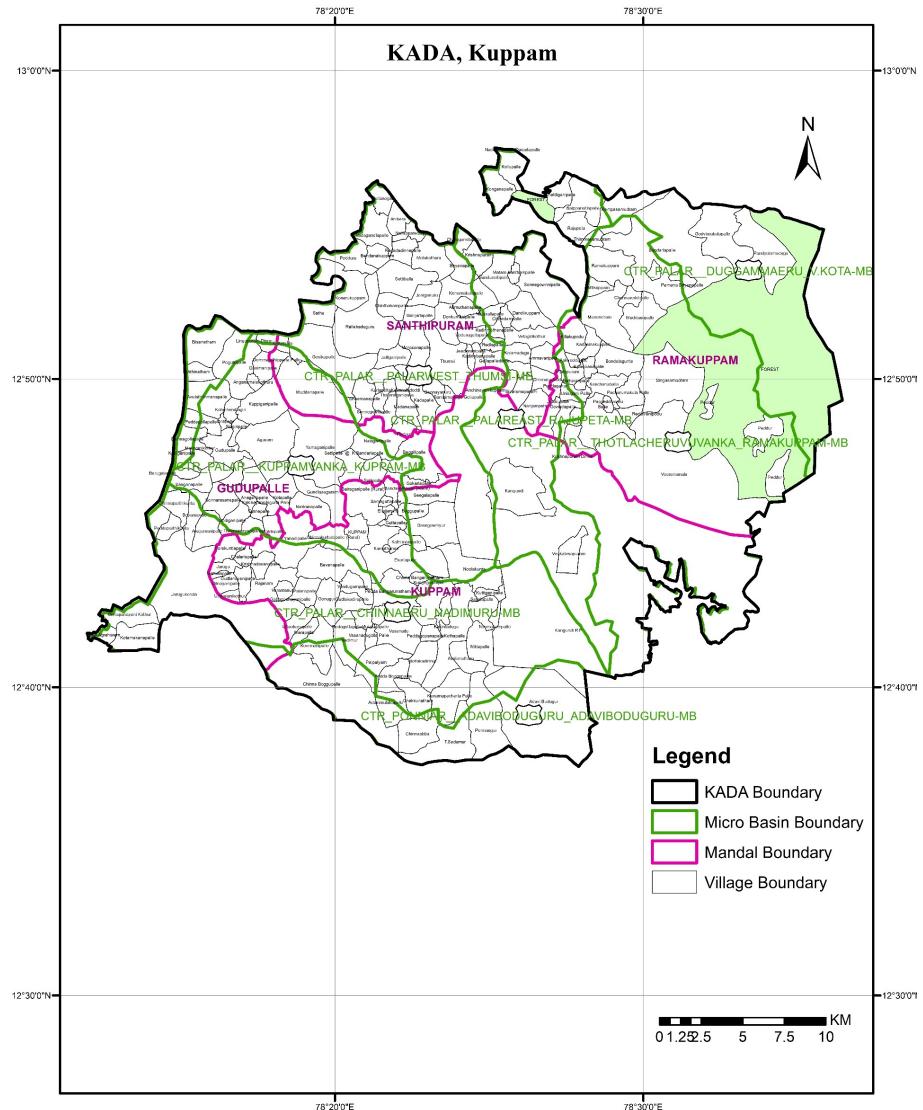


About KADA Region

- Revenue Division-01
- Mandals-04
- Micro Basins-07
- No of Villages-209
- Geographical Areas-105190 Ha
- Recharge Worthy Area -71790 Ha,
- Hilly Area-33400 Ha
- Rainfall-827 mm



**Well Inventory ---> Water Levels
Sampling ---> Water Quality
Prinicipal Aquifer Map
DEMARCATION OF AQUIFERS**

**Slug Test ---> Transmissivity
Geophysical Surveys ---> Aquifer Parameters
CHARACTRIZATION OF AQUIFERS**

HYDROLOGY ANALYSIS + DARCY ANALYSIS --->

**IDENTIFICATION OF GRADUAL and RAPID RECHARGE LOCATIONS
hydrological modeling- senarios**

WATER CONSERVATION PLAN

30% Rainfall --->RECHARGE

**10m SoI Digital Toposheets
MI TANKS CATCHMENT**

INFLOW /RUNOFF- STORAGE -FILLINGS -OUTFLOW /RUNOFF

OPTIIIZATION OF HNSS CANAL WATER UTILIZATION

Recharge from Different Components & Availability							Extraction for Different Uses & Balance						Status		Unconfined Aquifer InStorage							
Rainfall (Ham)	Surface Water Applied Irrigation Return Flow (Ham)	Ground Water Applied Irrigation Return Flow (Ham)	Seepage from MI Tanks & Ponds (Ham)	Seepage from Water Conservation Structures (Ham)	Net Recgarge (Ham)	Environmental Flow (Ham)	Ground Water Resources Availability (Ham)	Domestic Extraction (Ham)	Industrial Extraction (Ham)	Agricultural Extraction (Ham)	Ground Water Resources Extraction (Ham)	Future Allocations (Ham)	Ground Water Resources Balance (Ham)	Stage of Extraction %	Stage of Recharge %	Annual InStorage (Ham)	Ground Water Resources InStorage (Ha)	Unit InStorage (Ham)	Specific Yield Sy	UnConfined Aquifer Depth (m)	Accumulation Period of Current InStorage (Yrs)	Depletion Period of Current InStorage (Yrs)

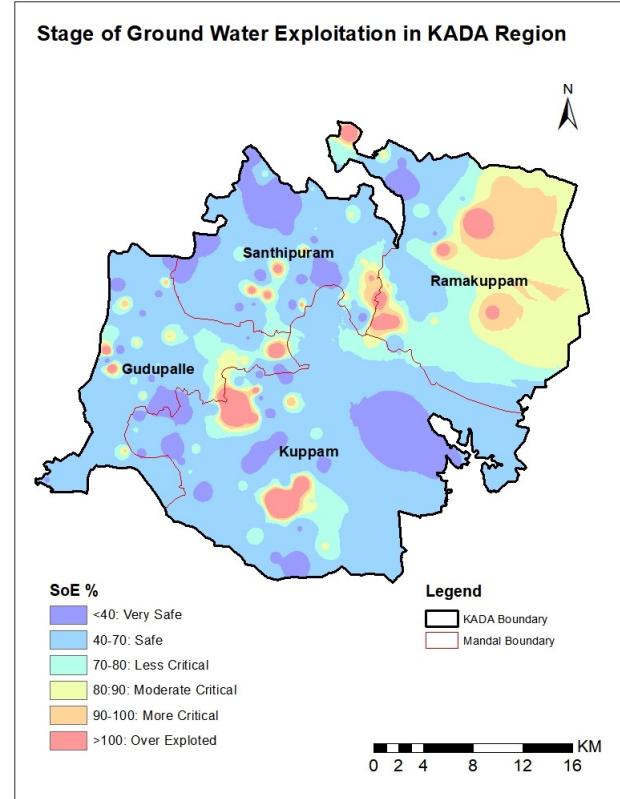
Accuulation period (yrs) = (SoE/100) x (Gw Instorage)/(Balance + Future Allocations)

Depletion period (yrs) = (100/SoE) x (Gw Instorage)/(Extraction+ Environmental Flows)

Gw Instorage = Area x Specific Yield x (Depth to Fractured Basement - Water Table)

Ground Water Estimation in KADA Region

BLOCK	Ground Water Resources Availability (Ham)	Ground Water Resources Extraction (Ham)	Ground Water Resources Balance (Ham)	Stage of Extraction %	Accumulation Period of Current InStorage (Yrs)	Depletion Period of Current InStorage (Yrs)
GUDI PALLE	2196	1568	624	60.3	74	58
KUPPAM	3074	1705	1480	58.8	51	95
RAMA KUPPAM	1985	1365	611	72.4	153	74
SANTHI PURAM	2166	1241	885	54.0	81	98
KADA Region	9420	5880	3600	60.3	84	83



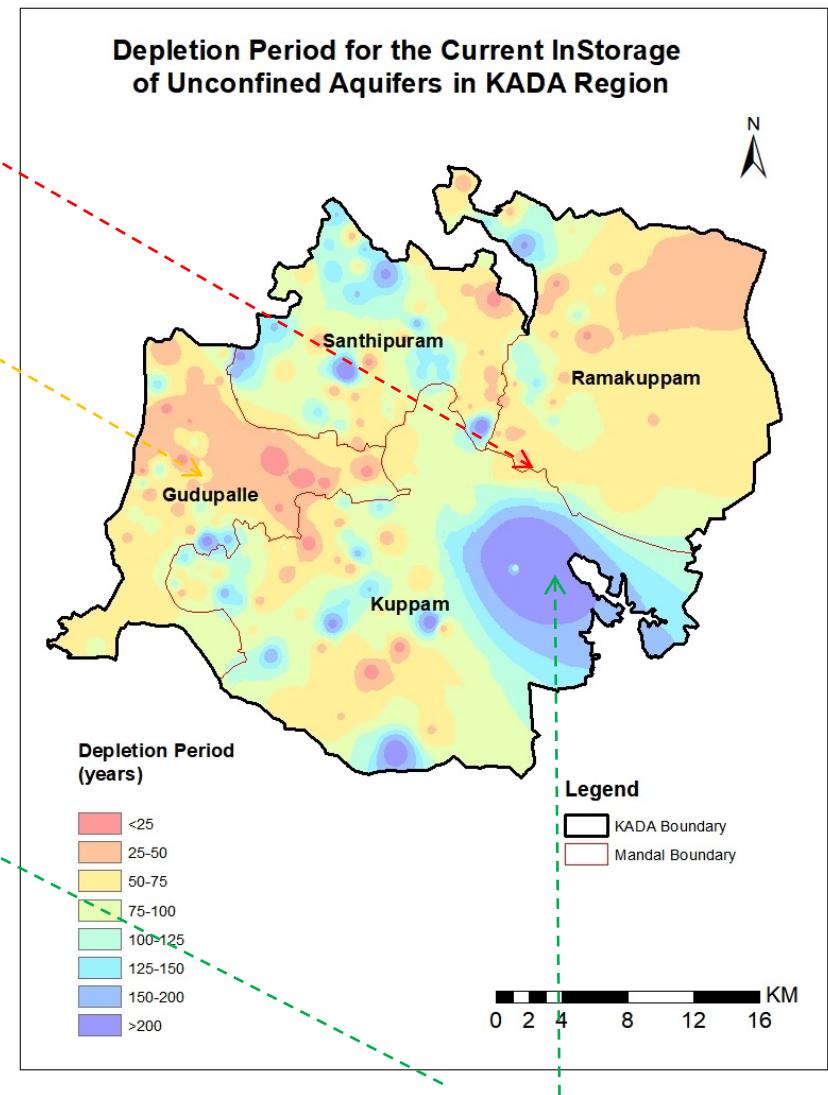
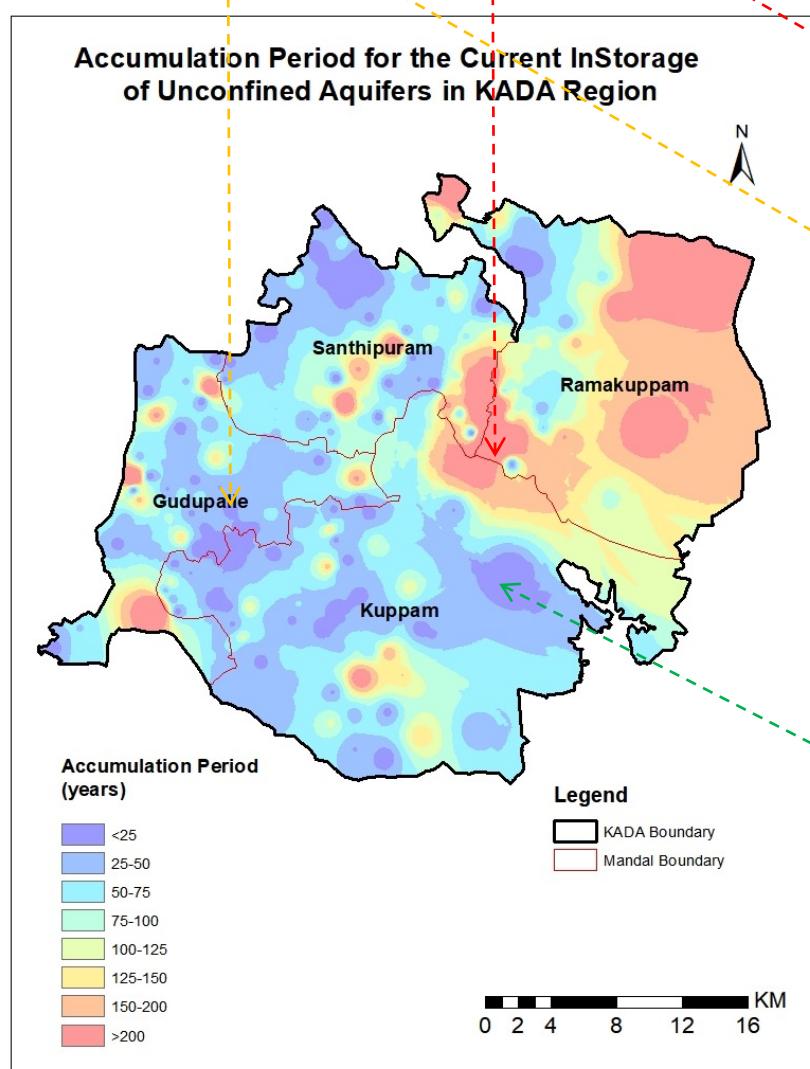
BLOCK	Ground Water Resources Availability (Ham)	Ground Water Resources Extraction (Ham)	Ground Water Resources Balance (Ham)	Stage of Extraction %	Accumulation Period of Current InStorage (Yrs)	Depletion Period of Current InStorage (Yrs)
CTR_PALAR_CHINNAERU_NADIMURU	1617	1139	556	57.4	63	80
CTR_PALAR_DUGGAMMAERU_V.KOTA	615	377	228	88.5	172	63
CTR_PALAR_KUPPAMVANKA_KUPPAM	2015	1446	622	63.3	55	67
CTR_PALAR_PALAR EAST RAJUPETA	967	586	382	72.6	180	73
CTR_PALAR_PALAR WEST THUMSI	1902	1135	763	51.1	61	101
CTR_PALAR_THOTLACHERUVUVANKA_RAMAKUPPAM	1438	795	621	65.9	90	97
CTR_PONNIAR_ADAVIBODUGURU_ADAVIBODUGURU	736	323	371	45.8	51	113
CTR_PONNIAR_BISANATHAM_ADAVIBODUGURU	131	78	57	73.3	137	52
KADA Region	9420	5880	3600	60.9	84	83

