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GOVERNMENT OF INDIA
MINISTRY OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
CENTRAL GROUND WATER BOARD

PLAN ON
ARTIFICIAL RECHARGE TO GROUNDWATER AND
WATER CONSERVATION IN
YADIKI MANDAL, ANANTAPUR DISTRICT,
ANDHRA PRADESH

SOUTHERN REGION
HYDERABAD
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PLAN ON
ARTIFICIAL RECHARGE TO GROUNDWATER AND
WATER CONSERVATION IN
YADIKI MANDAL, ANANTAPUR DISTRICT,
ANDHRA PRADESH

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AT A GLANCE

Name of the Mandal	YADIKI
District	ANANTAPUR
State	ANDHRA PRADESH
Total Area sq.km.	315
Area suitable for Artificial Recharge (sq.km.)	235
Latitude and Longitude	14.912170 to 15.165460 and 77.742680 to 78.005690
Average Annual Rainfall (mm)	646
Geology	Granites, Gneisses, Limestones, Shale
Average Depth To Water Level (Decadal) (Pre Monsoon)	22.20
Average Depth To Water Level (Decadal) (Post Monsoon)	17.80
Ground Water Resources (2011)	
Annual Replenishable Ground Water Resources (MCM/yr)	12.69
Net Annual Ground Water Availability(MCM)/yr	11.42
Net Annual Ground Water Draft(MCM)/yr	19.57
Projected Demand for Domestic and Industrial Use(MCM)/yr	0.71
Stage of Ground Water Development (%)	105
Runoff Yield in MCM/yr	23.41
Total Storage Created in the Mandal by Various Agencies (MCM)/yr	3.63
Artificial Recharge/Conservation Measures	
Recharge Structures Proposed (No.s)	Percolation Tanks:10, Check Dams:22 Farm ponds: 280, Recharge Shafts: 256
Improving Water use Efficiency	Micro Irrigation System: 1400 ha
Tentative Total Cost in Lakhs (Rs.)	1411
Expected Recharge/Savings (MCM)/yr	8.26

1. INTRODUCTION

Yadiki Mandal is one of over-exploited mandal in Anantapur district, Andhra Pradesh State, which is economically backward and chronically drought affected. The mandal has 14 inhabited villages and with 14 gram panchayats.

2. LOCATION

The mandal lies between north latitudes 14.912170 to 15.165460 and between east longitudes 77.742680 to 78.005690. The mandal occupies the northeast part of the Anantapur district and is bounded on the north by Kurnool district, on the east by Kadapa mandal, on the south by Peddapappur mandal and west by Peddavadugur mandal. (Fig.1) The geographical area of the mandal is 315 sq.km.

3. PHYSIOGRAPHY AND DRAINAGE:

The area is drained by streams which are tributaries of Pennar River. The streams are mostly ephemeral in nature. The drainage pattern is dendritic, rectangular to sub rectangular due to the influence of geological structures. (Fig.2)

4. RAINFALL

The average rainfall in the mandal is 646 mm. The rainfall during the South-west monsoon season i.e., June-September accounts for about 85% of the total rainfall.

5. LAND USE PATTERN

Out of the total geographical area of 315 sq.km, the area covered by forest is 59.17 sq.km and the net area sown is 154.19 sq.km. Barren and uncultivable land is 74.56 sq.km. The land for non agricultural use accounts for 17.59 sq.km. (Fig.3)

6. HYDROGEOLOGY

The area is underlain by granites, Shales (Fig.4). Ground water occurs in weathered and fractured zones under water table and semi- confined conditions. The weathered zone thickness as per the GEC report is 10 m. The weathered zone has been extensively tapped by dug and dug cum bore wells up to 20 m depth, which are mostly dry now. Ground water occurs in the fractured rocks up to 200 m bgl. However, the potential fractures are encountered between 50-100 m bgl.

7. GROUND WATER LEVEL SCENARIO

The depth to water level during the pre-monsoon and post-monsoon varies from 5 to 20 m. The cumulative yield varies from 2-5 lps. The average depth to water level (decadal) during pre and post monsoon is 22.2 and 17.8 m bgl respectively. The depth to water levels maps for pre and post monsoon period (2014) are shown in Figs - 5 & 6 respectively. The decadal mean water level trend during post monsoon is depicted in the Fig-7.

8. DYNAMIC GROUND WATER RESOURCES

The Ground water availability, Utilization and stage of Development in Yadiki Mandal Anantapur District is given in Table-1.

Table-1: Ground water resources of Yadiki Mandal, Anantapur District.

Annual Replenishable Ground water resources (MCM)	12.69
Net Annual Ground Water Availability(MCM)/yr	11.42
Net Annual Ground Water Draft(MCM)/yr	19.57
Projected Demand for Domestic and Industrial use up to 2025. (MCM)	0.71
Stage of Ground water development (%).	105
Whether notified or not with year of notification.	No

9. NEED FOR ARTIFICIAL RECHARGE AND CONSERVATION METHODS

The ground water withdrawal is more than the recharge with a stage of development above hundred percent. The long term water level trend mostly shows a declining trend and the water levels are very deep ranging up to 25 m. The sustainability of bore wells has become questionable as many bore wells are either drying up or have recorded reduced yields. There is no surface water irrigation facility in the area. All these factors indicate that there is an urgent need for artificial recharge and water conservation in the Mandal.

10. JUSTIFICATION OF THE ARTIFICIAL RECHARGE PROJECT

Yadiki Mandal falls under high stage of ground water development i.e., 105 % and with sufficient amount of uncommitted surface runoff. The area is completely dependent on ground water for domestic, industrial and irrigation purposes. During the monsoons runoff quickly flows out of the area without natural recharge to ground water. It is necessary to apply artificial recharge techniques to allow more and more recharge through check dams, PTs, MPTs, farm ponds, recharge shafts to cope up with the withdrawal pattern and also to improve ground water situation through various interventions including on farm activities and micro irrigation systems (Sprinkler-Drip-HDPE).

11. AVAILABILITY OF SURPLUS, SURFACE WATER FOR ARTIFICIAL RECAHRGE OR CONSERVATION

The runoff was calculated by taking into account of normal rainfall of the mandal and corresponding runoff yield from Strangers table. The existing storage created by various artificial recharge structures constructed by the State Government, if any, was deducted for calculating the runoff yield to recommend new AR structures

Total Geographical area (Sq.kms)	315
Hilly Area (Sq.kms)	80
Area suitable for Artificial Recharge (sq.km.)	235
Runoff Yield in MCM/yr	23.41
Existing No. of Check Dams	362
Storage created MCM/yr	2.56
Existing No. of Percolation Tanks	150
Storage created MCM/yr	1.06
Total Existing Storage Created	3.63

12. FEASIBLE ARTIFICIAL RECHARGE STRUCTURES

Since the mandal is categorized as over exploited, there is an immediate need for improving ground water scenario and to ensure sustainability of ground water sources. It is also suggested to create additional storage capacity of surface water bodies which would result in supplementing irrigation thereby reducing the ground water draft. The runoff available in the mandal has been assessed as 19.78 MCM/yr, which could be considered for further planning of artificial recharge. However, the number of artificial recharge structures feasible has been recommended in areas, by considering the utilizable yield, number of existing structures, land use, drainage pattern and also where the post monsoon water levels (decadal mean) are more than 5 m bgl., and or decadal trends are either falling or showing insignificant raising trend.

A) Check dams and Percolation Tanks

The area is covered by seasonal nalas – drains, which carry discharge during monsoon period debauched into the water bodies within a short duration. It is proposed to identify such nalas for construction of check dams/Percolation tank with recharge shafts, so as to harness ground water and to increase soil moisture content.

- The site selected for check dam/Percolation Tank should have sufficient thickness of permeable soils or weathered material to facilitate recharge of stored water within a short span of time. The water stored in these structures is mostly confined to the stream course and height is normally less than 2m.
- These are designed based on stream width and excess water is allowed to flow over the crest wall. In order to avoid scouring from excess runoff water cushions are provided on the downstream side. To harness maximum runoff in the stream, a series of such check dams can be constructed to have recharge on a regional scale.
- Considering the annual monsoon rainfall of 646 mm, sufficient rain water can be harnessed. This will improve ground water regime as well as delaying the instant flow into the main river.
- The flow in these seasonal rivers can be sustained up to about 2 to 3 months after monsoon.

- Recharge trenches can also be constructed along upstream side of the check dam/Percolation Tank in the impoundment area for enhancing the ground water recharge rate.

Thus, a total of 22 **Check dams and 10 Percolation tanks** are recommended.

B). Recharge Shafts

The existing check dams and percolation tanks lose their storage capacity as well as recharge capacity due to siltation. Hence, Recharge shafts are recommended in the existing Check dams and Percolation tanks to enhance the ground water recharge. During the heavy downpours, there will be sufficient accumulation of runoff, which can also effectively be utilized for recharge by constructing recharge shafts. Hence, it is proposed to construct 181 and 75 recharge shafts of 165 mm dia with 30 m depth in the existing check dams and percolation tanks respectively.

C). Farm Ponds

A farm pond is a large dug out in the earth, usually square or rectangular in shape, which harvests rain water and stores it for future use. It has an inlet to regulate inflow and an outlet to discharge excess water. The pond is surrounded by a small bund, which prevents erosion on the banks of the pond. The size and depth depend on the amount of land available; the type of soil water from the farm pond is conveyed to the fields manually, by pumping, or by both methods.

Advantages of Farm Ponds

- They provide water to start growing crops, without waiting for rain to fall.
- They provide irrigation water during dry spells between rainfalls. This increases the yield, the number of crops in one year, and the diversity of crops that can be grown.
- Bunds can be used to raise vegetables and fruit trees, thus supplying the farm household with an additional source of income and of nutritious food.
- Farmers are able to apply adequate farm inputs and perform farming operations at the appropriate time, thus increasing their productivity and their confidence in farming.
- They check soil erosion and minimize siltation of waterways and reservoirs.
- They supplies water for domestic purposes and livestock.
- They promote fish rearing.
- They recharge the ground water.
- They improve drainage.

- The excavated earth has a very high value and can be used to enrich soil in the fields, levelling land, and constructing farm roads.

As per the Land use classification, majority of the area is covered by the agricultural field. Hence, it is proposed to construct 280 farm ponds in 14 villages of the Mandal @ 20 farm ponds in each village.

D). Micro Irrigation System (Sprinkler /drip/HDPE pipes)

Micro irrigation is defined as the frequent application of small quantities of water directly above and below the soil surface; usually as discrete drops, continuous drops or tiny streams through emitters placed along a water delivery line. In flood/furrow irrigation method more than 50% of applied water is wasted through seepage to deeper level, localized inundation causes loss through evaporation and it leaches out the nutrients from the plant. While through drip & sprinkler irrigation wastages of irrigational water could be minimized. The studies on different crops, has revealed that irrigation water is saved drastically. The conveyance losses (mainly seepage & evaporation) can be saved up to 25 to 40% through utilization of HDPE pipes. Initially the scheme is proposed to be implemented in worst affected areas showing deepest water levels and significant declining trends. It is proposed to take up micro irrigation system in 1400 ha @ 100 ha per village.

