TN- IAMWARM PROJECT

GIRUDHUMAL SUB BASIN

WRD

PROJECT PROPOSALS

WATER RESOURCES DEPARTMENT

1.1 INTRODUCTION

INTRODUCTION

1.1.1 GENERAL

Agriculture is the dominant sector in the Indian economy. Tamil Nadu, depends largely on the surface water irrigation as well as ground water irrigation. The state has used the surface and ground water potentials to the maximum limit and hence the future development and expansion depends only on the efficient and economical use of water potential and resources.

To achieve higher water use efficiency, it is necessary to improve and upgrade the existing conveyance system and also to introduce modern irrigation methods.

With the above objective, a comprehensive programme has been proposed with a Multi Disciplinary Approach.

1.1.2 Description of the GUNDAR Basin

The Gundar river takes rise from the eastern slope of Varusanadu Hills at an altitude of 1273 m near Kottaimalai of Saptur reserve forest on the eastern slopes of Western Ghats in Maduraii District and runs southeast for a distance of 150 km and finally empties into Gulf of Mannar at about 6 km of south east of Sayalkudi of Ramanathapuram District. The Gundar river basin is located between latitude 9^0 05' N to 10^0 03' N and longitude 77^0 35' E to 78^0 35' E having an area of 569023 Sq.Km and is surrounded by Vaigai Basin on the South, Vaigai Basin on the West and North and Gulf of Mannar / Bay of Bengal on the east.

.This basin has been divided into nine sub-basins namely as follows;

1 Upper Gundar

2 Therkkar

3 Kanal Odai

4 Gridhumal Nadhi

5 Paralaiaru

6 Uthirakosamangaiaru

7 Palar

8 Lower gundar

9 Vembar

1.1.3 Description of the Gridhumal Sub-Basin

The Gundar Basin has been divided into 9 sub basins and Girudhumal is one of the sub basins. A river Gridhumal originates from the field water drainage of Thuvariman and Madakulam Tanks near Madurai city in Thiruppurankunram Block and of Madurai district. This river receives this drainage from the city through Avaniapuram and Chinthamani Supply channel running in the middle of the city. The surplus of Konthagai tanks also reaches Gridhumal. Konthagai tank is not getting filled up to its full capacity.

The Girudhumal Sub basin is located between latitude $9^0$25'00" N to $9^0$50'00" N and longitude $78^0$05'00" E to $78^0$25'00" E and is surrounded by Vaigai river on the North and Kanal Odai Sub basin on South. Girudhumal Sub basin area is 566.851 Sq.Km with a plain area. The taluks covered in the sub basin are Madurai South, Manamadurai, Kariapatti, Thiruchuli, Paramakudi, Kamuthi taluks of Madurai and Sivagangai Virudhunagar, Ramanathapuram District respectively. It receives an annual average rainfall of 739mm, with its major share during North-East Monsoon.

Observation Well

There are Nine observation wells existing in this sub basin. The winter water level varies from 6.75-7.00m and the summer water level varies from 7.00 – 7.50m .In Manianji, Varichiyur, and Verracholam village, the quality of groundwater is good with TDS value permissible limit. In The concentration of all ions lies below desirable limit.

Moderate quality of groundwater is available in Melamathur, Kilakuilkudi, Thiruparankundram and Markulam villages. The TDS values observed are within the permissible limit. The geochemical type is calcium chloride for all wells in this sub basin.

In Narikudi village, the quality is very poor with high TDS value of 13056 mg/l. The chloride content is also very high exceeding the maximum acceptable limit. This may be due to local pollution.

While considering the ground water quality data for 1983, 1993 and 2003 pre-monsoon period, the quality is good in Marikulam village showing the suitability for both drinking and irrigation proposes. Similarly, in the observation will at Thiruparankundram village the quality of ground water is moderate for the past twenty years.

There are **116**tanks situated within the Gridhumal sub basin catchment area.

Apart from the resources from its own water spread the Gridhumal sub basin get supply from Vaigai sources. The length of Tributary in Gridhumal is 86Km.

