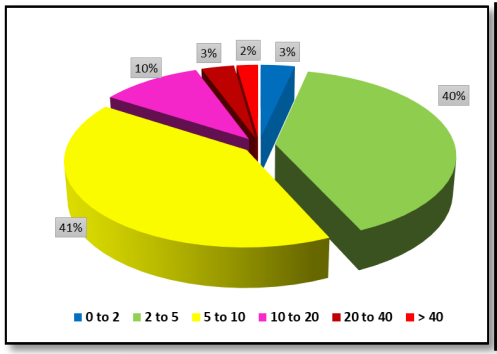

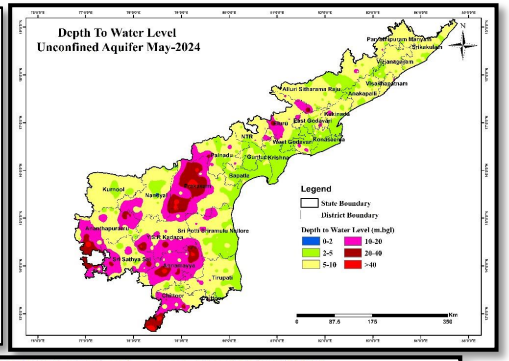

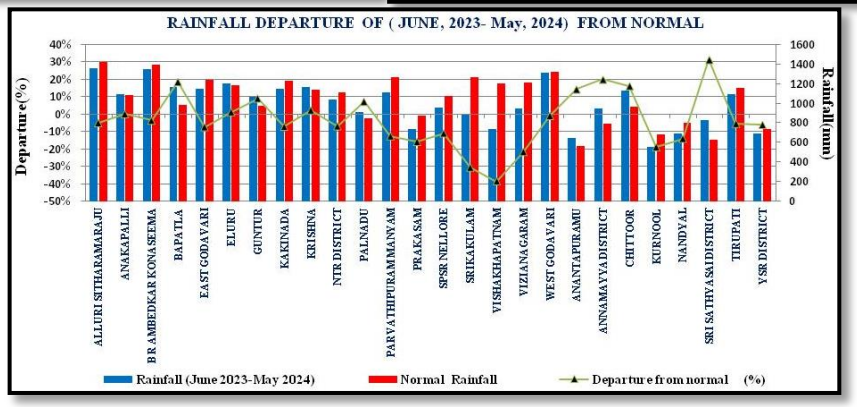

GROUND WATER LEVEL BULLETIN

MAY 2024

ANDHRA PRADESH

ABSTRACT

Ground water level Scenario during May-2024 highlightingthe findings, status of ground water level in different aquifers and its seasonal, annual and decadal comparison.

CGWB, SOUTHERN REGION, HYDERABAD

1.0 INTRODUCTION

Groundwater bulletin is prepared by CGWB depicting changes in groundwater regime of the country through different seasons. It is an effort to obtain information on groundwater levels through representative monitoring wells. The important attribute of groundwater regime monitoring is groundwater level.

The natural conditions affecting the groundwater regime involve climatic parameters like rainfall, evapotranspiration etc., whereas anthropogenic influences include pumpage from the aquifer, recharge due to irrigation systems and other practices like waste disposal etc.

Groundwater levels are being measured by Central Ground Water Board four times a year during January, May, August and November. The regime monitoring started in the year 1969 by Central Groundwater Board. A network of 25437 observation wells called **National Hydrograph Network Stations (NHNS)**, as on 30.04.2023, located all over the country is being monitored.

2.0 STUDY AREA

Andhra Pradesh State is the 7th largest state in India covering geographical area of 1,63,000 Km^2. It lies between NL 12° 37' and 19° 09' and EL 76° 45' and 84° 47'. The State is bordered on the east by Bay of Bengal (~970 km), south by Tamilnadu and Karnataka, west by Karnataka and Telangana and north by Telangana, Chattisgarh and Odisha states. Administratively, the state is divided into 26 districts and governed by 667 revenue mandals (mandals) with 28123 revenue villages. Total population of the state (2011 census) is ~8.45 Crores (with male-female ratio of 993) of which 66.64% lives in rural area and 33.36% in urban area. The average density of population is 308 persons/km^2. The overall growth in total population during decade is ~9.2 % (2001 to 2011 census).

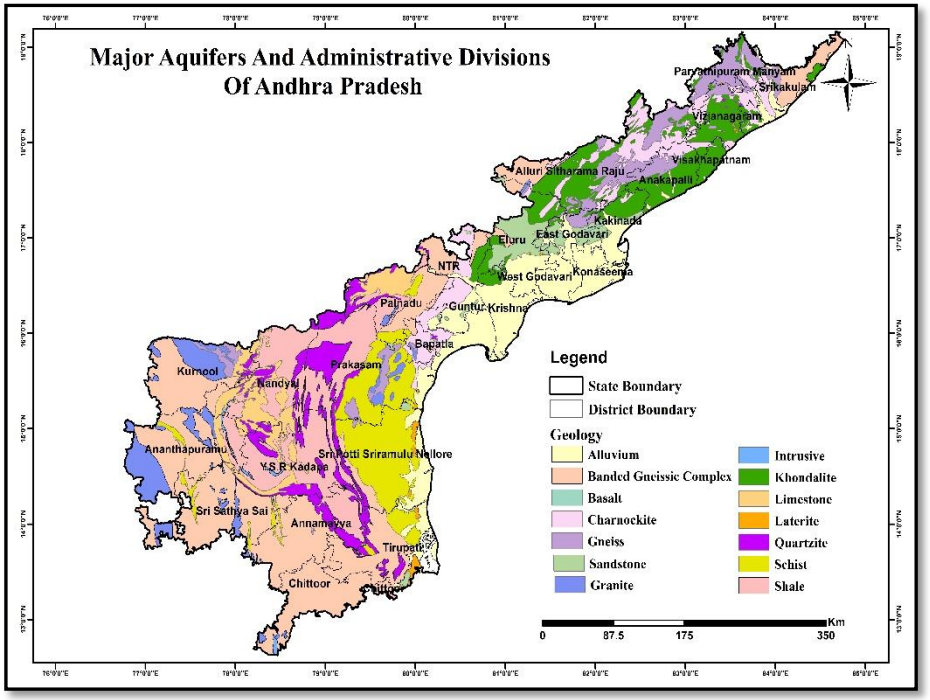

Figure-1: Map showing Major Aquifers and Administrative Divisions of Andhra Pradesh

Physiographically, Andhra Pradesh State can be divided into three distinct zones, viz., Coastal plains, Eastern Ghats and Western pediplains. The first two zones stretch from north-east to south-west in a narrow strip while 3rd zone occupy rest of the area. The elevation ranges from 0 to > 600 m above mean sea level (a.msl). Godavari and Krishna rivers and their tributaries drain the northern and central part and Pennar river drains in southern part of state before joining Bay of Bengal. There are 3 major basins and 11 medium river basins in the state.