13. TENTATIVE COST ESTIMATES (YADIKI MANDAL)

S.No.	Feasible Artificial Recharge & Water Conservation structures/	No. of Structures/ Quantity	Total Volume (MCM)	Tentative unit cost (in Rs lakh)	Total tentative cost (in Rs Lakh)	Expected Annual GW recharge/savings (MCM)
1	Proposed Masonry Check dams Crest Length -10-15 m, Height-1-2 m) (0.007 MCM*4 fillings)	22	0.616	5	110	0.462
2	Recharge shaft in Check dam (50% of the existing Check dams)	181	1.991	0.5	90.5	1.991
3	Proposed Percolation Tanks (100*100*2.5)* 4 fillings)	10	1	15	150	0.75
4	Renovation Desilting, Repairs and installation of Recharge Shafts in existing PTS (50% of the existing PTS)	75	0.825	1	75	0.825
5	Proposed Farm Pond (6 filling) 5*5*1.5 dimension @ 20 farm ponds per each village	280	0.04032	0.25	70	0.036288
6	Proposed Sprinkler/drip/HDPE pipes for 100 ha in each village	1400	8.4	0.6	840	4.2
7	Proposed Piezometers up to 50 mbgl @ one PZ per Village	14	0	0.6	8.4	0
8 (i)	Total (No. of AR Structures)	582	4.47		503.9	4.064
8 (ii)	Total (ha)	1400			840	4.2
	Total (8(i) + 8 (ii))				1343.9	8.264
9	Impact Assessment & O & M -5 % of Total cost of the Scheme				67.195	
	Grand Total				1411.095	

*(Expected annual GW Recharge/Savings MCM - CDS& PTS: 75%, Farm ponds - 90%, Sprinklers-50%, Recharge shafts in existing CDS and PTS-100%)

Note: The type, number and cost of structure may vary according to site, after the ground truth verification.

14. TIME SCHEDULE

Steps	Quarters							
	1st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th
Identification of line department/implementing agency and preparation of DPR								
Approval of Scheme and releases of sanction of funds								
Implementation of ARS								

Phase = one quarter or 3 months or equivalent to financial quarter

A). Operation and Maintenance

In all projects impact assessment has to be carried out to ensure that project is economically viable, socially equitable and environmentally sustainable by inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse. Accordingly it is proposed to have impact assessment as well as operation & Maintenance at the rate of 5% of the total cost of the project for 5 years from the completion of artificial recharge project.

B). Expected Benefits

The benefits of the project are:

1. The implementation of the project would result in additional recharge/Ground water savings to the tune of 8.264 MCM.
2. Ground water recharge will help in arresting the rapid decline in ground water resources and will also ensure improvement in quality of ground water by dilution.
3. Proposed structures and measures will also enhance the ground water potential and would ensure sustainability of ground water resources. It is estimated that the stage of ground water development may likely to be reduced from the present 105% to 99% (6%)
4. It will also help in controlling soil erosion.

Acknowledgements

The data received from the Director Ground Water Department Andhra Pradesh in respect of the basic inputs is duly acknowledged. The information on existing Artificial Recharge Structures have been taken from the EMUSTER, Department of Rural Development, Government of AP.

EXISTING ARTIFICIAL RECHARGE STRUCTURES
YADIKI MANDAL, ANANTAPUR DISTRICT, AP

S.no	Gram Panchayat	Habitation	Structure Type	Longitude	Latitude	Scheme
1	P.vengannapalli	P.Vengannapalli	Check Dam	77.7988	14.9659	NREGS
2	P.vengannapalli	P.Vengannapalli	Check Dam	77.7906	14.9676	NREGS
3	P.vengannapalli	P.Vengannapalli	Check Dam	77.7958	14.9667	NREGS
4	P.vengannapalli	P.Vengannapalli	Check Dam	77.7878	14.9687	NREGS
5	P.vengannapalli	P.Vengannapalli	Check Dam	77.7809	14.9718	NREGS
6	P.vengannapalli	P.Vengannapalli	Check Dam	77.7838	14.9710	NREGS
7	P.vengannapalli	P.Vengannapalli	Check Dam	77.7854	14.9703	NREGS
8	P.vengannapalli	P.Vengannapalli	Check Dam	77.7854	14.9659	NREGS
9	P.vengannapalli	P.Vengannapalli	Check Dam	77.7686	14.9785	NREGS
10	P.vengannapalli	P.Vengannapalli	Check Dam	77.8032	14.9641	NREGS
11	P.vengannapalli	P.Vengannapalli	Check Dam	77.7885	14.9577	NREGS
12	Puppala	Puppala	Check Dam	77.7709	14.9536	NREGS
13	Puppala	Puppala	Check Dam	77.7845	14.9522	NREGS
14	Puppala	Puppala	Check Dam	77.7692	14.9691	NREGS
15	Puppala	Puppala	Check Dam	77.7692	14.9792	NREGS
16	Puppala	Puppala	Check Dam	77.7772	14.9758	NREGS
17	Puppala	Puppala	Check Dam	77.7784	14.9741	NREGS
18	Puppala	Puppala	Check Dam	77.7813	14.9619	NREGS
19	Chandana	Chandana	Check Dam	77.8127	15.0843	NREGS
20	Chandana	Chandana	Check Dam	77.8082	15.0771	NREGS
21	Chandana	Chandana	Check Dam	77.8131	15.0649	NREGS
22	Chandana	Chandana	Check Dam	77.8036	15.0925	NREGS
23	Chandana	Chandana	Check Dam	77.8060	15.0835	NREGS
24	Chandana	Pacheramekalapalli	Check Dam	77.8299	15.0921	NREGS
25	Chandana	Pacheramekalapalli	Check Dam	77.8305	15.0934	NREGS
26	Chandana	Pacheramekalapalli	Check Dam	77.8305	15.0957	NREGS
27	Chandana	Pacheramekalapalli	Check Dam	77.8312	15.0902	NREGS
28	Chandana	Pacheramekalapalli	Check Dam	77.8303	15.0873	NREGS
29	Chandana	Pacheramekalapalli	Check Dam	77.8308	15.0886	NREGS
30	Chandana	Pacheramekalapalli	Check Dam	77.8306	15.0838	NREGS
31	Chandana	Pacheramekalapalli	Check Dam	77.8334	15.0792	NREGS
32	Chandana	Pacheramekalapalli	Check Dam	77.8383	15.0722	NREGS
33	Chandana	Pacheramekalapalli	Check Dam	77.8379	15.0683	NREGS
34	Gudipadu	Gudipadu	Check Dam	77.9943	15.0926	NREGS
35	Gudipadu	Gudipadu	Check Dam	77.9998	15.0829	NREGS
36	Gudipadu	Gudipadu	Check Dam	77.9925	15.0833	NREGS
37	Gudipadu	Gudipadu	Check Dam	77.9899	15.0941	NREGS
38	Gudipadu	Gudipadu	Check Dam	77.9937	15.0968	NREGS
39	Gudipadu	Gudipadu	Check Dam	77.9842	15.0852	NREGS
40	Gudipadu	Gudipadu	Check Dam	77.9864	15.0655	NREGS

41	Gudipadu	Kundanakota	Check Dam	77.9379	15.1109	NREGS
42	N.chikkepalli	N.Chikkepalli	Check Dam	77.9310	15.0576	NREGS
43	N.chikkepalli	N.Chikkepalli	Check Dam	77.9284	15.0593	NREGS
44	N.chikkepalli	N.Chikkepalli	Check Dam	77.9397	15.0552	NREGS
45	N.chikkepalli	N.Chikkepalli	Check Dam	77.9226	15.0561	NREGS
46	N.chikkepalli	N.Chikkepalli	Check Dam	77.9253	15.0483	NREGS
47	N.chikkepalli	N.Chikkepalli	Check Dam	77.9376	15.0410	NREGS
48	Nagarur	Nagarur	Check Dam	77.8320	14.9914	NREGS
49	Nagarur	Nagarur	Check Dam	77.8382	15.0055	NREGS
50	Nagarur	Nagarur	Check Dam	77.8370	15.0051	NREGS
51	Nagarur	Nagarur	Check Dam	77.8345	15.0059	NREGS
52	Nagarur	Nagarur	Check Dam	77.8329	15.0066	NREGS
53	Nagarur	Nagarur	Check Dam	77.8236	14.9921	NREGS
54	Nagarur	Nagarur	Check Dam	77.8266	15.0064	NREGS
55	Nagarur	Nagarur	Check Dam	77.8455	15.0011	NREGS
56	Nagarur	Nagarur	Check Dam	77.8419	15.0063	NREGS
57	Nagarur	Nagarur	Check Dam	77.8428	15.0037	NREGS
58	Nagarur	Nagarur	Check Dam	77.8425	15.0041	NREGS
59	Nitturu	Kothapalli	Check Dam	77.9318	15.0237	NREGS
60	Nitturu	Kothapalli	Check Dam	77.9295	15.0250	NREGS
61	Nitturu	Kothapalli	Check Dam	77.9288	15.0262	NREGS
62	Nitturu	Nitturu	Check Dam	77.9531	15.0308	NREGS
63	Nitturu	Nitturu	Check Dam	77.9560	15.0316	NREGS
64	Nitturu	Nitturu	Check Dam	77.9553	15.0371	NREGS
65	Nitturu	Nitturu	Check Dam	77.9550	15.0369	NREGS
66	Nitturu	Nitturu	Check Dam	77.9536	15.0368	NREGS
67	Nitturu	Nitturu	Check Dam	77.9488	15.0416	NREGS
68	Nitturu	Nitturu	Check Dam	77.9488	15.0441	NREGS
69	Nitturu	Nitturu	Check Dam	77.9508	15.0442	NREGS
70	Nitturu	Nitturu	Check Dam	77.9518	15.0467	NREGS
71	Nitturu	Nitturu	Check Dam	77.9532	15.0502	NREGS
72	Nitturu	Nitturu	Check Dam	77.9547	15.0503	NREGS
73	Nitturu	Nitturu	Check Dam	77.9388	15.0174	NREGS
74	Konuppalapadu	Konuppalapadu	Check Dam	77.9058	15.1397	NREGS
75	Konuppalapadu	Konuppalapadu	Check Dam	77.8941	15.1288	NREGS
76	Konuppalapadu	Konuppalapadu	Check Dam	77.9063	15.1068	NREGS
77	Konuppalapadu	Konuppalapadu	Check Dam	77.8922	15.1021	NREGS
78	Konuppalapadu	Konuppalapadu	Check Dam	77.8936	15.1038	NREGS
79	Konuppalapadu	Konuppalapadu	Check Dam	77.8952	15.1252	NREGS
80	Konuppalapadu	Konuppalapadu	Check Dam	77.8981	15.1265	NREGS
81	Konuppalapadu	Konuppalapadu	Check Dam	77.8919	15.1008	NREGS
82	Konuppalapadu	Konuppalapadu	Check Dam	77.8894	15.1026	NREGS
83	Konuppalapadu	Obulapuram	Check Dam	77.8921	15.0933	NREGS

