



Ground Water Quality of Andhra Pradesh



**G V LAKSHMI, P R K PRASAD, P RAVINDRA BABU,
V SANKARA RAO, M RAGHU BABU, V RADHA KRISHNA,
M LATHA, K HEMA, S K GUPTA AND S K AMBAST**

ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY

AICRP - SALINE WATER SCHEME

BAPATLA - 522 101. PH : 08643 - 225098

2013





Technical Bulletin on
Ground Water Quality
of
Andhra Pradesh

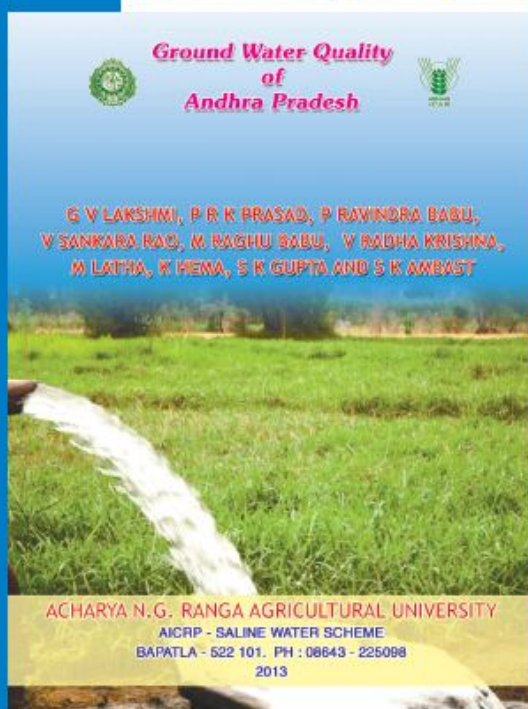


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AICRP (SAS&USW), BAPATLA CENTRE
ACHARYA N G RANGA AGRICULTURAL UNIVERSITY
BAPATLA- 522 101, ANDHRA PRADESH, INDIA

CITATION : G V LAKSHMI, P R K PRASAD, P RAVINDRA BABU,
V SANKARA RAO, M RAGHU BABU, Y RADAKRISHNA, M LATHA,
K HEMA, S K GUPTA AND S K AMBAST(2013) GROUND WATER
QUALITY OF ANDHRA PRADESH, BULLETIN NO. 1/ 2013, 80 P.
SALINE WATER SCHEME, BAPATLA- 522 101, INDIA.

PUBLISHED BY: PRINCIPAL SCIENTIST (SS) & HEAD,
AICRP SALINE WATER SCHEME,
BAPATLA- 522 101, INDIA.
TEL : 0 8643-225098
FAX : 08643-225098
E-MAIL : swsbapatla@gmail.com



COPIES : 500

PRINTED AT: M/S SWAMY OFFSET PRINTING WORKS PVT. LTD.,
NO. 26-20-6, SWAMY STREET, GANDHINAGAR, VIJAYAWADA.

ACKNOWLEDGEMENT

The authors wish to express their sincere gratitude to Dr A Padma Raju, Vice-chancellor, Dr.P.Raghava Reddy, Former Vice-chancellor, Dr R Sudhakara Rao, Director of Research., Dr. G Lakshmi Kantha Reddy, Former Director of Research., Dr. T Yellamanda Reddy, Former Associate Director of Research, Dr R Veera Raghavaiah, Associate Director of Research, Krishna zone, ANGRAU for their continuous encouragement and valuable guidance in implementing the research activities on survey of ground water. The authors are indebted to all the Retd. Chief Scientists of AICRP- Saline Water Scheme, Bapatla centre for initiating and implementing the survey work

The authors acknowledge their sincere thanks to Dr. S K Sharma, Director, CSSRI, Kamal., Dr S K Gupta and Dr. P.S. Minhas, Former Project Coordinators and Dr. S K Ambast, Project Coordinator , AICRP on Saline Water Use, CSSRI, Kamal., for their technical guidance and encouragement provided during the period of study.

Our special thanks are due to the scientists who have worked in the scheme for their involvement in the survey work. The excellent cooperation received from Sri S Baba Valli, AEO for helping us in compilation and editing of the bulletin deserves special appreciation.

Also the authors express their sincere thanks to, Sri D.V Siva Rao, Sri Sk. Mastan Valli, Sri K Siva Kumar, Sk. Moulali, Sd Khasim, Sri Ramakrishna Sri V Ramadasu, Sri Shankar, Sri D Y Brahmam, Sri Maruthi of AICRP Saline Water Scheme, Bapatla who are involved in the collection of water samples.

AUTHORS

CONTRIBUTORS

G V LAKSHMI, P RAVINDRA BABU, M RAGHU BABU,
V SANKARA RAO, Y RADHA KRISHNA, G SRINVASA REDDY,
P R K PRASAD, M. SHANTI, B RAJENDRA PRASAD,
G V SUBBAIAH, N SUBBA RAO, G KRISHNA KUMARI,
A VENKATESWARA REDDY, K VEERAIAH,
K HARIPRASADA RAO, D RAMA CHANDRA REDDY,
Y NARASIMHA RAO, P NARASIMHA RAO, M PADMANABHAM,
D M V PRASADA RAO, G SWARAJYA, LAKSHMI,
K VENKATA RAJU, V V K SASTRY

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EXECUTIVE SUMMARY

Water is the most scarce natural resource and water continues to be the most misused commodity. Further, losses in conveyance from source to the field and low water use efficiency at farm level have resulted in widespread water logging and salinization problems. The quality of water, both surface and underground, is increasingly degrading due to disposal of industrial pollutants and municipal effluents. Under such scenario, use of naturally occurring saline/alkali and marginal quality waters can be seen as an opportunity to increase in production and productivity. Moreover, with competition from the other fields, in future the agriculture is bound to depend more and more on marginal quality waters.

In Andhra Pradesh during the last 3 decades the well population had increased from 8 to 22 lakhs and area irrigated from 10 to 26 lakhs hectares resulting in ground water exploitation from 16% to 42% mainly in non-command areas. The quality of this ground water is highly varying and Survey indicates an average of 35% poor quality waters which is mainly alkaline in nature. The usage of this water not only affects the crop growth but also deteriorate the soil properties. The quality of ground water may further deteriorate due to declining ground water levels. Hence, the comprehensive picture about the ground water quality map of the state along with package of practices is prepared.

It is a matter of great satisfaction that the All India Coordinated project on salt affected soils, Bapatla centre had prepared State and District wise maps for ground water quality and distributed to the extension agencies. The ground water quality indicates that it is more saline in nature with salinity in coastal districts except Nellore where 1/3rd of the ground water is alkaline in nature. About 20% of the ground water have RSC > 4 meq/L in Nalgonda, Kadapa, Mahaboobnagar and Warangal districts. The package of practices to be adopted both for saline and alkaline water along with technological options is presented in the bulletin.

INTRODUCTION

In Andhra Pradesh during the last 3 decades the well population had increased from 8 to 22 lakhs and area irrigated from 10 to 26 lakhs hectares resulting in ground water exploitation from 16% to 42% mainly in non-command areas. The quality of this ground water is highly varying and survey indicates an average of 35% poor quality waters which is mainly alkaline in nature. The usage of this water not only affect the crop growth but also deteriorate the soil properties. The quality of ground water may further deteriorate due to declining ground water levels. Hence, the comprehensive picture about the ground water quality map of the state along with package of practices is prepared.

Water quality criteria and their limits:

The most important criterion for evaluating given water is its total salt concentration. The quantities of salts dissolved in irrigation water are usually expressed in terms of electrical conductivity dSm^{-1} (EC), mg L^{-1} (ppm) or meq L^{-1} , the former being most popular because of ease and precision in its measurement. Some of the irrigation waters have a tendency to produce alkalinity/sodicity hazards depending upon the absolute and relative concentrations of specific cations and anions contained in them. The parameters for knowing the potential of irrigation waters to create these hazards are:

Sodium Adsorption Ratio (SAR)

$$SAR = \frac{Na}{\sqrt{\frac{(Ca+Mg)}{2}}}$$

Residual Sodium Carbonate (RSC)

$$RSC = (CO_3^{2-} + HCO_3^-) - (Ca^{2+} + Mg^{2+})$$

In these equations concentrations are expressed in meq L^{-1}

Ground waters having high contents of toxic ions such as boron, fluoride, nitrate, arsenic, selenium etc. also become problematic for irrigating crops and have consequence of entering human food chain.

Information on chemical composition is necessary but alone is not sufficient to decide its potential use for crop production at a specific location. Several other factors such as nature of crop to be grown, soil characteristics (texture and mineralogy), climate and other water management and cultural practices are equally important and should be taken into consideration. Based on the characteristic features of majority of ground waters in use by the farmers in different agro-

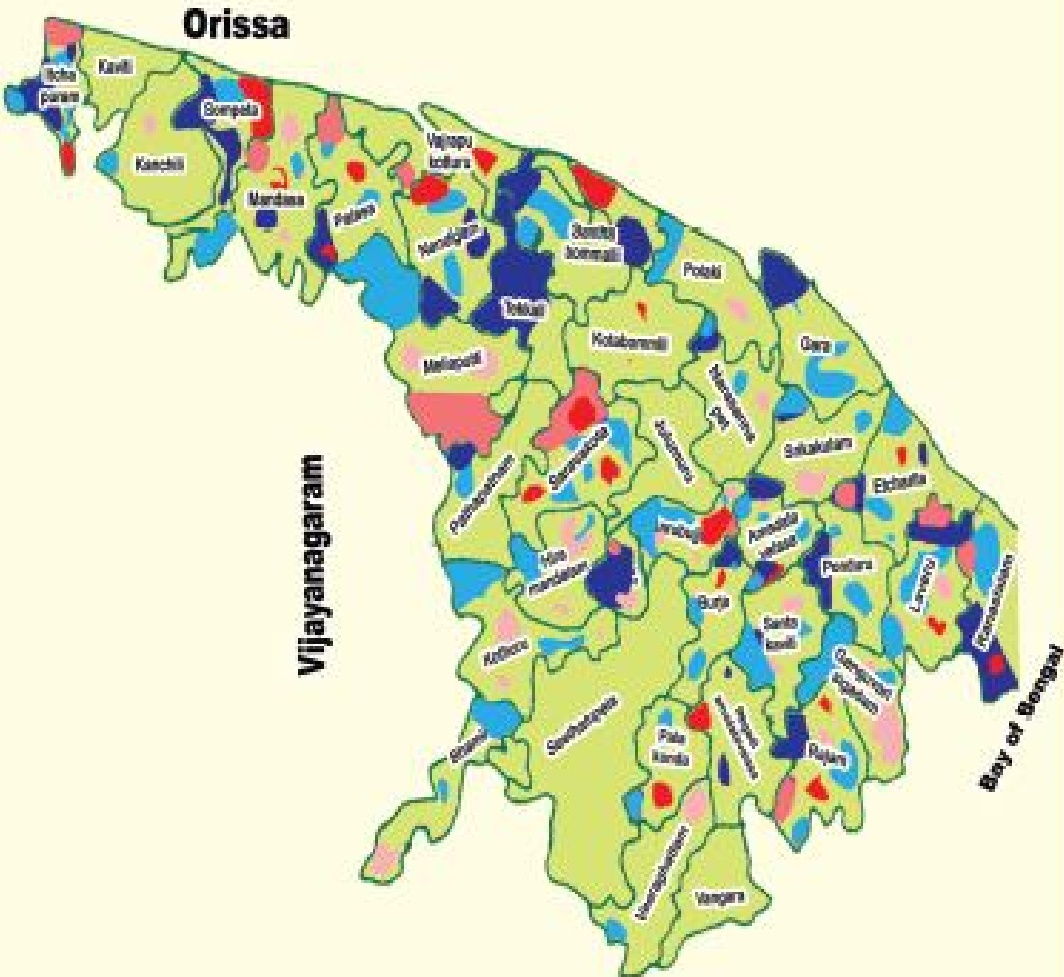
ecological regions of the country and the above indices those describe the nature of hazards on soils and crops, irrigation waters have been broadly grouped into good, saline and alkali waters. Depending upon the degree of restrictions, the three poor quality water classes have been further grouped each into three homogenous subgroups (Table). Since each subgroup needs specific management practices, this classification also serve the purpose of planning their development and management.

Table. Grouping of poor quality ground waters for irrigation

Water quality	ECiw (dSm ⁻¹)	SARiw (m mol L ⁻¹)	RSC (meq L ⁻¹)
A. Good water	<2	<10	<2.5
B. Saline water			
i. Marginally saline	2-4	<10	<2.5
ii. Saline	>4	<10	<2.5
iii. High-SAR saline	>4	>10	<2.5
C. Alkali waters			
i. Marginally alkali	<4	<10	2.5-4.0
ii. Alkali	<4	<10	>4.0
iii. Highly alkali	Variable	>10	>4.0

All India Coordinated Research Project on Management of Salt Affected Soils and Use of Saline Water in Agriculture, Bapatla prepared state and districts maps for ground water quality and distributed to the extension agencies. The ground water quality indicates that it is more saline in nature with salinity in coastal districts except Nellore where 1/3rd of the ground water is alkaline in nature. About 20% of the ground water have RSC > 4 meq/L in Nalgonda, Kadapa, Mahaboobnagar and Warangal districts. The package of practices to be adopted both for saline and alkaline water along with technological options are presented in the bulletin.

**GROUND WATER QUALITY OF
SRIKAKULAM DISTRICT (A.P)**



EC 0.1-2.0 (dS/m)	RSC <2.5 meq/L
EC 2.0-4.0 (dS/m)	RSC 2.5-4.0 meq/L
EC >4.0 (dS/m)	RSC >4.0 meq/L

SRIKAKULAM DISTRICT

S. No	Name of the mandal	No. of Samples	EC _{hw} (dS _m ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Amadalavalasa	36	26	6	4	32	3	1
2	Bhamini	15	14	1	0	12	3	0
3	Burja	15	13	2	0	14	0	1
4	Etcharla	42	35	5	2	36	4	2
5	Ganguvarisigadam	13	11	2	0	9	4	0
6	Gara	15	12	3	0	15	0	0
7	Hiramaandalam	15	13	2	0	13	2	0
8	Itchapuram	17	10	6	1	14	1	2
9	Jalumuru	13	13	0	0	13	0	0
10	Kanchili	13	13	0	0	12	1	0
11	Kaviti	14	14	0	0	14	0	0
12	Kotabommali	16	16	0	0	15	0	1
13	Kothuru	18	15	3	0	14	4	0
14	Lakshminarasupeta	12	12	0	0	11	1	0
15	Laveru	20	15	5	0	15	3	2
16	Mandasa	18	17	1	0	15	2	1
17	Meliaputti	7	7	0	0	3	2	2
18	Nandigam	14	9	3	2	14	0	0
19	Narasannapeta	18	17	1	0	17	1	0
20	Palakonda	15	14	1	0	14	0	1
21	Palasa	16	13	3	0	14	0	2
22	Pathapatnam	15	14	1	0	15	0	0
23	Polaki	14	14	0	0	12	2	0
24	Ponduru	10	8	2	0	10	0	0
25	Rajam	17	14	3	0	14	1	2
26	Ranastalam	15	12	3	0	14	0	1
27	Regadi Amadalavalasa	15	14	0	1	15	0	0
28	Santakaviti	20	19	1	0	16	4	0
29	Santhabommali	11	7	2	2	11	0	0
30	Saravakota	4	3	1	0	3	0	1
31	Sarubujjili	15	12	3	0	11	3	1
32	Seethampeta	15	15	0	0	15	0	0
33	Sompeta	5	3	1	1	5	0	0
34	Srikakulam	26	24	2	0	23	3	0
35	Tekkali	13	4	9	0	13	0	0
36	Vajrapukotturu	15	15	0	0	14	0	1
37	Vangara	15	15	0	0	15	0	0
38	Veeraghattam	15	15	0	0	14	1	0
	Total	602	517	72	13	536	45	21
	Per cent	100.0	86.2	12.0	2.2	89.0	7.5	3.5

GROUND WATER QUALITY OF
VIJAYANAGARAM DISTRICT (A.P)



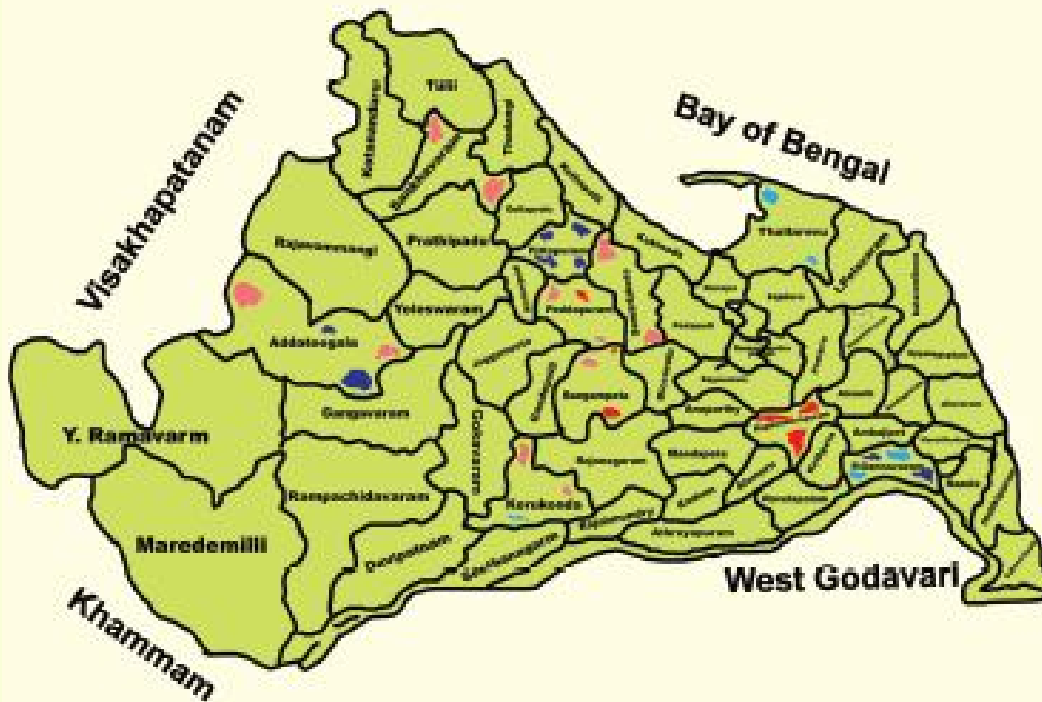
VIJAYANAGARAM DISTRICT

S. No	Name of the mandal	No. of Samples	FCIw (HSm ⁻¹)			R ² C (mg l ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Badang	20	20			18	1	1
2	Baijapeta	16	16			15	1	
3	Bhogapuram	4	3	1		1	3	
4	Rishili	22	22	1		16	3	4
5	Bondapelli	6	6			5		1
6	Chipurupalli	3	2	1		2		
7	Datti Rajeru	20	17	2		18	1	1
8	Denkada	4	4			4		
9	Gajapathi Nagarani	24	23	1		13	8	3
10	Gantada	18	18			12	1	5
11	Ganiki	4	3	1		4		
12	Garugubilli	18	18			12	1	5
13	Gummalakshmpuram	7	7			4	3	
14	Gurla	4	3	1		4		
15	Jami	71	69	2		59	4	8
16	Jiyammavelasa	15	15			10	1	4
17	Konarada	19	19			19		
18	Kurupam	17	17			16		1
19	L. Kota	19	18	1		15	1	3
20	Makkuva	20	18	2		19		1
21	Mentada	19	17	2		18	1	
22	Merakamud dam	7	5	2		7		
23	Nallinikota	3	3			2		1
24	Pachipeta	18	18			14	2	2
25	Parvathpuram	23	23			18	1	4
26	Pusapati rega	16	15	1		13	1	2
27	Ramabhadrapuram	15	15			11	2	2
28	S. Kota	43	41	2		36	6	1
29	Saunu	21	21			16	1	4
30	Seethanagarani	41	41			32	6	3
31	Terlam	20	20			18	2	
32	Vepada	28	28			25	3	
33	Vijayanagarani	14	13	1		13	1	
	Total	600.0	578.0	22.0	8.0	498.0	54.8	56.0
	Percent	100.0	96.3	4.0	0.08	82.00	9.08	9.00