The state is underlain by diverse rock types of different geological ages from Pre-Cambrian to Recent. As much as 80% of the State is underlain by hard

rock formations like Archaeans, Pre-Cambrians, Cuddapahs, Kurnools and Deccan traps. The remaining 20% is underlain by soft rocks including Gondwanas, Rajahmundry sandstone and Recent Alluvium **(Fig. 1)**.

3.0 GROUND WATER LEVEL MONITORING

Central Ground Water Board, Southern Region, is monitoring changes in groundwater regime in Andhra Pradesh state on quarterly basis continuously. This is facilitated by a network of monitoring stations in the State located in diverse hydrogeological and geomorphic units. The number of operational wells till January 2024 was 1473 (896 unconfined and 604 semiconfined/confined) which include 676 dug wells and 797 piezometers **(Fig. 2)**. In May 2024, 1372 wells monitored (1330 water level recorded and 42 wells were dry), while 100 wells (37 dug wells and 63 piezometers) could not be monitored due to various reasons like inaccessibility, filled up, installation of pump units, road damaged, gate locked etc. The number of operational wells after completion of May 2024 monitoring stands at 1473 which include 676 dug wells and 797 Bore wells. The district-wise breakup of the water level monitoring stations is given in **Table-1**.

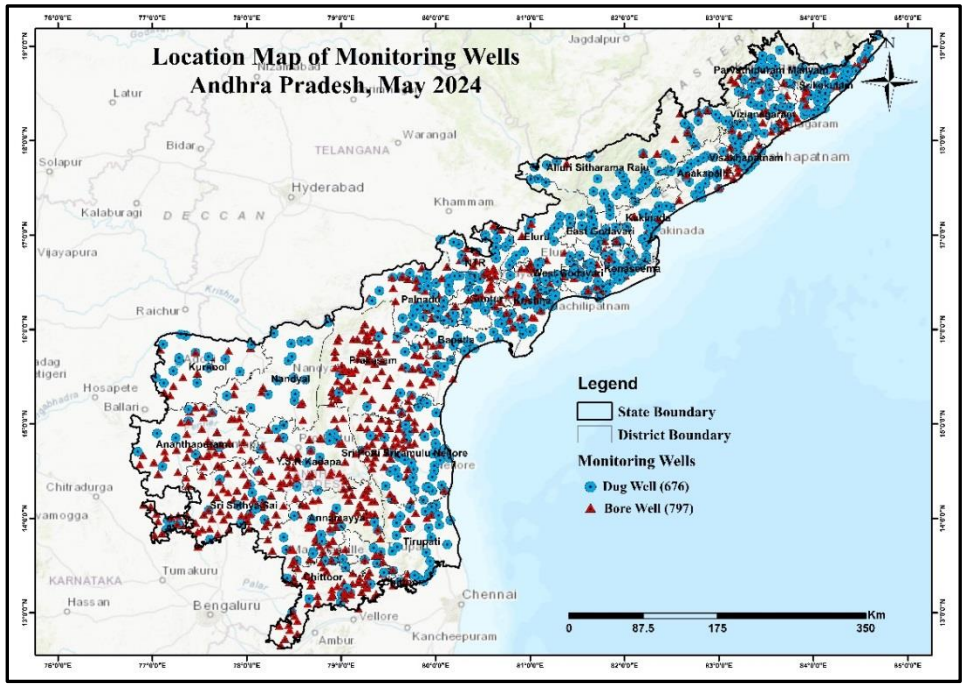

Figure- 2: Map showing locations of monitoring wells (NHNS) in Andhra Pradesh state

Table-1: District-wise distribution of water level monitoring stations

SR. No.	District	Number of Water Level Monitoring Stations				
		2022	2023	2024		
		Total	Total	DW	PZ	Total
1	Alluri Sita Rama Raju	44	56	44	13	57
2	Anakapalli	24	23	24	4	28
3	Ananthapuramu	33	67	8	58	66
4	Annamayya	45	79	19	64	83
5	Bapatla	34	35	24	12	36
6	Chittoor	40	84	15	70	85
7	East Godavari	29	26	30	12	42
8	Eluru	35	51	21	4	25
9	Guntur	24	35	34	21	55
10	Kakinada	31	29	23	18	41
11	Konaseema	31	39	23	7	30
12	Krishna	33	81	29	56	85
13	Kurnool	28	29	17	15	32
14	Nandyal	25	24	22	5	27
15	NTR	25	29	20	19	39
16	Palnadu	55	67	46	28	74
17	Parvathipuram Manyam	32	27	22	6	28
18	Prakasam	88	116	24	98	122
19	Sirkalulam	47	51	45	66	111
20	SPS Nellore	58	128	17	74	91
21	Sri Sathya Sai	45	43	51	29	80
22	Tirupati	35	48	34	16	50
23	Visakhapatnam	14	20	16	16	32
24	Vizianagaram	47	44	31	14	45
25	West Godavari	21	33	22	14	36
26	YSR Kadapa	49	70	15	58	73
	Total	**972**	**1334**	**676**	**797**	**1473**

4.0 RAIN FALL

The rainfall data collected and compiled from APWRIS State government weather reports is used to analyze the rainfall for the period June 2023 - May 2024. Table-2 gives the district-wise rainfall data for the period June-May 2022-23 & 2023-24, normal and the departure of June 2022 - May 2023 rainfall . **Fig. 3** represents the spatial distribution of rainfall deviation (June 2023 to May 2024) from normal.