84	Konuppalapadu	Obulapuram	Check Dam	77.8736	15.1010	NREGS
85	Konuppalapadu	Obulapuram	Check Dam	77.8734	15.1032	NREGS
86	Konuppalapadu	Obulapuram	Check Dam	77.8906	15.0961	NREGS
87	Konuppalapadu	Obulapuram	Check Dam	77.8763	15.1004	NREGS
88	Konuppalapadu	Obulapuram	Check Dam	77.8802	15.1046	NREGS
89	Konuppalapadu	Obulapuram	Check Dam	77.8888	15.0871	NREGS
90	Konuppalapadu	Obulapuram	Check Dam	77.8882	15.0888	NREGS
91	Konuppalapadu	Obulapuram	Check Dam	77.8764	15.1028	NREGS
92	Konuppalapadu	Obulapuram	Check Dam	77.8893	15.0890	NREGS
93	Konuppalapadu	Obulapuram	Check Dam	77.8789	15.1033	NREGS
94	Lakshmipalli	Dayyalamadugu	Check Dam	77.7900	15.0917	NREGS
95	Lakshmipalli	Dayyalamadugu	Check Dam	77.7898	15.0888	NREGS
96	Lakshmipalli	Dayyalamadugu	Check Dam	77.7956	15.0893	NREGS
97	Lakshmipalli	Dayyalamadugu	Check Dam	77.7916	15.0984	NREGS
98	Lakshmipalli	Kesavarayanipet	Check Dam	77.8105	15.1101	NREGS
99	Lakshmipalli	Kesavarayanipet	Check Dam	77.8052	15.1090	NREGS
100	Lakshmipalli	Kesavarayanipet	Check Dam	77.8048	15.1093	NREGS
101	Lakshmipalli	Kesavarayanipet	Check Dam	77.8075	15.1088	NREGS
102	Lakshmipalli	Kesavarayanipet	Check Dam	77.8152	15.1116	NREGS
103	Lakshmipalli	Kesavarayanipet	Check Dam	77.8080	15.1085	NREGS
104	Lakshmipalli	Lakshmipalli	Check Dam	77.8294	15.1166	NREGS
105	Lakshmipalli	Lakshmipalli	Check Dam	77.8318	15.1215	NREGS
106	Lakshmipalli	Lakshmipalli	Check Dam	77.8329	15.1211	NREGS
107	Lakshmipalli	Lakshmipalli	Check Dam	77.8350	15.1218	NREGS
108	Lakshmipalli	Lakshmipalli	Check Dam	77.8350	15.1193	NREGS
109	Lakshmipalli	Lakshmipalli	Check Dam	77.8326	15.1023	NREGS
110	Lakshmipalli	Lakshmipalli	Check Dam	77.8286	15.0983	NREGS
111	Lakshmipalli	Lakshmipalli	Check Dam	77.8270	15.0997	NREGS
112	Lakshmipalli	Lakshmipalli	Check Dam	77.8310	15.1358	NREGS
113	Lakshmipalli	Lakshmipalli	Check Dam	77.8281	15.1342	NREGS
114	Lakshmipalli	Lakshmipalli	Check Dam	77.8159	15.1343	NREGS
115	Lakshmipalli	Lakshmipalli	Check Dam	77.8298	15.1131	NREGS
116	Lakshmipalli	Lakshmipalli	Check Dam	77.8337	15.1182	NREGS
117	Lakshmipalli	Lakshmipalli	Check Dam	77.8338	15.1233	NREGS
118	Lakshmipalli	Lakshmipalli	Check Dam	77.8251	15.1278	NREGS
119	Lakshmipalli	Lakshmipalli	Check Dam	77.8284	15.1375	NREGS
120	Rayalacheruvu	Ramarajupalli	Check Dam	77.8293	15.0379	NREGS
121	Rayalacheruvu	Rayalacheruvu	Check Dam	77.8065	15.0631	NREGS
122	Rayalacheruvu	Rayalacheruvu	Check Dam	77.8121	15.0526	NREGS
123	Rayalacheruvu	Rayalacheruvu	Check Dam	77.8324	15.0603	NREGS
124	Tutralapalli	T.Kothapalli	Check Dam	77.8087	15.0306	NREGS
125	Tutralapalli	Tutralapalli	Check Dam	77.8302	15.0279	NREGS
126	Tutralapalli	Tutralapalli	Check Dam	77.8373	15.0281	NREGS

127	Tutralapalli	Tutralapalli	Check Dam	77.8337	15.0299	NREGS
128	Tutralapalli	Tutralapalli	Check Dam	77.8290	15.0376	NREGS
129	Tutralapalli	Tutralapalli	Check Dam	77.8299	15.0369	NREGS
130	Tutralapalli	Tutralapalli	Check Dam	77.8225	15.0303	NREGS
131	Tutralapalli	Tutralapalli	Check Dam	77.8244	15.0302	NREGS
132	Vemulapadu	Kottalapalli	Check Dam	77.8964	15.0085	NREGS
133	Vemulapadu	Kottalapalli	Check Dam	77.8942	15.0169	NREGS
134	Vemulapadu	Vemulapadu	Check Dam	77.8540	15.0107	NREGS
135	Vemulapadu	Vemulapadu	Check Dam	77.8542	15.0096	NREGS
136	Vemulapadu	Vemulapadu	Check Dam	77.8550	15.0081	NREGS
137	Vemulapadu	Vemulapadu	Check Dam	77.8562	15.0071	NREGS
138	Vemulapadu	Vemulapadu	Check Dam	77.8670	15.0127	NREGS
139	Vemulapadu	Vemulapadu	Check Dam	77.8674	15.0106	NREGS
140	Vemulapadu	Vemulapadu	Check Dam	77.8654	15.0087	NREGS
141	Vemulapadu	Vemulapadu	Check Dam	77.8622	15.0047	NREGS
142	Vemulapadu	Vemulapadu	Check Dam	77.8650	15.0155	NREGS
143	Vemulapadu	Vemulapadu	Check Dam	77.8546	15.0265	NREGS
144	Vemulapadu	Vemulapadu	Check Dam	77.8481	15.0276	NREGS
145	Vemulapadu	Vemulapadu	Check Dam	77.8488	15.0287	NREGS
146	Vemulapadu	Vemulapadu	Check Dam	77.8628	15.0185	NREGS
147	Vemulapadu	Vemulapadu	Check Dam	77.8623	15.0181	NREGS
148	Kamalapadu	Boyareddipalli	Check Dam	77.9362	15.0784	NREGS
149	Kamalapadu	Boyareddipalli	Check Dam	77.9300	15.0723	NREGS
150	Kamalapadu	Chinthalayapalli	Check Dam	77.9433	15.0914	NREGS
151	Kamalapadu	Chinthalayapalli	Check Dam	77.9390	15.0920	NREGS
152	Kamalapadu	Chinthalayapalli	Check Dam	77.8680	15.0502	NREGS
153	Kamalapadu	Chinthalayapalli	Check Dam	77.9300	15.0834	NREGS
154	Kamalapadu	Chinthalayapalli	Check Dam	77.9302	15.0916	NREGS
155	Kamalapadu	Chinthalayapalli	Check Dam	77.9295	15.0798	NREGS
156	Kamalapadu	Chinthalayapalli	Check Dam	77.9352	15.0802	NREGS
157	Kamalapadu	Chinthalayapalli	Check Dam	77.9339	15.0741	NREGS
158	Kamalapadu	Chinthalayapalli	Check Dam	77.9567	15.0781	NREGS
159	Kamalapadu	Kamalapadu	Check Dam	77.8995	15.0726	NREGS
160	Kamalapadu	Kamalapadu	Check Dam	77.9149	15.0945	NREGS
161	Kamalapadu	Kamalapadu	Check Dam	77.9182	15.0936	NREGS
162	Kamalapadu	Kamalapadu	Check Dam	77.9184	15.0882	NREGS
163	Kamalapadu	Kamalapadu	Check Dam	77.9067	15.0833	NREGS
164	Kamalapadu	Kamalapadu	Check Dam	77.9090	15.0768	NREGS
165	Kamalapadu	Kamalapadu	Check Dam	77.9115	15.0725	NREGS
166	Kamalapadu	Kamalapadu	Check Dam	77.9115	15.0759	NREGS
167	Kamalapadu	Veerareddipalli	Check Dam	77.9146	15.0662	NREGS
168	Kamalapadu	Veerareddipalli	Check Dam	77.9220	15.0715	NREGS
169	Kamalapadu	Veerareddipalli	Check Dam	77.9196	15.0579	NREGS

170	Kamalapadu	Veerareddipalli	Check Dam	77.9170	15.0618	NREGS
171	Yadiki	Chendiyapalli	Check Dam	77.8664	15.0925	NREGS
172	Yadiki	Chendiyapalli	Check Dam	77.8649	15.0902	NREGS
173	Yadiki	Chendiyapalli	Check Dam	77.8642	15.0939	NREGS
174	Yadiki	Chendiyapalli	Check Dam	77.8686	15.1306	NREGS
175	Yadiki	Chendiyapalli	Check Dam	77.8709	15.1296	NREGS
176	Yadiki	Chendiyapalli	Check Dam	77.8650	15.1113	NREGS
177	Yadiki	Chendiyapalli	Check Dam	77.8632	15.1052	NREGS
178	Yadiki	Chendiyapalli	Check Dam	77.8540	15.0931	NREGS
179	Yadiki	Chendiyapalli	Check Dam	77.8575	15.0942	NREGS
180	Yadiki	Kattimamipalli	Check Dam	77.8898	15.0829	NREGS
181	Yadiki	Kattimamipalli	Check Dam	77.8942	15.0794	NREGS
182	Yadiki	Peddapeta	Check Dam	77.8370	15.0582	NREGS
183	Yadiki	Peddapeta	Check Dam	77.8365	15.0568	NREGS
184	Yadiki	Peddapeta	Check Dam	77.8415	15.0463	NREGS
185	Yadiki	Pinnepalli	Check Dam	77.8470	15.0618	NREGS
186	Yadiki	Pinnepalli	Check Dam	77.8439	15.0597	NREGS
187	Yadiki	Pinnepalli	Check Dam	77.8514	15.0648	NREGS
188	Yadiki	Thippareddipalli	Check Dam	77.8964	15.0084	NREGS
189	Yadiki	Thippareddipalli	Check Dam	77.8948	15.0230	NREGS
190	Yadiki	Thippareddipalli	Check Dam	77.8896	15.0283	NREGS
191	Yadiki	Thippareddipalli	Check Dam	77.8953	15.0262	NREGS
192	Yadiki	Tirunampalli	Check Dam	77.9067	15.0438	NREGS
193	Yadiki	Tirunampalli	Check Dam	77.8941	15.0170	NREGS
194	Yadiki	Veerannapalli	Check Dam	77.8916	15.0676	NREGS
195	Yadiki	Veerannapalli	Check Dam	77.8922	15.0664	NREGS
196	Yadiki	Yadiki	Check Dam	77.8776	15.0824	NREGS
197	Yadiki	Yadiki	Check Dam	77.8758	15.0841	NREGS
198	Yadiki	Yadiki	Check Dam	77.8743	15.0837	NREGS
199	Yadiki	Yadiki	Check Dam	77.8984	15.0565	NREGS
200	Yadiki	Yadiki	Check Dam	77.8732	15.0710	NREGS
201	Yadiki	Yadiki	Check Dam	77.8732	15.0692	NREGS
202	Yadiki	Yadiki	Check Dam	77.8732	15.0683	NREGS
203	Yadiki	Yadiki	Check Dam	77.8715	15.0679	NREGS
204	Yadiki	Yadiki	Check Dam	77.8751	15.0702	NREGS
205	Yadiki	Yadiki	Check Dam	77.8740	15.0924	NREGS
206	Yadiki	Yadiki	Check Dam	77.8740	15.0941	NREGS
207	Chandana	Chandana	Check Dam	77.8036	15.0925	IWMP
208	Chandana	Chandana	Check Dam	77.8060	15.0835	IWMP
209	Chandana	Chandana	Check Dam	77.8127	15.0843	IWMP
210	Chandana	Chandana	Check Dam	77.8082	15.0771	IWMP
211	Chandana	Chandana	Check Dam	77.8131	15.0649	IWMP
212	Chandana	Pacheramekalapalli	Check Dam	77.8305	15.0934	IWMP