VISAKHAPATNAM DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Achuthapuram	9	3	5	1	6	1	2
2	Anakapalli	13	12	1		10	1	2
3	Anandapuram	8	8			4	2	2
4	Ananthagiri	12	12			10		2
5	Arakuvali	2	2			2		
6	Bheemunipatnam	15	14	1		15		
7	Butchayapeta	18	18			9	4	5
8	Cheedikada	25	24	1		16	3	6
9	Chinagadla	10	4	5	1	7		3
10	Chodavaram	72	70	1	1	51	10	11
11	Devarapalli	16	16			8	3	5
12	Elamanchili	34	11	19	4	23	7	4
13	G Madugula	13	13			0	3	10
14	Golugonda	20	9	9	2	5	5	10
15	Gajuwaka	3	2	1		3		
16	Hukumpeta	8	8			4	4	
17	K Kotapadu	33	30	3		18	6	9
18	Kasimkota	2	2			2		
19	Kotauratla	27	25	2		17	5	5
20	Koyyuru	12	12			2	7	3
21	Makavaripalem	2	2			1	1	
22	Madugula	34	33	1		22	6	6
23	Munagapaka	10	8	2		8	2	
24	Narsipatnam	14	12	2		8	4	2
25	Nathavaram	19	18	1		12	2	5
26	Paderu	5	4		1	1	1	3
27	Padmanabham	23	23			15	4	4
28	Parawada	11	10	1		8	2	1
29	Payakaraopeta	31	26	2	3	30	1	
30	Pedaghanthyada	6	4	1	1	4		2
31	Pendhurthi	6	4	1	1	6		
32	Rambilli	25	24	1		22	3	
33	Ravikamatham	19	15	4		14	3	2
34	Rolugunta	13	12	1		7	4	2
35	S Rayavaram	16	8	4	4	10		6
36	Sabbavaram	7	6	1		4	1	2
37	Visakhapatnam	3	2	1		2	1	
	Total	596	506	71	19	386	96	114
	Percentage	100.0	85.0	12.0	3.0	65.0	16.0	19.0

GROUND WATER QUALITY OF
EAST GODAVARI DISTRICT (A.P)

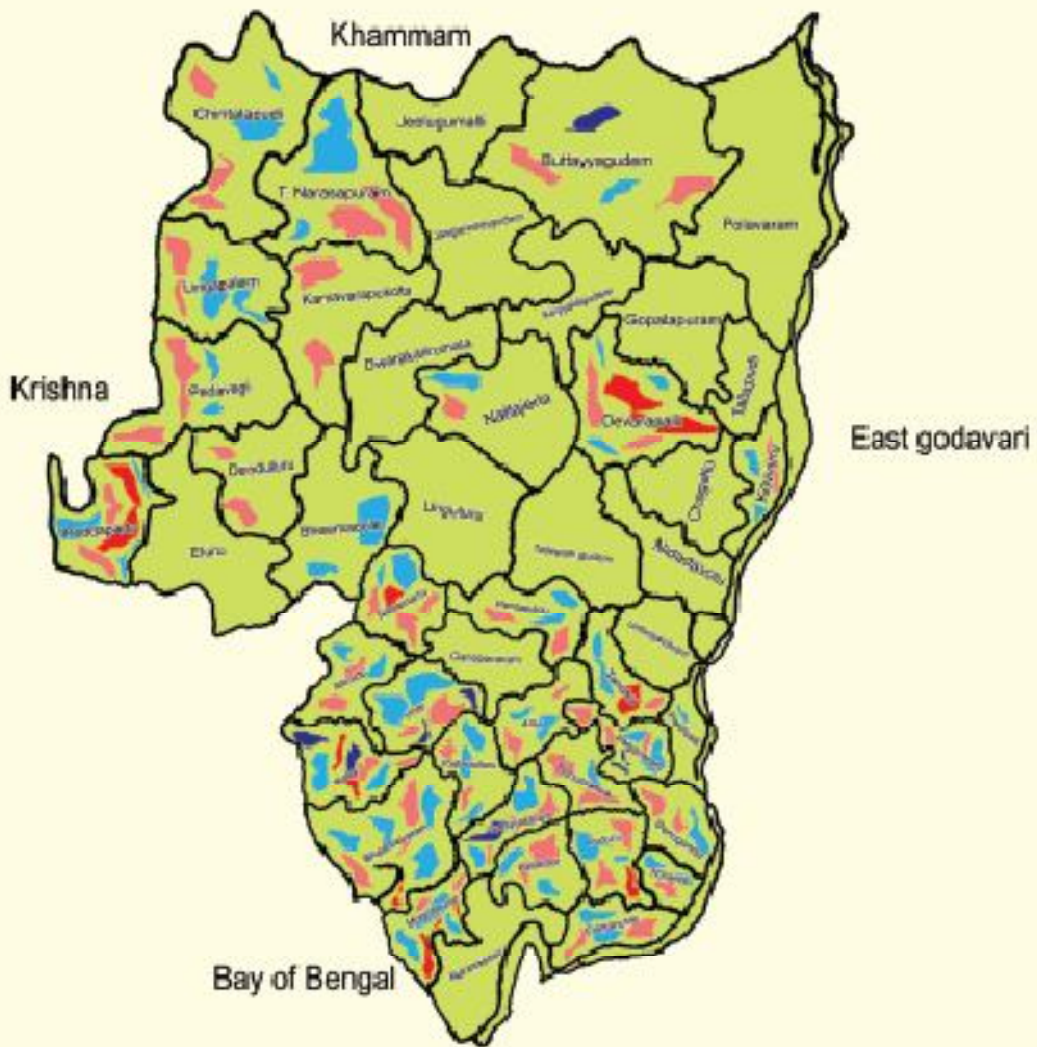


 EC 0.1-2.0 (µS/cm)	 RSC <2.5 meq/L
 EC 2.0-4.0 (µS/cm)	 RSC 2.5-4.0 meq/L
 EC >4.0 (µS/cm)	 RSC >4.0 meq/L

EAST GODAVARI DISTRICT

S. No	Name of the mandal	No. of Samples	ECiw (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Addateogala	5	4		1	4	1	
2	Amalapuram	4	4			4		
3	Kapileswarapuram	7	7			2		5
4	Korukonda	20	19	1		16	4	
5	Kothapeta	1	1			1		
6	Maredumilli	2	2			2		
7	Mummidivaram	3	2		1	3		
8	P.Gannavaram	4		2	2	4		
9	Pelikapuram	16	16			12	3	1
10	Pithapuram	13			13	13		
11	Rampachodavaram	1	1			1		
12	Kangampeta	12	12			9	1	2
13	Rayavaram	5	5			5		
14	Ravva	3	3			3		
15	Samalkota	5	5			4	1	
16	Sankhavaram	1	1				1	
17	Thalarevu	22	17	5		22		
18	Tuni	5	5			5		
	Total	120	104	8	17	110	11	8
	Percentage	100	81.6	6.60	13.60	85.0	9.0	6.00

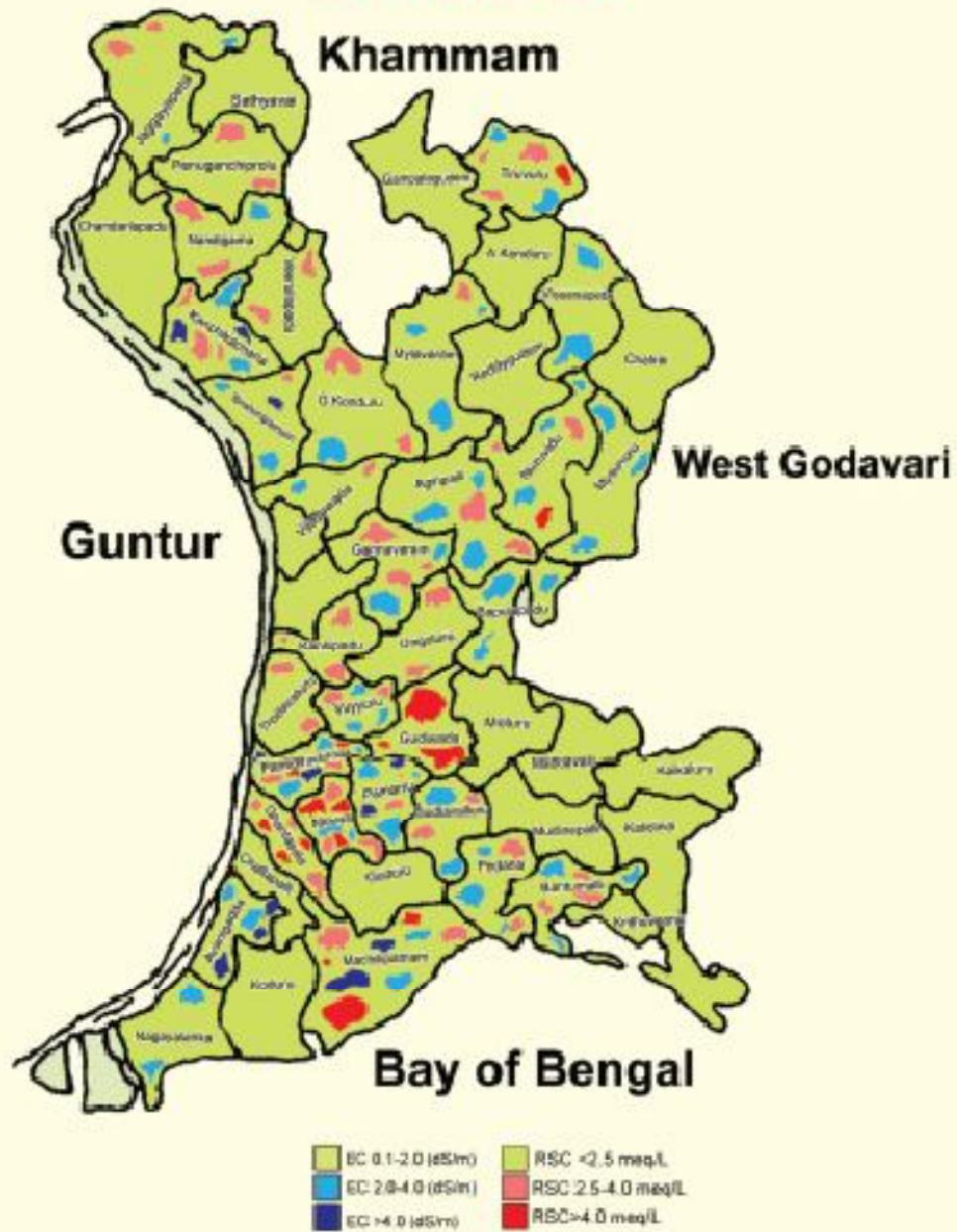
GROUND WATER QUALITY OF WEST GODAVARI DISTRICT (A.P)



WEST GODAVARI DISTRICT

S. No	Name of the mandal	No. of samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Achanta	16	10	6		10	6	
2	Akividu	12	8	4		8	4	
3	Attili	14	9	5		9	5	
4	Bhimadole	3	2	1		2		
5	Bhimavaram	8	4	4		2	4	2
6	Buttayyudem	42	34	4	4	32	10	
7	Chagalli	35	35			35		
8	Chintalapudi	15	12	3		13	2	
9	Danduluru	6	6			5	1	
10	Devarapalli	11	9	2		6	3	2
11	Dwarka Thirumala	13	13			13		
12	Eluru	8	8			8		
13	Ganapevaram	10	10			10		
14	Gopalapuram	26	26			26		
15	Ingevaran	10	6	3	1	6	4	
16	Janga reddygudem	37	37			37		
17	Jeejugamilli	29	29			29		
18	Kalle	8	4	2	2	4	2	2
19	Kamavarampeta	11	11			15	6	
20	Kovvur	30	23	7		25	5	
21	Koylayudem	39	39			39		
22	Lingapalem	16	13	3		14	2	
23	Mogalthuru	12	8	4		7	3	2
24	Nallajerla	20	18	2		18	2	
25	Narasapuram	20	20			20		
26	Nidadavolu	22	22			22		
27	Nidamanu	14	9	5		9	4	1
28	Patakoduru	12	6	4	2	10	2	
29	Palaikotti	15	10	5		11	4	
30	Pedapadu	14	10	4		7	2	5
31	Pedavegi	57	48	9		44	13	
32	Pentapadu	10	8	2		6	4	
33	Penugonda	8	4	4		6	2	
34	Perumantla	10	9	1		6	4	
35	Peravali	26	14	2		26		
36	Poduru	12	10	2		8	3	1
37	Polavaram	23	23			23		
38	T.Narasapuram	10	6	4		8	2	
39	Talapatligudem	7	7			7		
40	Tallapudi	20	20			20		
41	Tanuku	18	15	3		15	1	2
42	Undi	12	4	6	2	10	2	
43	Unda Javaram	10	10			10		
44	Unguturu	2	2			2		
45	Veeravaram	4	8	4	2	9	5	
46	Yalamanchilli	12	10	2		8	4	
	Total	784	664	107	13	656	111	17
	Percentage	100.0	84.7	13.6	1.7	83.7	14.2	2.1

GROUND WATER QUALITY OF
KRISHNA DISTRICT (A.P)



KRISHNA DISTRICT

S. No	Name of the mandal	No. of Samples	EC _{hw} (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Agiripalli	8	3	5		4	4	
2	Avanigadda	8	3	2	3	8		
3	Bantumilli	6	4	2		4	2	
4	Bapulapadu	3	2	1		3		
5	Chandralapadu	14	14			14		
6	G.Konduru	29	26	3		24	5	
7	Gannavaram	4	3	1		2	2	
8	Gihantasala	3	3			1	1	1
9	Gudlavada	2	2					2
10	Gudlavalleru	12	8	4		10	2	
11	Ibrahampatnam	32	24	5	3	31	1	
12	Jaggayyapet	26	25	1		24	2	
13	Kanchikacharla	18	10	5	3	14	4	
14	Kankipadu	19	19			15	4	
15	Machilipatnam	10	6	2	2	6	2	2
16	Mopidevi	2	2			2		
17	Movva	10	9	1		3	3	4
18	Musunuru	6	4	2		6		
19	Mylavaram	13	11	2		12	1	
20	Nagayalanka	8	6	2		8		
21	Nandigama	22	20	2		18	4	
22	Nuzvid	20	14	6		17	2	1
23	Pamaru	19	10	6	3	17	2	
24	Pamidimukkala	45	23	14	8	29	13	3
25	Pedana	15	10	5		8	7	
26	Pedaparupudi	10	7	3		4	3	3
27	Penamaluru	21	21			19	2	
28	Penuganchiprolu	14	14			12	2	
29	Thotlaveluru	21	21			18	3	
30	Tiruvuru	12	10	2		8	3	1
31	Unguturu	4	4			3	1	
32	Yatsavai	10	10			8	2	
33	Veerullapadu	9	9			8	1	
34	Vijayawada(Rural)	11	10	1		10	1	
35	Vissannapeta	10	6	4		10		
36	Vuyyuru	15	8	7		12	3	
	Total	491	381	88	22	392	82	17
	Percentage	100.0	77.6	17.9	4.5	79.8	16.7	3.5

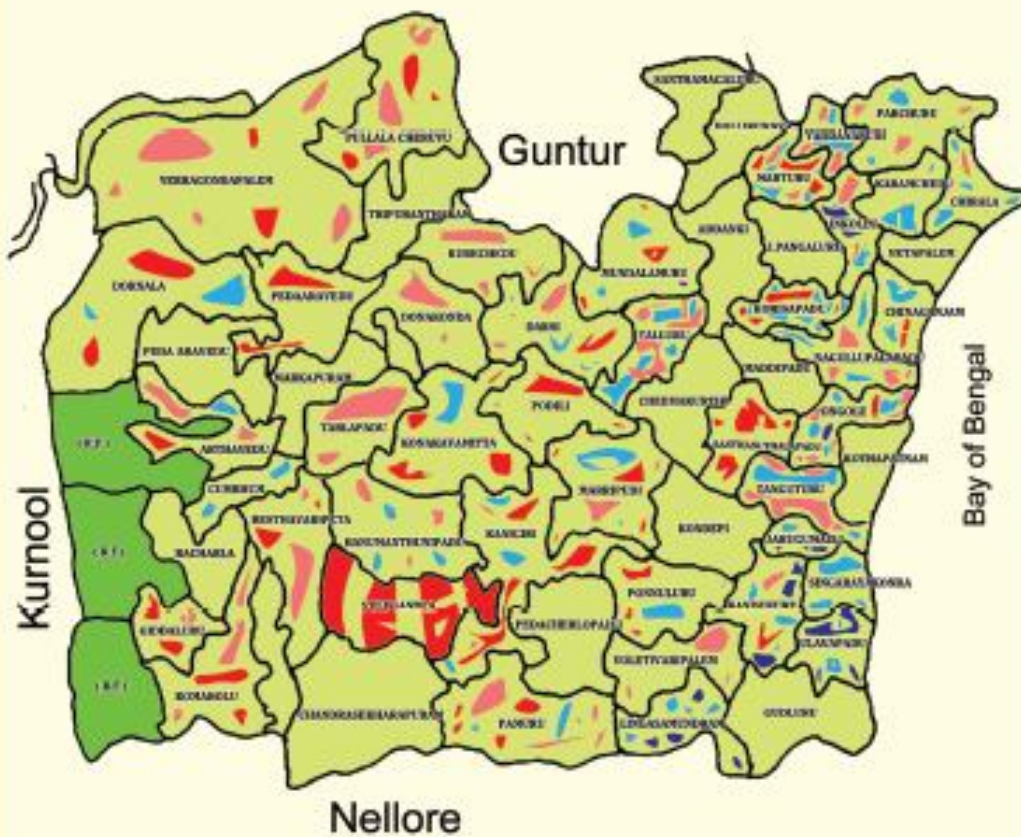
GROUND WATER QUALITY OF GUNTUR DISTRICT (A.P)