1.1.1.CLUSTER CONVERGENCE TABLE - IIIRD PHASE SUB-BASINS

Name of the Sub-basin:GIRUDHUMAL SUB BASIN

Sl.No	Clusters with the name of the tank	Name of the Cluster Blocks	Name of the Cluster Revenue Villages	Total Ayacut area in Ha			Total Area in Ha			WRD		Agriculture		Horticulture		AED		TNAU		Agri marketing		AHD		Fisheries	
				FI	PI	Gap area	WOP	WP	(Focus crop)	Activities	Nos.& length in 'M'	Activities	Nos /Ha	Activities	Nos/Ha	Activi ties	Nos./ Ha	Activities	Nos./ Ha	Activities	Nos./ Ha	Activities	Nos./ Ha	Activities	Nos./ Ha
1	2	3	4	5	6	7	8	9	#	11	12	13	14	15	16	17	18	19	20	21	22	23	24	27	28
	MADURAI DISTRICT									-	-		-	-	-	-	-								
	CLUSTER I	Thirupparankundram	**PUDUKKULAM CLUSTER**																						
1	Pudhukulam Tank		Avaniapuram	25.00	0.00	2.14	25.00	25.00		Tank bund impts.	960	SRI	3	Veg	4					DY	1	FC	0.2		
										Sluice impts.	2														
			-							Sup.Chl.impts.	1230														
2	Thenkal Tank		Thirupparangkundram	64.00	0.00	30.00	64.00	64.00		Tank bund impts.	1300	SRI	15	Bana Veg	3 7	Mec	2	SRI	5	CG DY	1	FC	0.2		
			Avaniapuram	163.00	0.00	126.81	163.00	163.00		Sluice impts.	2														
			-							Sup.Chl.impts.	900														
3	Kurukattan		Melanedun kulam	49.00	0.00	7.14	49.00	49.00		Tank bund impts.	1054	SRI	1	Veg	2					DY	1	FC	0.2		
			-							Sup.Chl.impts.	350														
4	Ariyankulam		Thirupparang kundram	36	0.00	22.25	36	36		Tank bund impts.	1017	SRI	1	Veg	3	FP	1			DY	1	FC	0.2	FP	1
			-							Sluice impts.	1					Mec	1								
			-							Sup.Chl.impts.	180														
5	Seventhikulam		Thirupparang kundram	31	0.00	3.83	31	31		Tank bund impts.	957	SRI	1	Veg	2					DY	1	FC	0.2		
6	Melanedunkulam	Thirup parank undram	Melanedunkulam	30	0.00	7.72	30	30		Tank bund impts.	830	SRI	2	Veg	2					DY	1				
			-							Sluice impts.	2														
			-							Sup.Chl.impts.	220														
7	Perungkudi		Perungkudi	81	0.00	22.42	81	81		Tank bund impts.	1981	SRI	5	Veg	5	Drip	3	SRI	3	CG DY	1	FC	0.2		
			-							Sluice impts.	2					MIS	2								
			-							Sup.Chl.impts.	5130					Mec	2								

8	Madakkulam			139	0.00	140.29	139	139		Tank bund impts.	--															
9	Muthupatti			618.00	0.00	362.60	618.00	618.00		Tank bund impts.																
	CLUSTER II		**VIRADHANUR CLUSTER**																							
1	Virathanur		Virathanur	125	0.00	172.57	125	156		Tank bund impts.						Mec	2									
			-							Weir impts.	1															
			-							Sup.Chl.impts.	6000															
2	Ayavetan		Ayavetan	39	0.00	52.95	39	45		Tank bund impts.	2250															
			-							Sluice impts.	2															
3	Ayanpappakudi		Ayanpappakudi	78	0.00	108.09	78	85		Strength tankbund	1525															
			-							Sluice impts.	2															
			-							Sup.Chl.impts.	3500															
4	Samanatham		Samanatham	126	0.00	123.36	126	145		Tank bund impts.					MIS	3										
			-							Sluice impts.	4				Mec	2										
			-							Weir impts.	1															
		Thirup parank undram	-							Sup.Chl.impts.	3500															
5	Pudhukulam		Avaniyapuram	26	0.00	34.93	26	32		Tank bund impts.	972															
			-							Sluice impts.	3															
6	Thulipatti		Chinthamani	23	0.00	31.98	23	25		Tank bund impts.	1450															
			-							Sluice impts.	2															
7	Rettai kulam		Rettai kulam	0	0.00	Nil																				
8	Nedunkulam		Nedunkulam							Tank bund impts.	1200															
				417	0	523.88	417	488		Sluice impts.	2															
										Weir impts.	1															
	SIVAGANGAI DISTRICT																									
	CLUSTER: III		**KONDAGAI CLUSTER**																							

1	Kondagai tank	Thiruvanam	Konthagai	441	145	150.98	586	725		Tank bund impts.	5640	Tech		veg	15	MIS	2					F G	1		
										Sluice impts.	3	SRI		coc	5	FP	2								
			-							Weir impts.	1	Demo				Mec	1								
			-							Sup.Chl.impts.	3300	INM													
2	Manalur tank		Manalur	173	48.03	45.78	221	236		Tank bund impts.	2377	SRI		veg	10	MIS	1								
			-							Sluice impts.	4	Demo		coc	5	MecFP	1 1								
3	Kalukarkadai tank		Kalukarkadai	132	47.83	59.33	179.8	230		Tank bund impts.	1980	SRI				Mec	1								
			-							Sluice impts.	3	Demo													
			-																						
4	Sottathatty		Sottathatty	99	33.19	33.76	132.2	150		Tank bund impts.	2438	Tech				MIS	1								
			-							Sluice impts.	2	SRI				Mec	1								
5	Melavellur tank		Melavellur	179	62.99	57.98	241.99	250.00		Tank bund impts.	2834	SRI				MIS Mec	1 1								
6	Keelakarisalkulam tank		Kelakarisalkulam	63.00	39.63	55.90	102.63	135.00		Tank bund impts.	2797														
			-							Sluice impts.	3														
			-							Weir impts.	2														
7	Kaluvankulam tank		Kaluvankulam	38.00	14.24	12.48	52.24	55.00		Tank bund impts.	2042	Tech		veg	10	MIS	1								
			-							Sluice impts.	4	SRI		coc	2	FP	1								
			-							Weir impts.	1					Mec	1								
8	Meenakshipuram tank		Meenakshipuram	83.00	25.70	19.82	108.70	110.00		Tank bund impts.	2377					FP Mec	1 1								
9	Pottapalayam tank		Pottapalayam	12.00	6.11	43.02	18.11	25.00		Tank bund impts.	2840														
			-							Sluice impts.	2														
			-							Weir impts.	1														
10	Puliyur		Puliyur	28.00	16.66	21.97	44.66	45.00		Tank bund impts.	2591					MIS Mec	2 1								
11	Melakarisalkulam tank		Melakarisalkulam	46.00	18.32	18.94	64.32	65.00		Tank bund impts.	3450														
			-							Sluice impts.	4														
			-	1294	457.7	519.95	1752	2026		Weir impts.	2														
	CLUSTER: IV		**THIRUPUVANAM CLUSTER**																						