213	Chandana	Pacheramekalapalli	Check Dam	77.8305	15.0957	IWMP
214	Chandana	Pacheramekalapalli	Check Dam	77.8299	15.0921	IWMP
215	Chandana	Pacheramekalapalli	Check Dam	77.8312	15.0902	IWMP
216	Chandana	Pacheramekalapalli	Check Dam	77.8303	15.0873	IWMP
217	Chandana	Pacheramekalapalli	Check Dam	77.8308	15.0886	IWMP
218	Chandana	Pacheramekalapalli	Check Dam	77.8306	15.0838	IWMP
219	Chandana	Pacheramekalapalli	Check Dam	77.8334	15.0792	IWMP
220	Chandana	Pacheramekalapalli	Check Dam	77.8383	15.0722	IWMP
221	Chandana	Pacheramekalapalli	Check Dam	77.8379	15.0683	IWMP
222	Gudipadu	Kundanakota	Check Dam	77.9379	15.1109	IWMP
223	N.chikkepalli	N.Chikkepalli	Check Dam	77.9310	15.0576	IWMP
224	N.chikkepalli	N.Chikkepalli	Check Dam	77.9284	15.0593	IWMP
225	N.chikkepalli	N.Chikkepalli	Check Dam	77.9397	15.0552	IWMP
226	N.chikkepalli	N.Chikkepalli	Check Dam	77.9226	15.0561	IWMP
227	N.chikkepalli	N.Chikkepalli	Check Dam	77.9253	15.0483	IWMP
228	N.chikkepalli	N.Chikkepalli	Check Dam	77.9376	15.0410	IWMP
229	Nitturu	Nitturu	Check Dam	77.9531	15.0308	IWMP
230	Nitturu	Nitturu	Check Dam	77.9560	15.0316	IWMP
231	Nitturu	Nitturu	Check Dam	77.9553	15.0371	IWMP
232	Nitturu	Nitturu	Check Dam	77.9550	15.0369	IWMP
233	Nitturu	Nitturu	Check Dam	77.9536	15.0368	IWMP
234	Nitturu	Nitturu	Check Dam	77.9488	15.0416	IWMP
235	Nitturu	Nitturu	Check Dam	77.9488	15.0441	IWMP
236	Nitturu	Nitturu	Check Dam	77.9508	15.0442	IWMP
237	Nitturu	Nitturu	Check Dam	77.9518	15.0467	IWMP
238	Nitturu	Nitturu	Check Dam	77.9532	15.0502	IWMP
239	Nitturu	Nitturu	Check Dam	77.9547	15.0503	IWMP
240	Nitturu	Nitturu	Check Dam	77.9388	15.0174	IWMP
241	Konuppalapadu	Konuppalapadu	Check Dam	77.8919	15.1008	IWMP
242	Konuppalapadu	Konuppalapadu	Check Dam	77.8894	15.1026	IWMP
243	Konuppalapadu	Konuppalapadu	Check Dam	77.8922	15.1021	IWMP
244	Konuppalapadu	Konuppalapadu	Check Dam	77.8936	15.1038	IWMP
245	Konuppalapadu	Konuppalapadu	Check Dam	77.8941	15.1288	IWMP
246	Konuppalapadu	Konuppalapadu	Check Dam	77.8952	15.1252	IWMP
247	Konuppalapadu	Konuppalapadu	Check Dam	77.8981	15.1265	IWMP
248	Konuppalapadu	Konuppalapadu	Check Dam	77.9058	15.1397	IWMP
249	Konuppalapadu	Konuppalapadu	Check Dam	77.9063	15.1068	IWMP
250	Konuppalapadu	Obulapuram	Check Dam	77.8921	15.0933	IWMP
251	Konuppalapadu	Obulapuram	Check Dam	77.8736	15.1010	IWMP
252	Konuppalapadu	Obulapuram	Check Dam	77.8734	15.1032	IWMP
253	Konuppalapadu	Obulapuram	Check Dam	77.8906	15.0961	IWMP
254	Konuppalapadu	Obulapuram	Check Dam	77.8763	15.1004	IWMP
255	Konuppalapadu	Obulapuram	Check Dam	77.8802	15.1046	IWMP

256	Konuppalapadu	Obulapuram	Check Dam	77.8888	15.0871	IWMP
257	Konuppalapadu	Obulapuram	Check Dam	77.8882	15.0888	IWMP
258	Konuppalapadu	Obulapuram	Check Dam	77.8764	15.1028	IWMP
259	Konuppalapadu	Obulapuram	Check Dam	77.8893	15.0890	IWMP
260	Konuppalapadu	Obulapuram	Check Dam	77.8789	15.1033	IWMP
261	Lakshnipalli	Dayyalamadugu	Check Dam	77.7900	15.0917	IWMP
262	Lakshnipalli	Dayyalamadugu	Check Dam	77.7898	15.0888	IWMP
263	Lakshnipalli	Dayyalamadugu	Check Dam	77.7956	15.0893	IWMP
264	Lakshnipalli	Dayyalamadugu	Check Dam	77.7916	15.0984	IWMP
265	Lakshnipalli	Kesavarayanipet	Check Dam	77.8105	15.1101	IWMP
266	Lakshnipalli	Kesavarayanipet	Check Dam	77.8052	15.1090	IWMP
267	Lakshnipalli	Kesavarayanipet	Check Dam	77.8048	15.1093	IWMP
268	Lakshnipalli	Kesavarayanipet	Check Dam	77.8075	15.1088	IWMP
269	Lakshnipalli	Kesavarayanipet	Check Dam	77.8152	15.1116	IWMP
270	Lakshnipalli	Kesavarayanipet	Check Dam	77.8080	15.1085	IWMP
271	Lakshnipalli	Lakshnipalli	Check Dam	77.8294	15.1166	IWMP
272	Lakshnipalli	Lakshnipalli	Check Dam	77.8318	15.1215	IWMP
273	Lakshnipalli	Lakshnipalli	Check Dam	77.8329	15.1211	IWMP
274	Lakshnipalli	Lakshnipalli	Check Dam	77.8350	15.1218	IWMP
275	Lakshnipalli	Lakshnipalli	Check Dam	77.8350	15.1193	IWMP
276	Lakshnipalli	Lakshnipalli	Check Dam	77.8337	15.1182	IWMP
277	Lakshnipalli	Lakshnipalli	Check Dam	77.8326	15.1023	IWMP
278	Lakshnipalli	Lakshnipalli	Check Dam	77.8286	15.0983	IWMP
279	Lakshnipalli	Lakshnipalli	Check Dam	77.8270	15.0997	IWMP
280	Lakshnipalli	Lakshnipalli	Check Dam	77.8281	15.1342	IWMP
281	Lakshnipalli	Lakshnipalli	Check Dam	77.8159	15.1343	IWMP
282	Lakshnipalli	Lakshnipalli	Check Dam	77.8298	15.1131	IWMP
283	Lakshnipalli	Lakshnipalli	Check Dam	77.8338	15.1233	IWMP
284	Lakshnipalli	Lakshnipalli	Check Dam	77.8251	15.1278	IWMP
285	Lakshnipalli	Lakshnipalli	Check Dam	77.8284	15.1375	IWMP
286	Lakshnipalli	Lakshnipalli	Check Dam	77.8310	15.1358	IWMP
287	Rayalacheruvu	Ramarajupalli	Check Dam	77.8293	15.0379	IWMP
288	Rayalacheruvu	Rayalacheruvu	Check Dam	77.8065	15.0631	IWMP
289	Rayalacheruvu	Rayalacheruvu	Check Dam	77.8121	15.0526	IWMP
290	Rayalacheruvu	Rayalacheruvu	Check Dam	77.8324	15.0603	IWMP
291	Tutralapalli	T.Kothapalli	Check Dam	77.8087	15.0306	IWMP
292	Tutralapalli	Tutralapalli	Check Dam	77.8225	15.0303	IWMP
293	Tutralapalli	Tutralapalli	Check Dam	77.8244	15.0302	IWMP
294	Tutralapalli	Tutralapalli	Check Dam	77.8302	15.0279	IWMP
295	Tutralapalli	Tutralapalli	Check Dam	77.8373	15.0281	IWMP
296	Tutralapalli	Tutralapalli	Check Dam	77.8337	15.0299	IWMP
297	Tutralapalli	Tutralapalli	Check Dam	77.8290	15.0376	IWMP
298	Tutralapalli	Tutralapalli	Check Dam	77.8299	15.0369	IWMP

