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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
SRIRANGARAJAPURAM MANDAL, CHITTOOR DISTRICT,
ANDHRA PRADESH

SOUTHERN REGION
HYDERABAD
AUGUST-2016

PLAN ON
ARTIFICIAL RECHARGE TO GROUNDWATER AND
WATER CONSERVATION IN
SRIRANGARAJAPURAM MANDAL, CHITTOOR DISTRICT,
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AT A GLANCE

Name of the Mandal	SRIRANGARAJAPURAM
District	CHITTOOR
State	ANDHRA PRADESH
Total Area(sq. km)	130
Area suitable for Artificial Recharge (sq.km.)	129.69
Latitude and Longitude	13.219990 to 13.348890 and 79.217550 to 79.429430.
Average Annual Rainfall (mm)	1063
Geology	BGC
Average Depth To Water Level (Decadal) (Pre Monsoon)	35.0
Average Depth To Water Level (Decadal) (Post Monsoon)	16.4
Ground Water Resources (2011)	
Annual Replenishable Ground Water Resources (MCM/yr)	18.84
Net Annual Ground Water Availability(MCM)/yr	16.96
Net Annual Ground Water Draft(MCM)/yr	21.96
Projected Demand for Domestic and Industrial Use(MCM)/yr	2.45
Stage of Ground Water Development (%)	130
Surface runoff available (MCM)/yr	39.69
Total Storage Created in the Mandal by Various Agencies (MCM)/yr	3.53
Artificial Recharge/Conservation Measures	
Recharge Structures Proposed (No.s)	Check Dams: 90 Farm ponds: 760, Recharge Shafts: 249
Improving Water use Efficiency	Micro Irrigation System: 3800 ha
Tentative Total Cost in Lakhs (Rs.)	3275.265
Expected Recharge/Savings (MCM)/yr	16.127

1. INTRODUCTION

Srirangarajapuram Mandal is one of over-exploited Mandal in Chittoor district, Andhra Pradesh State, which is economically backward and chronically drought affected. The Mandal has 37 inhabited villages, 1 uninhabited village and with 23 gram panchayats.

2. LOCATION

The Mandal lies between north latitudes 13.219990 to 13.348890 and between east longitudes 79.217550 to 79.429430. The Mandal occupies the South-east part of the Chittoor district and is bounded on the north by Veduru Kuppam Mandal, on the east by Palasamudram Mandal, on the south by Gangadhara-Nellore Mandal and west by Penumuru Mandal. (Fig.1) The geographical area of the Mandal is 130 sq.km

3. PHYSIOGRAPHY AND DRAINAGE:

The area is drained by streams which are tributaries of Palar 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 1063 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 130 sq.km, the area covered by forest is 11.55 sq.km and the net area sown is 49.08 sq.km. Barren and uncultivable land is 27.64 sq.km. The land for non agricultural use accounts for 16.06 sq.kms (Fig.3).

6. HYDROGEOLOGY

The area is underlain by granites and granitic gneisses of Archaean age (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 11 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 granites up to 200 m bgl. However, the potential fractures are encountered between 50-100 m bgl. The cumulative yield varies from 2-5 lps.

7. GROUND WATER LEVEL SCENARIO

The depth to water level during the pre-monsoon and post-monsoon varies from 5 to 20 m. The average depth to water level (decadal) during pre and post monsoon is 35 and 16.4 m bgl respectively. The depth to water levels maps for pre and post monsoon period (2014) are shown in Fig 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 Srirangarajapuram Mandal Chittoor District is given in Table-1.

Table-1: Ground water resources of Srirangarajapuram mandal, Chittoor district

Annual Replenishable Ground water resources (MCM)	18.84
Net Annual Ground Water Availability(MCM)/yr	16.96
Net Annual Ground Water Draft(MCM)/yr	21.96
Projected Demand for Domestic and Industrial use up to 2025. (MCM)	2.45
Stage of Ground water development (%).	130
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 35 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

Srirangarajapuram Mandal falls under high stage of ground water development i.e., 130 % 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)	130
Hilly Area (Sq.kms)	0.31
Area suitable for Artificial Recharge (sq.km.)	129.69
Runoff Yield in MCM/yr.	39.69
Existing No. of Check Dams	290
Storage created MCM/yr.	2.055
Existing No. of Percolation Tanks	208
Storage created MCM/yr.	1.47
Total Existing Storage Created	3.53

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 36.16 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 2 m.
- 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 1063 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 90 **Check dams** 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 145 and 104 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 760 farm ponds in 38 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 3800 ha @ 100 ha per village.

13. TENTATIVE COST ESTIMATES (SRIRANGARAJAPURAM 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)	90	2.52	5	450	1.89
2	Recharge shaft in Check dam (50% of the existing Check dams)	145	1.595	0.5	72.5	1.595
3	Proposed Percolation Tanks (100*100*2.5)* 4 fillings)	0	0	15	0	0
4	Renovation Desilting, Repairs and installation of Recharge Shafts in existing PTS (50% of the existing PTS)	104	1.144	1	104	1.144
5	Proposed Farm Pond (6 filling) 5*5*1.5 dimension @ 20 farm ponds per each village	760	0.10944	0.25	190	0.098496
6	Proposed Sprinkler/drip/HDPE pipes for 100 ha in each village	3800	22.8	0.6	2280	11.4
7	Proposed Piezometers up to 50 mbgl @ one PZ per Village	38	0	0.6	22.8	0
8 (i)	Total (No. of AR Structures)	1137	5.37		839.3	4.727
8 (ii)	Total (ha)	3800			2280	11.4
	Total (8(i) + 8 (ii))				3119.3	16.127
9	Impact Assessment & O & M 5 % of Total cost of the Scheme				155.965	
	Grand Total				3275.265	

*(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 16.127 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 130% to 66% (64%)
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
SRIRANGARAJAPURAM MANDAL, CHITTOOR DISTRICT, AP.

S.no	Gram Panchayat	Habitation	Structure Type	Longitude	Latitude	Scheme
1	Marripalle dk	Marrripalle Dk H.W	Check Dam	79.2290	13.3181	NREGS
2	Marripalle dk	Marrripalle Dk H.W	Check Dam	79.2345	13.3218	NREGS
3	Chillamakulapalle	Chillamakulapalle	Check Dam	79.3542	13.3469	NREGS
4	Chillamakulapalle	Chillamakulapalle	Check Dam	79.3587	13.3448	NREGS
5	Padmapuram	Durgarajapuram	Check Dam	79.3330	13.2843	NREGS
6	Padmapuram	Durgarajapuram	Check Dam	79.3407	13.2736	NREGS
7	Padmapuram	Padmapuram	Check Dam	79.3477	13.2565	NREGS
8	Padmapuram	Padmapuram	Check Dam	79.3494	13.2642	NREGS
9	Padmapuram	Padmapuram	Check Dam	79.3466	13.2584	NREGS
10	Padmapuram	Padmapuram H/W	Check Dam	79.3425	13.2696	NREGS
11	Padmapuram	Padmapuram H/W	Check Dam	79.3410	13.2699	NREGS
12	Padmapuram	Padmapuram H/W	Check Dam	79.3425	13.2687	NREGS
13	Padmapuram	Padmapuram H/W	Check Dam	79.3409	13.2728	NREGS
14	Padmapuram	Padmapuram H/W	Check Dam	79.3430	13.2641	NREGS
15	Pullur	Pullur	Check Dam	79.3354	13.2387	NREGS
16	Pullur	Pullur	Check Dam	79.3310	13.2417	NREGS
17	Pullur	Pullur H/W	Check Dam	79.3379	13.2404	NREGS
18	Mangunta	D.B.R.Bylu	Check Dam	79.2849	13.3122	NREGS
19	Mangunta	D.B.R.Bylu	Check Dam	79.2854	13.3127	NREGS
20	Mangunta	D.B.R.Bylu	Check Dam	79.2856	13.3108	NREGS
21	Mangunta	Diguva Mangunta	Check Dam	79.3021	13.3203	NREGS
22	Mangunta	Diguva Mangunta	Check Dam	79.3086	13.3265	NREGS
23	Mangunta	Diguva Mangunta	Check Dam	79.3098	13.3286	NREGS
24	Mangunta	Mangunta	Check Dam	79.2904	13.3140	NREGS
25	Mangunta	Mangunta	Check Dam	79.2886	13.3133	NREGS
26	Mangunta	Mangunta	Check Dam	79.2943	13.3291	NREGS
27	Mangunta	Mangunta	Check Dam	79.2813	13.3163	NREGS
28	Mangunta	Mangunta H/W	Check Dam	79.2939	13.3167	NREGS
29	Mangunta	Mangunta H/W	Check Dam	79.2945	13.3172	NREGS
30	Mangunta	Mangunta H/W	Check Dam	79.2940	13.3220	NREGS
31	Mangunta	Mangunta H/W	Check Dam	79.2796	13.3208	NREGS
32	Mangunta	Mangunta H/W	Check Dam	79.2800	13.3216	NREGS
33	Mangunta	Mangunta M/W	Check Dam	79.2960	13.3181	NREGS
34	Udamalakurthi	Thungamitta H/W	Check Dam	79.3701	13.3534	NREGS
35	Udamalakurthi	Thungamitta H/W	Check Dam	79.3685	13.3507	NREGS
36	Venkatapuram	Podalapalle	Check Dam	79.3634	13.3352	NREGS
37	Venkatapuram	Podalapalle	Check Dam	79.3542	13.3348	NREGS
38	Venkatapuram	Podalapalle	Check Dam	79.3563	13.3412	NREGS
39	Venkatapuram	Venkatapuram	Check Dam	79.3462	13.3359	NREGS
40	Venkatapuram	Venkatapuram	Check Dam	79.3488	13.3365	NREGS
41	Venkatapuram	Venkatapuram	Check Dam	79.3507	13.3384	NREGS
42	Venkatapuram	Venkatapuram H/W	Check Dam	79.3417	13.3402	NREGS