1	Thiruppuvanam tank		Thiruppuvanam	515	128.1	211.16	643.15	755.00		Tank bund impts.	4175	Tech		veg	15	FP	1					FC	2		
										Sluice impts.	3	SRI		coc	5	Mec	1								
			-							Weir impts.	1	Demo													
			-							Sup.Chl.impts.	4500														
2	Thavalaikulam	Thiruvanam	Thavalaikulam	33.00	15.54	16.21	48.54	55.00		Tank bund impts.	1500	INM				MIS	2								
			-							Sluice impts.	3														
			-							Weir impts.	1														
3	Vaviyarendal		Vaviyarendal	27.53	7.62	7.20	35.16	40.00		Tank bund impts.	2040	Tech		veg	9										
			-							Sluice impts.	2														
			-							Weir impts.	1														
			-							Sup.Chl.impts.	1000														
4	Ambalathadi tank		Ambalathadi	38.65	22.09	49.69	60.74	75.00		Tank bund impts.	3960	Tech				FP	1								
			-							Sluice impts.	3	SRI				MIS	2								
			-							Weir impts.	1	Demo				Mec	1								
5	Chokkanathiruppu tank		Chokkanathiruppu	61.87	35.58	57.23	97.45	145.00		Tank bund impts.	2680	Tech		veg	69	MIS FP	5 1								
			-							Weir impts.	1	SRI				Mec	1								
6	Keelavellur tank		Kelavellur	53.47	24.06	29.41	77.52	75.00		Tank bund impts.	2600	Tech				MIS FP	1 1								
			-							Sluice impts.	1	SRI				Mec	1								
			-							Weir impts.	1														
7	Mangudi tank		Mangudi	210.7	90.38	120.30	301.07	350.00		Tank bund impts.	2995	SRI		veg	3	MIS Mec FP	1 1 1								
8	Thavatharendal tank		Thavatharendal	20.15	10.08	20.15	30.23	35.00		Tank bund impts.	2987	Tech		veg	9										
			-							Sluice impts.	5	SRI													
			-							Weir impts.	1														
			-																						
9	Karunkalaikudi tank	Thiruvanam	Karunkalaikudi	42.71	15.82	20.56	58.53	60.00		Tank bund impts.	2195	Tech		veg	6										
			-							Sluice impts.	3	SRI		coc	2										

			-						Weir impts.	1	INM														
10	Puliyankulam tank		Puliyankulam	68.40	30.25	32.88	98.65	100.00		Tank bund impts.	3120	Tech		veg	60	MIS	4								
			-							Sluice impts.	4	SRI				FP	1								
			-							Weir impts.	1					Mec	1								
			-							Sup.Chl.impts.	1000														
11	Sambakulam		Sambakkulam	21.62	10.59	11.92	32.21	29.00		Tank bund impts.	1500	Tech		veg	35	MIS	1								
			-							Sluice impts.	3	SRI				FP	1								
			-							Weir impts.	1					Mec	1								
12	Rangiyam tank		Rangiyam	243.8	152.4	213.32	396.16	450.00		Tank bund impts.	6705	Tech				MIS	2								
			-							Sluice impts.	3	SRI				Mec	1								
			-							Weir impts.	1	INM													
			-							Sup.Chl.impts.	2500														
13	Visvampattai tank		Visvampattai	17.66	11.35	13.03	29.01	35.00		Tank bund impts.	1260			veg	3										
			-	394.18	#####	291.71	614.56	674.00		Sluice impts.	2														
			-							Weir impts.	1														
			-	788.35	440.76	583.42	1229.12	1348.00																	
1	**CLUSTER: V**		**PIRAMANUR CLUSTER**																						
1	Piramanur Tank		Piramanur	447.5	133.9	162.44	581.37	640.00		Tank bund impts.	5400			veg	43	MIS	2					FG	1		
										Sluice impts.	7			coc	5	FP	2								
		Thiruvanam	-							Weir impts.	2					Mec	1								
			-							Sup.Chl.impts.	4500														
2	S.Vagaikulam Tank		S.Vagaikulam	37.63	14.71	16.08	52.33	56.00		Tank bund impts.						Mec	1								
										Sluice impts.	2														
3	Anaikulam Tank		Anaikulam	39.26	25.52	33.37	64.77	80.00		Tank bund impts.	2195			veg	13	MIS	2								
			-							Sluice impts.	2					FP	1								
			-							Weir impts.	1					Mec	1								

		-						Sup.Chl.impts.	2500															
4	Palayanur Tank	Palayanur	291.1	96.31	60.42	387.39	376.00	Tank bund impts.	5756			veg	50	MIS	2									
		-						Sluice impts.	9					FP	1									
		-						Weir impts.	1					Mec	1									
		-						Sup.Chl.impts.	10300															
5	Sankankulam Tank	Samkamkulam	49.32	22.13	29.20	71.46	70.00	Tank bund impts.	4230			veg	23	MIS	4									
		-						Sluice impts.	3					Mec	1									
		-						Weir impts.	1															
		-						Sup.Chl.impts.	1000															
6	Vallarendal tank	Vallarendal	38.86	17.67	14.13	56.53	60.00	Tank bund impts.	1375			veg	32	MIS	4									
		-						Sluice impts.	3					Mec	1									
		-						Weir impts.	1															
7	Veeranendal Tank	Veeranendal	33.06	17.22	18.60	50.28	55.00	Tank bund impts.	1325			veg	5	FP	1									
		-						Sluice impts.	2					Mec	1									
8	Achankulam tank	Achankulam	36.17	13.49	11.65	49.66	54.00	Tank bund impts.	3720			veg	17	MIS	4									
		-						Sluice impts.	4					Mec	1									
		-						Weir impts.	1					FP	2									
		-						Sup.Chl.impts.	2200															
9	Parayankulam Tank	Parayankulam	23.49	12.92	22.32	36.41	45.00	Tank bund impts.	1006	Tech		veg	21	MIS	2									
		-						Sluice impts.	2	SRI		coc	4	Mec	1									
		-						Weir impts.	1	INM											FC	2		
10	Odathur	Odhathur	40.01	18.67	30.23	58.68	77.00	Tank bund impts.						MIS	2									
		-	#####	#####	398.44	#####	#####	Sluice impts.	1					Mec	1									
		-																						
	CLUSTER: VI	**MARANADU CLUSTER**																						

