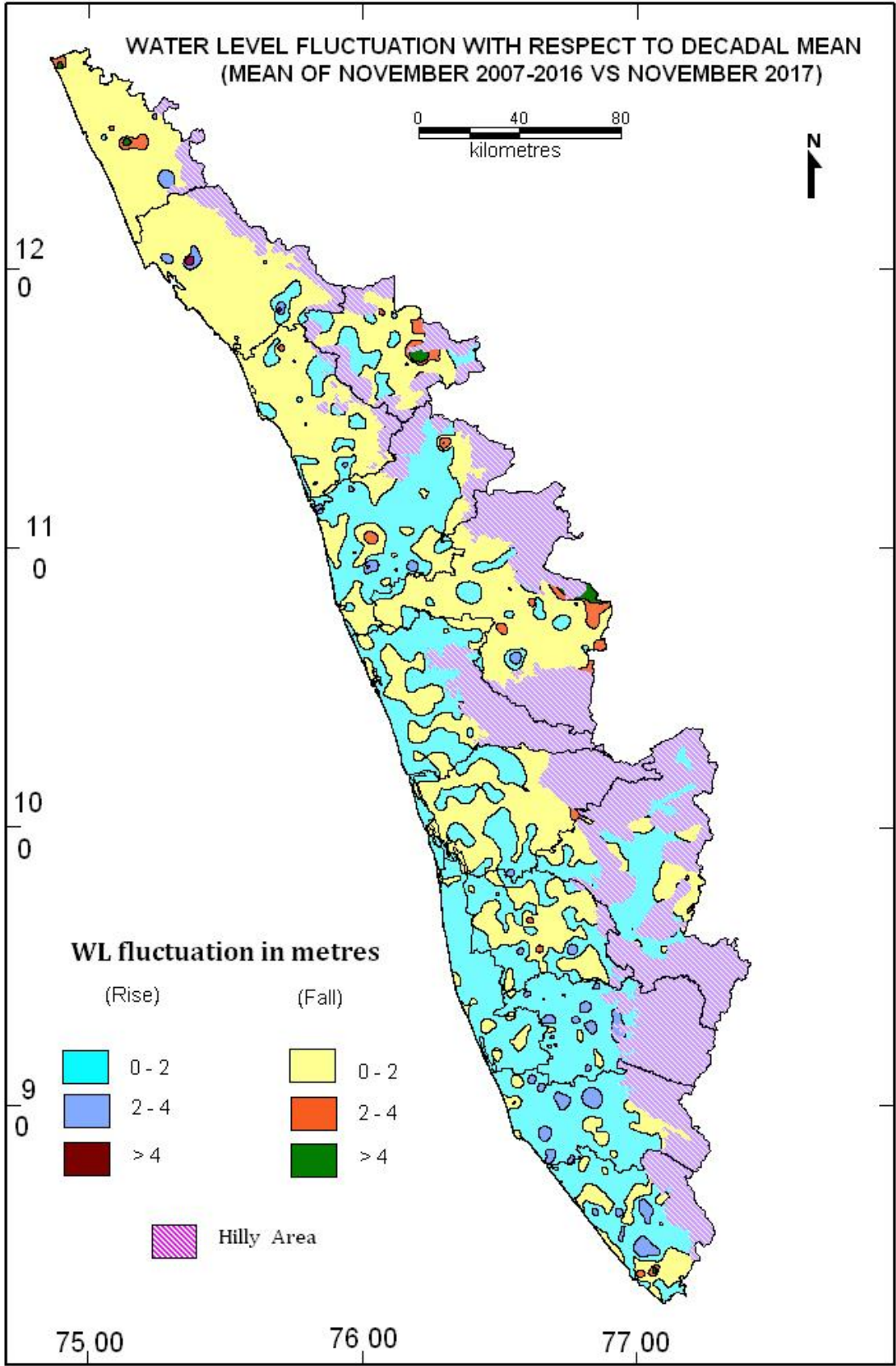


**Fig.7.1: Water level fluctuation with respect to April 2017 Vs mean (April 2007-2016)**





**Fig. 7.2: Water level fluctuation with respect to August 2017 vs mean (August 2007-2016)**



**Fig.7.3:Waterlevel fluctuationwith respectto November2017 vs Mean (NOV2007-2016)**

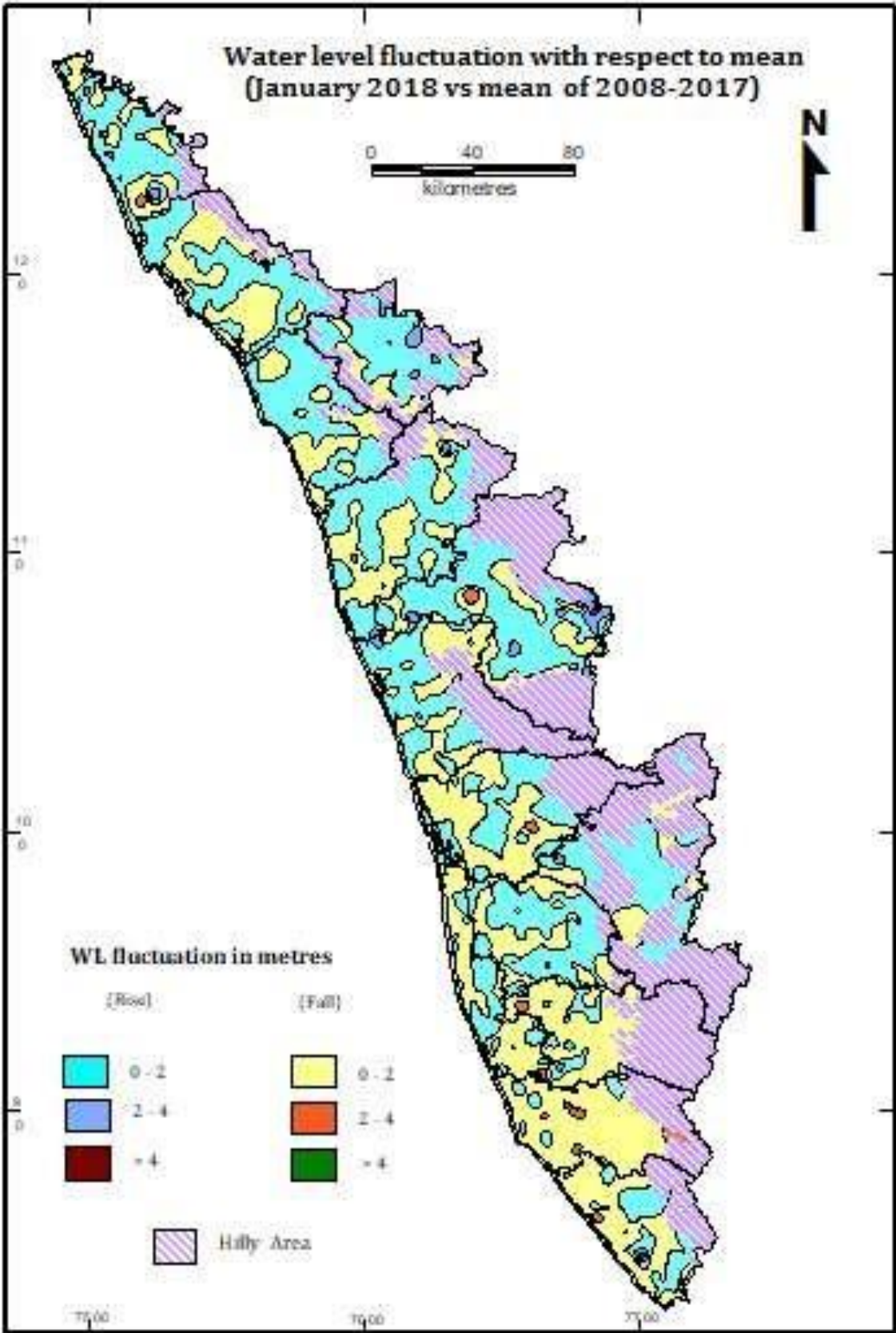


Fig.7.4: Water level fluctuation with respect to January 2018 Vs mean (January 2008-2017)

## VIII. LONG TERM GROUND WATER LEVEL TREND

The long-term water level data was analysed for the period of 2008-2017. The analysis of pre-monsoon water level trend for the last decadal period (i.e during 2008– 2017) indicates that only 29.3% of GWMWs have recorded negligible change in water level in the range of +0.05 to –0.05 m/year. 37.6 % of monitoring wells have recorded declining trend in the range of 0.05 to 0.2 m/year 19.7 % of monitoring wells have recorded declining trend above 0.2 m/year while 4.3% of of monitoring wells have recorded rising trend above 0.2 m/year. 9.1% of monitoring wells show rise in the range of 0.05 to 0.2 m/year. From the above data, it is clear that the long term trend for the pre-monsoon period indicates an overall fall in water level. The maps showing pre-monsoon water level trend for the period 2008-2017 is shown in Figure 8.1

The analysis of post-monsoon water level trend for the last decadal period (i.e during 2008– 2017) indicates that 42.1 % of GWMWs have recorded negligible change in water level in the range of +0.05 to –0.05 m/year. The 22.7 % of monitoring wells have recorded declining trend in the range of 0.05 to 0.2 m/year and 10.67 % of monitoring wells have recorded declining trend above 0.2 m/year. 16.7 % of monitoring wells have recorded rising trend in the range of 0.05 to 0.2 m/year and 7.7 % of monitoring wells have recorded rising trend above 0.2 m/year. The data analysis indicates that the long-term ground water level trend shows a rising trend in major portions of the state when compared to postmonsoon period. The maps showing pre-monsoon water level trend for the period 2006-2015 is shown in Figure 8.2.

Typical hydrographs showing the negligible change in water level are depicted in Figures 8.3 &8.4. Many of the monitoring wells which are showing declining pre-monsoon water level, have a rising or a steady post monsoon water level trend, indicating the enhanced ground water recharge to recoup to the original level (Figure 8.5 &8.6). A few monitoring wells like Palakkad, Elanthoor, Pathanamthitta District and Naranganam, Kottayam District have shown falling trend of both pre-monsoon and post-monsoon water levels (Figure 8.8 &8.10).



Figure 8.1

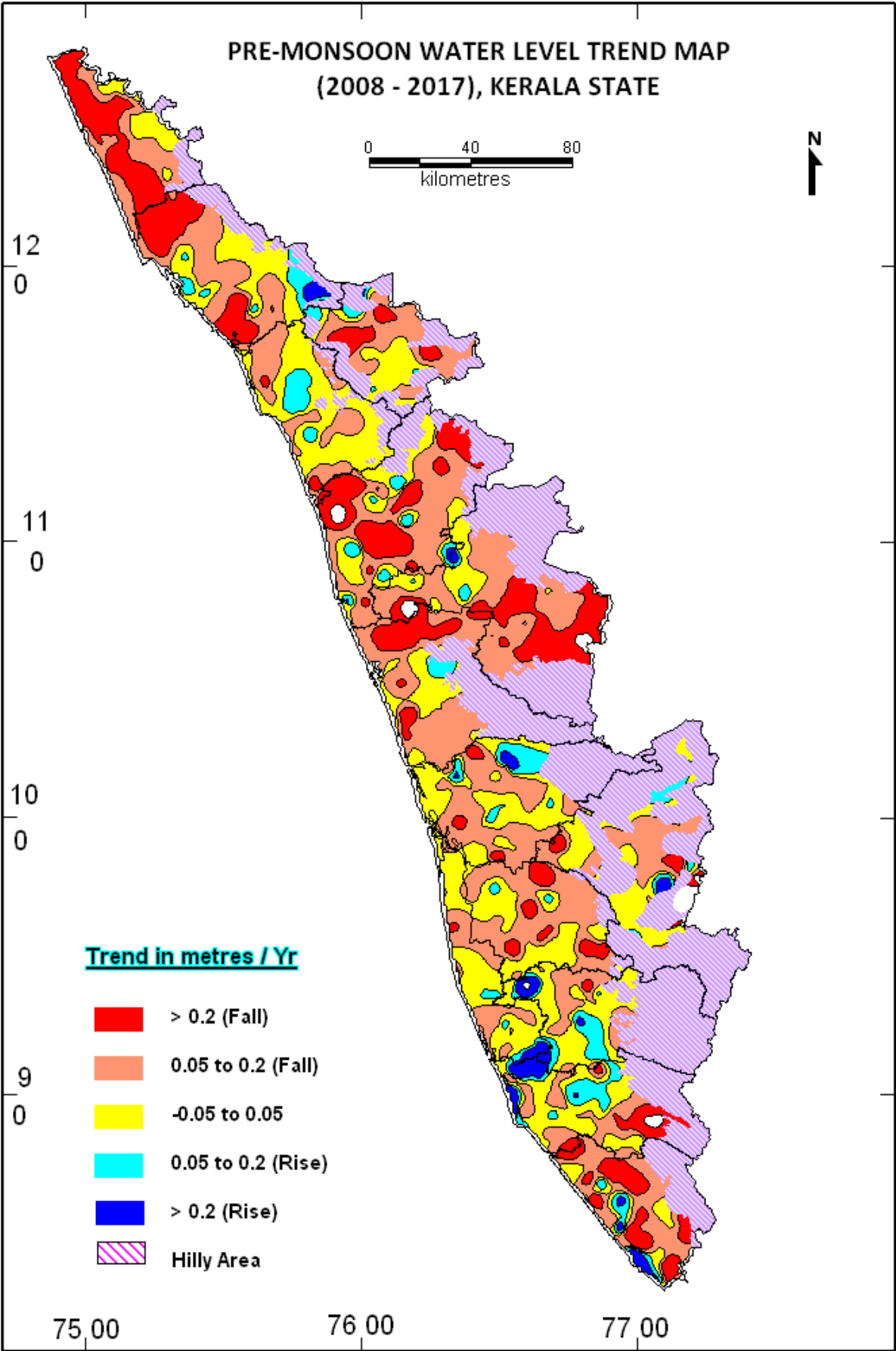
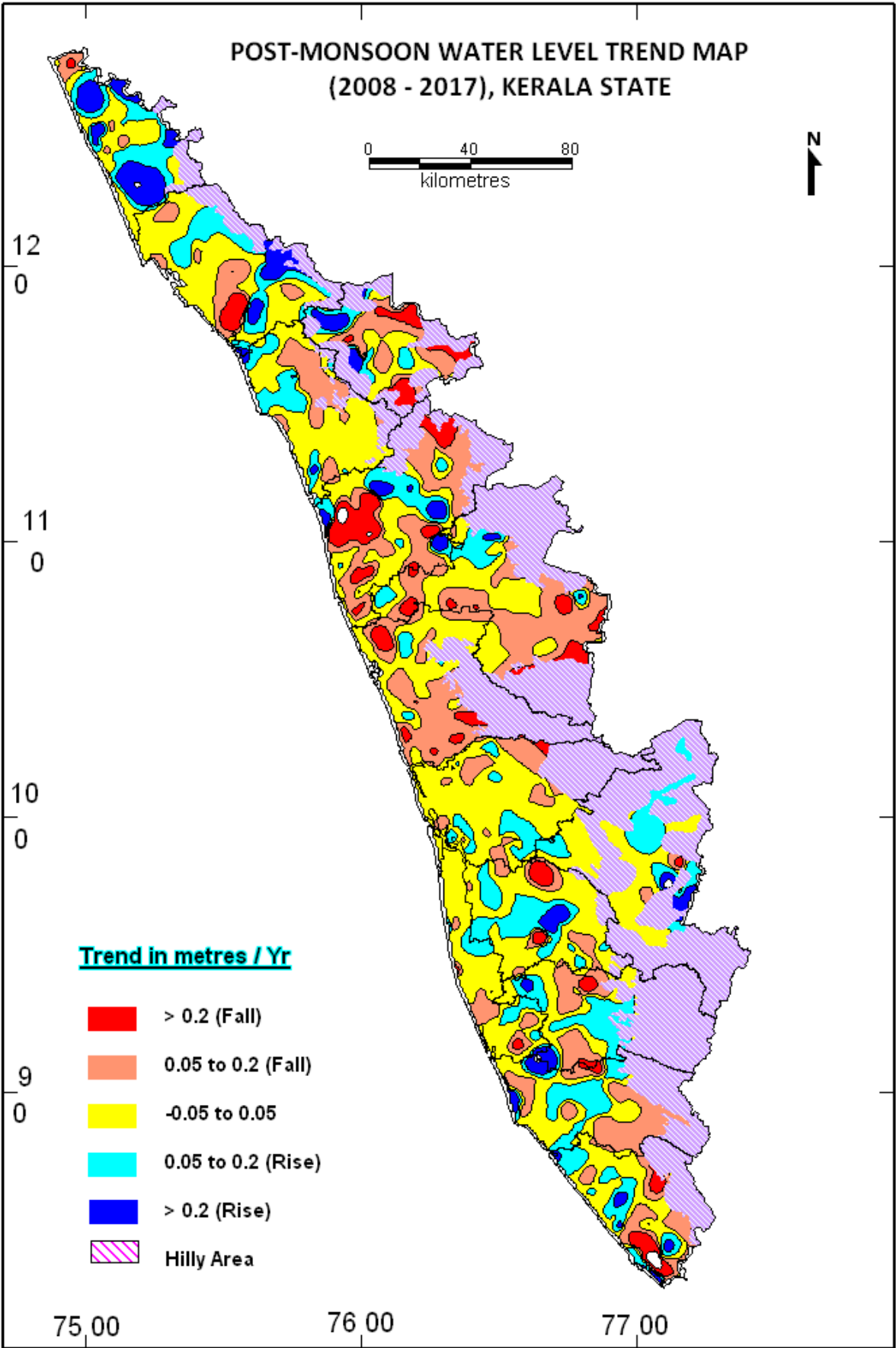
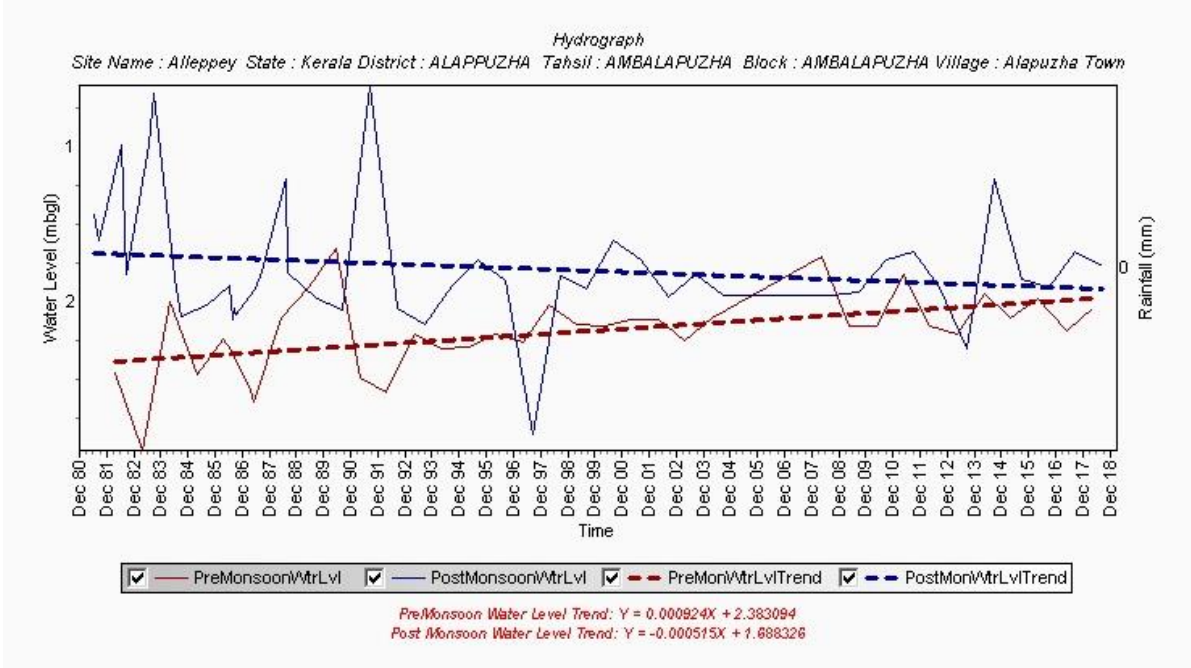
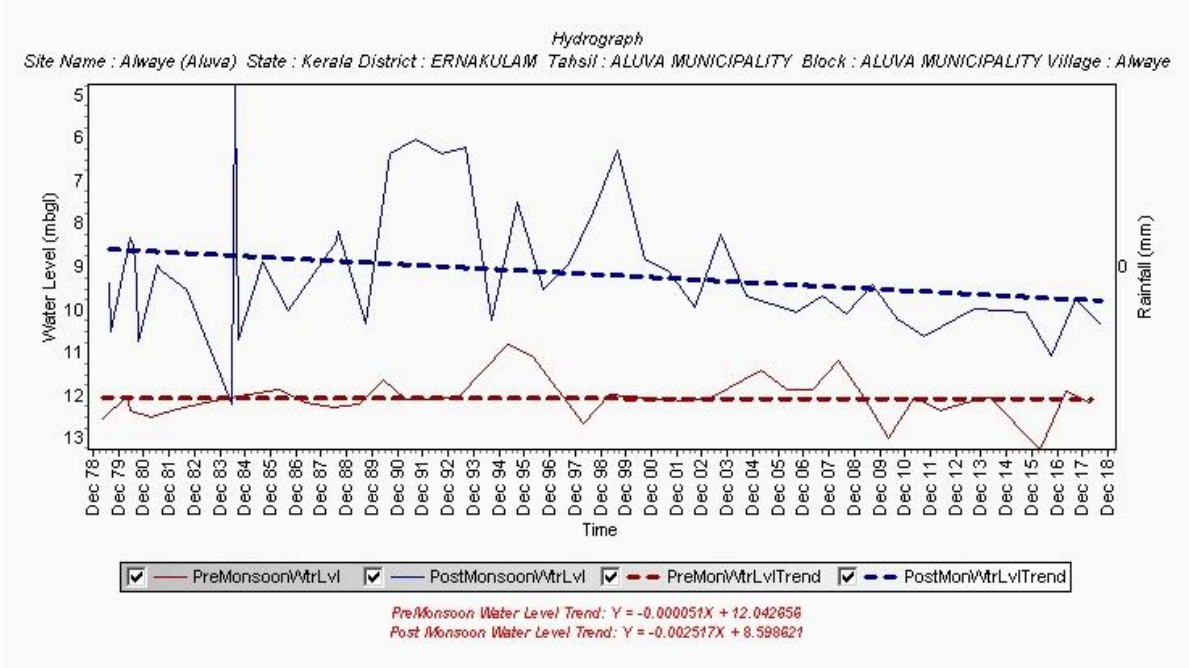


Figure 8.2

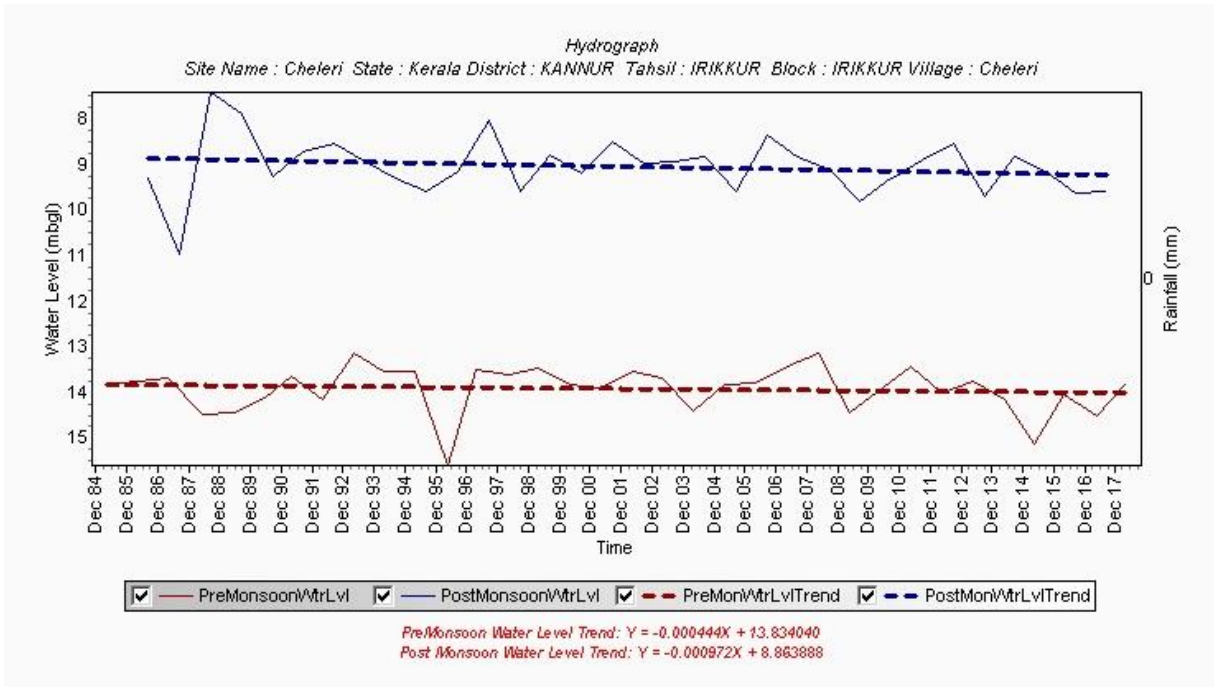




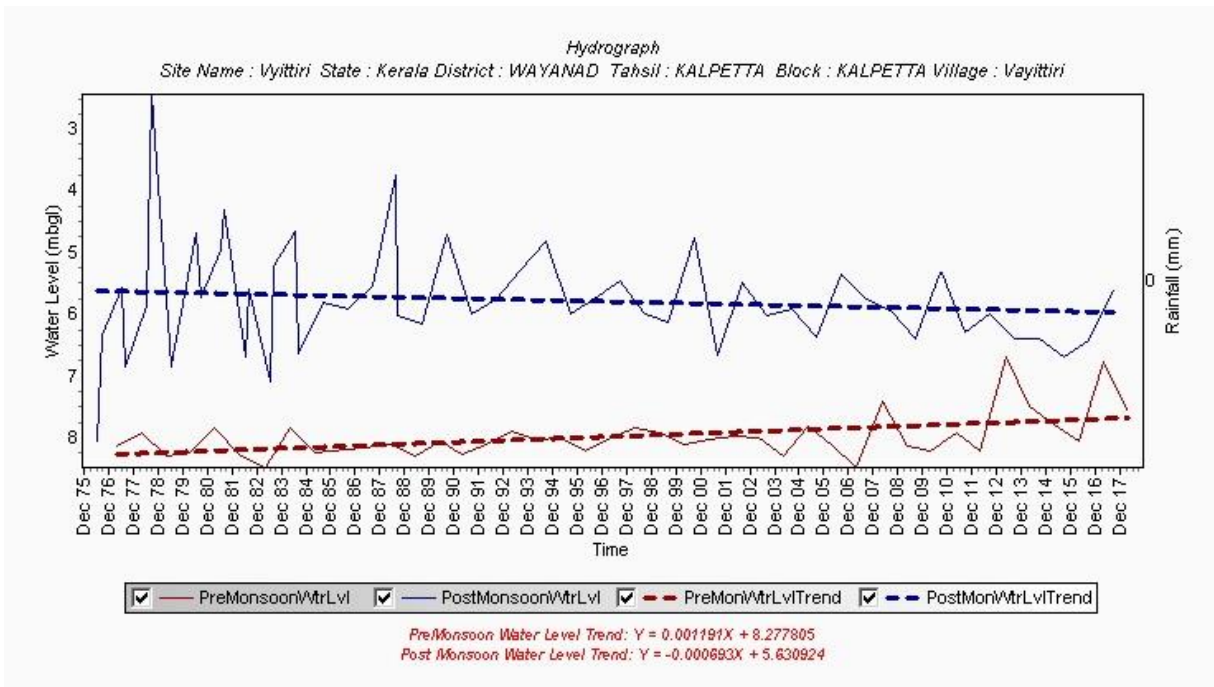
**Fig 8.3 Hydrograph of GWMWs tapping phreatic aquifer in laterites at Alappuzha Town, Alappuzha District**



**Fig 8.4 Hydrograph of GWMW tapping phreatic aquifer in laterites at Alway, Ernakulam District**

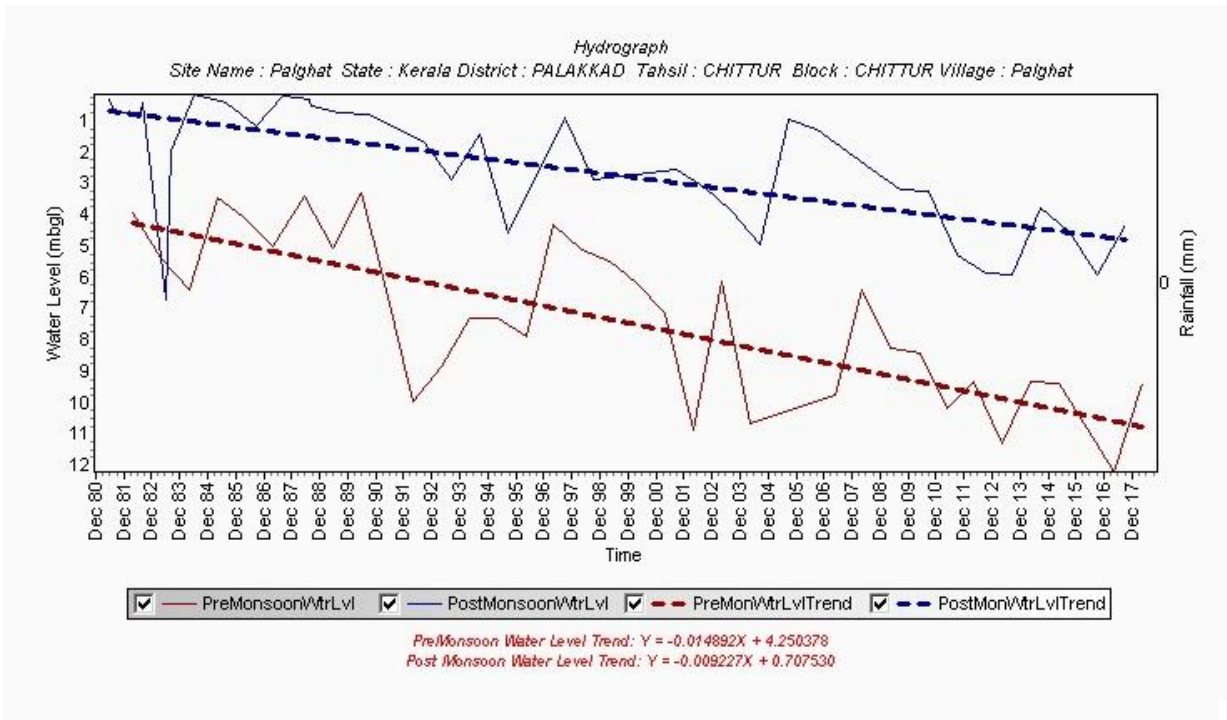


**Fig 8.5 Hydrograph of GWMW tapping phreatic aquifer in laterites at Cheleri, Kannur District**

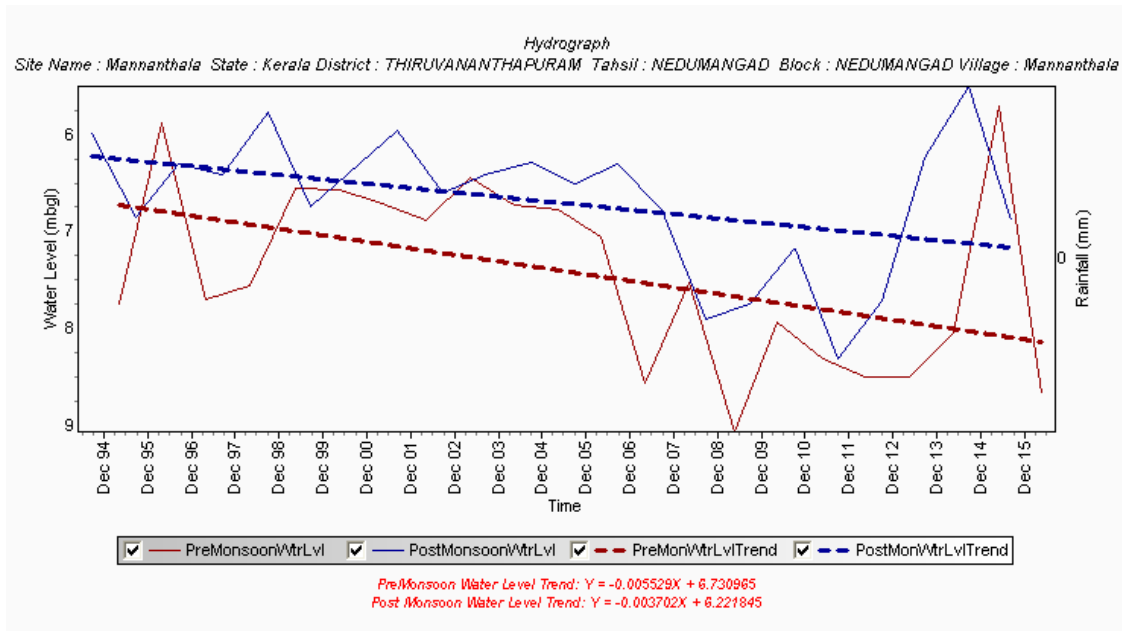


**Fig 8.6 Hydrograph of GWMW tapping phreatic aquifer in laterites at Vayittiri, Wayanad District**

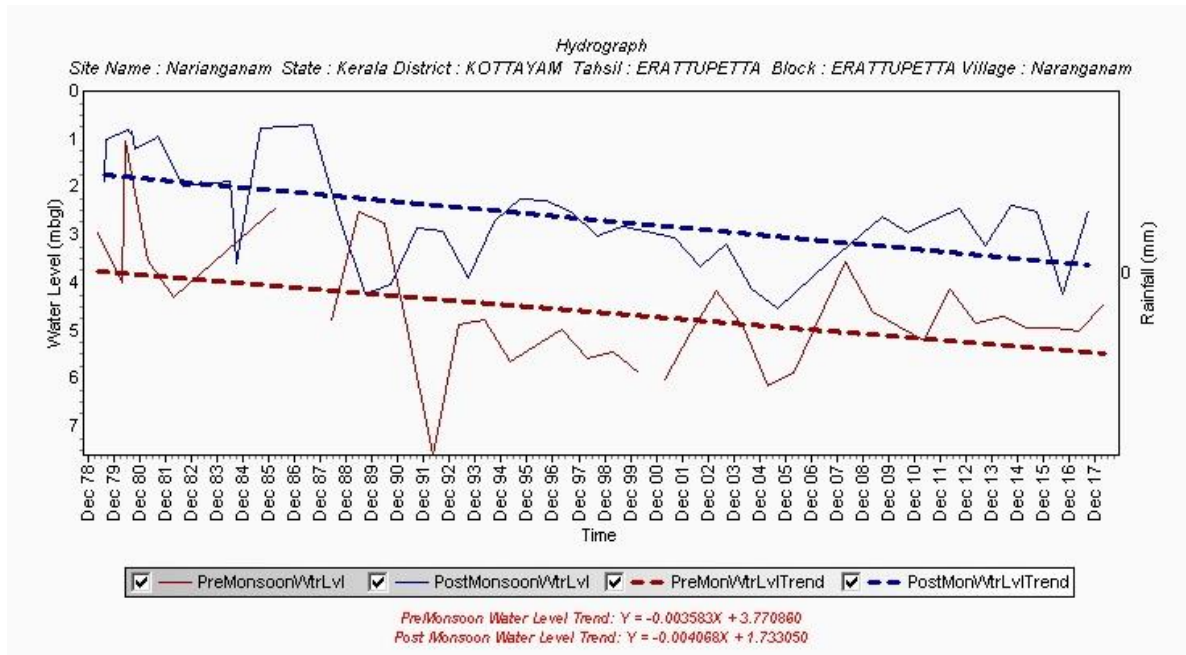




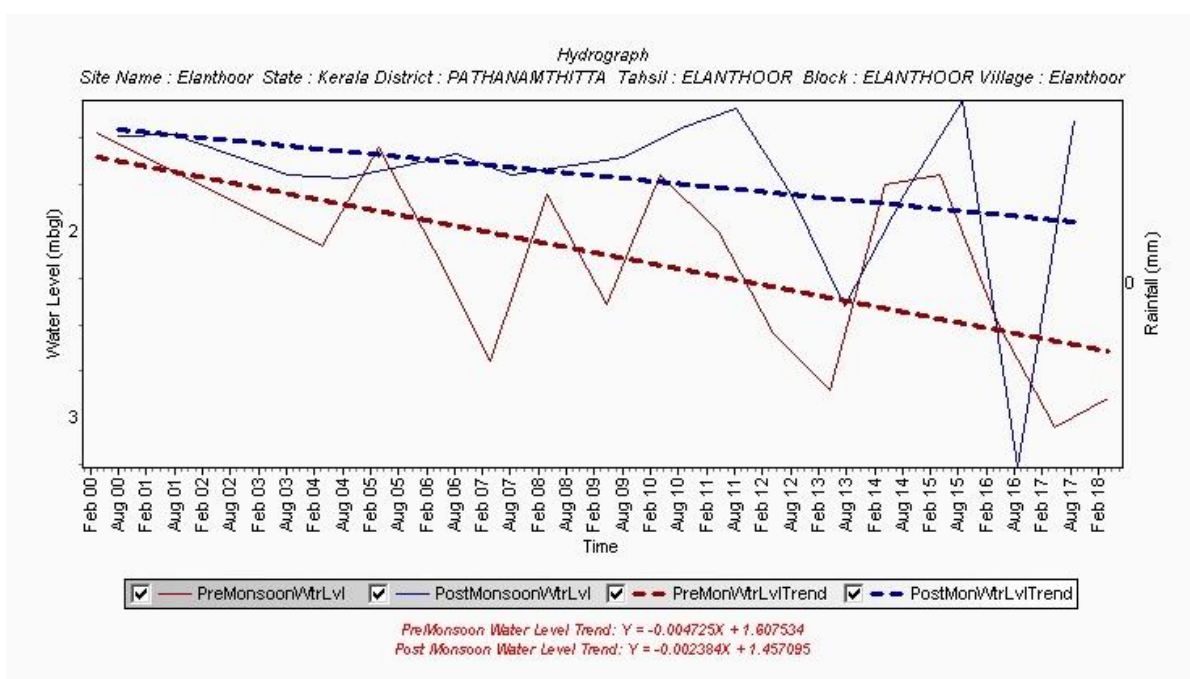
**Fig 8.7**Hydrograph of GWMW tapping phreatic aquifer in laterites at Ayur,Kollam District