43	Venkatapuram	Venkatapuram H/W	Check Dam	79.3434	13.3382	NREGS
44	Venkatapuram	Venkatapuram H/W	Check Dam	79.3462	13.3354	NREGS
45	Giddamakarajapuram	Dasarigunta	Check Dam	79.3710	13.2884	NREGS
46	Giddamakarajapuram	Giddamakarajapuram	Check Dam	79.3757	13.3061	NREGS
47	Muddikuppam	Diguva Muddikuppam H.W	Check Dam	79.3953	13.3314	NREGS
48	Muddikuppam	Eguva Muddikuppam H.W	Check Dam	79.3682	13.3349	NREGS
49	Muddikuppam	Eguva Muddikuppam H.W	Check Dam	79.3700	13.3349	NREGS
50	Thayyuru	China Thayyur H/Colo	Check Dam	79.3054	13.2944	NREGS
51	Thayyuru	China Thayyur H/Colo	Check Dam	79.3183	13.2993	NREGS
52	Thayyuru	China Thayyur H/Colo	Check Dam	79.3153	13.2990	NREGS
53	Settivanatham	Diguva Settivanatham	Check Dam	79.2986	13.2928	NREGS
54	Settivanatham	Diguva Settivanatham	Check Dam	79.3017	13.2936	NREGS
55	Settivanatham	Eguva Settivanatham	Check Dam	79.3056	13.2851	NREGS
56	Settivanatham	Eguva Settivanatham	Check Dam	79.3044	13.2885	NREGS
57	Settivanatham	Perumala Reddykandri	Check Dam	79.3050	13.2930	NREGS
58	Settivanatham	Perumala Reddykandri	Check Dam	79.3054	13.2943	NREGS
59	Settivanatham	Thatimakulapalle	Check Dam	79.3007	13.2963	NREGS
60	Medawada	Diguva Medawada H/W	Check Dam	79.3255	13.3000	NREGS
61	Medawada	Diguva Medawada H/W	Check Dam	79.3308	13.2985	NREGS
62	Medawada	Diguvamedawada	Check Dam	79.3367	13.3000	NREGS
63	Medawada	Jangalapalle	Check Dam	79.3265	13.2987	NREGS
64	Medawada	Jangalapalle	Check Dam	79.3255	13.2968	NREGS
65	Eguva kammakandriga	Diguvakammakandriga	Check Dam	79.3277	13.2386	NREGS
66	Eguva kammakandriga	Diguvakammakandriga	Check Dam	79.3282	13.2399	NREGS
67	Eguva kammakandriga	Diguvakammakandriga	Check Dam	79.3296	13.2389	NREGS
68	Eguva kammakandriga	Mitta H/W	Check Dam	79.3183	13.2359	NREGS
69	Eguva kammakandriga	Mitta H/W	Check Dam	79.3232	13.2377	NREGS
70	Eguva kammakandriga	Mitta H/W	Check Dam	79.3221	13.2395	NREGS
71	Eguva kammakandriga	Mitta H/W	Check Dam	79.3281	13.2417	NREGS
72	Eguva kammakandriga	Mitta H/W	Check Dam	79.3238	13.2409	NREGS
73	Eguva kammakandriga	Pebbamehenumitta Y/C	Check Dam	79.3072	13.2475	NREGS
74	N.r.puram	N.R.Puram	Check Dam	79.3188	13.2782	NREGS
75	N.r.puram	N.R.Puram	Check Dam	79.3196	13.2759	NREGS
76	N.r.puram	N.R.Puram	Check Dam	79.3197	13.2688	NREGS
77	N.r.puram	N.R.Puram	Check Dam	79.3223	13.2700	NREGS
78	N.r.puram	N.R.Puram	Check Dam	79.3249	13.2756	NREGS
79	N.r.puram	N.R.Puram H/Colony	Check Dam	79.3211	13.2795	NREGS
80	N.r.puram	N.R.Puram H/Colony	Check Dam	79.3212	13.2760	NREGS
81	N.r.puram	N.R.Puram H/W	Check Dam	79.3248	13.2795	NREGS
82	N.r.puram	N.R.Puram H/W	Check Dam	79.3232	13.2727	NREGS
83	N.r.puram	N.R.Puram H/W	Check Dam	79.3231	13.2753	NREGS
84	Venugopalapuram	Chinnabapanapalle H.W	Check Dam	79.2822	13.2736	NREGS
85	Venugopalapuram	Venugopalapuram	Check Dam	79.3078	13.2689	NREGS
86	Venugopalapuram	Venugopalapuram	Check Dam	79.3041	13.2685	NREGS

87	Venugopalapuram	Venugopalapuram	Check Dam	79.3058	13.2663	NREGS
88	Venugopalapuram	Venugopalapuram	Check Dam	79.3063	13.2764	NREGS
89	Kothapalle	48 Basivireddipalle	Check Dam	79.2374	13.2985	NREGS
90	Kothapalle	48 Basivireddipalle	Check Dam	79.2326	13.3070	NREGS
91	Kothapalle	Bodidevarapalle	Check Dam	79.2407	13.3143	NREGS
92	Kothapalle	Bodidevarapalle	Check Dam	79.2403	13.3158	NREGS
93	Kothapalle	Kotarlapalle	Check Dam	79.2461	13.2841	NREGS
94	Kothapalle	Kotarlapalle	Check Dam	79.2459	13.2905	NREGS
95	Kothapalle	Kothapalle Mitta	Check Dam	79.2509	13.2898	NREGS
96	Kothapalle	Kothapalle Mitta	Check Dam	79.2617	13.2899	NREGS
97	Kothapalle	Kothapalle Mitta	Check Dam	79.2635	13.2900	NREGS
98	S.r.puram	Chandrakumara Puram	Check Dam	79.3641	13.3138	NREGS
99	S.r.puram	Chandrakumarapuram H.W	Check Dam	79.3566	13.3126	NREGS
100	S.r.puram	S.R.Puram	Check Dam	79.3587	13.2986	NREGS
101	S.r.puram	Uddandamakarajapuram H.W	Check Dam	79.3504	13.3023	NREGS
102	Pillarikuppam	52 Kannikapuram	Check Dam	79.3108	13.2972	NREGS
103	Pillarikuppam	52 Kannikapuram	Check Dam	79.3129	13.2940	NREGS
104	Pillarikuppam	52 Kannikapuram	Check Dam	79.3157	13.2954	NREGS
105	Pillarikuppam	Moolur	Check Dam	79.3243	13.3101	NREGS
106	Pillarikuppam	Moolur	Check Dam	79.3228	13.3146	NREGS
107	Pillarikuppam	Moolur	Check Dam	79.3233	13.3124	NREGS
108	Pillarikuppam	Moolur S.T.Colony	Check Dam	79.3270	13.3110	NREGS
109	Pillarikuppam	Moolur S.T.Colony	Check Dam	79.3190	13.3291	NREGS
110	Pillarikuppam	Moolur S.T.Colony	Check Dam	79.3220	13.3189	NREGS
111	Pillarikuppam	Pillarikuppam H.Colony	Check Dam	79.3224	13.3200	NREGS
112	Pillarikuppam	Pillarikuppam H/W	Check Dam	79.3315	13.3282	NREGS
113	Pillarikuppam	Pillarikuppam H/W	Check Dam	79.3262	13.3276	NREGS
114	Vilasavarahapuram	Gangammagudi	Check Dam	79.2769	13.2992	NREGS
115	Vilasavarahapuram	Gangammagudi	Check Dam	79.2788	13.3011	NREGS
116	Vilasavarahapuram	Gangammagudi	Check Dam	79.2794	13.2953	NREGS
117	Vilasavarahapuram	Peddakondepalle	Check Dam	79.2840	13.2855	NREGS
118	Vilasavarahapuram	Peddakondepalle	Check Dam	79.2853	13.2856	NREGS
119	Vilasavarahapuram	Peddakondepalle	Check Dam	79.2879	13.2884	NREGS
120	Vilasavarahapuram	Peddakondepalle	Check Dam	79.2917	13.2900	NREGS
121	Vilasavarahapuram	Peddakondepalle	Check Dam	79.2837	13.2897	NREGS
122	Vilasavarahapuram	S.S.R.Puram	Check Dam	79.2953	13.2915	NREGS
123	Vilasavarahapuram	S.S.R.Puram	Check Dam	79.2941	13.2907	NREGS
124	Vilasavarahapuram	S.S.R.Puram	Check Dam	79.2886	13.2945	NREGS
125	Vilasavarahapuram	Sekurivariindlu	Check Dam	79.2847	13.3039	NREGS
126	Vilasavarahapuram	Sekurivariindlu	Check Dam	79.2841	13.3011	NREGS
127	Vilasavarahapuram	Vilasavarahapuram	Check Dam	79.2752	13.2872	NREGS
128	Vilasavarahapuram	Vilasavarahapuram H/	Check Dam	79.2727	13.2883	NREGS
129	Katikapalle	Kammappalle	Check Dam	79.2483	13.3149	NREGS
130	Katikapalle	Kammappalle	Check Dam	79.2476	13.3114	NREGS