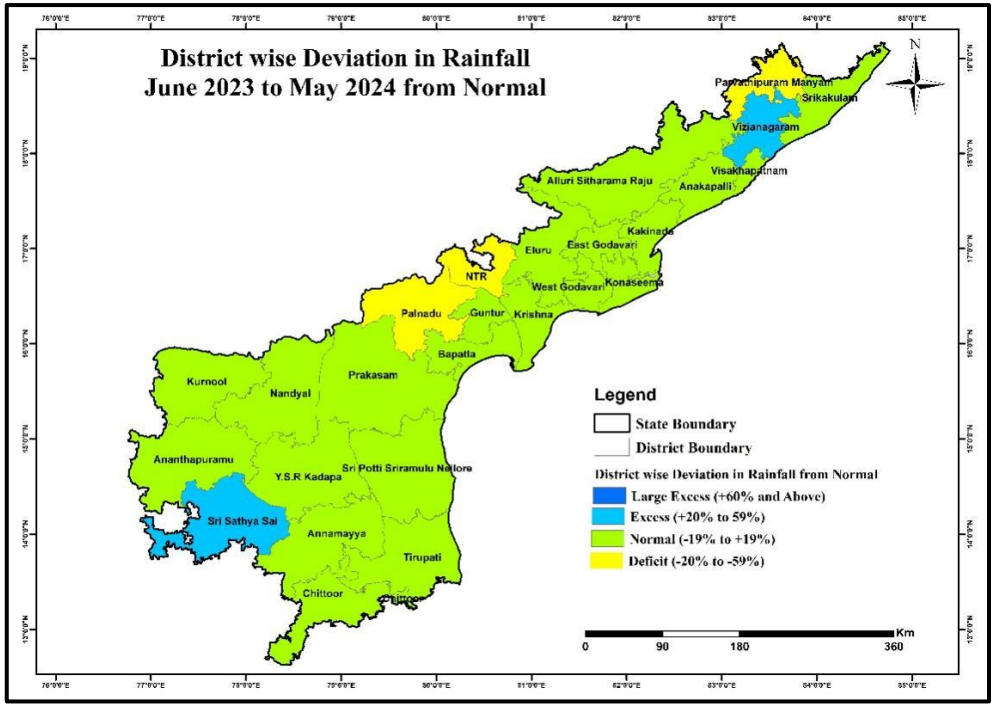

Figure-3: Rainfall deviation (June 2023-May-2024) from normal rainfall

Table-2: District wise variability of rainfall in Andhra Pradesh (2024)

S. No	District	Rainfall (June 23-May 2024)	Rainfall (June 22-May 2023)	Normal Rainfall	Departure from 2022-23 (%)	Departure from Normal (%)	Status
1	Alluri Sitharama Raju	1148	1397	1291	-18%	-11%	Normal
2	Anakapalli	931	1183	1175	-21%	-21%	Normal
3	Ananthapuramu	429	846	512	-49%	-16%	Normal
4	Annamayya	709	972	744	-27%	-5%	Normal
5	Bapatla	1107	1157	925	-4%	20%	Normal
6	Chittoor	930	1151	915	-19%	2%	Normal
7	East Godavari	965	1348	1145	-28%	-16%	Normal
8	Eluru	1060	1476	1064	-28%	0%	Normal
9	Guntur	1107	1026	897	8%	23%	Normal
10	Kakinada	860	1404	1140	-39%	-25%	Normal
11	Kona Seema	898	1504	1295	-40%	-31%	Normal
12	Krishna	1169	1319	1048	-11%	12%	Normal
13	Kurnool	439	769	611	-43%	-28%	Normal
14	Nandyal	522	821	721	-36%	-28%	Normal
15	NTR	986	1097	1035	-10%	-5%	Deficient
16	Palnadu	840	935	775	-10%	8%	Deficient
17	P.Manyam	1055	1468	1171	-28%	-10%	Deficient
18	Prakasam	673	862	841	-22%	-20%	Normal
19	SPS Nellore	799	1068	1051	-25%	-24%	Normal
20	Sri Sathya Sai	474	933	591	-49%	-20%	Excess
21	Srikakulam	849	1283	1166	-34%	-27%	Normal
22	Tirupati	1015	1225	1124	-17%	-10%	Normal
23	Visakhapatnam	835	1148	1118	-27%	-25%	Normal
24	Vizianagaram	922	1108	1112	-17%	-17%	Excess
25	West Godavari	1036	1416	1229	-27%	-16%	Normal
26	Y.S.R	553	828	684	-33%	-19%	Normal
	State Mean	**858**	**1144**	**976**	**-25%**	**-12%**	**Normal**

5.0 GROUND WATER LEVEL SCENARIO (MAY 2024)

5.1 SHALLOW AQUIFER (UNCONFINED)

5.1.1 DEPTH TO WATER LEVEL

Depth To Water Level in Unconfined Aquifer (May 2024)

Analysis of depth to water level data of 777 wells shows water levels vary between 0.82 m bgl (Nandyal district) to 90.2 m bgl (Sri Sathya Sai district). Water level of less than 2 m bgl is recorded in 2% of wells, between 2 to 5 m bgl in 40% of wells, between 5 to 10 m bgl in 41% of wells, between 10 to 20 m bgl in 10% of wells, between 20-40 m bgl in 3% of wells and water level more than 40 m bgl is registered in 2% of wells **(Fig. 4)**.

Depth to water level map of May, 2024 for unconfined aquifer **(Fig. 5)** shows that shallow water level of less than 2 m bgl as small isolated patches in parts of Nandyal, West Godavari, Palnadu, and Krishna districts covering an area of 0.1% of state. Water level of 2 to 5 m bgl is observed mainly in coastal districts of Andhra Pradesh and also Tirupati, Kurnool, Alluri Sitharam Raju, Guntur, Krishna, Kurnool, Palnadu, Bapatla, Sri Sathya Sai, Vizianagaram, Visakhapatnam and small isolated patches over remaining districts covering an area of 21% of the state. Depth to water level of 5 to 10 m bgl is observed throughout the state with significant area in Prakasam, Kurnool, Ananthapuramu, Nandyal, Tirupati, Alluri Sitarama Raju, Visakhapatnam, Vizianagaram, Srikakulam, Anakapalli, Palnadu, Krishna and Guntur districts covering 53% of the area of state. Water level of 10 to 20 m bgl is mainly observed in Eluru, Prakasam, Nandyal, YSR Kadapa, Annamayya, Ananthapuramu, Chittoor, Sri Satya Sai and SPS Nellore districts covering 19% area of state. Deeper water levels of more than 20 m covering mainly Prakasam, YSR Kadapa, Annamayya, Chittoor, Ananthapuramu and small part of Nandyal districts covering almost 7% area of state.

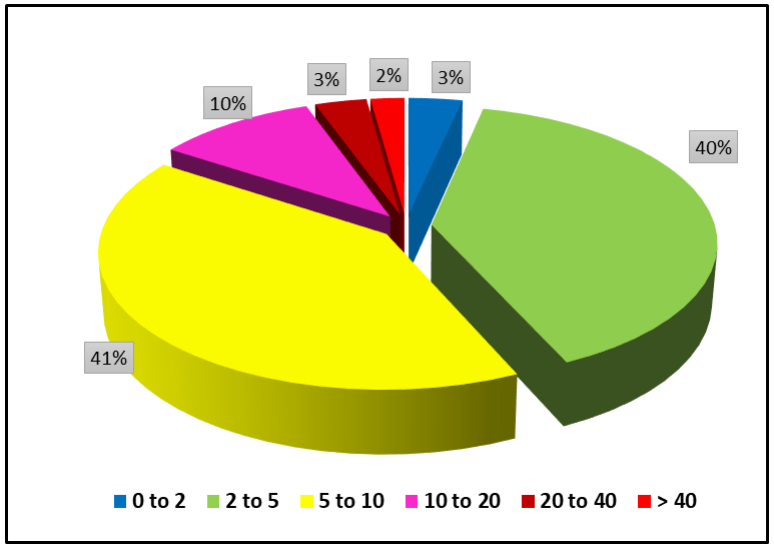

Figure-4: Percentage of wells in different water level ranges in unconfined aquifer.