Thiruvanam

1	T.Velankulam tank		T.Velankulam	38.69	7.74	5.16	46.42	45.00		Tank bund impts.	1341														
										Sluice impts.	1														
			-							Sup.Chl.impts.	300														
2	Pitchapillaiyendal tank		Pitchapillaiyendal	58.34	14.36	17.05	72.70	72.00		Tank bund impts.	1440					Fp	1								
			-							Sluice impts.	2					Mec	1								
			-							Sup.Chl.impts.	250														
3	Maranadu Tank		Maranadu	886.92	312.85	258.12	1199.77	1250.00		Tank bund impts.	960					MIS	5								
			-							Sluice impts.	4					FP	1								
			-							Weir impts.	1					Mec	2								
		Thiruvanam	-							Sup.Chl.impts.	8600														
4	Saluppanodai Tank		Saluppanodai	24.28	8.22	4.86	32.50	30.00		Tank bund impts.	5730														
5	Pulavacheri Tank		Pulavacheri	47.85	13.37	9.15	61.22	65.00		Tank bund impts.	2824					Mec	1								
			-							Sluice impts.	4														
			-							Weir impts.	1														
6	Nadukkanendhal Tank		Nadukkanendhal	40.44	12.39	12.39	52.84	48.00		Tank bund impts.	2896														
			-							Sluice impts.	3														
			-							Weir impts.	1														
7	Keelasorikulam Tank		Keelasorikulam	63.12	25.68	18.19	88.79	89.00		Tank bund impts.	2043			veg	5							FC	2		
			-							Sluice impts.	1														
			-							Weir impts.	1														
			-							Supply channel	2500														
8	Thalikulam Tank		Thalikulam	24.2	9.68	10.12	33.88	29.00		Tank bund impts.	2820			veg	5	FP	1								
9	Kothankulam Tank		Kothankulam	56.66	31.48	37.78	88.14	110.00		Tank bund impts.	2042			veg	27	FP	1								
			-							Sluice impts.	4			coc	4	MIS	1								
			-							Weir impts.	1					Mec	1								
10	Alangulam Tank		Alangulam	65.59	14.06	14.06	79.65	85.00		Tank bund impts.	1410			veg	26	MIS	4								
			-							Weir impts.	1			coc	3	FP	1								

			-							Sup.Chl.impts.	1000					Mec	1										
			-																								
11	Muthuvanthidal Tank	Thiruvuvanam	Muthuvanthidal	36.62	10.74	1.46	47.37	40.00		Tank bund impts.	1768			Veg	26	Mis	2										
										Sluice impts.	2					FP	1										
										Sup.Chl.impts.	1200					Mec	1										
12	Melasorikulam tank		Melasorikulam	29.10	12.95	26.12	42.05	55.00		Tank bund impts.	1783					Mec	1										
			-							Sluice impts.	4																
			-	#####	#####	414.45	#####	#####		Weir impts.	1																
			-	#####	#####	######	#####	#####																				
			-	5056.71	1857.61	2135.90	6914.32	9050.52																				
	VIRUDHUNAGAR DISTRICT									Sup.Chl.impts.	2000																
	CLUSTER: VII		**KARUVAIKKUDY CLUSTER**																								
1	Karuvaikudi	Narikkudy	Karuvakudi	23	12	16.17	35	42		Tank bund impts.	2340					MIS	1										
										Sluice impts.	2					FP	1										
			-							Weir impts.	1																
			-							Sup.Chl.impts.	3000																
2	S.Nangoor		S.Nangoor	29	14	18.61	43	50		Tank bund impts.	1830																
			-							Sluice impts.	3																
			-							Weir impts.	1																
			-							Sup.Chl.impts.	3000																
3	Poombidagai		Poombidagai	40	16	23.72	56	66		Tank bund impts.	2836																
			-							Sluice impts.	3																
4	Thamaraikulam		Thamaraikulam	40	58	-15.56	98	108		Tank bund impts.	2165																
		Narikkudy								Sluice impts.	3																
			-							Sup.Chl.impts.	2500																
5	Thatchanendal		Thatchanendal	28	12	16.08	40	46		Tank bund impts.	1586																
			-							Sluice impts.	3																