299	Vemulapadu	Vemulapadu	Check Dam	77.8540	15.0107	IWMP
300	Vemulapadu	Vemulapadu	Check Dam	77.8542	15.0096	IWMP
301	Vemulapadu	Vemulapadu	Check Dam	77.8550	15.0081	IWMP
302	Vemulapadu	Vemulapadu	Check Dam	77.8562	15.0071	IWMP
303	Vemulapadu	Vemulapadu	Check Dam	77.8670	15.0127	IWMP
304	Vemulapadu	Vemulapadu	Check Dam	77.8674	15.0106	IWMP
305	Vemulapadu	Vemulapadu	Check Dam	77.8654	15.0087	IWMP
306	Vemulapadu	Vemulapadu	Check Dam	77.8622	15.0047	IWMP
307	Vemulapadu	Vemulapadu	Check Dam	77.8650	15.0155	IWMP
308	Vemulapadu	Vemulapadu	Check Dam	77.8546	15.0265	IWMP
309	Vemulapadu	Vemulapadu	Check Dam	77.8481	15.0276	IWMP
310	Vemulapadu	Vemulapadu	Check Dam	77.8488	15.0287	IWMP
311	Vemulapadu	Vemulapadu	Check Dam	77.8628	15.0185	IWMP
312	Vemulapadu	Vemulapadu	Check Dam	77.8623	15.0181	IWMP
313	Kamalapadu	Boyareddipalli	Check Dam	77.9362	15.0784	IWMP
314	Kamalapadu	Boyareddipalli	Check Dam	77.9300	15.0723	IWMP
315	Kamalapadu	Chinthalayapalli	Check Dam	77.9302	15.0916	IWMP
316	Kamalapadu	Chinthalayapalli	Check Dam	77.9433	15.0914	IWMP
317	Kamalapadu	Chinthalayapalli	Check Dam	77.9390	15.0920	IWMP
318	Kamalapadu	Chinthalayapalli	Check Dam	77.8680	15.0502	IWMP
319	Kamalapadu	Chinthalayapalli	Check Dam	77.9300	15.0834	IWMP
320	Kamalapadu	Chinthalayapalli	Check Dam	77.9295	15.0798	IWMP
321	Kamalapadu	Chinthalayapalli	Check Dam	77.9352	15.0802	IWMP
322	Kamalapadu	Chinthalayapalli	Check Dam	77.9339	15.0741	IWMP
323	Kamalapadu	Chinthalayapalli	Check Dam	77.9567	15.0781	IWMP
324	Kamalapadu	Kamalapadu	Check Dam	77.8995	15.0726	IWMP
325	Kamalapadu	Kamalapadu	Check Dam	77.9149	15.0945	IWMP
326	Kamalapadu	Kamalapadu	Check Dam	77.9182	15.0936	IWMP
327	Kamalapadu	Kamalapadu	Check Dam	77.9184	15.0882	IWMP
328	Kamalapadu	Kamalapadu	Check Dam	77.9067	15.0833	IWMP
329	Kamalapadu	Kamalapadu	Check Dam	77.9090	15.0768	IWMP
330	Kamalapadu	Kamalapadu	Check Dam	77.9115	15.0725	IWMP
331	Kamalapadu	Kamalapadu	Check Dam	77.9115	15.0759	IWMP
332	Kamalapadu	Veerareddipalli	Check Dam	77.9170	15.0618	IWMP
333	Kamalapadu	Veerareddipalli	Check Dam	77.9146	15.0662	IWMP
334	Kamalapadu	Veerareddipalli	Check Dam	77.9220	15.0715	IWMP
335	Kamalapadu	Veerareddipalli	Check Dam	77.9196	15.0579	IWMP
336	Yadiki	Kattimamipalli	Check Dam	77.8898	15.0829	IWMP
337	Yadiki	Kattimamipalli	Check Dam	77.8942	15.0794	IWMP
338	Yadiki	Peddapeta	Check Dam	77.8370	15.0582	IWMP
339	Yadiki	Peddapeta	Check Dam	77.8365	15.0568	IWMP
340	Yadiki	Peddapeta	Check Dam	77.8415	15.0463	IWMP
341	Yadiki	Veerannapalli	Check Dam	77.8916	15.0676	IWMP

342	Yadiki	Veerannapalli	Check Dam	77.8922	15.0664	IWMP
343	Gudipadu	Kundanakota	Check Wall	77.9397	15.1081	NREGS
344	Konuppalapadu	Konuppalapadu	Check Wall	77.9056	15.1058	NREGS
345	Konuppalapadu	Obulapuram	Check Wall	77.8877	15.0879	NREGS
346	Lakshnipalli	Lakshnipalli	Check Wall	77.8305	15.0984	NREGS
347	Lakshnipalli	Lakshnipalli	Check Wall	77.8309	15.1114	NREGS
348	Kamalapadu	Kamalapadu	Check Wall	77.9055	15.0889	NREGS
349	Kamalapadu	Kamalapadu	Check Wall	77.9076	15.0872	NREGS
350	Kamalapadu	Veerareddipalli	Check Wall	77.9166	15.0643	NREGS
351	Yadiki	Chendiyapalli	Check Wall	77.8709	15.1317	NREGS
352	Yadiki	Chendiyapalli	Check Wall	77.8633	15.1120	NREGS
353	Yadiki	Kattimamipalli	Check Wall	77.8926	15.0819	NREGS
354	Gudipadu	Kundanakota	Check Wall	77.9397	15.1081	IWMP
355	Konuppalapadu	Konuppalapadu	Check Wall	77.9056	15.1058	IWMP
356	Konuppalapadu	Obulapuram	Check Wall	77.8877	15.0879	IWMP
357	Lakshnipalli	Lakshnipalli	Check Wall	77.8305	15.0984	IWMP
358	Lakshnipalli	Lakshnipalli	Check Wall	77.8309	15.1114	IWMP
359	Kamalapadu	Kamalapadu	Check Wall	77.9055	15.0889	IWMP
360	Kamalapadu	Kamalapadu	Check Wall	77.9076	15.0872	IWMP
361	Kamalapadu	Veerareddipalli	Check Wall	77.9166	15.0643	IWMP
362	Yadiki	Kattimamipalli	Check Wall	77.8926	15.0819	IWMP
363	Puppala	Puppala	MPT	77.7625	14.9568	NREGS
364	Gudipadu	Gudipadu	MPT	78.0007	15.1066	NREGS
365	Nagarur	Nagarur	MPT	77.8458	15.0001	NREGS
366	Nagarur	Nagarur	MPT	77.8489	15.0092	NREGS
367	Nagarur	Nagarur	MPT	77.8489	15.0091	NREGS
368	Nagarur	Nagarur	MPT	77.8486	15.0091	NREGS
369	Nagarur	Nagarur	MPT	77.8474	15.0093	NREGS
370	Konuppalapadu	Konuppalapadu	MPT	77.9050	15.1316	NREGS
371	Konuppalapadu	Konuppalapadu	MPT	77.9037	15.1269	NREGS
372	Konuppalapadu	Konuppalapadu	MPT	77.8926	15.1253	NREGS
373	Konuppalapadu	Konuppalapadu	MPT	77.9078	15.0963	NREGS
374	Konuppalapadu	Konuppalapadu	MPT	77.9068	15.1115	NREGS
375	Konuppalapadu	Konuppalapadu	MPT	77.9079	15.0977	NREGS
376	Konuppalapadu	Konuppalapadu	MPT	77.9044	15.1127	NREGS
377	Konuppalapadu	Konuppalapadu	MPT	77.9081	15.0971	NREGS
378	Konuppalapadu	Konuppalapadu	MPT	77.9054	15.1147	NREGS
379	Konuppalapadu	Konuppalapadu	MPT	77.9067	15.0998	NREGS
380	Konuppalapadu	Konuppalapadu	MPT	77.9053	15.1125	NREGS
381	Konuppalapadu	Konuppalapadu	MPT	77.9076	15.1066	NREGS
382	Konuppalapadu	Konuppalapadu	MPT	77.9079	15.1071	NREGS
383	Konuppalapadu	Konuppalapadu	MPT	77.9070	15.1003	NREGS
384	Konuppalapadu	Konuppalapadu	MPT	77.9069	15.1018	NREGS

385	Konuppalapadu	Konuppalapadu	MPT	77.9065	15.1021	NREGS
386	Konuppalapadu	Konuppalapadu	MPT	77.9068	15.1051	NREGS
387	Konuppalapadu	Konuppalapadu	MPT	77.9071	15.1057	NREGS
388	Konuppalapadu	Konuppalapadu	MPT	77.9059	15.1425	NREGS
389	Konuppalapadu	Konuppalapadu	MPT	77.9070	15.1101	NREGS
390	Konuppalapadu	Konuppalapadu	MPT	77.9070	15.0990	NREGS
391	Konuppalapadu	Konuppalapadu	MPT	77.9093	15.1429	NREGS
392	Konuppalapadu	Obulapuram	MPT	77.8753	15.1040	NREGS
393	Konuppalapadu	Obulapuram	MPT	77.8743	15.1007	NREGS
394	Konuppalapadu	Obulapuram	MPT	77.8745	15.1038	NREGS
395	Lakshmipalli	Lakshmipalli	MPT	77.8322	15.1025	NREGS
396	Lakshmipalli	Lakshmipalli	MPT	77.8269	15.1350	NREGS
397	Lakshmipalli	Lakshmipalli	MPT	77.8339	15.1257	NREGS
398	Vemulapadu	Vemulapadu	MPT	77.8553	15.0068	NREGS
399	Vemulapadu	Vemulapadu	MPT	77.8541	15.0068	NREGS
400	Vemulapadu	Vemulapadu	MPT	77.8588	15.0035	NREGS
401	Vemulapadu	Vemulapadu	MPT	77.8603	15.0025	NREGS
402	Vemulapadu	Vemulapadu	MPT	77.8611	15.0025	NREGS
403	Vemulapadu	Vemulapadu	MPT	77.8613	15.0044	NREGS
404	Vemulapadu	Vemulapadu	MPT	77.8542	15.0140	NREGS
405	Vemulapadu	Vemulapadu	MPT	77.8583	15.0074	NREGS
406	Vemulapadu	Vemulapadu	MPT	77.8576	15.0063	NREGS
407	Vemulapadu	Vemulapadu	MPT	77.8578	15.0051	NREGS
408	Vemulapadu	Vemulapadu	MPT	77.8583	15.0041	NREGS
409	Vemulapadu	Vemulapadu	MPT	77.8545	15.0136	NREGS
410	Yadiki	Yadiki	MPT	77.8792	15.0754	NREGS
411	Yadiki	Yadiki	MPT	77.8792	15.0754	NREGS
412	Konuppalapadu	Konuppalapadu	MPT	77.9070	15.1101	IWMP
413	Konuppalapadu	Konuppalapadu	MPT	77.9070	15.0990	IWMP
414	Konuppalapadu	Konuppalapadu	MPT	77.9070	15.1003	IWMP
415	Konuppalapadu	Konuppalapadu	MPT	77.9069	15.1018	IWMP
416	Konuppalapadu	Konuppalapadu	MPT	77.9065	15.1021	IWMP
417	Konuppalapadu	Konuppalapadu	MPT	77.9093	15.1429	IWMP
418	Konuppalapadu	Konuppalapadu	MPT	77.9059	15.1425	IWMP
419	Konuppalapadu	Konuppalapadu	MPT	77.9037	15.1269	IWMP
420	Konuppalapadu	Konuppalapadu	MPT	77.8926	15.1253	IWMP
421	Konuppalapadu	Konuppalapadu	MPT	77.9054	15.1147	IWMP
422	Konuppalapadu	Konuppalapadu	MPT	77.9078	15.0963	IWMP
423	Konuppalapadu	Konuppalapadu	MPT	77.9050	15.1316	IWMP
424	Konuppalapadu	Konuppalapadu	MPT	77.9079	15.1071	IWMP
425	Konuppalapadu	Konuppalapadu	MPT	77.9068	15.1115	IWMP
426	Konuppalapadu	Konuppalapadu	MPT	77.9079	15.0977	IWMP
427	Konuppalapadu	Konuppalapadu	MPT	77.9044	15.1127	IWMP