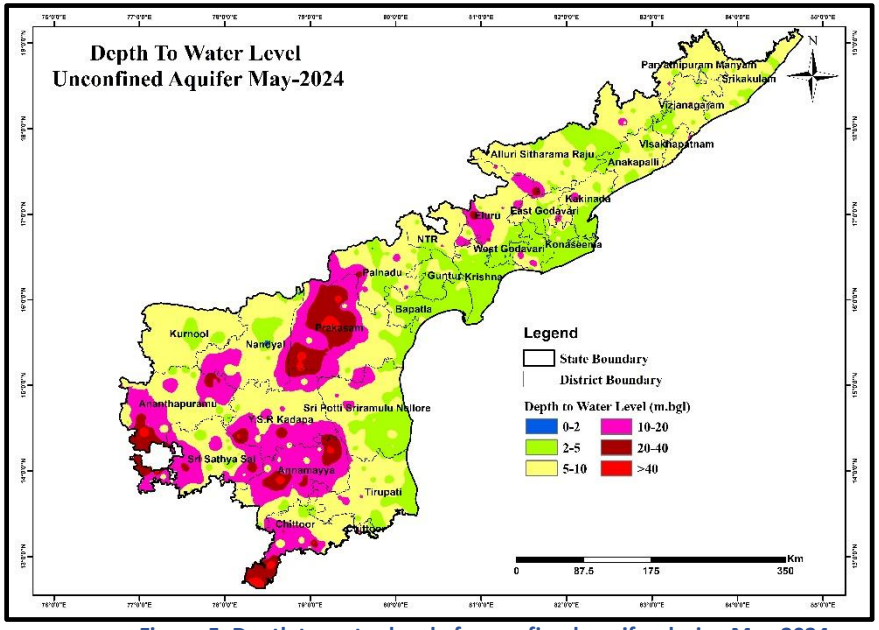

Figure-5: Depth to water level of unconfined aquifer during May 2024.

5.1.2 ANNUAL FLUCTUATION IN WATER LEVEL

Annual Fluctuation of Water Level in Unconfined Aquifer (May 2024 from May 2023)

The annual fluctuation (rise/fall) of ground water level in unconfined aquifer (May 2024 from May 2023) is depicted in the bar diagram (**Fig. 6**) and spatial distribution map of annual water level fluctuation is presented in **Fig. 7**.

Rise in Water Levels:

In the State only, 8% of the area (132 wells) experienced rise in water levels when compared to the period May, 2023. Out of 132 wells, 27% of wells have recorded rise in water level in the range of 2 to 4 m and beyond and are observed as patches over Palnadu, Anakapalli, Vishakhapatnam, Parvatipuram Manyyam, Prakasham, Krishna, YSR Kadapa and Ananthapuramu districts covering insignificant areas (1%). Water level rise of less than 2m is observed in 73% of wells covering 7% of the area and is mainly observed over Visakhapatnam, Vizianagaram, Srikakulam, Palnadu, West Godavari and small isolated patches over remaining districts.

Fall in Water Levels:

In the State about 92% of the area (595 wells) experienced fall in water levels when compared to pre-monsoon period (May, 2023). Out of 595 wells that have registered fall in water level, 65% of wells have recorded less than 2m fall,which is observed throughout the state (51% of the area), mainly in the central to northern part of the State (Prakasam, Palnadu Nandyal, Chittoor, Tirupati, Eluru, Baptla, Guntur, East Godavari, Krishna, Alluri Sitharam Raju, Srikakulam, Vizianagaram, Visakhapatnam, Konaseema and Anakapalli districts). 21% of wells recorded fall of 2 to 4m, observed significantly in Prakasam, Nandyal, YSR Kadapa, Eluru, Kurnool, Ananthapuramu, Sri Sathya Sai and small isolated patches over remaining districts. 14% of wells recorded fall beyond 4m, observed significantly in Ananthapuramu, Kurnool, Prakasam, SPS Nellore, Nandyal, Chittoor, YSR Kadapa and Annamaya districts.

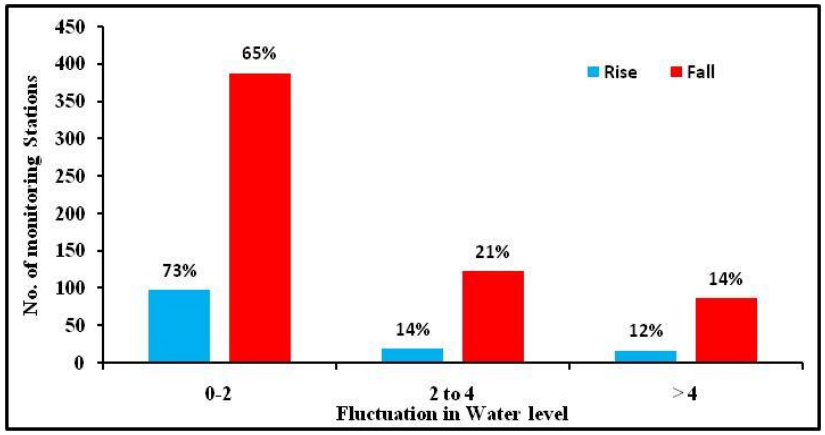

Figure-6: Percentage of wells showing rise and fall in WL in unconfined aquifer (May 2023 to May 2024)

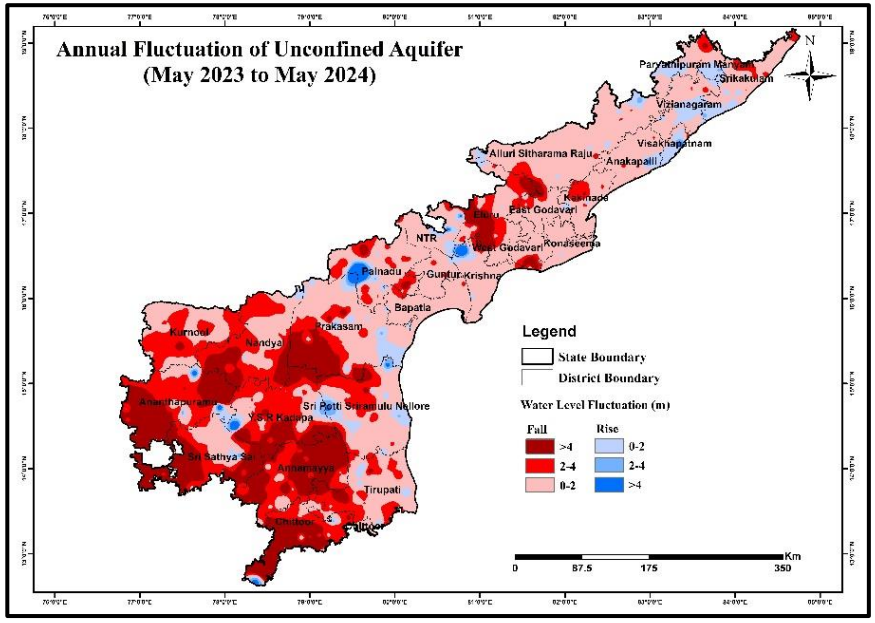

Figure-7: Annual water level fluctuation in unconfined Aquifer(May 2023 to May 2024)