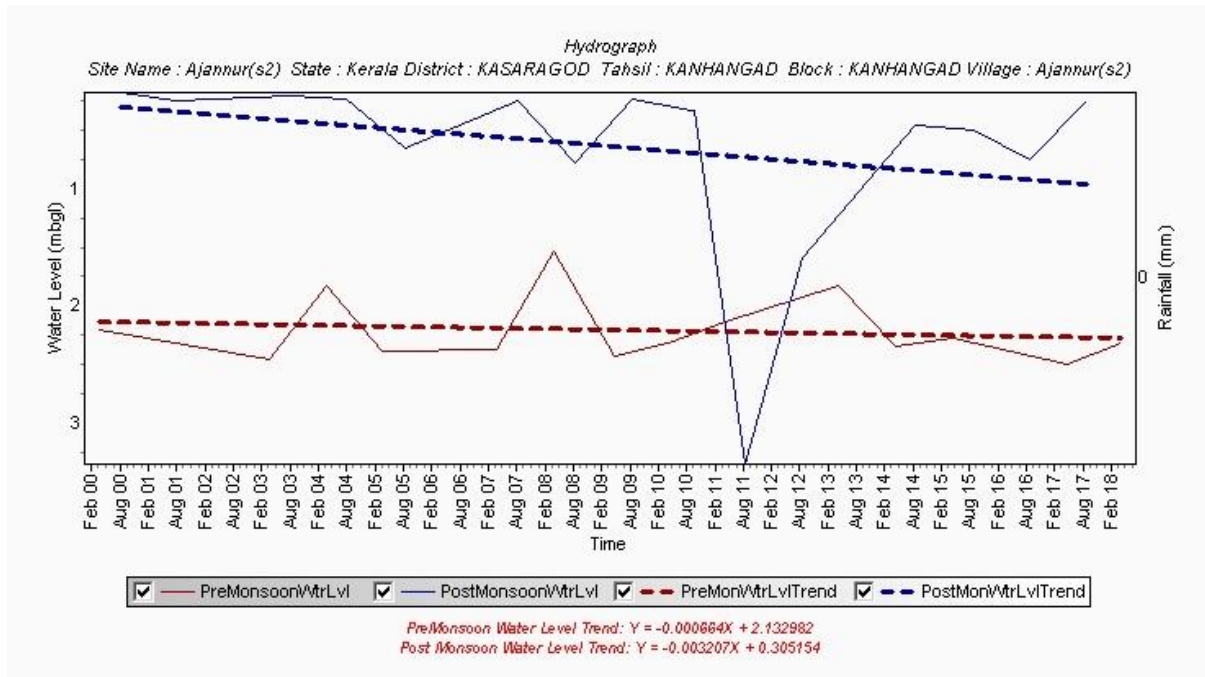
**Fig 8.8**Hydrograph of GWMW tapping phreatic aquifer in weathered crystallines at Palakkad, Palakkad District



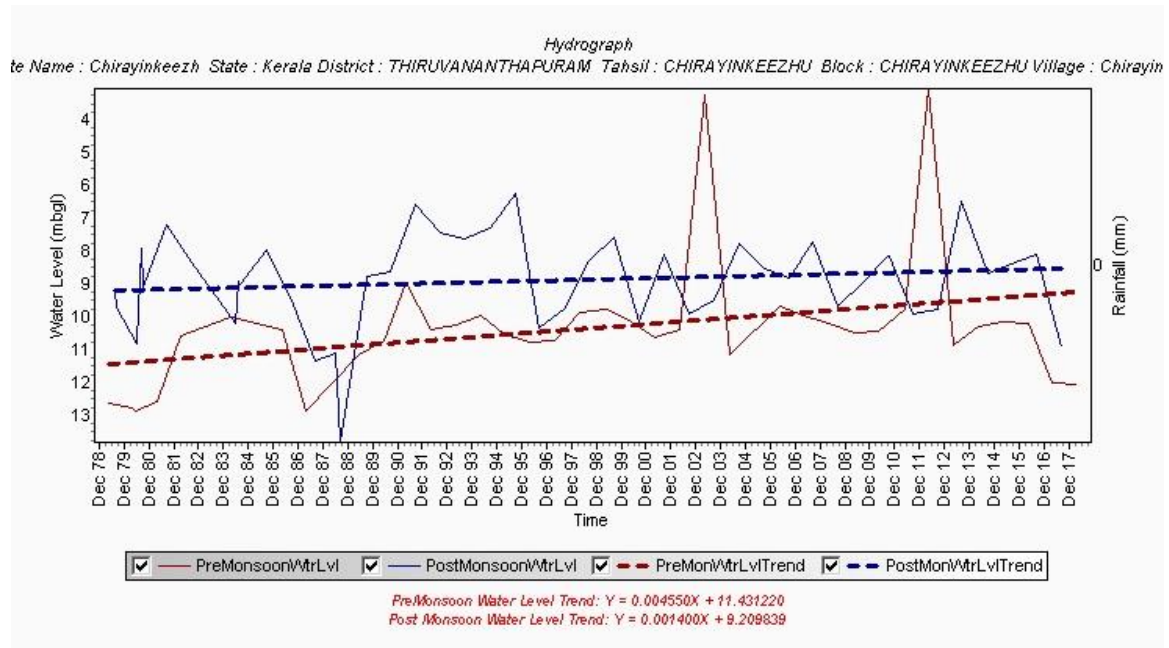
**Fig 8.9 Hydrograph of GWMW tapping phreatic aquifer in laterites at Naranganam, Kottayam District**



**Fig8.10 Hydrograph of GWMW tapping phreatic aquifer in laterites at Elanthoor, Pathanamthitta District**



**Fig 8.11 Hydrograph of GWMW tapping phreatic aquifer in laterites at Ajannur, Kasaragod District**



**Figure 8.12 Hydrograph of GWMW tapping phreatic aquifer in laterites at Chirayinkeezhu, Thiruvananthapuram District**

## **IX. BEHAVIOUR OF PIEZOMETRIC HEADS IN DEEP AQUIFERS OF CONFINED/SEMICONFINED NATURE DURING THE YEAR 2008-2017**

A total of 268 piezometers constructed by CGWB in various districts of the State are being monitored four times a year. Out of these 51 piezometers (Tube wells) are constructed in sedimentary areas. The depth range of these piezometers is from 10 m. to 450 m. The remaining 117 piezometers (Bore wells) are in hard rock areas and the depth range of these wells is from 10 m. to 300 m. About 44% of these borewells are tapping shallow fracture zones within 30 metres depth. These wells were manually monitored for water level during the months of April, August, November 2017 and January 2018. The analysis of the data acquired from these piezometers is discussed below.

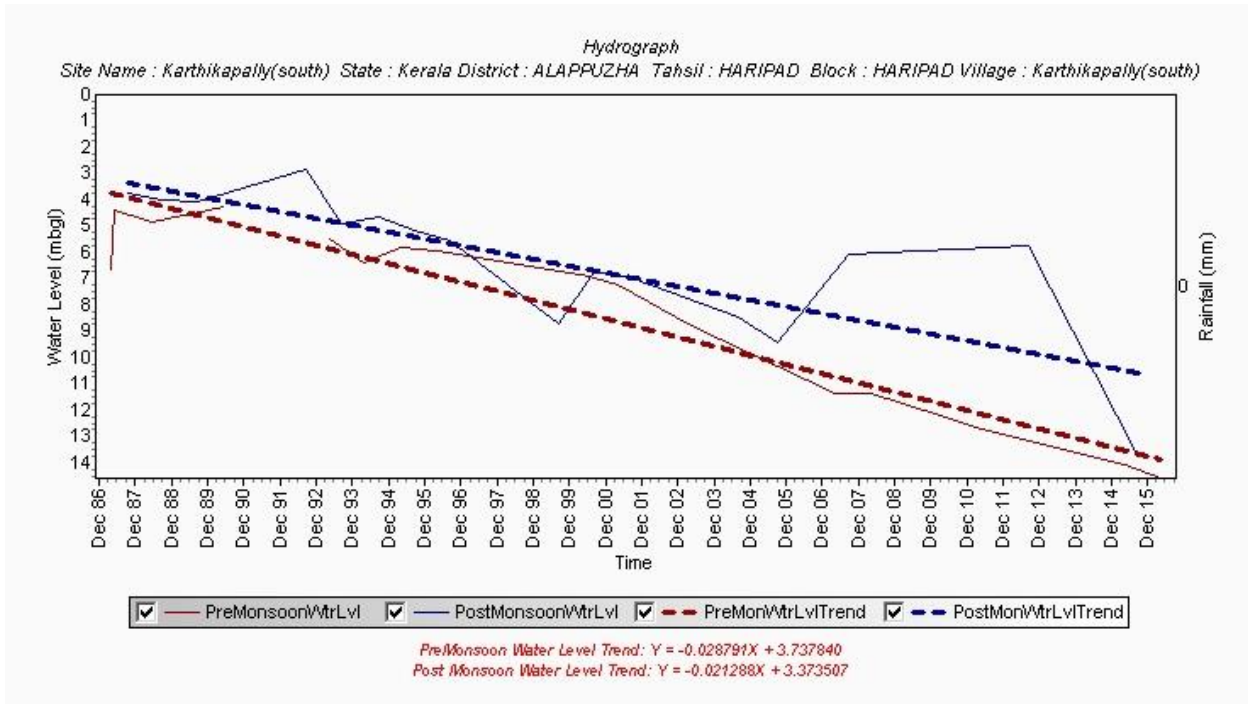
### **Sedimentary area:**

In the deeper aquifers of Tertiary age, ground water occurs under confined / semi-confined conditions. In the shallow aquifers in Tertiary formation in northern Kerala and in Recent alluvial formations in coastal plains, ground water occurs under unconfined to semi-confined condition. The piezometric heads in these aquifers is at about 18 m.amsl in the eastern boundary of recharge areas of Tertiary beds and reduced to near MSL in coastal areas. The depth to piezometric heads in deep tube wells tapping confined aquifers ranges from 0.83 to 19.7 mbgl during April 2017 (premonsoon). The annual fluctuation of the piezometric head in the year 2016 – 17 is mostly restricted to 3 metres. Free flowing wells are also encountered in some places and the decline in head with time is inferred from the reduction in free flow. Analysis of the long term piezometric head data of deeper aquifers at Karthikapally tapping Quilon and Warkali formations are showing a declining trend in both during pre-monsoon and post-monsoon. Hydrographs of piezometers at Karthikapally (Alappuzha District) tapping Warkali and Haripad(e) Quilon aquifers are shown in Figs 9.1 & 9.2.

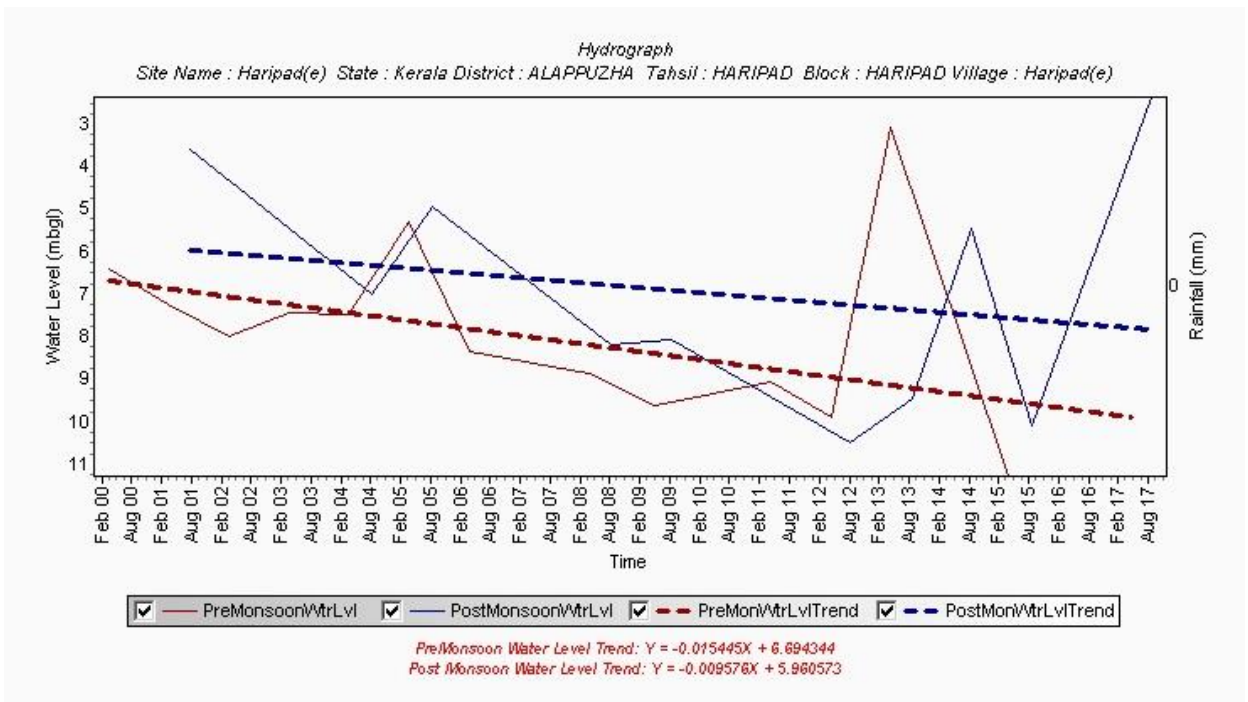
### **Crystalline area:**

In hard rock areas, groundwater occurs under confined / semi-confined conditions in the deep fracture zones and unconfined to semi-confined conditions in shallow fractured zones. The depth to piezometric heads in bore wells range from 0.7 to 49.4 m bgl during pre-monsoon period (April 2017). About 88.7 % of the borewells in the hard rock areas are showing piezometric head of less than 10 mbgl. The annual fluctuation of piezometric head (between April and November months) is in the range of 0.3 – 10 metres. The hydrograph of the hard rock piezometers are given in Figs. 9.3 & 9.4.





**Fig 9.1 Hydrograph of Piezometer tapping Warkalai aquifer at Karthikapally, Alappuzha District**



**Fig 9.2 Hydrograph of Piezometer tapping Quilon aquifer at Haripad(e), Alappuzha District**

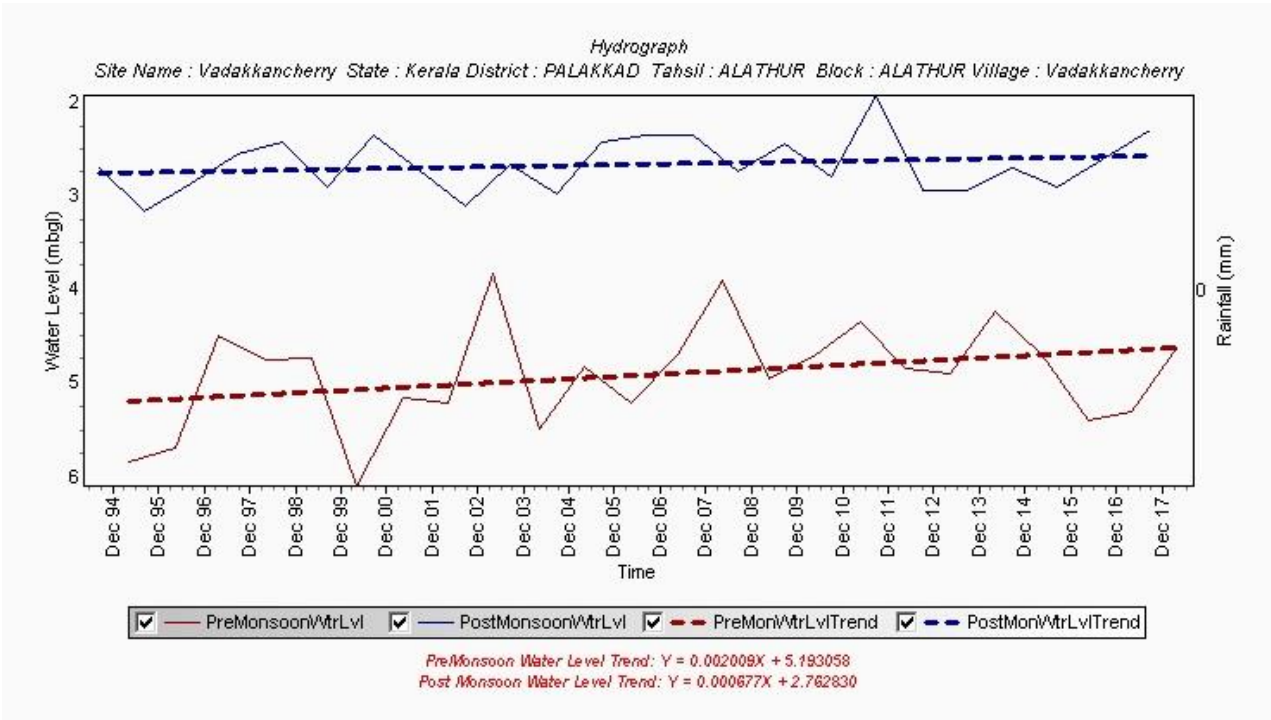


Fig 9.3 Hydrograph of Piezometer tapping fractured aquifers at Vadakkancherry, Palakkad District

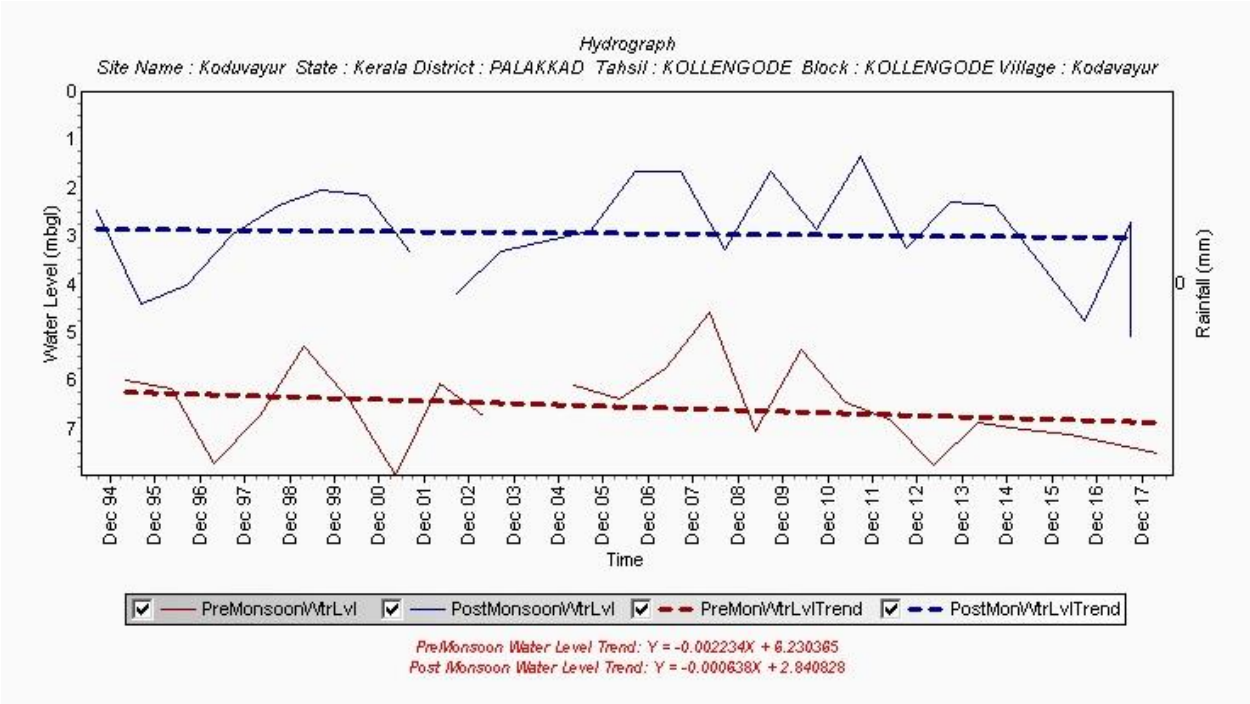


Fig. 9.4: Hydrograph of Piezometer tapping fractured aquifers at Kollengone, Palakkad District

## X. HYDROCHEMISTRY

The chemical quality of shallow groundwater in Kerala State has been evaluated by sampling and analysing the water samples from National Hydrograph Monitoring Wells. 444 water samples were collected and analysed for pH, electrical conductivity, total hardness, calcium, Magnesium, Sodium, Potassium, Carbonate, Bicarbonate, Sulphate, Chloride, Fluoride and Nitrate concentrations. The analysis data is presented in Appendix. The frequency distribution of electrical conductivity data of National Hydrograph Monitoring Wells is presented for entire Kerala State as well as district-wise in Table 10.1 along with wells having nitrate concentration more than 45 mg/L and chloride concentration more than 250 mg/L in each district.

The shallow groundwater in Kerala State is generally of good quality, as per Table 10.1. Out of 444 water samples, the electrical conductivity value of 367(82.7%) water samples are in the range 0-500 Microsiemens/cm at 25<sup>0</sup>C, 56(12.6%) water samples are in the range of 501-1000 Microsiemens/cm at 25<sup>0</sup>C and 21(4.7%) water samples are in the range 1001-2000 Microsiemens/cm at 25<sup>0</sup>C. The highest electrical conductivity value of 4200Microsiemens/cm at 25<sup>0</sup>C is registered in the well of Kandakadavu of Ernakulam district

On perusal of the data presented in the Appendix it is understood that the locations where the electrical conductivity value had exceeded 1000 Microsiemens/cm at 25<sup>0</sup>C in districts other than Palakkad district are all in Coastal plains. Due to Closeness to sea and backwaters a marginal increase of dissolved solids in groundwater is observed during the summer months. In Palakkad district the locations where the electrical conductivity had exceeded 1000Microsiemens/cm at 25<sup>0</sup>C are situated in the eastern and southern part of the district. The eastern part of Palakkad district is more mineralised where the values of calcium and magnesium concentrations are slightly more when compared to other districts of Kerala State. This is evident from the Geological Map of Kerala State.

The wells which had shown nitrate concentration above 45mg/L are distributed sporadically over the state and are not confined to any area. These stations are most likely to represent the levels of localized pollution.

Locations where the values of parameters like electrical conductivity more than 1000 Microsiemens/cm at 25<sup>0</sup>C, and nitrate more than 45 Milligram per litre are tabulated in Tables 8.1,2 and 3 and indicated in Map 10.1& 10.2.



**Table – 8.1 Frequency Distribution of Electrical Conductivity(Microsiemens/cm at 25<sup>0</sup>C), Nitrate concentration >45 mg/L and Chloride concentration >250 mg/L in district wise in National Hydrograph Monitoring Wells of Kerala State during April 2017**

Sl. No.	Name of the district	Total No.of Samples	Electrical Conductivity (Microsiemens/cm at 25 <sup>0</sup> C)						Nitrate >45 mg/L	Chloride >250 mg/L
			0-500		501-1000		>1000			
			No.of Samples	%	No.of Samples	%	No.of Samples	%		
1	Kasaragod	28	28	100	0	0	0	0	1	0
2	Kannur	33	32	97	1	3	0	0	1	0
3	Kozhikode	31	26	83.9	4	12.9	1	3.2	5	0
4	Wyanad	17	13	76.5	4	23.5	0	0	1	0
5	Malappuram	36	26	72.2	7	19.5	3	8.3	6	1
6	Thrissur	56	47	83.9	8	14.3	1	1.8	2	0
7	Palakkad	27	12	44.5	11	40.7	4	14.8	2	0
8	Ernakulam	53	41	77.4	5	9.4	7	13.2	2	5
9	Kottayam	40	35	87.5	4	10	1	2.5	3	1
10	Idukki	20	16	80	4	20	0	0	4	0
11	Alappuzha	23	23	100	0	0	0	0	0	0
12	Pathanamthitta	16	15	93.8	1	6.2	0	0	1	0
13	Kollam	28	27	96.4	0	0	1	3.6	3	1
14	Thiruvananthapuram	36	26	72.2	7	19.5	3	8.3	9	1
Total		444	367	82.7	56	12.6	21	4.7	40	9

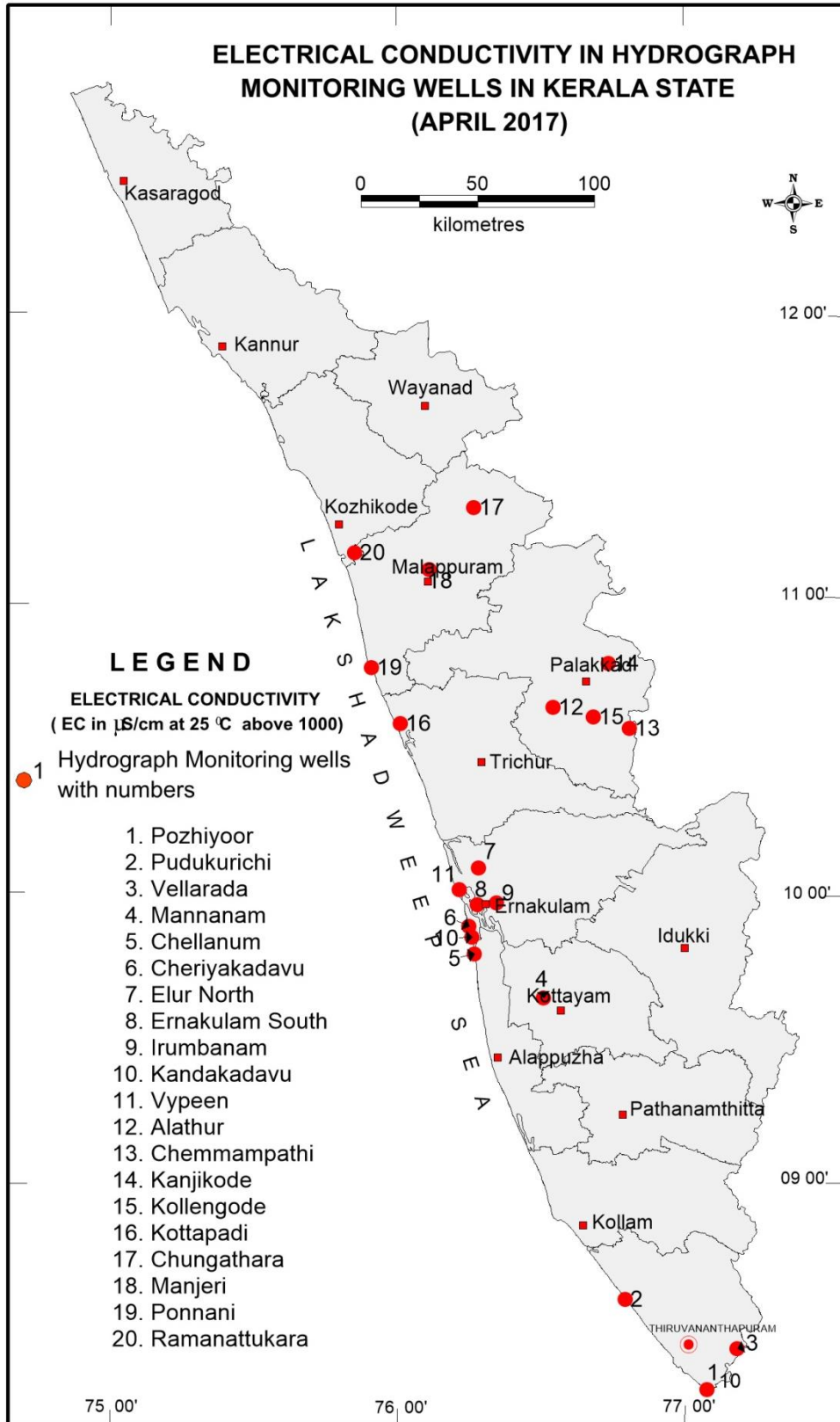
**Table 8. 2 Location where Electrical conductivity is >1000  $\mu$ S /cm at 25°C**

Sl. No.	District	Block	Location	Latitude	Longitude	Electrical Conductivity in $\mu$ S/cm at 25°C
1	Kozhikode	Kozhikode Corporation	Ramanattukara	11°10'30" N	75°51'30" E	1040
		Nilambur	Chungathara	11°20'0" N	76°07'15" E	1160
		Manjeri Municipality	Manjeri	11°07'05" N	76°05'02" E	1090
		Ponnani Municipality	Ponnani	10°46'54" N	75°55'15" E	2200
3	Thrissur	Chavakkad	Kottapadi	10°37'10" N	76°02'49" E	1070
		Alathur	Alathur	10°39'0" N	76°32'30" E	1010
		Kollengode	Chemmampathi (nearby well)	10°34'15" N	76°49'55" E	1100
		Malampuzha	Kanjikode	10°47'40" N	76°45'0" E	1300
			Kollengode 1			1380
		Palluruthy	Chellanum	9°48'25" N	76°17'05" E	2900
		Palluruthy	Cheriyakadavu	9°55'10" N	76°16'29" E	2000
		Alangad	Elur North	10°05'08" N	76°17'50" E	1870
			Ernakulam South			1060
		Tripunithura Municipality	Irumbanam	9°57'0" N	76°21'0" E	1260
		Palluruthy	Kandakadavu	9°50'59" N	76°16'01" E	4200
		Vypin	Vypeen	9°59'18" N	76°14'22" E	1130
6	Kottayam		Mannanam			1110
7	Kollam		Mayyanad			3300
		Kazhakkootam	Pudukurichi	8°36'40" N	76°48'25" E	1190
		Parassala	Pozhiyoor	8°18'0" N	77°05'42" E	2000
		Perumkadavila	Vellarada	8°26'28" N	77°11'50" E	1080

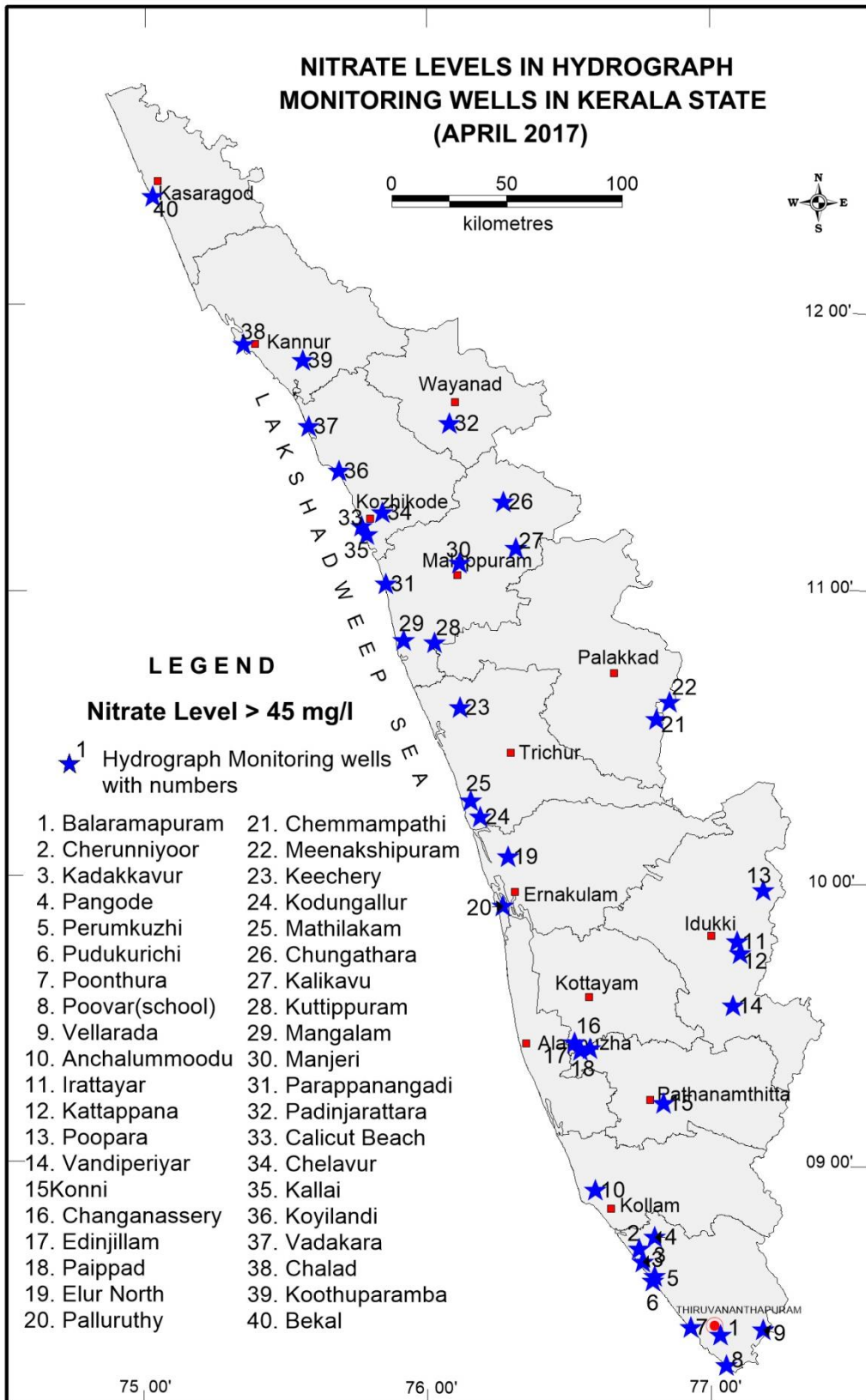
**Table 8.3 Location where Nitrate is >45mg/L**

Sl. No.	District	Block	Location	Latitude	Longitude	Nitrate in mg/L
1	Kasaragod	Kangad	Bekal	12°24'1" N	75°2'20" E	54
		Kannur	Chalad	11°52'58" N	75°21'12" E	58
		Koothuparamba	Koothuparamba	11°49'37" N	75°33'55" E	71
3	Wayanad	Kalpetta	Padinjarattara	11°40'12" N	75°57'0" E	64
		Vadakara Municipality	Vadakara	11°35'30" N	75°35'15" E	48
		Kozhikode	Kozhikode Beach	11°22'18" N	75°51'22" E	83
		Kunnamangalam	Chelavur	11°17'59" N	75°52'58" E	49
			Kallai	11°35'30" N	75°35'15" E	86
		Koyilandi Municipality	Koyilandi	11°26'24" N	75°41'39" E	66
			Chungathara	11°35'30" N	75°35'15" E	63
			Kalikavu	11°35'30" N	75°35'15" E	65
		Kuttippuram	Kuttippuram	11°35'30" N	75°35'15" E	46
		Tirur	Mangalam	10°54'36" N	75°55'12" E	98
		Manjeri Municipality	Manjeri			58
			Parappanangadi			62
		Puzhackal	Keecherry	10°36'55" N	76°07'20" E	67
		Kodungallur Municipality	Kodungallur	10°13'50" N	76°11'50" E	61
			Mathilakam			53
			Chemmapathi (nearby well)			54
		Chittur	Meenakshipuram	10°38'02" N	76°51'57" E	48
		Alangad	Elur North	10°5'8" N	76°17'50" E	48
		Kochi Corporation	Palluruthy	10°38'02" N	76°51'57" E	149
		Changanassery Municipality	Changanassery	9°26'43" N	76°31'46" E	49
		Madappally	Edinjillam	9°25'21" N	76°33'27" E	61
		Madappally	Paippad	9°25'40" N	76°34'30" E	50

Sl. No.	District	Block	Location	Latitude	Longitude	Nitrate in mg/L
10	Idukki	Kattappana	Irattayar	9°47'51" N	77°6'17" E	77
		Kattappana	Kattappana	9°45'20" N	77°7'10" E	86
		Nedumkandam	Poopara	9°58'25" N	77°12'20" E	84
		Azutha	Vandiperiyar	9°34'10" N	77°05'25" E	91
11	Pathanamthitta	Konni	Konni	9°14'0" N	76°51'0" E	55
	Kollam	Chittumala	Anchalummoodu	8°55'40" N	76°36'10" E	65
			Mayyanad			697
		Nemom	Balaramapuram	8°25'23" N	77°02'45" E	220
			Cherunniyoor			91
		Chirayinkeezhu	Kadakkavur	8°41'15" N	76°46'20" E	68
		Vellanad	Kattakkada	8°30'25" N	77°05'00" E	84
		Vamanapuram	Pangode	8°45'55" N	76°58'10" E	59
		Chirayinkeezhu	Perumkuzhi	8°37'52" N	76°48'55" E	150
		Chirayinkeezhu	Pudukurichi	8°36'40" N	76°48'25" E	116
			Poonthura			107
		Parassala	Poovar(School)	8°19'0" N	77°4'0" E	85
			Vellarada			55



**Fig. 10.1 Distribution NHS wells showing Higher EC values in Kerala State**



**Fig. 10.2 Distribution NHS wells showing Higher Nitrate values in Kerala State**

## SUM UP

1. The total number of Ground Water Monitoring Wells (GWMW) in Kerala State as on 01.04.2017 was 1668. These monitoring wells include 1404 dug-wells tapping phreatic aquifers and 269 piezometers tapping phreatic zones and deeper aquifers in sedimentary as well as hard rock terrains. The water level monitoring was carried out in the months of April, August and November 2017 and January 2018. Water sampling was carried out in 444 GWMWs (dug-wells) during the month of April 2017.
2. The monitoring wells are spread over in all the physiographic regions of the State. 62 % of which fall in the midland region, 18 % in coastal plains, 15 % in high lands and 5 % in plateau region.
3. Out of the monitoring wells tapping phreatic aquifer, 65% of the well are tapping lateritic aquifer which is the widely distributed aquifer in the state, 17 % tapping weathered and fractured crystallines followed by coastal alluvium and river alluvium represented by 15 % and 3 % respectively.
4. The total rainfall ranged from 1755 to 3158 mm during the period from April 2017 to March 2018. The maximum rainfall was recorded in Kozhikode district and the minimum in Thiruvananthapuram district. During the southwest monsoon season, Thiruvananthapuram district recorded 764 mm and Kasaragod district recorded 2646 mm, which are the lowest and highest rainfall respectively. During the northeast monsoon season, Wayanad district recorded the lowest rainfall of 165 mm and Kollam district recorded the highest rainfall of 950 mm.
5. During the southwest monsoon season from June to September 2017, the departure of rainfall in the districts varied from -37% to 2%. The maximum deficit rainfall recorded in Wayanad district out of all fourteen rainfall districts. Record time for all the districts, thirteen district recorded normal rainfall and the one district received deficient rainfall.
6. During the northeast monsoon season from October to December 2017, the departure of rainfall varied from 49 % to - 59 % in different districts. The maximum departure towards deficient rainfall recorded in Palakkad district. Only three districts recorded excess rainfall during this season, six districts recorded deficient and one district recorded large deficient type of rainfall.