More Stressed Aquifers

Ground Water Resources Analysis of the KADA

Less Accumulation period
& Less Depletion period

More Accumulation period
& Less Depletion period



Less Stressed Aquifers

Less Accumulation period
& More Depletion period

Water Level Analysis

Range of Ground Water Levels in KADA Region, Chittoor District, AP

S.No.	Region	Average Water Levels	Rank	Min Water Lvels	Location	Max Water Levels	Location
1	KADA Region	14.70	-	0.78	Rallabuduguru _Santhipuram	39.24	Solachinthanapalli _Gudupalle
2	Chittoor District	6.87		0.03	Pannur _Vijayapuram	39.24	Solachinthanapalli _Gudupalle
3	Andhra Pradesh	6.54	-	0.01	Chukkavanipalem _Bhimili _Visakhapatnam	95.26	Velugubanda-II _Rajanagaram _East Godavari

Ground Water Levels in KADA Region & Chittoor District (m bgl)						
Region	Pre Monsoon May -2025	Post Monsoon Nov -2025	Last Year Dec -2024	Present Month Dec -2025	Seasonal Rise (May25 to Dec25)	Annual Rise (Dec24 to Dec25)
Gudipalli Mandal	30.74	30.23	29.35	25.53	5.21	3.82
Kuppam Mandal	19.36	13.67	14.54	14.14	5.22	0.4
Ramakuppam Mandal	18.88	11.32	15.70	11.83	7.05	3.87
Santipuram Mandal	14.35	8.75	12.28	9.73	4.62	2.55
KADA Region	20.30	15.26	17.62	14.70	5.60	2.92
Chittoor District	11.87	6.45	8.89	6.87	5.00	2.02
Andhra Pradesh	9.90	6.08	7.33	6.54	3.36	0.79

**Ground Water Levels of the Piezometers in KADA Region & Chittoor District
for Diffrent Monsoonal Periods and Current Month (m bgl)**

Ground Water Levels in KADA Region & Chittoor District (m bgl)									
Mandal Name	Village Name	Last 10 Years May	Last 10 Years Nov	Pre Monsoon May -2024	Post Monsoon Nov -2024	Pre Monsoon May -2025	Post Monsoon Nov -2025	Last Year Dec -2024	Present Month Dec -2025
Gudupalle	Dravida University	14.33	9.02	14.97	12.49	15.88	16.34	12.47	11.52
Gudupalle	Gudupalle	26.83	23.54	30.8	31.11	34.42	34.26	31.38	25.82
Gudupalle	Solachinthanapalli.	43.17	39.87	41.92	37.81	41.92	40.1	44.19	39.24
Kuppam	Adaviboduguru	24.42	12.97	33.6	25.35	30.69	21.81	23.54	23.34
Kuppam	Kangundhi	13.39	17.96	10.1	7.22	8.03	5.53	5.54	4.93
Ramakuppam	Balla	16.66	14.03	18.04	19.54	19.96	11.93	16.75	12.75
Ramakuppam	Cheldiganipalle	15.82	10.45	19.09	20.52	23.01	17.53	20.12	17.01
Ramakuppam	Ramakuppam	12.94	10.64	14	12.98	14.7	10.91	12.37	11.54
Ramakuppam	Vijilapuram	13.72	12.6	12.56	15.96	17.85	4.92	13.55	6.01
Santipuram	Anikera	21.6	17.64	20.31	16	20.45	8.58	14.61	10.11
Santipuram	Gundusettipalli	13.41	7.96	16.3	15.66	18.82	13.1	14.74	13.73
Santipuram	Rallaboduguru	2.94	1.71	3.49	0.11	2.1	0.15	1.45	0.78
Santipuram	Shanthipuram	18.78	16.88	20.5	19.12	16.03	13.16	18.31	14.3
<i>Gudipalli Mandal</i>		28.11	24.14	28.56	27.14	30.74	30.23	29.35	25.53
<i>Kuppam Mandal</i>		18.91	15.47	21.85	16.29	19.36	13.67	14.54	14.14
<i>Ramakuppam Mandal</i>		14.79	11.93	15.92	17.25	18.88	11.32	15.70	11.83
<i>Santipuram Mandal</i>		14.18	11.05	15.15	12.72	14.35	8.75	12.28	9.73
KADA Region		18.31	15.02	19.67	17.99	20.30	15.26	17.62	14.70
Chitoor District		12.41	9.27	13.25	10.23	11.87	6.45	8.89	6.87
Andhra Pradesh		11.04	8.18	11.74	7.35	9.90	6.08	7.33	6.54

**Ground Water Levels of the Piezometers in KADA Region & Chittoor District
for Diffrent Monsoonal Periods and Current Month (m bgl)**

Ground Water Levels in KADA Region & Chittoor District (m bgl)									
Mandal Name	Village Name	Pre Monsoon May -2025	Post Monsoon Nov -2025	Last Year Dec -2024	Present Month Dec -2025	1st Jan 2026	8 th Jan 2026	15th Jan 2026	Today
Gudupalle	Dravida University	15.88	16.34	12.47	11.52	12.87	12.86	13.58	
Gudupalle	Gudupalle	34.42	34.26	31.38	25.82	31.07	31.46	31.46	
Gudupalle	Solachinthanapalli.	41.92	40.1	44.19	39.24	39.24	39.24	39.24	
Kuppam	Adaviboduguru	30.69	21.81	23.54	23.34	25.41	25.54	26.78	
Kuppam	Kangundhi	8.03	5.53	5.54	4.93	3.52	3.53	3.68	
Ramakuppam	Balla	19.96	11.93	16.75	12.75	12.91	13.28	13.56	
Ramakuppam	Cheldiganipalle	23.01	17.53	20.12	17.01	20.96	17.08	17.62	
Ramakuppam	Ramakuppam	14.7	10.91	12.37	11.54	12.05	12.18	12.38	
Ramakuppam	Vijilapuram	17.85	4.92	13.55	6.01	6.39	6.12	6.49	
Santipuram	Anikera	20.45	8.58	14.61	10.11	9.36	14.65	14.6	
Santipuram	Gundusettipalli	18.82	13.1	14.74	13.73	14.84	14.66	14.66	
Santipuram	Rallaboduguru	2.1	0.15	1.45	0.78	1	1.2	1.25	
Santipuram	Shanthipuram	16.03	13.16	18.31	14.3	15.05	15.42	16.05	
<i>Gudipalli Mandal</i>		30.74	30.23	29.35	25.53	27.73	27.85	28.09	
<i>Kuppam Mandal</i>		19.36	13.67	14.54	14.14	14.47	14.54	15.23	
<i>Ramakuppam Mandal</i>		18.88	11.32	15.70	11.83	13.08	12.17	12.51	
<i>Santipuram Mandal</i>		14.35	8.75	12.28	9.73	10.06	11.48	11.64	
KADA Region		20.30	15.26	17.62	14.70	15.74	15.94	16.26	
Chitoor District		11.87	6.45	8.89	6.87	6.89	6.98	7.12	
Andhra Pradesh		9.90	6.08	7.33	6.54	6.86	6.95	7.09	

Monsoon Rise of Ground Water Levels & Powerd Saved in KADA Region & Chittoor District

Region	Period	Monsoon Rise in Ground Water Levels	Power Saved (KWHrs)	Power Saved (Mega Units)
KADA Region	Previous Water Year (May2024-Nov-2024)	1.68 m (19.67-17.99)	44,810	0.045
	Present Water Year (May-2025 to Nov-2025)	5.04 m (20.30-15.26)	1,48,579	0.148
Chittoor District	Previous Water Year (May2024-Nov-2024)	3.02 m (13.25-10.23)	8,11,806	0.812
	Present Water Year (May-2025 to Nov-2025)	5.42 m (11.87-6.45)	14,56,950	1.456

Methodology : Power Saved in One Crop season for Sustainable rise of 1 m Ground Water levels in KADA region & Chitoor District

$$\text{Draft (m}^3/\text{sec}) * \text{Pumping Period (Sec-Hr)} * \text{Functional Days} * \text{Gravity Constant} * \text{Density} * \text{Water level rise}$$

Unit or KWHr =

$$\frac{1000 * 3600 * \text{Power Efficiency} * \text{Motor Efficiency}}{}$$

KADA Draft Q = 5880 Ham /year or 1.87 m³/sec

$$1.87 * 9 * 3600 * 100 * 1000 * 9.81 * 1$$

Chitoor Draft Q = 53793 Ham /year or 17.05 m³/sec

$$1000 * 3600 * 0.7 * 0.8$$

Draft = GEC Utilization or Unit Draft * No of Wells

Time conversion Hr-Sec , t= 3600 Sec

Pumping period T=9 Hr, Functional Days F=100 Days

$$= 29,480 \text{ Units or KWHrs for KADA}$$

Desity = 1000 Kg/m³ , Gravity constant = 9.81 m/s²

$$= 2,68,810 \text{ Units or KWHrs for Chitoor}$$

Water level change H=1 m

Influence of additional recharge due to filling of MI Tanks through HNSS canal releases in KADA

Region	Period	Monsoon Rise in Ground Water Levels
KADA Region	Previous Water Year (May2024-Nov-2024)	1.68 m (19.67-17.99)
	Present Water Year (May-2025to Nov-2025)	5.04 m (20.30-15.26)