GUNTUR DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-1.5	2.5-4	>4.0
1	Achampeta	6	4	2		4	2	
2	Amaravathi	27	25	2		24	2	1
3	Annurtholuru	3	3			1	2	
4	Bapatla	5	1	1	2	5		
5	Bellamkonda	14	12	2		10	4	
6	Bhettiprolu	18	1	10	7	18		
7	Bollapalli	8	8			4	2	1
8	Chibrolu	2	1			1		
9	Chorlapalle	8	4	3	1	8		
10	Chilakalunipeta	16	16			10	2	4
11	Chunduru	5	4	1		4	1	
12	Dachepalli	8	4	2		4	4	
13	Duggirala	4	4			3		1
14	Durgi	6	6			4	2	
15	Evuru	14	10	4		12	2	
16	Guntur	6		5	1	6		
17	Guntapla	6	3	1		4	2	
18	Kalimemmi	8	4	1	1	4	1	1
19	Karimpudi	4	3	1		4		
20	Kanigaluru	6	3	3		2	3	1
21	Kollipara	18	13	4	1	14	13	1
22	Kolluru	5	3	2		4	1	
23	Kroosuru	6	5	1		4	2	
24	Machayaram	10	6	3	1	8	2	
25	Macherala	5	4	1		4	1	
26	Mangalagiri	54	47	2	5	49	5	
27	Medikonduru	8	4	3	1	6	2	
28	Muppala	6	4	2		5	1	
29	Nasredda	14	8	4	2	14		
30	Nasaram	6	3	3		4	2	
31	Nakireddy	4	4			3	1	
32	Narasaraopeta	5	4	1		3	2	
33	Nizampetnam	16	8	7	1	14	2	
34	Nurpala	6	4	2		4	2	
35	Pedakavani	23	21			20	1	
36	Pedakurapadu	14	10	3	1	11	3	
37	Pendurandipadu	15	11	3	1	9	4	1
38	Pilangipuram	5	3			1	3	
39	Piduguralla	14	12	2		8	4	1
40	Pilalavandipuram	6	3	2	1	3	1	
41	Ponguru	141	68	19	4	68	44	9
42	Prachipadu	2	1			1	1	
43	Rajupalem	4	3	1		4		
44	Repatanigala	5	4	1		4	1	
45	Repalle	20	19	1		20		
46	Rupukhota	6	3	1		3	3	
47	Saltenapalli	4	4			1	2	
48	Tadepalli	60	57	3		58	2	
49	Tadikonda	30	30			29	1	
50	Tenali	3	3			3		
51	Tulluru	38	29	7	2	38		
52	Vaticherukuru	4	1	1		1	1	
53	Veldurthi	6	4	2		4	2	
54	Venuru	2	1			1	1	
55	Vinukonda	12	9	3		8	4	
56	Yedlapadu	4	4			1	1	1
57	Ysundur	25	21	3	1	20	2	3
58	Vemigandla	6	3	1		1	3	
	Total	805	626	146	33	624	147	34
	Percentage	100.0	77.8	18.1	4.1	77.5	18.3	4.2

GROUND WATER QUALITY OF PRAKASAM DISTRICT (A.P)



PRAKASAM DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Addanki	1	1			1		
2	Arthaveedu	6	5	1		3	2	1
3	Bestavaripeta	6	6			3	2	1
4	Chimakurti	3	3			3		
5	Chinaganjam	8	4	4		6	2	
6	Chirala	6	4	2		5	1	
7	Cumbum	2	1	1		2		
8	Darsi	6	5	1		4	1	1
9	Donakonda	2	2				2	
10	Domala	4	3	1		3		1
11	Giddalur	10	10			4	1	5
12	Guduru	2	2			2		
13	Hanumanthunipadu	4	3	1		3	1	
14	Inkolu	6	4	1	1	4	2	
15	Janakavaram Ponguru	3	3			3		
16	Jarugumilli	4	2	1	1	4		
17	Kandukuru	23	14	4	5	14	4	5
18	Kanigiri	12	9	3		5	1	6
19	Karamchedu	2	1	1		2		
20	Konarolu	4	4			2	1	1
21	Konakanamitta	4	2	2				4
22	Korisapadu	2	1	1				2
23	Kurichedu	2	2			1	1	
24	Lingasamudram	4	2	1	1	3	1	
25	Markapur	2	2			2		
26	Marripudi	4	3	1		2	1	1
27	Marturu	6	4	2		3	1	2
28	Mumdlamuru	4	3	1		3	1	
29	Naguluppalapadu	6	4	2		4	2	
30	Ongole	8	3	4	1	5	2	1
31	Pamooru	9	8	1		2	4	3
32	Parbhuru	4	3	1		3	1	
33	Pedaaraveedu	3	3			1		2
34	Pedacheripalli	1	1			1		
35	Podili	6	6			6		
36	Ponnaluru	6	4	1	1	6		
37	Pullalacheruvu	8	8			2	3	3
38	Racharla	3	3			3		
39	Santhanuthalapadu	2	2					2
40	Singarayakonda	2	1	1		2		
41	Talluru	2	1	1		1	1	
42	Tanguturu	4	3	1		3	1	
43	Tarlapadu	3	3			1	2	
44	Ulavapadu	9	4	1	4	9		
45	Veligandala	10	10			2		8
46	Vetapalem	2	2			2		
47	Voletvaripalem	3	3			2	1	
48	Yaddanapudi	4	3	1		3	1	
49	Yerragondapalem	8	8			4	3	1
50	Turumella	1	1					1
	Total	246	189	43	14	149	46	51
	Percentage	100.0	76.8	17.5	5.7	60.6	18.7	20.7

GROUND WATER QUALITY OF NELLORE DISTRICT (A.P)



	EC 0.1-2.0 (dS/m)		RSC <2.5 meq/L
	EC 2.0-4.0 (dS/m)		RSC 2.5-4.0 meq/L
	EC >4.0 (dS/m)		RSC >4.0 meq/L

NELLORE DISTRICT

S. No	Name of the mandal	No. of Samples	EC _{iw} (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Udayagiri	21	21	0	0	8	6	7
2	Seetharampuram	21	21	0	0	12	5	4
3	Duthalur	20	20	0	0	11	8	1
4	Varikuntapadu	20	20	0	0	4	9	7
5	Marripadu	20	19	1	0	2	4	14
6	Kondapuram	35	33	2	0	4	1	30
7	Vinjampur	25	20	5	0	6	8	11
8	Kaligiri	28	28	0	0	4	3	21
9	Kavali	5	3	1	1	3	0	2
10	Indukurpet	30	30	0	0	3	14	13
11	Kodavalur	24	21	2	1	2	7	15
12	Podalakur	30	28	2	0	5	10	15
13	Rapur	30	26	4	0	16	6	8
14	Nellore	20	9	8	3	3	4	13
15	Venkatachalam	20	15	1	4	5	4	11
16	Muthukur	25	23	1	1	11	7	7
17	Thotapalligudur	23	15	8	0	0	8	15
18	Kovur	16	10	6	0	1	3	12
19	Butchireddy palem	16	10	6	0	1	3	12
20	Sangam	23	19	4	0	4	10	9
21	Ananthasajaram	23	22	1	0	8	7	8
22	Atmakur	5	4	1	0	0	0	5
23	Anumasamudrapeta	5	1	1	3	1	0	4
24	Alluru	15	5	2	8	5	4	6
25	Vidavalur	9	8	1	0	7	0	2
26	Chejarla	21	21	0	0	13	6	2
27	Kaluvoy	22	22	0	0	13	6	3
28	Venkatagiri	25	19	6	0	24	1	0
29	Balaypalli	20	19	0	1	18	1	1
30	Naidupeta	22	20	2	0	16	4	2
31	Pelakur	17	16	1	0	15	2	0
32	Tada	20	17	3	0	18	2	0
33	Sullurpeta	25	21	3	1	21	2	2
34	Kota	20	18	2	0	19	0	1
35	Vakadu	20	14	4	2	16	1	3
36	Sydepuram	20	17	2	1	16	3	1
37	Dakkali	19	19	0	0	18	1	0
38	Doravarisatram	16	16	0	0	10	5	1
39	Chilakur	20	20	0	0	6	14	0
40	Guduru	20	20	0	0	13	5	2
41	Djili	21	20	0	1	11	3	7
42	Manubrolu	14	13	1	0	11	1	2
43	Bogolu	20	15	5	0	20	0	0
44	Jaladhanki	20	19	1	0	17	3	0
45	Dagadarthi	20	17	2	1	20	0	0
46	Chitteur	18	15	3	0	17	0	1
	Total	929	809	92	28	458	191	280
	Percentage	100.0	87.1	9.9	3.0	49.3	20.6	30.1

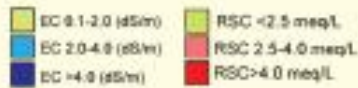
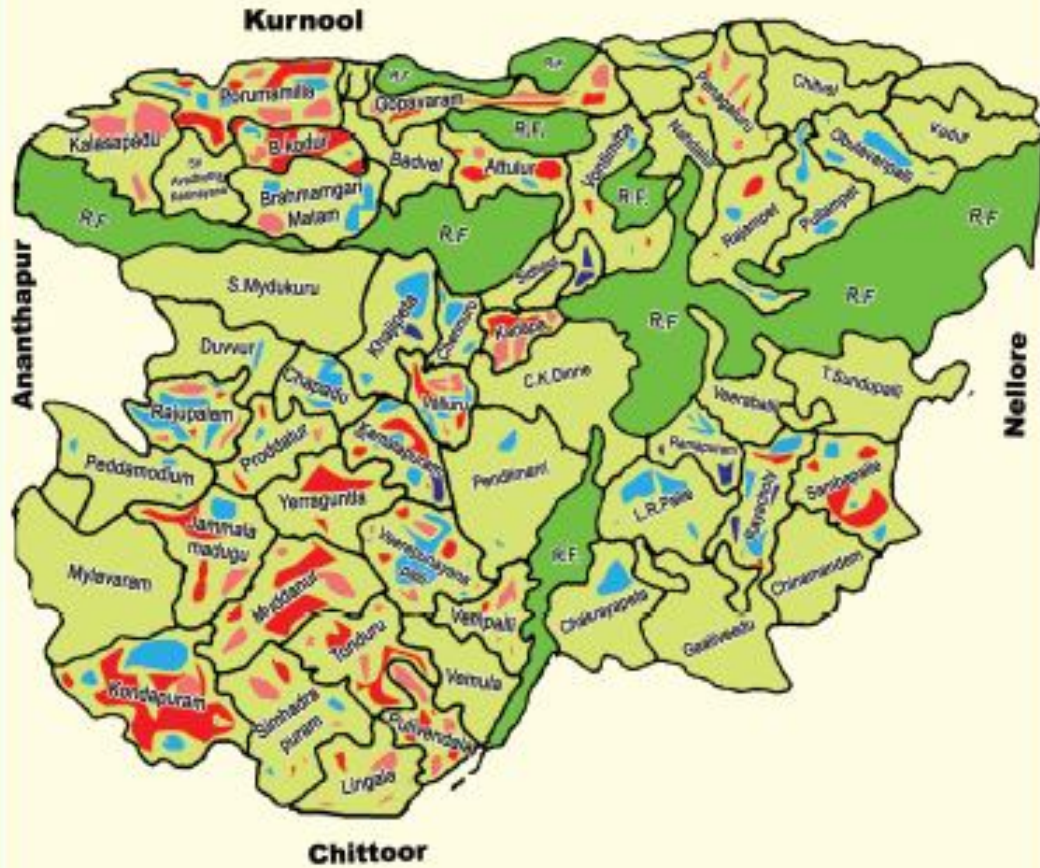
GROUND WATER QUALITY OF CHITTOOR DISTRICT (A.P)



CHITTOOR DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	B. Kothakota	5	3	1	1	3		2
2	Bainadypalli	5	5			5		
3	Banganapalem	13	13			10	3	
4	BN Kandriga	14	13	1		12	2	
5	Channagiri	20	18	2		13	3	2
6	Chinnagottigala	8	7	1		4	4	
7	Chittoor	11	8	1	2	10	1	
8	Chowdepalli	8	2	5	1	8		
9	Gangadharmellore	13	11	2		10	3	
10	Gangavaram	8	8			8		
11	Gudipala	11	11			11		
12	Guramkonda	6	6			6		
13	Irala	11	11			10	1	
14	KVS Puram	14	11	2	1	10	2	2
15	K.V.Palle	5	5			5		
16	Kalikota	6	4	2		6		
17	Kaligiri	9	8	1		6	3	
18	Kurvetinagar	20	19	1		18	1	1
19	Kurubalikota	5	5			5		
20	Kudana-palli	7	5	2		7		
21	Kodakota heruvu	4	4			4		
22	Nagalapuram	13	13			10	2	1
23	Nagari	8	2	5	1	5	2	1
24	Narayanasaram	20	20			15	5	2
25	Nimmampalli	5	5			5		
26	Nindra	18	14	4		15	3	
27	P.T.M.	4	4			1		3
28	Palaia	19	19			15	3	1
29	Palamarenu	5	5			5		
30	Palasamudram	13	12	1		10	3	
31	Peddumandram	8	8			8		
32	Peddumavilam	8	8			8		
33	Pennuru	11	10	1		7	4	
34	Pichatur	23	15	8		16	5	2
35	Piler	8	8			8		
36	Poothalapada	11	9	2		8	3	
37	Pulicherla	20	20			18	2	
38	Pungunuru	10	10			8	2	
39	Puttur	20	20			15	5	
40	Ramakuppam	5	5			5		
41	Ramesamudram	8	8			6	2	
42	RC Puram	5	5			5		
43	Renigunta	32	33	3		25	10	2
44	Rompacherla	7	7			7		
45	SR Puram	8	8			5	3	
46	Satyaveedu	5	5			5		
47	Shantipuram	5	5			5		
48	Somala	3	3			3		
49	Srikalahasti	25	25	1		20	4	2
50	T.V. Palle	3	3			3		
51	Thambalapalle	4	4			4		
52	Thayambapalli	7	7			5	2	
53	Thotambodu	38	38			25	10	3
54	Tinipati (R.)	14	14			8	6	
55	Tinipati (U)	14	10	4		12	1	1
56	V.Kota	5	5			5		
57	Vadimmalpet	20	17	3		15	5	
58	Vandalahpalem	3	3			3		
59	Vayalpadu	8	6	2		8		
60	Vedurukuppam	20	19	1		14	5	1
61	Vijayapuram	8	7	1		8		
62	Yadamare	11	11			11		
63	Yerpedu	18	17	1		16	1	1
64	Yerravaripalem	8	5	3		8		
		732	645	61	6	571	114	27
		100	90.6	8.6	0.8	80.2	16.0	3.8

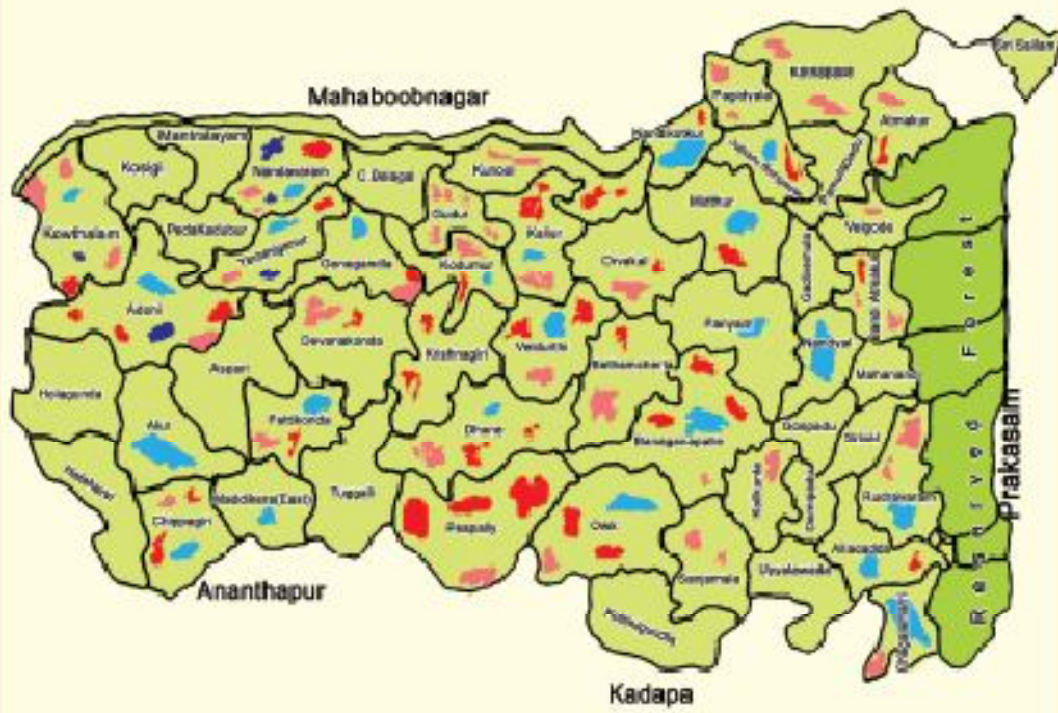
GROUND WATER QUALITY OF
KADAPA DISTRICT (A.P)



KADAPA DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Attalur	12	11	1		6	1	5
2	B.Kodur	6	4	2			1	5
3	Badvel	10	7	3		7	2	1
4	Brahmangarimatam	7	7			6	1	
5	C. K.Dinne	5	3	2		3	1	1
6	Chakrayapeta	8	8			8		
7	Chapadu	4	2	2		4		
8	Chernuru	7	4	3		7		
9	Chinamandem	12	12			11	1	
10	Chitvel	7	7			7		
11	Duvvur	12	11	1		12		
12	Gaaliveedu	6	6			6		
13	Gopavaram	11	9	2		7	2	2
14	Jammalamadugu	12	11	1		8	1	3
15	Kadapa	7	7			1	3	3
16	Kalasapadu	6	6			3	3	
17	Kamalapuram	12	7	3	2	7		5
18	Khajipeta	10	6	3	1	10		
19	Kondapuram	10	7	3		2	1	7
20	L.R.Palle	8	6	2		8		
21	Lingala	16	16			12	3	1
22	Mandalur	12	12			2	6	4
23	Muddanur	12	12			3	4	5
24	Mydukur	11	11			10	1	
25	Mylavaram	11	11			11		
26	Obutavaripalle	5	3	2		5		
27	Peddamodurum	12	11	1		12		
28	Penagalur	12	11	1		8	2	2
29	Pendlimarri	5	4	1		5		
30	Porumamilla	11	9	2		6	2	3
31	Proddatur	11	10	1		8	1	2
32	Pulivendala	18	18			10	5	3
33	Pullampeta	4	3	1		4		
34	R.S.Kondapuram	2	1	1		1		1
35	Rajampet	12	11	1		11		1
36	Rajapalem	12	6	6		8	3	1
37	Ramapuram	11	7	2	2	7	1	3
38	Rayachoty	8	5	2	1	7	1	
39	Rly.Koduru	9	8	1		9		
40	S A K N	10	9	1		1	4	5
41	Sambapalle	13	11	2		8		5
42	Sidhout	12	11		1	12		
43	Simhadripuram	16	15	1		8	5	3
44	Tonduru	14	14			5	3	6
45	Valluru	6	5	1		3	1	2
46	Veerasalu	12	12				3	9
47	Veerupunayanapalle	5	3	2		3	1	1
48	Vembla	12	12			12		
49	Vempalli	19	19			11	6	2
50	Vontimitta	11	10	1		10		1
51	Yerraguntla	5	5			2		3
	Total	501	436	58	7	337	69	95
	Percentage	100	87.0	11.6	1.4	67.3	13.8	19.0