7. During the months of January to March 2018, the departure of rainfall varied from 163% to -46 %. The maximum departure towards large excess rainfall recorded in Kasaragod district. Four districts recorded large excess rainfall during this season, four districts recorded excess rainfall and three districts recorded deficient type of rainfall. Normal rainfall is observed in three districts during this winter season.
8. The depth of water level varies from place to place according to the topographical conditions and is widely in the range of near ground level to 55 m bgl. However water level is in the range of 1 – 10 mbgl in major parts of Kerala State. In the coastal plains of the Kerala State and in certain areas in high ranges of Idukki and Pathanamthitta districts shallow water level in the range of 1 – 6 m bgl is seen. In mid land region water level is generally in the range of 2 – 15 m bgl. However deep water level in the range of 10 – 30 m bgl is seen in certain areas of Kasaragod, Wayanad, Palakkad, Kollam and Thiruvananthapuram districts where thick lateritic overburden occurs.
9. During April 2017 about 76.43 % of monitoring wells was showing water level within the depth range of 0.10 to 10 mbgl. Whereas about 91.06 % of monitoring wells were showing water level of less than 10 mbgl during August 2017.
10. Annual Ground water level fluctuation during August 2017 and August 2016 reveals that majority of the dug wells shows a rise in water level which is represented by 75.62 % of total dug wells monitored
11. Comparison of water level data of the year 2017 – 2018 with the decadal mean value of the period 2007 – 2016 and 2008-2017 indicates that majority of monitoring wells (89 %-April, 87.87%-August, 90.98%- November, 95.99 %-January) have recorded either rise or fall in water level with the magnitude of less than 2 m. indicating insignificant change in water level over the past decade.
12. Long term ground water level trend for the pre-monsoon period indicate a fall in water level in the range of 0.05-0.2 m/year is more predominant.
13. Long term ground water level trend for the post-monsoon period indicate that majority of the state shows a rising trend.

14. The chemical quality of shallow groundwater in Kerala State has been evaluated by sampling and analysing the water samples collected from Ground Water Monitoring Wells established in various physiographic divisions tapping different aquifers. During April 2017, 444 water samples have been collected which represents the premonsoon ground water quality and are subjected to physical and chemical analysis.
15. Majority of the water samples show electrical conductivity within 500  $\mu\text{S}/\text{cm}$ . The low conductivity of water samples can be attributed to the peculiar physiographic setting of the state. Out of 444 water samples, the electrical conductivity value of 367(82.7%) water samples are in the range 0-500 Microsiemens/cm at  $25^{\circ}\text{C}$  , 56(12.6%) water samples are in the range of 501-1000 Microsiemens/cm at  $25^{\circ}\text{C}$  and 21(4.7%) water samples are in the range 1001-2000 Microsiemens/cm at  $25^{\circ}\text{C}$  .
16. The chemical analysis data shows that in some of the water samples concentration of chloride and nitrate are above the permissible limit. The wells which had shown nitrate concentration above 45mg/L are distributed sporadically over the state and are not confined to any area. These stations are most likely to represent the levels of localized pollution.

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**Annexure I****GROUND WATER LEVEL DATA OF GMMW'S IN KERALA STATE DURING 2017-18**

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1	ALAPPUZHA	Adikattukulangara	6.6	3.45	3.4	4.5	DUG WELL
2	ALAPPUZHA	Alappuzha Town	4.3	3.2	3.3	3.6	DUG WELL
3	ALAPPUZHA	Alappuzha	2.19	1.68	1.74	1.36	DUG WELL
4	ALAPPUZHA	AmbAlappuzha	2.63	0.15	0.45	1.37	DUG WELL
5	ALAPPUZHA	Aranootimangalam			6.9	7.15	DUG WELL
6	ALAPPUZHA	Arukutti	2.57	1.02	1.27		DUG WELL
7	ALAPPUZHA	Arur	2.28	0.4	0.84	1.3	DUG WELL
8	ALAPPUZHA	Champakulam	1.2	0.25	0.15	0.6	DUG WELL
9	ALAPPUZHA	Chandirur (R1)	2.69	0.64	1.11	1.64	DUG WELL
10	ALAPPUZHA	Charummoodu	6.65	9.55	8.05	15.35	DUG WELL
11	ALAPPUZHA	Chelakkad	1.3	0.5	0.65	1.1	DUG WELL
12	ALAPPUZHA	Chengannur	7.8	3.7	4.52	7.3	DUG WELL
13	ALAPPUZHA	Chennithala South		0.7	0.91	1.68	DUG WELL
14	ALAPPUZHA	Cherthala	1.2	0.8	0.6	0.71	DUG WELL
15	ALAPPUZHA	Cheruvaranam	3.15	1.25	1.12	1.85	DUG WELL
16	ALAPPUZHA	Chettikulangara	2.35	0.75	0.69	0.9	DUG WELL
17	ALAPPUZHA	Edathua(R2)	1	0.24	0.3	2.8	DUG WELL
18	ALAPPUZHA	Eramallur	2.63	1	1.26		DUG WELL
19	ALAPPUZHA	Haripad	3.64	0.02	0.87	2.12	DUG WELL
20	ALAPPUZHA	Idakunnam		9.3	10.08	11.7	DUG WELL
21	ALAPPUZHA	Kadaikadu (Cheriyanaad )	5.1	3.4	4.3	4.55	DUG WELL
22	ALAPPUZHA	Kaidavana-R1	1.75	0.3	0.49	0.82	DUG WELL
23	ALAPPUZHA	Kalavamkodam	2.05	1.4	1.22	1.72	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
24	ALAPPUZHA	Kalavur	1.93	0.45	0.55	0.87	DUG WELL
25	ALAPPUZHA	Kallissery	4.53	1.45	2.1		DUG WELL
26	ALAPPUZHA	Kandiyur (R1)	4.4	1.55	1.78	2.62	DUG WELL
27	ALAPPUZHA	Kanichukulangara	2.9	1.7		2.01	DUG WELL
28	ALAPPUZHA	Karumancherry	1.48	0.3	0.37	0.8	DUG WELL
29	ALAPPUZHA	Karuvatta (R1)	3	0.2	0.57	1.7	DUG WELL
30	ALAPPUZHA	Kattanam	13.3	10.95	10.62	11.6	DUG WELL
31	ALAPPUZHA	Kattoor (R1)	2.2	0.7	0.9	1.3	DUG WELL
32	ALAPPUZHA	Kayamkulam	1.08	0.1	0.52	0.48	DUG WELL
33	ALAPPUZHA	Kayippuram (Muhamma)	3.4	1	0.93	1.68	DUG WELL
34	ALAPPUZHA	Kokkothamangalam	3.15	1.2	1.3	2.21	DUG WELL
35	ALAPPUZHA	Kudassanad	6	3.45	2.73	5.5	DUG WELL
36	ALAPPUZHA	Kunnamkari		0.3	0.29	1.34	DUG WELL
37	ALAPPUZHA	Kuttitheruvu (Kayamkulam)	3.48	1.5	1.15	1.75	DUG WELL
38	ALAPPUZHA	Kuzhamathu	12.7	8.7	8.1	11.6	DUG WELL
39	ALAPPUZHA	Mahadevikad	1.3	0.55			DUG WELL
40	ALAPPUZHA	Mancombu	1	1.49	1.75	0.52	DUG WELL
41	ALAPPUZHA	Mannanchery	3.4	1.6	1.35	1.98	DUG WELL
42	ALAPPUZHA	Mannar	5.4	4.7	2.6	3.31	DUG WELL
43	ALAPPUZHA	Mavelikara	3.74	1.89	1.54	2.39	DUG WELL
44	ALAPPUZHA	Mulakuzha1		1.95	0.85	5.3	DUG WELL
45	ALAPPUZHA	Muthukulam	3.15	0.65	0.57		DUG WELL
46	ALAPPUZHA	Muttam	3.24	0.4	0.9	1.23	DUG WELL
47	ALAPPUZHA	Muttar	1.8	0.5	0.43	1.05	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
48	ALAPPUZHA	Naduvattom	3.25	0.45	0.75	1.13	DUG WELL
49	ALAPPUZHA	Nangiarkulangara	2.55	0.65	0.65	1.15	DUG WELL
50	ALAPPUZHA	Nedumudi (pupalli)	0.7				DUG WELL
51	ALAPPUZHA	Neerkunnam(R1)	2.5	0.5			DUG WELL
52	ALAPPUZHA	Nooranad	4.83	8.85	7.73	9.94	DUG WELL
53	ALAPPUZHA	Oachira1 (Krishnapuram)	4.4	2.31	2.11	2.82	DUG WELL
54	ALAPPUZHA	Ottappunna		1.8			DUG WELL
55	ALAPPUZHA	Pacha (R3)	1.45	0.2	0.27	0.75	DUG WELL
56	ALAPPUZHA	Pallarimangalam	2.65	0.65	0.69	1.1	DUG WELL
57	ALAPPUZHA	Panavally	2.16	0.7	0.93	1.05	DUG WELL
58	ALAPPUZHA	Pandanad	3.7	2.2	2.6	2.43	DUG WELL
59	ALAPPUZHA	Panurkara	2.1	0.8	0.4	1.05	DUG WELL
60	ALAPPUZHA	Parayakkad	2.39	1.25	1.3		DUG WELL
61	ALAPPUZHA	Parumala (R1)	6.9	4.1	5.57		DUG WELL
62	ALAPPUZHA	Pathiyur (R1)	2.3	1.2	0.57	0.97	DUG WELL
63	ALAPPUZHA	Pattanakad	2	0.45	0.51	1.2	DUG WELL
64	ALAPPUZHA	Punnpra (R1)	3.18	0.63	0.95	1.51	DUG WELL
65	ALAPPUZHA	Purakkad (R1)	2.64	1.61	2.31	2.36	DUG WELL
66	ALAPPUZHA	Ramankari (R1)	0.53	0.08	0.39	0.83	DUG WELL
67	ALAPPUZHA	Thaikattusseri (R1)	1.8		0.6	1.65	DUG WELL
68	ALAPPUZHA	Thakazhi	1.62	0.1	0.7	1.31	DUG WELL
69	ALAPPUZHA	Thalavadi (R1)	3.3	0.2	0.53		DUG WELL
70	ALAPPUZHA	Thamarakulam	4.3	2.95	2.8	3.4	DUG WELL
71	ALAPPUZHA	Thaneermukkam	1.4	0.9	0.71	1.1	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
72	ALAPPUZHA	Thevery	2.53	0.7	1.1	1.61	DUG WELL
73	ALAPPUZHA	Thottapally		0.25			DUG WELL
74	ALAPPUZHA	Thuravur	3.3	1.5			DUG WELL
75	ALAPPUZHA	Thyckal Beach	1.3	0.75	0.4	1.05	DUG WELL
76	ALAPPUZHA	Trikkunnappuzha (R2)	1.85	0.45	0.62	3.05	DUG WELL
77	ALAPPUZHA	Valavanad	2.1				DUG WELL
78	ALAPPUZHA	Vallikunnam	3.25	1.17	1	1.45	DUG WELL
79	ALAPPUZHA	Vanaswargam	2	0.85	0.8	1.15	DUG WELL
80	ALAPPUZHA	Vandanam	3.35	1.4	1.7	2.05	DUG WELL
81	ALAPPUZHA	Veeyapuram (R1)	3.65	0.45	1.07	1.75	DUG WELL
82	ALAPPUZHA	Venmani (R1)	3.37	0.9	1.1		DUG WELL
83	ALAPPUZHA	Chettikulangara Pz		3.1	1.86	1.55	<b>TUBE WELL</b>
84	ALAPPUZHA	Ezhupunna	1.5	0.8	0.9	1.43	<b>TUBE WELL</b>
85	ALAPPUZHA	Haripad(c)	8.86	8.55	9.85	10.25	<b>TUBE WELL</b>
86	ALAPPUZHA	Haripad(e)	11.28	2.38			<b>TUBE WELL</b>
87	ALAPPUZHA	Haripad(n)			9.5	9.9	<b>TUBE WELL</b>
88	ALAPPUZHA	Haripad(s)	9.91	9.9			<b>TUBE WELL</b>
89	ALAPPUZHA	Haripad(w)			10.7	10.81	<b>TUBE WELL</b>
90	ALAPPUZHA	Kalarkode(e)	2.2	2.6	5.08	3.4	<b>TUBE WELL</b>
91	ALAPPUZHA	Kalarkode(s)	3.91	3.2	1.4	2.55	<b>TUBE WELL</b>
92	ALAPPUZHA	Kalarkode(w)	19.01	17.2	16.05	15.21	<b>TUBE WELL</b>
93	ALAPPUZHA	Karthikapalli(north)		9.4			<b>TUBE WELL</b>
94	ALAPPUZHA	Karumady	2.1	1.41			<b>TUBE WELL</b>
95	ALAPPUZHA	Kattanam1		10.5	10.15	10.85	<b>TUBE WELL</b>

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
96	ALAPPUZHA	Krishnapuram(n)	16.34	16.6	16.5	15.65	TUBE WELL
97	ALAPPUZHA	Krishnapuram(s)	6.85	5.5	5.25	6.45	TUBE WELL
98	ALAPPUZHA	Mannar	6.67	2.37	4.33		TUBE WELL
99	ALAPPUZHA	Muthukulam Pz	1.1	0.3	0.14	0.53	TUBE WELL
100	ALAPPUZHA	Muttam(south)	5.87	3.72	3.76	4.81	TUBE WELL
101	ALAPPUZHA	Preethigulangara-centre	14		12.08	13.4	TUBE WELL
102	ERNAKULAM	Aikaranad	7.33	5.92	8.04	8.14	DUG WELL
103	ERNAKULAM	Alwaye	11.9	9.77	10.25	11.29	DUG WELL
104	ERNAKULAM	Anchalpetty-R1	5.9	5.06	5.95	6.19	DUG WELL
105	ERNAKULAM	Angamali (R1)	7.3	5.3	6.52	7.34	DUG WELL
106	ERNAKULAM	Anicadu	3.35	1.65	1.85	2.39	DUG WELL
107	ERNAKULAM	Arakunnam	12.93	8.89	8.85	9.46	DUG WELL
108	ERNAKULAM	Arakuzha	4.95	5.53	5.9	6.29	DUG WELL
109	ERNAKULAM	Attara (Kokunnu)	7.15	6.13	6.62	4.84	DUG WELL
110	ERNAKULAM	Chalacka	2.57	1.68	2.16	2.22	DUG WELL
111	ERNAKULAM	Chellanum	1.16				DUG WELL
112	ERNAKULAM	Chellanum South		0.67	0.83	1.08	DUG WELL
113	ERNAKULAM	Chengamanad	9.63	7.53	8.16	8.92	DUG WELL
114	ERNAKULAM	Cherai	1.73				DUG WELL
115	ERNAKULAM	Cherai South		1.06	1.39	1.7	DUG WELL
116	ERNAKULAM	Cheria Kadavu	0.8	0.42	0.85	1.24	DUG WELL
117	ERNAKULAM	Cherukadapuram	2.3	1.05	1.53	1.99	DUG WELL
118	ERNAKULAM	Chowara (R1)	6.7	5.36	6.1	7.15	DUG WELL
119	ERNAKULAM	Chulli (R1)	4.65	0.49	2.24	4.49	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
120	ERNAKULAM	East Marady	6.4	4.42	5.58	5.72	DUG WELL
121	ERNAKULAM	Edakkatuvayal	12.07	9.22	10.3	9.47	DUG WELL
122	ERNAKULAM	Edapally	2.07	1.15	1.47	1.84	DUG WELL
123	ERNAKULAM	Edavanakad	0.95	0.03	0.46	0.74	DUG WELL
124	ERNAKULAM	Elur North (R1)	1.8	1.36	1.82	1.79	DUG WELL
125	ERNAKULAM	Ernakulam South	0.77	0.5	0.72	0.89	DUG WELL
126	ERNAKULAM	Fort cochin	2.45	1.16	1.61	1.99	DUG WELL
127	ERNAKULAM	Ilanji	7.65	1.5	3.33	7.14	DUG WELL
128	ERNAKULAM	Illithode 1		4.15	6.15	7.79	DUG WELL
129	ERNAKULAM	Irumbanam (R1)	4.45	0.85	1.14	2	DUG WELL
130	ERNAKULAM	Kadavoor			5.17	5.54	DUG WELL
131	ERNAKULAM	Kadungallur		1.04		1.89	DUG WELL
132	ERNAKULAM	Kalady (R1)	2.55	4.71	5.3	4.39	DUG WELL
133	ERNAKULAM	Kallorkad	3.35	3.08	3.15	3.29	DUG WELL
134	ERNAKULAM	Kalur	6.75	3.6	5.11	6.1	DUG WELL
135	ERNAKULAM	Kandakadavu	1.15	0.72	0.97	1.07	DUG WELL
136	ERNAKULAM	Kanjiramattom	7.05	3.82	6.93	7.14	DUG WELL
137	ERNAKULAM	Kanjur	7.65	5.95	6.7	7.24	DUG WELL
138	ERNAKULAM	Kapprassery		0.66	1.07	2.26	DUG WELL
139	ERNAKULAM	Karukadam				1.69	DUG WELL
140	ERNAKULAM	Karukadam (R1)		1	1.49		DUG WELL
141	ERNAKULAM	Karukutti (R2)	7.1			7.95	DUG WELL
142	ERNAKULAM	Karukutti (R3)		6.79	4.22		DUG WELL
143	ERNAKULAM	Keerampara	2.9	3	3.2	3.74	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
144	ERNAKULAM	Keezhillam	5.65	7.3	7.48	8.84	DUG WELL
145	ERNAKULAM	Kizhakkambalam	5.65			5.8	DUG WELL
146	ERNAKULAM	Kizhakkambalam (R1)		4.68	5.3		DUG WELL
147	ERNAKULAM	Kizhakombu	5.7	1.52	2.34	5.09	DUG WELL
148	ERNAKULAM	Kodanad	3.5	1.53	2.38	4.15	DUG WELL
149	ERNAKULAM	Kodussery (R1)	9.15	6.77	8.04	7.94	DUG WELL
150	ERNAKULAM	Koothattukulam (R1)	4.5	2.74	3.4	3.91	DUG WELL
151	ERNAKULAM	Koovapady	7.2	5.12	5.69	6.44	DUG WELL
152	ERNAKULAM	Kothamangalam (R3)	4.55	3.82	4.35	4.39	DUG WELL
153	ERNAKULAM	Kottapadi	3.33	1.97	2.4	3.27	DUG WELL
154	ERNAKULAM	Kottapuram (Alangadu)	3.15	1.31	1.67	2.09	DUG WELL
155	ERNAKULAM	Kottapuram (Veliyanad)	6.25	4.74	5.47	6.09	DUG WELL
156	ERNAKULAM	Kumbalangi (R2)	1.6	0.48	0.79	1.19	DUG WELL
157	ERNAKULAM	Kundannur (R1)	1.18	0.15	0.25	1.04	DUG WELL
158	ERNAKULAM	Kunnukara	9.23	5.51	7.09	5.72	DUG WELL
159	ERNAKULAM	Kurumassery	7.95	7.03	8.11	8.49	DUG WELL
160	ERNAKULAM	Kuruppampady	6.35	4.01	4.61	6.89	DUG WELL
161	ERNAKULAM	Kuthukuzhi	4.75	2.3	3.2	4.54	DUG WELL
162	ERNAKULAM	Malayattur	8.1	5.6	6.6	7.64	DUG WELL
163	ERNAKULAM	Malipuram	1.05	0.49	0.58	0.94	DUG WELL
164	ERNAKULAM	Mallussery	6.12	3.57	3.85	4.74	DUG WELL
165	ERNAKULAM	Mamala	7.4	2.86	3.87	4.42	DUG WELL
166	ERNAKULAM	Mamallassery (R1)	6.05	1.44	3.11	5.49	DUG WELL
167	ERNAKULAM	Manjapra		3.72	6.04	4.62	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
168	ERNAKULAM	Mannur	4.35	3.52	3.87	5.59	DUG WELL
169	ERNAKULAM	Maradu	2.25	0.23	0.62	1.04	DUG WELL
170	ERNAKULAM	Mulanthuruthi	9.45	6.96	7.82	8.69	DUG WELL
171	ERNAKULAM	Mullankunnu	10.35	8.3	8.66	9.54	DUG WELL
172	ERNAKULAM	Munambam (R1)	1.23	0	0.5	1.12	DUG WELL
173	ERNAKULAM	Muvattupuzha	7.65	4.94	5.78	7.54	DUG WELL
174	ERNAKULAM	Nallimolam (R1)	7.2	5.71	6.42	6.54	DUG WELL
175	ERNAKULAM	Namakuzhi	5.45	2.55	3.8	6.74	DUG WELL
176	ERNAKULAM	Nayarambalam	1.45	0.8	1.1	1.46	DUG WELL
177	ERNAKULAM	Nellikuzhi	3.65			3.14	DUG WELL
178	ERNAKULAM	Nellikuzhi (R1)		1.82	2.4		DUG WELL
179	ERNAKULAM	Neriyamangalam (R1)	8.27	5.93	9.05	8.41	DUG WELL
180	ERNAKULAM	Njarakkal	0.9	0.36	0.56	0.94	DUG WELL
181	ERNAKULAM	North Parur	1.05	0	0.46	0.89	DUG WELL
182	ERNAKULAM	Okkal	3.7	2.31	2.78	3.44	DUG WELL
183	ERNAKULAM	Oonnukal	6.3	4.3	5.74	5.86	DUG WELL
184	ERNAKULAM	Paingottur	5.35	3.64	4.62	6.14	DUG WELL
185	ERNAKULAM	Palakuzha North	8.03	3.13	5.04	6.17	DUG WELL
186	ERNAKULAM	Pallikara-Chittanadu (wonderla)	7.4	7.12	8.04	8.44	DUG WELL
187	ERNAKULAM	Palluruthy	1.95	0.68	1.04		DUG WELL
188	ERNAKULAM	Pambakuda	6.15	3.62	4.1	6.34	DUG WELL
189	ERNAKULAM	Parakkadavu	3.05	0.93	1.83	2.82	DUG WELL
190	ERNAKULAM	Paravur	2.35	1.74	1.8	2.34	DUG WELL
191	ERNAKULAM	Pattimattom (R2)	6.2	5.34	5.68	5.89	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
192	ERNAKULAM	Payyal	5	2.38	3.3	4.04	DUG WELL
193	ERNAKULAM	Peechanikad (R1)	6.65	4.48	6.06	6.54	DUG WELL
194	ERNAKULAM	Perumbadavam	7.75	2.77	4.54	7.14	DUG WELL
195	ERNAKULAM	Perumbavoor (R2)	5.75	3.87	3.97	5.81	DUG WELL
196	ERNAKULAM	Pezhakkapallil	4.65	2.82	4.11	4.69	DUG WELL
197	ERNAKULAM	Pindimana	5.1	0.16	1.06	2.59	DUG WELL
198	ERNAKULAM	Piravom	6.35	3.78	4.91	5.44	DUG WELL
199	ERNAKULAM	Poothotta	3.53	1.66	2.03	2.48	DUG WELL
200	ERNAKULAM	Poothrikka		6.69	8.25	8.24	DUG WELL
201	ERNAKULAM	Pothanikad (R2)	4.8	2.36	4	4.84	DUG WELL
202	ERNAKULAM	Pulluvazhi	5.55	4.46	5.28	5.74	DUG WELL
203	ERNAKULAM	Punithura	3.3	1.15	1.2	1.75	DUG WELL
204	ERNAKULAM	Punnakad1	1.3	0.36	1.34	1.84	DUG WELL
205	ERNAKULAM	Puthankurissu (Neriyamangalam Road)	3.45	2.92	3.14	3.29	DUG WELL
206	ERNAKULAM	Puthankurisu (R1) (Kolencherry)	5.15	5.05	4.6	4.86	DUG WELL
207	ERNAKULAM	Ramamangalam	6.7	5.77	6.47		DUG WELL
208	ERNAKULAM	Randar	4.83	3.39	3.97	5.02	DUG WELL
209	ERNAKULAM	Sreemoolanagaram		7.85	8.35	9.44	DUG WELL
210	ERNAKULAM	Thabore	6.25	2.17	5.32	5.94	DUG WELL
211	ERNAKULAM	Thaikkattukara		1.09	1.81	2.46	DUG WELL
212	ERNAKULAM	Thalakode	4	3.71	3.84	3.84	DUG WELL
213	ERNAKULAM	Thattakad (R1)	1.55	3.28	4.41		DUG WELL
214	ERNAKULAM	Thattakad (R1)				1.89	DUG WELL
215	ERNAKULAM	Thirumaradi	5.55	2.9	3.44	5.24	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
216	ERNAKULAM	Thrikalathur		4.42	4.73	6.12	DUG WELL
217	ERNAKULAM	Thuruthi	2.65	2.62	3.11	2.84	DUG WELL
218	ERNAKULAM	Trikkakara	10.37	8.37	8.99	9.19	DUG WELL
219	ERNAKULAM	Tripunithura	2.65	1.66	2.14	2.49	DUG WELL
220	ERNAKULAM	Udayamperoor	4.55	2.49	2.91		DUG WELL
221	ERNAKULAM	Vadavucode (Kolencherry)	1.2	1.05	1.29	2.39	DUG WELL
222	ERNAKULAM	Valakam	6.65	5.65	6.16	6.15	DUG WELL
223	ERNAKULAM	Valayanchirangara	7.22	6.97	7.82	8.76	DUG WELL
224	ERNAKULAM	Vallom (R2)	7.25	5.35	6.12	6.44	DUG WELL
225	ERNAKULAM	Varapuzha	2.2	0.67	0.81	1.47	DUG WELL
226	ERNAKULAM	Vazhakkulam North	7.5	5.17	5.43	6.14	DUG WELL
227	ERNAKULAM	Vazhappilly	2.25	0.81			DUG WELL
228	ERNAKULAM	Veliyanad		4.4		6.04	DUG WELL
229	ERNAKULAM	Veliyanad	8.15		5.2		DUG WELL
230	ERNAKULAM	Vypeen	0.55	0.26	0.5	0.59	DUG WELL
231	ERNAKULAM	Vytila	2.5	1.35	1.6	2.16	DUG WELL
232	ERNAKULAM	Kadavanthara	6.55	6.42	6.4	6.44	<b>TUBE WELL</b>
233	ERNAKULAM	Preethigulangara-centre		14.14			<b>TUBE WELL</b>
234	ERNAKULAM	Edakkattuvoyal PZ	11.1				<b>BORE WELL</b>
235	ERNAKULAM	Aikaranad1	2.95				<b>BORE WELL</b>
236	ERNAKULAM	Aikaranad1			4.02		<b>BORE WELL</b>
237	ERNAKULAM	Aikaranad1 (Kadayiruppu)		2.91		4.45	<b>BORE WELL</b>
238	ERNAKULAM	Arakuzha Pz	6.35	2.6	4.7	5.2	<b>BORE WELL</b>
239	ERNAKULAM	Edakkattuvoyal PZ		8.5			<b>BORE WELL</b>