			-							Sup.Chl.impts.	1600														
6	Alathur		Alathur	32	16	19.01	48	56		Tank bund impts.	2196														
			-							Sluice impts.	2														
			-							Sup.Chl.impts.	1900														
7	Thiruvidai Nallur		Thiruvidai Nallur	22	11	13.5	33	39		Tank bund impts.	2150					MIS	1								
			-							Sluice impts.	2					FP	1								
			-							Sup.Chl.impts.	1400														
8	Rettai kulam		Rettai kulam	23	11	37.42	34	49		Tank bund impts.	2227														
			-							Sluice impts.	5														
			-							Weir impts.	1														
			-							Sup.Chl.impts.	1900														
9	Senthanadhi		Senthanadhi	20	10	14.51	30	35		Tank bund impts.	1983														
			-							Weir impts.	1														
			-							Sup.Chl.impts.	1400														
10	Eluvani		Eluvani	45	20	28.04	65	77		Tank bund impts.	1922														
			-	302	180	171.5	482	568		Sluice impts.	3														
		Narikkudy	-							Weir impts.	2														
			-							Sup.Chl.impts.	2500														
	CLUSTER: VIII		**KATTANUR CLUSTER**																						
1	Mugavoor		Mugavoor	50	28	28.51	78	90		Tank bund impts.	3416														
			-							Weir impts.	1														
			-							Sup.Chl.impts.	1100														
2	P.Vagaikulam		P.Vagaikulam	28	15	18.39	43	50		Tank bund impts.	2074														
			-							Sluice impts.	3														
			-							Weir impts.	2														

			-							Supply channel	1100														
3	Vilakkanendal		Vilakkanendal	20	10	12.05	30	36		Tank bund impts.	1400														
			-							Sluice impts.	3														
4	Kattanoor		Kattanoor	270	53	1012.7	323	724		Tank bund impts.	6220					MIS FP	6 6								
			-							Sluice impts.	3					Mec	1								
5	Kundukulam		Kundukulam	28	14	14.64	42	47		Tank bund impts.															
			-							Sluice impts.	3														
										Sup.Chl.impts.	3300														
6	Alagapoori		M.Pudhukulam	45	22	22.24	67	77		Tank bund impts.	3060														
			-							Sluice impts.	3														
		Narikkudy	-							Sup.Chl.impts.	1250														
7	Siruvanur		Siruvanur	36	13	16.08	49	55		Tank bund impts.	1983														
			-							Sluice impts.	3														
			-							Sup.Chl.impts.	5400														
8	Naloor		Naloor	140	65	62.61	205	234		Tank bund impts.						MIS FP	2 4								
			-							Sluice impts.	4					Mec	1								
9	Seeniyendal		Seeniyendal	24	12	15.22	36	42		Tank bund impts.	1373														
				641	232	1202.4	873	1355		Sluice impts.	5														
			-							Sup.Chl.impts.	6000														
	CLUSTER: IX		**IRUNCHIRAI CLUSTER**																						
1	Irunchirai		Irunchirai	137	53	319.01	190	350		Tank bund impts.						MIS FP	5 4								
			-							Sluice impts.	3					Mec	1								
2	Karumandhal		Karumandhal	24	12	16.59	36	43		Tank bund impts.	1525														
			-							Sluice impts.	2														
			-							Weir impts.	1														

3	Andukondan		Andukondan	24	11	11.8	35	40		Tank bund impts.	1500																	
										Sluice impts.	3																	
4	Pannaikudi		Pannaikudi	43	21	35.49	64	71		Tank bund impts.	400					FP	1											
5	Esali		Esali	60	30	42.77	90	109		Tank bund impts.	1290																	
		Narikkudy	-							Sluice impts.	3																	
			-							Weir impts.	1																	
6	Sottamuri		Sottamuri	20	10	10.51	30	34		Tank bund impts.	1558																	
			-							Sluice impts.	4																	
			-							Weir impts.	1																	
7	Theeyanur		Theeyanur	23	11	12.8	34	39		Tank bund impts.	2743																	
			-							Sluice impts.	5																	
			-							Weir impts.	2																	
8	Kadukkoi kulam		Kadukkoi kulam	20	10	12.38	30	37		Tank bund impts.	1525																	
										Sluice impts.	2																	
9	Ulakkudy tank big & small			100	25	88.1	125	185																				
				451	183	549.45	634	908																				
			-							Weir impts.	1																	
	CLUSTER: X		**NARIKKUDY CLUSTER**																									
1	Manoor		Manoor	42	20	31.63	62	77		Tank bund impts.	2379																	
			-							Sluice impts.	5																	
			-							Weir impts.	2																	
2	Athithanendhal		Athithanendhal	50	25	15.21	75	81		Tank bund impts.																		
			-							Sluice impts.	3																	
3	Narikkudi		Narikkudi	25	15	22.66	40	45		Tank bund impts.	3200					MIS	2											
			-							Sluice impts.	1					FP	1											
4	N.Mukkulam		N.Mukkulam	20	11	11.49	31	36		Tank bund impts.	2560																	
		Narikkudy	-							Sluice impts.	3																	
			-							Weir impts.	1																	
5	Virakudi		Virakudi	23	12	15.54	35	42		Tank bund impts.	1829																	
			-							Sluice impts.	3																	