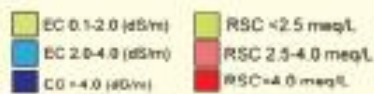
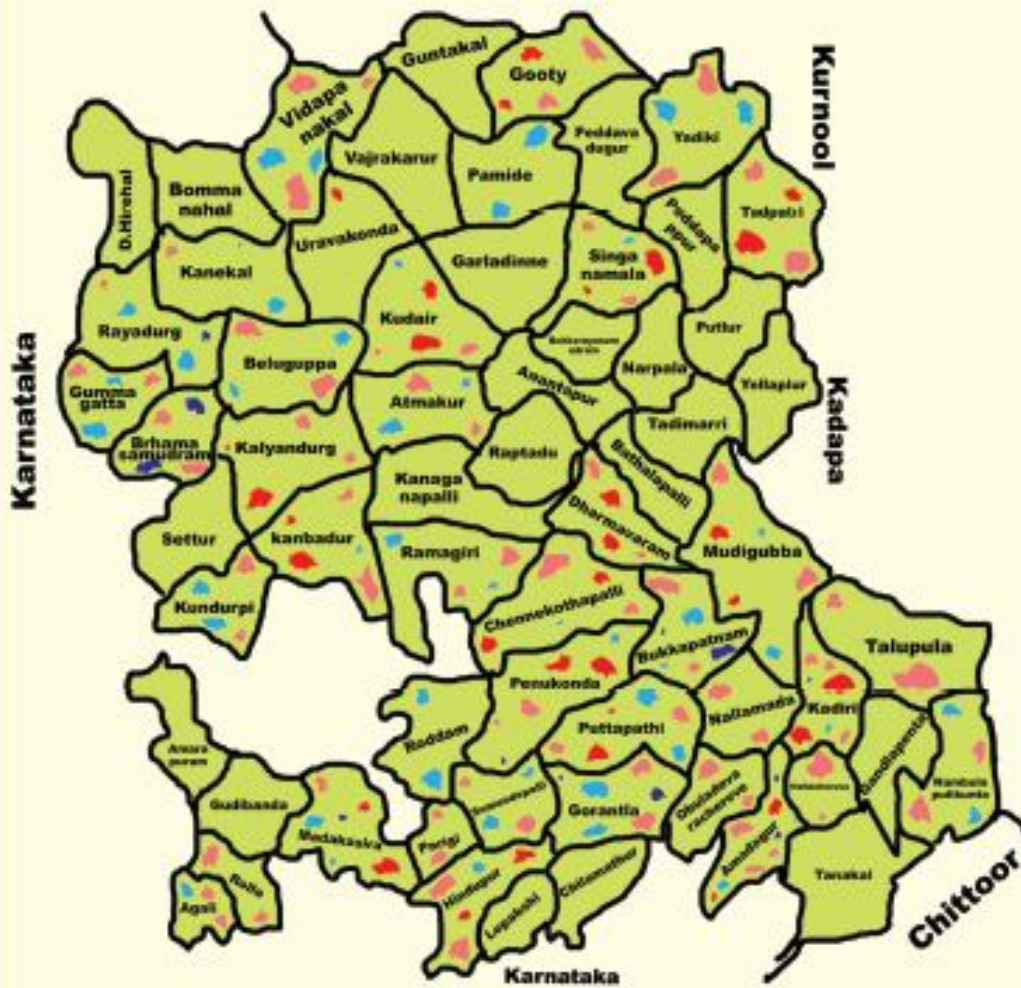
GROUND WATER QUALITY OF KURNOOL DISTRICT (A.P)



KURNOOL DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Adoni	15	12	2	1	7	3	5
2	Kowthalam	26	23	2	1	15	6	5
3	Bethamcherla	11	11	0	0	6	4	1
4	Peapally	12	12	0	0	4	2	6
5	Veldurthy	12	9	3	0	4	2	6
6	Krishnagiri	9	9	0	0	7	0	2
7	Dhone	10	9	1	0	5	3	2
8	Gudur	7	7	0	0	4	3	0
9	Kurnool	14	14	0	0	11	2	1
10	Kallur	24	20	4	0	9	7	8
11	Kodumur	8	7	1	0	0	5	3
12	Pattikonda	13	10	3	0	9	3	1
13	Devanakonda	22	22	0	0	8	8	6
14	Maddiker	27	24	3	0	26	1	0
15	Aluru	11	6	5	0	8	2	1
16	Chippagiri	17	14	3	0	9	3	5
17	Midhur	17	14	3	0	16	1	0
18	Orvakal	13	13	0	0	9	3	1
19	Nandikotkur	14	11	3	0	13	0	1
20	Jupadubungalow	17	16	1	0	15	0	2
21	Pedakadavur	5	5	0	0	4	1	0
22	Velugodu	15	15	0	0	14	1	0
23	Pamulapadu	22	22	0	0	22	0	0
24	Kottapalli	11	11	0	0	8	3	0
25	Atmakur	17	17	0	0	13	2	2
26	Bandiatmakur	21	21	0	0	16	3	2
27	Koilkunta	17	17	0	0	14	3	0
28	Mahanandi	18	18	0	0	18	0	0
29	Panyam	8	7	1	0	8	0	0
30	Gadivemula	19	19	0	0	19	0	0
31	Owk	11	9	2	0	8	1	2
32	Siruvel	17	17	0	0	17	0	0
33	Rudravaram	10	10	0	0	7	3	0
34	Banganapalli	12	10	2	0	7	1	4
35	Sanjamala	8	8	0	0	7	1	0
36	Kolimigundla	11	11	0	0	11	0	0
37	Allagadda	11	9	2	0	10	0	1
38	Chagalamarri	15	11	4	0	12	3	0
39	Nandyal	10	8	2	0	10	0	0
40	Gospadu	6	6	0	0	6	0	0
41	Yemmiganuru	16	13	2	1	14	1	1
42	Nandavaram	19	15	2	2	11	6	2
43	Mantraiyem	15	15	0	0	12	1	2
44	Gonegandla	9	8	1	0	7	1	1
	Total	622	565	52	5	460	89	73
	Percentage	100.0	90.8	8.4	0.8	74.0	14.3	11.7

GROUND WATER QUALITY OF ANANTHAPUR DISTRICT (A.P)



ANANTHAPUR DISTRICT

S. No	Name of the mandal	No. of Samples	EC _{hw} (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Agali	4	3	1		2	2	
2	Amadagur	6	4	1	1	2	3	1
3	Amarapuram	2	2	0		2		
4	Anantapur	2	2			2		
5	Atmakur	3	2	1		2	1	
6	Beluguppa	4	3	1		2	2	
7	Brahmasamudram	2	1		1	1	1	
8	Bukkapatnam	4	2	1	1	2	2	
9	Chennekothapalli	34	33	1		9	12	13
10	Dharmavaram	63	63			29	11	23
11	Gooty	38	38			17	11	10
12	Gorantla	6	3	2	1	4	2	
13	Gudibanda	3	3			3		
14	Gummagatta	4	2	2		2	2	
15	Guntakal	2	2			2	0	
16	Hindupur	31	29	2		12	12	7
17	Kadiri (West)	57	54	2	1	25	8	24
18	Kalyandurg	64	64			42	12	10
19	Kambadur	46	45	1		14	12	20
20	Kanikal	19	17	2		18	1	
21	Kuduru	42	40	2		21	5	16
22	Kundurpi	4	2	2		3	1	
23	Madakasira	55	45	9	1	39	4	12
24	Mudigubba	8	6	2		5	2	1
25	Nailacheruvu	6	6			4	2	
26	Nailamada	4	4			2	2	
27	Nambalapulikunta	5	4	1		3	2	
28	Narpala	2	2			2	0	
29	Obuladevara cheruvu	4	4			3	1	
30	Pamidi	3	2	1		2	1	
31	Parigi	2	2			1	1	
32	Peddapappur	2	2			2		
33	Penugonda	85	80	4	1	17	22	46
34	Puttaparthy	6	4	2		3	3	
35	Ramagiri	4	3	1		2	2	
36	Raptadu	2	2			2		
37	Rayadurg	36	26	8	2	34	2	
38	Roddam	3	2	1		3	0	
39	Rolla	2	2			1	1	
40	Singanamala	37	36	1		23	4	10
41	Somandepalli	4	3	1		2	2	
42	Tadiparthi	50	50			21	17	12
43	Talupula	2	2			1	1	
44	Uravakonda	16	16			15		1
45	Vajrakerur	2	2			2		
46	Vidapanakal	3	2	1		1	2	
47	Yadiki	2	1	1		1	1	
48	Kadiri(East)	12	12			4	2	6
	Total	797	734	54	9	411	174	212
	Percentage	100	92.1	6.8	1.1	52.8	22.0	26.0

KARIMNAGAR DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Bejjanki	11	8	2	1	9	1	1
2	Bhimdev arapalli	22	18	4	0	16	3	3
3	Chandiruthi	7	7	0	0	7	0	0
4	Chigurumamidi	13	13	0	0	12	1	0
5	Choppadandi	10	10	0	0	10	0	0
6	Diharamapur	18	16	2	0	15	2	1
7	Diharamaram	20	16	4	0	18	2	0
8	Elkaturti	10	10	0	0	10	0	0
9	Gambirao pet	13	12	1	0	12	1	0
10	Gangadhara	11	11	0	0	11	0	0
11	Gollapalli	10	10	0	0	10	0	0
12	Husnabad	15	9	6	0	14	1	0
13	Huzunabad	21	21	0	0	21	0	0
14	Ibrahimpattanam	16	16	0	0	16	0	0
15	Illathakunta	13	11	1	1	8	2	3
16	Jagtial	4	4	0	0	4	0	0
17	Jammikunta	10	10	0	0	10	0	0
18	Jolapalli	11	9	2	0	10	1	0
19	Kamalapur	21	21	0	0	21	0	0
20	Kamanpur	21	8	13	0	20	1	0
21	Karimnagar	10	10	0	0	10	0	0
22	Kataram	10	10	0	0	10	0	0
23	Kathalapur	13	13	0	0	13	0	0
24	Kesavapattanam	10	10	0	0	10	0	0
25	Kodimyal	10	8	2	0	9	1	0
26	Koheda	13	11	2	0	13	0	0
27	Konaraopet	11	10	1	0	11	0	0
28	Konutla	21	21	0	0	21	0	0
29	Malhar	21	21	0	0	17	4	0
30	Mallapoor	18	18	0	0	18	0	0
31	Matyal	8	8	0	0	7	1	0
32	Manakondur	11	11	0	0	11	0	0
33	Manthani	20	20	0	0	16	1	3
34	Medipalli	7	7	0	0	7	0	0
35	Metpally	13	13	0	0	11	1	1
36	Mustabad	4	3	1	0	4		0
37	Mutharam	10	10	0	0	9	1	0
38	Odela	10	10	0	0	10		0
39	Pedapalli	12	11	1	0	11	1	0
40	Pegadapalli	11	11	0	0	11	0	0
41	Ramagundam	11	11	0	0	11	0	0
42	Ramdugu	8	6	1	1	5	3	0
43	Raykai	15	15	0	0	15	0	0
44	Saidapur	10	10	0	0	10	0	0
45	Sirisilla	10	10	0	0	9	1	0
46	Sulthanabad	12	11	1	0	12	0	0
47	Thimmapur	12	8	3	1	12	0	0
48	Vee navanka	10	10	0	0	7	2	1
49	Velgatur	11	10	1	0	6	3	2
50	Vemulavada	10	8	2	0	9	1	0
51	Yellareddy pet	14	14	0	0	13	0	1
	Total	643	589	50	4	592	35	16
	Percentage	100	91.6	7.8	0.6	92.1	5.4	2.5

GROUND WATER QUALITY OF
NIZAMBAD DISTRICT (A.P)



NIZAMABAD DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Armar	15	15	0	0	15	0	0
2	Bakonda	6	6	0	0	6	0	0
3	Banswala	17	16	1	0	13	3	1
4	Bhempal	16	16	0	0	16	0	0
5	Bhikoor	24	24	0	0	22	2	0
6	Bichunda	22	20	2	0	15	5	2
7	Birkoor	13	13	0	0	6	5	2
8	Bodhan	36	25	10	1	20	1	5
9	Dharpalle	20	20	0	0	20	0	0
10	Dichpalle	22	22	0	0	18	2	2
11	Dumakonda	20	19	1	0	19	1	
12	Gandhari	29	29	0	0	25	2	2
13	Jakrapalle	15	15	0	0	15	0	0
14	Jukkai	20	20	0	0	14	3	3
15	Kamareddy	11	20	1	0	21	0	0
16	Kannarapalle	8	8	0	0	8	0	0
17	Kotgiri	15	14	0	1	8	1	6
18	Lingampet	26	26	0	0	19	4	3
19	Mecharreddy	33	32	1	0	30	3	0
20	Medtoor	18	15	3	0	16	1	1
21	Mekloor	5	5	0	0	5	0	0
22	Mintari	26	26	0	0	24	2	0
23	Nagireddipet	14	13	1	0	9	3	2
24	Novipet	14	14	0	0	12	2	0
25	Nizamabad	22	19	3	0	20	2	0
26	Nizamsagar	17	17	0	0	13	3	1
27	Pillan	22	22	0	0	17	6	4
28	Ranjai	19	17	2	0	17	0	2
29	Sadanvanagar	29	28	1	0	25	4	0
30	Tadwai	20	20	0	0	18	2	0
31	Vani	12	12	0	0	11	1	0
32	Valpar	15	15	0	0	15	0	0
33	Yedpalle	27	26	1	0	23	3	1
34	Yellareddy	20	20	0	0	11	8	1
	Total	658	629	27	2	551	69	38
	Percentage	100	95.6	4.1	0.3	81.7	10.5	5.8

GROUND WATER QUALITY OF ADILABAD DISTRICT (A.P)



ADILABAD DISTRICT

S. No	Name of the mandal	No. of Samples	ECW (dSm ⁻¹)			RSC (mg L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Adilabad	23	22	1		12		1
2	Affalabad	13	12	1		6	1	4
3	Bazarkhatnur	12	12			11	1	
4	Bejjur	12	11	1		12	0	
5	Bela	12	12			12		
6	Bellampally	13	13			12	1	
7	Bhalasa	12	12			11	1	
8	Bhaemini	12	12			12		
9	Bnath	12	12			12		
10	Chennur	13	13			12	1	
11	Dahegon	12	12			12		
12	Dandepally	12	12			8	4	
13	Dilawapur	13	13			12	1	
14	Firihata	12	12			11	1	
15	Gudihalnoor	12	12			11	1	
16	Indirevilly	12	12			12		
17	Jainadi	14	14			14		
18	Jainoor	12	12			12		
19	Jajour	13	12	1		11		2
20	Jannaram	12	12			12		
21	Kaddam	12	12			12		
22	Kagharozager	13	13			13		
23	Kadpet	12	12			9	1	1
24	Katapally	9	9			7	1	
25	Kerameri	13	13			13		
26	Kharapur	12	11	1		12		
27	Kowhala	12	12			11		1
28	Kulhaer	12	12			10	1	
29	Kuntala	12	12			7	5	
30	Lamaachanda	13	13			13		
31	Lakeshwarani	12	12			12		
32	Laxtilipet	13	13			12	1	
33	Mamada	13	12	1		13		
34	Manchireel	13	13			13		1
35	Mandhanary	11	10	1		8	2	1
36	Mudhole	26	26	2		25	1	
37	Naroor	12	12			12		
38	Nannal	11	11			9	1	1
39	Neradjonda	12	12			9	2	1
40	Nirmal	14	14			14		
41	Rebbera	12	10	1	1	9	2	1
42	Sarangapur	14	14			14		
43	Sripaon(II)	11	11			11		
44	Sripur(I)	11	11			8	2	1
45	Talamadugu	13	13			13		
46	Tamal	12	12			12		
47	Tandur	11	10	1		7	2	2
48	Tanoor	12	10	2		8	1	1
49	Thiriyari	12	12			6	6	
50	Utnoor	12	12			12		
51	Yemshapelli	12	12			12		
52	Wankid	12	11	1		7	1	2
	Total	661	644	14	1	590	51	20
	Percent	100	97.7	2.1	0.1	89.3	7.7	3.0

WARANGAL DISTRICT

S. No	Name of the mandal	No. of Samples	EC _{hw} (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Atmakur	12	11	1		5	3	4
2	Bachampet	12	12			7	5	
3	Bhupalapalli	7	6	1		7		
4	Chennarayana	12	7	4	1	11	1	
5	Cherial	12	9	3		4	3	5
6	Chityal	11	11			4	1	6
7	Devaruppal	12	10	2		9	2	1
8	Dharmasagar	12	11	1		11	1	
9	Domakal	19	18	1		14	5	
10	Duggondi	12	12			3	2	7
11	Eturunagarani	12	12			8	1	3
12	Geesgonda	12	12			4	1	7
13	Ghanpur(mulugu)	12	11	1		11	1	
14	Ghanpur(station)	12	12			7	2	3
15	Govindarayana	14	14			3	4	7
16	Gudur	12	11	1		3	4	5
17	Hanamakonda	13	11	2		12		1
18	Hasanparthy	12	8	2	2	10	1	1
19	Jangam	12	12			3		9
20	Kesamudiram	12	11	1		7	4	1
21	Khanapur	12	10	2		8	3	1
22	Kodakonda	16	16			14	2	
23	Kothaguda	12	12			4		8
24	Kuravi	12	8	4		12		
25	Lingalaganapur	12	12			2		10
26	Madour	12	12			11	1	
27	Mahabubabad	12	9	3		8	3	1
28	Mangapet	10	10			4	2	4
29	Maripeda	12	12			12		
30	Mogullapally	10	9	1		4	1	5
31	Mulugu	12	11	1		11		1
32	Nailabelli	12	11	1		11	1	
33	Narasimhapeta	14	14			9	3	2
34	Narimetta	12	10	2		1	3	8
35	Narsampet	12	11	1		11		1
36	Nekkonda	12	11	1		6	2	4
37	Nellikuduru	15	15			14	1	
38	Palakurthy	12	11		1	11		1
39	Parkal	12	12			4	2	6
40	Parvathagiri	10	8	2		5	4	1
41	Raghunadhapalli	12	12			1	1	10
42	Rayaparthi	14	13	1		9	2	3
43	Regonda	12	7	5		1	3	8
44	Sangem	9	8	1		2	1	6
45	Shayampet	12	12			5	4	3
46	Tadwai	12	12			9	1	2
47	Thorur	13	13			8	3	2
48	Venkatapur	12	10	2		11	1	
49	Warchanapet	12	12			9	2	1
50	Zaffargadh	12	11	1		10	2	
	Total	607	555	48	4	370	89	148
	Percent	100.00	91.4	7.9	0.7	61.0	14.7	24.3