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
240	ERNAKULAM	Edakkattuvoyal PZ				11.34	BORE WELL
241	ERNAKULAM	Illithode		3.52	5.72	6.22	BORE WELL
242	ERNAKULAM	Irumbanam2	4.18	0.4	0.86	2.38	BORE WELL
243	ERNAKULAM	Kanjiramattom	14.8	12.6	13.7	13.9	BORE WELL
244	ERNAKULAM	Kizhakombu	10.3	0.99	2.3	5.14	BORE WELL
245	ERNAKULAM	Kodussery	7.37	7.02	7.62	7.67	BORE WELL
246	ERNAKULAM	Koovappady	6.59	5.09	5.51	6.39	BORE WELL
247	ERNAKULAM	Malayattur1	9.8	9.2	8.9	8.9	BORE WELL
248	ERNAKULAM	Mullankunnu	14.2	15.3	17.5	15.7	BORE WELL
249	ERNAKULAM	Namakuzhi	9.9	3.4	3.9	9.7	BORE WELL
250	ERNAKULAM	Poothrikka Pz	11.15	7.9	8.65		BORE WELL
251	ERNAKULAM	Punnakad		1.03	1.9	2.85	BORE WELL
252	ERNAKULAM	Thirumaradi	4.55	4.3	4.3	4.25	BORE WELL
253	ERNAKULAM	Vazhakam Pz				4.57	BORE WELL
254	ERNAKULAM	Vazhakam Pz	4.77	4.37	4.42		BORE WELL
255	ERNAKULAM	Veliyanad	4.75	2.91	3.25	3.65	BORE WELL
256	IDUKKI	Adimali	5.51	4.27	4.9	6.27	DUG WELL
257	IDUKKI	Alakkode1	4.66		4.03	4.82	DUG WELL
258	IDUKKI	Ambazhachal	4.36	4.3	4.13	5.01	DUG WELL
259	IDUKKI	Amravathi	7.3	3.3	2.86	3.3	DUG WELL
260	IDUKKI	Anakkara	6.1	5.45	6.32		DUG WELL
261	IDUKKI	Anavilasam	7.37	4.65	4.78	5.62	DUG WELL
262	IDUKKI	Arikuzha	4.35	2.43	4.23		DUG WELL
263	IDUKKI	Balagram ( Third camp)	5.3	3.42	5.16	4.2	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
264	IDUKKI	Byson Valley	12.36	9.3	9.18	9.71	DUG WELL
265	IDUKKI	Carady Goody Estate	3.36	1.56	1.24	2.72	DUG WELL
266	IDUKKI	Chathurangapara	0.2	0.1	0.47	0.39	DUG WELL
267	IDUKKI	Cheenikuzhi	2.25	1	1.28	2.4	DUG WELL
268	IDUKKI	Cheriyar	3.27	2	2.83	3.33	DUG WELL
269	IDUKKI	Chittoor		2.86	3.71	4.2	DUG WELL
270	IDUKKI	Churuli	2.81	1.78	2.17	2.38	DUG WELL
271	IDUKKI	Cumbummettu	6.85	5.35	5.67	5.61	DUG WELL
272	IDUKKI	Devikulam	3.48	2.46	2.84		DUG WELL
273	IDUKKI	Elamdesom	6.15	3.4	5.02	4.2	DUG WELL
274	IDUKKI	Elappara	1.65	1.12	1.47	1.43	DUG WELL
275	IDUKKI	Idukki	4.15	1.95	3.1	3.65	DUG WELL
276	IDUKKI	Irattayar (R1)	3.2	1.5	2.53	2.7	DUG WELL
277	IDUKKI	Kaliyar	5.45	4	4.48	5.59	DUG WELL
278	IDUKKI	Kanchiyar	10.66	9.05	8.18	9.1	DUG WELL
279	IDUKKI	Karimkunnam (R1)	3.22	2.1	3.22	4.06	DUG WELL
280	IDUKKI	Karumanoor	3.53	2.04	2.7	3.9	DUG WELL
281	IDUKKI	Kattapana	3.3		2.08		DUG WELL
282	IDUKKI	Kochera	4.8	3.3	4.62		DUG WELL
283	IDUKKI	Kodikulam east	5.03	2.52	3.91	5	DUG WELL
284	IDUKKI	Kolani	3.66	3.55	2.94		DUG WELL
285	IDUKKI	Kolapra	4.16	3.88	4.22	4.52	DUG WELL
286	IDUKKI	Kulamavu	7.16	4.42	5.32	7	DUG WELL
287	IDUKKI	Kumaramangalam	4.35	3.22	3.54	4.1	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
288	IDUKKI	Kumili	3.65	2.23	2.03	3.53	DUG WELL
289	IDUKKI	Kuttikanam (R1)	5.8	4.4	4.68	7.12	DUG WELL
290	IDUKKI	Machiplavu	8.62	6.14	6.57	8.56	DUG WELL
291	IDUKKI	Manjappara	2.46	0.8	1.12	2.47	DUG WELL
292	IDUKKI	Marykulam	4.47	1.87	2.44	3.92	DUG WELL
293	IDUKKI	Memala	5.5	2.5	3.63	4.24	DUG WELL
294	IDUKKI	Moolamattam	5.55	4.3	4.94	6.01	DUG WELL
295	IDUKKI	Mundiyeeruma			4.52		DUG WELL
296	IDUKKI	Munnar	1.52	0.22	0.31	1.4	DUG WELL
297	IDUKKI	Murikkassery	11.2	9.2	9.42	11.94	DUG WELL
298	IDUKKI	Murukkady	7.2	5.4	1.08	5.17	DUG WELL
299	IDUKKI	Nedumkandam	4.6	4.19	3.12	4.3	DUG WELL
300	IDUKKI	Nirmala City	2.48	2.14	0.94	2.79	DUG WELL
301	IDUKKI	Njarukutty		0.76	1.48	3.5	DUG WELL
302	IDUKKI	Pambadumpara	4.79	1.36	2.17	2.26	DUG WELL
303	IDUKKI	Pampanar					DUG WELL
304	IDUKKI	Pampanar	1.6	0.82	1.02	1.89	DUG WELL
305	IDUKKI	Pannimattom	3.76	2.69	2.89	4.2	DUG WELL
306	IDUKKI	Peerumedu	3.24	2.3	2.87	3.42	DUG WELL
307	IDUKKI	Perumuttom	2.87	3.49	4.06	3.15	DUG WELL
308	IDUKKI	Peruvanthanam	1.69	1.13	1.24	2.58	DUG WELL
309	IDUKKI	Poopara	2.6	0.92	0.77	1.41	DUG WELL
310	IDUKKI	Rajakkad	9.74	8.2	8.83	9.6	DUG WELL
311	IDUKKI	Rajakumary	13.65	9.15	10.51	10.6	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
312	IDUKKI	Thankamani	2.2	0.8	1.08	2.2	DUG WELL
313	IDUKKI	Thodupuzha	11.17	6	7.38	11	DUG WELL
314	IDUKKI	Thumbachi	4.84	2.77	2.95	4.51	DUG WELL
315	IDUKKI	Udumbanchola	9.25	4.22	5.01	6.57	DUG WELL
316	IDUKKI	Udumbannur	4.29	3.29	4.02	6.6	DUG WELL
317	IDUKKI	Valara (R2)	10.06	6.4	7.17	9.41	DUG WELL
318	IDUKKI	Vallakadavu	4.77	2.45	2.58	4.46	DUG WELL
319	IDUKKI	Vandanmedu (R1)		2.02	2.73	3.09	DUG WELL
320	IDUKKI	Vandiperiyar	8.1	5.76	6.37	7.22	DUG WELL
321	IDUKKI	Vazhithala	6.28	0.48	1.44	4.38	DUG WELL
322	IDUKKI	Vellilamkandam	6.25	3.87	3.37	5.77	DUG WELL
323	IDUKKI	Alakode	4.96	7.07	3.87	9.61	<b>BORE WELL</b>
324	IDUKKI	Anakkara	60	5.75	49.4	7.3	<b>BORE WELL</b>
325	IDUKKI	Karimkunnam2	3.65		1.57	2.82	<b>BORE WELL</b>
326	IDUKKI	Karumannur	4.26	2.26	3.5	4.25	<b>BORE WELL</b>
327	IDUKKI	Kattappana	11.3	1.3	7.92	9.08	<b>BORE WELL</b>
328	IDUKKI	Mundieruma	4	8.18	4.28		<b>BORE WELL</b>
329	IDUKKI	Santhanpara			2.51		<b>BORE WELL</b>
330	IDUKKI	Thankamoni	4.1	1.16	1.83	2.3	<b>BORE WELL</b>
331	KANNUR	Alacode (R1)	12.8	7.7	9.5	10.8 2	DUG WELL
332	KANNUR	Alavil	8.95	3.95	4.96	6.43	DUG WELL
333	KANNUR	Ambilad	14.62	10.8	12.48	13.9 1	DUG WELL
334	KANNUR	Andoor	6.83	4.2	4.96	6.42	DUG WELL
335	KANNUR	Anjarakandi	8.1	5.4	6.8	7.6	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
336	KANNUR	Chakkarakkale	11.99	7.2	8.13	9.8	DUG WELL
337	KANNUR	Chala	10.19	7.15	8.02	9.53	DUG WELL
338	KANNUR	Chalad	6.7	2.85	4.11	6.08	DUG WELL
339	KANNUR	Chavassery	4.23	2.84	4.16	3.94	DUG WELL
340	KANNUR	Cheleri	14.5	9.6	10.6	12.32	DUG WELL
341	KANNUR	Chepparapadavu	4.23	2.1	2.53	3.35	DUG WELL
342	KANNUR	Cherupuzha	5.15	3.53	4.75	5.24	DUG WELL
343	KANNUR	Cheruthazam	13.11	6.8	8.2	9.37	DUG WELL
344	KANNUR	Chundaparambu	7.19	6.5	6.52	6.8	DUG WELL
345	KANNUR	Chural	8	3.3	6.01	6.9	DUG WELL
346	KANNUR	Dharmadam	3.71	1.6	1.77	2.55	DUG WELL
347	KANNUR	Echilamvayal	6.39	1.7	2.48	4.56	DUG WELL
348	KANNUR	Edakkad	2.49	0.61	1.2	2.24	DUG WELL
349	KANNUR	Edayannur	5.11	3.35	5.08	5.49	DUG WELL
350	KANNUR	Edoor	4.7	1.75	3.78	4.38	DUG WELL
351	KANNUR	Elambara	4	2.96	3.72	4.39	DUG WELL
352	KANNUR	Ettikkulam	10.4	7.2	8.58	10.68	DUG WELL
353	KANNUR	Ezhilode	14.93	8.7	10.65	13.6	DUG WELL
354	KANNUR	Irikkur	7.53	5.66	4.54	5.79	DUG WELL
355	KANNUR	Kadannapally	13.47	8.25	10.58	11.27	DUG WELL
356	KANNUR	Kakkathodu	4.27		4.68	3.74	DUG WELL
357	KANNUR	Kalliassery	9.42	6	6.3	7.78	DUG WELL
358	KANNUR	Kallumutty	6.24	5.52	7.02	6.79	DUG WELL
359	KANNUR	Kanhirangad	14.53	10.84	9.13	12.04	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
360	KANNUR	Kannapuram	3.08	1.35	1.75	2.39	DUG WELL
361	KANNUR	Kannavam	7.83	3.2	5.05	5.37	DUG WELL
362	KANNUR	Kannur	8.99	7.95	8.43	9.03	DUG WELL
363	KANNUR	Kannur-Thana	11.89	9.2	11.1	9.78	DUG WELL
364	KANNUR	Karikottakari	6.95	1.61	7.19	8.05	DUG WELL
365	KANNUR	Kelakam	10.37	5.43	9.85	10.28	DUG WELL
366	KANNUR	Kizhpalli	7.3	2.9	5.48	6.48	DUG WELL
367	KANNUR	Kolachery	10.8	7	7.28	8.68	DUG WELL
368	KANNUR	Kolakkad	10.36	7.5	8.99	9.48	DUG WELL
369	KANNUR	Kolayad	8.4	3.64	2.4	7.64	DUG WELL
370	KANNUR	Kommeri	4.12	3	4.13	4.43	DUG WELL
371	KANNUR	Koothuparamba	12.72	5.32	9	12.7	DUG WELL
372	KANNUR	Koottumukham	6.3	5.45		5.81	DUG WELL
373	KANNUR	Kottayampoil	9.31	5.6	6.58	7.7	DUG WELL
374	KANNUR	Kottiyur	8.34	7.28	7.04	7.91	DUG WELL
375	KANNUR	Kotty	2.86	1.2	2.06	2.68	DUG WELL
376	KANNUR	Kozhichal	6.31	1.93	5.18	6	DUG WELL
377	KANNUR	Kunnaru	3.02	0.35	1.55	2.06	DUG WELL
378	KANNUR	Kunnoth	7.06	1.55	5.45	6.96	DUG WELL
379	KANNUR	Kuppam	2.94	0.95	1.75	1.96	DUG WELL
380	KANNUR	Kuyilur	5.11	4.6	3.61	4	DUG WELL
381	KANNUR	Mahe (R1)	1.94	1.25	1.33	1.55	DUG WELL
382	KANNUR	Manantheri	9.14	2.68	6.91	7.5	DUG WELL
383	KANNUR	Manattana	4.11	1.24	2.83	3.15	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
384	KANNUR	Mathamangalam (R1)	8.7	0.05	3.7	6.06	DUG WELL
385	KANNUR	Mathil	12.15	6.3	6.56		DUG WELL
386	KANNUR	Mattanur	8.14	4.7	6.34	7.9	DUG WELL
387	KANNUR	Mayyil	11.72	8.05	9.97	10.33	DUG WELL
388	KANNUR	Mekunnu	7.46	6	5.89	6.13	DUG WELL
389	KANNUR	Mele Chovva	6.32	7.2	8.07	9.58	DUG WELL
390	KANNUR	Melepukkom	10.02	5.91	7.69	8.16	DUG WELL
391	KANNUR	Melur	4.68	1.95	2.66	3.72	DUG WELL
392	KANNUR	Meruvambayi	7.43	3.73	4.88	5.5	DUG WELL
393	KANNUR	Mokeri	12.25	4.57	8.87	10.15	DUG WELL
394	KANNUR	Munderi	6.71	5.8	6.59	7.16	DUG WELL
395	KANNUR	Muzhakunnu	4.71	3.13	4.37	4.47	DUG WELL
396	KANNUR	Nayattupara	14.31	8.04	7.46	11.42	DUG WELL
397	KANNUR	Nellunni	5.02	3.12	3.71	3.98	DUG WELL
398	KANNUR	Neruvambram	17.8	10.71	12.4	15.2	DUG WELL
399	KANNUR	Nuchiyad	9.32	6.2	7.54	5.05	DUG WELL
400	KANNUR	Oduvalli	17.44	15.4	16.18	16.9	DUG WELL
401	KANNUR	Palleri	9.4	5.9	5.66	7.7	DUG WELL
402	KANNUR	Pallikkuni	3.98	1.58	2.9	3.4	DUG WELL
403	KANNUR	Palloor (Mahe)	9.62	5.98	8.57	9.26	DUG WELL
404	KANNUR	Pannoor	5.63		3.55	4.4	DUG WELL
405	KANNUR	Panunda	13.8	10.54	11.8	13.96	DUG WELL
406	KANNUR	Pappinissery West	2.7	0.62	0.95	1.82	DUG WELL
407	KANNUR	Parassinikadavu DW	14.83	13.4	13.64	14	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
408	KANNUR	Pariyaram	14.56	9.11	12.05	13.02	DUG WELL
409	KANNUR	Pathiriyad	8.93	6.45	6.33	7.78	DUG WELL
410	KANNUR	Pattiyam	4.05	0.98	1.85	2.3	DUG WELL
411	KANNUR	Pattuvam	15.41	13.5	14.8	1.82	DUG WELL
412	KANNUR	Payyannur	6.62	4	4.5	5.56	DUG WELL
413	KANNUR	Pazhayangadi	2.56	1	1.05	2.15	DUG WELL
414	KANNUR	Peravoor	5.48	3.6	5	5.13	DUG WELL
415	KANNUR	Peringome ( R1)	8.11	4.8	7.87	7.91	DUG WELL
416	KANNUR	Pinarayi	13.04	10.88	11.8	13.42	DUG WELL
417	KANNUR	Pukkundu	12.93	4.1	6.96	12.68	DUG WELL
418	KANNUR	Pulingome	7.01	3.55	6	6.35	DUG WELL
419	KANNUR	Puthiyatheru	9.12	4.3	6.45	7.77	DUG WELL
420	KANNUR	Ramantalai	9.55	4.35	7.67	9.2	DUG WELL
421	KANNUR	Sreekandapuram	8.18	5.23	5.34	7.68	DUG WELL
422	KANNUR	Taliparamba	14.25	8	3.7	9.67	DUG WELL
423	KANNUR	Thalassery	6.51	2.67	3.2	4.82	DUG WELL
424	KANNUR	Thazhe Chovva	2.16	0.48	0.73	1.35	DUG WELL
425	KANNUR	Ulikkal (R1)	5.84	2.67	4.88	5.71	DUG WELL
426	KANNUR	Vaaram		3.5		5.52	DUG WELL
427	KANNUR	Valakkai	5.33	4.35	4.19	4.86	DUG WELL
428	KANNUR	Valapattanam	10.48	7.1	8.55	9.3	DUG WELL
429	KANNUR	Varam	6.5				DUG WELL
430	KANNUR	Vattiyamthodu	8.3	4.02	5.26	6.64	DUG WELL
431	KANNUR	Vayyakara	20.45	17.55	19.25	19.7	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
432	KANNUR	Vengad	15.65	11.3	11.35	12.36	DUG WELL
433	KANNUR	Cannanore1		8.3	9.18	11.8	TUBE WELL
434	KANNUR	Anthoor	13	6.35	7.32	13.08	BORE WELL
435	KANNUR	Kakkeyamkadu	4.45	1.83	2.35	3.57	BORE WELL
436	KANNUR	Kankole1	11.35	4.95	6.54	8.75	BORE WELL
437	KANNUR	Karumathur	9.75	4.35	3.62	8.5	BORE WELL
438	KANNUR	Kelakkam			10.8	11.25	BORE WELL
439	KANNUR	Kizhallur	6.1	2.4	3.19	5.27	BORE WELL
440	KANNUR	Kolacheri	9.3	6.1	5.77	7.9	BORE WELL
441	KANNUR	Kommery	3.66	2.02	3.47	3.71	BORE WELL
442	KANNUR	Kottayampoyil	13.45	9.75	9.06	11.17	BORE WELL
443	KANNUR	Manathana	7.15	2.68	4.08	6.65	BORE WELL
444	KANNUR	Munderi	5.66	2.8	3.3	4.6	BORE WELL
445	KANNUR	Oduvallithattu	13		12.63		BORE WELL
446	KANNUR	Panoor	5.55		3.65	4.32	BORE WELL
447	KANNUR	Parassinikadavu	22.4	20.38	19.99	21.18	BORE WELL
448	KANNUR	Pulingome1	39.3	5.7	6.34		BORE WELL
449	KASARAGOD	Adhuru (R1)	10.71	3	7.15	9.15	DUG WELL
450	KASARAGOD	Adkasthala	12.29	7.1	9.88	11.22	DUG WELL
451	KASARAGOD	Adoor	13.18	6.3	9	12.29	DUG WELL
452	KASARAGOD	Ajannur DW	14.07	6.96	9	11.66	DUG WELL
453	KASARAGOD	Ambalathara	6.78	0.2	3.52	4.96	DUG WELL
454	KASARAGOD	Anangoor	15.55	6.55	9.2	9.36	DUG WELL
455	KASARAGOD	Angadimogar	11.09	5.85	8.6	11.85	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
456	KASARAGOD	Arladuka	18.96	12.7	13.32	15.13	DUG WELL
457	KASARAGOD	Badiadka-R1	16.38	10.47	11.79	13.42	DUG WELL
458	KASARAGOD	Bandadka	10.2	9.95	10.15	10.07	DUG WELL
459	KASARAGOD	Bangathadka	10.15	14.2	14.9	16.2	DUG WELL
460	KASARAGOD	Banputhadka	8.4	6.5	7.3	8.12	DUG WELL
461	KASARAGOD	Bayar	13.36	5.5	8.3	10.84	DUG WELL
462	KASARAGOD	Bedadka-R1	13.4	10.35	12.65	12.69	DUG WELL
463	KASARAGOD	Bedradka	15.05	6.25	9.98	12.8	DUG WELL
464	KASARAGOD	Bedrampalla (R1)	11.1	0.2	3.85	7.8	DUG WELL
465	KASARAGOD	Bekal	10	5.8	7.82	8.96	DUG WELL
466	KASARAGOD	Bela (R1)	11.97	9.15	10.42	10.8	DUG WELL
467	KASARAGOD	Bethoorpara	12.36	7.7	9.79	2.38	DUG WELL
468	KASARAGOD	Bhimanadi (R1)	9.51	4.93	4.74	2.38	DUG WELL
469	KASARAGOD	Bhimanadi-II	5.65	1.22	1.9	5.1	DUG WELL
470	KASARAGOD	Chalingal	11.25	1.7	7.25	9.24	DUG WELL
471	KASARAGOD	Chamundikunnu DW	12.55	8.3	9.67	10.88	DUG WELL
472	KASARAGOD	Chattanchal DW	14.7	6.6	12.8	13.15	DUG WELL
473	KASARAGOD	Cheemeni	9.07	2.25	6.95	7.46	DUG WELL
474	KASARAGOD	Cherkala	10.94	3.3	8.7	9.92	DUG WELL
475	KASARAGOD	Chittarikal	6.33	3.85	5.03	5.63	DUG WELL
476	KASARAGOD	Choyankod (R1)	6.78	0.23	5.95	5.8	DUG WELL
477	KASARAGOD	Dharmathadka	11.1	5.1		9.52	DUG WELL
478	KASARAGOD	Elambachi	5.33	1.95	2.63	4.03	DUG WELL
479	KASARAGOD	Iriyani	11	6.51	8.33	10.17	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
480	KASARAGOD	Jodukallu	11.42	5.7	6.8	8.84	DUG WELL
481	KASARAGOD	Kadambar	13.27	8.1	11.86	12.12	DUG WELL
482	KASARAGOD	Kadappallam	15	9.15	9.18	12.85	DUG WELL
483	KASARAGOD	Kakkadavu (R1)	12.4	10.55	11.95	11.9	DUG WELL
484	KASARAGOD	Kalathur	14.8	7.6	8.93	12.23	DUG WELL
485	KASARAGOD	Kalichanadukkam	5.33	1.38	5.17	5.26	DUG WELL
486	KASARAGOD	Kalikadavu		2.3	3.81	5.34	DUG WELL
487	KASARAGOD	Kanhangad Coast (R1)	2.95	1.95	2.37	2.54	DUG WELL
488	KASARAGOD	Kanhangad Town	10.95	4.95	7.59	9.45	DUG WELL
489	KASARAGOD	Kaniyala	7.35	1.3	3.94	5.21	DUG WELL
490	KASARAGOD	Kannadipara	13.52	7.58	9.95	11.2	DUG WELL
491	KASARAGOD	Karinthalam	12.85	6.65	8.97	10.94	DUG WELL
492	KASARAGOD	Kasaragod	10.4		8.5	9.4	DUG WELL
493	KASARAGOD	Kayyur	11.6	1.6	6.46	7.34	DUG WELL
494	KASARAGOD	Kinningar	8.02	1.75	4.85	6.51	DUG WELL
495	KASARAGOD	Kolichal	5.28	2.65	4.46	4.81	DUG WELL
496	KASARAGOD	Koliyarpadavu (R1)	13.18	8.05	9.33	10.08	DUG WELL
497	KASARAGOD	Koolom Road	10.99	3.3	8.47	9.02	DUG WELL
498	KASARAGOD	Kottiyadi	10.05	5	7.56	8.38	DUG WELL
499	KASARAGOD	Kovval	9.03	4.88	5.68	7.54	DUG WELL
500	KASARAGOD	Kudlu	14.1	3.4	7.25	9.6	DUG WELL
501	KASARAGOD	Kumbadaje	12.2	5.95	8.02	9.08	DUG WELL
502	KASARAGOD	Kumbla (R1)	14.56	3.9	9.23	11.85	DUG WELL
503	KASARAGOD	Kundamkuzhy	7.46	0.35	9.1	6.83	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
504	KASARAGOD	Kuttikol	15.33	14.75	14.75	14.85	DUG WELL
505	KASARAGOD	Madhur	15.4	0.95	10.25	13.81	DUG WELL
506	KASARAGOD	Mandecap	10.5	6.35	10.35	10.6	DUG WELL
507	KASARAGOD	Mangad	12.2	4.35	10.08	12.22	DUG WELL
508	KASARAGOD	Mangalpady (R1)	13.52	6.7	9.02	10.55	DUG WELL
509	KASARAGOD	Manjeswar	7.73	2.85	8.6	10.18	DUG WELL
510	KASARAGOD	Mavinakatta	25.75	20.9	22.2	23.16	DUG WELL
511	KASARAGOD	Mavungal	10.75	1.1	5.08	5.93	DUG WELL
512	KASARAGOD	Melparamba	13.4	8.85	11.43	13.6	DUG WELL
513	KASARAGOD	Miyapadavu	14.16	10.77	11.22	11.36	DUG WELL
514	KASARAGOD	Mogral (R1)	11.52	1.05	8.1	10.92	DUG WELL
515	KASARAGOD	Mogral Puthur	12.77	4.45	8.48	12.5	DUG WELL
516	KASARAGOD	Movvar	14.58	13.8	13.88	13.92	DUG WELL
517	KASARAGOD	Muligadde	10.67	3.7	8.62	9.25	DUG WELL
518	KASARAGOD	Muliyar	7.34	2.35	5.8	6.26	DUG WELL
519	KASARAGOD	Mulleria	19.31	16.45	17.1	18.8	DUG WELL
520	KASARAGOD	Munnad	10.35	8.6	13.75	10.24	DUG WELL
521	KASARAGOD	Naimarmoola	8.8	5.6	8.6	9	DUG WELL
522	KASARAGOD	Nattakkal	12.91	11.85	12.3	13.2	DUG WELL
523	KASARAGOD	Nellikatta	9.81	0.2	7.16	8.46	DUG WELL
524	KASARAGOD	Nileshwar	6.03	2.37	3.33	4.81	DUG WELL
525	KASARAGOD	Odayanchal	3.78	1.45	2.65	3.01	DUG WELL
526	KASARAGOD	Pachambla	11.49	5.6	7.22	8.94	DUG WELL
527	KASARAGOD	Padiyathadka	9.9	3.4	6.76	8.25	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
528	KASARAGOD	Paivalike	10.85	6.6	6.8	9.28	DUG WELL
529	KASARAGOD	Pallam	10.18	6.3	6.7	8.6	DUG WELL
530	KASARAGOD	Panathur	10.87	6.55	10.87	11.05	DUG WELL
531	KASARAGOD	Parappa north	9.28	5.2	8.46	8.69	DUG WELL
532	KASARAGOD	Peraladkam	6.77	1.65	6.41	6.37	DUG WELL
533	KASARAGOD	Periyattadukkam	11.94	2.5	8.6	9.68	DUG WELL
534	KASARAGOD	Periye	11.96	2.92	8.22	9.85	DUG WELL
535	KASARAGOD	Perla	8.48	3.5	6.92	7.42	DUG WELL
536	KASARAGOD	Poinachi-R1	14.05	13.15	13.73	14	DUG WELL
537	KASARAGOD	Pookatta	17.15	10.35	12.5	15	DUG WELL
538	KASARAGOD	Povval	12.92	11.2	12.4	12.63	DUG WELL
539	KASARAGOD	Pullur	9.16	3.8	8.1	7.92	DUG WELL
540	KASARAGOD	Putheriyadukkam	10.8	8.26	10.65	10.78	DUG WELL
541	KASARAGOD	Puthige	15.01	5.6	8.03	11.45	DUG WELL
542	KASARAGOD	Rajapuram	6.49	2.8	5.92	7.03	DUG WELL
543	KASARAGOD	Ramdas Nagar (Kudlu)	15.85	5	10.6	12.7	DUG WELL
544	KASARAGOD	Sasthangode (Sastha Nagar)	22.33	19.2	20.45	21.72	DUG WELL
545	KASARAGOD	Sorga	9.31	1.75	6.75	7.49	DUG WELL
546	KASARAGOD	Thachangad	12.15	3.85	8	10.28	DUG WELL
547	KASARAGOD	Thaniyadi	7.55	1.7	5.48	4.98	DUG WELL
548	KASARAGOD	Thoyammel	12.14	7.8	9.25	10.42	DUG WELL
549	KASARAGOD	Trikaripur	4.53	0.8	1.66	2.96	DUG WELL
550	KASARAGOD	Udinur Central	5.6	1.8	2.22		DUG WELL
551	KASARAGOD	Ukkinadka	9.4	4.45	5.24	6	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
552	KASARAGOD	Uppla	14.3	6.35	8.93	11.15	DUG WELL
553	KASARAGOD	Vorkady	14.17	9.2	11.6	12.8	DUG WELL
554	KASARAGOD	Yethadka	5.62	1.9	5.4	5.4	DUG WELL
555	KASARAGOD	Ajannur(s2)	2.5	0.25	1.12	1.99	TUBE WELL
556	KASARAGOD	Ajannur(s3)		0.55	1.25	3.14	TUBE WELL
557	KASARAGOD	Ajannur(s4)	2.5	0.3	1.04	2.1	TUBE WELL
558	KASARAGOD	Bella	13.95	6.76	10.82	12.58	BORE WELL
559	KASARAGOD	Bovikkanam	15.2	7.2	14.57	10.1	BORE WELL
560	KASARAGOD	Chalingal Pz	13.05	2.32	7.81	10.65	BORE WELL
561	KASARAGOD	Chamundikunnu	11.35	7.05	9.09	10.55	BORE WELL
562	KASARAGOD	Chattanchal	15.55		13.33	14.31	BORE WELL
563	KASARAGOD	Cherkala	15.25	2.3	8.92	11.15	BORE WELL
564	KASARAGOD	Karindalam	24.3	6.5	19.99	22.98	BORE WELL
565	KASARAGOD	Kumbala	18.2	1.65	9.2	13.38	BORE WELL
566	KASARAGOD	Kundamkuzhi	11.55				BORE WELL
567	KASARAGOD	Kuniya	10	2.7	5.21	12.16	BORE WELL
568	KASARAGOD	Madhur	11.45	1.35	4.82	8.64	BORE WELL
569	KASARAGOD	Mangad	18.75	2.08	7.07	12.12	BORE WELL
570	KASARAGOD	Manjeshwar	14	7.15	8.04	10.22	BORE WELL
571	KASARAGOD	Mylatti	6.95	1.4	5.97	6.71	BORE WELL
572	KASARAGOD	Pachakkad CPCRI	12.1	5.8	4.13	10.4	BORE WELL
573	KASARAGOD	Pallikkara	9.95	6	6.22	7.57	BORE WELL
574	KASARAGOD	Periye Pz	18.3	6.28		9.8	BORE WELL
575	KASARAGOD	Seethamgulli	9.9	2.4	6.37	7.95	BORE WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
576	KASARAGOD	Vidyanagar	10.95	2.8	8.07	9.16	<b>BORE WELL</b>
577	KOLLAM	Achenkovil	7.01				DUG WELL
578	KOLLAM	Achenkovil (R1)	6.86		3.75		DUG WELL
579	KOLLAM	Ailara	2.47	2.13	1.45		DUG WELL
580	KOLLAM	Akkal	10.83	9.3	7.46	8.98	DUG WELL
581	KOLLAM	Alayamon	8.81	7.28	5.18	6	DUG WELL
582	KOLLAM	Anayadi	12.21	7.98	8.76	11.98	DUG WELL
583	KOLLAM	Anchal DW	12.55	9.65	7.15	9.75	DUG WELL
584	KOLLAM	Anchalamud (R1)	9.42	7.46	7.27	8.05	DUG WELL
585	KOLLAM	Ariyankavu	11.65	6.2	4.47	3.05	DUG WELL
586	KOLLAM	Avaneswaram	3.64	3.92	1.58	5.08	DUG WELL
587	KOLLAM	Ayathil	7.51	5.51	4.13	7.52	DUG WELL
588	KOLLAM	Ayur	9.88	6.68	8.2	7.78	DUG WELL
589	KOLLAM	Bharathipuram	11.01	8.96	8.2	8.8	DUG WELL
590	KOLLAM	Bhoothakulam	10.59				DUG WELL
591	KOLLAM	Chadayamangalam (R1)	10.35	9.49	8.01	7.47	DUG WELL
592	KOLLAM	Chakkuvalli	9.56	7.06	5.25	6.57	DUG WELL
593	KOLLAM	Channapetta	12.92	10.23	8.87	10.25	DUG WELL
594	KOLLAM	Chathannur	11.11	8.78	8.03	9	DUG WELL
595	KOLLAM	Chavara (R1)	1.06	0.55	1.3	0.88	DUG WELL
596	KOLLAM	Chenkulam	5.92	4.75	4.1	4.21	DUG WELL
597	KOLLAM	Chithara	8.3	6.99	5.81	7.08	DUG WELL
598	KOLLAM	Choorakulam Jn	7.69	5.28	5.5	6.23	DUG WELL
599	KOLLAM	Cinemaparambu (R1)	13.05	9.46	7.35	9.22	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
600	KOLLAM	East Kallada	2.55				DUG WELL
601	KOLLAM	Edamon	9.35	8.36	7.69	8.17	DUG WELL
602	KOLLAM	Edamulakkal	5.82	5.75	5.85	5.35	DUG WELL
603	KOLLAM	Edayam	13.9	9.22	10.48	10.62	DUG WELL
604	KOLLAM	Ezhamkulam	9.1	7.69	6.42	7.58	DUG WELL
605	KOLLAM	Ezhukone (R1)	4.78	1.86	1.97	3.36	DUG WELL
606	KOLLAM	Iravipuram (R1)	3.62	1.67	1.18		DUG WELL
607	KOLLAM	Ithikara	16.7	16.05	14.78	15.2	DUG WELL
608	KOLLAM	Kadakkal	7.74	7.11	6.78	7.28	DUG WELL
609	KOLLAM	Kadapuzha	2.45	2.1	1.86	2.1	DUG WELL
610	KOLLAM	Kalluvathukkal	9.57	6.67	5.97	7.72	DUG WELL
611	KOLLAM	Kalluvettumkuzhi	8.49	8.26	4.56	8.56	DUG WELL
612	KOLLAM	Kamukanchery	9.71	8.42	8.01	8.14	DUG WELL
613	KOLLAM	Kandanchira			5.9	6.38	DUG WELL
614	KOLLAM	Kangathumukku	8	5.05	4.52	5.03	DUG WELL
615	KOLLAM	Kanjiramkode	10.52	4.75	4.67	5.2	DUG WELL
616	KOLLAM	Kanjiramvila	7.39	6.58	6.28	7.6	DUG WELL
617	KOLLAM	Karamkode	12.38	9.17	10.91	10.37	DUG WELL
618	KOLLAM	Karavallur	6.45	5.35		5.42	DUG WELL
619	KOLLAM	Karukone		6.17	3.8	6.81	DUG WELL
620	KOLLAM	Karunagapally	4.18	1.24	1.16	2.24	DUG WELL
621	KOLLAM	Karunthalakode	2.62			1.33	DUG WELL
622	KOLLAM	Kollam(Quilon)	8.25	7.2	6.86	7.32	DUG WELL
623	KOLLAM	Koovakad DW	4.91	2.57	3.29	3.8	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
624	KOLLAM	Kottakayam			4.68		DUG WELL
625	KOLLAM	Kottamkulangara		0.71	0.66	1.13	DUG WELL
626	KOLLAM	Kottarakara (R1)		16.7		12.78	DUG WELL
627	KOLLAM	Kottathala	8.68		4.87	5.92	DUG WELL
628	KOLLAM	Kottiyam	9.45	6.77	5.87	8.41	DUG WELL
629	KOLLAM	Kulakada	7.14	3.25	3.18	6.2	DUG WELL
630	KOLLAM	Kulapadam	9.01	6.36	5.86	6.61	DUG WELL
631	KOLLAM	Kulathupuzha	6.08	5.63	4.2	4.4	DUG WELL
632	KOLLAM	Kumbalam (R1)	26.22	20.62	19.95	19.15	DUG WELL
633	KOLLAM	Kunnada	12.96	10.95	6.87	8.75	DUG WELL
634	KOLLAM	Kunnathur	20.9	19.1	16.48	15.58	DUG WELL
635	KOLLAM	Kuripalli	8.62	7.67	5.25	9.14	DUG WELL
636	KOLLAM	Kutavettur	7.52	5.72	5.09	6.21	DUG WELL
637	KOLLAM	Madathara	4.52	4.93	3.79	5.29	DUG WELL
638	KOLLAM	Manakarakavu-Vendar	8.54	6.36	5.73	7.05	DUG WELL
639	KOLLAM	Manapalli		4.32	4.24	5.14	DUG WELL
640	KOLLAM	Mayyanad	6.75	4.86	3.35	3.81	DUG WELL
641	KOLLAM	Meenad	5.18	4.4	3.74	5	DUG WELL
642	KOLLAM	Meenkulam	8.37	7.86	7.53	7.93	DUG WELL
643	KOLLAM	Mulavana	10.32	8.88		9.85	DUG WELL
644	KOLLAM	Muthukumel	6.5	4.93	3.4	5.71	DUG WELL
645	KOLLAM	Mynagapalli	10.55	6.68	6.72	8.09	DUG WELL
646	KOLLAM	Nallila	5.37	5.52	5.38	5.38	DUG WELL
647	KOLLAM	Nedungolam	12.77	8.03	5.56	9.23	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
648	KOLLAM	Neendakara (R1)	0.9	0.58	0.41	0.81	DUG WELL
649	KOLLAM	Nellikunnam DW	1.93	0.68		0.86	DUG WELL
650	KOLLAM	Nilamel	5.62	4.23	3.52	3.8	DUG WELL
651	KOLLAM	Oachira1	1.2	0.32	0.46	0.72	DUG WELL
652	KOLLAM	Odanavattom	8.7	4.4	3.73	5.42	DUG WELL
653	KOLLAM	Ottakkal	6.51	6.1	6.02	6.71	DUG WELL
654	KOLLAM	Oyur	10.85	7.6	5.79	6.19	DUG WELL
655	KOLLAM	Palamoodu	10.5	8.03	7.59	10.18	DUG WELL
656	KOLLAM	Pallickal	6.62	4.51	3.33	5.16	DUG WELL
657	KOLLAM	Pangalukadu	5.51	6.04	5.83	6.03	DUG WELL
658	KOLLAM	Panmana-Manayil		2.59	3.73	2.64	DUG WELL
659	KOLLAM	Paravur		6.73	5	7.07	DUG WELL
660	KOLLAM	Paripally (R1)		8.3	6.76	9.38	DUG WELL
661	KOLLAM	Pattanapuram	10.69	10.35	6.64	7.85	DUG WELL
662	KOLLAM	Pavitreswaram	4.65	3.33		3.99	DUG WELL
663	KOLLAM	Perinad	7.53	5.69	5.44	6.49	DUG WELL
664	KOLLAM	Perumkulam		5.91	5.57	5.86	DUG WELL
665	KOLLAM	Pozhikara	5.78	4.51	3.3	4.95	DUG WELL
666	KOLLAM	Punalur-I		9.74			DUG WELL
667	KOLLAM	Punalur-I (R1)	8.52	9.61			DUG WELL
668	KOLLAM	Punnala (R1)		5.22	5.5	7.55	DUG WELL
669	KOLLAM	Puthoor	5.82		4.35		DUG WELL
670	KOLLAM	Roduvila	8.75	6.43	6.27	7.05	DUG WELL
671	KOLLAM	Sasthamkottah (R1)	6.51	4.8	4.61	6.67	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
672	KOLLAM	Sooranadu	5.78	4.42	4.25	5.03	DUG WELL
673	KOLLAM	Tadicaud (R1)	9.31	6.55	6.52	6.95	DUG WELL
674	KOLLAM	Tevalakara	9.18		6.06	7.48	DUG WELL
675	KOLLAM	Thattamala	2.97	3.09	1.17	1.89	DUG WELL
676	KOLLAM	Thenmala	7.7	7.39	6.22	6.39	DUG WELL
677	KOLLAM	Ummannur	10.27	7.68	8.1	7.44	DUG WELL
678	KOLLAM	Vadakkumthala west	3.14	1.07	1.76	1.83	DUG WELL
679	KOLLAM	Vallikavu	1.54	0.39	0.35	0.84	DUG WELL
680	KOLLAM	Vavvakkavu		1.3	1.4	2.12	DUG WELL
681	KOLLAM	Vazhathoppu	8.39	6.28	4.68	6.24	DUG WELL
682	KOLLAM	Veliyam		7.18	6.92	7.57	DUG WELL
683	KOLLAM	Vilakkupara	11.07	9.53	7.42	8.25	DUG WELL
684	KOLLAM	Yeroor	2.41	1.35	1.45	1.98	DUG WELL
685	KOLLAM	Chavara-e	22.62				<b>TUBE WELL</b>
686	KOLLAM	Chavara-n1			14.5	14.82	<b>TUBE WELL</b>
687	KOLLAM	Chavara-west	1.6	1.35	0.22	1.36	<b>TUBE WELL</b>
688	KOLLAM	Manappalli		17.1	17.58	17.94	<b>TUBE WELL</b>
689	KOLLAM	Trikkadavur	14.68		11.8	13.46	<b>TUBE WELL</b>
690	KOLLAM	Vayyankara	8.2	12.85	13.36	14.1	<b>TUBE WELL</b>
691	KOLLAM	Anchal	10.45	5.8	5.8	7.16	<b>BORE WELL</b>
692	KOLLAM	Kalluvathukkal	5.88	3.48	5.85	3.44	<b>BORE WELL</b>
693	KOLLAM	Koovakad	4.7			0.9	<b>BORE WELL</b>
694	KOLLAM	Nellikunnam Pz New				0.51	<b>BORE WELL</b>
695	KOLLAM	Pathanapuram	0.37	0.27			<b>BORE WELL</b>