5.1.3 DECADAL FLUCTUATION IN WATER LEVEL

Decadal Fluctuation of Water Level in Unconfined Aquifer [Decadal Mean May (2014-2023) to May 2024]

The Decadal fluctuation (rise/fall) of groundwater level in unconfined aquifer (May 2024 from May 2014 to 2023) is depicted in the bar diagram (**Fig. 8**) and spatial distribution map of decadal water level fluctuation is presented in **Fig. 9**.

Rise in Water Levels:

In the State, only 36% of the area (173 wells) experienced rise in water levels when compared to the decadal pre-monsoon mean (2014-2023). Out of 173 wells, 19% of wells have recorded rise in water level from 2 to 4 m and is observed as patches over Prakasam, Nandyal, Palnadu, YSR Kadapa, Sri Sathya Sai, Chittoor and Annamaya districts covering 4% of the area. Water level rise less than 2m is observed in 72% wells covering 30% of the area and is mainly observed over the Kurnool, Sri Sathya Sai, SPS Nellore, Tirupati, Prakasam, Palnadu and small isolated patches over remaining districts. Water level rise of more than 4m is observed in only 9% of wells covering an area of 2% and is mainly observed in YSR Kadapa, Sri Sathya Sai and Annamaya districts.

Fall in Water Levels:

Out of the 410 wells that have registered fall in water levels, 79% have recorded less than 2 m while 17% in the range of 2 to 4 m and remaining 4% wells registered water level fall of more than 4 m. Fall of less than 2 m is observed in all districts mainly in parts of Palnadu, Eluru, Alluri Sitharam Raju, West Godavari, SPS Nellore, Srikakulam,, East Godavari, Krishna and Guntur districts. Fall of 2 to 4 m, recorded in Anakapalli, Srikakulam, Eluru, SPS Nellore, Parvathipuram Maniyam, Palnadu, Visakhapatnam, Tirupati, Kakinada,and Kurnool districts. Fall beyond 4 m is recorded mainly in Ananthaparamu,Nandyal,SPS Nellore, Palnadu, Srikakulam, Anakapalli, Prakasam, West Godavari and Kakinada districts.

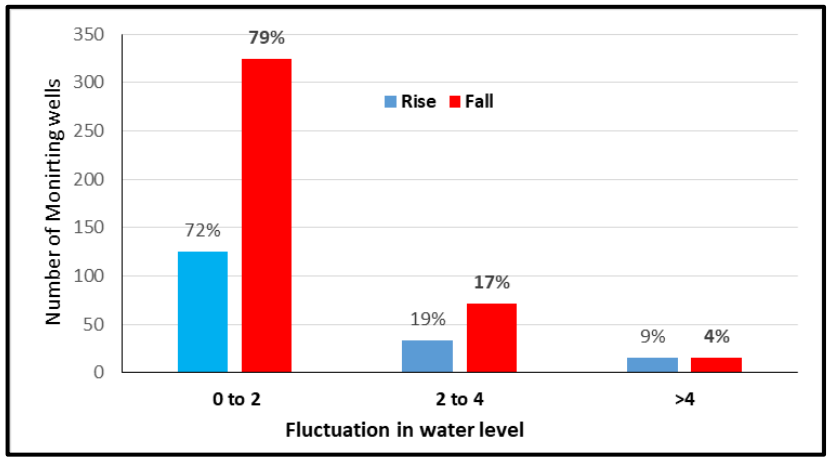

Figure-8: Percentage of wells showing rise and fall in water level in unconfined Aquifer (Decadal Mean May (2014-2023) to May 2024)

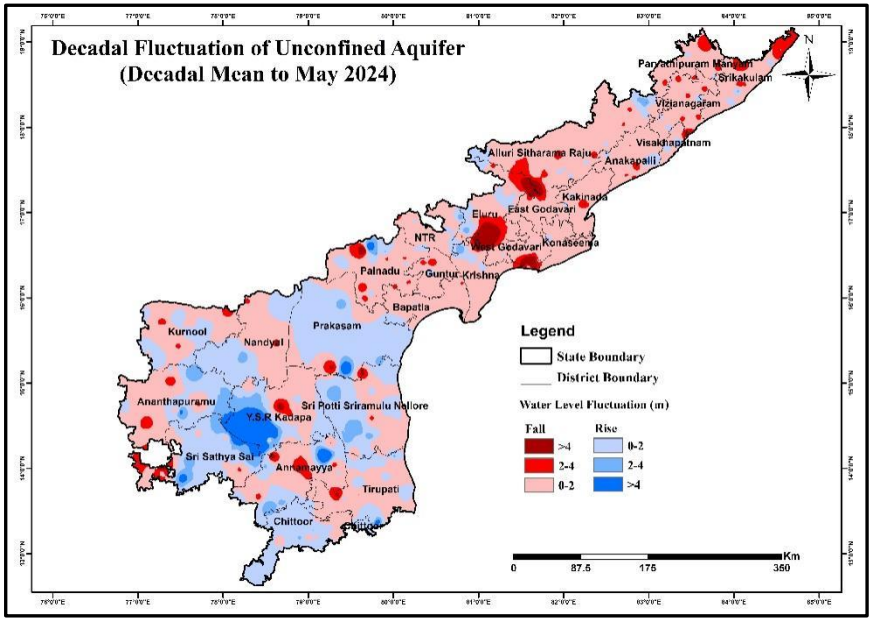

Figure-9: Decadal Average water level fluctuation in unconfined Aquifer (Decadal Mean May (2014-2023) to May 2024)

5.2 DEEPER AQUIFER (CONFINED/ SEMI-CONFINED)

5.2.1 DEPTH TO PIEZOMETRIC LEVEL

Depth To Piezometric Level in Confined/Semi-Confined Aquifer (May 2024)

Analysis of piezometric head data of 555 wells shows water levels vary between 0.65 m bgl (Visakhapatnam) to 100 m bgl (Annamaya). Water level of less than 2 m bgl is recorded in 1% of wells, between 2 and 5 m bgl in 11% of wells, between 5 and 10 m bgl in 29% of wells, between 10 and 20 m bgl in 32 % of wells, between 20 and 40 m bgl in 15% of wells and water level more than 40 m bgl is registered in 11 % of wells (**Fig. 10**).