GROUND WATER QUALITY OF
WEST KHAMMAM DISTRICT (A.P)



KHAMMAM DISTRICT

S. No	Name of the mandal	No. of Samples	EC _w (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Aswarapeta	61	61			61		
2	Bhadrachalam	31	30	1		30	1	
3	Burgampahad	19	19			19		
4	Chandrugonda	8	8			8		
5	Cherla	62	60	2		53	5	4
6	Chintur	23	23			23		
7	Dammipeta	33	33			33		
8	Dammugudem	16	16			16		
9	Khammas(Kuzel)	20	20			19	1	
10	Kothagudem	29	28	1		11	11	7
11	Kulunoor	17	17			17		
12	Kuravaram	15	15			15		
13	Madhira	32	32			32		
14	Manuguru	26	25	1		23	3	
15	Mulikalapalle	29	29			29		
16	Palvancha	4	4			4		
17	Perubelli	16	12	4		11	1	4
18	Pinapaka	17	17			17		
19	Sathupalle	16	16			15	1	
20	Varanmachandrapuram	15	15			15		
21	Vemcor	39	34	5		27	6	6
22	Venkatespuram	8	8			6	2	
23	Waseed	6	5			4	2	
24	Wya	12	12			9	3	
	Total	554	540.0	14	0	497	36	21
	Percentage	100.0	97.5	2.5	0.00	90.0	6.5	3.5

GROUND WATER QUALITY OF MEDAK DISTRICT (A.P)

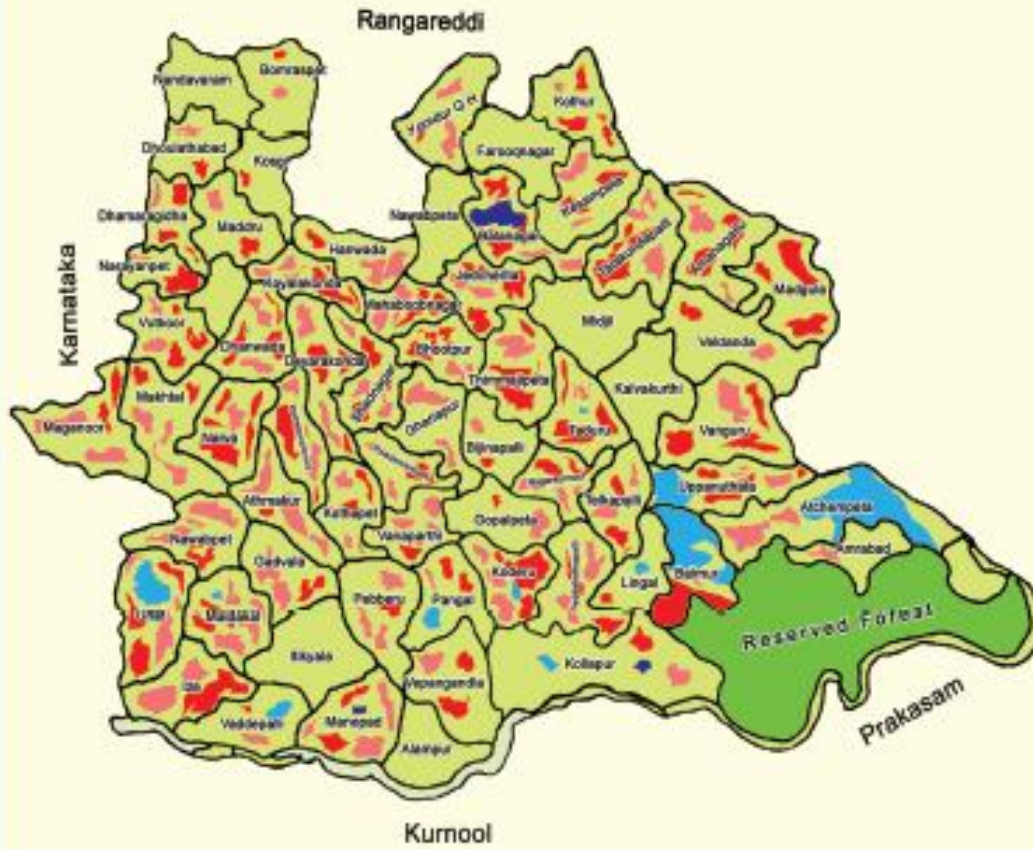


Light Green	EC 0.1-3.0 (dSm)	Light Green	RSC < 2.5 meq/l.
Light Blue	EC 2.0-4.0 (dSm)	Light Red/Pink	RSC 2.5-4.0 meq/l.
Dark Blue	EC > 4.0 (dSm)	Dark Red	RSC > 4.0 meq/l.

MEDAK DISTRICT

S. No	Name of the mandal	No. of Samples	ECW (µS/m ²)			KSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Alladurga	12	12	0	0	4	3	5
2	Andol	15	15	0	0	14	1	0
3	Chegunta	12	12	0	0	11	1	0
4	Chinakudur	12	12	0	0	11	0	1
5	Donaivelvel	12	12	0	0	10	0	2
6	Dubbak	15	15	0	0	13	2	0
7	Gajwel	14	14	0	0	7	3	4
8	Hatlinura	15	14	1	0	12	3	0
9	Jagarlapur	14	13	1	0	10	3	1
10	Jharasangam	13	13	0	0	12	1	0
11	Jinnaram	15	15	0	0	14	1	0
12	Kalher	14	14	0	0	5	6	3
13	Kangli	12	12	0	0	7	5	0
14	Kalhr	12	12	0	0	5	6	1
15	Kondapaka	13	12	1	0	8	4	3
16	Kondapur	15	15	0	0	13	1	1
17	Kovvilpalli	14	14	0	0	8	5	1
18	Kulcharam	12	11	1	0	10	2	0
19	Mamror	12	12	0	0	10	2	0
20	Medak	16	16	0	0	14	2	0
21	Meerodd	12	12	0	0	8	2	2
22	Mulug	12	12	0	0	9	3	0
23	Munpalle	15	15	0	0	9	3	3
24	Nanganur	14	14	0	0	8	4	2
25	Narayanikud	13	13	0	0	8	2	3
26	Narsapur	15	15	0	0	15	0	0
27	Nyalakot	16	16	0	0	12	2	2
28	Papanrapet	14	14	0	0	13	0	1
29	Patancheru	15	12	3	0	11	1	3
30	Pulka	17	16	1	0	14	3	0
31	R.C.Puram	8	7	1	0	7	0	1
32	Raikod	11	11	0	0	10	1	
33	Ramayampet	15	15	0	0	10	2	3
34	Regal	12	12	0	0	8	3	1
35	Sadashivapur	15	15	0	0	11	1	3
36	Sansareddy	15	12	3	0	14	0	1
37	Shankampet @	13	13	0	0	12	0	1
38	Shankampet (A)	9	9	0	0	0	1	8
39	Shivampet	15	15	0	0	15	0	0
40	Siddipet	14	13	1	0	12	2	0
41	Tekmal	19	19	0	0	6	7	6
42	Thoguta	12	12	0	0	7	4	1
43	Uppuram	15	14	1	0	13		2
44	Varag	10	10	0	0	8	1	1
45	Yeldurthi	13	13	0	0	10	3	0
46	Zaherabad	12	12	0	0	9	3	0
	Total	622	606	16	0	457	99	66
	Percent	100	97.4	2.6	0.0	71.5	15.9	10.6

GROUND WATER QUALITY OF MAHABOBNAGAR DISTRICT (A.P)



 EC 0.1-2.0 (dS/m)	 RSC <2.5 meq/L
 EC 2.0-4.0 (dS/m)	 RSC 2.5-4.0 meq/L
 EC >4.0 (dS/m)	 RSC >4.0 meq/L

MAHABOBNAGAR DISTRICT

S. No	Name of the mandal	No. of Samples	ECIw (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Aggenevally	26	26	0	0	17	6	3
2	Adang	18	18	0	0	13	0	1
3	Adirabatur	19	19	0	0	14	1	1
4	Kocampal	19	19	0	0	17	1	1
5	Doulatabad	16	16	0	0	12	1	1
6	Aladdur	10	10	0	0	8	1	1
7	Chimanguda	15	15	0	0	10	1	1
8	Narsyanapet	10	10	0	0	3	2	5
9	Bukur	13	13	0	0	2	4	7
10	Alathal	17	17	0	0	4	5	4
11	Koddepalli	18	18	0	0	14	1	1
12	Kanopad	12	11	0	1	7	3	2
13	Alampar	15	15	0	0	7	8	5
14	Koddepalli	16	14	2	0	9	1	8
15	Kolhapur	15	13	1	1	10	1	8
16	Koeru	15	14	1	0	3	4	8
17	Yipanginda	15	15	0	0	10	2	3
18	Baganl	15	13	2	0	9	3	4
19	Bukur	22	11	11	0	2	2	11
20	Achampet	11	6	5	0	4	0	7
21	Dipurnitala	9	7	2	0	3	1	5
22	Chigal	19	18	1	0	18	0	1
23	Amirahad	11	11	0	0	10	1	0
24	Koyalakonda	11	11	0	0	6	2	3
25	Alakolurukuniga	20	20	0	0	28	11	11
26	Nagabeta	20	20	0	0	20	15	8
27	Alakonda	8	8	0	0	5	2	1
28	Jambhanta	44	44	0	0	19	8	17
29	Balanagar	9	7	0	2	4	2	3
30	Boothpur	40	40	0	0	16	7	17
31	Alabekal	18	18	0	0	0	12	6
32	Shadnagar	12	12	0	0	5	3	4
33	Kesampeta	21	21	0	0	10	4	4
34	Kottur	20	20	0	0	13	1	6
35	Kondur G.H	29	29	0	0	28	5	2
36	Talukondapalli	29	29	0	0	8	9	12
37	Amanal	17	17	0	0	5	5	7
38	Aladugula	5	5	0	0	1	0	1
39	Vangur	17	17	0	0	4	3	10
40	Wodanola	23	23	0	0	21	1	1
41	Kalhygurthy	15	15	0	0	15	0	0
42	Nagarkamool	21	21	0	0	10	10	11
43	Tadur	21	19	1	1	8	7	11
44	Telkapalli	27	27	0	0	12	8	7
45	Peruvullavalli	7	7	0	0	3	2	2
46	Popalpet	15	15	0	0	11	4	1
47	Perbatur	23	23	0	0	13	7	3
48	Vasuparthi	23	23	0	0	12	7	4
49	Perannaidu	10	10	0	0	8	1	1
50	Ghanapur	8	8	0	0	8	4	0
51	Kollapeta	19	19	0	0	9	3	7
52	Atrakur	11	11	0	0	4	6	1
53	Nanna	7	7	0	0	0	1	6
54	C.C.Kunta	13	13	0	0	2	5	6
55	Devarakonda	8	8	0	0	3	3	2
56	Dhanvada	36	35	1	0	6	6	21
57	Sharror	17	16	1	0	17	0	0
58	Shettu	4	3	1	0	2	1	1
59	Leerja	6	6	0	0	1	1	4
60	Gadwal	26	26	0	0	18	5	3
61	Alakol	15	14	1	0	11	1	1
62	Thimmapet	20	20	0	0	13	2	5
63	Alappur	13	13	0	0	7	4	2
	Total	1128	1094	30	4	606	225	297
	Percentage	100	97.0	2.6	0.4	53.7	20.0	26.3

GROUND WATER QUALITY OF
NALGONDA DISTRICT (A.P)



NALGONDA DISTRICT

S. No	Name of the mandal	No. of Samples	DCh _v (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Chireniula	17	17	0	0	4	7	6
2	Suryapet	16	15	1	0	13	2	1
3	Kemhampalli	35	34	1	0	18	7	0
4	Pe davoora	21	20	1	0	7	4	10
5	Haita	3	3	0	0	0	0	3
6	P. A. Pelli	22	20	2	0	15	2	5
7	Nicampalur	20	20	0	0	1	8	11
8	Akothey	17	17	0	0	11	3	3
9	Pe apahad	18	17	1	0	6	7	5
10	Garidipalli	2	2	0	0	2	0	0
11	Chandampet	20	20	0	0	5	7	4
12	Dindi	21	18	3	0	5	6	6
13	Akacypalaguda	7	7	0	0	2	1	0
14	Hirumagar	13	13	0	0	8	4	0
15	Damacharla	15	15	0	0	11	4	0
16	Vemula pelli	16	16	0	0	13	0	3
17	Kadigachari	20	20	0	0	14	4	2
18	Akoti Acharam	17	16	0	1	14	1	2
19	Kodada	14	14	0	0	12	2	0
20	Akatiampalli	20	20	0	0	14	6	0
21	Tiruvani	18	18	0	0	11	4	3
22	Sevatalakonda	19	17	2	0	7	6	1
23	Chintapalli	17	15	2	0	3	6	8
24	Nampalli	23	13	10	0	4	5	14
25	Arunagala	20	20	0	0	5	9	2
26	Chintamani	7	7	0	0	7	0	0
27	Ramanapeta	16	10	6	0	16	0	0
28	Valligonda	14	2	12	0	14	0	0
29	Bhimesagiri	16	16	0	0	15	1	0
30	Beehinsagar	22	14	6	2	21	1	0
31	Poichampalli	5	3	1	1	5	0	0
32	Choutapalli	14	10	4	0	14	0	0
33	Bonmalambaram	14	15	1	0	16	0	0
34	Thakapalli	16	15	1	0	15	1	0
35	Jacagiri gutta	14	14	0	0	14	0	0
36	Rajupeta	13	13	0	0	13	0	0
37	Aluru	24	24	0	0	12	10	2
38	Abnakuru	11	11	0	0	10	1	0
39	Akorkur	15	15	0	0	14	1	0
40	Gundala	13	13	0	0	10	2	1
41	Tirumalagiri	13	13	0	0	10	2	0
42	Aravapalli	15	15	0	0	15	0	0
43	Tungakurthi	10	10	0	0	7	2	1
44	Narankal	7	7	0	0	6	1	0
45	S. Athmakur	4	4	0	0	1	1	0
46	Halgonda	24	23	1	0	21	3	0
47	Kaggala	25	25	0	0	21	4	0
48	Silvathimmaru	12	12	0	0	12	0	0
49	Kattangoor	15	15	0	0	13	1	1
50	Thippurthi	12	12	0	0	5	1	2
51	Kakapally	19	17	1	1	13	5	1
52	Haladhal	4	4	0	0	4	0	0
53	Arunagudi	10	10	0	0	1	5	0
54	Narayanasuram	10	9	1	0	6	4	0
	Total	811	753	57	5	542	154	99
	Percentage	100	92.7	7.0	0.6	66.9	18.9	12.1

GROUND WATER QUALITY OF RANGAREDDY DISTRICT (A.P)



EC 0.1-2.0 (dS/m)	RSC <2.5 meq/L
EC 2.0-4.0 (dS/m)	RSC 2.5-4.0 meq/L
EC >4.0 (dS/m)	RSC >4.0 meq/L

RANGAREDDY DISTRICT

S. No	Name of the mandal	No. of Samples	EC _{hw} (dSm ⁻¹)			RSC (meq L ⁻¹)		
			<2.0	2.0-4.0	>4.0	0-2.5	2.5-4	>4.0
1	Allapur	3	3			1	2	
2	Balanagar	5	4	1		4		1
3	Bantwaram	13	13			10	3	
4	Bashwabad	9	9			7	1	1
5	Chevela	14	14			4	4	6
6	Dhanu	15	15			11	2	2
7	Dona	15	15			15		
8	Gardeed	18	18			18		
9	Ghatkesar	19	15	4		19		
10	Hayatnagar	13	5	8		13		
11	Ibrahimpetnam	14	14			11	2	1
12	Indrached	1	1				1	
13	Javadi	1	1				1	
14	Kadukuru	11	11			8	2	1
15	Kesara	12	12			12		
16	Kothapur	2	2			1	1	
17	Kulakacharla	16	16			15		1
18	Kuththilapur	11	11			11		
19	Maheswarani	17	11	1		11	1	
20	Malakajiri	5	5			5		
21	Manchal	13	13			12	1	
22	Marpalle	15	15			8	7	
23	Medchal	21	19	2		20	1	
24	Moinabad	11	10	1		9		2
25	Mominpet	15	15			11	3	1
26	Nawalpet	15	15			11	2	2
27	Parji	15	15			8	5	2
28	Peddemul	15	15			12	2	1
29	Pudoor	15	15			6	3	6
30	Rajendranagar	28	12	11	5	26	1	1
31	Sarilingampalle	10	10			10		
32	Saroonagar	9	9			9		
33	Shebed	14	14			13		1
34	Srinipet	15	15			15		
35	Shamsabad	16	15	1		16		
36	Shankarapalle	15	15			7	6	2
37	Tandour	15	15			9	2	4
38	Uppal	2	1	1		2		
39	Vikarabad	16	16			14	2	
40	Yacharam	14	13	1		9		5
41	Yatal	16	16			7	1	8
	Total	514	478	31	5	410	55	49
	Percentage	100	93.0	5.0	1.0	79.8	10.7	9.5

GROUND WATER QUALITY OF
ANDHRA PRADESH



Quality of Ground water and management practices for Crop Production

The Coastal region of India stretching over a coast line of 8219 km long with 10.78 million hectares. Lack of good quality irrigation water, high soil salinity, influence of tidal waves and periodical inundation of soils by tidal water and shallow ground water table enriched with salts are the characters of the ecosystem. Poor surface and subsurface drainage conditions, intrusion of sea water due to global warming and frequent phenomena of the tropical and endemic cyclones during both pre-monsoon and post-monsoon, succeeded by torrential rains causes irreparable damage to the crops and changes the ground water quality. Though there are several other constraints, there is tremendous scope to increase agricultural productivity in the coastal region.