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
696	KOLLAM	Ummmannur	12.9	8.7		9.52	<b>BORE WELL</b>
697	KOLLAM	Vazhathopu	7.5			4.45	<b>BORE WELL</b>
698	KOLLAM	Yeroor1	6.17	5.07	3.2	5.43	<b>BORE WELL</b>
699	KOTTAYAM	Anandasram	8.3	6.58	7.5	8.01	DUG WELL
700	KOTTAYAM	Arunuttimangalam		5.62	5.77	6.34	DUG WELL
701	KOTTAYAM	Ayamkudi	12.2	5.49	6.97	10.15	DUG WELL
702	KOTTAYAM	Ayarkunnam	5.64	2.93	2.7	3.26	DUG WELL
703	KOTTAYAM	Brahmamangalam		5.05	6.15	9.6	DUG WELL
704	KOTTAYAM	Chamampathal	4.02	3.12	3.03	3.72	DUG WELL
705	KOTTAYAM	Changanasserry	3.17	1.78	2.36	2.73	DUG WELL
706	KOTTAYAM	Chempu		1.95	1.7	2.64	DUG WELL
707	KOTTAYAM	Chengalam South	2.34	1.2	1.77	1.21	DUG WELL
708	KOTTAYAM	Cheruthikara	5.72	3.3	3.56	4.3	DUG WELL
709	KOTTAYAM	Cheruvalli	6.37	4.75	4.7	6.21	DUG WELL
710	KOTTAYAM	Chotti	4.85	2.85	3.8	5.95	DUG WELL
711	KOTTAYAM	Chungam	3.19	1.17	3.34	3.37	DUG WELL
712	KOTTAYAM	Edakadathy	9.1	10.5	8.9	9.3	DUG WELL
713	KOTTAYAM	Edamaruku	4	2.15	3.23	4.81	DUG WELL
714	KOTTAYAM	Edinjillam	3.82	1.27	1.65	2.74	DUG WELL
715	KOTTAYAM	Elamkulam	5.62	2.46	4.15	4.22	DUG WELL
716	KOTTAYAM	Erumeli	5.04	2.34	3.75	4.02	DUG WELL
717	KOTTAYAM	Ethakuzhy ( Kallara)	4.61	1.85	2.54	3.5	DUG WELL
718	KOTTAYAM	Ettumannur East (R1)	7.65	2.85	4.16	7.35	DUG WELL
719	KOTTAYAM	Iykarakunnam	9.22	6.73	7.62	9.22	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
720	KOTTAYAM	Kadaplamattom	6.07	3.8	4.85	6.05	DUG WELL
721	KOTTAYAM	Kaduthuruthi		4.82	3.32	6.59	DUG WELL
722	KOTTAYAM	Kalakatty	5.22	3.92	3.99	5.71	DUG WELL
723	KOTTAYAM	Kalathipady	10.46	6.3	7.8	7.7	DUG WELL
724	KOTTAYAM	Kalathur	6.39	6.2	6.1	6.62	DUG WELL
725	KOTTAYAM	Kangazha	6.8	2.74	4.69	6.31	DUG WELL
726	KOTTAYAM	Kanjirapally	9.15	7.2	4.48	9.6	DUG WELL
727	KOTTAYAM	Kidangur-R1	6.92	1.34	2.55	5.76	DUG WELL
728	KOTTAYAM	Kollappally	4.25	2.85	3.1	3.65	DUG WELL
729	KOTTAYAM	Kooroppada	4.2	2.2	3.75	4.2	DUG WELL
730	KOTTAYAM	Koothrappally	6.3	2.4	3.05	5.33	DUG WELL
731	KOTTAYAM	Kottayam (R1)	12.71	9.9	10.14	11.2 9	DUG WELL
732	KOTTAYAM	Kozha	3.2	1.45	1.71	2.4	DUG WELL
733	KOTTAYAM	Kozhuvanal	4.8	3.33	4.53	4.89	DUG WELL
734	KOTTAYAM	Kudavechur		0.72	1.6	1.84	DUG WELL
735	KOTTAYAM	Kulasekaramangalam		0.17			DUG WELL
736	KOTTAYAM	Kumarakom	1.6	0.14	0.1	1.65	DUG WELL
737	KOTTAYAM	Kummannur	7.1	4.9	5.1	5.7	DUG WELL
738	KOTTAYAM	Kuravilangad1	5.4	1.8	3.05	5.5	DUG WELL
739	KOTTAYAM	Kurichy (Sachivothamapuram)	9.37		5.95	7	DUG WELL
740	KOTTAYAM	Kurichy(Sachivothamapuram)		5.85			DUG WELL
741	KOTTAYAM	Kuruppanthara	3.32	1	1.35	1.61	DUG WELL
742	KOTTAYAM	Kuttikal-R1		3.2	2.67	3.72	DUG WELL
743	KOTTAYAM	Kuvapalli	6.42	3.25	5.82	6.15	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
744	KOTTAYAM	Madapally	2.8	1.18	1.45	1.71	DUG WELL
745	KOTTAYAM	Manimala	4.71	3.86	4.47	5.8	DUG WELL
746	KOTTAYAM	Mannanam	8	4.3	5.4	6.2	DUG WELL
747	KOTTAYAM	Marangattupalli	3.16	2.42	2.57	3.62	DUG WELL
748	KOTTAYAM	Melukavu Mattom	4.4	3.45	3.8	5.72	DUG WELL
749	KOTTAYAM	Mevellur	3.49	2.4	3.63	2.42	DUG WELL
750	KOTTAYAM	Monipalli	2.32	0.58	0.87	0.99	DUG WELL
751	KOTTAYAM	Mukkada	9.16	2.3	5.15	5.91	DUG WELL
752	KOTTAYAM	Mukkoottuthara	3.5	1.95	2.4	3.3	DUG WELL
753	KOTTAYAM	Mundakayam	9.46	3.3	4.08	4.3	DUG WELL
754	KOTTAYAM	Mundukuzhi	11.3	6.05	6	8.17	DUG WELL
755	KOTTAYAM	Mutholi	6.75	4.5	5.75	6.8	DUG WELL
756	KOTTAYAM	Narianganam	5	2.5	3.92	5.25	DUG WELL
757	KOTTAYAM	Nedumkunnam	6.5	3.2	6.25	6.5	DUG WELL
758	KOTTAYAM	Neendur		1.8	2.3	3.91	DUG WELL
759	KOTTAYAM	Paippad	9.2	6.12	6.1	8.94	DUG WELL
760	KOTTAYAM	Palai	5.57	4.67	4.74	7.17	DUG WELL
761	KOTTAYAM	Palamkadavu	3.51	1.55	1.43	2.5	DUG WELL
762	KOTTAYAM	Pallikkathodu (R1)	6.65	3.6	4.89	5.56	DUG WELL
763	KOTTAYAM	Pallom (nattagam)	9.2	4.6	4.72	6.95	DUG WELL
764	KOTTAYAM	Pambadi	6.89	6.44	7.4	8.2	DUG WELL
765	KOTTAYAM	Panackapalam Jn		2.2	4.37	5.2	DUG WELL
766	KOTTAYAM	Paruthumpara	11.3	5.73		9.73	DUG WELL
767	KOTTAYAM	Plakkalpadi	8.2	4.2	5.81	6.72	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
768	KOTTAYAM	Ponad	8.95	5.28	5.5	8.05	DUG WELL
769	KOTTAYAM	Ponthanpuzha	7.38	2.31	4.16	5.49	DUG WELL
770	KOTTAYAM	Poovathilappu		3.25	3.35	4.1	DUG WELL
771	KOTTAYAM	Pravithanam	7.2	2.92	3.77	5.6	DUG WELL
772	KOTTAYAM	Pulikkal Kavala	4.42	3.34	3.4	4.3	DUG WELL
773	KOTTAYAM	Pulikuttisseri	1.99	1.01	1.3	1.25	DUG WELL
774	KOTTAYAM	Punjar	1.19	0.18	0.3	0.42	DUG WELL
775	KOTTAYAM	Punnaveli	5.16	3.06	4.03	5.12	DUG WELL
776	KOTTAYAM	Puthupally	7.45	3.3	3.9	7.15	DUG WELL
777	KOTTAYAM	Ramapuram (R1)	7.59	6.86	3.57	4.4	DUG WELL
778	KOTTAYAM	Teekoy	6.09	3.93	4	5.25	DUG WELL
779	KOTTAYAM	Thalayolaparambu	3.33				DUG WELL
780	KOTTAYAM	Thalayolaparambu (R1)		1.66			DUG WELL
781	KOTTAYAM	Thalayolaparambu (R1)			2.35	3.2	DUG WELL
782	KOTTAYAM	Thazhathangadi	2.25	1.1	1.9	2.14	DUG WELL
783	KOTTAYAM	Thekethukavala		3.1	5.45	6	DUG WELL
784	KOTTAYAM	Thidanad	6.27	3.38	4.08	7.38	DUG WELL
785	KOTTAYAM	Thiruvanchoor	5.62	2.12	3.79	4.2	DUG WELL
786	KOTTAYAM	Thiruvarpu	2.9	0.72	1	1.3	DUG WELL
787	KOTTAYAM	Thottakam		0.76	1.37	1.67	DUG WELL
788	KOTTAYAM	Thottakkad	6.9	3.9	4.95	7	DUG WELL
789	KOTTAYAM	Trikodithanam			10.9		DUG WELL
790	KOTTAYAM	Udayanapuram	1.81	0.41	1.07	1.6	DUG WELL
791	KOTTAYAM	Urulikunnam	5.28	2.98	3.73	4.28	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
792	KOTTAYAM	Uzhavoor (R1)	3.09	1.71	2.21	3.24	DUG WELL
793	KOTTAYAM	Vaikom	1.09	0.45	0.62	2.5	DUG WELL
794	KOTTAYAM	Vakathanam	8.54	2.8	4.15	8.78	DUG WELL
795	KOTTAYAM	Vazhur	5.5	2.71	4.35	4.99	DUG WELL
796	KOTTAYAM	Vechur	2.6	0.68	1.23	1.71	DUG WELL
797	KOTTAYAM	Vellur-III	4.15				DUG WELL
798	KOTTAYAM	Vempalle	3.13	1.31	1.57	1.9	DUG WELL
799	KOTTAYAM	Veyilkanampara (Kondur)		3.7	4.45	5.56	DUG WELL
800	KOTTAYAM	Veyilnanampara (Kondur)	6.34				DUG WELL
801	KOTTAYAM	Chempu - I(East)	2.3	1.94	1.65	1.81	<b>TUBE WELL</b>
802	KOTTAYAM	Chempu- West					<b>TUBE WELL</b>
803	KOTTAYAM	Chempu- West	2.11	1.82	0.71	1.21	<b>TUBE WELL</b>
804	KOTTAYAM	Kumarakom Pz	2.03	3.4			<b>TUBE WELL</b>
805	KOTTAYAM	Ettumannur	2.31	0.4	0.75		<b>BORE WELL</b>
806	KOTTAYAM	Kidangoor	8	4.3	9.5	6.5	<b>BORE WELL</b>
807	KOTTAYAM	Kuravilangad	5.75	1.2	2.82	4.83	<b>BORE WELL</b>
808	KOTTAYAM	Poonjar	6.37	2.73	4.53	6.69	<b>BORE WELL</b>
809	KOTTAYAM	Thrikodithanam	14.15	12.49	12.25	15.66	<b>BORE WELL</b>
810	KOZHIKODE	Atholi	5.65	2.17	3.02	3.82	DUG WELL
811	KOZHIKODE	Azhinjilam	3.93	1.48	0.63	1.61	DUG WELL
812	KOZHIKODE	Badagara (Vadakara)	6.09	3.92	5.01	5.59	DUG WELL
813	KOZHIKODE	Balusseri	7.35	3.98	6.4	7.22	DUG WELL
814	KOZHIKODE	Beyepore	5.1	0.95	1.85	2.6	DUG WELL
815	KOZHIKODE	Bhumivathukkal	9.1	5.18	8.65		DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
816	KOZHIKODE	Kozhikode Beach	3.1	1.88	2.19	2.88	DUG WELL
817	KOZHIKODE	Chaliyam	3.82	1.8	2.01	2.83	DUG WELL
818	KOZHIKODE	Chelavur	9.6	6.96	9.22	9.27	DUG WELL
819	KOZHIKODE	Chemencheri	4.49	1.1	3.67	2.78	DUG WELL
820	KOZHIKODE	Cheruvannur West	6.43	3.08		4.52	DUG WELL
821	KOZHIKODE	Chevayur	13.21	10.85	11.4	11.45	DUG WELL
822	KOZHIKODE	Chiulavi (Niravamal)	9.28	5.36	6.63	7.73	DUG WELL
823	KOZHIKODE	Chulur	5.12	2.78	3.14	4.02	DUG WELL
824	KOZHIKODE	Devarkoil	6.42	4.88	8.19		DUG WELL
825	KOZHIKODE	Elattur	4.4	1.1	1.79	2.54	DUG WELL
826	KOZHIKODE	Feroke DW	14.82	11.58	12.08	12.46	DUG WELL
827	KOZHIKODE	Iringallur	3.96	1.68	2.44	3.33	DUG WELL
828	KOZHIKODE	Kakkayam	3.53	2.85	3.26	3.37	DUG WELL
829	KOZHIKODE	Kakkur	6.69	3.32	4.52	5.67	DUG WELL
830	KOZHIKODE	Kallachi	2.15	1.12	0.63	1	DUG WELL
831	KOZHIKODE	Kallai	5.37	3.08	3.6	4.4	DUG WELL
832	KOZHIKODE	Kannankara (Chelannur)	1.13	0.22	0.58	1.43	DUG WELL
833	KOZHIKODE	Kannoor	5.44	4.08	4.26	4.69	DUG WELL
834	KOZHIKODE	Karaparamba	3.05	1.5	2.63	3.02	DUG WELL
835	KOZHIKODE	Kariyathumpara	3	2	2.69	2.95	DUG WELL
836	KOZHIKODE	Karuvannur	4.47	2.86	3	3.44	DUG WELL
837	KOZHIKODE	Kayapanachi	4.7	3.2	5.4	4.56	DUG WELL
838	KOZHIKODE	Kodencherry	1.44	0.74	0.96	1.05	DUG WELL
839	KOZHIKODE	Koduvalli	8.87	5.01	7.08	8.7	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
840	KOZHIKODE	Koduvalli North	6.45	2.02	1.78	4.95	DUG WELL
841	KOZHIKODE	Koothali	4.3	2.52	4.33	4.7	DUG WELL
842	KOZHIKODE	Kottakadavu	15.51	13.95	11.97	14.05	DUG WELL
843	KOZHIKODE	Kozhikode	15.64	7.55	10.53	12.45	DUG WELL
844	KOZHIKODE	Kunnamangalam	11.73	7.48	8.58	11.4	DUG WELL
845	KOZHIKODE	Kunnumakkara	3.02	0.95	1.44	2.04	DUG WELL
846	KOZHIKODE	Kurachund	4.1	4.46	5.18	5.6	DUG WELL
847	KOZHIKODE	Kuttiyadi	7.13	7.1	7.94	7.54	DUG WELL
848	KOZHIKODE	Malayamma	4.87	1.14	3.8	6.04	DUG WELL
849	KOZHIKODE	Manassery	3.76	1.5	2.82	3.48	DUG WELL
850	KOZHIKODE	Mattanodu	9.1	6.22	7.71	8.9	DUG WELL
851	KOZHIKODE	Mavoor-i	7.67	5.55	8.97	7.21	DUG WELL
852	KOZHIKODE	Mavoor-ii	11.2	7.8	6.6	10.03	DUG WELL
853	KOZHIKODE	Melady 1		0.75	0.75	1.64	DUG WELL
854	KOZHIKODE	Meppayur	4.33	3.03	3.77	4.57	DUG WELL
855	KOZHIKODE	Moodali		0.48	0.95	2.45	DUG WELL
856	KOZHIKODE	Mukkali	5.5	2.6	4.74	4.7	DUG WELL
857	KOZHIKODE	Muliyangal	2.64	1.27	1.41	2.5	DUG WELL
858	KOZHIKODE	Mullankunnu	1.67	0.13	1.05	1.5	DUG WELL
859	KOZHIKODE	Murampathy	5.88	4.7	5.6	5.78	DUG WELL
860	KOZHIKODE	Nadapuram	4.88	1.41	2.12	3.23	DUG WELL
861	KOZHIKODE	Naduvannur	7.86	5.75	6.35	7.24	DUG WELL
862	KOZHIKODE	Naduvattom	8.92	5.7	5.93	7.07	DUG WELL
863	KOZHIKODE	Nallalam	4.87	0.76	1.33	2.3	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
864	KOZHIKODE	Nanminda	7.16	3.48	5.4	6.33	DUG WELL
865	KOZHIKODE	Narikuni	4	0.5	3.3	2.92	DUG WELL
866	KOZHIKODE	Nayarkuzhi	7.35	5.32	5.94	6.52	DUG WELL
867	KOZHIKODE	Orkattery		1.27	2.79		DUG WELL
868	KOZHIKODE	Pathimangalam	9.14	8.73	8.8	9.21	DUG WELL
869	KOZHIKODE	Pavangad	3.34	0.65	1.35	2.4	DUG WELL
870	KOZHIKODE	Perambra	3.95	2.05	2.44	3.43	DUG WELL
871	KOZHIKODE	Perumpally	4.85	1.13	2.84	3.83	DUG WELL
872	KOZHIKODE	Peruvayal	7	4.25	5.92		DUG WELL
873	KOZHIKODE	Pudukayam	9.35	6.33	7.72	8.19	DUG WELL
874	KOZHIKODE	Pudupadi	2.98	1.45	2.75	2.35	DUG WELL
875	KOZHIKODE	Pudupanam	5.78	4.04	4.79	5.43	DUG WELL
876	KOZHIKODE	Punnasserri	8.18	4.72	6.43	7.34	DUG WELL
877	KOZHIKODE	Puthur	8.48	5.9	6.9	7.8	DUG WELL
878	KOZHIKODE	Quilandy	7.23	3.72	4.58	5.78	DUG WELL
879	KOZHIKODE	Ramanattukara (R2)	3.73	1.43	1.57	2.25	DUG WELL
880	KOZHIKODE	Tamarasseri	1.86	0.59	0.83	1.06	DUG WELL
881	KOZHIKODE	Thenamkuzhi	4.64	1.27	2.65	4.1	DUG WELL
882	KOZHIKODE	Thikkodi	7.75	2.37	3.41		DUG WELL
883	KOZHIKODE	Thiruvallur	1.52	0.53	1.34	1.95	DUG WELL
884	KOZHIKODE	Thiruvambady	4.17	2.5	3.77		DUG WELL
885	KOZHIKODE	Thodannur	7.98	5.37	6.24	6.35	DUG WELL
886	KOZHIKODE	Thuner1	4.67	3.08	3.63	4.25	DUG WELL
887	KOZHIKODE	Ulliyeri	3.67	2.17	2.78		DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
888	KOZHIKODE	Unnikulam	2.83	1.46	2.21	2.38	DUG WELL
889	KOZHIKODE	Valayam	7.62	4.78	5.74	6.51	DUG WELL
890	KOZHIKODE	Vattoli	4.83	2.77	4.18	4.74	DUG WELL
891	KOZHIKODE	Vellimadakunnu	13.43	12.7	13.9	12.63	DUG WELL
892	KOZHIKODE	Villyapalli	7.93	5.8	6.44	6.73	DUG WELL
893	KOZHIKODE	West Pudupadi	3.52	1.23	2.59	2.87	DUG WELL
894	KOZHIKODE	Chombala(pz)	5.26	2	3.81	4.78	TUBE WELL
895	KOZHIKODE	Chombala(w1)	4.88	1.78	3.62	4.28	TUBE WELL
896	KOZHIKODE	Chombala(w2)	5.22	1.83	3.61	4.25	TUBE WELL
897	KOZHIKODE	Chombala(w3)			3.7	4.48	TUBE WELL
898	KOZHIKODE	Chombala(w4)	4.42	1.77	3.68		TUBE WELL
899	KOZHIKODE	Meladi		0.72	1.06	1.54	TUBE WELL
900	KOZHIKODE	Balussery pz	8.58	5.35	6.47	8.2	BORE WELL
901	KOZHIKODE	Cheruvannur pz	9.56	3.94	5.45	6.78	BORE WELL
902	KOZHIKODE	Chevayur pz	25.16	15.52	18.87	25.04	BORE WELL
903	KOZHIKODE	Feroke pz			59.45		BORE WELL
904	KOZHIKODE	Kalikadavu pz	2.66	1.06	3.41	3.33	BORE WELL
905	KOZHIKODE	Karuvannur pz	1.07	0.08	1.05	0.85	BORE WELL
906	KOZHIKODE	Kokallur pz	7.38	6.75	6.81		BORE WELL
907	KOZHIKODE	Mavoor pz			4.88		BORE WELL
908	KOZHIKODE	Thodannur(west)	6.28	3.76			BORE WELL
909	KOZHIKODE	Thuneri pz	4.86	1.85	4.48	4.36	BORE WELL
910	KOZHIKODE	Vellimadakunnu pz	24.67	19.16	20.65	19.55	BORE WELL
911	MALAPPURAM	Akkaparambu	10.87	8.41	8.36	9.01	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
912	MALAPPURAM	Amminikad	5.87	2.94	3.01	4.82	DUG WELL
913	MALAPPURAM	Anakkayam	8.92	5.9	7.26	7.53	DUG WELL
914	MALAPPURAM	Angadipuram	9.36			8.91	DUG WELL
915	MALAPPURAM	Anjuvadi	2.97	1.71	2.37	2.74	DUG WELL
916	MALAPPURAM	Arikode	8.45	5.81	7.34	8.32	DUG WELL
917	MALAPPURAM	Ariyallur		1.91	2.19	3.51	DUG WELL
918	MALAPPURAM	Athanikal- Vallikunnu	15	12.22	12.74	13.37	DUG WELL
919	MALAPPURAM	Athanikkal	6.36	4.32	2.84	4.87	DUG WELL
920	MALAPPURAM	Athirumada	14.6	11.82	12.61	12.95	DUG WELL
921	MALAPPURAM	Beeranchira		6.05	7.17	7.69	DUG WELL
922	MALAPPURAM	Buliyampadam (Velumbiampadam) (R1)	11.56		8.71	9.96	DUG WELL
923	MALAPPURAM	Buliyampadam(Velumbiampadam) (R1)		11.06			DUG WELL
924	MALAPPURAM	Chamravattom	2.55	0.72	1.74	1.88	DUG WELL
925	MALAPPURAM	Chemmalassery		3.66	4.65	6.17	DUG WELL
926	MALAPPURAM	Cherani	7.34	3.76	4.69	6.11	DUG WELL
927	MALAPPURAM	Cherukara	7.14	6.33	5.72	6.86	DUG WELL
928	MALAPPURAM	Cherukode	5.94	6.32	6.04	6.24	DUG WELL
929	MALAPPURAM	Cherukulam		8.41		11.05	DUG WELL
930	MALAPPURAM	Chokkad		2.63		3.98	DUG WELL
931	MALAPPURAM	Chungathara (R1)		2.21	1.77	3.12	DUG WELL
932	MALAPPURAM	Edappal			11.41	12.56	DUG WELL
933	MALAPPURAM	Edavanna (R1)	7.72	6.71	8.24	11.43	DUG WELL
934	MALAPPURAM	Edayur	8.73	6.48	6.66	7.4	DUG WELL
935	MALAPPURAM	Eriyad	4.72	2.93	3.21	4.38	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
936	MALAPPURAM	Iswaramangalam	4.18	0.52	1.1	2.52	DUG WELL
937	MALAPPURAM	Kadalundi	4.96	3.66	3.98	4.48	DUG WELL
938	MALAPPURAM	Kadampuzha	12.06	9.32		10.95	DUG WELL
939	MALAPPURAM	Kadannamanna	8.32	2.94	3.94	6.28	DUG WELL
940	MALAPPURAM	Kadungapuram	10.23	9.84	8.31	9.22	DUG WELL
941	MALAPPURAM	Kalikavu	5.78	3.81	3.71	5.02	DUG WELL
942	MALAPPURAM	Kanjiramukku	6.29	3.62	4.46	5.32	DUG WELL
943	MALAPPURAM	Karathur		7.98		9.78	DUG WELL
944	MALAPPURAM	Kariavattam	9.01	6.72	7.52	8.11	DUG WELL
945	MALAPPURAM	Karipol	13.63	11.68	9.43	9.73	DUG WELL
946	MALAPPURAM	Karulai	8.87	7.77	8.37	8.86	DUG WELL
947	MALAPPURAM	Karumbil	13.62	11.62	11.78	12.31	DUG WELL
948	MALAPPURAM	Karunechi	20.87	20.87	19.51	19.97	DUG WELL
949	MALAPPURAM	Karuvankallu		7.01	7.84	8.15	DUG WELL
950	MALAPPURAM	Karuvarakundu	4.6	2.53	2.62	3.07	DUG WELL
951	MALAPPURAM	Kattumunda (R1)	13.3	9.58	9.14	10.96	DUG WELL
952	MALAPPURAM	Kavanur1	12.27	7.91		11.04	DUG WELL
953	MALAPPURAM	Kizhumuri - Oorakam	9.62	8.41	9.44	9.94	DUG WELL
954	MALAPPURAM	Kondotty	4.34	1.02	1.43	2.52	DUG WELL
955	MALAPPURAM	Kottakkal	9.02	7.84	8.24	8.52	DUG WELL
956	MALAPPURAM	Kottapuram	8.26	3.11	4.17	6.42	DUG WELL
957	MALAPPURAM	Krishnapuram Puthentheru	4.54	1.07	1.56	2.71	DUG WELL
958	MALAPPURAM	Kulattur	5.88	2.57	1.81	4.94	DUG WELL
959	MALAPPURAM	Kunnumpuram	14.33	12.12	12.72	12.86	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
960	MALAPPURAM	Kuruva (Padaparamba)		10.52	10.99	11.94	DUG WELL
961	MALAPPURAM	Kuttiapuram	5.52	0.36	0.84	2.51	DUG WELL
962	MALAPPURAM	Malappuram	13.31	6.51	6.97	7.42	DUG WELL
963	MALAPPURAM	Mangalam (R1)	3.76	1.02	1.7	2.36	DUG WELL
964	MALAPPURAM	Manjeri	4.82	2.81	4.02	4.74	DUG WELL
965	MALAPPURAM	Mankeri	7.92	3.17	4.34	5.76	DUG WELL
966	MALAPPURAM	Marancheri	7.94	4.76	5.89	6.91	DUG WELL
967	MALAPPURAM	Marutha (R1)	9.71	7.22	7.05	7.98	DUG WELL
968	MALAPPURAM	Meenedathur		1.24	1.86	3.58	DUG WELL
969	MALAPPURAM	Melattur	6.96	6.36	6.44	6.66	DUG WELL
970	MALAPPURAM	Moochikkal ( Clari Moochikkal)	5.15	0.81	0.72	1.02	DUG WELL
971	MALAPPURAM	Moothedam	6.62	2.81	2.58	3.91	DUG WELL
972	MALAPPURAM	Mudikode	5.48	3.11	4.73	5.22	DUG WELL
973	MALAPPURAM	Narokavu	15.42	14.47	12.04	13.36	DUG WELL
974	MALAPPURAM	Nediyirippu	7.33	2.87	1.67	4.83	DUG WELL
975	MALAPPURAM	Nellikuth	7.32	5.74	5.75	6.26	DUG WELL
976	MALAPPURAM	Nilambur (R1)	4.36	4.22	3.97	4.76	DUG WELL
977	MALAPPURAM	Olavattur	9.84	5.72	4.94	8.65	DUG WELL
978	MALAPPURAM	Othukkungal DW	15.81	6.12	9.07	11.17	DUG WELL
979	MALAPPURAM	Padikkal		8.33	8.75	9.51	DUG WELL
980	MALAPPURAM	Pandalur DW	10.16	5.84	6.91	7.63	DUG WELL
981	MALAPPURAM	Pandikkad (R1)	6.32	4.15	4.25		DUG WELL
982	MALAPPURAM	Paral	6.86	4.1	5.86	6.97	DUG WELL
983	MALAPPURAM	Parambilpeedika		10.46	11.84	12.24	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
984	MALAPPURAM	Parappanangadi	3.74	0.83	1.27	2.31	DUG WELL
985	MALAPPURAM	Parappur	12.78	12.06	11.99	12.3	DUG WELL
986	MALAPPURAM	Paravana	5.26	3.36	4.16	4.71	DUG WELL
987	MALAPPURAM	Pathiriyal	7.56	5.36	6.32	7.4	DUG WELL
988	MALAPPURAM	Payyanad	8.74	7.29	7.92	8.29	DUG WELL
989	MALAPPURAM	Perinthalmanna (R1)	10.41	5.7	6.46	6.35	DUG WELL
990	MALAPPURAM	Perumpadappu	6.62	1.66	3.36	5.3	DUG WELL
991	MALAPPURAM	Peruvakkad	7.7	5.65	6.22	6.42	DUG WELL
992	MALAPPURAM	Ponnani (R1)	1.81	1.13	1.53	1.72	DUG WELL
993	MALAPPURAM	Pookottoor	3.01	0.22	0.39	1.63	DUG WELL
994	MALAPPURAM	Pookottumpadam	5.11	2.76	2.61	3.41	DUG WELL
995	MALAPPURAM	Pukattery	9.64	7.33	7.25	9.14	DUG WELL
996	MALAPPURAM	Pukothu	8.42	5.98	5.67	6.67	DUG WELL
997	MALAPPURAM	Pulamantol	10.95	7.42	7.65	8.98	DUG WELL
998	MALAPPURAM	Purathur		1.94	2.12	1.81	DUG WELL
999	MALAPPURAM	Puthenkulam	5.14	1.76	1.77	3.02	DUG WELL
1000	MALAPPURAM	Puzhakkatteri	6.66	4.04	4.18		DUG WELL
1001	MALAPPURAM	Ramankulam	7.12	2.84	2.89	6.14	DUG WELL
1002	MALAPPURAM	Ramapuram	11.41	4.01	4.42	5.49	DUG WELL
1003	MALAPPURAM	Tachinganedam	7.99	4.53	4.58	6.52	DUG WELL
1004	MALAPPURAM	Tanur	5.84	2.86	3.56	4.22	DUG WELL
1005	MALAPPURAM	Tenjippalam (R1)	15.02	10.79	11.28	13.38	DUG WELL
1006	MALAPPURAM	Thavanur	12.02	8.02	9.22	9.79	DUG WELL
1007	MALAPPURAM	Thazhekod Kappumugham	10.12	4.7	6.6	8.04	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1008	MALAPPURAM	Thazhekode	7.83	6.88	7.01	7.27	DUG WELL
1009	MALAPPURAM	Thirunavaya	5.84	3.43	4.29	4.89	DUG WELL
1010	MALAPPURAM	ThiruvadiDW		0.76	0.98	2.38	DUG WELL
1011	MALAPPURAM	Thrikkalangode	5	0.82	0.86	2.69	DUG WELL
1012	MALAPPURAM	Thuvur DW		7.64	8.07	9.57	DUG WELL
1013	MALAPPURAM	Tirukkad	9.24	5.06	6.52	7.81	DUG WELL
1014	MALAPPURAM	Tirur	12.69	11.41	12.04	13.51	DUG WELL
1015	MALAPPURAM	Tirurangadi	9.86	11.71	12.12	9.86	DUG WELL
1016	MALAPPURAM	Tripanachi	9.64	8.61	9.08	10.47	DUG WELL
1017	MALAPPURAM	Uppada	3.77	1.32	1.48	2.39	DUG WELL
1018	MALAPPURAM	Vadakkemanna	8.06	5.62	6.5	7.81	DUG WELL
1019	MALAPPURAM	Valancheri (R1)	10.92	8.02	8.94	9.61	DUG WELL
1020	MALAPPURAM	Valavannur	14.51	7.4	0.75	12.86	DUG WELL
1021	MALAPPURAM	Valiyakunnu	7.73	6.83	7.41	7.32	DUG WELL
1022	MALAPPURAM	Vaniyambalam	8.15	3.51	4.26	6.46	DUG WELL
1023	MALAPPURAM	Vazhakkad	4.72	3.11	3.44	3.71	DUG WELL
1024	MALAPPURAM	Vazhikadavu	6.42	6.27	5.83	4.33	DUG WELL
1025	MALAPPURAM	Vellila (R1)	7.82	4.38	6.21	6.31	DUG WELL
1026	MALAPPURAM	Vengad	9.01	5.97	7.02	7.88	DUG WELL
1027	MALAPPURAM	Venniyur	10.08	7.74	8.08	8.53	DUG WELL
1028	MALAPPURAM	Vettom1	4.23	1.02	1.52	2.72	DUG WELL
1029	MALAPPURAM	Vylattur (R2)	8.17	6.79	9.86	10.34	DUG WELL
1030	MALAPPURAM	Wandur	11.01	8.56	8.24	9.17	DUG WELL
1031	MALAPPURAM	Vettom			3.16	3.24	<b>TUBE WELL</b>

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
103 2	MALAPPURAM	Ammnikad Pz	16.92	2.91	3.11	4.86	BORE WELL
103 3	MALAPPURAM	Chemmalassery Pz	39.36	14.12	11.32	17.56	BORE WELL
103 4	MALAPPURAM	Edakkara ( Karunechi )	19.88	19.98	19.71	18.99	BORE WELL
103 5	MALAPPURAM	Kaladi (Kadancherry) Pz	9.5	6.55	6.93	7.6	BORE WELL
103 6	MALAPPURAM	Karavarakundu Pz	13.05	11.12	10.99	12.34	BORE WELL
103 7	MALAPPURAM	Karulayi	9.74	8.55			BORE WELL
103 8	MALAPPURAM	Mankeri Pz	31.46	4.32	4.76	6.32	BORE WELL
103 9	MALAPPURAM	Muthukurissy Pz	13.37				BORE WELL
104 0	MALAPPURAM	Nediyirippu Pz	4.56	1.28	1.07	1.51	BORE WELL
104 1	MALAPPURAM	Othukkungal	38.88	26.48	29.02	29.92	BORE WELL
104 2	MALAPPURAM	Pandalur	10.58	6.42	7.09	8.06	BORE WELL
104 3	MALAPPURAM	Parambilpeedika			28.75	29.96	BORE WELL
104 4	MALAPPURAM	Ponmala	20.15				BORE WELL
104 5	MALAPPURAM	Puzhakkattkiri	15.53	4.71		6.22	BORE WELL
104 6	MALAPPURAM	Theilakkad	17.18	4.44	5.04	11.14	BORE WELL
104 7	MALAPPURAM	Thiruvali		4.78	5.49	6.24	BORE WELL
104 8	MALAPPURAM	Thozhuvannur	25.92	12.38	9.62	13.18	BORE WELL
104 9	MALAPPURAM	Thuvur	11.05	7.61	8.53	10.1	BORE WELL
105 0	MALAPPURAM	Valancheri Pz	21	16.56	16.66	17.52	BORE WELL
105 1	PALAKKAD	Adiparanda	8.55	5.5	5.3	5.9	DUG WELL
105 2	PALAKKAD	Alanallur	9.85	6.2	7.6	8.9	DUG WELL
105 3	PALAKKAD	Alathur	7.76	1.16	3.66	7.06	DUG WELL
105 4	PALAKKAD	Ambalappara	6.4				DUG WELL
105 5	PALAKKAD	Ariyur (R1)	12.2		9.32	10.32	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1056	PALAKKAD	Athikode	6.7	6.85	5.8	8.1	DUG WELL
1057	PALAKKAD	Athipetta	4.2	0.8	1.9	2.7	DUG WELL
1058	PALAKKAD	Banglow Kunnu	10.65	8.2	7.75	8.05	DUG WELL
1059	PALAKKAD	Chalisseri	11	6.25	8	8.7	DUG WELL
1060	PALAKKAD	Chemmampathi	10.3	10.3	9.1	10.3	DUG WELL
1061	PALAKKAD	Cherpulassery (R1)	10.66	8.05	8.85	10.05	DUG WELL
1062	PALAKKAD	Chittoor	7.2	3.4	3.7	5.9	DUG WELL
1063	PALAKKAD	Chulliar Dam	6.25	5.25	4.25	3.25	DUG WELL
1064	PALAKKAD	Chullimada (R1)	4.5	2.35	2.35	3.5	DUG WELL
1065	PALAKKAD	Chunangad	10.6				DUG WELL
1066	PALAKKAD	Chunnambuthara	4.35	2.15	2.55	3.35	DUG WELL
1067	PALAKKAD	Dhoni	8.4	5.15	5.2	7.4	DUG WELL
1068	PALAKKAD	Ellissery	6.3	5.75	6.3	7.3	DUG WELL
1069	PALAKKAD	Erattakulam	4.83	1.53	1.48	1.83	DUG WELL
1070	PALAKKAD	Eruthenpathi	9.2		10		DUG WELL
1071	PALAKKAD	Gopalapuram	15.5		14.3	17.4	DUG WELL
1072	PALAKKAD	Kadampazhipuram	4.1	4.05	3.95	4.75	DUG WELL
1073	PALAKKAD	Kalladikode	10.2	8.05	7.4	8.2	DUG WELL
1074	PALAKKAD	Kambilichungam	5.6	3	2.4	3.4	DUG WELL
1075	PALAKKAD	Kanjikode	7.5	6.75	4.5	5.9	DUG WELL
1076	PALAKKAD	Kanjirapuzha	3.95	1.8	1.7	2.7	DUG WELL
1077	PALAKKAD	Kannadi	5.9	0.4	2.4	3.65	DUG WELL
1078	PALAKKAD	Kannimari	6.05	3	3.2	4.65	DUG WELL
1079	PALAKKAD	Karimpuzha	3.4	1.65	1.95	2.7	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1080	PALAKKAD	Kavassery	2.7	3.4	2.4	3	DUG WELL
1081	PALAKKAD	Kodumbu	4.52	1.8	2.1	4.1	DUG WELL
1082	PALAKKAD	Kodunthirapalli	3.2	0.6	1.4	4.1	DUG WELL
1083	PALAKKAD	Koduvayur		7.8	4.35	4.7	DUG WELL
1084	PALAKKAD	Kollengode -I	4.9		2.4	4.4	DUG WELL
1085	PALAKKAD	Kollengode- II	5.5	1.6	3.3	2.6	DUG WELL
1086	PALAKKAD	Kongad1	7.2	3.75	4.3	5.1	DUG WELL
1087	PALAKKAD	Koolimattom	6.2	0.45	0.7	1.3	DUG WELL
1088	PALAKKAD	Koonathara	5.3	2.3	3.5	3.3	DUG WELL
1089	PALAKKAD	Koottanad	9.8	5.85	9.7	10.2	DUG WELL
1090	PALAKKAD	Koppam (R1)	5.3	3.8	5.8	6.3	DUG WELL
1091	PALAKKAD	Koppanur	5.22		3.92	4.62	DUG WELL
1092	PALAKKAD	Kottapuram	9.3	7.4	7.8	8.5	DUG WELL
1093	PALAKKAD	Kottassery (Vattassery)	4.75	2.55	2.9	4.1	DUG WELL
1094	PALAKKAD	Kottayi	11.1		7.2	7.6	DUG WELL
1095	PALAKKAD	Kozhinjampara-R1	9.6		7.8	8.4	DUG WELL
1096	PALAKKAD	Kozhipara	5.7		6.5		DUG WELL
1097	PALAKKAD	Kudallur	7.8	4.65	5.3	6.2	DUG WELL
1098	PALAKKAD	Kulakkad	8.6	1.3	5.5	6.8	DUG WELL
1099	PALAKKAD	Kumaramputtur	5.94		2.69	3.34	DUG WELL
1100	PALAKKAD	Kumaranallur		7.7	8.9	9.4	DUG WELL
1101	PALAKKAD	Kunisseri	4.7	0.6	2.2	3.5	DUG WELL
1102	PALAKKAD	Kuzhalmannam	3.25	1.25	2.35	2.55	DUG WELL
1103	PALAKKAD	Lakkidi (Ramakrishnapadi)	9.65	8.7	7.2	9.2	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1104	PALAKKAD	Malampuzha	4.55	5.35	1.85	1.85	DUG WELL
1105	PALAKKAD	Mankara	5.9	2.8	4.1	4.4	DUG WELL
1106	PALAKKAD	Mannarkkad (R1)	4.94	3.25	3.8	4.1	DUG WELL
1107	PALAKKAD	Mathur	6.2	1.4	3	4.2	DUG WELL
1108	PALAKKAD	Mattumanda	4.15	2	3.5	3.5	DUG WELL
1109	PALAKKAD	Meenakshipuram	9.3		8.3	6.8	DUG WELL
1110	PALAKKAD	Meenkara	10.2	4.8	4.95	6.2	DUG WELL
1111	PALAKKAD	Melarkode	13.3	12.3	7.4	7.8	DUG WELL
1112	PALAKKAD	Moochankundu	10.4	9.25	8.05	10.45	DUG WELL
1113	PALAKKAD	Mulayankavu	9.4	7.2	5.95	7.2	DUG WELL
1114	PALAKKAD	Mundur	4.66	0.75	1.35	3.2	DUG WELL
1115	PALAKKAD	Muthalamada1	8.28			6.38	DUG WELL
1116	PALAKKAD	Naikarapadi	8.25	7.55	4.5	5.25	DUG WELL
1117	PALAKKAD	Nalliapalli	6.2		3	3.2	DUG WELL
1118	PALAKKAD	Nanniyode	3.4	5.2	4.6	4.2	DUG WELL
1119	PALAKKAD	Nedupuni	10.7	7	6.95	7.55	DUG WELL
1120	PALAKKAD	Nellikatteri	7	5.6	4.6	9.5	DUG WELL
1121	PALAKKAD	Nemmara	4.72	1.92	2.45	3.52	DUG WELL
1122	PALAKKAD	Noorani (Palakkad West)	2.7	0.9	2.05	2.6	DUG WELL
1123	PALAKKAD	Odannur	7.4	1.69	4.89	5.04	DUG WELL
1124	PALAKKAD	Ongallur		6.84	7.94	8.34	DUG WELL
1125	PALAKKAD	Oothara	4	0.8	2.2	3.2	DUG WELL
1126	PALAKKAD	Ottapalam	9.4	6.4	8.3	6.9	DUG WELL
1127	PALAKKAD	Padur DW	7.2		4.95	7.1	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1128	PALAKKAD	Palamattom	9.9	7.47	5.5	8.3	DUG WELL
1129	PALAKKAD	Palappuram-ii	7.9	5.45	6.5	7.95	DUG WELL
1130	PALAKKAD	Palakkad	12.2	4.3	7.15	7.7	DUG WELL
1131	PALAKKAD	Pallavur	5.3	0.5	2.25	4.3	DUG WELL
1132	PALAKKAD	Panayur ( Athikode)	2.81	4.35	1.8	2.1	DUG WELL
1133	PALAKKAD	Parali (Chakkanthara)	3.7	1.25	2.05	3.3	DUG WELL
1134	PALAKKAD	Pattambi	6.8	3.05	6.65	6.15	DUG WELL
1135	PALAKKAD	Pattanchery	4.75	3.8	2.8	2.75	DUG WELL
1136	PALAKKAD	Peringode	9.45	7.95	8.85	8.75	DUG WELL
1137	PALAKKAD	Peringottukurissu DW	7.2		4.2	5.2	DUG WELL
1138	PALAKKAD	Perumatty1	4.9		3.9	3.4	DUG WELL
1139	PALAKKAD	Pookkottukavu	5.3	3.8	3.8	3.1	DUG WELL
1140	PALAKKAD	Pudhunagaram	10.9	7.2	3.8	6.1	DUG WELL
1141	PALAKKAD	Pudhupariyaram	5.8	2.62	3.9	4.75	DUG WELL
1142	PALAKKAD	Pullundassery	3.3	2.85	2.9	3.3	DUG WELL
1143	PALAKKAD	Punchapadam	7.3	5.6	6.9	7.3	DUG WELL
1144	PALAKKAD	RVP Pudhur	9.1				DUG WELL
1145	PALAKKAD	Shoranur	8.1	4.85	7.35	7.35	DUG WELL
1146	PALAKKAD	Sreekrishnapuram	9.82	7.47	8.02	8.62	DUG WELL
1147	PALAKKAD	Tannirkod	11.05	3.75	7.45	8.25	DUG WELL
1148	PALAKKAD	Tenkara		2.4	1.85	2.15	DUG WELL
1149	PALAKKAD	Thachanattukara	10.72	9.62		10.22	DUG WELL
1150	PALAKKAD	Thachanpara	3.6	0.95	1.2	1.9	DUG WELL
1151	PALAKKAD	Thirumittamcode (Chathanur )		1.5	5.2	5.2	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
115 2	PALAKKAD	Thiruvegapuram	9.28		6.84	8.29	DUG WELL
115 3	PALAKKAD	Tholanur	4.5	2.1	4.8	3.05	DUG WELL
115 4	PALAKKAD	Trittala	6.02	8.4	5.5	5.2	DUG WELL
115 5	PALAKKAD	Ummini	6.65	5.15	5.05	4.95	DUG WELL
115 6	PALAKKAD	Vadakkancherry	5.3	2.3	4.3	4.8	DUG WELL
115 7	PALAKKAD	Vadanamkkurissi	6.5	5.6	3.5	5.2	DUG WELL
115 8	PALAKKAD	VAlappuzha	7.5	1.4	4	5	DUG WELL
115 9	PALAKKAD	Vaniyamkulam	9.14	5.45	6.4	7.7	DUG WELL
116 0	PALAKKAD	Vannamada	9.2	7.2	6.7	8.2	DUG WELL
116 1	PALAKKAD	Velanthavalam	12.6		10.7	12	DUG WELL
116 2	PALAKKAD	Vilayur	7.9	3.8	5	5.5	DUG WELL
116 3	PALAKKAD	Viyyakurissi	5.1	2.95	3.15	4.35	DUG WELL
116 4	PALAKKAD	Walayar	10.05		10.9		DUG WELL
116 5	PALAKKAD	Annamthodu Pz				16	<b>BORE WELL</b>
116 6	PALAKKAD	Cherpulassery Pz	22.85				<b>BORE WELL</b>
116 7	PALAKKAD	Chullimada Pz	8.04	3.9	2.75	5.3	<b>BORE WELL</b>
116 8	PALAKKAD	Kadukkankunnu	7.5	2.5	2.2	8.7	<b>BORE WELL</b>
116 9	PALAKKAD	Kallepully	8.3	3.5	5.3	11.3	<b>BORE WELL</b>
117 0	PALAKKAD	Kanjikode(FCRI)	11.4	7.3	6.8	11.5	<b>BORE WELL</b>
117 1	PALAKKAD	Kannadi	2.3	0.7	1.1	1.3	<b>BORE WELL</b>
117 2	PALAKKAD	Karimpuzha	5.4	3.7	3.5	4.5	<b>BORE WELL</b>
117 3	PALAKKAD	Koduvayur	11.32		5.32	6.52	<b>BORE WELL</b>
117 4	PALAKKAD	Kongad	5.45	3.94	3.9	5.3	<b>BORE WELL</b>
117 5	PALAKKAD	Kozhipara Pz	8.5	8.3	4.1	8.7	<b>BORE WELL</b>