6	Maraiyur		Maraiyur	65	30	39.78	95	109		Tank bund impts.	2820					MIS FP	2 1												
										Sluice impts.	1																		
7	Mayaleri		Mayaleri	20	10	12.97	30	35		Tank bund impts.	2400																		
			-							Sluice impts.	1																		
8	Sethrurayanendal		Sethrurayanendal	78	27	56.04	105	128		Tank bund impts.	1372																		
			-							Sluice impts.	2																		
9	Varisaiyur		Varisaiyur	80	36	48	116	137		Tank bund impts.	3210																		
			-							Sluice impts.	7																		
10	Vilakkuseri		Vilakkuseri	22	12	13.76	34	39		Tank bund impts.	1411																		
			-							Sluice impts.	3																		
11	Sammanendal		Sammanendal	20	10	12.21	30	35		Tank bund impts.	2286																		
			-							Sluice impts.	4																		
12	Melaparithiyur		Melaparithiyur	66	30	35.26	96	110		Tank bund impts.	3110																		
			-							Sluice impts.	7																		
			-							Weir impts.	1																		
13	Veeracholan	Narikkudy	Veeracholan	33	16	17.19	49	56		Tank bund impts.	4250																		
			-	544	254	331.74	798	930		Sluice impts.	3																		
			-							Weir impts.	1																		
	RAMANATHAPURAM DISTRICT			3876	1698	4510.2	5574	7522																					
	CLUSTER: XI		**KEELAPARITHIYUR CLUSTER**																										
1	Keelaparithiyur	Paramkudy	Keelaparithiyur	78	35	9.1	113	118		Tank bund impts.	3360					FP	2												
										Sluice impts.	3					Mec	2												
			-							Sup.Chl.impts.	2610																		
2	Pulavar Velankudi		Pulavar Velankudi	30	15	10.4	45	54		Sluice impts.	2																		
3	Kurunjakulam		Kurunjakulam	40	22	0.89	62	61		Tank bund impts.	2408																		

			-							Sluice impts.	4														
4	Sirukulam Sembilarkudi		Sirukulam Sembilarkudi	32	18	6.78	50	55		Tank bund impts.	2621					FP	3								
5	Thadathankudi		Thadathankudi	75	32	22.52	107	126		Tank bund impts.	3900					FP	4								
			-	255	122	49.69	377	414		Sluice impts.	1														
	CLUSTER: XII	Kamuthi	**ABIRAMAM CLUSTER**																						
1	T.Punavasal		T.Punavasal	25	12	6.68	37	44		Tank bund impts.	1800					FP	1								
2	Abiramam		- Abiramam	75	53	43.85	128	166		Sup.Chl.impts. Tank bund impts.	2000 5545					Mec	1								
			-							Supply channel	6300														
3	Achangulam		Achangulam	22	10	12.3	32	43		Tank bund impts.	2100														
4	T.Kallikulam		T.Kallikulam	28	10	18.27	38	55		Tank bund impts.	1800														
5	A.Tharaikudi		A.Tharaikudi	67	40	35.34	107	138		Tank bund impts.	3600					Mec	1								
			-							Weir impts.	1														
6	Nagarathankurichi		Nagarathankurichi	36	20	16.24	56	70		Tank bund impts.	2320					Mec	1								
7	Pappanam		Pappanam	19	20	4.09	39	42		Tank bund impts.	1865														

1.1.2.CONVERGENT TABLE ABSTRACT

Name of the Sub-basin:GIRUDHUMAL SUB BASIN																											
Sl.No	Clusters with the name of the tank	the Cluster	Name of the Cluster Revenue Villages	Total Ayacut area in Ha			Total Area in Ha			WRD		Agriculture		Horticulture		AED		TNAU		Agri marketing		AHD		Fisheries	
				FI	PI	Gap area	WOP	WP	(Focus crop)	Activities	Nos.& length in 'M'	Activities	Nos /Ha	Activities	Nos/Ha	Activi ties	Nos./ Ha	Activities	Nos./ Ha	Activities	Nos./ Ha	Activities	Nos./ Ha	Activities	Nos./ Ha
1	2	3	4	5	6	7	8	9	#	11	12	13	14	15	16	17	18	19	20	21	22	23	24	27	28
	MADURAI DISTRICT									sluices, Reconstruction & Repairs to weirs	-		-	-	-	-	-								
1	CLUSTER I Pudukkulam cluster			618	0.00	362	618	618		_ do _															
2	CLUSTER II Viradhanur cluster			417.00	0.00	523.87	417.00	488		_ do _															
	SIVAGANGAI DISTRICT									_ do _															
3	CLUSTER III Kondakai cluster		-	1294	458	519.5	1752	2026		_ do _															
4	CLUSTER IV Thirupuvanam cluster			788.8	441	583.4	1244	1318		_ do _															
5	CLUSTER V Piramanur cluster		-	1036	372	398.4	1049	1513		_ do _															
6	CLUSTER VI Maranadu cluster		-	1372	474	414.5	1845	1918		_ do _															
	VIRUDHUNAGAR DISTRICT									_ do _															
7	CLUSTER VII Karuvaikkudy cluster		-	302	180	171.5	482	567		_ do _															
8	CLUSTERVIII Kattanur cluster		-	641	232	1202	873	1355		_ do _															
9	CLUSTER IX Irunchirai cluster			451	183	549.5	633	908		_ do _															
10	CLUSTER X Narikkudy cluster			544	254	331.7	795	930		_ do _															

	RAMANATHAPURAM DISTRICT									do														
11	CLUSTER XI Keelaparithiyur cluster			255	122	49.19	377	416		do														
12	CLUSTER XII Abiramam cluster			272	165	136.8	437	558		do														

1.2. HYDROLOGY

1.2.1. GENERAL

Gridhumal is a separate river in the plain area.

1.2.2.LOCATION

The Gundar Basin has been divided into 9 sub basins and Girudhumal is one of the sub basins. A river Gridhumal originates from the field water drainage of Thuvariman and Madakulam Tanks near Madurai city in Thiruppurankunram Block and of Madurai district. This river receives this drainage from the city through Avaniapuram and Chinthamani Supply channel running in the middle of the city. The surplus of Konthagai tanks also reaches Gridhumal. Konthagai tank is not getting filled up to its full capacity.