428	Konuppalapadu	Konuppalapadu	MPT	77.9081	15.0971	IWMP
429	Konuppalapadu	Konuppalapadu	MPT	77.9068	15.1051	IWMP
430	Konuppalapadu	Konuppalapadu	MPT	77.9071	15.1057	IWMP
431	Konuppalapadu	Konuppalapadu	MPT	77.9067	15.0998	IWMP
432	Konuppalapadu	Konuppalapadu	MPT	77.9053	15.1125	IWMP
433	Konuppalapadu	Konuppalapadu	MPT	77.9076	15.1066	IWMP
434	Konuppalapadu	Obulapuram	MPT	77.8753	15.1040	IWMP
435	Konuppalapadu	Obulapuram	MPT	77.8743	15.1007	IWMP
436	Konuppalapadu	Obulapuram	MPT	77.8745	15.1038	IWMP
437	Lakshmipalli	Lakshmipalli	MPT	77.8269	15.1350	IWMP
438	Lakshmipalli	Lakshmipalli	MPT	77.8322	15.1025	IWMP
439	Lakshmipalli	Lakshmipalli	MPT	77.8339	15.1257	IWMP
440	Vemulapadu	Vemulapadu	MPT	77.8553	15.0068	IWMP
441	Vemulapadu	Vemulapadu	MPT	77.8541	15.0068	IWMP
442	Vemulapadu	Vemulapadu	MPT	77.8588	15.0035	IWMP
443	Vemulapadu	Vemulapadu	MPT	77.8603	15.0025	IWMP
444	Vemulapadu	Vemulapadu	MPT	77.8611	15.0025	IWMP
445	Vemulapadu	Vemulapadu	MPT	77.8613	15.0044	IWMP
446	Vemulapadu	Vemulapadu	MPT	77.8542	15.0140	IWMP
447	Vemulapadu	Vemulapadu	MPT	77.8583	15.0074	IWMP
448	Vemulapadu	Vemulapadu	MPT	77.8576	15.0063	IWMP
449	Vemulapadu	Vemulapadu	MPT	77.8578	15.0051	IWMP
450	Vemulapadu	Vemulapadu	MPT	77.8583	15.0041	IWMP
451	Vemulapadu	Vemulapadu	MPT	77.8545	15.0136	IWMP
452	P.vengannapalli	P.Vengannapalli	PT	77.7931	14.9566	NREGS
453	Puppala	Puppala	PT	77.7622	14.9543	NREGS
454	Chandana	Chandana	PT	77.8078	15.0854	NREGS
455	Chandana	Pacheramekalapalli	PT	77.8363	15.0751	NREGS
456	Chandana	Pacheramekalapalli	PT	77.8384	15.0738	NREGS
457	Gudipadu	Gudipadu	PT	78.0007	15.1007	NREGS
458	Gudipadu	Gudipadu	PT	77.9941	15.0830	NREGS
459	Gudipadu	Gudipadu	PT	77.9900	15.1112	NREGS
460	Gudipadu	Gudipadu	PT	77.9896	15.0966	NREGS
461	Gudipadu	Gudipadu	PT	77.9820	15.0912	NREGS
462	Gudipadu	Kundanakota	PT	77.9457	15.0986	NREGS
463	Gudipadu	Kundanakota	PT	77.9434	15.1023	NREGS
464	Nagarur	Nagarur	PT	77.8490	15.0105	NREGS
465	Nagarur	Nagarur	PT	77.8470	14.9995	NREGS
466	Nagarur	Nagarur	PT	77.8472	15.0023	NREGS
467	Nagarur	Nagarur	PT	77.8465	15.0012	NREGS
468	Konuppalapadu	Konuppalapadu	PT	77.9068	15.1410	NREGS
469	Konuppalapadu	Konuppalapadu	PT	77.9078	15.1171	NREGS
470	Konuppalapadu	Konuppalapadu	PT	77.9069	15.1041	NREGS

471	Konuppalapadu	Konuppalapadu	PT	77.9003	15.1463	NREGS
472	Konuppalapadu	Konuppalapadu	PT	77.8911	15.1240	NREGS
473	Lakshmipalli	Lakshmipalli	PT	77.8164	15.1260	NREGS
474	Lakshmipalli	Lakshmipalli	PT	77.8333	15.1289	NREGS
475	Tutralapalli	Tutralapalli	PT	77.8339	15.0288	NREGS
476	Tutralapalli	Tutralapalli	PT	77.8306	15.0358	NREGS
477	Vemulapadu	Vemulapadu	PT	77.8521	15.0142	NREGS
478	Kamalapadu	Boyareddipalli	PT	77.9448	15.0753	NREGS
479	Kamalapadu	Chinthalayapalli	PT	77.9403	15.0889	NREGS
480	Kamalapadu	Chinthalayapalli	PT	77.9340	15.0927	NREGS
481	Kamalapadu	Chinthalayapalli	PT	77.9278	15.0964	NREGS
482	Kamalapadu	Chinthalayapalli	PT	77.9292	15.0933	NREGS
483	Kamalapadu	Kamalapadu	PT	77.9156	15.0967	NREGS
484	Kamalapadu	Kamalapadu	PT	77.9072	15.0918	NREGS
485	Kamalapadu	Kamalapadu	PT	77.9068	15.0894	NREGS
486	Kamalapadu	Kamalapadu	PT	77.9130	15.0747	NREGS
487	Kamalapadu	Kamalapadu	PT	77.9172	15.0926	NREGS
488	Chandana	Chandana	PT	77.8078	15.0854	IWMP
489	Chandana	Pacheramekalapalli	PT	77.8363	15.0751	IWMP
490	Chandana	Pacheramekalapalli	PT	77.8384	15.0738	IWMP
491	Gudipadu	Kundanakota	PT	77.9457	15.0986	IWMP
492	Gudipadu	Kundanakota	PT	77.9434	15.1023	IWMP
493	Konuppalapadu	Konuppalapadu	PT	77.9069	15.1041	IWMP
494	Konuppalapadu	Konuppalapadu	PT	77.9003	15.1463	IWMP
495	Konuppalapadu	Konuppalapadu	PT	77.8911	15.1240	IWMP
496	Konuppalapadu	Konuppalapadu	PT	77.9078	15.1171	IWMP
497	Konuppalapadu	Konuppalapadu	PT	77.9068	15.1410	IWMP
498	Lakshmipalli	Lakshmipalli	PT	77.8164	15.1260	IWMP
499	Lakshmipalli	Lakshmipalli	PT	77.8333	15.1289	IWMP
500	Tutralapalli	Tutralapalli	PT	77.8339	15.0288	IWMP
501	Tutralapalli	Tutralapalli	PT	77.8306	15.0358	IWMP
502	Vemulapadu	Vemulapadu	PT	77.8521	15.0142	IWMP
503	Kamalapadu	Boyareddipalli	PT	77.9448	15.0753	IWMP
504	Kamalapadu	Chinthalayapalli	PT	77.9278	15.0964	IWMP
505	Kamalapadu	Chinthalayapalli	PT	77.9292	15.0933	IWMP
506	Kamalapadu	Chinthalayapalli	PT	77.9403	15.0889	IWMP
507	Kamalapadu	Chinthalayapalli	PT	77.9340	15.0927	IWMP
508	Kamalapadu	Kamalapadu	PT	77.9156	15.0967	IWMP
509	Kamalapadu	Kamalapadu	PT	77.9072	15.0918	IWMP
510	Kamalapadu	Kamalapadu	PT	77.9068	15.0894	IWMP
511	Kamalapadu	Kamalapadu	PT	77.9130	15.0747	IWMP
512	Kamalapadu	Kamalapadu	PT	77.9172	15.0926	IWMP

PROPOSED ARTIFICIAL RECHARGE STRUCTURES
YADIKI MANDAL, ANANTAPUR DISTRICT, AP

S.No.	Mandal	Lattitude	Longitude	Structure_Type
1	Yadiki	15.1335	77.8876	CheckDam
2	Yadiki	15.1521	77.8938	CheckDam
3	Yadiki	15.1588	77.9017	CheckDam
4	Yadiki	15.1458	77.8755	CheckDam
5	Yadiki	15.1149	77.8824	CheckDam
6	Yadiki	15.1215	77.8700	CheckDam
7	Yadiki	15.0321	77.9158	CheckDam
8	Yadiki	14.9968	77.9272	CheckDam
9	Yadiki	15.0208	77.9193	CheckDam
10	Yadiki	15.0331	77.8738	CheckDam
11	Yadiki	15.0144	77.8734	CheckDam
12	Yadiki	15.0610	77.9489	CheckDam
13	Yadiki	15.0683	77.9623	CheckDam
14	Yadiki	15.0680	77.9799	CheckDam
15	Yadiki	15.0510	77.9692	CheckDam
16	Yadiki	15.0347	77.9702	CheckDam
17	Yadiki	15.0783	77.7876	CheckDam
18	Yadiki	15.0457	77.7842	CheckDam
19	Yadiki	15.0131	77.7914	CheckDam
20	Yadiki	15.0241	77.8073	CheckDam
21	Yadiki	15.0850	77.7684	CheckDam
22	Yadiki	15.0168	77.8131	CheckDam
23	Yadiki	15.0447	77.8696	Percolation Tank
24	Yadiki	15.0191	77.9492	Percolation Tank
25	Yadiki	15.0750	77.9882	Percolation Tank
26	Yadiki	15.0653	77.9444	Percolation Tank
27	Yadiki	15.1019	77.8438	Percolation Tank
28	Yadiki	15.0304	77.8693	Percolation Tank
29	Yadiki	15.0437	77.8197	Percolation Tank
30	Yadiki	15.0337	77.8514	Percolation Tank
31	Yadiki	15.0740	77.9478	Percolation Tank
32	Yadiki	14.9785	77.9420	Percolation Tank