- Decadal /Last 10 years Premonsoon Average Ground water level in KADA is about 18.31 m bgl considred as Reference water level.
- Previous Water Year (May2024-Nov-2024) Monsoon Rise of Ground Water Levels in KADA is 1.68 m (from 19.67 m to 17.99m).
- It is 9.17 % of Reference Water level 18.31 m bgl.
- Present Water Year (May-2025to Nov-2025) Monsoon Rise of Ground Water Levels in KADA is 5.04 m (from 20.30 m to 15.26 m).
- It is 27.52 % of Reference Water level 18.31 m bgl.
- Increase in Monsoonal Rise in Ground Water Levels about 3.36 m (from 1.68 to 5.04 m).
- It is 18.35 % of Reference Water level 18.31 m bgl.
- Arewise about 8%area increased in Shallow Water zone (3-8 m Zone) and about 8% area reduced in Deep Water Zone (>20m Zone)

Region	Period	Zone Area(in %)			
		<3m	3-8m	8-20m	>20m
KADA Region	Premonsoon /May	0	7.7	53.8	38.5
	Post Monsoon /November 2024	7.7	7.7	53.8	30.8
	Post Monsoon / November 2025	7.7	15.4	53.8	23.1

**Sustainable Rise of 1 m Water table
= 0.33 TMC for KADA Region**

Influence of additional recharge due to filling of MI Tanks through HNSS canal releases in KADA

Region	Available Ground Water Resources for the Month (TMC)			
	June 2024	Jan 2025	June 2025	Jan 2026
GUDI PALLE	0.1515	0.2352	0.1543	0.4680
KUPPAM	0.3591	0.9078	0.3658	0.9600
RAMA KUPPAM	0.1483	0.4048	0.1510	0.7197
SANTHI PURAM	0.2147	0.3694	0.2187	0.5641
KADA Region	0.8736	1.7565	0.8898	2.7347
Chitoor District	8.7	18.34	8.8	24.38

- Previous Water Year (June2024-January-2025) Increase in the Utilizable Ground Water Resources is 0.8829 TMC (from 0.8736 TMC to 1.7565 TMC)**
- Present Water Year (June2025-January-2026) Increase in the Utilizable Ground Water Resources is 1.8449 TMC (from 0.8898 TMC to 2.7347 TMC)**
- Increase of Utilizable Ground Water Resources about 0.962 TMC (from 0.8829 to 1.8449 m)**

Available Ground Water Resources (TMC) in KADA Region & Chittoor District

Region	Available Ground Water Resources for the Month					
	June 2024	Dec 2024	Jan 2025	June 2025	Dec 2025	Jan 2026
GUDI PALLE	0.1515	0.2370	0.2352	0.1543	0.1447	0.4680
KUPPAM	0.3591	0.9920	0.9078	0.3658	1.0135	0.9600
RAMA KUPPAM	0.1483	0.0410	0.4048	0.1510	0.7606	0.7197
SANTHI PURAM	0.2147	0.3963	0.3694	0.2187	0.6375	0.5641
KADA Region	0.8736	1.3743	1.7565	0.8898	2.5000	2.7347
Chittoor District	8.7	14.1	18.34	8.8	25.7	24.38
Andhra Pradesh	457.9	651.4	700.75	429.3	744.9	722.32

Methodology : Ground Water Resources Improvement for Sustainable rise of 1 m Ground Water levels in KADA region & Chittoor District

**Ground Water Resources Improvement= Recharge Worthy Area * Specific yield * Waterlevel rise
*Utilizable factor * Conversion factor Ham-TMC**

KADA Recharge Worthy Area =71790 Ha

Chittoor District Area= 685899 Ha

Specific yield = 0.026

Waterlevel rise = 1 m

Utilizable factor =0.5

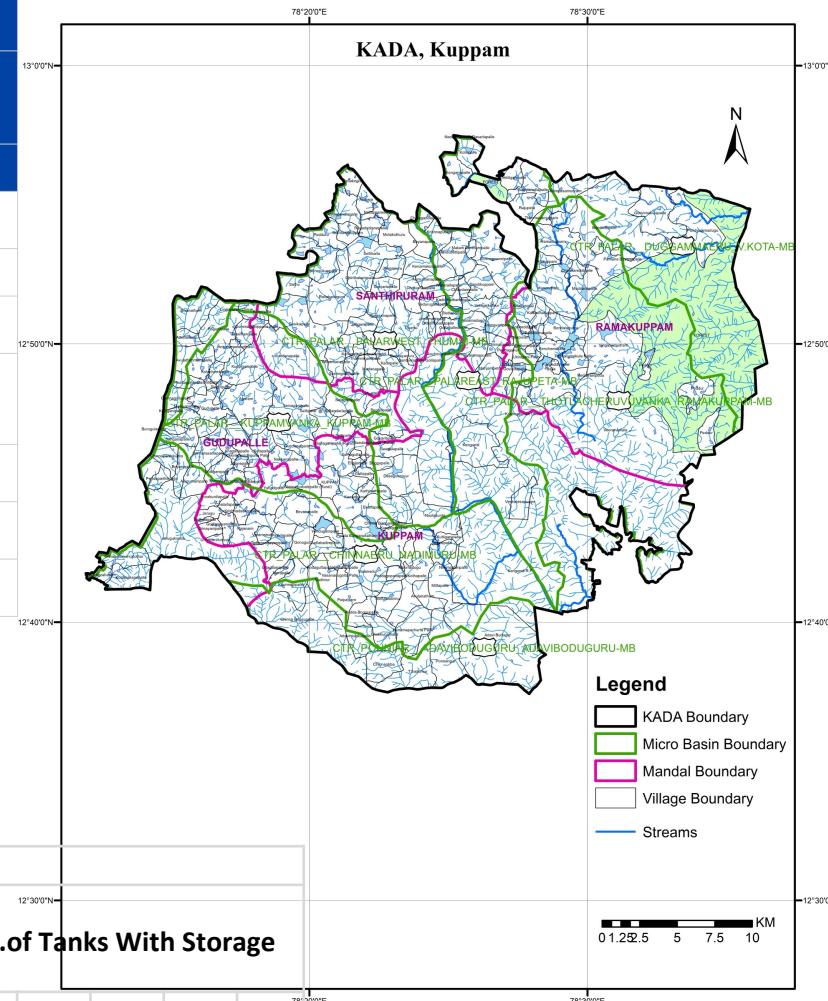
Conversion factor Ham-TMC= 0.000353

$$\begin{aligned} & 71790 * 0.026 * 1 * 0.5 * 0.000353 \\ & = 0.33 \text{ TMC for KADA Region} \end{aligned}$$

$$\begin{aligned} & 685899 * 0.026 * 1 * 0.5 * 0.000353 \\ & = 3.148 \text{ TMC for Chittoor District} \end{aligned}$$

MI Tank Storage Change Report

Region	No.of MI Tanks	Last Year Storage		Current Storage		Increase in Storage	
		mcft	mcft	mcft	(%)		
GUDI PALLE	182	28.86	122.9	94.04	307		
KUPPAM	129	50.87	121.08	70.21	138		
RAMA KUPPAM	133	8.26	88.26	80	968		
SANTHI PURAM	111	61.28	168.36	107.08	175		
KADA Region	555	149.27	500.6	351.33	232		
Chittoor District	4122	5977.02	11406.48	5429.46	90		
Andhra Pradesh	38628	96890	139140	42250	44		



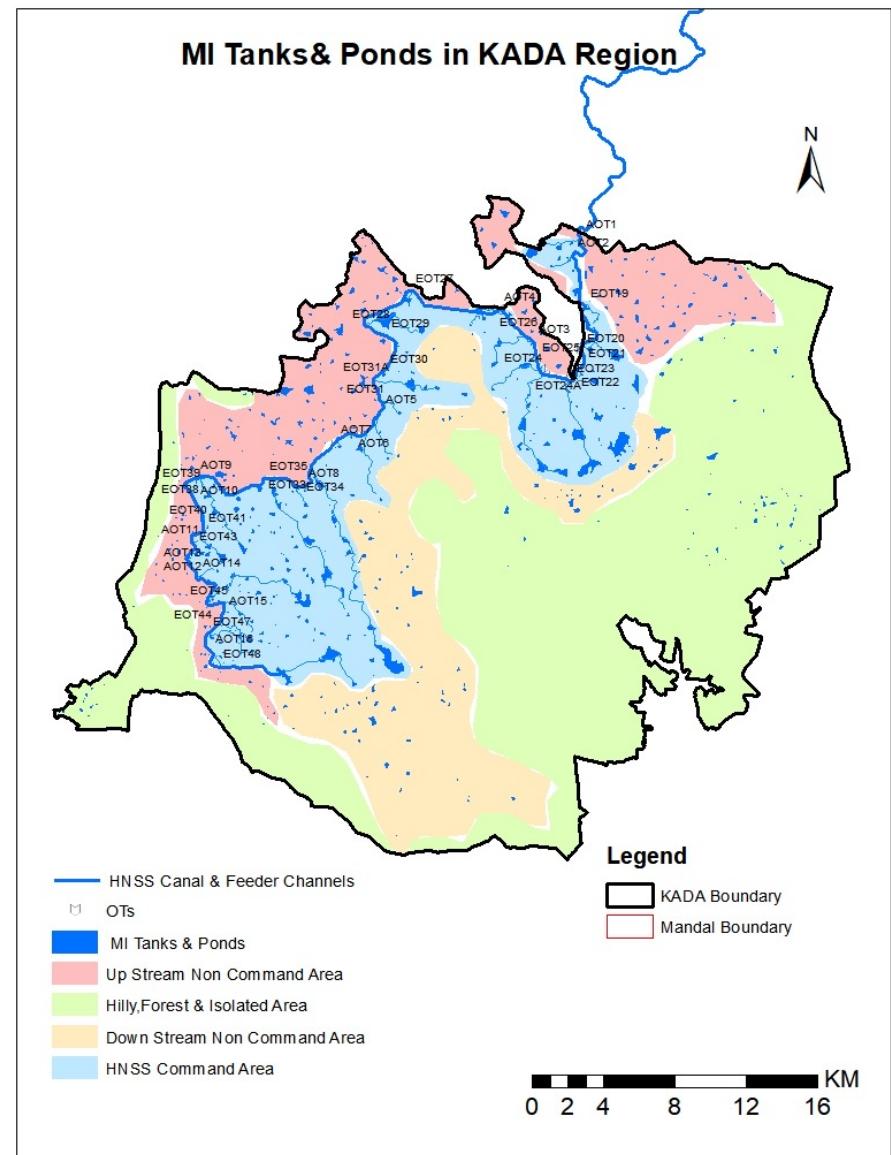
MITANK_FILL_REPORT on 20.01.2026

Mandal	No.of MI Tanks	Storage Capacity (mcft)	Current Storage (mcft)			Last Year Storage (mcft)	Change in Storage (mcft)	No.of Tanks With Storage				
			Total	Current Storage	Fill (%)			Full	75%	50%	25%	0%
GUDI PALLE	182	232.61	122.9	52.84	52.84	28.86	94.04	41	19	30	30	62
KUPPAM	129	336.66	121.08	35.97	35.97	50.87	70.21	37	4	8	28	52
RAMA KUPPAM	133	325.95	88.26	27.08	27.08	8.26	79.99	12	6	9	31	75
SANTHI PURAM	111	301.16	168.36	55.9	55.9	60.45	107.9	5	34	46	23	3
KADA	555	1196.38	500.6	42.9	42.9	148.44	352.14	95	63	93	112	192
Chittoor	4122	15135.23	11406.48	75.36	75.36	5976.19	5430.28	1502	749	977	515	379

HNSS-2 Linked MI Tanks Status in KADA Region

Region	Total MI Tanks	HNSS Linked MI Tanks			Storage Capacity (mcft)		
		Ex	Add	Total	Ex	Add	Total
GUDI PALLE	182	30	7	37	73.77	4.08	77.85
KUPPAM	129	29	5	34	192.01	3.3	195.31
RAMA KUPPAM	133	10	5	15	72.74	11.07	83.81
SANTHI PURAM	111	18	21	39	60.5	39.37	99.87
KADA Region	555	87	38	125	399.02	57.82	456.84