RECOMMENDATIONS

Saline Water

Waters with EC_w more than 4 dS/m, SAR less than 10 (m mole/L)^{1/2} and RSC less than 4 meq/L called saline water. They are divided in to three types viz., marginally saline, saline and high SAR saline. Saline water is prominent in the following districts

S.No.	Name of the District	No. of samples	Good	Saline	Alkali	Salinity + Alkalinity
1	Krishna	491	69.2	19.60	11.20	30.80
2	Guntur	805	66.5	22.30	11.20	33.50
3	Prakasam	246	80.5	17.10	2.40	19.50
4	East Godavari	129	83.7	15.50	0.80	16.30
5	West Godavari	784	82	12.30	5.70	18.00

Table: Relation between soil texture, crop tolerance and rainfall

Soil texture (% clay)	Crop Tolerance	EC _w (dSm ⁻¹) limit for rainfall (mm) region		
		< 350	350-550	> 550
Fine (>30)	Sensitive	1.0	1.0	1.5
	Semi-tolerant	1.5	2.0	3.0
	Tolerant	2.0	3.0	4.5
Moderately Fine (20 to 30)	Sensitive	1.5	2.0	2.5
	Semi-tolerant	2.0	3.0	4.5
	Tolerant	4.0	6.0	8.0
Moderately coarse (10 to 20)	Sensitive	2.0	2.5	3.0
	Semi-tolerant	4.0	6.0	8.0
	Tolerant	6.0	8.0	10.0
Coarse (<10)	Sensitive	--	3.0	3.0
	Semi-tolerant	6.0	7.5	9.0
	Tolerant	8.0	10.0	12.5

Management

- ◆ Selection of salt tolerant crops and varieties.
- ◆ Marginally saline water can be used for irrigation in light textured soils without any problem either on crop yield or on soil properties.
- ◆ Marginally saline water can also be used in heavy textured soils with precautions such as selection of crops which needs less number of irrigations and avoid summer irrigation.
- ◆ Application of organic manures like FYM @ 5-10t/ha will mitigate the adverse effect of marginally saline/saline water irrigation.
- ◆ Proper irrigation and leaching practices can prevent excessive accumulation of salts in the root zone. The distribution of water and salts in soils vary with the method of irrigation. A shift towards micro-irrigation systems such as drip and sprinklers, where a better control on salt and water distributions.
- ◆ Application of amendment like gypsum 1-2 t ha⁻¹ is recommended for saline water having Mg:Ca > 3.
- ◆ Split application of nitrogen to prevent N losses through volatilization and denitrification. Correction of nutrient deficiencies by foliar application of nutrients.
- ◆ Addition of 50 percent more phosphoric fertilisers than recommended dose if irrigated water is rich in chlorides and the soils having low available phosphorous.
- ◆ For sulphate rich waters, no additional application of phosphate fertilisers is required and the dose recommended under normal conditions may be applied.
- ◆ For micro-nutrients such as zinc, the recommended doses based on soil test values should be applied.

Other cultural practices

Owing to reduced germination, there is often a poor crop stand in fields irrigated with saline water. Thus to ensure better population following measures are suggested

- ◆ Reduce inter/intra row spaces and use 20-30% extra seed than required under normal conditions.
- ◆ Dry seeding and keeping the surface soil moist through sprinkler/ post-sowing saline irrigation helps in better establishment of crops.
- ◆ Modifications in seedbed e.g. sowing near the bottom of the furrows on both sides of the ridges and applying irrigation in alternate row and to seed on the north-east side of the ridges, is recommended. For the larger seeded crops, the seeds can be planted in the furrows.

Alkali water

Waters with EC_{iw} less than 4 dS/m, SAR more than 10(m mole/L)^{1/2} and RSC less than 4 meq/L are called alkali water. Alkali waters are present in higher levels in the following districts. They are divided in to three types viz., Marginally alkali, alkali and highly alkali. The RSC is the major problem in these waters. Continuous use of such high RSC waters will rise the soil pH and ESP (Exchangeable Sodium Percentage) which in turn decreases permeability. Due to high sodium and high pH, micronutrients (Zn, Fe etc.) deficiencies may occur.

S.No.	Name of the District	No. of samples	Good	Saline	Alkali	Salinity + Alkalinity
1	Warangal	607	54.4	7.80	37.80	45.60
2	Mahabubnagar	1128	56.1	3.20	40.70	43.90
3	Nalgonda	815	52.4	5.40	42.20	47.60
4	Kadapa	501	58.48	9.98	31.54	41.52
5	Nellore	929	39	9.20	51.80	61.00

Table: Relation between soil texture and water quality parameters

Soil texture (%clay)	SAR (m mol L) ^{1/2}	Upper limit of RSC (me L ⁻¹)	Remarks
Fine (> 30)	10	2.5 - 3.5	Limits pertain to <i>kharif</i> fallow/ <i>Rabi</i> crop rotation when annual rainfall is 350-550 mm.
Moderately fine (20-30)	10	3.5 - 5.0	When the waters have Na < 75% (Ca+Mg > 25%) or rainfall is 550 mm, the upper limit of the RSC range becomes safe,
Moderately coarse(10-20)	15	5.0 - 7.5	RSC neutralization with gypsum is essential based on quantity of water used during the <i>Rabi</i> season. Grow low water requiring crops during <i>Kharif</i> .
Coarse (> 10)	20	7.5 - 10	

Management

- ◆ Selection of crop varieties tolerant to sodicity /alkalinity.
- ◆ In low rainfall areas (average annual rainfall < 400 mm) if the good quality canal water is not available, it is advisable to keep the fields fallow during *kharif* season. During *rabi*, only tolerant and semi-tolerant crops should be grown.
- ◆ For areas having rainfall > 400 mm/annum, it is ensured that sowing, particularly of *kharif* crops is done with rain water or good quality canal water. Besides, not more than 2 to 3 irrigations should be applied with alkali waters in the *kharif*.
- ◆ Alkali waters should not be used for growing summer crops in the month of April to June.
- ◆ Application of dhaincha @ 25 kg ha⁻¹ and incorporate at 50% flowering as *in situ*
- ◆ Application of 25 per cent extra nitrogen is needed as compared to the normal conditions to avoid the nitrogen losses through volatilisation and denitrification.
- ◆ Zinc sulphate @ 50 kg ha⁻¹ is recommended particularly to rice due to precipitation of zinc as hydroxides and carbonates .

- ◆ Phosphorus, potassium and other limiting nutrients may also be applied on the basis of soil test values.
- ◆ Some alkali waters may be rich in nutrients like nitrogen, potassium and sulphur. Such waters should be analysed and the fertiliser dose of concerned nutrient reduced accordingly.
- ◆ Soil application of calcium bearing and amendments like Gypsum, sulphuric acid, pyrites, Passing water through gypsum beds etc., among all gypsum is the cheapest source, low cost and easy handling.
- ◆ Gypsum requirement to neutralise residual alkalinity of water: The quantity of agricultural grade gypsum (70% purity) for neutralization of each meq/L of RSC is 100 kg ha⁻¹ per irrigation. The quantity of gypsum is thus determined by the quality of water (RSC to be neutralised) and the quantity of water required for irrigation during a growing season.
- ◆ Gypsum application is recommended when high RSC waters are used for irrigation taking into consideration number of meq/L of RSC over and above the safe limit of 4 meq/L, soil texture and number of irrigations.

Gypsum to be applied Kgs/ha

No. of irrigations	RSC of water (meq/L)	RSC to be neutralized	Heavy textured soils Kg/ha	Light textured soils Kg/ha	Sandy loams	Sandy soils
5	5	5-4=1	300	200	100	Occasional gypsum application is sufficient to improve crop yield.
	6	6-4=2	600	400	200	
	7	7-4=3	900	600	300	
	8	8-4=4	1200	800	400	

- RSC less than 2.5 meq/l safe limit
 - RSC between 2.5 - 4.0 meq/l occasional gypsum application will improve the crop yield.
 - Gypsum application in splits along with each irrigation is better than single application.
- ◆ Time of application and method of application of gypsum is more important. Best method of application is through broadcast method and preferably applied at the end of the rabi crop / in the month of May or June.

Saline- Alkali water

Waters with EC_{iw} more than 4 dS/m, SAR more than 10(m mole/L)^{1/2} and RSC more than 4 meq/L called saline- alkali water.

Table: Percent distribution of Salinity + Alkalinity Irrigation water

S.No.	Name of the District	No. of samples	Good	Saline	Alkali	Salinity + Alkalinity
1	Srikakulam	602	81	8.50	10.50	19.00
2	Karimnagar	643	83.83	8.09	8.09	16.18
3	Nizambad	658	83.43	2.28	14.29	16.57
4	Adilabad	661	87.29	1.81	10.89	12.70
5	Anantapur	797	88.3	10.60	1.10	11.70
6	Vizianagaram	600	80	2.00	18.00	20.00
7	Khammam	554	78.3	1.50	20.20	21.70
8	Rangareddy (+Hyderabad)	514	72.8	6.90	20.40	27.30
9	Kurnool	622	69	9.80	21.20	31.00
10	Medak	622	71.2	2.60	26.20	28.80
11	Chittoor	712	71.3	10.60	18.10	28.70
12	Visakhapatnam	596	61	10.00	29.00	39.00

Management

- ◆ Selection of salt tolerant / sodicity tolerant crops and varieties.
- ◆ Proper irrigation and leaching practices can prevent excessive accumulation of salts in the root zone.
- ◆ Soil application of calcium bearing and amendments like Gypsum, sulphuric acid, pyrites, Passing water through gypsum beds etc., among all gypsum is the cheapest source, low cost and easy handling.
- ◆ 25% extra seed rate required compared to normal seed rate.
- ◆ Application of organic manures like FYM @ 5-10 t ha⁻¹ or application of dhaincha @ 25 kg ha⁻¹ and incorporate at 50% flowering as insitu will mitigate the adverse effect of bad quality water irrigation.
- ◆ Application of 25 per cent extra nitrogen is needed as compared to the normal conditions to avoid the nitrogen losses through volatilisation and denitrification and 50 percent more phosphoric fertilizers than recommended dose if irrigated water is rich in chlorides and the soils having low available phosphorous
- ◆ Application of Zn @ 50 kg ZnSO₄ ha⁻¹ counteracts the negative effect of higher salinity and sodicity.
- ◆ Dilution and cyclic use of good and saline waters. When good quality water is limited, it can be used as follows :
 - ★ Presowing and first irrigation should be with good quality water. Later saline water can be used.
 - ★ Poor quality water can be mixed with good water.
 - ★ Drip or pitcher irrigation is found suitable.
- ◆ Use of mulches and intercultural operations reduce water requirement of crops, thus with saline water salinity develops at a relatively lesser intensity.

ANNEXURE SRIKAKULAM WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Amadalavalasa	36	24	5	4		2	1	
2	Bhamini	15	12				3		
3	Burja	15	15						
4	Etcharlla	42	32	3		1	3	2	1
5	Ganguvarisigadam	13	8				5		
6	Gara	15	14			1			
7	Hiramandalam	15	12	1			2		
8	Itchapuram	17	17						
9	Jalumuru	13	13						
10	Kanchili	13	12				1		
11	Kaviti	14	14						
12	Kotabommalli	16	15					1	
13	Kothuru	18	14				4		
14	Lakshminarsupeta	12	11				1		
15	Laveru	20	11	3			4	1	1
16	Mandasa	18	14	1			2		1
17	Meliaputti	7	3				2	1	1
18	Nandigam	14	9	2	3				
19	Narasannapeta	18	16				2		
20	Palakonda	15	14				1		
21	Palasa	16	10	2		1		3	
22	Pathapatnam	15	15						
23	Polaki	14	11				3		
24	Ponduru	10	10						
25	Rajam	17	13	2				1	1
26	Ranastalam	15	11	3				1	
27	RegadiAmadalavalasa	15	14			1			
28	Santakaviti	20	16				4		
29	Santhabommalli	11	7	2	2				
30	Saravakota	4	3						1
31	Sarubjjili	15	9	1		1	2	2	
32	Seethampeta	15	15						
33	Sompeta	5	4	1					
34	Srikakulam	26	22	1			1	1	1
35	Tekkali	13	4	9					
36	Vajrapukotturu	15	14					1	
37	Yangara	15	15						
38	Veeraghattam	15	14				1		
	Total	602	487	36	9	5	43	15	7
	Per cent	100	80.90	5.98	1.50	0.83	7.14	2.49	1.16

VIJAYANAGARAM WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Badamgi	20	18				1	1	
2	Balijapeta	16	15				1		
3	Bhogapuram	4	1			1	2		
4	Bobbili	23	16				1	3	3
5	Bondapalli	6	5					1	
6	Chipurupalli	3	2	1					
7	Datti Rajeru	20	16	2			1	1	
8	Denkada	4	4						
9	Gajapathi Nagaram	24	13				7	3	1
10	Gartaida	18	12				1	3	2
11	Garividi	4	3	1					
12	Garugubilli	18	12				1	4	1
13	Gunmalakshmpuram	7	4				3		
14	Gurta	4	4						
15	Jami	71	60				4	6	1
16	Jiyyamavalasa	15	10				1	4	
17	Komarada	19	19						
18	Kurupam	17	16					1	
19	L Kota	19	14			1	2	1	1
20	Makkuva	20	17	1		1		1	
21	Mentada	19	16	2			1		
22	Merakamudidam	7	7						
23	Nellimarla	3	3						
24	Pachipenta	18	14				2	1	1
25	Parvathipuram	23	17				5		1
26	Pusapati rega	16	12	1			1	2	
27	Ramabhacrapuram	15	11				2	2	
28	S Kota	43	36			1	4	1	1
29	Saluru	21	16				2	3	
30	Seethanagaram	41	32				4	2	3
31	Terlam	20	19						1
32	Vepada	28	25				3		
33	Vijayanagaram	14	11				2	1	
	Total	600	480	8	0	4	51	41	16
	Percent	100.00	80.0	1.0	0.00	1.00	8.5	7.0	2.5

VIJAYANAGARAM WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Badamgi	20	18				1	1	
2	Balijapeta	16	15				1		
3	Bhogapuram	4	1			1	2		
4	Bobbili	23	16				1	3	3
5	Bondapalli	6	5					1	
6	Chipurupalli	3	2	1					
7	Datti Rajeru	20	16	2			1	1	
8	Denkada	4	4						
9	Gajapathi Nagaram	24	13				7	3	1
10	Gantaida	18	12				1	3	2
11	Garividi	4	3	1					
12	Garugubilli	18	12				1	4	1
13	Gummalakshmiapuram	7	4				3		
14	Gurla	4	4						
15	Jami	71	60				4	6	1
16	Jiyamavalasa	15	10				1	4	
17	Komarada	19	19						
18	Kuruppam	17	16					1	
19	L Kota	19	14			1	2	1	1
20	Makkuva	20	17	1		1		1	
21	Mentada	19	16	2			1		
22	Merakamudidam	7	7						
23	Nellimarla	3	3						
24	Pachipenta	18	14				2	1	1
25	Parvathipuram	23	17				5		1
26	Pikapati rega	16	12	1			1	2	
27	Ramabhadrapuram	15	11				2	2	
28	S Kota	43	36			1	4	1	1
29	Saluru	21	16				2	3	
30	Seethanagaram	41	32				4	2	3
31	Terlam	20	19						1
32	Vepada	28	25				3		
33	Vijayanagaram	14	11				2	1	
	Total	600	480	8	0	4	51	41	16
	Percent	100.00	80.0	1.0	0.00	1.00	8.5	7.0	2.5

VISAKHAPATNAM WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Achutapuram	9	3	3			1	1	1
2	Anakapalli	13	10			1	1		1
3	Anandapuram	8	4				3	1	
4	Anathagiri	12	11				1		
5	Arakavalley	2	2						
6	Bheemunipatnam	15	14	1					
7	Butchyapeta	18	14				1	1	2
8	Cheedikada	25	16				5	3	1
9	Chinagadila	10	5	4	1				
10	Chodavaram	72	53				12	4	3
11	Devarapalli	16	8				4	4	
12	Elamanchili	34	23	5	1		4	1	
13	G.Madugula	13	4	1			4	2	2
14	Gajuvaka	3	2			1			
15	Golugonda	20	5	1		9	4		1
16	Hukumpeta	8	7				1		
17	K Kotapadu	33	15	4			5	9	
18	Kasimkota	2	2						
19	Kotauratla	27	19				3	4	1
20	Koyyuru	12	6	1	1		1		3
21	Madugula	34	22				6	5	1
22	Makavara Palem	2					1	1	
23	Munagabaka	10	7	1			2		
24	Narsipatnam	14	9				3	2	
25	Natavaram	19	13				5		1
26	Paderu	5	3	1			1		
27	Padmanabham	23	16			1	2	4	
28	Paravada	11	7	1			2	1	
29	Payakaraopet	31	22			6	3		
30	Pedagantyada	6	2	1		1	1	1	
31	Pendurthi	6	4	1	1				
32	Rambilli	25	6			1	3	15	
33	Ravikamatham	19	12	1		1	4	1	
34	Rolugunta	13	7				5	1	
35	S Rayavaram	16	5	1	1	5		2	2
36	Sabbavaram	7	4			1		1	1
37	Visakhapatnam	3	1					1	1
	Total	596	363	27	5	27	88	65	21
	Percent	100	61.0	4.5	1.0	4.5	14.5	11.0	3.5

EAST GODAVARI WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Addateegala	5	5						
2	Amalapuram	4	3	1					
3	Kapileswarapuram	7	5	2					
4	Korukonda	20	17	3					
5	Kothapeta	1	1						
6	Maredumilli	2	2	1					
7	Mummidivaram	3	2	1					
8	P.Gannavaram	4	3						
9	Peddapuram	16	16	1					
10	Pithapuram	13	10		1		1		
11	Rampachodavaram	1	1						
12	Rangampeta	12	6	6					
13	Rayavaram	5	4	1					
14	Razole	3	3						
15	Samalkota	5	5						
16	Sankhavaram	1	1						
17	Thallarevu	22	20	2					
18	Tuni	5	4	1					
	Total	129	108	19	1	0	1	0	0
	Percentage	100	83.7	14.7	0.8	0.0	0.8	0.0	0.0