The Girudhumal Sub basin is located between latitude $9^0$25'00" N to $9^0$50'00" N and longitude $78^0$05'00" E to $78^0$25'00" E and is surrounded by Vaigai river on the North and Kanal Odai Sub basin on South. Girudhumal Sub basin area is 566.851 Sq.Km with a plain area. The taluks covered in the sub basin are Madurai South, Manamadurai, Kariapatti, Thiruchuli, Paramakudi, Kamuthi taluks of Madurai and Sivagangai Virudhunagar, Ramanathapuram District respectively. It receives an annual average rainfall of 739mm, with its major share during North-East Monsoon.

1.2.3 CATCHMENT AREA OF GRIDHUMAL SUB-BASIN

The Gridhumal sub Basin has a typical climate, owing to the extensive major catchments area in plains. Gridhumal sub-basin enjoys the benefits of mostly North East monsoon and slightly in summer season.

1.2.4 HYDRO METEOROLOGY

The Hydro Meteorology parameters include rainfall, temperature, humidity, wind velocity, evaporation and duration of sun shine which determine the climate of the basin.

1.2.4 RAIN FALL

Average annual rainfall of gauging stations influencing this sub basin is as follows

Sl No	Name of Rain gauge Station	North East Monsoon	Summer	South west monsoon	Winter	Annual
1.	Solavandhan	391	1127	391	35	817
2.	Madurai Airport	379	136	304	24	843
3.	Thiruppuvanam	353	121	293	30	797
4.	Manamadurai	494	147	306	42	990
5.	Thiruchuli	361	107	201	32	701
	AVERAGE	396	131	299	33	830

1) Vaigai – Gridhumal link:

This flood carrier tankes off from Virahanur regulator linking Vaigai to Gridhumal river with a carrying capacity of 28.23 Cumec (1000 Cusec) and feeds 3 tanks with an ayacut of 5436.19 ha in Gridhumal sub basin.

C). Diversion of Vaigai water through supply channels

The supply channel namely, Avaniyapuram supply channel, Chinthamani Periya kanmoi supply channel, Anuppanadi supply channel, Panaiyur supply channel, Sottathtti supply channel, Thiruppuvanam supply channel, Pairmanur supply channel Palayanur supply hannel, Nilayur supply channel are divertinf Vaigai water.

a. CLIMATE

The Gridhumal Sub basin lies in a low rainfall belt having an annual average rainfall of 830mm. Southwest monsoon contribute 299 mm , while NE monsoon contributes 396mm. This basin receives a major share of its rainfall during NE monsoon. This monsoon helps to build up storage in the tanks Non system. This basin lies on the leeward side of Western Ghats on Western sides. Southwest monsoon rainfall, though lesser that the NE monsoon rainfall, still contribute some runoff helping to buildup storage in tanks. For the measurement of Hydro meteorological parameters in the basin area, there is one weather station at Kavalur near Virudhunagar, its data is taken for the study.

b. SOIL CLASSIFICATION

In this sub basin, due to different stages, Weathering & parent material, the soil types are met with in combination of Inceptisol, Alfisol and Vertisol. More prominent type is Inceptisol.

(Change as suited to this sub-basin)

Inceptisol	Red or brown or grey soil with surface horizon more developed than sub surface. They are developing soils, moderately deep, coarse loamy to loam moderately drained to well drained	Suited for commonly grown crops with exceptions
Alfisol	The red or brown soils having accumulation of alleviated clay in sub surface horizon it well drained, poor water and nutrient holding capacity.	Annual crops with shallow roots systems cum up wells
Vertisols	Black soil	Suitable for cotton, Pulses etc

C. LAND HOLDINGS

The details of farm holdings and size classes prevalent in Gridhumal Sub basin are given below:

Category	Size of holdings	Numbers	Percentage
Marginal	Below 1.00 Ha	181275	99
Small	1.00 – 2.00 Ha	115	0.8
Medium	2.00 – 5.00 Ha	25	0.2
Big	5.0 ha & above	--	--
Total		**18585**	**100**

Above table revealed that the marginal farmers alone accounted for 28 percent in the sub basin followed by small farmers. Developmental initiatives will be establishment in marginal and small farmers.

1.2.6 DEMOGRAPHY

Name of Sub Basin	Total No. of Blocks	Total No. of Villages	Population in Million		
			2005	2010	2020
Gridhmal sub basin			22.602	28.82	34.694

1.2.11 LIVE STOCK - POPULATION

Name of Sub basin	Cattle	Buffalo	Sheep	Goats	Pigs	Dogs	Others
Gridhumal	13234	3709	18575	18220	1308	1985	38
Requirement	0.531	0.203	0.136	0.133	0.019	0.011	0.00