131	Katikapalle	Katikapalle	Check Dam	79.2535	13.3118	NREGS
132	Katikapalle	Katikapalle H/W	Check Dam	79.2609	13.3065	NREGS
133	Katikapalle	Katikapalle H/W	Check Dam	79.2628	13.3117	NREGS
134	Katikapalle	Oddupalle	Check Dam	79.2737	13.2988	NREGS
135	Katikapalle	Oddupalle	Check Dam	79.2718	13.2999	NREGS
136	Katikapalle	Pilligundlapalle	Check Dam	79.2797	13.3158	NREGS
137	Katikapalle	Pilligundlapalle	Check Dam	79.2798	13.3174	NREGS
138	Katikapalle	Pilligundlapalle	Check Dam	79.2791	13.3187	NREGS
139	Katikapalle	Pilligundlapalle H.W	Check Dam	79.2692	13.3068	NREGS
140	Katikapalle	Pilligundlapalle H.W	Check Dam	79.2683	13.3059	NREGS
141	Katikapalle	Pilligundlapalle Y.Colony	Check Dam	79.2645	13.3175	NREGS
142	Katikapalle	Pilligundlapalle Y.Colony	Check Dam	79.2652	13.3163	NREGS
143	Katikapalle	Pilligundlapalle Y.Colony	Check Dam	79.2669	13.3161	NREGS
144	Katikapalle	Pilligundlapalle Y.Colony	Check Dam	79.2676	13.3158	NREGS
145	Katikapalle	Pilligundlapalle Y.Colony	Check Dam	79.2702	13.3193	NREGS
146	Katikapalle	Pilligundlapalle Y.Colony	Check Dam	79.2667	13.3193	NREGS
147	Ambaramaharajapuram	Ambaramaharajapuram	Check Dam	79.3487	13.2902	NREGS
148	Ambaramaharajapuram	D.R.R.Puram H.W	Check Dam	79.3508	13.2896	NREGS
149	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Dam	79.3470	13.2758	NREGS
150	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Dam	79.3411	13.2729	NREGS
151	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Dam	79.3451	13.2784	NREGS
152	Padmapuram	Padmapuram	Check Dam	79.3477	13.2565	IWMP
153	Padmapuram	Padmapuram	Check Dam	79.3494	13.2642	IWMP
154	Padmapuram	Padmapuram	Check Dam	79.3466	13.2584	IWMP
155	Padmapuram	Padmapuram H/W	Check Dam	79.3425	13.2696	IWMP
156	Padmapuram	Padmapuram H/W	Check Dam	79.3410	13.2699	IWMP
157	Padmapuram	Padmapuram H/W	Check Dam	79.3425	13.2687	IWMP
158	Padmapuram	Padmapuram H/W	Check Dam	79.3409	13.2728	IWMP
159	Padmapuram	Padmapuram H/W	Check Dam	79.3430	13.2641	IWMP
160	Pullur	Pullur	Check Dam	79.3354	13.2387	IWMP
161	Pullur	Pullur	Check Dam	79.3310	13.2417	IWMP
162	Pullur	Pullur H/W	Check Dam	79.3379	13.2404	IWMP
163	Giddamakarajapuram	Dasarigunta	Check Dam	79.3710	13.2884	IWMP
164	Giddamakarajapuram	Giddamakarajapuram	Check Dam	79.3757	13.3061	IWMP
165	Thayyuru	China Thayyur H/Colo	Check Dam	79.3054	13.2944	IWMP
166	Thayyuru	China Thayyur H/Colo	Check Dam	79.3183	13.2993	IWMP
167	Thayyuru	China Thayyur H/Colo	Check Dam	79.3153	13.2990	IWMP
168	Settivanatham	Diguva Settivanatham	Check Dam	79.2986	13.2928	IWMP
169	Settivanatham	Diguva Settivanatham	Check Dam	79.3017	13.2936	IWMP
170	Settivanatham	Eguva Settivanatham	Check Dam	79.3056	13.2851	IWMP
171	Settivanatham	Eguva Settivanatham	Check Dam	79.3044	13.2885	IWMP
172	Settivanatham	Perumala Reddykandri	Check Dam	79.3050	13.2930	IWMP
173	Settivanatham	Perumala Reddykandri	Check Dam	79.3054	13.2943	IWMP
174	Settivanatham	Thatimakulapalle	Check Dam	79.3007	13.2963	IWMP

175	Medawada	Diguva Medawada H/W	Check Dam	79.3255	13.3000	IWMP
176	Medawada	Diguva Medawada H/W	Check Dam	79.3308	13.2985	IWMP
177	Medawada	Diguva Medawada H/W	Check Dam	79.3380	13.3082	IWMP
178	Medawada	Diguvamedawada	Check Dam	79.3367	13.3000	IWMP
179	Medawada	Jangalapalle	Check Dam	79.3265	13.2987	IWMP
180	Medawada	Jangalapalle	Check Dam	79.3255	13.2968	IWMP
181	Eguva kammakandriga	Diguvakammakandriga	Check Dam	79.3277	13.2386	IWMP
182	Eguva kammakandriga	Diguvakammakandriga	Check Dam	79.3282	13.2399	IWMP
183	Eguva kammakandriga	Diguvakammakandriga	Check Dam	79.3296	13.2389	IWMP
184	Eguva kammakandriga	Mitta H/W	Check Dam	79.3183	13.2359	IWMP
185	Eguva kammakandriga	Mitta H/W	Check Dam	79.3232	13.2377	IWMP
186	Eguva kammakandriga	Mitta H/W	Check Dam	79.3221	13.2395	IWMP
187	Eguva kammakandriga	Mitta H/W	Check Dam	79.3281	13.2417	IWMP
188	Eguva kammakandriga	Mitta H/W	Check Dam	79.3238	13.2409	IWMP
189	Eguva kammakandriga	Pebbamehenumitta Y/C	Check Dam	79.3072	13.2475	IWMP
190	N.r.puram	N.R.Puram	Check Dam	79.3188	13.2782	IWMP
191	N.r.puram	N.R.Puram	Check Dam	79.3196	13.2759	IWMP
192	N.r.puram	N.R.Puram	Check Dam	79.3197	13.2688	IWMP
193	N.r.puram	N.R.Puram	Check Dam	79.3223	13.2700	IWMP
194	N.r.puram	N.R.Puram	Check Dam	79.3249	13.2756	IWMP
195	N.r.puram	N.R.Puram H/Colony	Check Dam	79.3211	13.2795	IWMP
196	N.r.puram	N.R.Puram H/Colony	Check Dam	79.3212	13.2760	IWMP
197	N.r.puram	N.R.Puram H/W	Check Dam	79.3248	13.2795	IWMP
198	N.r.puram	N.R.Puram H/W	Check Dam	79.3232	13.2727	IWMP
199	N.r.puram	N.R.Puram H/W	Check Dam	79.3231	13.2753	IWMP
200	Venugopalapuram	Chinnabapanapalle H.W	Check Dam	79.2822	13.2736	IWMP
201	Venugopalapuram	Venugopalapuram	Check Dam	79.3078	13.2689	IWMP
202	Venugopalapuram	Venugopalapuram	Check Dam	79.3041	13.2685	IWMP
203	Venugopalapuram	Venugopalapuram	Check Dam	79.3058	13.2663	IWMP
204	Venugopalapuram	Venugopalapuram	Check Dam	79.3063	13.2764	IWMP
205	S.r.puram	Chandrakumara Puram	Check Dam	79.3641	13.3138	IWMP
206	S.r.puram	Chandrakumarapuram H.W	Check Dam	79.3566	13.3126	IWMP
207	S.r.puram	S.R.Puram	Check Dam	79.3587	13.2986	IWMP
208	S.r.puram	Uddandamakarajapuram H.W	Check Dam	79.3504	13.3023	IWMP
209	Pillarikuppam	52 Kannikapuram	Check Dam	79.3108	13.2972	IWMP
210	Pillarikuppam	52 Kannikapuram	Check Dam	79.3129	13.2940	IWMP
211	Pillarikuppam	52 Kannikapuram	Check Dam	79.3157	13.2954	IWMP
212	Ambaramaharajapuram	Ambaramaharajapuram	Check Dam	79.3487	13.2902	IWMP
213	Ambaramaharajapuram	D.R.R.Puram H.W	Check Dam	79.3508	13.2896	IWMP
214	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Dam	79.3470	13.2758	IWMP
215	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Dam	79.3411	13.2729	IWMP
216	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Dam	79.3451	13.2784	IWMP
217	Chillamakulapalle	Chillamakulapalle H.W	Check Wall	79.3465	13.3092	NREGS
218	Pullur	Pullur	Check Wall	79.3359	13.2415	NREGS

219	Pullur	Pullur H/W	Check Wall	79.3377	13.2420	NREGS
220	Pullur	Pullur H/W	Check Wall	79.3375	13.2428	NREGS
221	Mangunta	D.B.R.Bylu	Check Wall	79.2840	13.3126	NREGS
222	Mangunta	D.B.R.Bylu	Check Wall	79.2841	13.3133	NREGS
223	Mangunta	D.B.R.Bylu	Check Wall	79.2841	13.3139	NREGS
224	Mangunta	Mangunta	Check Wall	79.2983	13.3216	NREGS
225	Mangunta	Mangunta H/W	Check Wall	79.2954	13.3172	NREGS
226	Venkatapuram	Podalapalle	Check Wall	79.3535	13.3374	NREGS
227	Venkatapuram	Venkatapuram	Check Wall	79.3472	13.3357	NREGS
228	Venkatapuram	Venkatapuram H/W	Check Wall	79.3489	13.3426	NREGS
229	Nelavoy	Anantharajapuram	Check Wall	79.3742	13.3232	NREGS
230	Nelavoy	Anantharajapuram	Check Wall	79.3702	13.3249	NREGS
231	Nelavoy	Anantharajapuram	Check Wall	79.3720	13.3254	NREGS
232	Nelavoy	Anantharajapuram	Check Wall	79.3731	13.3251	NREGS
233	Nelavoy	Anantharajapuram	Check Wall	79.3742	13.3258	NREGS
234	Nelavoy	Nelavoy H/W	Check Wall	79.3843	13.3207	NREGS
235	Giddamakarajapuram	Dasarigunta	Check Wall	79.3691	13.2874	NREGS
236	Giddamakarajapuram	Dasarigunta	Check Wall	79.3709	13.2902	NREGS
237	Giddamakarajapuram	Dasarigunta	Check Wall	79.3711	13.2922	NREGS
238	Giddamakarajapuram	Giddamakarajapuram	Check Wall	79.3740	13.2982	NREGS
239	Giddamakarajapuram	Giddamakarajapuram	Check Wall	79.3764	13.2949	NREGS
240	Giddamakarajapuram	Giddamakarajapuram	Check Wall	79.3749	13.3021	NREGS
241	Muddikuppam	Eguva Muddikuppam H.W	Check Wall	79.3708	13.3328	NREGS
242	Thayyuru	China Thayyur H/Colo	Check Wall	79.3057	13.3008	NREGS
243	Thayyuru	China Thayyur H/Colo	Check Wall	79.3081	13.2961	NREGS
244	Thayyuru	Chinnathayyuru	Check Wall	79.3125	13.3034	NREGS
245	Thayyuru	Peddathayyuru H/W	Check Wall	79.3108	13.2972	NREGS
246	Settivanatham	Perumala Reddykandri	Check Wall	79.3070	13.2914	NREGS
247	Medawada	Diguva Medawada H/W	Check Wall	79.3372	13.3112	NREGS
248	Medawada	Diguva Medawada H/W	Check Wall	79.3393	13.3114	NREGS
249	Medawada	Diguva Medawada H/W	Check Wall	79.3393	13.3114	NREGS
250	Medawada	Marripalle H/W	Check Wall	79.3259	13.3038	NREGS
251	Eguva kammakandriga	Pebbamehenumitta Y/C	Check Wall	79.3116	13.2495	NREGS
252	S.r.puram	Chandrakumara Puram	Check Wall	79.3725	13.3148	NREGS
253	S.r.puram	Pathapalem M/W	Check Wall	79.3660	13.2976	NREGS
254	S.r.puram	Pullur Cross	Check Wall	79.3504	13.3111	NREGS
255	S.r.puram	Uddandamakarajapuram	Check Wall	79.3454	13.3082	NREGS
256	Pillarikuppam	Pillarikuppam H/W	Check Wall	79.3275	13.3283	NREGS
257	Vilasavarahapuram	Sekurivariindlu	Check Wall	79.2849	13.3044	NREGS
258	Katikapalle	50 Kannikapuram	Check Wall	79.2814	13.3050	NREGS
259	Katikapalle	Pilligundlapalle Y.Colony	Check Wall	79.2692	13.3198	NREGS
260	Ambaramaharajapuram	Ambaramaharajapuram	Check Wall	79.3503	13.2719	NREGS
261	Ambaramaharajapuram	Kondrajapuram(Ui)	Check Wall	79.3532	13.2790	NREGS
262	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Wall	79.3474	13.2775	NREGS