Piezometric head map of May, 2024 (**Fig. 11**) shows that shallow water level of less than 2 m bgl is noticed in isolated patches in Chittoor, Palnadu, Visakhapatnam, Guntur, NTR and West Godavari districts covering an area of 0.02 % of the State. Water level of 2 to 5 m bgl is mainly observed in parts of YSR Kadapa, Palnadu, Prakasam, Ananthaparamu, Chittoor, Tirupati, Bapatla, Srikakulam, Kurnool, Eluru, SPS Nellore, Sri Sathya Sai, Vishakhapatnam, Annakapalli, and Krishna districts covering an area of 1.46% of the State. 30.31 % area of the State is covered by depth to water level of 5 to 10 m bgl with significant area in Sri Sathya Sai, Prakasam, NTR, Anakapalli, SPS Nellore, YSR Kadapa, Ananthaparamu, Tirupati, Kurnool, Parvathipuram Manyam, Srikakulam, Baptla, Palnadu, Eluru and Vizianagaram districts. Water level of 10 to 20 m bgl is covered in 44.46% of the State area and mainly observed in SPS Nellore, Prakasam, Chittoor, Krishna, Sri Sathya Sai, YSR Kadapa Ananthaparamu, West Godavari, East Godavari, Eluru, Konaseema, Alluri Sitharam Raju, Srikakulam, Vizianagaram and Kakinada districts. Deeper water levels of more than 20 m covers 23.75% area of the State and is mainly observed in Prakasam, Annamaya, Chittoor, Sri Sathya Sai Nandyal, Ananthapuram, Eluru and West Godavari districts.

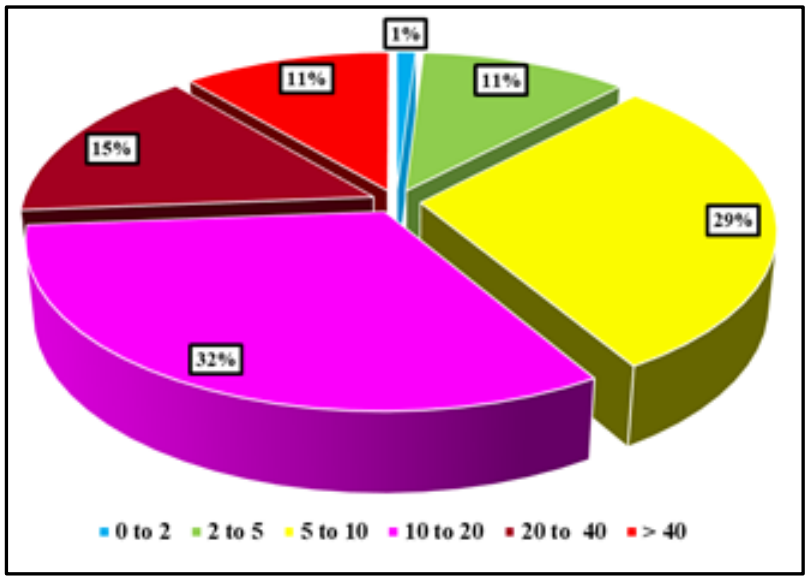

Figure-10: Percentage of wells in different piezometric levels (May 2024)

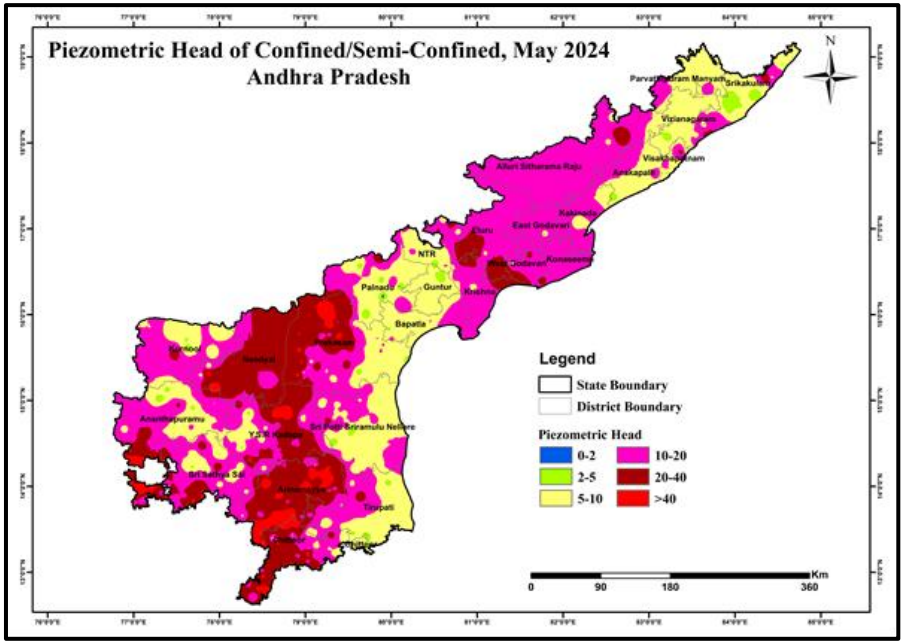

Figure-11: Depth to piezometric Level in deeper aquifer in May 2024.

5.2.2 ANNUAL FLUCTUATION IN PIEZOMETRIC LEVEL

Annual Fluctuation of Piezometric Level in Confined /Semi-confined Aquifer (May 2023 to May 2024)

The annual fluctuation (rise/fall) of groundwater level in confined aquifer (May 2024 from May 2023) is depicted in the bar diagram (**Fig. 12**) and spatial distribution map of annual water level fluctuation is presented in **Fig. 13**.

Rise in piezometric levels:

Out of 73 wells, piezometric level rise of less than 2 m is recorded in 55% wells, 2 to 4m in 8% wells and more than 4 m in 37% of the wells. Piezometric level rise of less than 2m is seen in patches in some of the districts in Eluru, Konaseema, Prakasam, Palnadu, YSR Kadapa, Chittoor, Alluri Sitharam Raju SPS Nellore, Srikakulam and Tirupati districts. Piezometric level rise of 2 to 4m is observed mainly in districts such as Vizianagaram, Kurnool, Parvathipuram Manyam , Krishna, Guntur and Baptla districts. Rise of more than 4m is significantly observed in Eluru, YSR Kadapa, Krishna, Annamaya, Srikakulam, Chittoor, Parvathipuram manyam Nandayal, Palnadu and Alluri Sitharam Raju districts.