Fig.1

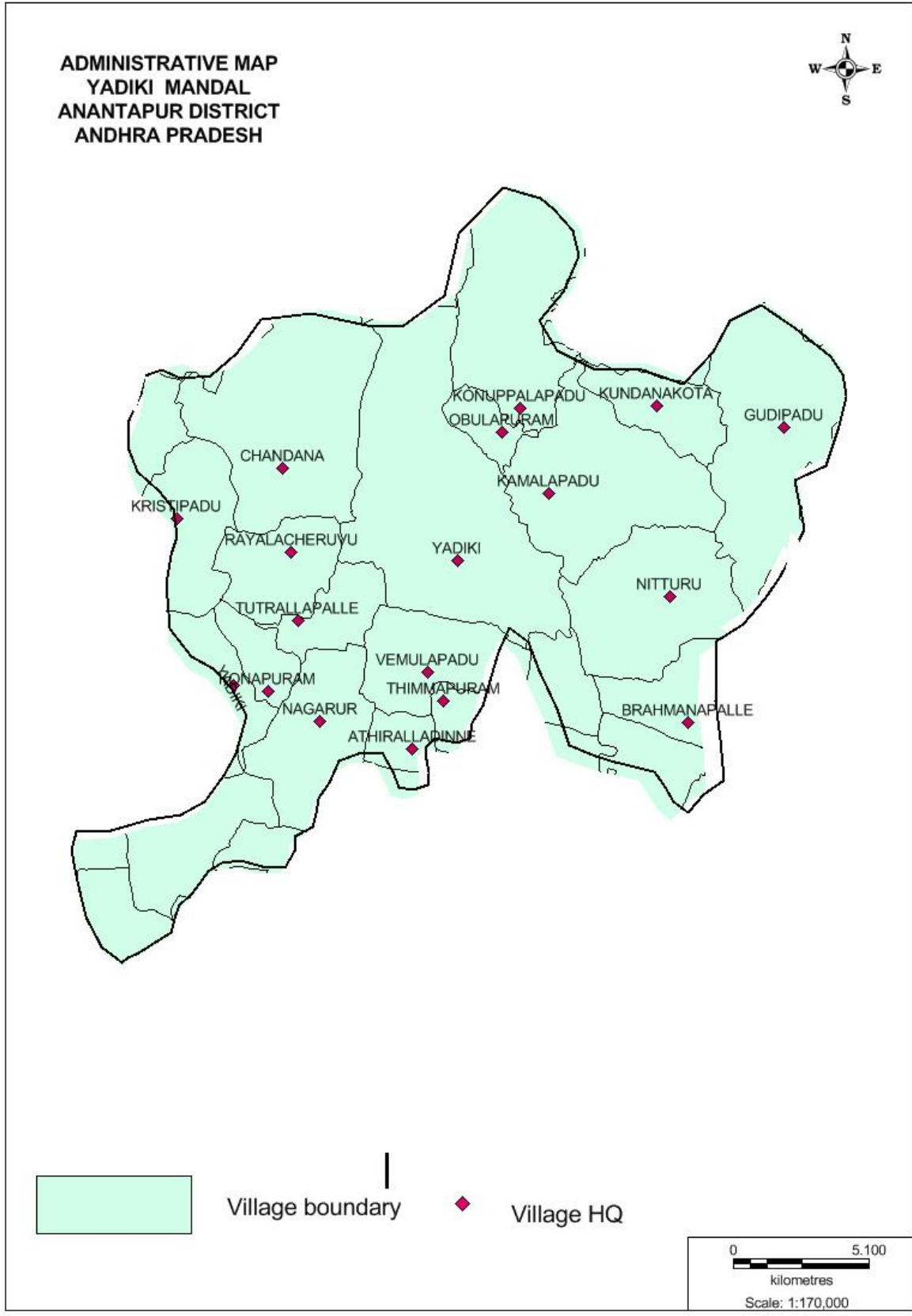


Fig.2

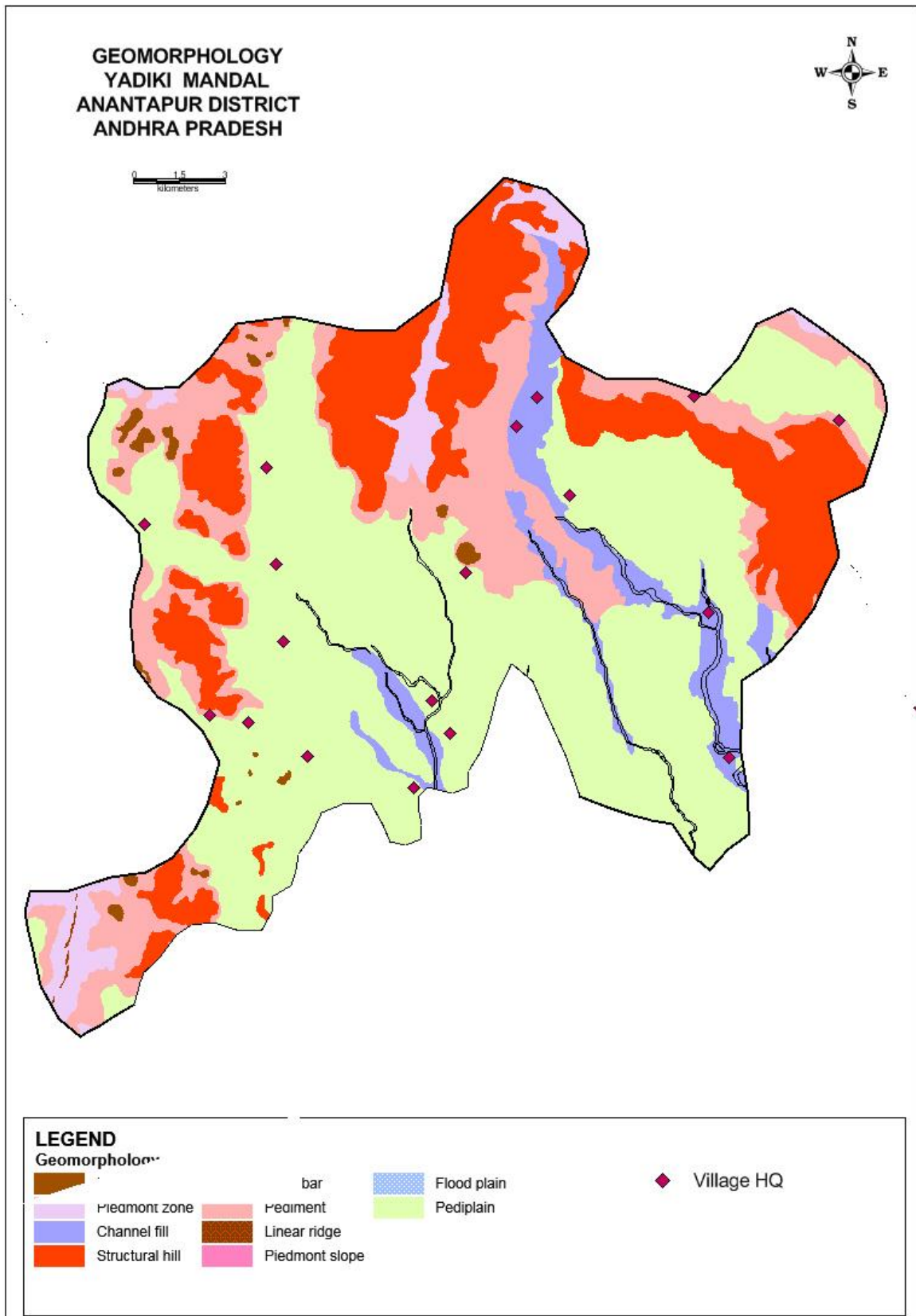


Fig.3

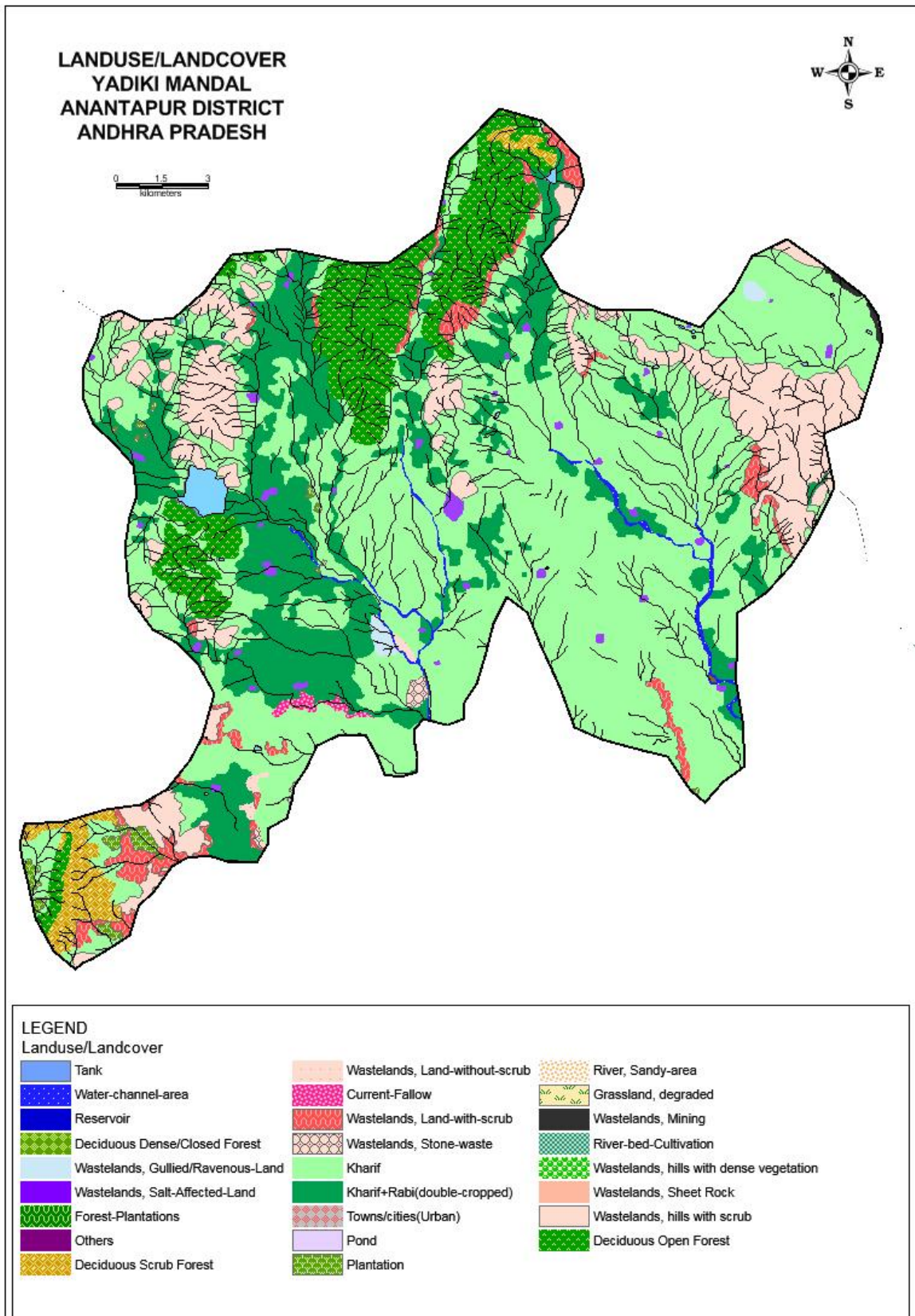