263	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Wall	79.3424	13.2755	NREGS
264	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Wall	79.3425	13.2774	NREGS
265	Pullur	Pullur	Check Wall	79.3359	13.2415	IWMP
266	Pullur	Pullur H/W	Check Wall	79.3377	13.2420	IWMP
267	Pullur	Pullur H/W	Check Wall	79.3375	13.2428	IWMP
268	Giddamakarajapuram	Dasarigunta	Check Wall	79.3691	13.2874	IWMP
269	Giddamakarajapuram	Dasarigunta	Check Wall	79.3709	13.2902	IWMP
270	Giddamakarajapuram	Dasarigunta	Check Wall	79.3711	13.2922	IWMP
271	Giddamakarajapuram	Giddamakarajapuram	Check Wall	79.3740	13.2982	IWMP
272	Giddamakarajapuram	Giddamakarajapuram	Check Wall	79.3764	13.2949	IWMP
273	Giddamakarajapuram	Giddamakarajapuram	Check Wall	79.3749	13.3021	IWMP
274	Thayyuru	China Thayyur H/Colo	Check Wall	79.3057	13.3008	IWMP
275	Thayyuru	China Thayyur H/Colo	Check Wall	79.3081	13.2961	IWMP
276	Thayyuru	Chinnathayyuru	Check Wall	79.3125	13.3034	IWMP
277	Thayyuru	Peddathayyuru H/W	Check Wall	79.3108	13.2972	IWMP
278	Settivanatham	Perumala Reddykandri	Check Wall	79.3070	13.2914	IWMP
279	Medawada	Diguva Medawada H/W	Check Wall	79.3372	13.3112	IWMP
280	Medawada	Diguva Medawada H/W	Check Wall	79.3393	13.3114	IWMP
281	Medawada	Marripalle H/W	Check Wall	79.3259	13.3038	IWMP
282	Eguva kammakandriga	Pebbamehenumitta Y/C	Check Wall	79.3116	13.2495	IWMP
283	S.r.puram	Chandrakumara Puram	Check Wall	79.3725	13.3148	IWMP
284	S.r.puram	Pathapalem M/W	Check Wall	79.3660	13.2976	IWMP
285	S.r.puram	Pullur Cross	Check Wall	79.3504	13.3111	IWMP
286	S.r.puram	Uddandamakarajapuram	Check Wall	79.3454	13.3082	IWMP
287	Ambaramaharajapuram	Ambaramaharajapuram	Check Wall	79.3503	13.2719	IWMP
288	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Wall	79.3474	13.2775	IWMP
289	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Wall	79.3424	13.2755	IWMP
290	Ambaramaharajapuram	Raghavarrajapuram H.W	Check Wall	79.3425	13.2774	IWMP
291	Marripalle dk	Marripalle D.K	MPT	79.2369	13.3227	NREGS
292	Marripalle dk	Marripalle Dk H.W	MPT	79.2321	13.3217	NREGS
293	Chillamakulapalle	Balireddy Kandriga	MPT	79.3614	13.3526	NREGS
294	Ksheerasamudram	Ksheerasamudram H/W	MPT	79.3713	13.3148	NREGS
295	Padmapuram	Durgarajapuram	MPT	79.3339	13.2853	NREGS
296	Padmapuram	Durgarajapuram	MPT	79.3406	13.2720	NREGS
297	Padmapuram	Durgarajapuram H/W	MPT	79.3363	13.2860	NREGS
298	Padmapuram	Durgarajapuram H/W	MPT	79.3323	13.2840	NREGS
299	Padmapuram	Padmapuram	MPT	79.3518	13.2652	NREGS
300	Padmapuram	Padmapuram H/W	MPT	79.3418	13.2695	NREGS
301	Pullur	Pullur H/W	MPT	79.3401	13.2400	NREGS
302	Pullur	Pullur H/W	MPT	79.3405	13.2405	NREGS
303	Mangunta	D.B.R.Bylu	MPT	79.2859	13.3097	NREGS
304	Mangunta	D.B.R.Bylu	MPT	79.2812	13.3107	NREGS
305	Mangunta	Diguva Mangunta	MPT	79.3061	13.3243	NREGS
306	Mangunta	Diguva Mangunta	MPT	79.3064	13.3257	NREGS

307	Mangunta	Mangunta H/W	MPT	79.2803	13.3219	NREGS
308	Venkatapuram	Podalapalle	MPT	79.3676	13.3388	NREGS
309	Venkatapuram	Podalapalle	MPT	79.3664	13.3399	NREGS
310	Venkatapuram	Podalapalle	MPT	79.3610	13.3381	NREGS
311	Venkatapuram	Podalapalle	MPT	79.3501	13.3302	NREGS
312	Venkatapuram	Podalapalle	MPT	79.3521	13.3312	NREGS
313	Nelavoy	Anantharajapuram	MPT	79.3851	13.3232	NREGS
314	Nelavoy	Anantharajapuram	MPT	79.3735	13.3230	NREGS
315	Nelavoy	Anantharajapuram	MPT	79.3702	13.3260	NREGS
316	Nelavoy	Anantharajapuram	MPT	79.3690	13.3271	NREGS
317	Giddamakarajapuram	Giddamakarajapuram	MPT	79.3735	13.2996	NREGS
318	Thayyuru	50 Basivireddipalle	MPT	79.2945	13.2994	NREGS
319	Thayyuru	China Thayyur H/Colo	MPT	79.3060	13.3000	NREGS
320	Thayyuru	China Thayyur H/Colo	MPT	79.3165	13.2996	NREGS
321	Thayyuru	Chinnathayyuru	MPT	79.3115	13.3058	NREGS
322	Thayyuru	Chinnathayyuru	MPT	79.3098	13.3053	NREGS
323	Settivanatham	Diguva Settivanatham	MPT	79.3098	13.2876	NREGS
324	Settivanatham	Diguva Settivanatham	MPT	79.3120	13.2883	NREGS
325	Settivanatham	Diguva Settivanatham H.W	MPT	79.3066	13.2821	NREGS
326	Settivanatham	Diguva Settivanatham H.W	MPT	79.3058	13.2825	NREGS
327	Settivanatham	Diguva Settivanatham H.W	MPT	79.3072	13.2811	NREGS
328	Settivanatham	Diguva Settivanatham H.W	MPT	79.2991	13.2821	NREGS
329	Settivanatham	Eguva Settivanatham	MPT	79.3038	13.2854	NREGS
330	Medawada	Diguva Medawada H/W	MPT	79.3325	13.3022	NREGS
331	Medawada	Diguva Medawada H/W	MPT	79.3314	13.3004	NREGS
332	Medawada	Diguva Medawada H/W	MPT	79.3307	13.3003	NREGS
333	Medawada	Diguva Medawada H/W	MPT	79.3335	13.3032	NREGS
334	Medawada	Diguva Medawada H/W	MPT	79.3353	13.3079	NREGS
335	Medawada	Diguva Medawada H/W	MPT	79.3318	13.3043	NREGS
336	Medawada	Diguvamedawada	MPT	79.3369	13.3025	NREGS
337	Medawada	Eguvamedawada	MPT	79.3350	13.3073	NREGS
338	Medawada	Jangalapalle	MPT	79.3253	13.2946	NREGS
339	Medawada	Jangalapalle	MPT	79.3235	13.2941	NREGS
340	Medawada	Marripalle H/W	MPT	79.3197	13.3095	NREGS
341	Medawada	Marripalle H/W	MPT	79.3194	13.3110	NREGS
342	Medawada	Pillarikuppam Cross	MPT	79.3304	13.3040	NREGS
343	Eguva kammakandriga	Eguva Kammakandriga	MPT	79.3069	13.2398	NREGS
344	Eguva kammakandriga	Mitta H/W	MPT	79.3217	13.2400	NREGS
345	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3107	13.2497	NREGS
346	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3091	13.2481	NREGS
347	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3105	13.2474	NREGS
348	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3122	13.2487	NREGS
349	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3092	13.2459	NREGS
350	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3094	13.2449	NREGS