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1176	PALAKKAD	Kunnamkattupathy Pz	13.77	6.85	7.35	8.35	BORE WELL
1177	PALAKKAD	Kunnissery	11.4	8.5	9.5	11.5	BORE WELL
1178	PALAKKAD	Lakkidi Thekkumangalam	22	17	16.3	15.5	BORE WELL
1179	PALAKKAD	Malampuzha OW				5.3	BORE WELL
1180	PALAKKAD	Malampuzha Pz	11.3		6.3	5.3	BORE WELL
1181	PALAKKAD	Malampuzha1	5.63		7.3		BORE WELL
1182	PALAKKAD	Melarkode		4.8	11.6	20.1	BORE WELL
1183	PALAKKAD	Moochangundu			49.3	51.3	BORE WELL
1184	PALAKKAD	Mundur Pz	27.15	18.95	19.2	17.5	BORE WELL
1185	PALAKKAD	Muttikulangara Pz	18.9	4.3	13.3	11.05	BORE WELL
1186	PALAKKAD	Nanniyodu Pz	55.95		44.5	24	BORE WELL
1187	PALAKKAD	Nellikattiri Pz	27.5	7.5	10.5	11.5	BORE WELL
1188	PALAKKAD	Nemmara1	4.9	3.8	3.3	4.1	BORE WELL
1189	PALAKKAD	Padur	17.4	14.4		11.4	BORE WELL
1190	PALAKKAD	Panayur(Athikodu) Pz	6.3	5.8	5	5.5	BORE WELL
1191	PALAKKAD	Pattambi Pz	7.7	5.3	7.1	7	BORE WELL
1192	PALAKKAD	Peringottukurissu	14.86	4.5	11.5	11	BORE WELL
1193	PALAKKAD	Perumatty		3.9			BORE WELL
1194	PALAKKAD	Plachimada	20.5	10.15	9.4	11.3	BORE WELL
1195	PALAKKAD	Pullundassery	7.12	4.8	4.4	4.5	BORE WELL
1196	PALAKKAD	Thenkara	1.15		2.9	4.7	BORE WELL
1197	PALAKKAD	Thirumittacode	37.3	7.3	9.8	17.3	BORE WELL
1198	PALAKKAD	Thiruveegapuram	14.63	7.65			BORE WELL
1199	PALAKKAD	Trithala Pz	8		8.5	4.5	BORE WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1200	PALAKKAD	Vadakarapathy Pz	56.2		49.5	51.5	BORE WELL
1201	PALAKKAD	Vannamada Pz	17.44	16.3	15.3	10.9	BORE WELL
1202	PALAKKAD	Vennakara	15.5	11.5	11.5	15.9	BORE WELL
1203	PALAKKAD	Villooni			49.5		BORE WELL
1204	PATHANAMTHIT TA	Adoor (R2)	12	8.67	8.85	12.17	DUG WELL
1205	PATHANAMTHIT TA	Adoor Bypass	4	4.05	3.75	5.25	DUG WELL
1206	PATHANAMTHIT TA	Angadikkal North	9.1	7.33	8	8.43	DUG WELL
1207	PATHANAMTHIT TA	Angamuzhi	5.74	5.04	4.99	5.54	DUG WELL
1208	PATHANAMTHIT TA	Aranmula (R2)	6.7	1.59	5.15	6.15	DUG WELL
1209	PATHANAMTHIT TA	Ariyanadu	5.39				DUG WELL
1210	PATHANAMTHIT TA	Arukannukuzhi	5.33				DUG WELL
1211	PATHANAMTHIT TA	Aruvapulam	4.58	2.45	2.4	3.47	DUG WELL
1212	PATHANAMTHIT TA	Aruvikara	4.96				DUG WELL
1213	PATHANAMTHIT TA	Athiringal (R1)	9.44	6.6		7.4	DUG WELL
1214	PATHANAMTHIT TA	Athumbukulam	4.03	2.02	1.45	3.75	DUG WELL
1215	PATHANAMTHIT TA	Chalappally	2.45	1.6	1.7	2	DUG WELL
1216	PATHANAMTHIT TA	Cherukolpuzha (Airoor)	6.25	3.97	3.88	5.56	DUG WELL
1217	PATHANAMTHIT TA	Chethekkal		4.05	2.3	3.26	DUG WELL
1218	PATHANAMTHIT TA	Chittar (R1)	8.38	7.15	5.65	9.01	DUG WELL
1219	PATHANAMTHIT TA	Churakkod	8	5.75	4.67	5.8	DUG WELL
1220	PATHANAMTHIT TA	Edakkulam	5.52	4.55	1.47	5.15	DUG WELL
1221	PATHANAMTHIT TA	Elanthur	4.05	0.9	0.5	3.4	DUG WELL
1222	PATHANAMTHIT TA	Elavumthitta	9.1	6.47	4.62	6.57	DUG WELL
1223	PATHANAMTHIT TA	Enathu	7.85	3.78	4.35	7.22	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1224	PATHANAMTHIT TA	Eraviperoor	4.38	1.95	1.91	2.85	DUG WELL
1225	PATHANAMTHIT TA	Ezhamkulam	7.1	5.89	4.7	7.71	DUG WELL
1226	PATHANAMTHIT TA	Ezhumattoor	5	3.8	2.3	4.6	DUG WELL
1227	PATHANAMTHIT TA	Kadakkavur(R1)	4.69				DUG WELL
1228	PATHANAMTHIT TA	Kadambanad	4.14	4.1	4.65	6.85	DUG WELL
1229	PATHANAMTHIT TA	Kadammanitta	7.1	4.45	2.45	5.35	DUG WELL
1230	PATHANAMTHIT TA	Kadumeenchira	10	4.85	4	8.7	DUG WELL
1231	PATHANAMTHIT TA	Kaipattoor	7.21	5.25	5.1	6.5	DUG WELL
1232	PATHANAMTHIT TA	Kalanjoor	5.46	5.5	3.8	8.65	DUG WELL
1233	PATHANAMTHIT TA	Kallar	4.87				DUG WELL
1234	PATHANAMTHIT TA	Kallickad	1.99				DUG WELL
1235	PATHANAMTHIT TA	Kallooppa	5.12	2.27	1.4	2.72	DUG WELL
1236	PATHANAMTHIT TA	Karakulam	4.89				DUG WELL
1237	PATHANAMTHIT TA	Karinga	2.81				DUG WELL
1238	PATHANAMTHIT TA	Karinkulam (R1)					DUG WELL
1239	PATHANAMTHIT TA	Karinkulam (R1)	2.53	6.45	1.82	2.43	DUG WELL
1240	PATHANAMTHIT TA	Kattakkada	3.92				DUG WELL
1241	PATHANAMTHIT TA	Kaviyur (R1)	7.95	6.7	6.2	7.53	DUG WELL
1242	PATHANAMTHIT TA	Kidanganoor	5.65	0.9	1	4.53	DUG WELL
1243	PATHANAMTHIT TA	Kodumon	6.87	5.24		6.75	DUG WELL
1244	PATHANAMTHIT TA	Koipuram (R1)	9	4.73	4.8	6.9	DUG WELL
1245	PATHANAMTHIT TA	Konni	6.02	3.78	3.13	5.63	DUG WELL
1246	PATHANAMTHIT TA	Koodal	5.52	6.34	6.87	6.78	DUG WELL
1247	PATHANAMTHIT TA	Kottanadu	5.83	2.85	1.68	3.85	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1248	PATHANAMTHIT TA	Kottangal	2.9	1.1	1	1.75	DUG WELL
1249	PATHANAMTHIT TA	Kozhenchery		1.1	0.82	1.7	DUG WELL
1250	PATHANAMTHIT TA	Kudutha	8.43	6.54	4.95	7.05	DUG WELL
1251	PATHANAMTHIT TA	Kulanada	9.63	4.19	5	8.27	DUG WELL
1252	PATHANAMTHIT TA	Kumbanad	7.28	4.28	3.93	6.98	DUG WELL
1253	PATHANAMTHIT TA	Kumplampoika	2.45	1.95	1.4	2.17	DUG WELL
1254	PATHANAMTHIT TA	Kunnamthanam1		7.75		9.71	DUG WELL
1255	PATHANAMTHIT TA	Kuttoor	4.65	1.9	1.15	1.01	DUG WELL
1256	PATHANAMTHIT TA	Laha balawadi	2.64	1.7	1.42	2.48	DUG WELL
1257	PATHANAMTHIT TA	Laha peruman	9.77	9.5	9.4	9.5	DUG WELL
1258	PATHANAMTHIT TA	MalayAlappuzha	6.96	4.9	2.78	6.33	DUG WELL
1259	PATHANAMTHIT TA	Mallappally	4.9	3.4	3.4	3.75	DUG WELL
1260	PATHANAMTHIT TA	Maniyar	6.21	4.65	3.67	5.1	DUG WELL
1261	PATHANAMTHIT TA	Mannadi	3.5	1.3	1.24	2.21	DUG WELL
1262	PATHANAMTHIT TA	Murani	3	5.1	0.8	2.75	DUG WELL
1263	PATHANAMTHIT TA	Muthoor	4.3	2.35	2.92	3.4	DUG WELL
1264	PATHANAMTHIT TA	Naduvathumuzhi	6.43	3	3.05	6	DUG WELL
1265	PATHANAMTHIT TA	Naranganam (R1)	3.2	1.9	1.6	2.63	DUG WELL
1266	PATHANAMTHIT TA	Nilakkal New	5.6	2.6	3.85	5.1	DUG WELL
1267	PATHANAMTHIT TA	Omallur(R1)		5.72		8.15	DUG WELL
1268	PATHANAMTHIT TA	Pandalam Town	1.28	0.75	0.85	0.73	DUG WELL
1269	PATHANAMTHIT TA	Pandalam-1	4.6	3.15	2.9	3.66	DUG WELL
1270	PATHANAMTHIT TA	Paranthal	5.55		4.75	4.51	DUG WELL
1271	PATHANAMTHIT TA	Pathanamthitta (R1)	3.23	2.36	3.33	3.18	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
127 2	PATHANAMTHIT TA	Peringara (R1)	2.45	0.95	1.57	1.78	DUG WELL
127 3	PATHANAMTHIT TA	Plappally	2.49	0.91	0.78	2.36	DUG WELL
127 4	PATHANAMTHIT TA	Podiyadi	2.98	1	1.66	1.97	DUG WELL
127 5	PATHANAMTHIT TA	Poothangara	6.6	4.56	2.1		DUG WELL
127 6	PATHANAMTHIT TA	Prakkanam	6.45	2.59	4.15		DUG WELL
127 7	PATHANAMTHIT TA	Pulikeezh	3.8	1.9	2.58	2.95	DUG WELL
127 8	PATHANAMTHIT TA	Pullad	6.71	4.71	4.91	5.5	DUG WELL
127 9	PATHANAMTHIT TA	Ranni i	4.34	1.4	1.37	4.08	DUG WELL
128 0	PATHANAMTHIT TA	Ranni Perunad			4.3	6.35	DUG WELL
128 1	PATHANAMTHIT TA	Thadiyur	6.3	5.05	5.9	7.7	DUG WELL
128 2	PATHANAMTHIT TA	Thannithodu			3.45	6.82	DUG WELL
128 3	PATHANAMTHIT TA	Thatta (R1)	2.33		0.7	0.86	DUG WELL
128 4	PATHANAMTHIT TA	Thelliyur	8.6	6.15	6.5	7.6	DUG WELL
128 5	PATHANAMTHIT TA	Thiruvalla	10.65	4.95	6.35	5.95	DUG WELL
128 6	PATHANAMTHIT TA	Thumpaman	8.73	5.5	5.7	7.8	DUG WELL
128 7	PATHANAMTHIT TA	Ullannur		5.45	6.88	7.13	DUG WELL
128 8	PATHANAMTHIT TA	V Kottayam		5.88		9.87	DUG WELL
128 9	PATHANAMTHIT TA	Vadasserikara		2.58	0.4	4	DUG WELL
129 0	PATHANAMTHIT TA	Vaipur		1.13	1.05	1.53	DUG WELL
129 1	PATHANAMTHIT TA	Vakayar (Valiakavu)		1.8	2	2.32	DUG WELL
129 2	PATHANAMTHIT TA	Vallamkulam		2.65	3.6	4.35	DUG WELL
129 3	PATHANAMTHIT TA	Vallikod		2.87		4.5	DUG WELL
129 4	PATHANAMTHIT TA	Vechoochira (R1)		3.43	2.05	4.53	DUG WELL
129 5	PATHANAMTHIT TA	Vennikulam		3.05	2.99	3.25	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1296	PATHANAMTHIT TA	Chetheckal	2.74	1.2	1	2.26	BORE WELL
1297	PATHANAMTHIT TA	Elanthoor	3.05	1.4	1.3	2.1	BORE WELL
1298	PATHANAMTHIT TA	Ezhamkulam		5.9	7.02		BORE WELL
1299	PATHANAMTHIT TA	Kadumeenchira Pz	15.7	12.6	14.96		BORE WELL
1300	PATHANAMTHIT TA	Koipuram Pz	12.9	10.85	11.2	11.45	BORE WELL
1301	PATHANAMTHIT TA	Kottangal Pz	2.8	1.75	1.7	2.41	BORE WELL
1302	PATHANAMTHIT TA	Kunnamthanam	3.9	1.55	0.9	3.35	BORE WELL
1303	PATHANAMTHIT TA	MalayAlappuzha Pz	17.85	13.5	12.4	17.2	BORE WELL
1304	PATHANAMTHIT TA	Pandalam	4.25	1.42	3.4	3.9	BORE WELL
1305	PATHANAMTHIT TA	Thayattumala	9.95	8.05	8.94	9.05	BORE WELL
1306	PATHANAMTHIT TA	Vallicode	3.77	2.4		3.45	BORE WELL
1307	THIRUVANANTH APURAM	Amboori	10.51	8.68	5.7	9.08	DUG WELL
1308	THIRUVANANTH APURAM	Anappara Valayanki		6.37	4.88	6.43	DUG WELL
1309	THIRUVANANTH APURAM	Anjengo			0.95		DUG WELL
1310	THIRUVANANTH APURAM	Aralumoodu	13.01	18.68	16.58	14.03	DUG WELL
1311	THIRUVANANTH APURAM	Ariyanadu				4.85	DUG WELL
1312	THIRUVANANTH APURAM	Arukannukuzhi		6.43	5.83	6.46	DUG WELL
1313	THIRUVANANTH APURAM	Aruvikara		6.75	1.73	3.35	DUG WELL
1314	THIRUVANANTH APURAM	Athazhamangalam	21.1	21.84	20.35	20.4	DUG WELL
1315	THIRUVANANTH APURAM	Attingal	12.58	10.1	8.25	8.93	DUG WELL
1316	THIRUVANANTH APURAM	Ayyankode	9.34	10.46		10.01	DUG WELL
1317	THIRUVANANTH APURAM	Azhoor	13.23	12.5	11.2	11.38	DUG WELL
1318	THIRUVANANTH APURAM	Balaramapuram(R1)	13.42	10.62	7.98	8.3	DUG WELL
1319	THIRUVANANTH APURAM	Bharathanoor	9.73	8.28	5.72	6.38	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1320	THIRUVANANTHAPURAM	Changa	11.76	11.65	6.68	7.15	DUG WELL
1321	THIRUVANANTHAPURAM	Chaykottukonam	9.04	8.3	6.35	7.32	DUG WELL
1322	THIRUVANANTHAPURAM	Cheeranikara		9.84	6.63	7.53	DUG WELL
1323	THIRUVANANTHAPURAM	Chembur		10.51	6.74	8.88	DUG WELL
1324	THIRUVANANTHAPURAM	Chennampara	12.5	8.57	6.85	8.13	DUG WELL
1325	THIRUVANANTHAPURAM	Cherunniyur	16.2	12.45	14	13.48	DUG WELL
1326	THIRUVANANTHAPURAM	Chirayinkeezh	11.99	10.9	8.2	8.1	DUG WELL
1327	THIRUVANANTHAPURAM	Chittagode	7.6	7.38	5	6.23	DUG WELL
1328	THIRUVANANTHAPURAM	Chowara	20.5		18.71	18.76	DUG WELL
1329	THIRUVANANTHAPURAM	Chullimanoor	7.48	5.77	4.8	6.27	DUG WELL
1330	THIRUVANANTHAPURAM	Edavai			7.77		DUG WELL
1331	THIRUVANANTHAPURAM	Ithye		8.2	6.64	7.62	DUG WELL
1332	THIRUVANANTHAPURAM	Kadakkavur(R1)		3.3	2.3	3.2	DUG WELL
1333	THIRUVANANTHAPURAM	Kallar		3.7		3.86	DUG WELL
1334	THIRUVANANTHAPURAM	Kallickad		1.47	0.1	1.4	DUG WELL
1335	THIRUVANANTHAPURAM	Kandala	12.4	14.65	7.35	10	DUG WELL
1336	THIRUVANANTHAPURAM	Kanjiramkulam	45.51	47.31	47.98	48.85	DUG WELL
1337	THIRUVANANTHAPURAM	Kanjiramkulam Church	28.71	24.86	20.76	23.79	DUG WELL
1338	THIRUVANANTHAPURAM	Kappil	11.68	10.7		10.73	DUG WELL
1339	THIRUVANANTHAPURAM	Karakulam		2.9	2.07	2.78	DUG WELL
1340	THIRUVANANTHAPURAM	Kariavattom		3.02	1.3	2.98	DUG WELL
1341	THIRUVANANTHAPURAM	Karinga		2.81	2.15	2.53	DUG WELL
1342	THIRUVANANTHAPURAM	Kattakkada		4.25	2.61	3.9	DUG WELL
1343	THIRUVANANTHAPURAM	Kazhakkuttom	4.43	3.28	2.69	2.95	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1344	THIRUVANANTHAPURAM	Kilimannor		4.86	5.23	6.67	DUG WELL
1345	THIRUVANANTHAPURAM	Kochuveli(R1)		2.4	2.12	2.16	DUG WELL
1346	THIRUVANANTHAPURAM	Korani		6.58	7.12	7.61	DUG WELL
1347	THIRUVANANTHAPURAM	Kulathur	12.28	13	7.22	9.26	DUG WELL
1348	THIRUVANANTHAPURAM	Madavur	13.59	10.88	8.91	10.4	DUG WELL
1349	THIRUVANANTHAPURAM	Malayadi		5.09	3.99	4.67	DUG WELL
1350	THIRUVANANTHAPURAM	Mangalapuram		25.52	18.32	19.57	DUG WELL
1351	THIRUVANANTHAPURAM	Mannanthala	8.14	7.42	4.6	7.58	DUG WELL
1352	THIRUVANANTHAPURAM	Maruthamala	8.35	7.09	5.95	7.06	DUG WELL
1353	THIRUVANANTHAPURAM	Meenangal	10.3	10.08	6.45	7.12	DUG WELL
1354	THIRUVANANTHAPURAM	Melvettoor		3.52	35.05	33.55	DUG WELL
1355	THIRUVANANTHAPURAM	Mulloor	20.16	22.59	21.18	23.36	DUG WELL
1356	THIRUVANANTHAPURAM	Murukumpuzha(R1)		3.07	2.24	3.02	DUG WELL
1357	THIRUVANANTHAPURAM	Muzhi		3.98	2.83		DUG WELL
1358	THIRUVANANTHAPURAM	Nagapuram	16.21	18.06	13.56	15.67	DUG WELL
1359	THIRUVANANTHAPURAM	Nanniyode		4.55	6.12	5.87	DUG WELL
1360	THIRUVANANTHAPURAM	Navaikulam	16.34	10.62	9.01	10.2	DUG WELL
1361	THIRUVANANTHAPURAM	Nedumangad	11.23	9.45	7.25	8	DUG WELL
1362	THIRUVANANTHAPURAM	Neyyattinkara	14.22	13.68	12.56	12.02	DUG WELL
1363	THIRUVANANTHAPURAM	Ookod	10.5	16.42	10.3	9.62	DUG WELL
1364	THIRUVANANTHAPURAM	Ottashekhamangalam	4.79	4.23	3.8	4.13	DUG WELL
1365	THIRUVANANTHAPURAM	Palayamkunnu	18.22	12.54		13.08	DUG WELL
1366	THIRUVANANTHAPURAM	Palode	7.61	3.81	3.22	5	DUG WELL
1367	THIRUVANANTHAPURAM	Panavoor	4.5			3.74	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1368	THIRUVANANTHAPURAM	Pangode		5.03	4.3	4.97	DUG WELL
1369	THIRUVANANTHAPURAM	Parandakuzhi		15.07	1.9	13.8	DUG WELL
1370	THIRUVANANTHAPURAM	Parandod	6.5	4.76	3.3	4.8	DUG WELL
1371	THIRUVANANTHAPURAM	Parassala	2.47	1.76		0.8	DUG WELL
1372	THIRUVANANTHAPURAM	Peringamala		7.05	7.31	8.49	DUG WELL
1373	THIRUVANANTHAPURAM	Perumathura	2.35	2.37	1.73	2.07	DUG WELL
1374	THIRUVANANTHAPURAM	Perumgulum	8.04	7.45	6.62	7.43	DUG WELL
1375	THIRUVANANTHAPURAM	Perumgur(R1)	5.29	4.16	1.69	3.61	DUG WELL
1376	THIRUVANANTHAPURAM	Perumkuzhi	2.54	3.97	2.7	3.1	DUG WELL
1377	THIRUVANANTHAPURAM	Perunkadavila	14.77	13.57	12.47	11.97	DUG WELL
1378	THIRUVANANTHAPURAM	Pirappankod	8.53	7.38	5.27	5.93	DUG WELL
1379	THIRUVANANTHAPURAM	Ponganadu	7.3	6.05	3.57	5.7	DUG WELL
1380	THIRUVANANTHAPURAM	Ponmudi(R1)	4.51			3.98	DUG WELL
1381	THIRUVANANTHAPURAM	Poonthura (R1)	3.21	3.6	2.8	3.07	DUG WELL
1382	THIRUVANANTHAPURAM	Poovachal	14.57	13.5		11.58	DUG WELL
1383	THIRUVANANTHAPURAM	Poovar-ii	22.94	21.3	27.3	29.88	DUG WELL
1384	THIRUVANANTHAPURAM	Pothencod		11.38	8.92		DUG WELL
1385	THIRUVANANTHAPURAM	Pozhiyoor	6.2			4	DUG WELL
1386	THIRUVANANTHAPURAM	Pozhiyoor(R1)		6.05		4.2	DUG WELL
1387	THIRUVANANTHAPURAM	Pudukurichi	3.49	3.59	3.02	3.21	DUG WELL
1388	THIRUVANANTHAPURAM	Pulluvila		57		55.7	DUG WELL
1389	THIRUVANANTHAPURAM	Puvar School (New)		6.4	8.66	6.3	DUG WELL
1390	THIRUVANANTHAPURAM	Sasthanthala	6.74	5.79	1.39	4.27	DUG WELL
1391	THIRUVANANTHAPURAM	Sasthavattom	6.99	3.99	1.92	3.22	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
139 2	THIRUVANANTH APURAM	Shankaramugham	7.5	5.92	5.18	5.98	DUG WELL
139 3	THIRUVANANTH APURAM	Tekkada	3.88	3.58	2.91	3.93	DUG WELL
139 4	THIRUVANANTH APURAM	Tholicode	9.3	7.35	5.52	6.68	DUG WELL
139 5	THIRUVANANTH APURAM	Thonakkal	22.89	24.87	7.88	12.6 3	DUG WELL
139 6	THIRUVANANTH APURAM	Thumba	4.1	3.74	3.3	3.5	DUG WELL
139 7	THIRUVANANTH APURAM	Tirupuram	23.52	27.64	27.51	27.5 1	DUG WELL
139 8	THIRUVANANTH APURAM	Thiruvananthapuram		12.35	11.97	13.7 7	DUG WELL
139 9	THIRUVANANTH APURAM	Udyankulangara	12.76	12.92	10.37	10.5	DUG WELL
140 0	THIRUVANANTH APURAM	Ullannur	7.44				DUG WELL
140 1	THIRUVANANTH APURAM	Uzhamalakkal	7.76	6.8	2.52	3.78	DUG WELL
140 2	THIRUVANANTH APURAM	V Kottayam	8.68				DUG WELL
140 3	THIRUVANANTH APURAM	Vadasserikara	3.77				DUG WELL
140 4	THIRUVANANTH APURAM	Vaipur	1.9				DUG WELL
140 5	THIRUVANANTH APURAM	Vakayar (Valiakavu)	2.24				DUG WELL
140 6	THIRUVANANTH APURAM	Vakkom		4.65	3.15	3.2	DUG WELL
140 7	THIRUVANANTH APURAM	Valakkad		11.83	11.36	10.4 1	DUG WELL
140 8	THIRUVANANTH APURAM	Vallamkulam	5.25				DUG WELL
140 9	THIRUVANANTH APURAM	Vallikod	4.84				DUG WELL
141 0	THIRUVANANTH APURAM	Vamanapuram	6.62	2.08	1.56	3	DUG WELL
141 1	THIRUVANANTH APURAM	Varkala	16.36	15.01	14.06	13.1 1	DUG WELL
141 2	THIRUVANANTH APURAM	Vattapara	10.85	10.48	8.65	8.67	DUG WELL
141 3	THIRUVANANTH APURAM	Vattavila	10.9	9.87	7.72	10	DUG WELL
141 4	THIRUVANANTH APURAM	Vazhichal	8.75	7.58	4.98	5.7	DUG WELL
141 5	THIRUVANANTH APURAM	Vechoochira (R1)	4.51				DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1416	THIRUVANANTHAPURAM	Veeranakavu	4.95	5.03	3.93		DUG WELL
1417	THIRUVANANTHAPURAM	Vellanad	7.7	6.04	4.98	5.56	DUG WELL
1418	THIRUVANANTHAPURAM	Vellarada(R1)	6.07	5.2	4.3	4.49	DUG WELL
1419	THIRUVANANTHAPURAM	Vellayani (Poonkulam)		18.72	15.55	15.5	DUG WELL
1420	THIRUVANANTHAPURAM	Venganoor	23.19	24.26	19.87	19.82	DUG WELL
1421	THIRUVANANTHAPURAM	Vengod					DUG WELL
1422	THIRUVANANTHAPURAM	Vengod	8.68	8.2	6.95	7.25	DUG WELL
1423	THIRUVANANTHAPURAM	Venjaramoodu	11.09	9.4	7.68	9.06	DUG WELL
1424	THIRUVANANTHAPURAM	Vennikulam	3.85				DUG WELL
1425	THIRUVANANTHAPURAM	Venpakal		9.7	7.7	9.76	DUG WELL
1426	THIRUVANANTHAPURAM	Veyloor	27.22	27.8	26.42	24.92	DUG WELL
1427	THIRUVANANTHAPURAM	Vilapilshala	10.97	9.93	7.03	8.01	DUG WELL
1428	THIRUVANANTHAPURAM	Vithura		13.02	9.8	11.34	DUG WELL
1429	THIRUVANANTHAPURAM	Vizhinjam	1.72	0.68	0.84	1.2	DUG WELL
1430	THIRUVANANTHAPURAM	Edava	12.71	11.73	11.8	13.98	<b>TUBE WELL</b>
1431	THIRUVANANTHAPURAM	Varkala Deep	20.66	20.28	19.65	19.58	<b>TUBE WELL</b>
1432	THIRUVANANTHAPURAM	Varkala(shallow)	18.5		16		<b>TUBE WELL</b>
1433	THIRUVANANTHAPURAM	Ariyanadu Pz	7.41	7.35	5.95	7.33	<b>BORE WELL</b>
1434	THIRUVANANTHAPURAM	Attingal Pz	6.78	6.65		5.66	<b>BORE WELL</b>
1435	THIRUVANANTHAPURAM	Chengal Pz	13.62				<b>BORE WELL</b>
1436	THIRUVANANTHAPURAM	Kariyavattom Pz	13.83	13.69	13.7	13.44	<b>BORE WELL</b>
1437	THIRUVANANTHAPURAM	Kulathoor pz	14.24	14.86	11.33	11.66	<b>BORE WELL</b>
1438	THIRUVANANTHAPURAM	Manambur Pz	14.08	12.75	11	11.92	<b>BORE WELL</b>
1439	THIRUVANANTHAPURAM	Mangalapuram Pz		25.5	22.84		<b>BORE WELL</b>