Fall in Piezometric Levels:

Out of 418 wells that have registered fall in piezometric levels, 34% have recorded less than 2 m while 21% in the range of 2 to 4 m and remaining 44% wells registered piezometric level fall of more than 4 m. Fall of less than 2 m is mainly observed throughout the coastal parts of Prakasam, Guntur, Krishna, Bapatla, West Godavari, Vishakhapatnam, Vizianagram, Kakinada, Kurnool, Anakapalli and Eluru districts. Fall of 2 to 4 m is observed mainly in Prakasam, Palnadu, Ananthpuramu, Kurnool, SPS Nellore districts and in Rayalseema region. Fall of beyond 4 m is observed as isolated patches in Prakasam, SPS Nellore, Annamaya, Sri Sathya Sai, and Nandyal districts.

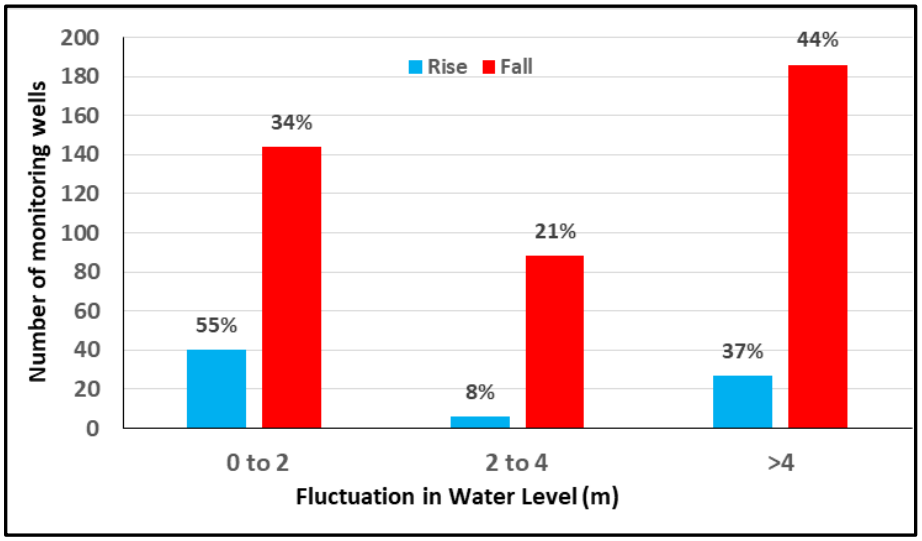

Figure-12: Percentage of wells showing rise and fall in piezometric level in Confined Aquifer (May 2023 to May 2024)

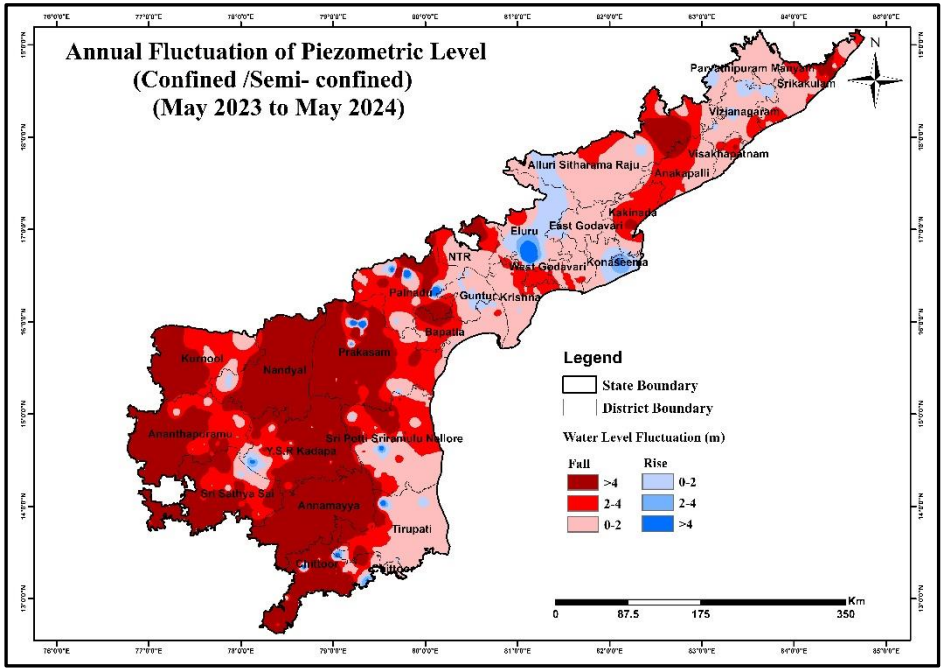

Figure-13: Annual water level fluctuation in confined Aquifer (May 2023 to May 2024)

5.2.3 DECADAL FLUCTUATION IN PIEZOMETRIC LEVEL

Decadal Fluctuation of Piezometric Level in Confined / Semi-confined Aquifer (Decadal Mean May (2013-2024) to May 2023)

The decadal fluctuation (rise/fall) of groundwater level in confined aquifer (May 2024 from May 2014 to 2023) is depicted in the bar diagram (**Fig. 14**) and spatial distribution map of annual water level fluctuation is presented in **Fig. 15**

Rise in piezometric levels:

Out of 43 wells, piezometric level rise of less than 2 m is recorded in 35% wells, 2 to 4 m in 26% wells and more than 4 m in 40% of the wells. Piezometric level rise of less than 2 m is seen in majorly center part of the district comprising NTR, Eluru, Palnadu, Guntur, Krishna, West Godavari, East God avari and in Rayalseema area of the district mainly in Anthapuramu, Sri sathya Sai, YSR Kadapa and Tirupati districts. Piezometric level rise of more than 2 m is seen in Prakasham, Bapatla, NTR, Eluru, Palnadu, Guntur, Krishna, West Godavari, East Godavari and in Rayalseema area of the district mainly in Anthapuramu, Sri sathya Sai, YSR Kadapa and Tirupati districts

Fall in piezometric level:

Out of 46 wells that have registered fall in piezometric levels, 43% have recorded less than 2 m while 11% in the range of 2 to 4 m and remaining 46% wells registered piezometric level fall of more than 4 m. Fall of less than 2 m is observed in all districts mainly in coastal parts of Bapatla, Konaseema, Alluri Sitharam Raju, SPS Nellore, Srikakulam, East Godavari Parvatipuram manyam, Vizianagaram and Vishakhapatnam districts. Fall of more than 2 m is recorded in Bapatla, Konaseema, Alluri Sitharam Raju, SPS Nellore, Srikakulam, East Godavari Parvatipuram manyyam, YSR Kadapa, Nandyal, Chittor, SPS Nellore, Tirupati, Ananthapuramu, Sri Sathya Sai, Annamaya, Prakasam, Chittoor, Tirupati, Kurnool, Vizianagaram and Vishakhapatnam.