351	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3094	13.2434	NREGS
352	Venugopalapuram	Chinnabapanapalle	MPT	79.2921	13.2743	NREGS
353	Venugopalapuram	Nallapalle	MPT	79.2970	13.2831	NREGS
354	Venugopalapuram	Venugopalapuram	MPT	79.3040	13.2648	NREGS
355	Kothapalle	Bodidevarapalle	MPT	79.2391	13.3130	NREGS
356	S.r.puram	Chandrakumarapuram H.W	MPT	79.3552	13.3094	NREGS
357	S.r.puram	Pathapalem H/W	MPT	79.3662	13.2894	NREGS
358	S.r.puram	S.R.Puram	MPT	79.3666	13.3063	NREGS
359	Pillarikuppam	52 Kannikapuram	MPT	79.3166	13.2931	NREGS
360	Pillarikuppam	52 Kannikapuram	MPT	79.3137	13.2929	NREGS
361	Pillarikuppam	52 Kannikapuram	MPT	79.3128	13.2923	NREGS
362	Pillarikuppam	52 Kannikapuram	MPT	79.3117	13.2921	NREGS
363	Pillarikuppam	Moolur	MPT	79.3195	13.3139	NREGS
364	Pillarikuppam	Moolur S.T.Colony	MPT	79.3197	13.3217	NREGS
365	Pillarikuppam	Pillarikuppam H/W	MPT	79.3363	13.3317	NREGS
366	Vilasavarahapuram	Arrimakulapalle H/Co	MPT	79.2812	13.2916	NREGS
367	Vilasavarahapuram	Arrimakulapalle H/Co	MPT	79.2849	13.2898	NREGS
368	Vilasavarahapuram	Sekurivariindlu	MPT	79.2854	13.3046	NREGS
369	Katikapalle	Katikapalle H/W	MPT	79.2611	13.3050	NREGS
370	Katikapalle	Katikapalle H/W	MPT	79.2606	13.3097	NREGS
371	Katikapalle	Katikapalle H/W	MPT	79.2628	13.3129	NREGS
372	Katikapalle	Katikapalle H/W	MPT	79.2630	13.3082	NREGS
373	Katikapalle	Pilligundlapalle H.W	MPT	79.2781	13.3077	NREGS
374	Katikapalle	Pilligundlapalle Y.Colony	MPT	79.2705	13.3197	NREGS
375	Katikapalle	Pilligundlapalle Y.Colony	MPT	79.2683	13.3200	NREGS
376	Katikapalle	Sivagangapuram	MPT	79.2667	13.3007	NREGS
377	Ambaramaharajapuram	Raghavarrajapuram H.W	MPT	79.3415	13.2718	NREGS
378	Ambaramaharajapuram	Raghavarrajapuram H.W	MPT	79.3407	13.2727	NREGS
379	Ksheerasamudram	Ksheerasamudram H/W	MPT	79.3713	13.3148	IWMP
380	Padmapuram	Padmapuram	MPT	79.3518	13.2652	IWMP
381	Padmapuram	Padmapuram H/W	MPT	79.3418	13.2695	IWMP
382	Pullur	Pullur H/W	MPT	79.3401	13.2400	IWMP
383	Pullur	Pullur H/W	MPT	79.3405	13.2405	IWMP
384	Giddamakarajapuram	Giddamakarajapuram	MPT	79.3735	13.2996	IWMP
385	Thayyuru	China Thayyur H/Colo	MPT	79.3060	13.3000	IWMP
386	Thayyuru	China Thayyur H/Colo	MPT	79.3165	13.2996	IWMP
387	Thayyuru	Chinnathayyuru	MPT	79.3115	13.3058	IWMP
388	Thayyuru	Chinnathayyuru	MPT	79.3098	13.3053	IWMP
389	Settivanatham	Diguva Settivanatham	MPT	79.3098	13.2876	IWMP
390	Settivanatham	Diguva Settivanatham	MPT	79.3120	13.2883	IWMP
391	Settivanatham	Eguva Settivanatham	MPT	79.3038	13.2854	IWMP
392	Medawada	Diguva Medawada H/W	MPT	79.3325	13.3022	IWMP
393	Medawada	Diguva Medawada H/W	MPT	79.3314	13.3004	IWMP
394	Medawada	Diguva Medawada H/W	MPT	79.3307	13.3003	IWMP

395	Medawada	Diguva Medawada H/W	MPT	79.3335	13.3032	IWMP
396	Medawada	Diguva Medawada H/W	MPT	79.3353	13.3079	IWMP
397	Medawada	Diguva Medawada H/W	MPT	79.3318	13.3043	IWMP
398	Medawada	Diguvamedawada	MPT	79.3369	13.3025	IWMP
399	Medawada	Eguvamedawada	MPT	79.3350	13.3073	IWMP
400	Medawada	Jangalapalle	MPT	79.3253	13.2946	IWMP
401	Medawada	Jangalapalle	MPT	79.3235	13.2941	IWMP
402	Medawada	Marripalle H/W	MPT	79.3197	13.3095	IWMP
403	Medawada	Marripalle H/W	MPT	79.3194	13.3110	IWMP
404	Medawada	Pillarikuppam Cross	MPT	79.3304	13.3040	IWMP
405	Eguva kammakandriga	Eguva Kammakandriga	MPT	79.3069	13.2398	IWMP
406	Eguva kammakandriga	Mitta H/W	MPT	79.3217	13.2400	IWMP
407	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3107	13.2497	IWMP
408	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3091	13.2481	IWMP
409	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3105	13.2474	IWMP
410	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3122	13.2487	IWMP
411	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3092	13.2459	IWMP
412	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3094	13.2449	IWMP
413	Eguva kammakandriga	Pebbamehenumitta Y/C	MPT	79.3094	13.2434	IWMP
414	Venugopalapuram	Chinnabapanapalle	MPT	79.2921	13.2743	IWMP
415	Venugopalapuram	Nallapalle	MPT	79.2970	13.2831	IWMP
416	Venugopalapuram	Venugopalapuram	MPT	79.3040	13.2648	IWMP
417	S.r.puram	Chandrakumarapuram H.W	MPT	79.3552	13.3094	IWMP
418	S.r.puram	Pathapalem H/W	MPT	79.3662	13.2894	IWMP
419	S.r.puram	S.R.Puram	MPT	79.3666	13.3063	IWMP
420	Pillarikuppam	52 Kannikapuram	MPT	79.3166	13.2931	IWMP
421	Pillarikuppam	52 Kannikapuram	MPT	79.3137	13.2929	IWMP
422	Pillarikuppam	52 Kannikapuram	MPT	79.3128	13.2923	IWMP
423	Pillarikuppam	52 Kannikapuram	MPT	79.3117	13.2921	IWMP
424	Ambaramaharajapuram	Raghavarrajapuram H.W	MPT	79.3415	13.2718	IWMP
425	Ambaramaharajapuram	Raghavarrajapuram H.W	MPT	79.3407	13.2727	IWMP
426	Marripalle dk	Marripalle D.K	PT	79.2369	13.3192	NREGS
427	Ksheerasamudram	Ksheerasamudram	PT	79.3689	13.3273	NREGS
428	Ksheerasamudram	Ksheerasamudram	PT	79.3702	13.3260	NREGS
429	Padmapuram	Padmapuram H/W	PT	79.3408	13.2626	NREGS
430	Mangunta	D.B.R.Bylu	PT	79.2810	13.3118	NREGS
431	Mangunta	Mangunta	PT	79.2986	13.3271	NREGS
432	Mangunta	Mangunta	PT	79.3017	13.3295	NREGS
433	Mangunta	Mangunta	PT	79.2941	13.3295	NREGS
434	Mangunta	Mangunta	PT	79.3015	13.3124	NREGS
435	Mangunta	Mangunta	PT	79.2898	13.3341	NREGS
436	Mangunta	Mangunta	PT	79.2949	13.3343	NREGS
437	Mangunta	Mangunta H/W	PT	79.2916	13.3232	NREGS
438	Venkatapuram	Podalapalle	PT	79.3566	13.3355	NREGS

439	Venkatapuram	Venkatapuram H/W	PT	79.3467	13.3428	NREGS
440	Nelavoy	Anantharajapuram	PT	79.3760	13.3238	NREGS
441	Nelavoy	Anantharajapuram	PT	79.3802	13.3236	NREGS
442	Nelavoy	Nelavoy H/W	PT	79.3793	13.3158	NREGS
443	Giddamakarajapuram	Dasarigunta	PT	79.3708	13.2918	NREGS
444	Muddikuppam	Diguva Muddikuppam H.W	PT	79.3916	13.3389	NREGS
445	Muddikuppam	Eguva Muddikuppam H.W	PT	79.3694	13.3303	NREGS
446	Muddikuppam	Eguva Muddikuppam H.W	PT	79.3692	13.3329	NREGS
447	Thayyuru	50 Basivireddipalle	PT	79.2954	13.3016	NREGS
448	Settivanatham	Diguva Settivanatham	PT	79.3119	13.2876	NREGS
449	Settivanatham	Eguva Settivanatham	PT	79.3071	13.2852	NREGS
450	Settivanatham	Eguva Settivanatham	PT	79.3112	13.2857	NREGS
451	Settivanatham	Shikaris Centre	PT	79.3067	13.2795	NREGS
452	Medawada	Diguvamedawada	PT	79.3376	13.3052	NREGS
453	Medawada	Marripalle	PT	79.3226	13.3075	NREGS
454	N.r.puram	N.R.Puram	PT	79.3154	13.2800	NREGS
455	Venugopalapuram	Chinnabapanapalle	PT	79.2948	13.2764	NREGS
456	Venugopalapuram	Nallapalle	PT	79.2925	13.2828	NREGS
457	Kothapalle	48 Basivireddipalle	PT	79.2365	13.2985	NREGS
458	Kothapalle	48 Basivireddipalle	PT	79.2372	13.3071	NREGS
459	Kothapalle	Bodidevarapalle	PT	79.2400	13.3188	NREGS
460	Kothapalle	Bodidevarapalle	PT	79.2415	13.3099	NREGS
461	Kothapalle	Bodidevarapalle	PT	79.2399	13.3102	NREGS
462	Kothapalle	Bodidevarapalle H.W	PT	79.2458	13.3158	NREGS
463	Kothapalle	Kothapalle Mitta	PT	79.2591	13.2950	NREGS
464	Kothapalle	Ramakrishnapuram	PT	79.2634	13.3003	NREGS
465	S.r.puram	Chandrakumara Puram	PT	79.3629	13.3129	NREGS
466	S.r.puram	Pathapalem H/W	PT	79.3619	13.2936	NREGS
467	S.r.puram	Pathapalem M/W	PT	79.3634	13.2965	NREGS
468	S.r.puram	Uddandamakarajapuram	PT	79.3438	13.3060	NREGS
469	S.r.puram	Uddandamakarajapuram	PT	79.3479	13.3014	NREGS
470	Pillarikuppam	Pillarikuppam	PT	79.3296	13.3213	NREGS
471	Pillarikuppam	Pillarikuppam	PT	79.3255	13.3232	NREGS
472	Pillarikuppam	Pillarikuppam H/W	PT	79.3336	13.3307	NREGS
473	Pillarikuppam	Pillarikuppam H/W	PT	79.3298	13.3257	NREGS
474	Vilasavarahapuram	Arrimakulapalle H/Co	PT	79.2904	13.2980	NREGS
475	Vilasavarahapuram	Peddakondepalle	PT	79.2826	13.2897	NREGS
476	Vilasavarahapuram	Sekurivariindlu	PT	79.2852	13.3065	NREGS
477	Katikapalle	Katikapalle H/W	PT	79.2617	13.3059	NREGS
478	Katikapalle	Katikapalle H/W	PT	79.2592	13.3102	NREGS
479	Katikapalle	Oddupalle H.W	PT	79.2715	13.2978	NREGS
480	Katikapalle	Pilligundlapalle H.W	PT	79.2657	13.3090	NREGS
481	Ksheerasamudram	Ksheerasamudram	PT	79.3689	13.3273	IWMP
482	Ksheerasamudram	Ksheerasamudram	PT	79.3702	13.3260	IWMP

483	Padmapuram	Padmapuram H/W	PT	79.3408	13.2626	IWMP
484	Giddamakarajapuram	Dasarigunta	PT	79.3708	13.2918	IWMP
485	Settivanatham	Diguva Settivanatham	PT	79.3119	13.2876	IWMP
486	Settivanatham	Eguva Settivanatham	PT	79.3071	13.2852	IWMP
487	Settivanatham	Eguva Settivanatham	PT	79.3112	13.2857	IWMP
488	Settivanatham	Shikaris Centre	PT	79.3067	13.2795	IWMP
489	Medawada	Diguvamedawada	PT	79.3376	13.3052	IWMP
490	Medawada	Marripalle	PT	79.3226	13.3075	IWMP
491	N.r.puram	N.R.Puram	PT	79.3154	13.2800	IWMP
492	Venugopalapuram	Chinnabapanapalle	PT	79.2948	13.2764	IWMP
493	Venugopalapuram	Nallapalle	PT	79.2925	13.2828	IWMP
494	S.r.puram	Chandrakumara Puram	PT	79.3629	13.3129	IWMP
495	S.r.puram	Pathapalem H/W	PT	79.3619	13.2936	IWMP
496	S.r.puram	Pathapalem M/W	PT	79.3634	13.2965	IWMP
497	S.r.puram	Uddandamakarajapuram	PT	79.3438	13.3060	IWMP
498	S.r.puram	Uddandamakarajapuram	PT	79.3479	13.3014	IWMP

PROPOSED ARTIFICIAL RECHARGE STRUCTURES
SRIRANGARAJAPURAM MANDAL, CHITTOOR DISTRICT, AP.