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1440	THIRUVANANTHAPURAM	Mannanthala Pz	7.48	6.63		6.19	BORE WELL
1441	THIRUVANANTHAPURAM	Nemom Pz				4.37	BORE WELL
1442	THIRUVANANTHAPURAM	Pattom Pz		8.97	6.6	8.2	BORE WELL
1443	THIRUVANANTHAPURAM	Peringamala Pz	11.7	10.8	10.08	11.05	BORE WELL
1444	THIRUVANANTHAPURAM	Perumkadavila Pz	8.48	9.12	9.42	8.85	BORE WELL
1445	THIRUVANANTHAPURAM	Ponganadu Pz	7.8		3.6	5.8	BORE WELL
1446	THIRUVANANTHAPURAM	Sreekariyam Pz	13.5	13.88			BORE WELL
1447	THIRUVANANTHAPURAM	Thattattumala	13.33	6.66	5	7.14	BORE WELL
1448	THIRUVANANTHAPURAM	Udayankulangara Pz		13.08			BORE WELL
1449	THIRUVANANTHAPURAM	Udayankulangara Pz			11.3	11.62	BORE WELL
1450	THIRUVANANTHAPURAM	Vengod Pz	9.34	8.7	6.94	6.82	BORE WELL
1451	THIRUVANANTHAPURAM	Vilappilsala Pz		9		8.33	BORE WELL
1452	THRISSUR	Adatt	13.1	11.8	12.2	12.5	DUG WELL
1453	THRISSUR	Akalad	4.27	2.76	3.05	3.74	DUG WELL
1454	THRISSUR	Amballur	6.59	5.75	6.7	8.84	DUG WELL
1455	THRISSUR	Annamanada	5.02	3.19	3.36	4.83	DUG WELL
1456	THRISSUR	Arimpur1	4.9	2.53			DUG WELL
1457	THRISSUR	Athani	8.2	5.05	6.45	7.92	DUG WELL
1458	THRISSUR	Athani Parambu	3.3	0.7	0.65	1.53	DUG WELL
1459	THRISSUR	Attoor	7.63	7.75	7.7	6.7	DUG WELL
1460	THRISSUR	Ayyanthole	12	6.33	7.14	10.62	DUG WELL
1461	THRISSUR	Azhikode (R1)	1.66	1.24		0.93	DUG WELL
1462	THRISSUR	Chalakudi	9.34	7.94	7.74	8.63	DUG WELL
1463	THRISSUR	Chammannur	4.5	2.05	2.69	3.48	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1464	THRISSUR	Chattikulam	4				DUG WELL
1465	THRISSUR	Chavakkad	4.07	0.77	1.57	2.69	DUG WELL
1466	THRISSUR	Chelakara	6.64	1.7	2.08	3.57	DUG WELL
1467	THRISSUR	Chelakod	4.66	2.05	2.01	3.06	DUG WELL
1468	THRISSUR	Chengallur (Rendamkallu)				7.57	DUG WELL
1469	THRISSUR	Cherenkonam	5.99	3.77	4.89		DUG WELL
1470	THRISSUR	Cherpu	11.03	6.77	8.1	8.95	DUG WELL
1471	THRISSUR	Cherukunnu	6.61	2.63	3.52	4.67	DUG WELL
1472	THRISSUR	Cheruthuruthi (R1)	5.07	3.78	4.45	3.67	DUG WELL
1473	THRISSUR	Choondal	10.55	7.1	8.2	10.16	DUG WELL
1474	THRISSUR	Chowannur		7.17	8.3	9.65	DUG WELL
1475	THRISSUR	Deshamangalam	9.62	6.81	6.25	8.21	DUG WELL
1476	THRISSUR	East Fort (Thrissur )	8.18	7.2	7.75	7.64	DUG WELL
1477	THRISSUR	Echipara	3.95	1.75	2.03	3.11	DUG WELL
1478	THRISSUR	Edamuttom	2.33	0.22		1.57	DUG WELL
1479	THRISSUR	Edathrinji	2.47	0.35	0.55	0.97	DUG WELL
1480	THRISSUR	Engandiyur-R1	4.17	1.67	2.25	3.05	DUG WELL
1481	THRISSUR	Eriyad (R1)	1.89	0.5	0.65	1.79	DUG WELL
1482	THRISSUR	Erumapetty	8.03	5.96	5.58	7.33	DUG WELL
1483	THRISSUR	Eyyal Ambalam Jn	10.16	7.5	7.9	9	DUG WELL
1484	THRISSUR	Guruvayur	1.75	0.49	1.29	2.47	DUG WELL
1485	THRISSUR	Irinjalakuda -I	9.14	5.9	7.1	7.9	DUG WELL
1486	THRISSUR	Kallettumkara	4.39	3.93	4.45	5.17	DUG WELL
1487	THRISSUR	Kallumpuram	9.23	6.63	7.1	8.34	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1488	THRISSUR	Kallur	9.42	7.49	7.8	8.37	DUG WELL
1489	THRISSUR	Kanjirapally (Dream World Park)	4.69	4.23	4.62	4.81	DUG WELL
1490	THRISSUR	Kannara	6.11	4.61	5.35	6.05	DUG WELL
1491	THRISSUR	Karamuck ( Vadanappally)	4.22	1.08		3.25	DUG WELL
1492	THRISSUR	Karikkad	9.28	5.49	7.05	6.98	DUG WELL
1493	THRISSUR	Karuppadanna	4.11	0.28	1.73	1.86	DUG WELL
1494	THRISSUR	Kattakampala (R1)	9.17	10.51	7.7	12.93	DUG WELL
1495	THRISSUR	Kattoor	7.64	3.51	4.5	6.4	DUG WELL
1496	THRISSUR	Keecheri (R1)	8.81	6.41	6.85	7.91	DUG WELL
1497	THRISSUR	Killimangalam	8.62	5.67	6.43	7.02	DUG WELL
1498	THRISSUR	Kizhakkumuri	7.25	6.35	6.31	6.94	DUG WELL
1499	THRISSUR	Kodacherry	2.18	2.1	2.35		DUG WELL
1500	THRISSUR	Kodakara	8.9	6.65	7.4	8.3	DUG WELL
1501	THRISSUR	Kodali		5.01	5.85	6.79	DUG WELL
1502	THRISSUR	Kodasserry				2.53	DUG WELL
1503	THRISSUR	Kodungallur (R1)	3.9	2.85	2.9	3.2	DUG WELL
1504	THRISSUR	Konnakuzhi-ii	4.77	4.89		3.24	DUG WELL
1505	THRISSUR	Koratty	9.06	6.85	7.44	8.25	DUG WELL
1506	THRISSUR	Kottappadi	3.69	0.47	0.57	2.87	DUG WELL
1507	THRISSUR	Kundannur	7.55	0.47	0.45	3.55	DUG WELL
1508	THRISSUR	Kunnamkulam		6.8	6.6	7.69	DUG WELL
1509	THRISSUR	Kurancherry	7.25	3.78	3.88	6.02	DUG WELL
1510	THRISSUR	Kurunchikara	11.24	7.62	9.3	10.54	DUG WELL
1511	THRISSUR	Kuttanellur	9.07	7.99	8.55	8.89	DUG WELL



SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1512	THRISSUR	Logamalleswaram	3.27	0.97	1.97	2.48	DUG WELL
1513	THRISSUR	Madakkathara	10.33	7.58	8.6	8.98	DUG WELL
1514	THRISSUR	Mala	9.58	6.95	7.94	8.68	DUG WELL
1515	THRISSUR	Manalur	3.68	0.7	1.22	2.83	DUG WELL
1516	THRISSUR	Manamangalam	6.8	4.57	5.01	5.7	DUG WELL
1517	THRISSUR	Mannuthy		1.43	5.05	1.75	DUG WELL
1518	THRISSUR	Mapranam		9.79	11.35	12.6	DUG WELL
1519	THRISSUR	Mathilakom (R1)	4.42	2.72	2.82	3.8	DUG WELL
1520	THRISSUR	Mattathur	7.53	6.53	6.66	8.08	DUG WELL
1521	THRISSUR	Methalapadam		0.45			DUG WELL
1522	THRISSUR	Mulankunnathukavu	7.69	5.38	6.3	7	DUG WELL
1523	THRISSUR	Mullassery	7.4	0.24	0.64	2.5	DUG WELL
1524	THRISSUR	Mullurkara(Vazhathodu Jn)	6.65	2.57	1.97	4.22	DUG WELL
1525	THRISSUR	Mundur	8.26	8.37	8.06	8.18	DUG WELL
1526	THRISSUR	Mupliyam	7.94	4.2	4.56	7.38	DUG WELL
1527	THRISSUR	Muringur	8.16	5.9		6.34	DUG WELL
1528	THRISSUR	Muriyad	10.25	6.86	8.05	8.42	DUG WELL
1529	THRISSUR	Nandipulam	7.03	5.45	6.29	7.02	DUG WELL
1530	THRISSUR	Nattika 1	2.94	1.05	1.4	2.24	DUG WELL
1531	THRISSUR	Nellai	4.4	4.37	4.57	4.71	DUG WELL
1532	THRISSUR	Olarikara	9.56	7.12	8.15	8.95	DUG WELL
1533	THRISSUR	Ollur	8.83	6.86	7.56	8.76	DUG WELL
1534	THRISSUR	Orumanayur	3.19	0.73	1.5	2.59	DUG WELL
1535	THRISSUR	Padakulam		1.97	1.9	2.8	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1536	THRISSUR	Palakkal	10.99	7	8.5	9.88	DUG WELL
1537	THRISSUR	Palayamthuruthu	1.23	0.5	0.68	1.13	DUG WELL
1538	THRISSUR	Pallichira		0.86	4.1	4.55	DUG WELL
1539	THRISSUR	Pallikandam		2.31	1.5	3.1	DUG WELL
1540	THRISSUR	Pallikunnu	8.4	7.63	7.6	8.59	DUG WELL
1541	THRISSUR	Panamukku	9.24	6.5	8.48	8.48	DUG WELL
1542	THRISSUR	Pappali	4.25	2.76	3.05		DUG WELL
1543	THRISSUR	Parappukara	5.93	3.71	4.2	3.33	DUG WELL
1544	THRISSUR	Parappur	12.17	8.3	9.2	11.15	DUG WELL
1545	THRISSUR	Pariyaram	6.51	5.17	6.05	6.37	DUG WELL
1546	THRISSUR	Pattikad (R1)	5.31	3.87	4.35	2.23	DUG WELL
1547	THRISSUR	Pavaratty1		0.63	1.4	2.25	DUG WELL
1548	THRISSUR	Pazhayannur	6.41	3.01	4.46	4.9	DUG WELL
1549	THRISSUR	Pazhuvil	10	7.75	9.53	9.02	DUG WELL
1550	THRISSUR	Peechi (R1)	6.51	5.83	6.1	5.95	DUG WELL
1551	THRISSUR	Perambra	7.26	6.13	6.79	7.89	DUG WELL
1552	THRISSUR	Perinjanam (R2)	2.38	0.53	0.59	2.42	DUG WELL
1553	THRISSUR	Perumpilavu Junction	10.1	7.97	9.25	10.01	DUG WELL
1554	THRISSUR	Potta	2.7	2.39	2.35	3.87	DUG WELL
1555	THRISSUR	Poyya	12.73	9.75	8.44	11.66	DUG WELL
1556	THRISSUR	Pudukad1	3.09	1.85	2	2.61	DUG WELL
1557	THRISSUR	Pullikanni		7.63	1.4	2.22	DUG WELL
1558	THRISSUR	Punnayoor	6	2.6	3.5	4.66	DUG WELL
1559	THRISSUR	Puthenchira	9.92	7.88	8.3	8.92	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1560	THRISSUR	Ramanchetty	5.8	3.79	4.15	4.9	DUG WELL
1561	THRISSUR	Rendamkallu	7.85	7.46	7.71		DUG WELL
1562	THRISSUR	Tekkumkara (Konathukunnu)	8.5	5.23	5.85	7.36	DUG WELL
1563	THRISSUR	Thrissur	8.01	5.18	6.18	7.11	DUG WELL
1564	THRISSUR	Triprayar	4.63	2.26	2.9	3.65	DUG WELL
1565	THRISSUR	Vadanapalli	2.83	0.67	1.3	4.9	DUG WELL
1566	THRISSUR	Vaniyampara		1.27	1.81	3.4	DUG WELL
1567	THRISSUR	Varavur	6.92	5.28	5.94	6.3	DUG WELL
1568	THRISSUR	Vellanikara	3.26	1.37	1.85	1.69	DUG WELL
1569	THRISSUR	Vellikulangara (Maramkad Jn)	7	4.73	5.05	7.14	DUG WELL
1570	THRISSUR	Velupadam	5.79	3.42	4.05	5.5	DUG WELL
1571	THRISSUR	Velur	8.85	6.45	5.7	6.9	DUG WELL
1572	THRISSUR	Vettikkattiri	7.4	3.9	5.15	7.09	DUG WELL
1573	THRISSUR	Viyur	5.65	1.85	2.45	3.4	DUG WELL
1574	THRISSUR	Wadakkancherry	13.3	8.9	9.55	10.63	DUG WELL
1575	THRISSUR	Arattukadavu	0.82	0.68	0.78	0.78	<b>TUBE WELL</b>
1576	THRISSUR	Engandiyur Pz	4.18	2.66	2.88		<b>TUBE WELL</b>
1577	THRISSUR	Arimpur	8.35	4.53	6.19	7.75	<b>BORE WELL</b>
1578	THRISSUR	Ayyanthole Pz	18.86	7.09		10.4	<b>BORE WELL</b>
1579	THRISSUR	Chazhur (Anthikad)			11.12	11.92	<b>BORE WELL</b>
1580	THRISSUR	Chelakara Pz		2.41			<b>BORE WELL</b>
1581	THRISSUR	Chowannur	30.85	22.3	22.65	22.45	<b>BORE WELL</b>
1582	THRISSUR	Kecheri Pz				7.9	<b>BORE WELL</b>
1583	THRISSUR	Keecheri	9.49	6.53	8		<b>BORE WELL</b>

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1584	THRISSUR	Kodakara Pz	13.84	9.99	11.22	11.92	BORE WELL
1585	THRISSUR	Madakkathara Pz	21.94	6.4	7.56	15.3	BORE WELL
1586	THRISSUR	Mapranam Pz	14.5	10.65	11.69	12.4	BORE WELL
1587	THRISSUR	Palakal		10.37	12.79	12.67	BORE WELL
1588	THRISSUR	Poyya (poopathy)	11.69	9.01	7.61	9.25	BORE WELL
1589	THRISSUR	Ramavarmapuram	35.78	31.9	11.5	18.4	BORE WELL
1590	THRISSUR	Varandarapalli	7.26	6.63	9.08	7.3	BORE WELL
1591	THRISSUR	Varavoor Pz		3.5			BORE WELL
1592	THRISSUR	Velur	31.63	6.62	6.17	14.57	BORE WELL
1593	WAYANAD	Ambalavayal	8.83	7.35	10.72	8.64	DUG WELL
1594	WAYANAD	Appapara	4.95	2.23	3.17	5.05	DUG WELL
1595	WAYANAD	Arimula	9.43	7.62	8.04	8.66	DUG WELL
1596	WAYANAD	Baveli	9.16	6.43	5.06	7.62	DUG WELL
1597	WAYANAD	Begur	11.1	9.27	10.32	11.65	DUG WELL
1598	WAYANAD	CC Junction	12.3	12.3	17.19	11.35	DUG WELL
1599	WAYANAD	Cheenkeri	10.95	10.95	9.07	9.93	DUG WELL
1600	WAYANAD	Chellakod	10.1	7.72	7.08	7.68	DUG WELL
1601	WAYANAD	Chenad	17.5	16.2	16.98	15.92	DUG WELL
1602	WAYANAD	Cheyyambam	4.38	1.25	3.69		DUG WELL
1603	WAYANAD	Chulliyod	15.22	11.32	12.08	13.7	DUG WELL
1604	WAYANAD	Dasanakkara	3.17	1.84	5	4.04	DUG WELL
1605	WAYANAD	Kalpetta-R1	3.17	0.86	2.16	2.9	DUG WELL
1606	WAYANAD	Kamblakat	18.35	17.1	17.08	17.28	DUG WELL
1607	WAYANAD	Kanjirangad	2.5	0.65	1.65	1.92	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1608	WAYANAD	Kappiset	13.3	9.5	12.5	13.3	DUG WELL
1609	WAYANAD	Karani	9.24	6.43	2.35	7.72	DUG WELL
1610	WAYANAD	Kattikulam	9.55	1.61	6.27	8.29	DUG WELL
1611	WAYANAD	Kavumandam	7.32	3.95	5.65	5.83	DUG WELL
1612	WAYANAD	Kellur -5th Mile	15.7	3.82	6.28	9.7	DUG WELL
1613	WAYANAD	Koliyadi	3.16	0.35	1.45	2.12	DUG WELL
1614	WAYANAD	Koodal Kadavu	15.56	14.82	13.83	15.31	DUG WELL
1615	WAYANAD	Koroth	4.51	1.57	2.48	3.7	DUG WELL
1616	WAYANAD	Kottathara	5.57	1.92	4.3	4.82	DUG WELL
1617	WAYANAD	Kottavayal	4.52	2.73	3.95	4.18	DUG WELL
1618	WAYANAD	Krishnagiri		6.23	6.37		DUG WELL
1619	WAYANAD	Kuppadi	20	20	19.2	19.2	DUG WELL
1620	WAYANAD	Lakkidi	1.08	0.1	0.85	1.01	DUG WELL
1621	WAYANAD	Mampayil	2.31	2.35	2.93	2.32	DUG WELL
1622	WAYANAD	Manjapara	9.85	8.45	9.05	7.69	DUG WELL
1623	WAYANAD	Mannanthody	8.77	5.73	6.7	7.92	DUG WELL
1624	WAYANAD	Melaputhenkunnu	17.35	18.03	16.45	17.23	DUG WELL
1625	WAYANAD	Meppady	18.7	16.84	17.4	17.59	DUG WELL
1626	WAYANAD	Minangadi	7.39	5.05	5.57	6.6	DUG WELL
1627	WAYANAD	Moolankavu	8.97	7.56	6.65	7.49	DUG WELL
1628	WAYANAD	Mullankolly	4.55	1.65	3.8	4.5	DUG WELL
1629	WAYANAD	Muthunga (R1)	5.2	2.73	2.81	3.45	DUG WELL
1630	WAYANAD	Muttil	4.2	1.13	2.36	2.95	DUG WELL
1631	WAYANAD	Nadavayal	8.66	5.16	6.18		DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
163 2	WAYANAD	Naykatti	6.77	4.9	5.53	6.11	DUG WELL
163 3	WAYANAD	Nedugarana	9.54	7.67	7.65	8.27	DUG WELL
163 4	WAYANAD	Neervaram	17.09	16.76	15.42	15.78	DUG WELL
163 5	WAYANAD	Nenmeni Kunnu	2.88	1.52	2.7	2.64	DUG WELL
163 6	WAYANAD	Noolpuzha (R1)	3.62	1.14	2.73	3.34	DUG WELL
163 7	WAYANAD	Ondyangadi	11.41	7.56	9.06	9.98	DUG WELL
163 8	WAYANAD	Pachilakkad	10.67	8.25	8.9	9.46	DUG WELL
163 9	WAYANAD	Padinjarattara (R1)	8.95	6.95	6.63	8.31	DUG WELL
164 0	WAYANAD	Pakkam		4.87	5.37	6.36	DUG WELL
164 1	WAYANAD	Pallikunnu	9.88	7.1	8.21	8.82	DUG WELL
164 2	WAYANAD	Panamaram	4.5	2.77	3.39	3.88	DUG WELL
164 3	WAYANAD	Pattanikoopu	10.08	8.85	8.76	9.52	DUG WELL
164 4	WAYANAD	Perikallur	13.75	11.6	12.07	13.34	DUG WELL
164 5	WAYANAD	Perya	1.98	1.26	1.75	5.34	DUG WELL
164 6	WAYANAD	Pookode1	3.65		2.23	2.52	DUG WELL
164 7	WAYANAD	Pozhutana	6.96	4.84	6.19	6.44	DUG WELL
164 8	WAYANAD	Pulpally	4.98	1.52	3.69	2.46	DUG WELL
164 9	WAYANAD	Punchvayal		7	8.44	9.28	DUG WELL
165 0	WAYANAD	Sulthan Battery	8.95	2.3	5.41	7.02	DUG WELL
165 1	WAYANAD	TAlappuzha	2.18	0.54	1.66	1.45	DUG WELL
165 2	WAYANAD	Taruvana	2.18	8.34	9.1	10.03	DUG WELL
165 3	WAYANAD	Thetrode	12.96	12.9	12.1	12.8	DUG WELL
165 4	WAYANAD	Thirunelly (R1)	5.94	2.48	4.3	4.9	DUG WELL
165 5	WAYANAD	Tholpetty	10.21	10.43	10	10.7	DUG WELL

SL. No	DISTRICT	LOCATION	APRIL 17	AUGUST 17	NOVEMBER -17	JAN-18	WELL TYPE
1656	WAYANAD	Thonichal	7.02	4.4	5.5	5.99	DUG WELL
1657	WAYANAD	Ullisseri	4.82	0.76	1.51	2.15	DUG WELL
1658	WAYANAD	Vaduvanchal	10.37	7.75	9.15	8.77	DUG WELL
1659	WAYANAD	Valad (R1)	10.95	5.7	9.95	10.4	DUG WELL
1660	WAYANAD	Vallathur	2.68	0.92	1.9	2.22	DUG WELL
1661	WAYANAD	Vallithodu (Periye)	7.72	7.58		7.68	DUG WELL
1662	WAYANAD	Valliyur kavu	1.56	0.04	1.09	1.77	DUG WELL
1663	WAYANAD	Varayal	4.36	4.01	4.23	4.19	DUG WELL
1664	WAYANAD	Vellamunda	6.6	4.14	4.66	10.82	DUG WELL
1665	WAYANAD	Vengapalli		13.21	13.51	14.52	DUG WELL
1666	WAYANAD	Vyittiri	6.78	5.6	7.03	7.32	DUG WELL
1667	WAYANAD	Kottathara	4.46	2.04	3.44	4	<b>BORE WELL</b>
1668	WAYANAD	Kuppadi(east)	20.55				<b>BORE WELL</b>
1669	WAYANAD	Pookode	2.33		0.72	2.25	<b>BORE WELL</b>
1670	WAYANAD	Pozhutana1	2.96	2.1	2.92	2.9	<b>BORE WELL</b>
1671	WAYANAD	Thavinjal Pz	2.23	0.89	2.9		<b>BORE WELL</b>
1672	WAYANAD	Valliyurkavu(e)	1.69	0.28	0.98	1.44	<b>BORE WELL</b>
1673	WAYANAD	Valliyurkavu(w)	1.77	0.3	0.96	1.51	<b>BORE WELL</b>

**ANNEXURE –II****ANALYSIS DATA OF WATER SAMPLES FROM GROUNDWATER MONITORING WELLS IN KERALA DURING APRIL 2017.**





SL.NO	DISTRICTS	LOCATION	pH	EC in $\mu\text{s/cm}$ at 25°C	TH as $\text{CaCO}_3$	Ca	Mg	Na	K	$\text{CO}_3$	$\text{HCO}_3$	$\text{SO}_4$	Cl	F	$\text{NO}_3$
1	Alappuzha	Alappuzha	7.93	360	168	62	3.4	5.9	1	0	262	7.8	21	0.02	1.4
2	Alappuzha	Arukutti	7.68	240	96	35	1.9	9	2.1	0	78	18	13	0	2.2
3	Alappuzha	Chandirur	7.4	220	64	22	2.4	19	2.2	0	45	9.1	28	0.15	3.3
4	Alappuzha	Chettikulangara	7.41	159	52	18	1.9	12	0.65	0	56	14	16	0.13	1.5
5	Alappuzha	Edathuva	7.71	570	120	28	12	70	5.9	0	220	34	92	0.36	6.6
6	Alappuzha	Haripad	7.85	320	112	41	2.4	19	3.1	0	171	17	16	0.35	7.3
7	Alappuzha	Kallissery	7.68	109	32	8.8	2.4	8	2.1	0	32	6.5	7.1	0.25	8.8
8	Alappuzha	Kattanam	7.28	92	30	10	0.97	6	1.4	0	44	0.91	8.5	0.31	4.2
9	Alappuzha	Kattoor	7.49	173	76	26	2.4	3	1.8	0	115	2.3	14	0.15	3.4
10	Alappuzha	Kayamkulam	7.12	720	210	68	9.7	59	10	0	177	44	82	0.37	42
11	Alappuzha	Kudassanad	6.85	167	14	3.2	1.5	28	2.1	0	9.8	5.1	17	0.65	13
12	Alappuzha	Nedumudi	7.88	750	295	80	23	31	5.8	0	336	8.3	100	0.64	9.5
13	Alappuzha	Pallarimangalam	7.94	260	100	37	1.9	10	3.8	0	107	16	8.5	0.42	2
14	Alappuzha	Parumala	7.75	97	10	3.2	0.49	16	0.7	0	7.3	0.98	7.1	0.12	7.3
15	Alappuzha	Pattanakkad	7.96	660	260	80	15	30	2.2	0	336	5	53	0.32	4
16	Alappuzha	Pattiyur	7.98	770	200	52	17	53	32	0	183	80	110	0.36	30
17	Alappuzha	Purakkad	8.22	600	165	26	24	54	8	0	244	0.22	68	0.85	14
18	Alappuzha	Ramankari	7.74	710	170	34	21	82	3.1	0	152	7.9	135	0.29	4.1
19	Alappuzha	Taikattusseri	7.99	680	210	64	12	47	12	0	244	30	78	0.48	16
20	Alappuzha	Thevery	7.39	350	92	21	9.7	30	8	0	78	32	31	0.27	1.1
21	Alappuzha	Valavanad	7.26	280	84	29	2.9	18	7.1	0	88	18	17	0.37	11
22	Alappuzha	Venmani(Thazhakam)	6.76	188	28	7.2	2.4	26	3.4	0	9.8	4.6	24	0.02	23
23	Alappuzha	Taneermukkom	7.06	360	118	39	4.9	23	5.2	0	129	23	34	0.31	10
24	Ernakulam	Aikaranad	8.07	64	4	0.8	0.49	3	0.45	0	7.3	1	9.9	0.04	0.53
25	Ernakulam	Aluva	7.41	96	20	4.8	2	4.2	1.8	0	20	3	9.9	0.14	5.2
26	Ernakulam	Anchalpetty	6.16	93	14	4	0.97	4.6	0.6	0	9.8	7	13	0.04	3.4
27	Ernakulam	Angamali	7.12	240	64	19	3.9	20	4.6	0	46	18	45	0.14	23
28	Ernakulam	Chalacka	7.38	260	64	14	7.3	16	0.79	0	63	8.1	43	0.3	2
29	Ernakulam	Chellanam	7.65	2900	480	144	29	342	13	0	384	5.5	696	0.25	12
30	Ernakulam	Chengamanad	7.35	136	30	6.4	3.4	9.8	1.9	0	17	0	20	0.12	28

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31	Ernakulam	Cherai	6.75	176	60	22	0.97	4.1	0.12	0	88	4.5	9.9	0.11	1.4
32	Ernakulam	Cheriyakadavu	7.61	2000	390	108	29	250	7.6	0	439	14	497	0.38	6.6
33	Ernakulam	Cherukadappuram	7.26	400	145	34	15	22	0.52	0	207	1.5	51	0.26	2.7
34	Ernakulam	Chowara	7.31	178	54	14	4.9	6.8	1.7	0	61	11	13	0.17	12
35	Ernakulam	Chulli	6.47	121	30	8	2.4	6.2	0.56	0	22	0	14	0.02	20
36	Ernakulam	Edapally	7.08	480	200	68	7.3	22	3.6	0	305	30	27	0.18	2.7
37	Ernakulam	Edavanakkad	6.88	330	120	42	3.7	15	2.5	0	171	20	28	0.24	3.2
38	Ernakulam	Elur North	6.92	1870	385	114	24	203	4.2	0	153	61	497	0.3	48
39	Ernakulam	Ernakulam South	7.87	1060	345	104	21	114	8.4	0	354	0	238	0.28	9
40	Ernakulam	Fort Cochin	7.61	300	100	34	3.4	18	2.6	0	159	20	24	0.12	0.57
41	Ernakulam	Irumbanam	8.02	1260	205	38	27	195	9.8	0	232	15	327	0.69	2.1
42	Ernakulam	Kaladi	6.76	74	20	4	2.4	2.8	0.68	0	27	0	7.1	0	2.4
43	Ernakulam	Kandakadavu	7.5	4200	520	112	58	746	6.4	0	561	32	1314	0.42	8.1
44	Ernakulam	Kanjur	7.42	220	78	28	2	8.4	3.8	0	112	0	20	0.07	28
45	Ernakulam	Karukutty	6.55	210	44	9.6	4.9	18	1.6	0	27	0	28	0.02	34
46	Ernakulam	Kottapadi	7.48	107	26	6.4	2.4	4.7	0.28	0	22	3	8.5	0.11	5.4
47	Ernakulam	Koothattukulam	7.59	260	74	20	5.8	17	7.4	0	61	9.9	31	0.13	41
48	Ernakulam	Kothamangalam	8.3	198	68	20	4.4	13	2.8	9.6	29	16	26	0.16	24
49	Ernakulam	Kottapuram	7.22	181	38	9.6	3.4	12	3	0	39	16	19	0.16	12
50	Ernakulam	Kumbalangi	8.21	540	205	66	9.7	32	11	0	354	0	57	0.32	3.9
51	Ernakulam	Kundannur	7.64	530	140	42	8.5	41	3	0	183	11	71	0.28	7
52	Ernakulam	Malayattur	6.78	114	30	6.4	3.4	5.3	2	0	34	6	11	0.02	8.2
53	Ernakulam	Malipuram	7.4	470	155	50	7.3	25	2	0	220	6.6	50	0.2	7.4
54	Ernakulam	Maradu	7.65	820	250	84	9.7	46	2.5	0	439	8	54	0.34	8.8
55	Ernakulam	Mulanthuruthi	7.51	99	18	5.6	0.97	5.1	0.76	0	20	1.5	11	0.07	5
56	Ernakulam	Munambam	6.95	320	115	40	3.7	11	1.2	0	183	11	16	0.24	3.1
57	Ernakulam	Muvattupuzha	7.86	180	62	17	4.9	5.7	4.3	0	39	36	11	0.12	8.8
58	Ernakulam	Nayarambalam	7.18	470	190	64	7.3	14	3.2	0	287	33	21	0.27	2.2
59	Ernakulam	Neriyamangalam	7.35	100	20	5.6	1.5	6.8	0.96	0	9.8	4	19	0.07	6.4
60	Ernakulam	Njarakkal	7.52	480	190	64	7.3	15	2.4	0	287	18	30	0.18	2.4

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61	Ernakulam	North Paravur	6.92	340	135	44	6.1	12	2.7	0	207	9.5	20	0.27	5.3
62	Ernakulam	Palluruthy	7.52	710	240	80	9.7	38	8.2	0	214	25	57	0.18	149
63	Ernakulam	Parakadavu	7.15	220	52	11	5.8	11	4.7	0	42	11	43	0.23	3.4
64	Ernakulam	Paravur	6.74	183	44	14	2	4.5	1.1	0	56	7	11	0.11	8.2
65	Ernakulam	Perumbadavam	7.36	79	20	3.2	2.9	3.8	0.63	0	27	0	8.5	0.1	4.4
66	Ernakulam	Pothanikad	7.24	177	48	13	3.9	13	6.6	0	42	14	21	0.22	25
67	Ernakulam	Punithura	7.61	690	215	62	15	48	2.7	0	275	22	77	0.36	29
68	Ernakulam	Poothotta	7.4	350	106	37	3.4	23	2.4	0	116	26	37	0.2	3.3
69	Ernakulam	Trikkakkara	7.37	470	100	30	6.1	28	2	0	146	6.1	55	0.14	6.7
70	Ernakulam	Tripunithura	7.55	690	220	78	6.1	36	7.7	0	250	50	54	0.12	4.6
71	Ernakulam	Udayamperur	7.56	250	76	27	2	6	1.3	0	116	6	9.9	0.08	4.7
72	Ernakulam	Vallom	7.27	142	18	3.2	2.4	12	2.1	0	61	4	23	0.1	15
73	Ernakulam	Varapuzha	7	194	70	20	4.9	9.4	3.1	0	85	11	23	0.15	10
74	Ernakulam	Vazhakulam North	7.44	177	68	17	6.3	16	1.7	0	78	5.5	23	0.1	8.1
75	Ernakulam	Vypeen	7.65	1130	305	90	20	113	11	0	580	28	153	0.34	23
76	Ernakulam	Vyttila	7.78	167	40	12	2.4	16	3.6	0	61	5.5	36	0.07	1.8
77	Idukki	Adimali	4.74	210	28	8.8	1.5	17	4	0	2.4	4.3	31	0	30
78	Idukki	Chinikuzhi	7.1	129	32	8	2.9	8.7	3.1	0	46	1.9	16	0	1.2
79	Idukki	Chittur	7.16	66	16	4	1.5	5	1.5	0	24	0	9.9	0.08	1.8
80	Idukki	Elapara	6.25	185	42	12	2.9	16	4.2	0	32	2.4	31	0	18
81	Idukki	Irratayar	6.79	540	72	16	7.8	66	7	0	22	2.4	110	0.25	77
82	Idukki	Idukki	6.5	116	20	4.8	1.9	8.9	1.9	0	34	1.5	9.9	0	3.6
83	Idukki	Kaliyar	7.1	260	62	17	4.9	20	6.8	0	39	15	37	0.12	31
84	Idukki	Karimkunnam	6.62	350	84	26	4.9	25	8	0	54	7.8	55	0.12	36
85	Idukki	Kattapana	6	410	60	15	5.4	40	13	0	12	15	58	0.23	86
86	Idukki	Koilkadavu	6.81	390	90	24	7.3	35	5.1	0	122	15	37	0.32	15
87	Idukki	Kumaramangalam	6.91	125	18	6.4	0.49	8.9	1.9	0	15	1.8	13	0.16	14
88	Idukki	Kumili	6.95	390	132	37	9.7	25	5.7	0	188	21	33	0.67	12
89	Idukki	Kuttiakanam	6.2	143	24	7.2	1.5	7.1	4.3	0	20	0	17	0.15	11
90	Idukki	Moolamattom	6.9	131	34	9.6	2.4	7.9	3	0	34	3.8	11	0.01	14

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91	Idukki	Munnar	5.93	115	16	5.6	0.49	9.8	4.5	0	20	0	20	0.23	3.6
92	Idukki	Nedumkandam	7.05	600	205	54	17	36	10	0	274	19	71	0.19	20
93	Idukki	Poopara	6.63	560	120	30	11	46	13	0	73	14	75	0.24	84
94	Idukki	Vandanmedu	6.09	155	18	4	1.9	10	6.6	0	22	0	14	0.02	18
95	Idukki	Vandiperiyar	6.31	560	95	22	9.7	44	31	0	55	21	85	0.33	91
96	Idukki	Vellilamkandam	5.7	131	16	4	1.5	10	1.5	0	15	0.67	18	0.1	5.3
97	Kannur	Alavil	6.65	111	18	4.8	1.5	7	1.1	0	12	6	16	0.12	1.9
98	Kannur	Kannur	7.25	340	98	31	4.9	18	7.1	0	37	48	36	0.33	32
99	Kannur	Chalad	6.42	340	60	18	3.4	26	9.6	0	7.3	15	53	0.09	58
100	Kannur	Chakkarakkallu	7.14	210	28	6.4	2.9	17	3.2	0	4.9	0	38	0.25	18
101	Kannur	Chepparapadavu	6.8	87	26	5.6	2.9	5	1.1	0	32	0	9.9	0	4
102	Kannur	Cheleri	7.19	51	6	0.8	0.97	2	0.9	0	4.9	0	7.1	0	0.37
103	Kannur	Dharmadam	6.9	159	40	13	1.9	11	1.3	0	37	2.3	23	0.11	4.7
104	Kannur	Edakkad	7.32	200	54	18	2.4	12	1.1	0	44	20	21	0.16	0.75
105	Kannur	Ettikulam	6.56	155	20	4.8	1.9	3	0.9	0	20	0	9.9	0.18	3.2
106	Kannur	Kannapuram	7.36	310	104	37	2.9	19	2.3	0	100	11	43	0.19	0.87
107	Kannur	Kannavam	7.45	115	22	5.6	1.9	6	0.4	0	27	0	9	0.24	4.9
108	Kannur	Kannur-Thana	7.47	210	40	12	2.4	12	1.9	0	24	10	24	0.05	13
109	Kannur	Koothuparamba	7.08	350	89	20	8.8	12	5.8	0	12	2.9	44	0.2	71
110	Kannur	Kottiyur	7.35	137	32	8	2.9	6	0.4	0	39	0	9	0	4.9
111	Kannur	Kotty	7.19	430	214	73	7.8	7	1.9	0	220	30	17	0.18	5.4
112	Kannur	Kozhichal	7.22	86	24	4.8	2.9	2.8	0.4	0	32	0	4.3	0.34	0.75
113	Kannur	Kunnaru	7.34	800	235	50	27	70	4.4	0	250	45	107	0.19	4.3
114	Kannur	Mahe	7.88	350	86	13	13	32	10	0	134	12	43	0.15	1.3
115	Kannur	Mattannur	7.74	149	22	4	2.9	4.5	3.5	0	4.9	0	20	0.25	19
116	Kannur	Melechovva	7.39	95	28	7.2	2.4	2	0.45	0	27	0.9	9	0.18	0.89
117	Kannur	Mokeri	7.59	188	38	7.2	4.8	15	1.5	0	41	0	24	0.24	16
118	Kannur	Muzhakkunnu	7.01	270	52	14	4.4	12	2.1	0	59	2.9	24	0	6.7
119	Kannur	Neruvambram	7.58	180	62	22	1.5	1.3	0.3	0	54	2	7.1	0.22	13
120	Kannur	Payyannur	6.91	240	50	17	1.9	9	3.9	0	12	10	30	0.15	25

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121	Kannur	Pazhayangadi	7.67	270	110	34	6.3	4	2.5	0	107	8	21	0.25	3.4
122	Kannur	Peringome	7.01	230	54	18	2.4	14	3.5	0	49	15	28	0.11	4
123	Kannur	Ramanthali	7.19	70	6	0.8	0.97	3	0.5	0	4.9	0	8.5	0	2.4
124	Kannur	Sreekandapuram	6.82	210	50	13	4.4	18	1.5	0	15	9.8	31	0.16	41
125	Kannur	Taliparamba	7.6	320	68	19	4.9	10	9.7	0	54	6.5	30	0.24	28
126	Kannur	Thalassery	7.56	460	146	53	3.4	23	9	0	134	23	38	0.16	42
127	Kannur	Thazhechovva	7.27	350	54	12	5.8	21	3.1	0	34	13	40	0.18	19
128	Kannur	Ullikkal	7.49	126	16	4.8	0.97	44	0.8	0	20	0.5	7.1	0.12	3
129	Kannur	Valapattanam	7.16	270	54	15	3.9	24	4.9	0	15	17	52	0	19
130	Kasaragod	Angadimogar	6.24	97	20	5.6	1.5	5.6	0.6	0	24	2.1	9.9	0	0.73
131	Kasaragod	Bandadukka	6.37	91	34	13	0.49	1.8	0.8	0	37	4	5.7	0.09	0.74
132	Kasaragod	Bekal	3.76	270	40	8	4.9	28	2.9	0	0	0.29	48	0.03	54
133	Kasaragod	Chamundikunnu	7.61	220	90	18	11	14	0.6	0	105	8.6	23	0.1	3.7
134	Kasaragod	Chayangode	7.25	270	88	33	1.5	18	1.4	0	93	36	9.9	0.34	8.3
135	Kasaragod	Chittarikkal	7.54	240	106	15	16	8	0.4	0	139	2.5	8.5	0.02	0
136	Kasaragod	Elambachi	7.21	144	48	18	0.97	12	5.3	0	41	1.8	30	0	15
137	Kasaragod	Kanhangad Coast	7.46	210	76	29	0.97	10	1.2	0	80	9.4	17	0.27	4.2
138	Kasaragod	Kanhangad Town	6.83	133	20	4.8	1.9	10	4.6	0	2.4	0.58	26	0.03	21
139	Kasaragod	Kasaragod	7.24	220	42	12	2.9	16	2.2	0	4.9	8.1	41	0.1	20
140	Kasaragod	Kumbla	7.58	240	96	23	9.2	9	2.6	0	122	4.3	13	0.2	3.2
141	Kasaragod	Manjeshwar	7.55	230	26	7.2	1.9	22	4.4	0	12	1.7	50	0.14	10
142	Kasaragod	Meleparamba	7.17	210	42	10	3.9	12	9	0	17	3.6	37	0.23	30
143	Kasaragod	Mogara	7.3	56	14	4	0.97	3.2	1.9	0	9.8	2.9	9.9	0.14	2.7
144	Kasaragod	Mogara Puthur	7.46	172	60	12	7.3	8	6.2	0	71	3.4	20	0.11	6.3
145	Kasaragod	Mulleriya	7.3	185	36	9.6	2.9	7.6	5.4	0	17	1.2	24	0.09	26
146	Kasaragod	Nileshwar	7.2	143	40	14	1.5	7	0.9	0	32	1.9	21	0.09	4.7
147	Kasaragod	Odayanchal	7.16	89	26	7.2	1.9	4	1.2	0	27	1.4	11	0.07	3.9
148	Kasaragod	Paivalke	7.16	122	22	7.2	0.97	12	1.9	0	29	1.3	20	0	4.3
149	Kasaragod	Panathur	7.05	172	34	7.2	3.9	15	2.3	0	17	0.38	40	0.05	6.9
150	Kasaragod	Parappa North	6.74	160	30	7.2	2.9	18	1.2	0	37	0.48	31	0.08	2.2