HNSS Linked MI Tanks			
Region	Area (Sq KM)	MI Tanks & Ponds	Remarks
HNSS Command Area	198	227	Connected 125 (97 filled once +28 to be filled)
Upstream Non Command Area	162	196	Difficult / Need Lift
Down Stream Non Command Area	172	85	Some What Easy, Lift/Gravity
Isolated Area	432	73	Extremely Difficult
KADA Region	964	581	

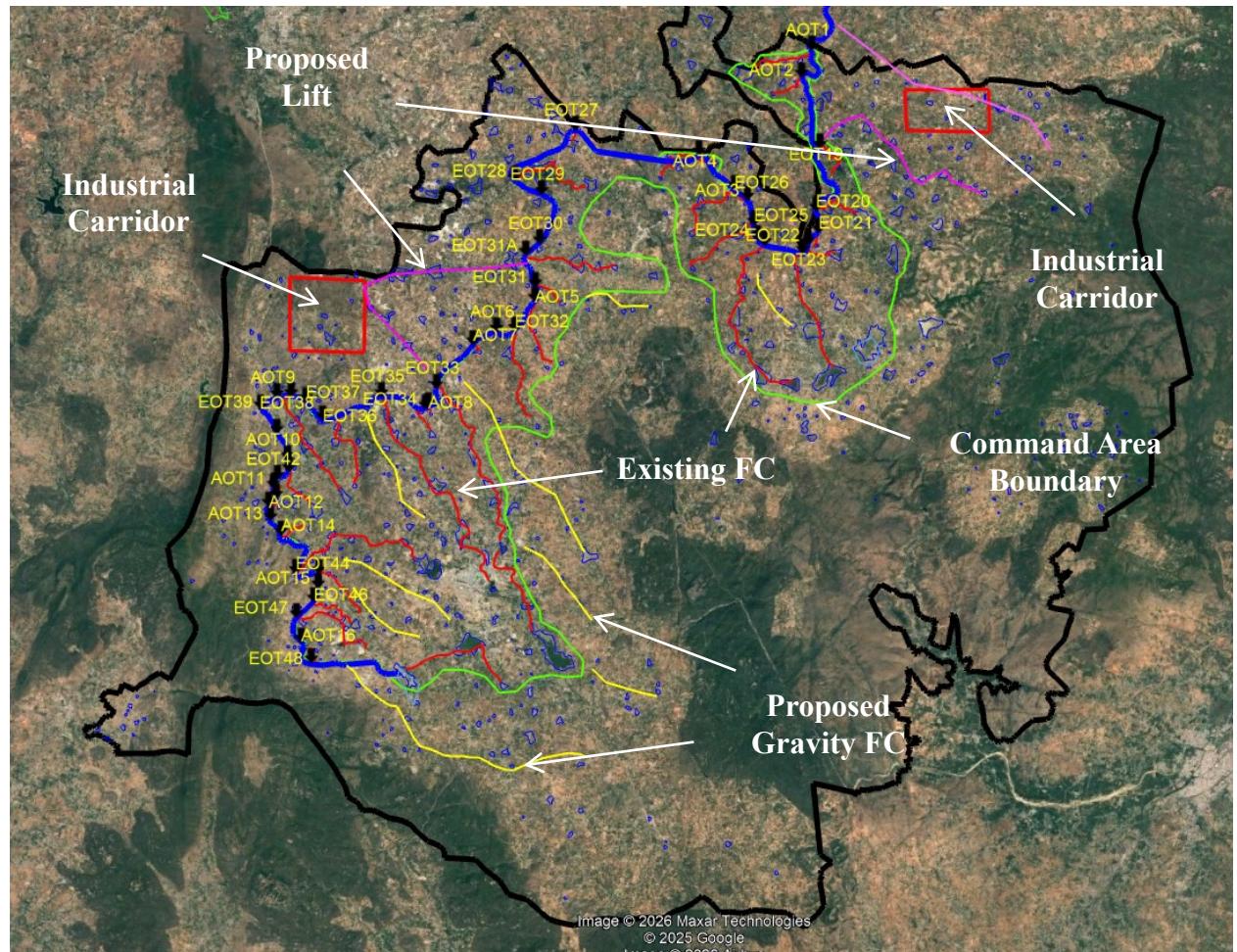


1 mcft= 0.001 TMC

HNSS-KBC - MI Tanks -Linking Status in KADA Region

HNSS Linked MI Tanks3

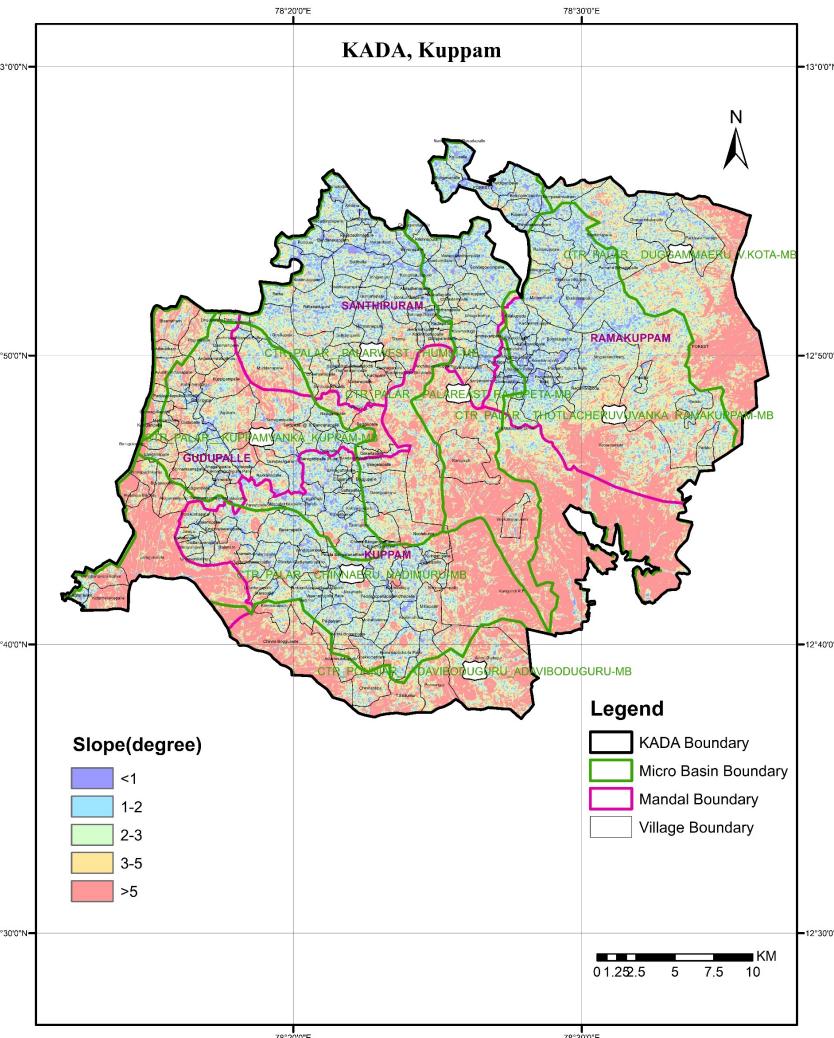
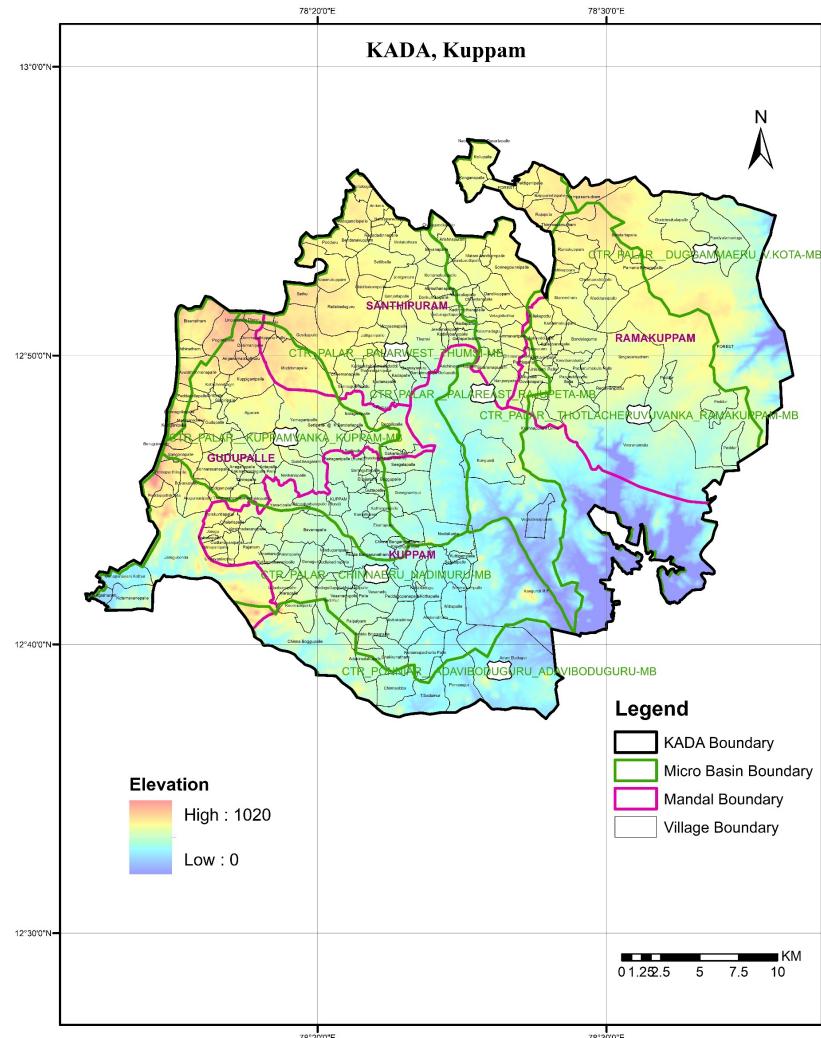
OT location	Linkage Length (KM)	Gravity/ Lift	No of Tanks can be connected
47	12	Gravity	18
44	5	Gravity	8
45	3.5	Gravity	4
33 Start	8.5	Gravity	4
33 end	3	Gravity	4
33 middle	4	Gravity	4
31 end	3	Gravity	6
24q middle	2.5	Gravity	4
35	5	Gravity	15
			18
19	8.5	Lift 20m	Bagalnatham /Bandalagude m IC
31	8+3	Lift 80m +Gravity	Pogurupalli/ IC
AOT1	4+6	Lift 30 m+Gravity	15 Bagalnatham /Bandalagude m IC



HNSS-2 Linked MI Tanks Status in KADA Region

Region	OTS Details					OTS Designed Discharge Cusecs		
	Existing	Ex OTS	Additional	Add OTS	Total	Existing	Additional	Total
Gudipalle	3	19,20,23	2	OT1,OT2	5	116.0	61.7	177.7
Kuppam	7	24a,26,28,29,31,31A,32	5	OT3,OT4,OT5,OT6,OT7	12	95.9	26.4	122.3
Ramakuppam	10	33,34,36,38,39,40,41,42,43,44	6	OT8,OT9,OT10,OT11,OT12,OT13	16	70.6	17.7	88.3
Shantipuram	7	33,35,44,45,46,47,48,	3	OT14,OT15,OT16	10	105.9	61.8	167.7
	27		16		43	388.5	167.5	556.0

Region	No of MI Tanks			Capacity (mcft)			Ayacut (Acres)		
	Existing	Additional	Total	Existing	Additional	Total	Existing	Additional	Total
Gudipalle	30	7	37	73.8	4.1	77.9	725.1	43.9	769.1
Kuppam	29	5	34	192.0	3.3	195.3	1495.8	37.6	1533.4
Ramakuppam	10	5	15	72.7	11.1	83.8	687.7	201.8	889.5
Shantipuram	18	21	39	60.5	39.4	99.9	764.7	584.5	1349.2
	87	38	125	399.0	57.8	913.7	3673.3	867.8	4538