S.No.	Mandal	Latitude	Longitude	Structure_Type
1	SR Puram	13.3178	79.3080	Check Dam
2	SR Puram	13.3184	79.3130	Check Dam
3	SR Puram	13.3149	79.3255	Check Dam
4	SR Puram	13.3081	79.3275	Check Dam
5	SR Puram	13.2981	79.3346	Check Dam
6	SR Puram	13.3000	79.3423	Check Dam
7	SR Puram	13.2888	79.3452	Check Dam
8	SR Puram	13.2782	79.3366	Check Dam
9	SR Puram	13.2772	79.3334	Check Dam
10	SR Puram	13.2778	79.3301	Check Dam
11	SR Puram	13.2701	79.3258	Check Dam
12	SR Puram	13.2669	79.3335	Check Dam
13	SR Puram	13.2605	79.3394	Check Dam
14	SR Puram	13.2507	79.3334	Check Dam
15	SR Puram	13.2526	79.3420	Check Dam
16	SR Puram	13.2520	79.3158	Check Dam
17	SR Puram	13.2558	79.3102	Check Dam
18	SR Puram	13.2577	79.3081	Check Dam
19	SR Puram	13.3178	79.3040	Check Dam
20	SR Puram	13.3543	79.3411	Check Dam
21	SR Puram	13.3555	79.3505	Check Dam
22	SR Puram	13.3286	79.3818	Check Dam
23	SR Puram	13.3199	79.3638	Check Dam
24	SR Puram	13.3110	79.3665	Check Dam
25	SR Puram	13.3032	79.3585	Check Dam
26	SR Puram	13.3274	79.3547	Check Dam
27	SR Puram	13.3157	79.3490	Check Dam
28	SR Puram	13.3157	79.3502	Check Dam
29	SR Puram	13.3237	79.3379	Check Dam
30	SR Puram	13.3152	79.3349	Check Dam
31	SR Puram	13.3378	79.3275	Check Dam
32	SR Puram	13.3262	79.2742	Check Dam
33	SR Puram	13.2792	79.3558	Check Dam
34	SR Puram	13.2820	79.3615	Check Dam
35	SR Puram	13.3000	79.3761	Check Dam
36	SR Puram	13.2819	79.3638	Check Dam
37	SR Puram	13.2570	79.3444	Check Dam
38	SR Puram	13.2490	79.3354	Check Dam
39	SR Puram	13.2505	79.3276	Check Dam
40	SR Puram	13.2495	79.3282	Check Dam
41	SR Puram	13.2611	79.3204	Check Dam
42	SR Puram	13.2954	79.3502	Check Dam

43	SR Puram	13.2804	79.3293	Check Dam
44	SR Puram	13.2445	79.3411	Check Dam
45	SR Puram	13.2529	79.3263	Check Dam
46	SR Puram	13.2638	79.3338	Check Dam
47	SR Puram	13.2773	79.2992	Check Dam
48	SR Puram	13.2779	79.2872	Check Dam
49	SR Puram	13.3091	79.2730	Check Dam
50	SR Puram	13.3231	79.2836	Check Dam
51	SR Puram	13.2853	79.3393	Check Dam
52	SR Puram	13.2692	79.3518	Check Dam
53	SR Puram	13.3029	79.3068	Check Dam
54	SR Puram	13.3031	79.2957	Check Dam
55	SR Puram	13.3007	79.2863	Check Dam
56	SR Puram	13.2998	79.2812	Check Dam
57	SR Puram	13.2888	79.2659	Check Dam
58	SR Puram	13.2847	79.2788	Check Dam
59	SR Puram	13.3141	79.2942	Check Dam
60	SR Puram	13.3371	79.3387	Check Dam
61	SR Puram	13.3336	79.3481	Check Dam
62	SR Puram	13.3289	79.3449	Check Dam
63	SR Puram	13.3261	79.3883	Check Dam
64	SR Puram	13.3213	79.3991	Check Dam
65	SR Puram	13.3339	79.3874	Check Dam
66	SR Puram	13.3431	79.3732	Check Dam
67	SR Puram	13.3515	79.3783	Check Dam
68	SR Puram	13.3574	79.3549	Check Dam
69	SR Puram	13.2998	79.3856	Check Dam
70	SR Puram	13.2937	79.3820	Check Dam
71	SR Puram	13.2926	79.3782	Check Dam
72	SR Puram	13.2873	79.3723	Check Dam
73	SR Puram	13.2320	79.3275	Check Dam
74	SR Puram	13.2352	79.3319	Check Dam
75	SR Puram	13.2373	79.3127	Check Dam
76	SR Puram	13.2309	79.3198	Check Dam
77	SR Puram	13.2343	79.3335	Check Dam
78	SR Puram	13.2474	79.3453	Check Dam
79	SR Puram	13.2610	79.3252	Check Dam
80	SR Puram	13.2825	79.3426	Check Dam
81	SR Puram	13.2738	79.3166	Check Dam
82	SR Puram	13.2748	79.3128	Check Dam
83	SR Puram	13.2829	79.3015	Check Dam
84	SR Puram	13.3190	79.3190	Check Dam
85	SR Puram	13.3222	79.3361	Check Dam
86	SR Puram	13.3293	79.3161	Check Dam
87	SR Puram	13.3322	79.2741	Check Dam