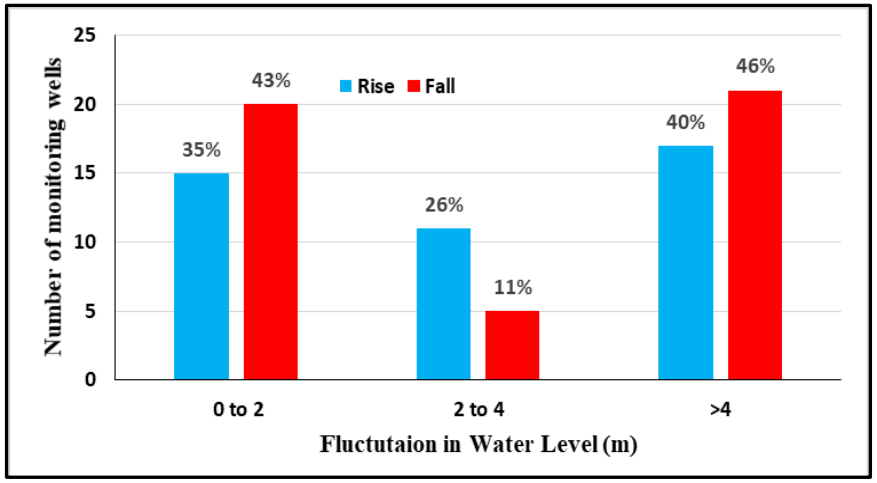

Figure-14: Percentage of wells showing rise and fall in piezometric level in confined/semi-confined Aquifer (Decadal Mean May (2013-2024) to May 2024)

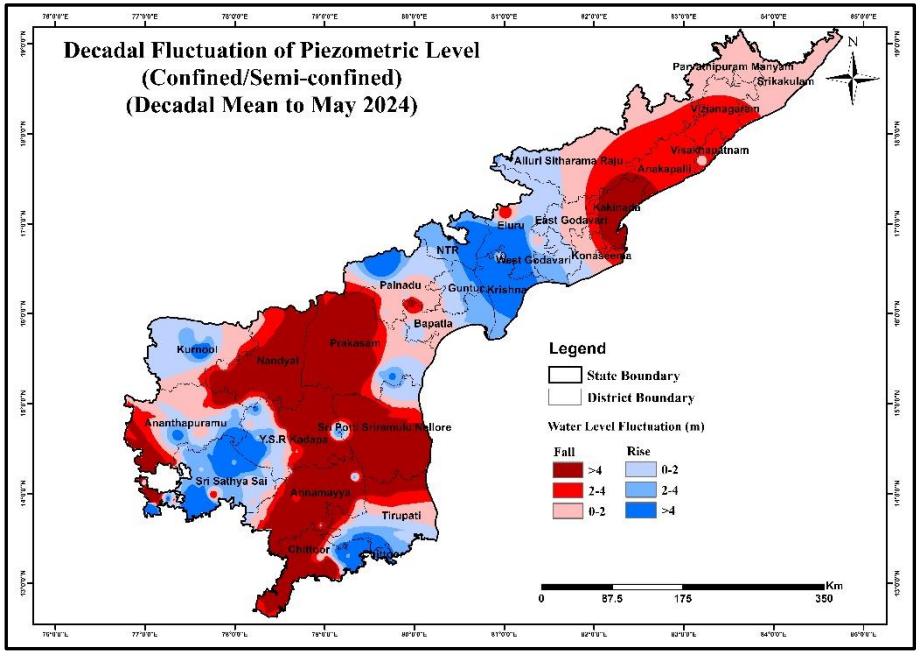

Figure-15: Percentage of wells showing rise and fall in piezometric level in confined/semi- confined Aquifer (Decadal Mean May (2013-2024) to May 2024)

6.0 SUMMARY

As a component of the National Ground Water Monitoring Programme, the CGWB, SR, Hyderabad conducts monitoring of the ground water conditions on a quarterly basis: in January, pre-monsoon May, August, and post monsoon November. Additionally, a yearly assessment of ground water quality is performed in May. As of May 31, 2024, the Andhra Pradesh State Unit Office of the Central Ground Water Board supervises 676 dug wells and 797 piezometers. This comprehensive effort aims to portray the variations in the state's ground water conditions across different aquifers.

In May 2024, in unconfined aquifer around 74% % of the state's area exhibited a depth to water level within 10 meters below ground level. Deeper water levels of more than 20 m cover 7% area of the State covering mainly Prakasam, YSR Kadapa, Annamaya, Chittoor, Ananthapuramu and Nandyal districts.

In May 2024, in confined aquifer around 32% % of the state's area exhibited a depth to water level within 10 meters below ground level. Deeper water levels of more than 20 m bgl cover 24% area of the State covering mainly Prakasam, YSR Kadapa, Annamayya, Chittoor, Sri Sathya Sai, Ananthapuramu, Nandyal, Eluru and West Godavari districts.

The groundwater level in Andhra Pradesh during May 2024 has been significantly influenced by a notable deficit in rainfall from June 2023 to May 2024. This period witnessed a departure of -12% from the normal and -25% deficit when compared to June 2022 to May 2023, classifying the region as experiencing deficient rainfall in comparison to June 2022 to May 2023. This significant deficiency has led to the further depletion of ground water during -May 2023.

The Decadal fluctuation (pre-monsoon 2014 to 2023) of ground Water Level in unconfined aquifer shows 36% of the area experienced rise in water levels when compared to the decadal pre-monsoon mean. Total 30% of the wells (173 wells) observed with rise in water level out of which 91% of the wells are associated with rise in water level less than 4 m and remaining 9% of wells water level rise beyond 4 m (YSR Kadapa, Sri Sathya Sai and Annamaya districts). 70% of the wells (410 wells) were experienced with fall in water level. 96% of wells showed fall in water level between 0 to 4 m and remaining 4% wells showed fall in water level more than 4 m.

The Decadal fluctuation (pre-monsoon 2014 to 2023) of ground Water Level in confined aquifer shows 48% of the wells (43 wells) observed with rise in water level out of which 60% of the wells are associated with rise in water level less than 4 m and remaining 40% of wells water level rise beyond 4 m. 42% of the wells (46 wells) were experienced with fall in water level. 54% of wells showed fall in water level between 0 to 4 m and remaining 46% wells showed fall in water level more than 4 m.

Annual water level fluctuation, May-2023 to May-2024 in unconfined aquifer shows that about 18% of wells (132) has shown rise in water level and 82% of wells (595) showed fall in water level. For confined/semi-confined aquifer system about 15% of wells (73) shows rise in water level and 85% of wells (418) showed fall in water level. The significant fall in water levels 82% of wells in unconfined and 85% of wells in confined aquifer might be influenced by the deficit (-25%) rainfall condition during June 2023 to May 2024 compared to June 2022 to May 2023