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151	Kasaragod	Perla	6.88	151	36	13	0.97	10	1.3	0	29	2.2	21	0	12
152	Kasaragod	Poinachi	6.86	60	14	3.2	1.5	6	1	0	9.8	0.77	11	0.09	4.9
153	Kasaragod	Povval	6.94	161	44	15	1.5	12	1.5	0	39	0.58	18	0.11	22
154	Kasaragod	Pullur	7	71	18	4.8	1.5	4.9	1.7	0	24	0.38	8.5	0	0.53
155	Kasaragod	Thrikkarippur	6.88	70	16	4.8	0.97	5	0.8	0	7.3	4.7	11	0.01	4.6
156	Kasaragod	Udinur	7.38	84	24	7.2	1.5	4.1	1.4	0	22	0	9.9	0.03	7.6
157	Kasaragod	Uppala	7.4	184	60	20	2.4	13	1.6	0	85	3.5	16	0.3	8.1
158	Kollam	Achenkovil	7.03	188	40	10	3.4	11	6	0	71	8.2	24	0.07	7.5
159	Kollam	Akkal	7.12	114	14	2.4	2	11	1.9	0	29	0	11	0.07	12
160	Kollam	Anchalummoodu	3.29	270	28	6.4	2.9	23	3.1	0	0	0	47	0.26	65
161	Kollam	Avaneeswaram	5.88	114	14	4	0.97	8.9	1.6	0	27	0	16	0.1	5.7
162	Kollam	Ayathil	7.22	110	10	3.2	0.49	9	2.4	0	2.4	1.5	17	0.04	22
163	Kollam	Ayoor	6.14	73	10	1.6	1.5	5.7	1.5	0	32	0	4.3	0.1	6.5
164	Kollam	Chenkulam	6.7	106	10	3.2	0.49	13	0.76	0	22	0	14	0.56	9.9
165	Kollam	Iravipuram	7.78	500	120	40	4.9	46	5.4	0	146	38	60	0.07	22
166	Kollam	Kadapuzha	7.55	183	42	9.6	4.4	13	0.82	0	63	13	17	0.06	1.5
167	Kollam	Kudavettur	7.13	320	70	25	2	32	1.2	0	90	4	53	0.06	24
168	Kollam	Karunagapally	7.9	450	205	70	7.3	30	5.7	0	220	44	64	0.08	23
169	Kollam	Kottarakkara	7.59	260	56	15	4.4	17	2.5	0	85	13	31	0.1	4.6
170	Kollam	Kulathupuzha	4.18	260	12	2.4	1.5	30	4.1	0	0	traces	44	0.1	50
171	Kollam	Kunnada	6.54	94	6	1.6	0.49	8	1.8	0	22	0	13	0	6.4
172	Kollam	Madathara	6.74	153	30	10	0.97	12	1.8	0	39	9	20	0.08	9.2
173	Kollam	Mayyanadu	3.8	3300	460	112	44	335	54	0	0	34	625	0.3	697
174	Kollam	Paripalli	6.84	74	8	3.2	traces	4.9	1.3	0	15	5	9.9	0.1	7.5
175	Kollam	Perinad	6.81	128	8	2.4	0.49	17	0.46	0	9.8	1.5	31	0.1	6.2
176	Kollam	Pozhikkara	7	310	68	15	7.3	30	2.1	0	63	21	54	0.18	7.8
177	Kollam	Punalur	7.08	250	64	21	2.9	11	4.1	0	85	1.5	27	0.22	23
178	Kollam	Sasthamkotta	7.17	147	12	4.8	traces	18	1	0	4.9	4	28	0.07	12
179	Kollam	Sooranadu	5.72	135	10	2.4	0.97	15	1.3	0	traces	0.55	28	0.04	24
180	Kollam	Thenmala	8.21	54	2	0.8	traces	4.7	0.69	0	15	0.55	11	0.15	1.7

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181	Kollam	Thevalakkara	7.63	162	34	10	2	8.7	0.84	0	34	5.5	19	0.05	5.6
182	Kollam	Ummannur	7.56	220	48	15	2.4	16	4	0	83	1.5	26	0.05	12
183	Kollam	Vadakkumthala West	7.24	450	70	20	4.9	54	2.9	0	43	60	85	0.04	7.4
184	Kollam	Vallikavu	8.42	260	70	24	2.4	20	0.66	18	43	10	34	0	4.2
185	Kollam	Yeroor	7.91	430	80	20	7.3	55	2.4	0	195	11	45	0.22	12
186	Kottayam	Anandasram	6.99	180	56	20	1.5	10	4.8	0	88	0	13	0	2.8
187	Kottayam	Ayamkudi	5.9	60	12	4	0.49	5.1	1.3	0	12	0	9.9	0.13	3.6
188	Kottayam	Brahmamangalam	6.24	83	16	4	1.5	6.9	1.2	0	24	1.9	7.1	0.27	3
189	Kottayam	Changanassery	6.75	630	105	30	7.3	-	-	0	43	47	110	0	49
190	Kottayam	Chempu	6.59	220	70	23	2.9	11	5.1	0	105	2.5	13	0	1.1
191	Kottayam	Chengulam	440	144	45	7.8	45	4.9	0	183	48	34	0.06	8.2	61
192	Kottayam	Cheruthikkara	95	18	4	1.9	7.5	2.2	0	17	2.2	11	0	9.6	18
193	Kottayam	Chungam	260	52	12	5.4	15	2.1	0	90	1.4	11	0.21	1.8	8.3
194	Kottayam	Edinjilam	440	74	23	3.9	39	3.5	0	34	23	48	0.05	61	3.8
195	Kottayam	Erumeli	74	20	5.6	1.5	-	-	0	15	0	5.7	0	18	29
196	Kottayam	Ettumanoor	5.98	90	14	4.8	0.49	8	4.5	0	17	0	16	0	8.3
197	Kottayam	Kallara	6.1	62	18	4.8	1.5	3.9	2.5	0	20	3.1	7.1	0.11	3.8
198	Kottayam	Kottayam	6.5	240	58	18	2.9	14	5.9	0	15	14	38	0	29
199	Kottayam	Kozha	5.64	125	24	5.6	2.4	6.5	3.5	0	12	0	14	0	24
200	Kottayam	Kudavechur	8.08	350	120	43	2.9	38	3.9	0	201	9	28	0.17	2.5
201	Kottayam	Kumarakom	8.04	580	216	74	7.3	-	-	0	256	0	129	0	4.4
202	Kottayam	Kurichi	7.1	139	26	8	1.5	10	2.9	0	20	2.2	17	0	17
203	Kottayam	Kuttikkal	5.9	104	14	4	1	-	-	0	17	0	11	0	9.4
204	Kottayam	Mannanam	6.32	1110	195	50	17	138	10	0	18	67	313	0.07	4.6
205	Kottayam	Naranganam	5.2	53	12	2.4	1.5	2.3	0.9	0	12	0.76	7.6	0	5.1
206	Kottayam	Neendur	4.84	93	20	6.4	0.97	7	0.5	0	2.4	10	9.9	0.02	15
207	Kottayam	Paipad	4.94	270	44	14	2.4	12	14	0	7.3	8	37	0	50
208	Kottayam	Pala	6.75	110	28	8	1.9	8	2.5	0	41	2.4	9.9	0.01	4.3
209	Kottayam	Palamkadavu	6.55	390	82	17	9.7	39	12	0	124	0.65	64	0.08	6.2
210	Kottayam	Pallikathodu	6.02	121	28	5.6	3.4	8	0.5	0	41	0.43	8.5	0	6.2

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211	Kottayam	Pallom(Nattagam)	6.2	90	16	4	1.5	7	2.5	0	9.8	0	14	0	13
212	Kottayam	Pambadi	5.92	71	20	4.8	1.9	4	1.5	0	24	0.65	8.5	0	3.4
213	Kottayam	Paruthumpara	6.02	143	20	4	2.4	16	1.5	0	22	0.33	24	0.02	13
214	Kottayam	Plakkalpadi	5.63	170	24	5.6	2.4	18	1.2	0	17	0.54	28	0	17
215	Kottayam	Pulikuttisseri	6.63	200	56	18	2.9	9	4.5	0	88	0	9.9	0.02	1.8
216	Kottayam	Talayolaparambu	260	60	15	5.4	20	3.5	0	49	17	37	0	4.9	4.9
217	Kottayam	Tazhatangadi	350	108	33	6.3	29	7.1	0	139	17	38	0	4.4	4.4
218	Kottayam	Tiruvarpu	470	98	28	6.8	55	3.1	0	116	31	71	0.19	2.5	2.5
219	Kottayam	Tottakkad	97	20	4.8	1.9	7.8	0.8	0	29	0.1	8.5	0	6.9	6.9
220	Kottayam	Thottakam	230	92	31	3.4	16	2.7	0	132	8.7	11	0.08	2.4	2.4
221	Kottayam	Udayanapuram	7.05	250	92	32	2.9	17	5.1	0	110	17	18	0.26	11
222	Kottayam	Vaikom	7.93	730	270	88	12	77	13	0	415	19	78	0.24	3.7
223	Kottayam	Vazhur	7.42	122	22	4.8	2.4	5.5	1	0	34	0.32	5.7	0	3.5
224	Kottayam	Vechur	7.24	240	88	29	3.9	17	2.5	0	129	7.7	14	0.16	1.9
225	Kottayam	Velloor II	6.37	520	140	22	20	47	4.5	0	117	7.7	100	0	11
226	Kozhikode	Badagara	7	410	102	32	5.4	26	10	0	61	25	51	0.07	48
227	Kozhikode	Balusseri	6.91	220	32	8.8	2.4	20	4.9	0	15	1.2	38	0.11	28
228	Kozhikode	Beyepore	7.3	460	102	30	6.3	50	2.8	0	67	76	44	0.24	30
229	Kozhikode	Kozhikode Beach	8.09	690	280	94	11	42	8.2	0	287	18	53	0.21	83
230	Kozhikode	Chaliyam	7.93	520	190	54	13	45	5.7	0	220	31	53	0.32	22
231	Kozhikode	Chelavur	7.15	240	14	3.2	1.5	34	2.5	0	12	1.7	34	0.09	49
232	Kozhikode	Chemencheri	7	310	76	27	1.9	19	3.5	0	37	25	44	0.29	37
233	Kozhikode	Devarkoil	6.8	210	40	10	3.4	18	2.5	0	9.8	8.4	33	0.02	32
234	Kozhikode	Elattur	6.64	230	70	22	3.4	15	0.5	0	34	22	30	0.12	24
235	Kozhikode	Farooq	6.68	340	74	22	4.9	16	10	0	56	16	28	0.12	40
236	Kozhikode	Kallai	7.32	620	205	68	8.5	100	18	0	171	39	53	0.37	86
237	Kozhikode	Kakkayam	6.56	55	12	3.2	0.97	7	1.6	0	24	1.6	8.5	0.07	2
238	Kozhikode	Kannankara	7.17	250	48	15	2.4	16	1.1	0	56	2.9	24	0.07	8.2
239	Kozhikode	Karaparambu	7.23	250	86	27	4.4	21	1	0	105	19	20	0.01	2.4
240	Kozhikode	Kayapanachi	6.71	410	136	30	15	30	2.2	0	85	28	75	0.23	1.7



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241	Kozhikode	Koduvalli	7.1	105	30	7.2	2.9	12	1.6	0	66	0	7.1	0.15	2.6
242	Kozhikode	Koothali	6.42	74	16	3.2	1.9	4	2.9	0	7.3	0.4	9.9	0.11	13
243	Kozhikode	Kozhikode	6.42	220	52	17	2.4	21	2.6	0	41	5.4	34	0.03	23
244	Kozhikode	Mavoor II	6.71	103	14	4	0.97	7	5.4	0	17	1.9	16	0.11	5.8
245	Kozhikode	Modern Bazaar	6.58	182	32	8	2.9	17	1.1	0	24	9.8	28	0.24	5
246	Kozhikode	Mukkali	6.46	137	20	6.4	0.97	12	5.6	0	12	8.4	23	0.02	14
247	Kozhikode	Nadapuram	6.84	181	44	13	2.9	16	4.1	0	54	4.3	24	0	13
248	Kozhikode	Orkattery	7.49	330	104	31	6.3	29	3	0	140	23	28	0.29	2.1
249	Kozhikode	Perambra	6.84	106	26	8	1.5	10	2.5	0	37	0.9	13	0.3	9.6
250	Kozhikode	Pudukayam	6.88	64	20	4.8	1.9	5.4	0.6	0	27	0	7.1	0.06	4.4
251	Kozhikode	Pudupadi	5.88	105	16	4	1.5	8	2.2	0	12	0	18	0	9.1
252	Kozhikode	Quilandy	6.81	520	160	58	3.6	42	5.3	0	134	24	57	0.21	66
253	Kozhikode	Ramanattukara	8.15	1040	150	18	26	192	3.3	0	390	84	121	0.83	12
254	Kozhikode	Thamarasserri	7.54	186	48	11	4.9	10	2.7	0	61	0	17	0.39	7.7
255	Kozhikode	Thiruvallur	6.92	131	28	9.6	0.97	8	2.4	0	27	0	14	0	16
256	Kozhikode	Tikkodi	4.35	131	18	4	1.9	3	5.9	0	0	0	21	0.08	18
257	Malappuram	Amminikkad	6.87	107	36	7.2	4.4	9	1.1	0	56	0	8.5	0.37	2.8
258	Malappuram	Arikode	7.15	240	64	18	4.4	16	2.3	0	56	5.6	31	0	19
259	Malappuram	Chamravattam	7.33	161	48	12	4.4	13	1.5	0	80	1.7	13	0.24	0.74
260	Malappuram	Chokkad	6.97	410	116	27	12	46	4.5	0	195	2.9	44	0.18	14
261	Malappuram	Chungathara	8.23	1160	370	74	45	100	9.9	54	293	54	153	0.49	63
262	Malappuram	Edappal	7.45	220	38	6.4	5.4	6.5	0.5	0	32	0	14	0	16
263	Malappuram	Edavanna	7.4	164	36	8	3.9	9	1.8	0	44	0	17	0.06	13
264	Malappuram	Iswaremangalam	8.26	820	190	32	27	120	5.5	48	281	2.4	114	0.58	15
265	Malappuram	Kadalundi	7.67	940	295	84	21	79	2.8	0	232	132	103	0.35	3.1
266	Malappuram	Kalikavu	6.06	380	60	14	5.8	25	3.2	0	15	1.5	44	0.03	65
267	Malappuram	Kanjiramukku	6.97	330	46	15	1.9	37	2.7	0	63	12	52	0.11	2
268	Malappuram	Kariavattom	7.3	190	44	10	4.4	17	3.4	0	73	0.94	23	0.24	2.5
269	Malappuram	Karulai	6.87	360	112	22	14	34	3.7	0	161	8.5	31	0.18	18
270	Malappuram	Kondotty	7.02	198	36	7.2	4.4	16	0.4	0	22	1.4	30	0.12	18

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271	Malappuram	Kottakkal	7.26	470	76	21	5.8	47	10	0	85	0.83	88	0.33	21
272	Malappuram	Kuruva	7.36	148	32	8.8	2.4	9	1.8	0	49	0.83	7.1	0	11
273	Malappuram	Kuttiapuram	7.2	650	135	26	17	66	9	0	140	18	100	0.48	46
274	Malappuram	Malappuram	7.59	230	54	12	5.8	13	3	0	78	1	17	0.08	11
275	Malappuram	Mangalam	7	650	150	42	11	45	11	0	37	87	60	0.39	98
276	Malappuram	Manjeri	6.92	1090	200	56	15	104	16	0	134	38	206	0.33	58
277	Malappuram	Marancheri	7.09	127	24	7.2	1.5	5.6	1.4	0	9.8	2.7	18	0	13
278	Malappuram	Maruda	6.7	270	66	16	6.3	20	1.3	0	90	0.21	21	0.02	22
279	Malappuram	Melattur	6.65	250	58	14	5.4	27	0.9	0	80	0	34	0	12
280	Malappuram	Nilambur	6.78	210	30	6.4	3.4	21	2.4	0	12	0	36	0	28
281	Malappuram	Parrappanangadi	7.02	590	175	60	6.1	40	15	0	140	44	64	0	62
282	Malappuram	Perumpadappu	6.87	310	38	13	1.5	28	8.3	0	7.3	18	40	1.35	34
283	Malappuram	Ponnani	8.04	2200	500	156	27	235	15	0	293	60	551	0.08	6.4
284	Malappuram	Pulamanthol	7.07	580	75	16	8.5	37	11	0	43	6.7	78	0.17	42
285	Malappuram	Tanur	7.27	380	58	17	3.9	31	5.4	0	43	5	61	0	21
286	Malappuram	Thavannur	6.9	220	78	25	3.9	17	2.1	0	117	1.7	13	0.06	13
287	Malappuram	Thuvur	6.62	177	30	6.4	3.4	9	1.8	0	20	0	17	0.01	22
288	Malappuram	Tirunavaya	7.74	440	148	34	16	40	1.4	0	207	16	36	0.22	15
289	Malappuram	Tirur	6.37	340	38	11	2.4	28	1.3	0	7.3	5.3	50	0	30
290	Malappuram	Valancheri	6.81	510	95	20	11	48	1.5	0	37	1.2	110	0.05	26
291	Malappuram	Vazhikadavu	6.89	420	128	30	13	37	1.3	0	156	13	44	0.05	15
292	Malappuram	Vylattur	6.89	280	44	11	3.9	34	1.7	0	85	1.5	37	0.13	8.8
293	Palakkad	Agali	7.19	960	355	102	24	56	3.7	0	396	14	103	0.85	3.6
294	Palakkad	Alanallur	7.21	189	34	8	3.4	16	4.5	0	37	7	26	0.23	6.2
295	Palakkad	Alathur	7.64	1010	405	88	45	45	2.9	0	256	48	178	0.61	4
296	Palakkad	Chalissery	7.33	183	30	7.2	2.9	16	3.1	0	20	0	28	0.42	21
297	Palakkad	Chavadiyur	7.48	810	340	44	56	46	2.5	0	439	17	28	1.09	37
298	Palakkad	Chemampathi(Near by well)	8.07	1100	395	94	39	82	10	0	445	12	142	0.68	54
299	Palakkad	Kalladikode	7.52	192	14	3.2	1.5	15	4.1	0	12	0	28	0.33	14
300	Palakkad	Kanjikode	7.8	1300	330	88	27	102	67	0	458	57	185	0.32	34

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301	Palakkad	Karimpuzha	7.6	159	20	5.6	1.5	18	2.6	0	66	2	7.1	0.4	2
302	Palakkad	Kodavayur	7.11	330	78	14	11	29	2.6	0	102	27	26	1.02	3
303	Palakkad	Kollengode i	8.04	1380	255	28	45	187	10	0	348	108	234	1.27	2.1
304	Palakkad	Kollengode ii	8.06	810	245	20	47	40	9.7	0	274	49	71	0.61	2.8
305	Palakkad	Koppam	7.07	280	62	14	6.3	20	3	0	29	2	41	0.31	44
306	Palakkad	Kuzhalmannam	7.88	740	195	32	28	59	5.4	0	171	56	96	0.77	12
307	Palakkad	Mankara	6.9	340	80	17	9.2	23	3.6	0	80	15	44	0.35	3.8
308	Palakkad	Mannarghat	7.62	510	150	42	11	37	11	0	152	17	75	0.33	19
309	Palakkad	Meenakshipuram	7.75	810	235	44	30	43	10	0	244	32	71	0.1	48
310	Palakkad	Mundur	7.73	290	80	17	9.2	16	2.8	0	100	2.2	23	0.25	5.8
311	Palakkad	Nemmara	7.7	550	150	32	17	39	8	0	128	24	82	0.45	19
312	Palakkad	Ottapalam	7.25	400	58	14	5.4	49	1.7	0	68	0	74	0.34	17
313	Palakkad	Palakkad	7.6	760	250	42	35	50	2.2	0	244	37	78	0.95	24
314	Palakkad	Pattambi	7.3	320	76	19	6.8	23	5	0	54	17	45	0.41	21
315	Palakkad	Pudunagaram	7.76	950	285	66	29	80	15	0	397	27	107	0.78	9
316	Palakkad	Shornur	7.08	189	52	13	4.9	8	3.2	0	61	2.2	18	0.4	4.3
317	Palakkad	Tavalam	7.82	360	136	29	16	18	0.9	0	132	0	36	0.31	26
318	Palakkad	Trittala	7.93	570	230	50	26	32	3.5	0	226	31	68	0.39	1.2
319	Palakkad	Vadakkancherry	7.88	710	230	50	26	47	3.5	0	189	28	89	0.18	45
320	Pathnamthitta	Angadikkal North	6.98	114	12	3.2	0.97	4	1	0	15	0	8.5	0.31	4.7
321	Pathnamthitta	Aranmula	6.81	250	90	17	12	15	1	0	68	11	30	0.22	19
322	Pathnamthitta	Enathu	7.24	660	155	40	13	61	20	0	92	75	113	0.64	43
323	Pathnamthitta	Kaviyur	7.46	46	4	0.8	0.49	6	1.7	0	4.9	0	13	0.08	4
324	Pathnamthitta	Konni	6.72	410	98	19	13	30	6.1	0	9.8	3.6	86	0.16	55
325	Pathnamthitta	Kootanadu	6.93	196	30	8	2.4	19	5	0	24	3.6	18	0.18	18
326	Pathnamthitta	Mallapally	5.84	164	10	3.2	0.49	13	1.4	0	4.9	0	21	0	12
327	Pathnamthitta	Muthoor	6.34	230	40	14	1.5	28	1.7	0	17	21	31	0.05	36
328	Pathnamthitta	Naduvathumuzhi	7.43	95	24	4	3.4	3	1.3	0	29	0	5.7	0	4.5
329	Pathnamthitta	Nilakkal	7.05	112	22	5.6	1.9	13	1.4	0	9.8	0	27	0	12
330	Pathnamthitta	Pandalam	7.07	81	20	2.4	3.4	7	1	0	24	0	11	0	4.5

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331	Pathnamthitta	Pathanamthitta	8	168	60	18	3.9	13	4.9	0	54	20	21	0	7.1
332	Pathnamthitta	Peringara	7.73	210	80	18	8.3	16	0.8	0	95	5.9	23	0.37	1.1
333	Pathnamthitta	Pulikeezh	7.6	210	108	34	5.8	4.9	0.9	0	117	12	8.5	0.23	0.42
334	Pathnamthitta	Thelliyur	7.44	122	32	8	2.9	6	1.5	0	44	0	7.1	0.16	5.3
335	Pathnamthitta	Vadasserikkara	7.22	115	48	16	1.9	1	1.7	0	44	3	7.1	0	6.4
336	Thiruvananthapuram	Attingal	7.32	230	48	17	1.5	18	1.2	0	63	1	34	0.18	25
337	Thiruvananthapuram	Azhoor	7.17	250	26	5.6	2.9	29	2.2	0	15	2	55	0.08	21
338	Thiruvananthapuram	Balaramapuram	5.03	970	190	36	24	94	18	0	traces	0	206	0.32	220
339	Thiruvananthapuram	Cherunniyoor	6.5	420	90	20	9.7	27	8.1	0	7.3	1.5	78	0.36	91
340	Thiruvananthapuram	Chirayinkeezh	5.4	360	35	4	6.1	46	1.1	0	7.3	0	96	0.14	31
341	Thiruvananthapuram	Chittagodu	7.08	380	55	12	6.1	42	5.5	0	49	8.5	78	0.24	28
342	Thiruvananthapuram	Kadakkavur	7	600	140	36	12	48	3	0	61	34	107	0.21	68
343	Thiruvananthapuram	Kallar	7.4	101	12	3.2	0.97	5.7	1.2	0	24	0	17	0.22	2.3
344	Thiruvananthapuram	Kalikkad	7.2	200	16	3.2	2	21	5.1	0	17	14	31	0.16	13
345	Thiruvananthapuram	Kappil	6.99	250	66	21	3.4	14	2.1	0	59	19	37	0.16	8.1
346	Thiruvananthapuram	Kattakada	5.78	380	55	14	4.9	33	7.3	0	7.3	1.6	85	0.2	35
347	Thiruvananthapuram	Kazhakuttam	7.72	530	160	52	7.3	39	3.5	0	205	49	57	0.2	4.8
348	Thiruvananthapuram	Kulathur	7	113	18	4.8	1.5	9.8	1.5	0	34	0	19	0.14	1.4
349	Thiruvananthapuram	Mannanthala	7	290	24	4	3.4	37	4.2	0	15	0	61	0.2	35
350	Thiruvananthapuram	Nagapuram	7.24	147	16	3.2	2	16	1	0	27	0	27	0.16	6.3
351	Thiruvananthapuram	Navaikulam	7.17	240	34	9.6	2.4	25	2.1	0	39	8.5	45	0.14	21
352	Thiruvananthapuram	Nedumangad	6.18	240	28	5.6	3.4	25	3.9	0	42	2.5	47	0.1	9
353	Thiruvananthapuram	Neyyattinkara	7.27	290	26	5.6	2.9	24	2.2	0	7.3	0	37	0.21	45
354	Thiruvananthapuram	Palayamkunnu	7.31	164	38	12	2	12	0.86	0	66	6	16	0.2	5.7
355	Thiruvananthapuram	Palode	6.94	250	28	7.2	2.4	23	4.5	0	44	6.5	41	0.24	19
356	Thiruvananthapuram	Pangode	7.38	310	35	4	6.1	33	5.1	0	12	0	64	0.17	59
357	Thiruvananthapuram	Parandod	7.15	220	18	3.2	2.4	18	4.1	0	7.3	2	40	0.24	18
358	Thiruvananthapuram	Perumathura	8.2	760	255	88	8.5	55	5.9	0	317	43	98	0.24	42
359	Thiruvananthapuram	Perumkuzhi	6.36	600	140	36	12	40	5.5	0	31	40	68	0	150
360	Thiruvananthapuram	Perungulam	6.74	183	20	4	2.4	14	2	0	7.3	2.5	27	0.1	27

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361	Thiruvananthapuram	Pothencode	7	200	20	3.2	2.9	22	3	0	15	0	36	0.23	38
362	Thiruvananthapuram	Poovar (School)	6.95	540	70	12	9.7	78	2.3	0	18	3	114	0.16	85
363	Thiruvananthapuram	Pozhiyoor	7.91	2000	300	52	41	315	21	0	378	230	355	0.38	14
364	Thiruvananthapuram	Poonthura	7.27	780	225	68	13	53	4.7	0	165	36	89	0.21	107
365	Thiruvananthapuram	Pudukurichi	7.69	1190	265	72	21	124	8.8	0	268	46	234	0.24	116
366	Thiruvananthapuram	Sasthavattom	7.38	270	44	8	5.8	17	3	0	78	10	30	0.22	4.7
367	Thiruvananthapuram	Thumba	7.09	290	66	21	3.4	18	3.5	0	54	21	38	0.1	28
368	Thiruvananthapuram	Vamanapuram	7.49	390	95	32	3.7	22	4	0	134	0	53	0.2	11
369	Thiruvananthapuram	Varkala	6.75	270	56	16	3.9	22	2	0	39	7.6	55	0.12	12
370	Thiruvananthapuram	Vellarada	6.69	1080	120	34	8.5	137	17	0	110	49	270	0.2	55
371	Thiruvananthapuram	Vidura	7	181	24	4.8	2.9	16	1.6	0	22	12	28	0.12	25
372	Thrissur	Adatt	6.2	260	26	6.4	2.4	21	3.5	0	17	0	36	0	23
373	Thrissur	Akalad	7.31	150	48	16	1.9	12	3.1	0	51	13	17	0.18	4.7
374	Thrissur	Annamanada	5.99	240	26	7.2	1.9	28	2.7	0	15	1.3	45	0	25
375	Thrissur	Azhikode	6.85	510	125	38	7.3	52	13	0	171	7.7	64	0.17	45
376	Thrissur	Chalakydy	5.99	114	22	4	2.9	8	1.9	0	15	0	13	0.08	16
377	Thrissur	Chammannur	6.77	270	44	13	2.9	29	2.3	0	20	0	71	0.17	2.2
378	Thrissur	Chavakkad	6.62	260	70	22	3.9	25	1.4	0	88	20	30	0.09	0.79
379	Thrissur	Chelakkara	7.17	430	158	30	20	46	4.8	0	250	15	41	0.74	4.3
380	Thrissur	Cherpu	6.76	178	22	8	0.49	12	3.9	0	46	1	14	0.13	5.6
381	Thrissur	Cheruthuruthi	7.3	640	280	68	27	60	6.9	0	409	26	43	0.39	3.6
382	Thrissur	Chowwannur	7.25	240	86	17	11	23	3.5	0	139	9.2	14	0.32	0.46
383	Thrissur	Edamuttam	7.39	310	126	46	2.4	35	2.4	0	207	9.3	24	0.21	3.9
384	Thrissur	Echipara	6.32	140	40	11	2.9	10	1.3	0	34	25	8.5	0.03	4
385	Thrissur	Edanthrinji	7.43	270	66	21	3.4	19	1.2	0	117	2.7	11	0.25	3.1
386	Thrissur	Engandiyur	7.13	290	108	36	4.4	27	2.5	0	156	10	18	0.17	16
387	Thrissur	Eriyad	7.19	310	88	27	4.9	27	3.2	0	128	9	33	0.16	2.1
388	Thrissur	Guruvayur	6.82	250	66	18	4.9	35	2.1	0	112	4.5	34	0.19	14
389	Thrissur	Irinjalakuda	6.68	149	40	14	1.5	7	3.8	0	49	8.9	13	0.11	2.6
390	Thrissur	Kallumpuram	7.02	196	40	9.6	3.9	17	3.7	0	37	15	26	0.19	11

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391	Thrissur	Kallur	6.39	140	26	6.4	2.4	11	5.4	0	34	2.2	21	0	8.1
392	Thrissur	Karikkad	7.2	270	108	22	13	23	3.4	0	166	10	16	0.23	3.5
393	Thrissur	Karuppadana	7.37	560	80	14	11	92	8.9	0	159	31	103	0.41	1.1
394	Thrissur	Kattoor	6.95	150	28	8	1.9	9	3.4	0	39	2.1	17	0	4.3
395	Thrissur	Keechery	6.31	330	68	14	8.3	22	8.1	0	17	0	55	0.09	67
396	Thrissur	Kodungallur	7.26	960	295	98	12	109	20	0	373	60	128	0.15	61
397	Thrissur	Kottapadi	7	1070	325	84	28	130	19	0	488	23	160	0.4	17
398	Thrissur	Kundannur	7.48	990	360	66	47	73	4	0	409	47	110	0.61	1.5
399	Thrissur	Logamalleswaram	7.26	360	96	31	4.4	20	9.4	0	128	14	28	0.25	9.2
400	Thrissur	Mala	6.3	149	28	7.2	2.4	8.1	6.6	0	24	11	16	0.04	9
401	Thrissur	Manalur	7.12	90	8	2.4	0.49	7.2	0.8	0	17	0.96	8.5	0.01	1.4
402	Thrissur	Manamangalam	6.36	71	12	3.2	0.97	7.2	1.8	0	29	2.2	5.7	0.13	3.3
403	Thrissur	Mapranam	6.49	91	18	4.8	1.5	5	1.8	0	24	0	8.5	0.03	4.1
404	Thrissur	Mathilakam	7.4	440	114	38	4.9	29	20	0	110	24	48	0.02	53
405	Thrissur	Methalapadam	7.25	440	156	55	4.4	37	2.2	0	238	17	24	0.16	2.2
406	Thrissur	Mulankunnathukavu	7.08	370	54	14	4.4	17	13	0	59	17	28	0.13	28
407	Thrissur	Mullassery	7.13	280	78	27	2.4	27	2.9	0	110	20	24	0.39	3.3
408	Thrissur	Mupilyam	5.95	174	32	5.6	4.4	10	4.9	0	12	0	26	0.06	29
409	Thrissur	Muriyad	6.29	250	40	8.8	4.4	27	1.5	0	32	3.4	54	0.07	3.3
410	Thrissur	Nattika	6.83	300	86	30	2.9	27	3.6	0	137	11	24	0.01	2
411	Thrissur	Padakulam	7.86	480	146	53	3.4	20	21	0	183	5.7	39	0.03	42
412	Thrissur	Palayamthuruthu	7.44	570	185	36	23	60	5.3	0	281	0	71	0.34	5.2
413	Thrissur	Parappur	6.72	144	18	5.6	0.97	14	2.8	0	41	0	14	0.24	9.7
414	Thrissur	Parapukara	6.18	194	42	10	3.4	20	2.3	0	59	13	21	0.05	6.7
415	Thrissur	Pattikkad	6.63	149	54	11	6.3	16	0.9	0	90	3.8	8.5	0.43	7.2
416	Thrissur	Pavaratty	7.08	210	78	25	3.9	17	1.4	0	124	7.6	9.9	0.23	1.4
417	Thrissur	Pazhinji(Kattakampala)	7	200	28	8	1.9	10	14	0	24	0.11	34	0	20
418	Thrissur	Pazhuvil	6.93	194	42	14	1.5	10	9	0	51	1.6	21	0.08	12
419	Thrissur	Perinjanam	7.53	800	250	82	11	28	1.3	0	201	36	82	0.16	0.86
420	Thrissur	Poyya	5.89	97	16	6.4	0	10	1.1	0	15	0.2	16	0	14

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421	Thrissur	Punnayoor	7.29	111	34	12	0.97	5	1.7	0	63	0.85	4.3	0.19	1.2
422	Thrissur	Puthanchira	6.74	170	32	9.6	1.9	8	1.3	0	37	3.2	14	0.13	9.5
423	Thrissur	Orumanayur	7.22	630	215	72	8.5	65	5.1	0	220	6.8	132	0.21	6
424	Thrissur	Tekkumkara	6.69	79	12	3.2	0.97	7	1.9	0	20	0	9.9	0.02	3.7
425	Thrissur	Thrissur	6.46	146	34	11	1.5	13	1.1	0	34	13	17	0	4.4
426	Thrissur	Triprayar	7.36	380	116	41	3.4	22	20	0	115	30	50	0	32
427	Thrissur	Vadanapally	7.37	290	112	38	3.9	28	3.7	0	173	8.6	18	0.09	6.4
428	Wayanad	Ambalavayal	7.23	220	34	10	1.9	17	1.4	0	27	3.2	26	0.25	23
429	Wayanad	Chenad	7.05	159	46	12	3.9	14	1.2	0	63	0	16	0.19	12
430	Wayanad	Kalpetta	7.36	410	110	33	6.8	37	16	0	189	21	30	0.52	17
431	Wayanad	Kamblakat	7.26	200	46	11	4.4	17	1.5	0	54	0	13	0.24	40
432	Wayanad	Koroth	7.27	89	20	6.4	0.97	4.7	1.3	0	27	0	8.5	0.12	5
433	Wayanad	Mananthody	7.43	390	114	31	8.8	32	14	0	140	30	34	0.03	41
434	Wayanad	Minangadi	8.52	360	84	24	5.8	29	1.7	30	43	15	28	0	24
435	Wayanad	Muthanga	7.55	570	185	54	12	63	2.8	0	262	15	71	0	2.9
436	Wayanad	Noolpuzha	7.57	172	56	9.6	7.8	17	2.1	0	110	1.5	8.5	0	0.49
437	Wayanad	Padinjarattara	7.17	300	66	18	5.4	25	1.5	0	37	7.7	27	0	64
438	Wayanad	Perikallur	7.6	540	155	38	15	60	1.6	0	195	16	68	0	29
439	Wayanad	Pulpally(new well)	7.67	760	285	52	38	72	1.6	0	336	36	92	0	10
440	Wayanad	Sulthan Bathery	7.71	550	125	28	13	61	2.9	0	171	38	57	0	13
441	Wayanad	Tirunelly	7.6	270	80	26	3.9	18	2	0	134	3.2	9.9	0	4.3
442	Wayanad	Vaduvanchal	7.46	230	56	16	3.9	10	5	0	44	0.23	21	0	41
443	Wayanad	Valatt	7.43	73	16	5.6	0.49	6	0.4	0	27	1.7	5.7	0	2.3
444	Wayanad	Vyttiri	-	159	34	8.8	2.9	13	4.1	-	-	1.8	17	0.23	8.9