88	SR Puram	13.3062	79.2355	Check Dam
89	SR Puram	13.2891	79.2426	Check Dam
90	SR Puram	13.3533	79.3358	Check Dam

Fig.1

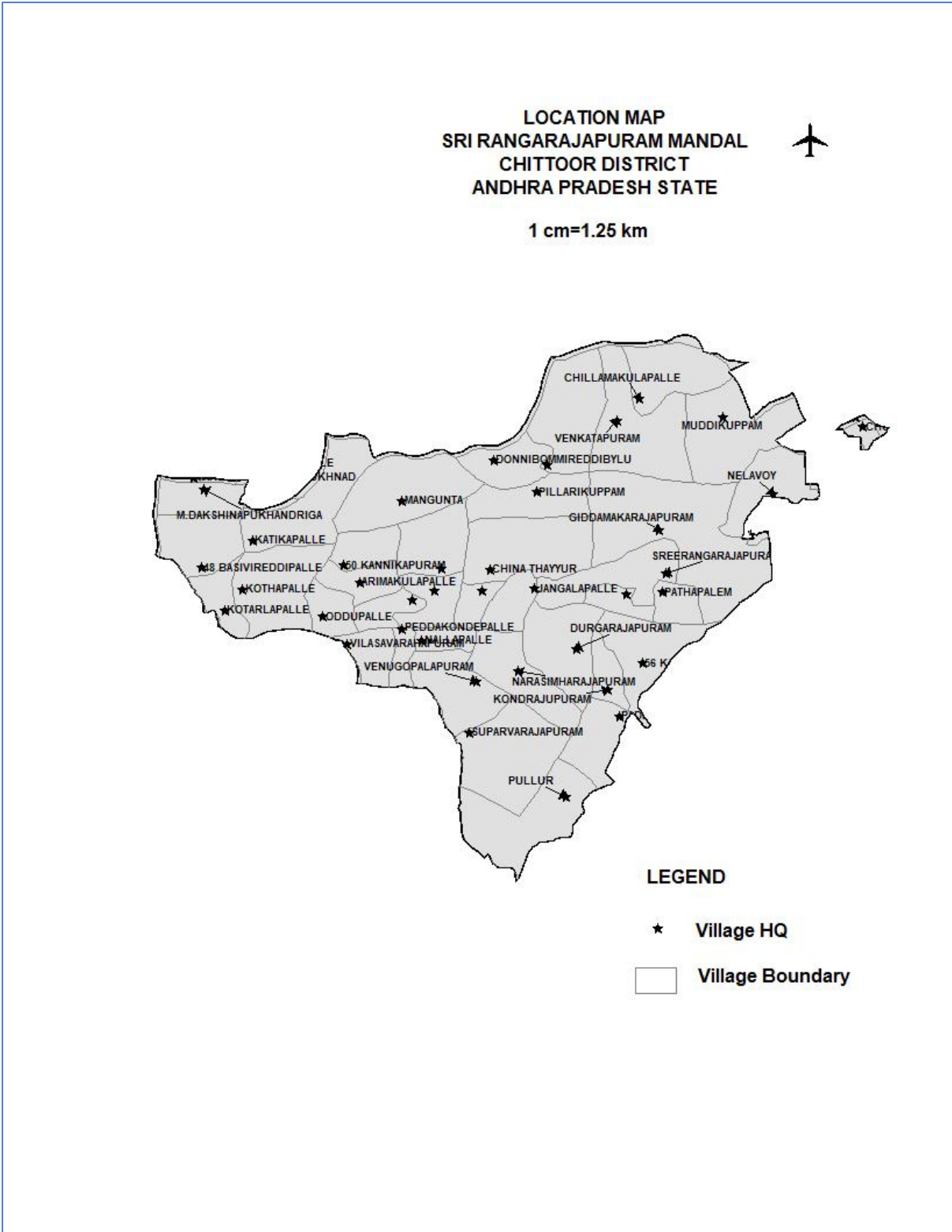


Fig.2

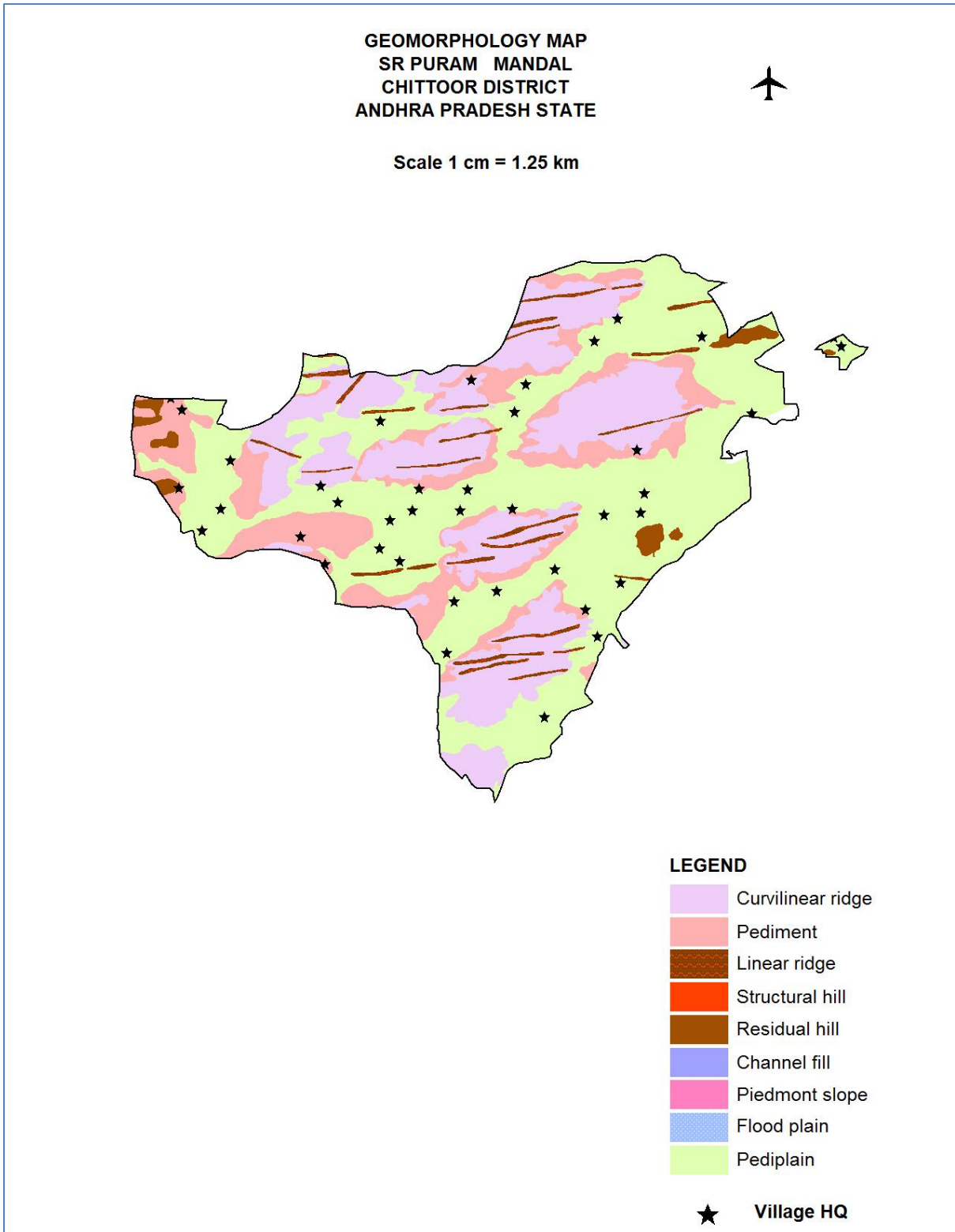


Fig.3

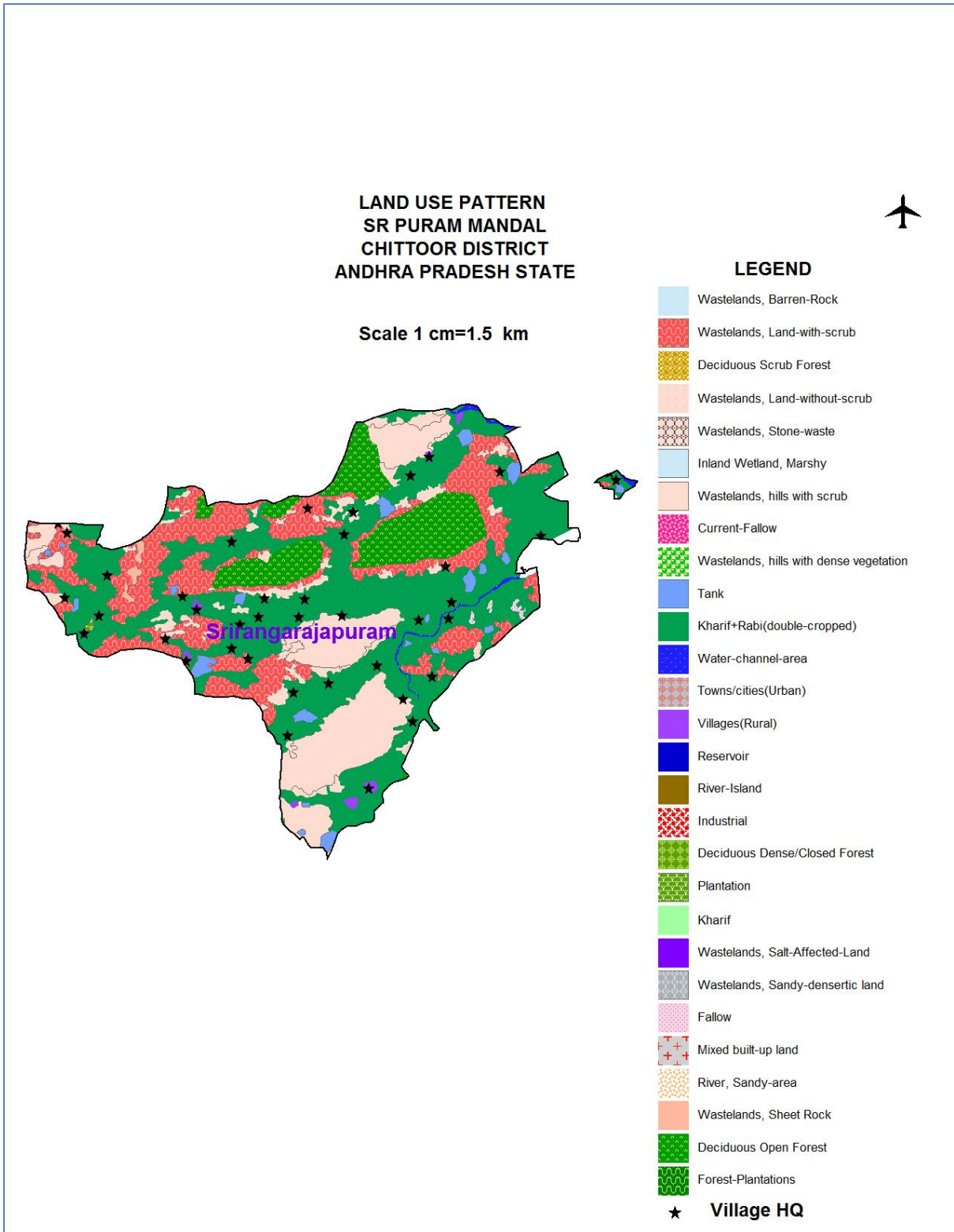


Fig.4

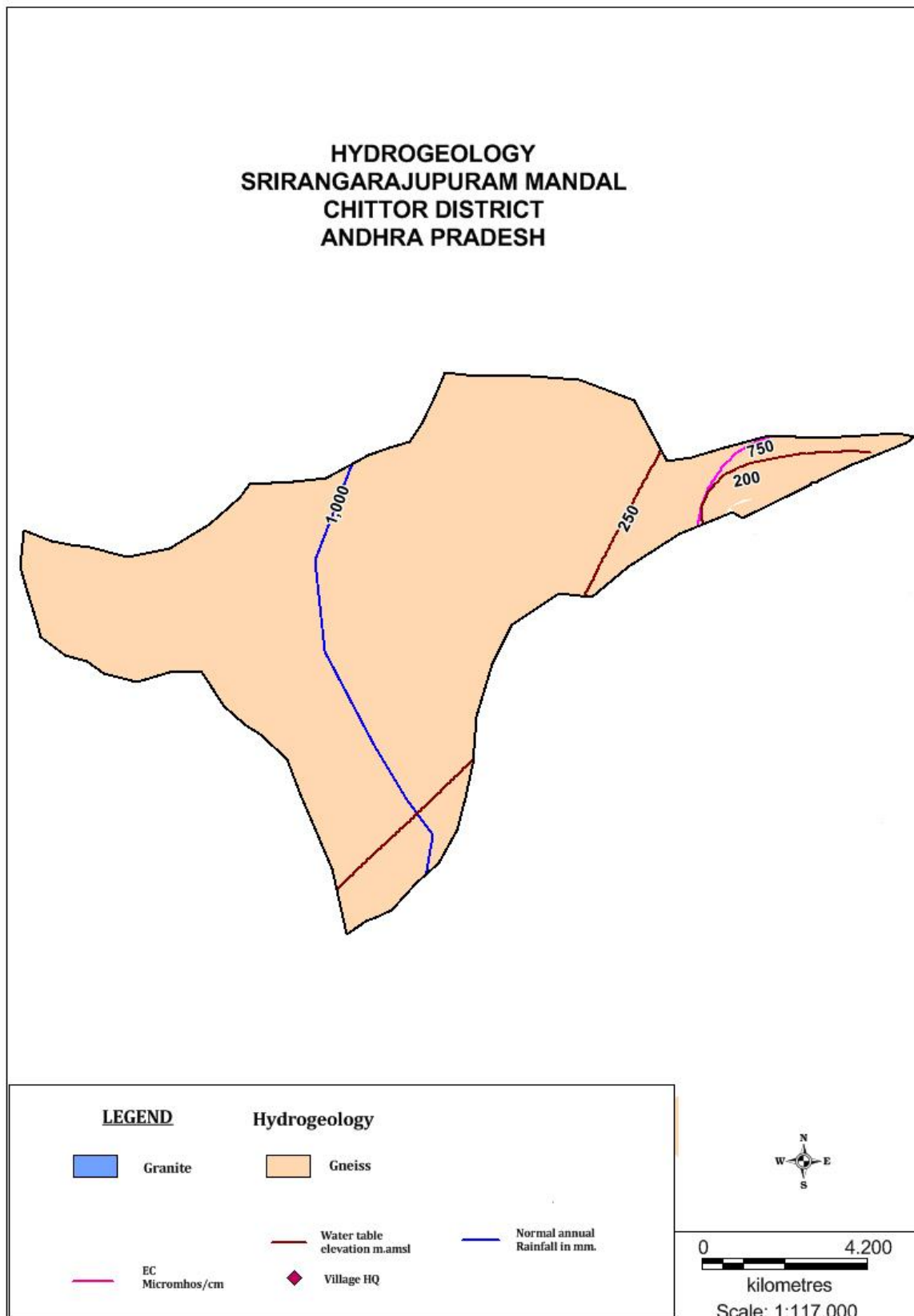
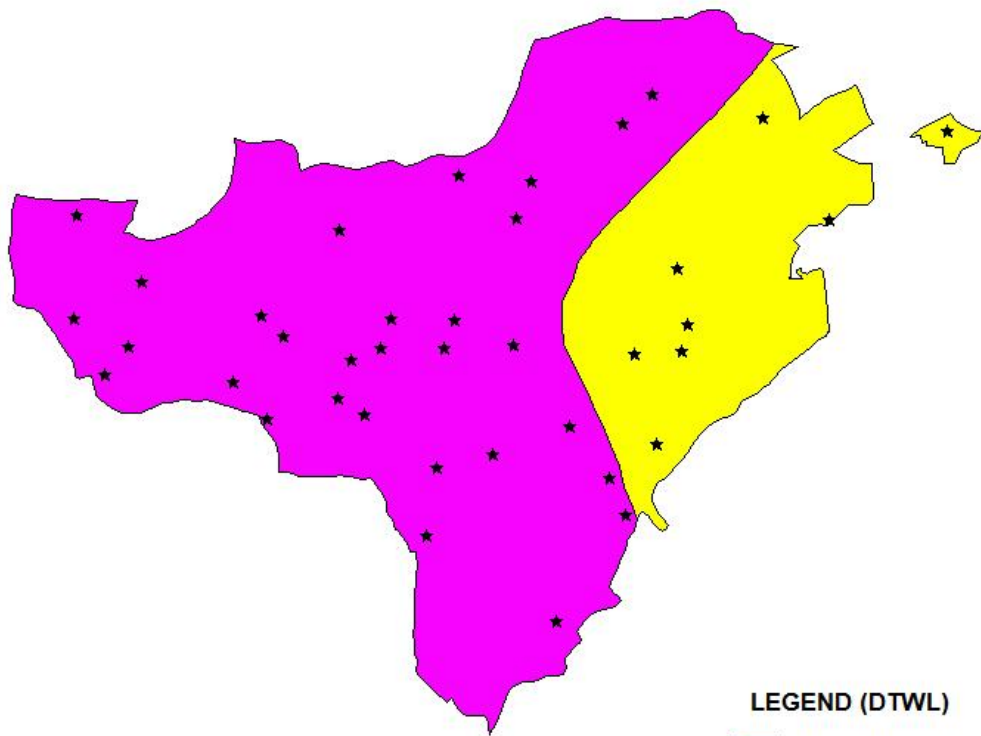


Fig.5

**DEPTH TO WATER LEVEL
PRE-MONSOON
S R PURAM MANDAL
CHITTOOR DISTRICT
ANDHRA PRADESH STATE**

0 1 2
kilometres