Water Conservation Plan for KADA Region

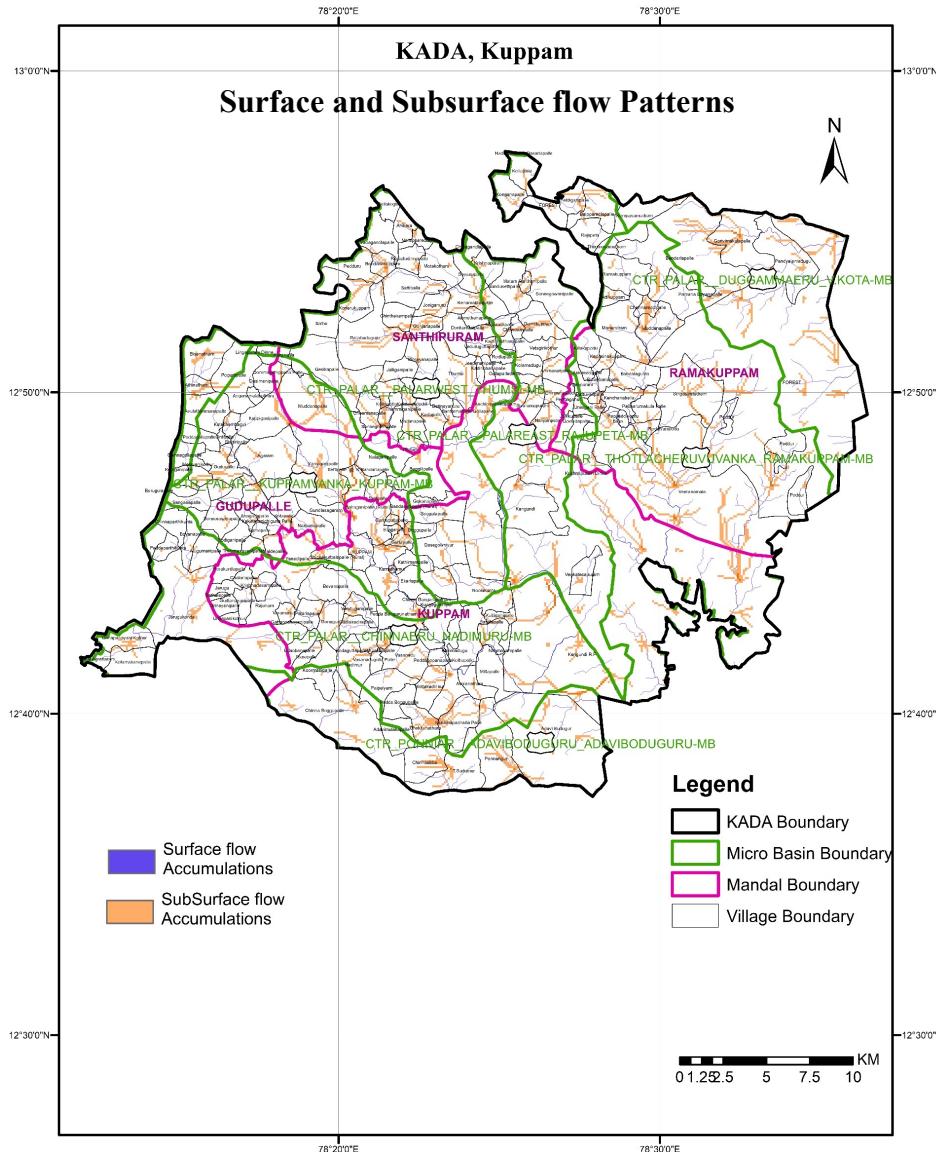
Region	Village	Water Level Considered (m)	Water Level to be Raised (m)	Recharge to be Done (mcft)
Gudi Palle	48	39.67	31.67	2165
Kuppam	64	26.36	18.36	2101
Rama Kuppam	38	19.76	11.76	865
Santhi Puram	59	18.68	10.68	861
KADA Region	209	26.05	18.05	5992

Region	Existing Water Conservation Structures				
	Mini Percolation Tanks	Check Dams	Farm Ponds	Dug-Out Ponds	Abandoned/ Partially Functioning Bore wells
Gudi Palle	11	131	2560	298	36
Kuppam	47	187	2828	307	12
Rama Kuppam	106	73	3041	270	6
Santhi Puram	33	91	2453	227	45
KADA Region	197	482	10882	1102	99

Region	Proposed Water Conservation Structures					Desiltation	
	Mini Percolation Tanks	Check Dams	Farm Ponds	Dug-Out Ponds	Recharge Shafts	Desilting of CDs	Desilting of MI tanks
Gudi Palle	222	141	28	93	91	9	5
Kuppam	261	177	91	65	98	15	11
Rama Kuppam	109	93	124	172	69	28	28
Santhi Puram	171	128	233	332	62	27	32
KADA Region	763	539	476	662	320	79	76

Hydrology Analysis of the KADA

- In the Arc GIS Hydrology Module , Surface of Area (Topography / 30 m SRTM DEM) given to get Surface flow pattern and Surface flow accumulation lines
- Similarly Reduced Ground Water Levels surface given to get SubSurface flow pattern and SubSurface flow accumulation lines

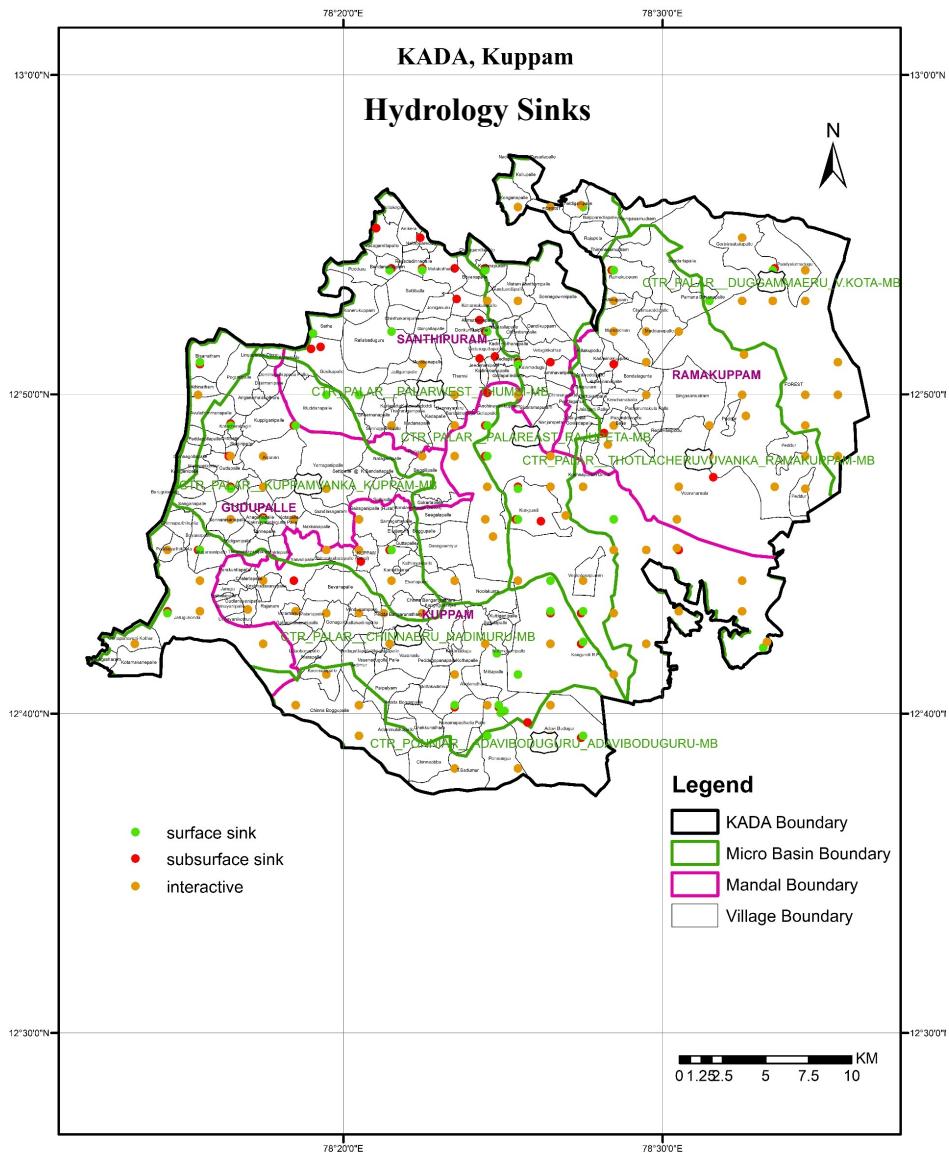


Hydrology Analysis of the KADA

- In the Arc GIS Hydrology Module , Surface of Area (Topography / 30 m SRTM DEM) given to get Surface accumulation points / sinks / surface depressions.
- Similarly Reduced Ground Water Levels surface given to get SubSurface accumulation points / sinks / subsurface depressions/high transmissive locations.

Results :

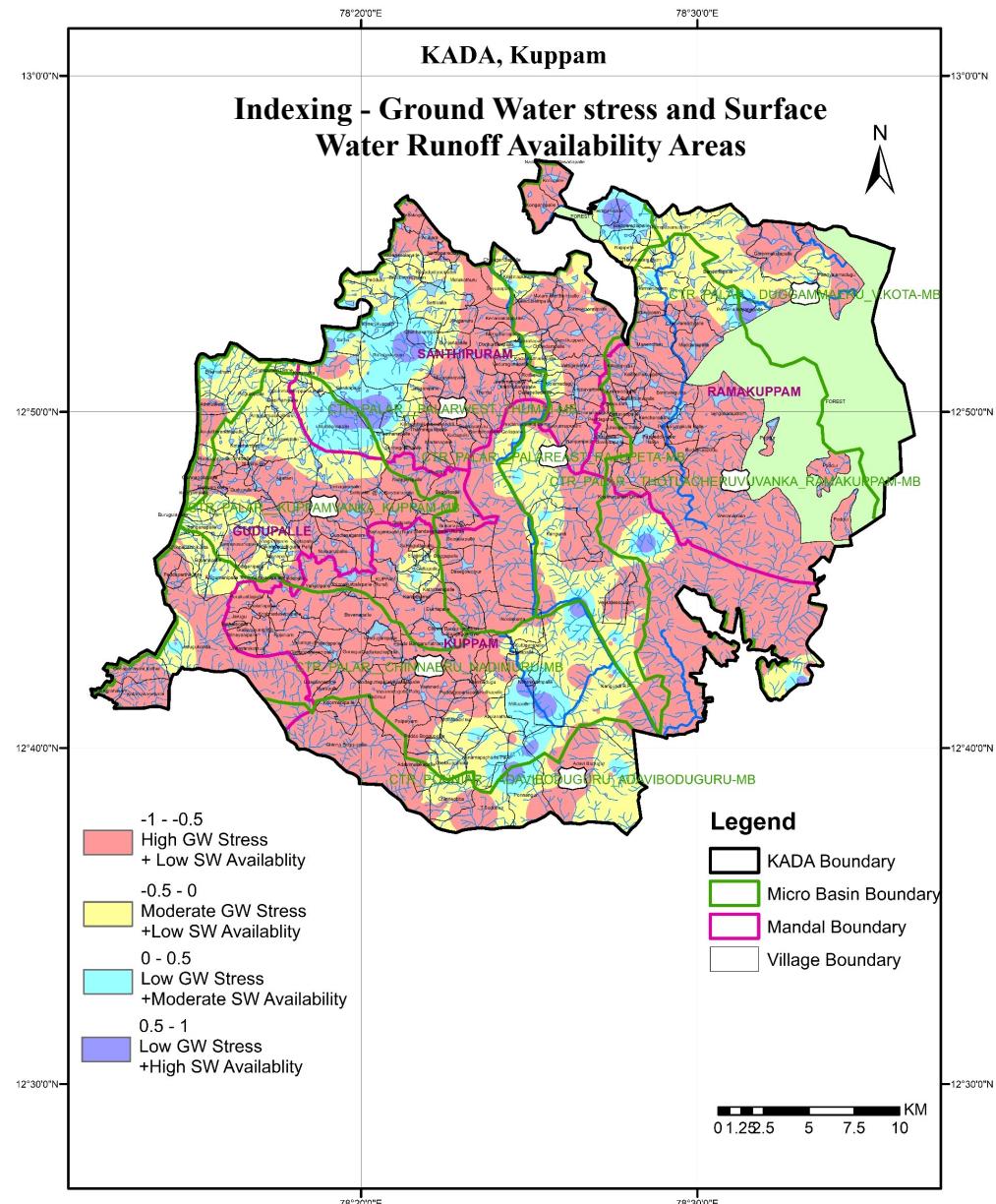
Total Sinks 268
Surface sinks 39
Subsurface sinks 139
Interactive sinks 90