WEST GODAVARI WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Achanta	16	11	4			1		
2	Akividu	12	9	1	2				
3	Attili	14	9	3	1		1		
4	Bhimadolu	3	2	1					
5	Bhimavaram	8	6	1	1				
6	Buttayigudem	42	37	2	1		2		
7	Chagallu	35	35						
8	Chintalapudi	15	11	3	1				
9	Denduluru	6	4	1	1				
10	Devarapalli	11	6	2			3		
11	Dwarka Thirumala	13	12	1					
12	Eluru	8	8						
13	Ganapavaram	10	7	2	1				
14	Gopalapuram	26	26						
15	Iragavaram	10	8	1	1				
16	Jangareddygudem	37	37						
17	Jeelugumilli	29	29						
18	Kalla	8	6	1	1				
19	Kamavarapukota	21	18	1	1	1			
20	Kovvuru	30	18	7			5		
21	Koyalagudem	39	39						
22	Lingapalem	16	16						
23	Mogalthuru	12	7	3	2				
24	Nallajerla	20	16	1	1		2		
25	Narasapuram	20	18	1	1				
26	Nidadavolu	22	22						
27	Nidamarru	14	8	2	1		2	1	
28	Palakoderu	12	10	1	1				
29	Palakollu	15	12	1	1		1		
30	Pedapadu	14	7	3			4		
31	Pedavegi	57	35	9			13		
32	Pentapadu	10	4	6					
33	Penugonda	8	7	1					
34	Penumantra	10	5	1			4		
35	Peravali	26	23	1			2		
36	Poduru	12	10	2					
37	Polavaram	23	20	1	1		1		
38	T.Narasapuram	10	8	1	1				
39	Tadepalligudem	2	2						
40	Tallapudi	20	20						
41	Tanuku	18	14	2			2		
42	Undi	12	8	2	2				
43	Undrajavaram	10	8	2					
44	Unguturu	2		2					
45	Veeravasaram	14	12	1			1		
46	Yalamanchili	12	12						
	Total	784	642	74	22	1	44	1	0
	Percentage	100.0	82.0	9.4	2.8	0.1	5.6	0.1	0.0

KRISHNA DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Agiripalli	8	3	5					
2	Avanigadda	8	2	2	2	2			
3	Bantumilli	6	4	2					
4	Bapulapadu	3	2	1					
5	Chandarlapadu	14	14						
6	G.Konduru	29	26	3					
7	Gannavaram	4	3	1					
8	Ghantasala	3	3						
9	Gudivada	2	1	1					
10	Gudlavalleru	12	8	4					
11	Ibrahampatnam	32	24	5	3				
12	Jaggayyapet	26	25	1					
13	Kanchikacharla	18	10	5	3				
14	Kankipadu	19	14				5		
15	Machilipatnam	10	6		2			2	
16	Mopidevi	2	2						
17	Movva	10	2				5	3	
18	Musunuru	6	4	2					
19	Mylavaram	13	10	2			1		
20	Nagayalanka	8	6	2					
21	Nandigama	22	18	4					
22	Nuziveedu	20	12	4			4		
23	Pamaru	19	10	1		1	2	5	
24	Pamidimukkala	45	23	10	4		8		
25	Pedana	15	7	3	1	1	3		
26	Pedaparupudi	10	5	2	1		2		
27	Penamaluru	21	15	3	1		2		
28	Penuganchiprotu	14	12				2		
29	Thotlavelluru	21	17	2			2		
30	Tiruvuru	12	10	2					
31	Unguturu	4	4						
32	Vatsavai	10	8				2		
33	Veerullapadu	9	8				1		
34	Vijayawada(Rural)	11	8	2			1		
35	Vissannapeta	10	6	2			2		
36	Vuyyuru	15	8	3	1		3		
	Total	491	340	74	18	4	45	10	0
	Percentage	100.0	69.2	15.1	3.7	0.8	9.2	2.0	0.0

GUNTUR DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Achampete	6	5	1					
2	Amaravathi	27	22	2			3		
3	Amruthaluru	3	3						
4	Bapatla	5	3	1			1		
5	Bellamkonda	14	10	2	1		1		
6	Bhattiprolu	18	1	10	7				
7	Bollapalli	8	6	1			1		
8	Chebrolu	2	2						
9	Chinakupati	8	6	1			1		
10	Chilakaluripeta	16	13	1	1		1		
11	Chundur	5	4	1					
12	Dachipalli	8	6	2					
13	Duggirala	4	3	1					
14	Durgi	6	6						
15	Evuru	14	10	3	1				
16	Guntur	6	5		1				
17	Gurajala	6	5	1					
18	Kakumanu	8	6	1	1				
19	Karempudi	4	3	1					
20	Karlapalem	6	3	2	1				
21	Kollipara	38	29	6	3				
22	Kolluru	5	2	2	1				
23	Krosuru	6	5	1					
24	Machavaram	10	6	3	1				
25	Macherla	5	4	1					
26	Mangalagiri	54	38	7	5		4		
27	Merikonduru	8	3	3	1		1		
28	Muppalla	6	4	2					
29	Nadendla	14	5	2	2		1	3	1
30	Nagaram	6	2	3	1				
31	Nakirikallu	4	4						
32	Narasaraopeta	5	4	1					
33	Nizampatnam	16	8	7	1				
34	Nujendla	6	4	2					
35	Pedakakani	22	18	2			2		
36	Pedakurapadu	14	10	3	1				
37	Pedanandipadu	15	11	2	1		1		
38	Phirangipuram	5	4				1		
39	Piduguralla	14	10	2			2		
40	Pittalavanipalem	6	3	2	1				
41	Ponnuru	141	52	31	2	2.0	3	49	2
42	Prathipadu	2	1					1	
43	Rajupalem	4	2				2		
44	Rentachintala	5	4	1					
45	Repalle	20	14	5	1				
46	Rompicherla	6	5	1					
47	Sattenapalli	4	3	1					
48	Tadepalli	60	55	3	2				
49	Tadikonda	30	27	2			1		
50	Tenali	3	2				1		
51	Tulluru	38	30	4			4		
52	Vatticherukuru	4	3	1					
53	Veldurthi	6	4	1	1				
54	Vemuru	2	2						
55	Vinukonda	12	8	3	1				
56	Yedapadu	4	3	1					
57	Tsundur	25	20	2	1		2		
58	Venigendla	6	4	1			1		
		805	535	139	39	2	34	53	3
		100.0	66.5	17.3	4.8	0.2	4.2	6.6	0.4

PRAKASAM DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Addanki	1	1						
2	Arthaveedu	6	4	2					
3	Bestavaripeta	6	4	1			1		
4	Chimakurti	3	3						
5	Chinaganjam	8	6	1			1		
6	Chirala	6	5	1					
7	Cumbum	2	1	1					
8	Darsi	6	4	1			1		
9	Donakonda	2	2						
10	Domala	4	3	1					
11	Giddaluru	10	10						
12	Guduru	2	2						
13	Hanumanthunipadu	4	3	1					
14	Inkollu	6	5	1					
15	Janakavaram Panguluru	3	3						
16	Jarugumalli	4	4						
17	Kandukuru	23	17	4			1	1	
18	Kanigiri	12	9	3					
19	Karamchedu	2	2						
20	Komarolu	4	3	1					
21	Konakanamitla	4	4						
22	Korisapadu	2	2						
23	Kurichedu	2	2						
24	Lingasamudram	4	3	1					
25	Markapur	2	1	1					
26	Marripudi	4	2	2					
27	Marturu	6	6						
28	Mundlamuru	4	4						
29	Naguluppapadu	6	4	1		1			
30	Ongole	8	7	1					
31	Pamooru	9	8	1					
32	Parchuru	4	3	1					
33	Pedaaraveedu	3	2	1					
34	Pedacheripalli	1	1						
35	Podili	6	2	4					
36	Ponnaluru	6	5	1					
37	Pullalacheruvu	8	5	2			1		
38	Racharla	3	3						
39	Santhanuthlapadu	2	2						
40	Singarayakonda	2	1	1					
41	Talluru	2	2						
42	Tanguturu	4	4						
43	Tarlupadu	3	3						
44	Ulavapadu	9	8	1					
45	Veligandala	10	6	2	2				
46	Vetapalem	2	2						
47	Voletivaripalem	3	3						
48	Yaddanapudi	4	4						
49	Yerragondapalem	8	7		1				
50	Turumella	1	1						
	Total	246	198	38	3	1	5	1	0
	Percentage	100.0	80.5	15.5	1.2	0.4	2.0	0.4	0.0

NELLORE DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Udayagiri	21	7				7	7	
2	Seethampuram	21	12				5	4	
3	Duthalur	20	11				6		3
4	Varikuntapadu	20	4				9	7	
5	Marripadu	20	2				5	7	6
6	Kondapuram	35	3	1			1	18	12
7	Vinjampur	25	6				8	8	3
8	Kaligiri	28	3	2			4	10	9
9	Kavali	5	3			1			1
10	Indukurpet	30	4				14	10	2
11	Kodavalur	24	2	1		1	6	7	7
12	Podalakur	30	5	1			9	12	3
13	Rapur	30	17	1			5	6	1
14	Nellore	20	2	2		2	2	6	6
15	Venkatachalam	20	4	1	1	3	3	3	5
16	Muthukur	25	12			1	5	1	6
17	Thotapalligudur	23					7	2	14
18	Kovur	16		6		5	3	2	
19	Butchireddyapalem	16	2	1		1	6	5	1
20	Sangam	23	9				7	3	4
21	Ananthasagaram	23	16	2				1	4
22	Atmakur	5				4		1	
23	Anumasamudrampeta	5	1	1	1	1	1		
24	Alluru	15	9	4				2	
25	Vidavalur	9	4				4	1	
26	Chejarla	21	9				4	6	2
27	Kaluvoy	22	11				2	6	3
28	Venkatagiri	25	15	6			3	1	
29	Balaypalli	20	16			1	1	1	1
30	Naidupeta	22	11	2			3	4	2
31	Pellakur	17	11	1			3	2	
32	Tada	20	15	3				2	
33	Sullurpeta	25	10	3	1		7	2	2
34	Kota	20	16	2			1		1
35	Vakadu	20	5	4		2	5	1	3
36	Sydapuram	20	9	2	1		4	3	1
37	Dakkali	19	15				2	1	1
38	Doravarisatram	16	8				2	5	1
39	Chilakur	20					6	14	
40	Guduru	20	8				5	5	2
41	Djili	21	5			1	5	3	7
42	Manubrolu	14	4	1			6	1	2
43	Bogolu	20	13	5			2		
44	Jaladhanki	20	14	1			2	3	
45	Dagadarthi	20	17	2		1			
46	Chitteur	18	12	3			2		1
		929	362	58	4	24	182	183	116
		100.0	39.0	6.2	0.4	2.6	19.6	19.7	12.5

CHITTOOR DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	B. Kothakota	5	1	1		1	1	1	
2	Baireddypalli	5	5						
3	Bangarupalem	13	8	1			4		
4	BN Kandriga	14	12	1			1		
5	Chandragiri	20	17	2			1		
6	Chinnago ttigattu	8	2	1			4	1	
7	Chittoor	11	7	1	2			1	
8	Chowdepalli	8	2	3		3			
9	Gangadharanellore	13	6	2			4	1	
10	Gangavaram	8	7	1					
11	Gudipala	11	10				1		
12	Gurramkonda	6	6						
13	Irala	11	7	1			2	1	
14	KVB Puram	14	10	2			2		
15	K. V Palle	5	5						
16	Kalakada	6	4	1		1			
17	Kaligiri	9	5	1			3		
18	Karvetinagar	20	11	1			7	1	
19	Kurubalakota	5	5						
20	Madanapalli	7	4	2				1	
21	Molaka lacheruvu	4	3				1		
22	Nagalapuram	13	11	2					
23	Nagari	8	2	5		1			
24	Narayana varam	20	19				1		
25	Nimmana palli	5	3				2		
26	Nindra	18	10	5			1	2	
27	P.T.M	4	1				3		
28	Pakala	19	18				1		
29	Palamneru	5	5						
30	Pasamudram	13	10	1			1	1	
31	Peddamandyam	8	7				1		
32	Peddamanjiri	8	6	2					
33	Penumuru	11	8	1			1	1	
34	Pichatur	23	15	8					
35	Piler	8	8						
36	Pothalapadu	11	4	2			2	1	2
37	Pulicherla	20	15				3	2	
38	Pungunuru	10	8				2		
39	Puttur	20	8				8	4	
40	Ramakuppam	5	5						
41	Ramasamudram	8	6				2		
42	RC Puram	5	5						
43	Renigunta	32	15				4	11	2
44	Rompacherla	7	7						
45	SR Puram	8	3				4	1	
46	Satyaveedu	5	5						
47	Shantipuram	5	5						
48	Somala	3	3						
49	Srikalahasti	26	25	1					
50	TV Palle	3	2				1		
51	Thambalapalle	4	3	1					
52	Thavanampalli	7					1		4
53	Thottambedu	38	34				2	2	
54	Tirupati (R)	14	8				4	2	
55	Tirupati (U)	14	10	4					
56	V.Kota	5	5						
57	Vadammaipet	20	15	3			2		
58	Vadaiahpalem	3	3						
59	Vayalpadu	8	4	4					
60	Vedurukuppam	20	18				2		
61	Vijayapuram	8	4			1	2	1	
62	Yadamarre	11	7	1			1	2	
63	Yerpedu	18	17	1					
64	Yerravaripalem	8	4	4					
		712	508	66		7	82	39	8
		100	71.3	9.3	0.3	1.0	11.5	5.5	1.1

KADAPA DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Attulur	12	6				1	5	
2	B. Kodur	6					1	4	1
3	Badvel	10	4	3			2	1	
4	Brahmamgarimatam	7	6				1		
5	C. K. Dinne	5	2				1		2
6	Chakrayapeta	8	8						
7	Chapadu	4	2	2					
8	Chennuru	7	4	1		2			
9	Chinamandem	12	11				1		
10	Chitvel	7	7						
11	Duwwur	12	11	1					
12	Gaaliveedu	6	6						
13	Gopavaram	11	7			2		2	
14	Jammalamadugu	12	7	1		1		3	
15	Kadapa	7	1			1	2	1	2
16	Kalaspada	6	3				3		
17	Kamalapuram	12	4	1		2		2	3
18	Khajipeta	10	6	3		1			
19	Kondapuram	10	2				1	3	4
20	L. R. Palle	8	6	2					
21	Lingala	16	12				3	1	
22	Mardalur	12	2				6	3	1
23	Muddanur	12	3				3	6	
24	Mycukur	11	10				1		
25	Mylavaram	11	11						
26	Obulavaripalle	5	3	2					
27	Peddamocium	12	11	1					
28	Penagaluru	12	8				2	1	1
29	Pendlimarri	5	4	1					
30	Porumamilla	11	4	2			2	2	1
31	Proddatur	11	8				1	1	1
32	Pulivendaia	18	10				3	5	
33	Pullampeta	4	3	1					
34	R. S. Kondapuram	2	0	1				1	
35	Rajampet	12	10	1				1	
36	Rajapalem	12	5	1		4	1		1
37	Ramapuram	11	3	2	2		1	2	1
38	Rayachoty	8	4	2	1		1		
39	Rly.Koduru	9	8	1					
40	S A K N	10	1			1	3	4	1
41	Sambapalle	13	7	1				5	
42	Sidhout	12	11			1			
43	Simhadripuram	16	8				5	2	1
44	Tonduru	14	5				3	3	3
45	Valluru	6	3				1		2
46	Veerasalu	12					3	8	1
47	Veerupunayanapalle	5	1	2			1		1
48	Vemla	12	12						
49	Vempalli	19	11				6	2	
50	Vontimitta	11	10						1
51	Yerraguntla	5	2						3
	Total	501	293	32	3	15	59	68	31
	Percent	100	58.48	6.39	0.60	2.99	11.78	13.57	6.19

KURNOOL DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Adoni	15	5	2	1	3	3	1	
2	Kowthalam	26	20	3	2		1		
3	Bethamcherla	11	6				4		1
4	Peapally	12	7				3	2	
5	Veldurthy	12	4				2	1	5
6	Krishnagiri	9	7					2	
7	Dhone	10	4	1				3	2
8	Gucur	7	4					1	2
9	Kurnool	14	10	2			1	1	
10	Kallur	24	11			5	2	3	3
11	Kodumur	8					5		3
12	Pattikonda	13	7	2			3	1	
13	Devanakonda	22	12	1			4	3	2
14	Maddiker	27	20	2			3	1	1
15	Aluru	11	3	4			3	1	
16	Chippagiri	17	14	1					2
17	Midthur	17	14	2			1		
18	Orvakal	13	6	3			3	1	
19	Nardikotkur	14	11	3					
20	Jupadubungalow	17	12			1	2	1	1
21	Pedakadavur	5	3				1	1	
22	Velugodu	15	14				1		
23	Pamulapadu	22	21				1		
24	Kottapalli	11	9				2		
25	Atmakur	17	13				2	2	
26	Bandiatmakur	21	14				4	3	
27	Koilkunta	17	13	1			3		
28	Mahanandi	18	18						
29	Panyam	8	7	1					
30	Garivemula	19	18				1		
31	Owk	11	7	1			3		
32	Siruvet	17	17						
33	Rudravaram	10	7				3		
34	Banganapalli	12	5	2			1	4	
35	Sanjamala	8	7				1		
36	Kolimigundla	11	11						
37	Allagadda	11	6	3			1	1	
38	Chagalamarri	15	12				3		
39	Nardyal	10	7	3					
40	Gospadu	6	6						
41	Yemmiganuru	16	11	1	1	1	2		
42	Nardavaram	19	9	2	2	3	1	2	
43	Mantraiyam	15	10	2				2	1
44	Goregandla	9	7				1		1
	Total	622	429	42	6	13	71	37	24
	Percentage	100.0	69.0	6.8	1.0	2.0	11.4	5.9	3.9

ANANTHAPUR DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Agali	4	4						
2	Amadagur	6	5	1					
3	Amarapuram	2	2						
4	Anantapur	2	2						
5	Atmakur	3	2				1		
6	Beluguppa	4	3	1					
7	Brahmasamudram	2	2						
8	Bukkapatnam	4	3	1					
9	Chennekothapali	34	33		1				
10	Dharmavaram	63	61	2					
11	Gooty	38	36	2					
12	Gorantla	6	4	1			1		
13	Gucibanda	3	1	1			1		
14	Gummagatta	4	2	2					
15	Guntakal	2	2						
16	Hindupur	31	28	3					
17	Kadiri (West)	57	52	4	1				
18	Kalyandurg	64	61	2					
19	Kambadur	46	43	2			1		
20	Kanekal	19	12	7					
21	Kuderu	42	38	1	3				
22	Kundurpi	4	3	1					
23	Macakasira	55	33	19	3				
24	Mudigubba	8	5	2			1		
25	Nallacheruvu	6	4	1			1		
26	Nallamada	4	3	1					
27	Nambulapulikunta	5	4	1					
28	Narpala	2	2						
29	Obuladevaracheruvu	4	4						
30	Pamidi	3	3						
31	Parigi	2	2						
32	Peddapappur	2	1	1					
33	Pcnugonda	85	76	7			2		
34	Puttaparthi	6	5	1					
35	Ramagiri	4	2	1			1		
36	Raptadu	2	1	1					
37	Rayadurg	36	31	4		1			
38	Roddam	3	2	1					
39	Rolla	2	2						
40	Singanamala	37	36	2					
41	Somandepalli	4	3	1					
42	Tadiparthi	50	49	1					
43	Talupula	2	2						
44	Uravakonda	16	16						
45	Vajrakarur	2	2						
46	Vidapanakal	3	3						
47	Yadiki	2	2						
48	Kadiri (East)	12	12						
	Total	797	704	75	8	1	9	0	0
	Percentage	100.0	88.3	9.5	1.0	0.1	1.1	0.0	0.0