LEGEND (DTWL)

- 10 - 20 m bgl
- 5 - 10 m bgl
- ★ village HQ

Fig.6

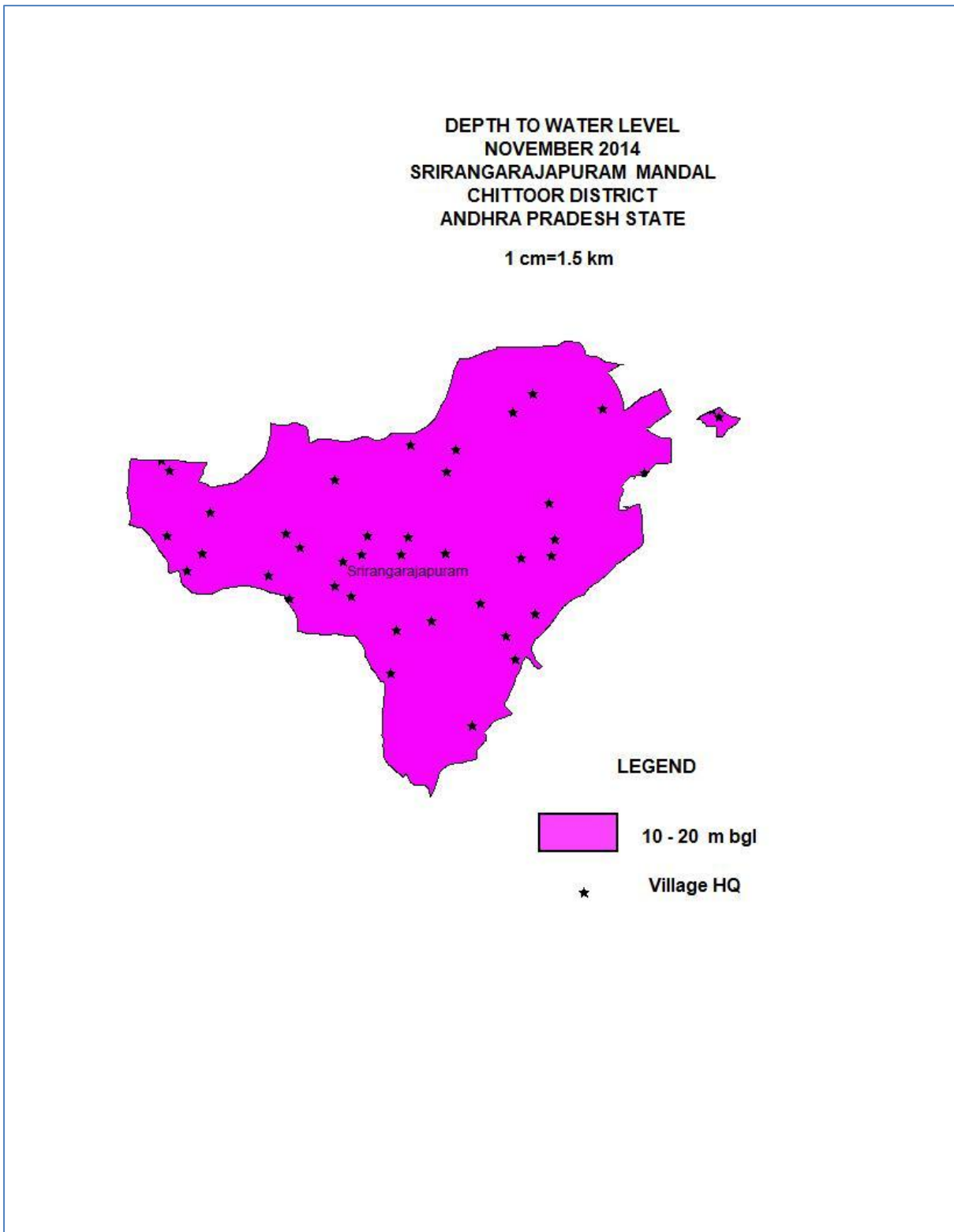
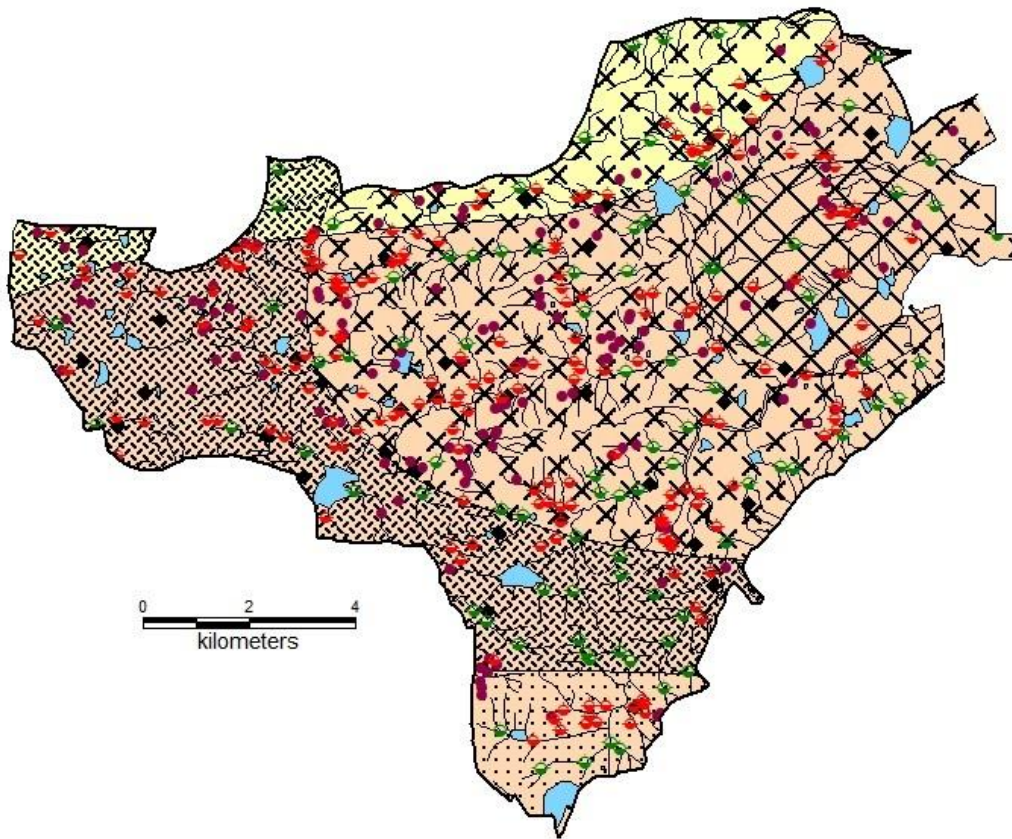


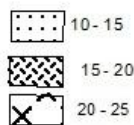
Fig.7

Post Monsoon Water Level and Trend (Decadal Mean) along with Existing and Proposed Artificial Recharge Structures in SriRangarajapuram Mandal, Chittoor District, Andhra Pradesh



LEGEND

Post Monsoon Water Level (m)
(Decadal Mean)



Post Monsoon
Water Level Trend (m/yr)