Hydrology Analysis of the KADA

Indexing :

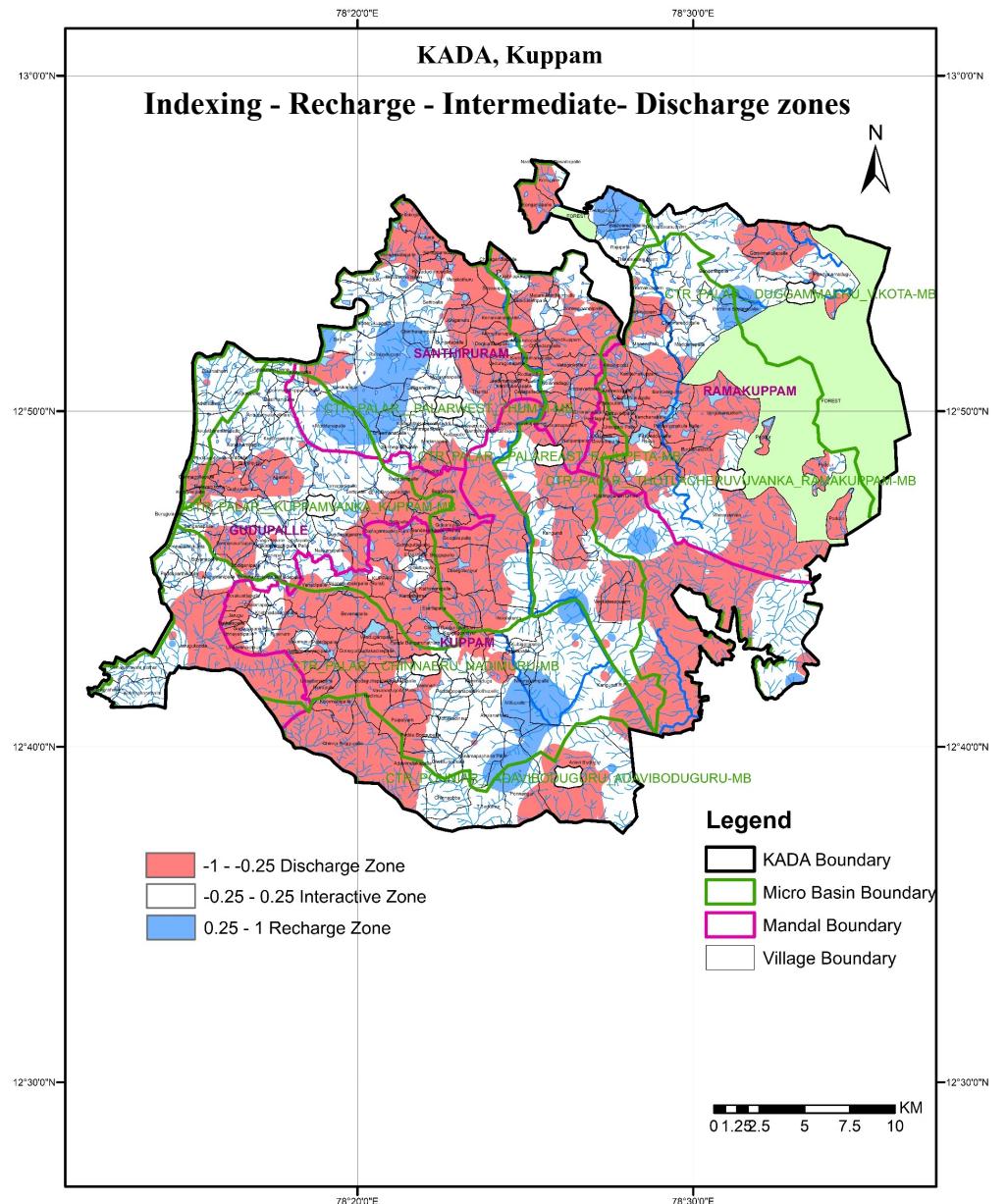
Surface sinks +1
Subsurface sinks -1
Interactive sinks 0



Hydrology Analysis of the KADA

Indexing :

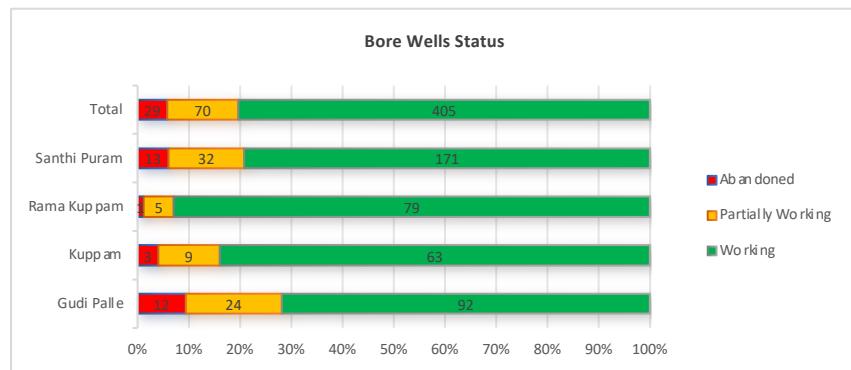
Surface sinks +1
Subsurface sinks -1
Interactive sinks 0



Abstract of Water conservation works in Water Stressed Villages Grounded as on 11.12.2025											
No of Villages			No.Grounded								
S.No	Name of the Mandal	No.of GPs	Farm ponds	Feeder/Field/Supply Channels	Desilting of PTs/MPTs	Desiltin g of Check Dams	Fish Ponds	Cattle Ponds	New MPT	Staggered Trenches	Total
1	Gudi Palle	7	69	7	8	8				3	95
2	Kuppam	9	52	22		6	4	4		7	95
3	Rama Kuppam	5	183			1	2			2	188
4	Santhi Puram	4	40	3			6			6	55
Total		25	344	32	8	7	20	4	0	18	433

S.No	Name of the Mandal	GP Name	Farm ponds	Feeder /Field channels	Desilting of PTS / MPTs	Desilting of Check dams	Fishponds	Cattle Ponds	New MPT	Staggered Trenches/ Peripheral Trenches	Grand Total
1	Gudi Palle	AGARAM	10	2			1			1	14
2	Gudi Palle	BEGGILAPALLE	8	1	2						11
3	Gudi Palle	KANAMANAPALLE	12	2							14
4	Gudi Palle	KODATHANAPALLE	10	1			2			2	15
5	Gudi Palle	POGURUPALLE	7								7
6	Gudi Palle	SODIGANIPALLE	10	1	4		2				17
7	Gudi Palle	YAMAGANIPALLE	12		2		3				17
8	Kuppam	DASEGOWNIYUR	4	6			1				11
9	Kuppam	GONUGUR	1	1			1				3
10	Kuppam	KRISHNADASANAPALLE	5				1			1	7
11	Kuppam	MALLANURU	11	5						1	17
12	Kuppam	MITTAPALLE	18			6				1	25
13	Kuppam	NADIMUR	7	1				1			9
14	Kuppam	PAIPALYAM	4	2				2		2	10
15	Kuppam	PEDDA BANGARUNATHAM	0	6			1	1			8
16	Kuppam	URLAOBANAPALLE	2	1						2	5
17	Rama Kuppam	BANDARLAPALLE	50				2				52
18	Rama Kuppam	GORIVIMAKULAPALLE	36							2	38
19	Rama Kuppam	PANDYALAMDUGU	20			1					21
20	Rama Kuppam	PEDDUR	62								62
21	Rama Kuppam	SINGASAMUDRAM	15								15
22	Santhi Puram	64 PEDDURU	27				2			2	31
23	Santhi Puram	KARLAGATTA	2				1				3
24	Santhi Puram	RALLABODUGURU	8	1						2	11
25	Santhi Puram	REGADADINNA PALLE	3	2			3			2	10
Total			344	32	8	7	20	4	18	433	

Status of Agricultural Wells in KADA Region



Unit	Wells Status						
	Mandal Name	Wells	Abandoned	Partially Working	Working	Abandoned	Partially Working
Gudi Palle	128	12	24	92	9.38	18.75	71.87
Kuppam	75	3	9	63	4	12	84
Rama Kuppam	85	1	5	79	1.17	5.89	92.94
Santhi Puram	216	13	32	171	6.02	14.81	79.17
Grand Total	504	29	70	405	5.75	13.89	80.36

Indexing:

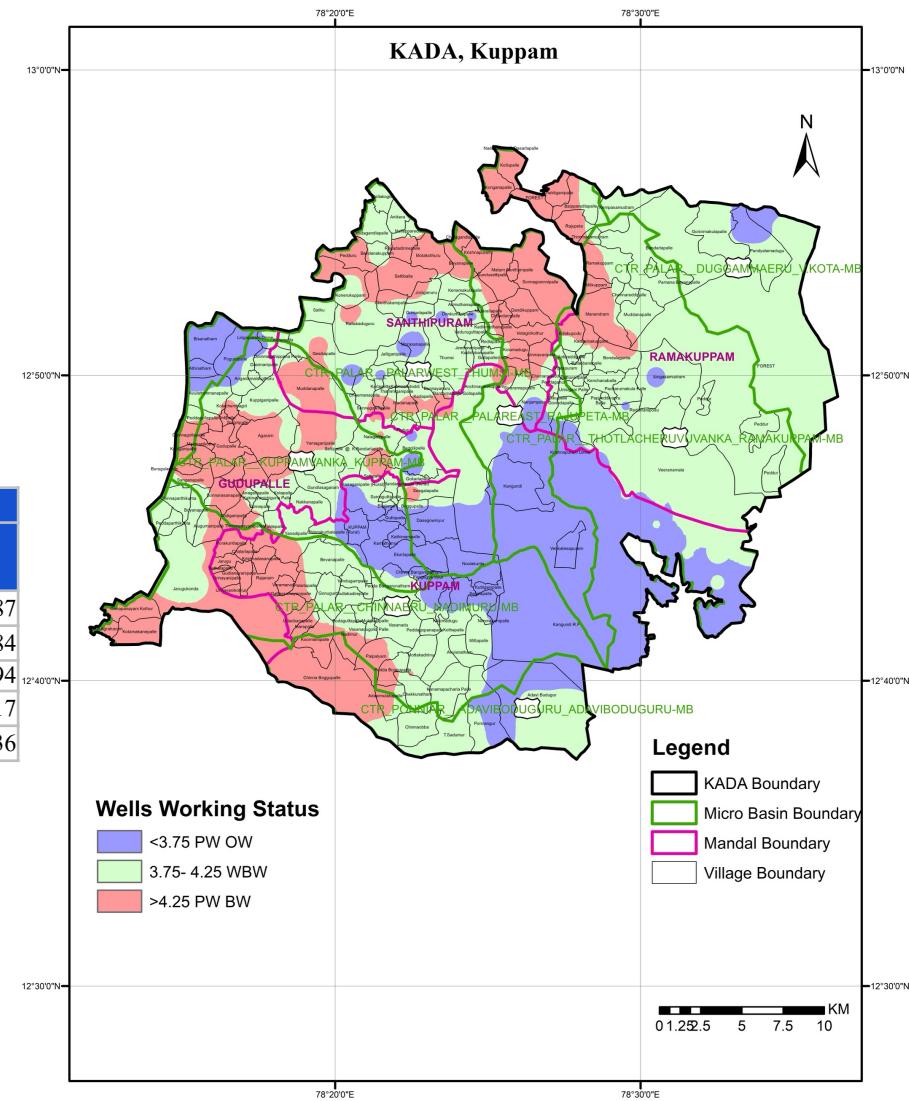
Working Open Well 3

Partially Working Open Well /Abandoned Open Well 3.5

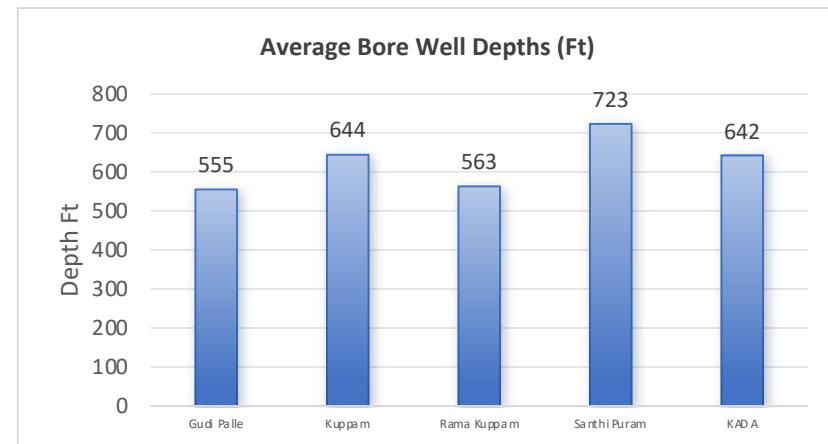
Working Bore Well 4

Partially Working Bore Well 4.5

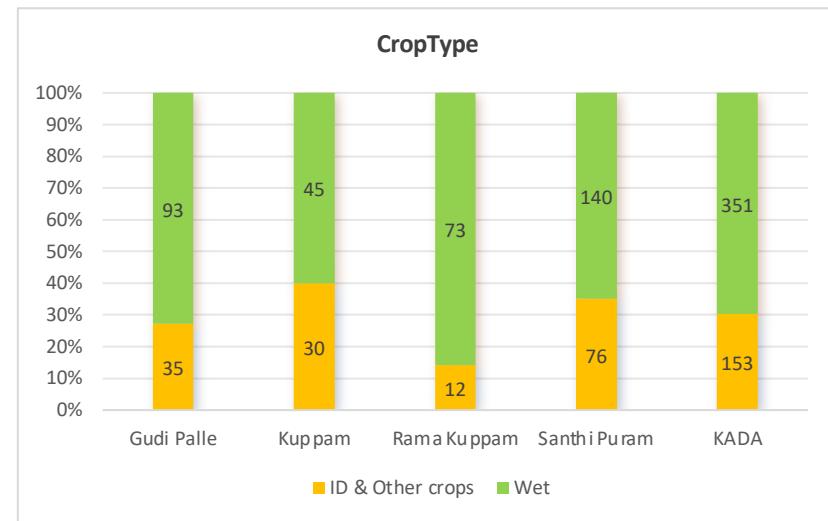
Anandoned Bore Well 5

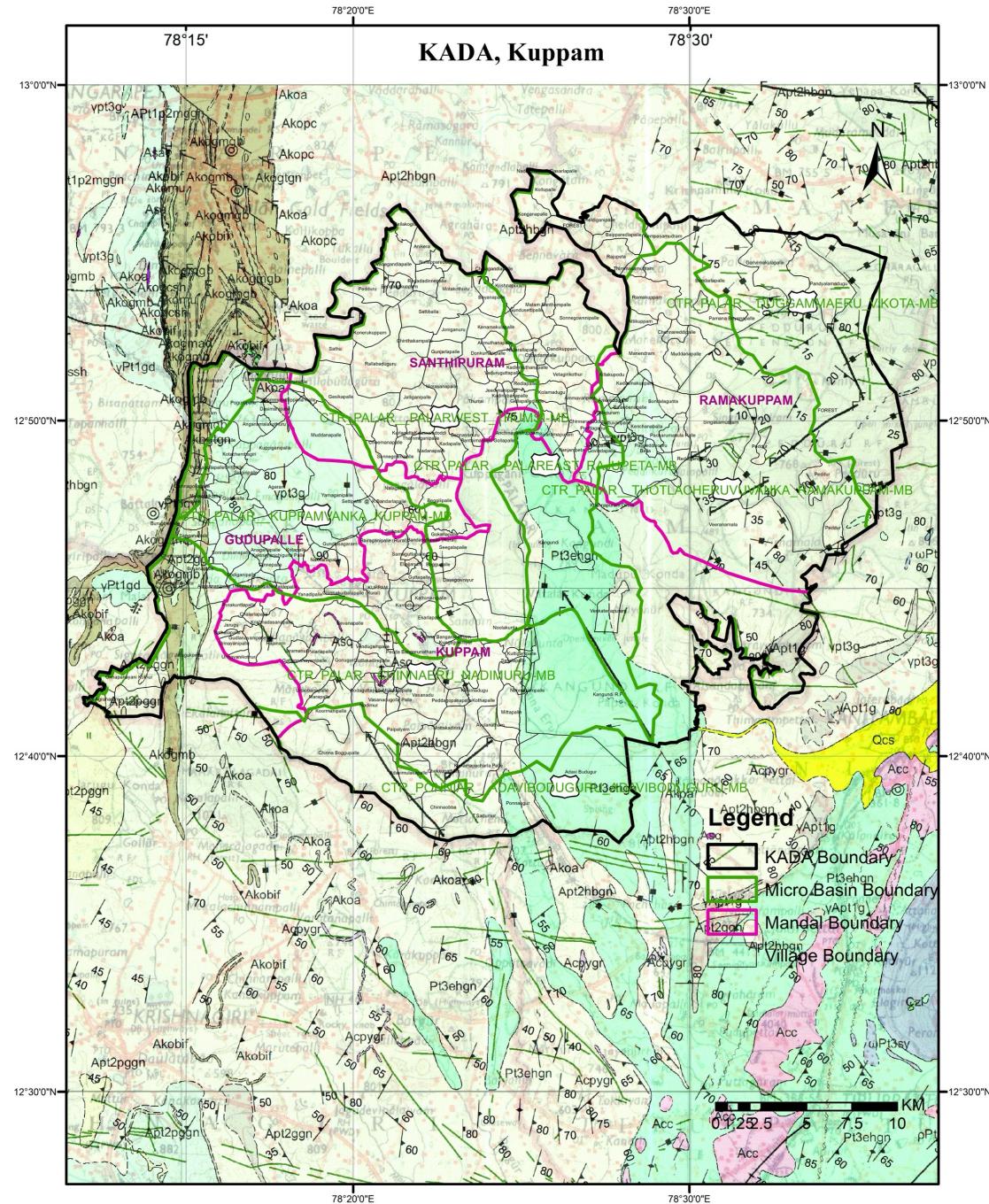


Unit	Well Depths- FT			Pump Capacity HP			
	Mandal Name	Average	Min	Max	Average	Min	Max
Gudi Palle		555	180	1000	8.62	5	20
Kuppam		644	150	1000	8.82	7.5	15
Rama Kuppam		563	50	1000	8.18	5	15
Santhi Puram		723	240	1000	10.31	5	20
Grand Total		642		1000	9.29	5	20



Unit	Crop Type				Irrigation Type				Average Irrigation Capacity Acres/ Well	
	Mandal Name	ID & Other crops	Wet	ID & Other crops %	Wet %	Flood	Micro	Flood %		
Gudi Palle		35	93	27.34	72.66	44	84	34.37	65.63	2.37
Kuppam		30	45	40.00	60.00	47	28	62.67	37.33	1.85
Rama Kuppam		12	73	14.12	85.88	17	68	20	80	1.8
Santhi Puram		76	140	35.19	64.81	32	184	14.81	85.19	2.17
Grand Total		153	351	30.36	69.64	140	364	27.78	72.22	2.11





Ground Water Estimation in KADA Region

Basic Data					Recharge from Different Components & Availability								
Region	Recharge Worthy Area (Ha)	Hilly Area (Ha)	Geographic Area(Ha)	Rainfall (mm)	Rainfall (Ham)	Surface Water Applied Irrigation Return Flow (Ham)	Ground Water Applied Irrigation Return Flow (Ham)	Seepage from MI Tanks & Ponds (Ham)	Seepage from Water Conservation Structures (Ham)	Net Recarge (Ham)	Environmental Flow (Ham)	Ground Water Resources Availability (Ham)	
GUDI PALLE	13119	3712	16831	856	1144	15	237	198	718	2312	116	2196	
KUPPAM	24806	18195	43000	865	2181	0	284	171	599	3235	162	3074	
RAMA													
KUPPAM	17576	11443	29019	773	987	0	304	222	576	2089	104	1985	
SANTHI													
PURAM	16290	50	16340	813	1391	0	263	182	443	2280	114	2166	
KADA Region	71790	33400	105190	827	5704	16	1088	772	2337	9916	496	9420	

	Extraction for Different Uses & Balance						Status		Unconfined Aquifer InStorage						
Region	Domestic Extraction (Ham)	Industrial Extraction (Ham)	Agricultural Extraction (Ham)	Ground Water Resources Etraction (Ham)	Future Allocations (Ham)	Ground Water Balance (Ham)	Stage of Extraction %	Stage of Recharge %	Annual InStorage (Ham)	Ground Water Resources InStorage (Ha)	Unit InStorage (Ham)	Specific Yield Sy	UnConfined Aquifer Depth (m)	Recharge Period to fill the Current InStorage (Yrs)	Extraction Period to empty the InStorage (Yrs)
GUDI PALLE	104	27	1437	1568	165	624	60.3	232.7	57524	59720	4.6	0.026	176.3	69	297
KUPPAM	300	50	1355	1705	435	1480	58.8	293.3	124112	127186	5.1	0.026	197.8	103	415
RAMA															
KUPPAM	128	7	1230	1365	205	611	72.4	163.7	91393	93378	5.3	0.026	204.7	78	171
SANTHI															
PURAM	142	18	1081	1241	221	885	54.0	283.4	85554	87719	5.4	0.026	207.6	118	506
KADA Region	674	102	5104	5880	1026	3600	60.3	253.2	358583	368004	5.1	0.026	197.0	95	370

Region	Basic Data				Recharge from Different Components & Availability									
	Recharge Worthy Area (Ha)	Hilly Area (Ha)	Geographical Area(Ha)	Rainfall (mm)	Rainfall (Ham)		Surface Water Applied Irrigation Return Flow (Ham)	Ground Water Applied Irrigation Return Flow (Ham)	Seepage from MI Tanks & Ponds (Ham)	Seepage from Water Conservation Structures (Ham)	Net Recharge (Ham)	Environmental Flow (Ham)	Ground Water Resources Availability (Ham)	
CTR_PALAR_CHINNAERU_NADIMURU	12812	950	13762	863	1048		0	163	102	389	1702	85	1617	
CTR_PALAR_DUGGAMMAERU_V.KOTA	5815	5519	11334	773	350		0	92	58	148	648	32	615	
CTR_PALAR_KUPPAMVANKA_KUPPAM	10949	2888	13836	856	976		10	229	247	659	2121	106	2015	
CTR_PALAR_PALAR EAST_RAJUPETA	9118	4514	13632	803	689		0	113	68	149	1018	51	967	
CTR_PALAR_PALAR WEST_THUMSI	13599	276	13874	821	1154		6	234	149	459	2002	100	1902	
CTR_PALAR_THOTLACHERUV_UVANKA_RAMAKUPPAM	12567	17726	30293	777	804		0	170	134	405	1513	76	1438	
CTR_PONNIAR_ADAVIBODUGURU_ADAVIBODUGURU	6096	1098	7194	865	601		0	75	3	96	775	39	736	
CTR_PONNIAR_BISANATHAM_ADAVIBODUGURU	835	430	1265	856	81		0	12	12	32	138	7	131	
KADA Region	71790	33400	105190	831	5704		16	1088	772	2337	9916	496	9420	