KARIMNAGAR DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Bejjanki	11	6	2	1		1	1	
2	Bhimdevarapalli	22	12	4			3	3	
3	Chandruthi	7	7						
4	Chigurumamidi	13	12				1		
5	Choppadandi	10	10						
6	Dharmapuri	18	13	2			2	1	
7	Dharmaram	20	14	4			2		
8	Elkaturti	10	10						
9	Gambiraopet	13	11	1			1		
10	Gargadhara	11	11						
11	Golapalli	10	10						
12	Husnabad	15	8	6			1		
13	Huzurabad	21	21						
14	Ibrahimpattanam	16	16						
15	Illathakunta	13	7			1	2	1	2
16	Jagtial	4	4						
17	Jammikunta	10	10						
18	Jooapalli	11	8	2			1		
19	Kamalapur	21	21						
20	Kamanpur	21	7	13			1		
21	Karimnagar	10	10						
22	Kataram	10	10						
23	Kathalapur	13	13						
24	Kesavapatnam	10	10						
25	Kodimyal	10	7	2			1		
26	Koheda	13	11	2					
27	Konaraopet	11	10	1					
28	Korutla	21	21						
29	Malhar	21	17						4
30	Malapoor	18	18						
31	Malyal	8	7				1		
32	Marakondur	11	11						
33	Manthani	20	16				1		3
34	Medipalli	7	7						
35	Metpally	13	11				1		1
36	Mustabad	4	3	1					
37	Mutharam	10	9				1		
38	Odela	10	10						
39	Pedapalli	12	9	1			2		
40	Pegadapalli	11	11						
41	Ramagundam	11	11						
42	Ramdugu	8	4			1	3		
43	Raykat	15	15						
44	Saidapur	10	10						
45	Sirisilla	10	9					1	
46	Sulthanabad	12	11	1					
47	Thimmapur	12	8	3	1				
48	Veenavanka	10	7				2	1	
49	Velgatour	11	5	1			3	2	
50	Vemulavada	10	7	2			1		
51	Yellareddypet	14	13					1	
Total		643	539	48	2	2	31	11	10
Percent		100.00	83.83	7.47	0.31	0.31	4.82	1.71	1.56

NIZAMABAD DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Armur	15	15						
2	Balkonda	6	6						
3	Banswada	17	12	1			3		1
4	Bheemgal	16	16						
5	Bhiknoor	24	22				2		
6	Bichkunda	22	13	2			4	1	2
7	Birkoor	13	6				5	2	
8	Bordhan	36	26			4	2	2	2
9	Dharpalle	20	20						
10	Dichpalle	22	19				2	1	
11	Domakonda	20	18			1	1		
12	Gandhari	29	27				1		1
13	Jakranpalle	15	15						
14	Jukkal	20	17				1	1	1
15	Kamareddy	21	20	1					
16	Kammarapalle	8	8						
17	Kotgiri	15	7			1	1	6	
18	Lingampet	26	19				4	1	2
19	Machareddy	33	28	1			4		
20	Madnoor	18	15	1			1		1
21	Maklor	5	4					1	
22	Mortad	26	25				1		
23	Nagireddipet	14	9			1	3		1
24	Navipet	14	12				2		
25	Nizambad	22	19			1	2		
26	Nizamsagar	17	13				3	1	
27	Pitlam	22	16				3	3	
28	Ranjal	19	16	1				1	1
29	SadaSivaNagar	29	26				3		
30	Tadwai	20	20						
31	Varni	12	11				1		
32	Velpur	15	15						
33	Yedpalle	27	23				3	1	
34	Yellareddy	20	11				8		1
	Total	658	549	7	0	8	60	21	13
	Percent	100	83.43	1.06	0.00	1.22	9.12	3.19	1.98

ADILABAD DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Adilabad	23	21	1				1	
2	Asifabad	13	5	1			3	4	
3	Bazarhathnur	12	11				1		
4	Bejjur	12	11	1					
5	Belc	12	12						
6	Bellampally	13	12				1		
7	Bhainsa	12	11				1		
8	Bheemint	12	12						
9	Boath	12	12						
10	Chennur	13	12				1		
11	Dahegaon	12	12						
12	Dandepally	12	8				4		
13	Dilawarpur	13	12				1		
14	Echoda	12	11				1		
15	Gudihatnoor	12	11				1		
16	Indervelly	12	12				1	2	
17	Jainad	14	8					3	
18	Jainoor	12	12						
19	Jaipur	13	10	1			1	1	
20	Jannaram	12	12						
21	Kaddam	12	12						
22	Kaghaznagar	13	13						
23	Kasipet	12	9				2	1	
24	Katapally	9	7				1	1	
25	Kerameri	13	13						
26	Khanapur	12	11	1					
27	Kowthala	12	11					1	
28	Kubheer	12	10				2		
29	Kuntala	12	7				5		
30	Laxmanchanda	13	13						
31	Lokeshwaram	12	12						
32	Luxettipet	13	12				1		
33	Mamada	13	12	1					
34	Manchireal	13	13						
35	Mandamarri	11	11						
36	Mudhole	28	24	1		1	2		
37	Narnoor	12	12						
38	Nennel	11	9				1	1	
39	Neradigonda	12	9				2	1	
40	Nirmal	14	14						
41	Robbena	12	7	1		1	2		1
42	Sarangapur	14	14						
43	Sirpoor(U)	11	11						
44	Sirpur(T)	11	8				2	1	
45	Talamadugu	13	13						
46	Tamsi	12	12						
47	Tandur	11	7			1	1		2
48	Tanoor	12	8				2		2
49	Thiryani	12	6				6		
50	Utnoor	12	12						
51	Vemanapalli	12	12						
52	Wankidi	12	6	1			2	2	1
Total		661	577	9	0	3	47	19	6
Percent		100.00	87.29	1.36	0.00	0.45	7.11	2.87	0.91

WARANGAL DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Atmakur	12	4	1			3	4	
2	Bachannapet	12	7				5		
3	Bhupalapalli	7	6	1					
4	Chennaraopet	12	6	4	1		1		
5	Cherial	12	2	2			3	5	
6	Chityal	11	4	5			1		1
7	Devaruppal	12	7	2			2	1	
8	Dharmasagar	12	10	1			1		
9	Dornakal	19	13	1			5		
10	Duggondi	12	3				2	7	
11	Eturunagaram	12	8				1	3	
12	Geesgonda	12	4				1	7	
13	Ghanpur (Mulugu)	12	10	1			1		
14	Ghanpur (Station)	12	7				2	3	
15	Govindaraopet	14	3				4	7	
16	Gucur	12	5				5	1	1
17	Haramakonda	13	10	2				1	
18	Hasanparthy	12	7	1	2		1	1	
19	Jangam	12	3					9	
20	Kesamudram	12	6	1			4	1	
21	Khanapur	12	6	2			3	1	
22	Kodakondla	16	14				2		
23	Kothaguda	12	4					8	
24	Kuravi	12	8	4					
25	Lingalaghanapur	12	2					10	
26	Marour	12	11				1		
27	Mahabubabad	12	5	3			3	1	
28	Mangapet	10	4				2	4	
29	Maripeda	12	12						
30	Mogullapally	10	3	1			1	5	
31	Mulugu	12	11					1	
32	Nallabelly	12	10	1			1		
33	Narasimhulapeta	14	9				3	2	
34	Narimetta	12	0	1			3	8	
35	Narsampet	12	10	1				1	
36	Nekkonda	12	5	1			2	4	
37	Nellikuduru	15	14				1		
38	Palakurthy	12	10			1		1	
39	Parkal	12	4				2	5	1
40	Parvathagiri	10	3	2			4	1	
41	Raghunadhapalli	12	1				1	10	
42	Rayaparthi	14	8	1			2	3	
43	Regonda	12	1				3	6	2
44	Sangem	9	1	1			1	6	
45	Shayampet	12	5				4	3	
46	Tadwai	12	9				1	2	
47	Thorrur	13	8				3	2	
48	Venkatapur	12	9	2			1		
49	Wardhannapet	12	9				2	1	
50	Zaffargadh	12	9	1			2		
	Total	607	330	43	3	1	90	135	5
	Percent	100.00	54.4	7.1	0.5	0.2	14.8	22.2	0.8

KHAMMAM DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Aswaraopeta	61	61						
2	Bhadrachalam	31	28	1			1	1	
3	Burgampahad	19	12				4	2	1
4	Chandrugonda	8	7				1		
5	Cherla	62	53				5	4	
6	Chintur	23	21				2		
7	Dammapeta	33	33						
8	Dummugudem	16	11				4	1	
9	Khamman(Rural)	20	19				1		
10	Kothagudem	29	12				11	4	2
11	Kukunoor	17	15				2		
12	Kuravaram	15	7				1	3	4
13	Machira	32	13				9	9	1
14	Maruguru	26	16	1			3		6
15	Mukalapalle	29	29						
16	Palvancha	4	4						
17	Penuballi	16	9				4	3	
18	Pinapaka	17	17						
19	Sathupalle	16	15				1		
20	Vararamachandrapuram	15	11			1	1	2	
21	Vemsoor	39	22	5			6	6	
22	Venkatapuram	8	7				1		
23	Wazeed	6	3				3		
24	Wyra	12	9				3		
	Total	554	434	7	0	1	63	35	14
	Percentage	100.0	78.3	1.3	0.0	0.2	11.4	6.3	2.5

MEDAK DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Alladurga	12	4				3	5	
2	Andol	15	14				1		
3	Chegunta	12	11				1		
4	Chinakodur	12	11					1	
5	Doulathabad	12	10					2	
6	Dubbak	15	13				2		
7	Gajwel	14	7				3	4	
8	Hathnura	15	12	1			1	1	
9	Jagadevapur	14	9	1			2	2	
10	Jharasangam	13	12				1		
11	Jinnaram	15	14				1		
12	Kalher	14	5				4	5	
13	Kangti	12	7				5		
14	Kohir	12	5				3	4	
15	Kondapaka	15	5	3			4	3	
16	Kondapur	15	13				1	1	
17	Kowdipatti	14	8				5	1	
18	Kulcharam	12	9	1			2		
19	Mannor	12	10				2		
20	Medak	16	14				2		
21	Meerdoddi	12	8				2	2	
22	Mulug	12	9				3		
23	Munpalle	15	9					5	1
24	Nanganur	14	8				4	2	
25	Narayankhed	13	8				2	3	
26	Narsapur	15	15						
27	Nyalkatt	16	12				2	2	
28	Papannapet	14	13					1	
29	Patanchervu	15	8	3			1	2	1
30	Pulkal	17	14				3		
31	R. C. Puram	8	6	1				1	
32	Raikod	11	10				1		
33	Ramayampet	15	10				1	4	
34	Rcgod	12	8				2	2	
35	Sadashivapet	15	11				1	2	1
36	Sangareddy	15	11	3				1	
37	Shankampet (R)	13	12					1	
38	Shankampet (A)	9					1	8	
39	Shivampet	15	15						
40	Siddipet	14	11	1			2		
41	Teknal	19	6				6	7	
42	Thoguta	12	7				3	2	
43	Tooran	15	12	1				2	
44	Varagal	10	8				1	1	
45	Yeldurthi	13	10				3		
46	Zaheerabad	12	9				3		
	Total	622	443	15	0	0	84	77	3
	Percent	100	71.2	2.6	0.0	0.0	13.5	12.2	0.5

MAHABOBNAGAR DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Bigenepalli	26	18	2			5	1	
2	Kosangi	16	15					1	
3	Bomaraspetta	15	12				2	1	
4	Kodamgal	19	16	1			1	1	
5	Dou,athabed	16	13				2	1	
6	Maddur	10	8				1	1	
7	Damargidda	15	12				1	2	
8	Narayanpet	10	3				2	5	
9	Urkiur	13	7				4	7	
10	Makthal	17	4				8	5	
11	Vaddapalli	18	13				4	1	
12	Manopad	12	8		1		2	1	
13	Alampur	15	14	1					
14	Vaddepally	16	8	4			1	2	1
15	Kollapur	15	12	1	1		1		
16	Koderu	15	3				3	7	2
17	Weepangandla	15	10				2	2	1
18	Pangal	15	8	2			2	3	
19	Bamoor	22	10	11			1		
20	Achampet	11	5	6					
21	Uppunthala	9	7	2					
22	Lingal	19	18	1					
23	Amrabad	11	8				3		
24	Koyalkonda	11	6	-	-	-	2	3	-
25	Mahaboobnagar	50	34	-	-	-	11	4	1
26	Nawabpet	53	34	-	-	-	11	8	-
27	Hanwad	8	5	-	-	-	2	1	-
28	Jadcherla	44	21	-	-	-	7	16	-
29	Balanagar	9	6	-	-	-	2	1	-
30	Butpur	40	17	-	-	-	8	15	-
31	Maloakal	18	-	-	-	-	13	4	1
32	Shadnagar	12	5	-	-	-	3	4	-
33	Keshampet	21	15	-	-	-	3	3	-
34	Kottur	20	18	-	-	-	-	2	-
35	Kondurgu G H	27	20	-	-	-	6	1	-
36	Talakonadapalli	29	9	-	-	-	9	11	-
37	Amangal	17	5	-	-	-	5	6	1
38	Madugula	5	2	-	-	-	-	2	1
39	Vangoor	17	5	-	-	-	7	7	3
40	Weldonda	23	22	-	-	-	1	-	-
41	Kalyakurthi	15	14	-	-	-	1	-	-
42	Nakar karnool	31	10				10	7	4
43	Tadoor	20	6	1	1		2	5	5
44	Telkapally	27	12				7	8	
45	Pedakothapalli	7	2				3		2
46	Gopal Pet	15	9				4	2	
47	Peboair	23	13				6	4	
48	Wanaparthi	23	12				7	4	
49	Peddmandadi	10	8				1	1	
50	Ghanapur	8	5				3		
51	Kothakota	19	8				4	6	1
52	Atmakur	11	3				6	2	
53	Narva	7					1	5	1
54	CC. Kunta	13	1				5	6	1
55	Devarkadra	8	4				4		
56	Dhanwada	36	8	1			5	11	11
57	Dharoor	17	17						
58	Ghattu	4	2				1	1	
59	Lee'a	6					2	3	1
60	Gadwal	26	16				7	3	
61	Maldakal	15	11				1	3	
62	Timmajipet	20	14				2	4	
63	Maganoor	13	7				4	2	
	Total	1128	633	33	3	0	216	206	37
	Percentage	100	56.1	2.9	0.3	0.0	19.1	18.3	3.3

NALGONDA DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Chivemula	17	5				5	7	
2	Suryapet	16	15				1		
3	Kethepalli	25	20	1			4		
4	Pedavoor	21	6	1			5	4	5
5	Halin	3							3
6	P A Palli	22	17	2			1	2	
7	Nidamanur	20	2				8	6	4
8	Mothey	17	9				4	4	
9	Penpahad	18	6				7	4	1
10	Garidipalli	2	2						
11	Chandampet	20	9				7	4	
12	Dindi	21	7	1			6	4	3
13	Mireyalaguda	7	7						
14	Huzurnagar	12	7				5		
15	Damacharla	15	11				4		
16	Vemulapalli	16	12				3	1	
17	Nadigudem	20	14				3	3	
18	Melacheruvu	17	4		1		7	4	1
19	Kodada	14	11				1	2	
20	Matampalli	20	15				5		
21	Tripuram	18	12				4	2	
22	Devarakonda	19	7				7	1	4
23	Chintapalli	17	5				4	7	1
24	Nampalli	23	7				2	4	10
25	Munagala	20	11				8	1	
26	Chilakoor	7	7						
27	Ramannapeta	16	10	6					
28	Valigonda	14	7	17					
29	Bhuvanagiri	16	13				2	1	
30	Beebinagar	22	13	6	2			1	
31	Potchampalli	5	3	1	1				
32	Choutapalli	14	10	4					
33	Bommamalaram	16	13	1			2		
34	Thukapalli	16	12	1			2	1	
35	Yadagiri gutta	14	6				8		
36	Rajupeta	13	12				1		
37	Aluru	24	3				9	10	2
38	Atmakuru	11	6				4	1	
39	Motkur	15	7				7	1	
40	Gundala	13	5				5	2	1
41	Tirumalagiri	12	3				7	2	
42	Aravapalli	15	9				6		
43	Tungakurthi	10	4				3	2	1
44	Nutankal	7	4				2	1	
45	S Atmakur	4	3					1	
46	Nalgonda	24	10	1			10	3	
47	Kangala	25	11				10	4	
48	Shahigowaram	12	9				3		
49	Kattangoor	15	7				6	1	1
50	Thipparthi	12	8				1	1	2
51	Narkatpally	19	9	1	1		7	5	1
52	Nakrekal	4					4		
53	Munugodu	10	2				3	5	
54	Narayanapuram	10	5	1				4	
	Total	815	427	39	5	0	198	106	40
	Percentage	100	52.4	4.8	0.6	0.0	24.3	13.0	4.9

RANGAREDDY DISTRICT WATER QUALITY

S. No	Name of Mandal	Total No. of Samples	Good	Marginally Saline	Saline	High SAR Saline	Marginally Alkali	Alkali	High Alkali
1	Allapur	3	1				2		
2	Balanagar	5	4						1
3	Bantwaram	13	10				3		
4	Basherabad	9	7				1	1	
5	Chevella	14	4				2	8	
6	Dharur	15	10				2	3	
7	Doma	15	15						
8	Gardeed	18	18						
9	Ghatkesar	19	15	4					
10	Hayatnagar	13	5	7		1			
11	Ibrahimpacnam	15	11				3	1	
12	Indenched	1					1		
13	Javadi	1					1		
14	Kandukuru	11	8				2	1	
15	Kesara	12	12						
16	Kothapur	2	1				1		
17	Kulakacharla	16	15					1	
18	Kuthbullapur	11	11						
19	Maheswaram	12	10	1			1		
20	Makajjiri	5	5						
21	Marchal	12	11				1		
22	Marpalle	15	8				6	1	
23	Medchal	21	18	2			1		
24	Moinabad	11	8	1				2	
25	Mominpet	15	11				3	1	
26	Nawabpet	15	11				2	1	1
27	Pargi	15	8				5	2	
28	Peddemul	15	12				1	2	
29	Pudoor	15	6				3	6	
30	Rajendranagar	28	11	9	5	2		1	
31	Sarilingampalle	10	10						
32	Sarooranagar	9	9						
33	Shabad	14	13					1	
34	Shamerpet	15	15						
35	Shamshabad	16	15	1					
36	Shankarapalle	15	7				6	2	
37	Tandoor	15	9				3	3	
38	Uppal	2	1	1					
39	Vikarabad	16	14				2		
40	Yacharam	14	8	1				4	1
41	Yalal	16	7				1	8	
	Total	514	374	27	5	3	53	49	3
	Percent	100.00	72.8	5.3	1.0	0.6	10.3	9.5	0.6