Fig.4

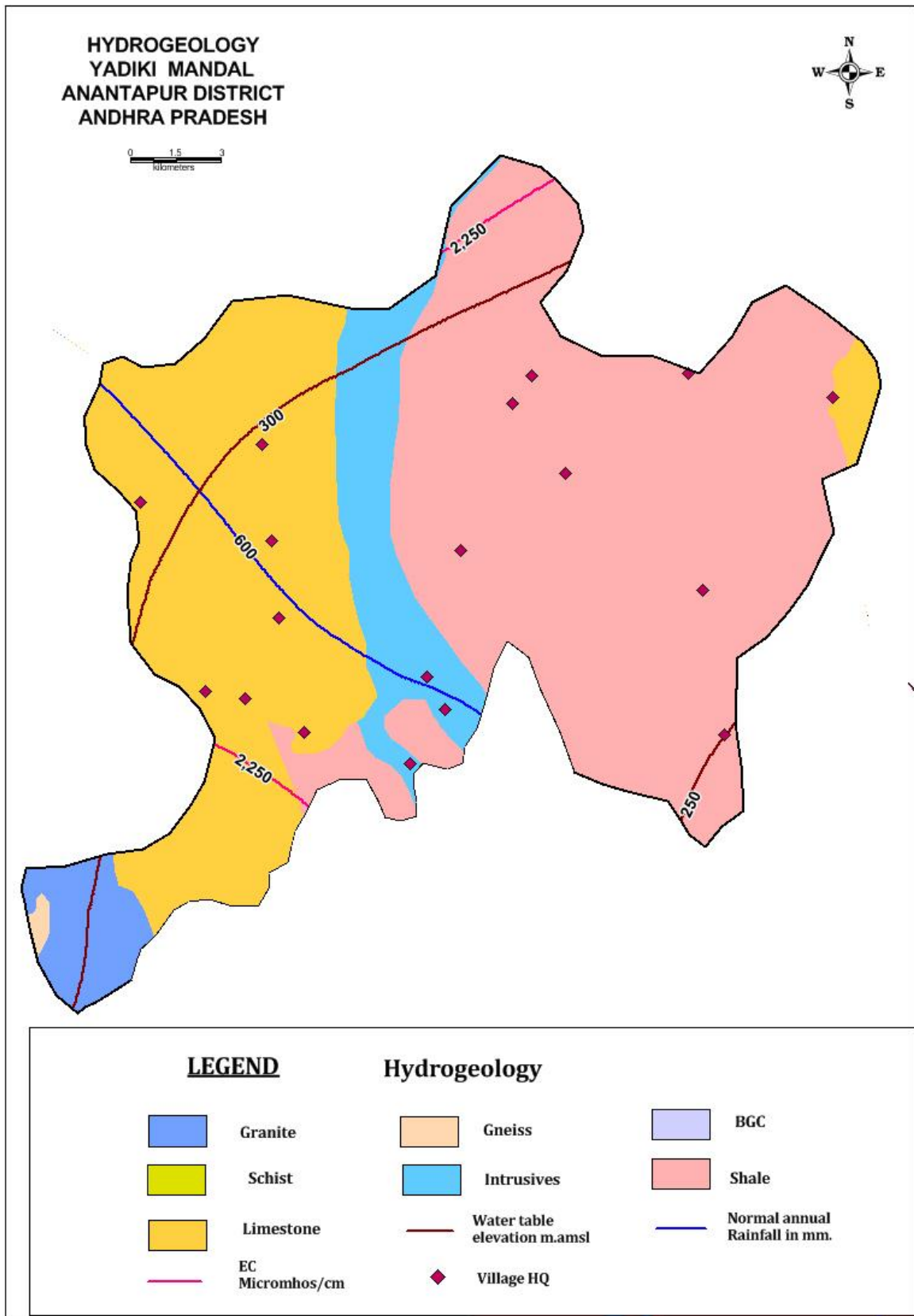


Fig.5

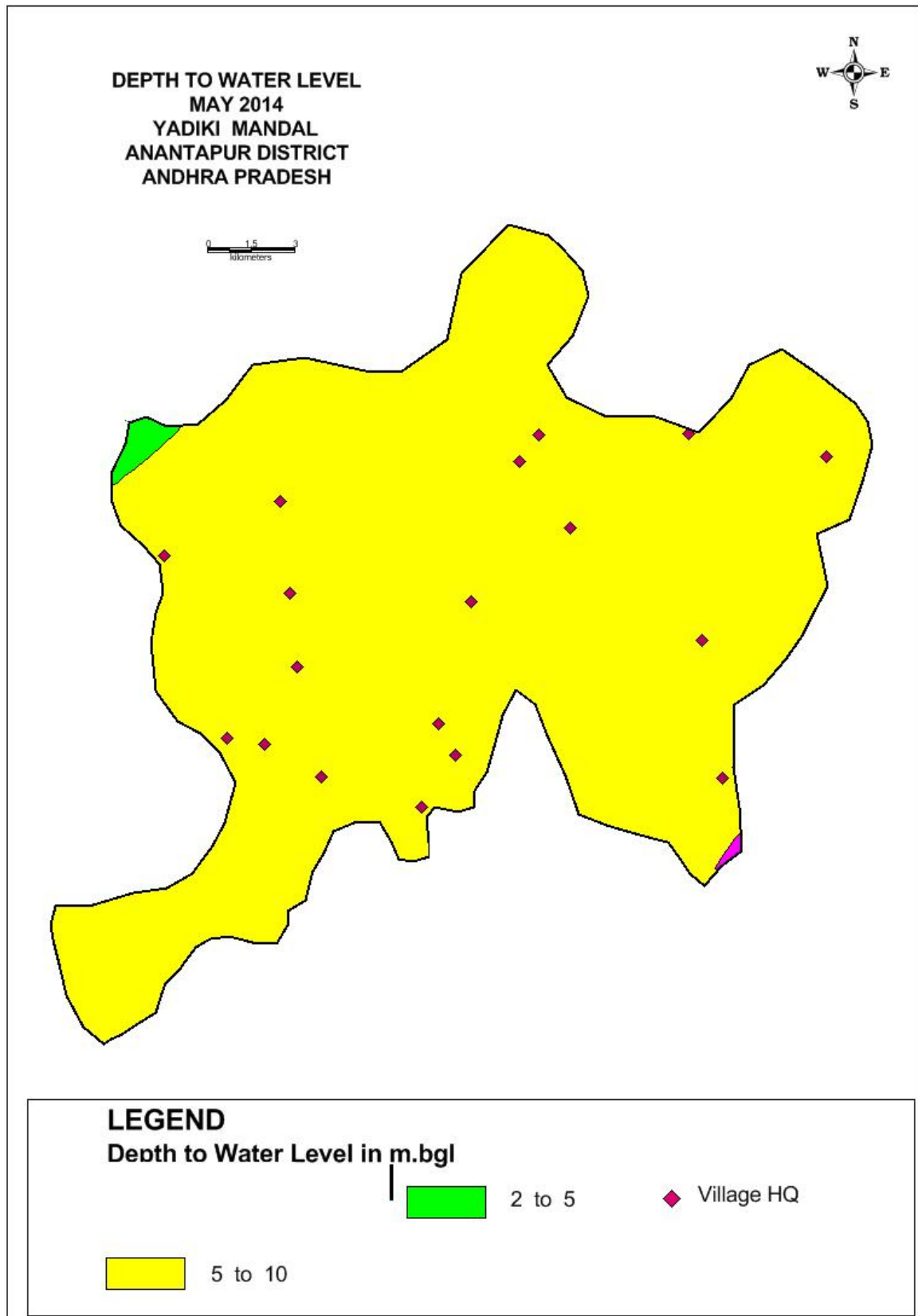


Fig.6

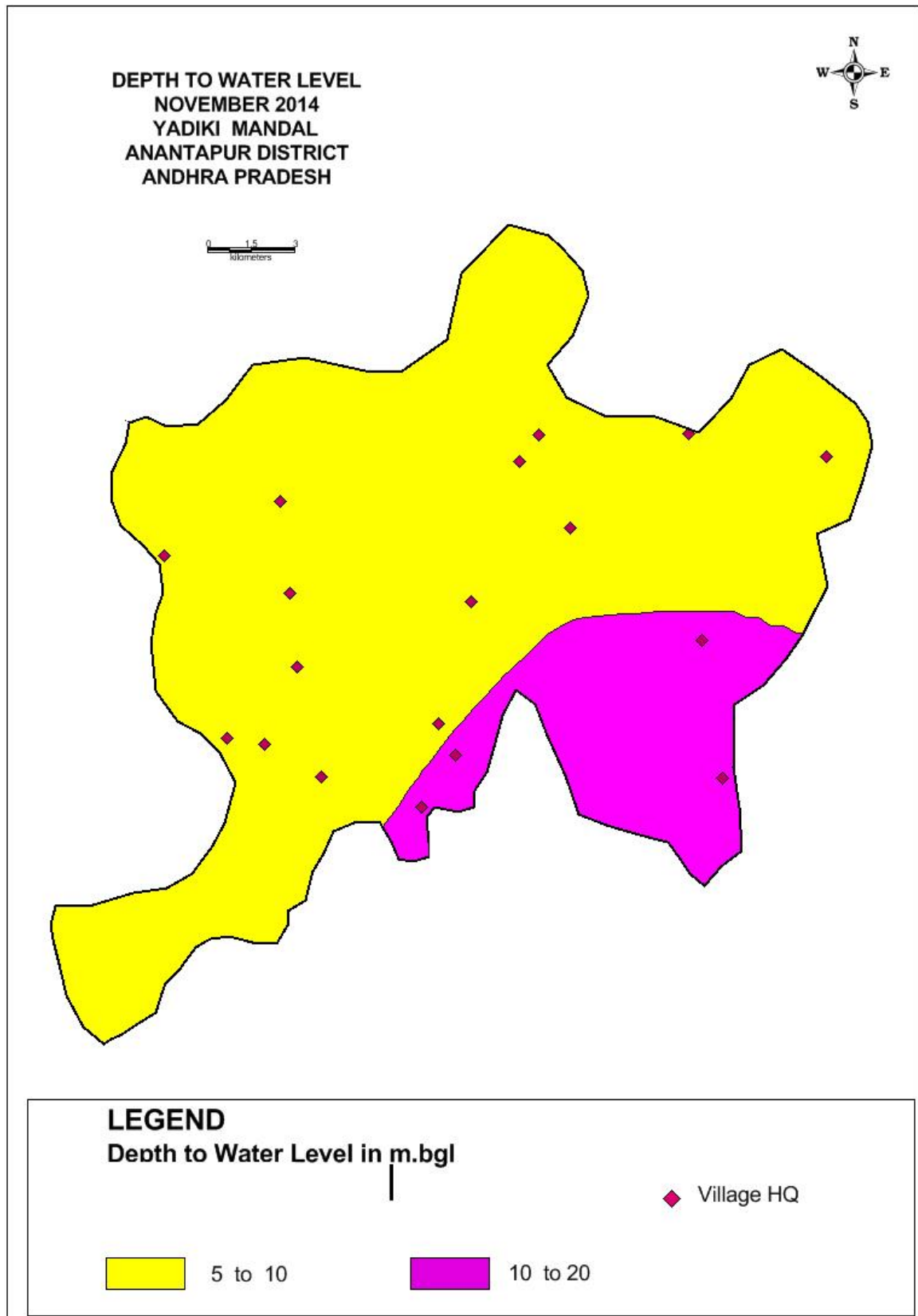


Fig.7