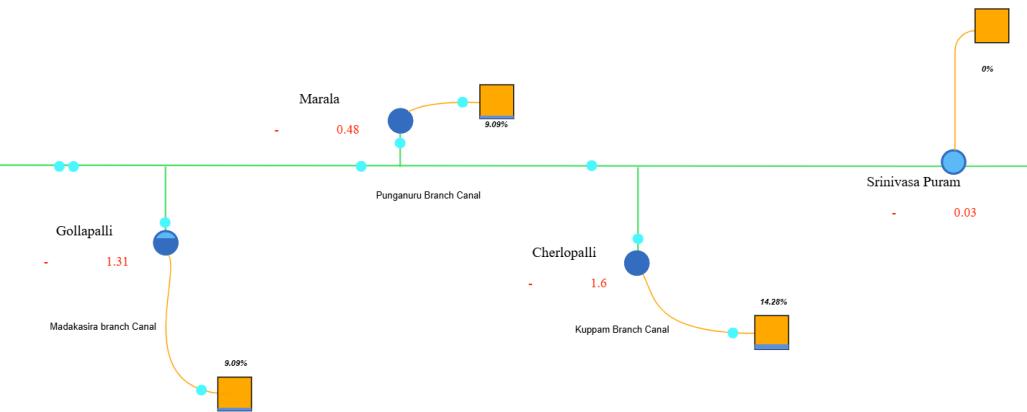
Region	Extraction for Different Uses & Balance							Status		Unconfined Aquifer InStorage						
	Domestic Extraction (Ham)	Industrial Extraction (Ham)	Agricultural Extraction (Ham)	Ground Water Resources Etraction (Ham)	Future Allocations (Ham)	Ground Water Resources Balance (Ham)	Stage of Extraction %	Stage of Recharge %	Annual InStorage (Ham)	Ground Water Resources InStorage (Ha)	Unit InStorage (Ham)	Specific Yield Sy	UnConfine d Aquifer Depth (m)	Recharge Preiod to fill the Current InStorage (Yrs)	Extraction Period to Empty the InStorage (Yrs)	
CTR_PALAR_CHINNAERU_NADIMURU	107	14	1019	1139	168	556	57.4	238.0	61491	63108	5.0	0.026	193.7	94	351	
CTR_PALAR_DUGGAMMAERU_V.KOTA	33	0	344	377	45	228	88.5	122.6	30237	30853	5.3	0.026	204.4	52	69	
CTR_PALAR_KUPPAMVANKA_KUPPAM	211	48	1187	1446	282	622	63.3	247.5	50640	52655	4.8	0.026	183.6	81	362	
CTR_PALAR_PALAR EAST_RAJUPETA	66	5	515	586	104	382	72.6	196.6	47459	48427	5.4	0.026	206.1	82	260	
CTR_PALAR_PALAR WEST_THUMSI	149	19	968	1135	214	763	51.1	309.3	70315	72216	5.3	0.026	204.1	123	550	
CTR_PALAR_THOTLACHERUV_UVANKA_RAMAKUPPAM	85	5	705	795	145	621	65.9	262.0	64279	65716	5.3	0.026	204.7	82	173	
CTR_PONNIAR_ADAVIBODUGURU_ADAVIBODUGURU	15	10	299	323	57	371	45.8	319.1	30501	31237	5.1	0.026	197.2	141	706	
CTR_PONNIAR_BISANATHAM_ADAVIBODUGURU	10	1	68	78	11	57	73.3	193.8	3661	3792	4.6	0.026	176.1	60	191	
KADA Region	674	102	5104	5880	1026	3600	60.9	253.2	358583	368004	5.1	0.026	197.0	95	370	

MI Tanks Status in KADA Region and Chittoor District

Region	No.of MI Tanks	Storage Capacity mcft	Current Storage			No.of Tanks with different Current Storage /Filling					
			mcft	(%)		Full	75%	50%	25%	0%	
GUDI PALLE	182	232.61	122.9	52.84		41	19	30	30	62	
KUPPAM	129	336.66	121.08	35.97		37	4	8	28	52	
RAMA KUPPAM	133	325.95	88.26	27.08		12	6	9	31	75	
SANTHI PURAM	111	301.16	168.36	55.9		5	34	46	23	3	
KADA Region	555	1196.38	500.6	41.8		95	63	93	112	192	
Chittoor District	4122	15135.23	11406.48	75.36		1502	749	977	515	379	
Andhra Pradesh	38628	206210	139140	67.48		20463	7342	4115	3419	3289	

MI Tank Storage Change Report						
Region	No.of MI Tanks	Last Year Storage		Current Storage		Increase in Storage
		mcft	mcft	mcft	(%)	
GUDI PALLE	182	28.86	122.9	94.04	307	
KUPPAM	129	50.87	121.08	70.21	138	
RAMA KUPPAM	133	8.26	88.26	80	968	
SANTHI PURAM	111	61.28	168.36	107.08	175	
KADA Region	555	149.27	500.6	351.33	232	
Chittoor District	4122	5977.02	11406.48	5429.46	90	
Andhra Pradesh	38628	96890	139140	42250	44	

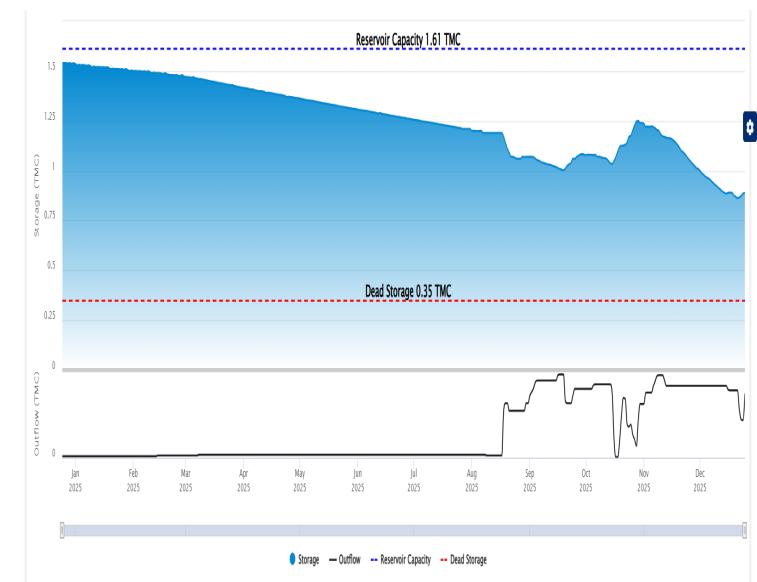
Status of Cherlopalli Medium Reservoir linked to Kuppam Branch Canal



Capacity (T.M.C) : 1.61
Dead Storage (T.M.C): 0.35
FRL (feet): 1,966.84
Dead Storage Level (feet): 1,899.58
Max. Discharge Capacity (Cusecs): 8,285
Flood Cushion (TMC): 0.72
Current Storage (TMC): 0.89
Current Inflow : 450 cusecs
Current Outflow : 418 cusecs

Reservoir	Reservoir Level Information & Capacity Details					Instant Inflow & Outflow				Basin	District	Alert
	Date and Time	Gross Capacity at FRL (T.M.C.)	Current Level (feet)	Current Storage (T.M.C.)	Flood Cushion (T.M.C.)	Date and Time	Inflow (Cusecs)	Outflow (Cusecs)				
Cherlopalli Reservoir Medium	Dec 25- 2025 7:38 AM	1.61	1,952.79	0.89 55.22%	0.72	Dec 25- 2025 7:38 AM	450	418		Pennar	Sri Sathya Sai	NO

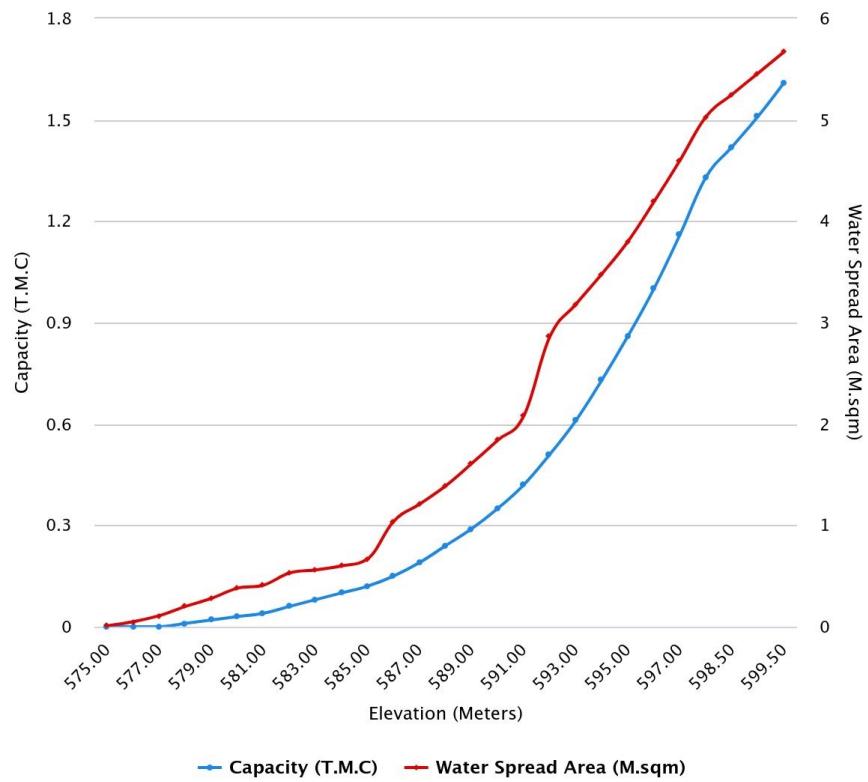
Category	Previous Water Year(T.M.C)	Current Water Year(T.M.C)	Year-over-Year Change(T.M.C)
Storage	1.54	0.89	0.65
Inflow 1 : INFLOW FROM CATCHMENT	0	0.05	0.04
Inflow 2 : INFLOW	1.23	4.26	3.03
Cumulative Inflow	1.23	4.3	3.07
Outflow 1 : LOSSES	0.27	0.2	0.07
Outflow 2 : PBC	0	4.55	4.55
Outflow 3 : SURPLUS_WEIR	0	0	0
Outflow 4 : OT	0	0	0
Cumulative Outflow	0.27	4.75	4.48



Cherlopalli Medium Reservoir Elevation -Volume - Area Curve

SNo	Elevation (Meters)	Capacity (T.M.C)	Water Spread Area (M.sqm)	SNo	Elevation (Meters)	Capacity (T.M.C)	Water Spread Area (M.sqm)
1	599.5	1.61	5.67	14	588	0.24	1.39
2	599	1.51	5.46	15	587	0.19	1.21
3	598.5	1.42	5.25	16	586	0.15	1.04
4	598	1.33	5.03	17	585	0.12	0.67
5	597	1.16	4.6	18	584	0.1	0.6
6	596	1	4.19	19	583	0.08	0.56
7	595	0.86	3.8	20	582	0.06	0.53
8	594	0.73	3.48	21	581	0.04	0.41
9	593	0.61	3.18	22	580	0.03	0.38
10	592	0.51	2.86	23	579	0.02	0.28
11	591	0.42	2.08	24	578	0.01	0.2
12	590	0.35	1.84	25	577	0	0.11
13	589	0.29	1.61	26	576	0	0.05

EVA Reservoir Levels



Working Open Well +3 or 3

Partially Working Open Well +2 or 3.5

Abandoned Open Well +1 or 3.5

Working Bore Well -1 or 4

Partially Working Bore Well -2 or 4.5

Abandoned Bore Well -3 or 5