CROPPING PATTERN

Name of Sub Basin : Girdhamal

Nodal District : Sivagangai

Registered Ayacut Area: **17057.81** Ha

Fully Irrigated: **8587.38** Ha

Partially Irrigated: **2994.27** Ha

Gap: **5476.16** Ha

Total Ayacut Area: **17057.81** Ha

S. No	CROP	WITHOUT PROJECT				WITH PROJECT				INGREASING
		FI	PI	RF/G	TOTAL	FI	PI	RF/G	TOTAL	
I	Perrennial crop									
1	Coconut	457.17	35.67	0	492.84	492.84	0	0	492.84	0
2	Fodder Grass	90.00	0	0	90.00	106.00	0	0	106.00	16.00
	Total	**547.17**	**35.67**	**0.00**	**582.84**	**598.84**	**0.00**	**0.00**	**598.84**	**16.00**
II	Annual crop									
1	Banana	125.56	28.19	0	153.75	165.75	0	0	165.75	12.00
2	Sugarcane	510.66	170.24	0	680.90	680.90	0	0	680.90	0
	Total	**636.22**	**198.43**	**0.00**	**834.65**	**846.65**	**0.00**	**0.00**	**846.65**	**12.00**
III	1st.crop									
1a	Paddy	7075.90	2468.86	0	9544.76	581.50	0	0	581.50	-8963.26
1b	Paddy SRI	0	0	0	0	8674.94	0	0	8674.94	8674.94
2	Maize	0	0	0	0	50.00	0	0	50.00	50.00
3	Pulses	0	0	0	0	150.00	0	0	150.00	150.00
4	Groundnut	5.14	6.18	0	11.32	61.32	0	0	61.32	50.00
5	Chillies	145.59	252.98	0	398.57	1262.60	0	0	1262.60	864.03
6	Bhendi	34.91	1.00	0	35.91	451.00	0	0	451.00	415.09
7	Brinjal	49.00	0	0	49.00	225.00	0	0	225.00	176.00
8	Cotton	93.45	31.15	0	124.60	174.60	0	0	174.60	50.00
9	Cocoa	0	0	0	0	10.00	0	0	10.00	10.00
10	Tomato	0	0	0	0	10.00	0	0	10.00	10.00
11	Fodder cholam	0	0	0	0	58.00	0	0	58.00	58.00
12	senna	0	0	0	0	390.00	0	0	390.00	390.00
13	prosophis	0	0	2061.34	2061.34	0	0	2061.34	2061.34	0
14	Fallow	0	0	2523.63	2523.63	0	0	560.83	560.83	-1962.80
15	Building & others	0	0	891.19	891.19	0	0	891.19	891.19	0
	Total	**7403.99**	**2760.17**	**5476.16**	**15640.32**	**12098.96**	**0.00**	**3513.36**	**15612.32**	**-28.00**
	Grand Total	**8587.38**	**2994.27**	**5476.16**	**17057.81**	**13544.45**	**0.00**	**3513.36**	**17057.81**	**0.00**
IV	2nd crop									
1a	Paddy	156.14	63.50	0	219.64	0	0	0	0	-219.64
1b	Paddy SRI	0	0	0	0	500.00	0	0	500.00	500.00
2	Maize	0	0	0	0	100.00	0	0	100.00	100.00
3	Pulses	0	0	0	0	450.00	0	0	450.00	450.00
4	Gingely	0	0	0	0	0	0	0	0	0

5	Pulses (Rice Fallow)	0	0	0	0	0	0	0	0	0
	Total	**156.14**	**63.50**	**0.00**	**219.64**	**1050.00**	**0.00**	**0.00**	**1050.00**	**830.36**
V	**Great Grand Total**	**8743.52**	**3057.77**	**5476.16**	**17277.45**	**14594.45**	**0.00**	**3513.36**	**18107.81**	**830.36**
	Cropping intensity				**69.18%**				**85.56%**	

1.2.13 CROP WATER REQUIREMENT WITHOUT PROJECT

NAME OF CROP		AREA IN Ha	CROP WATER REQUIREMENT	TOTAL CROP WATER REQUIREMENT IN Mcum.	IRRIGATION WATER REQUIREMENT @ SOURCE n= 0.53	TOTAL IRRIGATION REQUIREMENT
Perennial	Coconut	492.84	1001	4.93	9.31	9.31
	Fodder Grass	90.00	138	0.12	0.23	0.23
	Total	**582.84**		**5.06**	**9.54**	**9.54**
Annual	Banana	153.75	873	1.34	2.53	2.53
	Sugarcane	680.9	845	5.75	10.86	10.86
	Total	**834.65**		**7.10**	**13.39**	**13.39**
Ist. Crop	Paddy	9544.76	601	57.36	108.23	108.23
	Groundnut	11.32	434	0.05	0.09	0.09
	Chillies	398.57	656	2.61	4.93	4.93
	Bhendi	35.91	434	0.16	0.29	0.29
	Brinjal	124.6	434	0.54	1.02	1.02
	Total	**10115.16**	**2559.00**	**60.72**	**114.57**	**114.57**
II nd Crop	Paddy	219.64	601	1.32	2.49	2.49
	Total	**219.64**	**602**	**1.32**	**2.49**	**2.49**
	Grand Total			**74.20**	**140.00**	**140.00**

Water Potential

Surface water Potential in Mcum	…	46.76
Ground water potential in Mcum …		87.25
		134.01

Water demand without project

Domestic	Mcum	22.602

Live stock	Mcum	4.891
Industrial	Mcum	12.86
Irrigation		
WRO	Mcum	140.00
PU TANKS	Mcum	31.75
		212.103
Water Balance		**-78.093**

1.2.13 CROP WATER REQUIREMENT WITH PROJECT

NAME OF CROP		AREA IN Ha	CROP WATER REQUIREMENT	WATER REQUIREMENT IN Mcum.	IRRIGATION WATER REQUIREMENT @ SOURCE n= 0.60	TOTAL IRRIGATION REQUIREMENT
Perennial	Coconut	492.84	1001	4.93	8.22	8.22
	Fodder Grass	106.00	138	0.15	0.24	0.24
	Total			**5.08**	**8.47**	**8.47**
Annual	Banana	165.75	873	1.45	2.41	2.41
	Sugarcane	680.90	845	5.75	9.59	9.59
	Total			**7.20**	**12.00**	**12.00**
Ist. Crop	Paddy	581.50	601	3.49	5.82	5.82
	Paddy SRI	8674.94	601	52.14	86.89	86.89
	Maize	50.00	290	0.15	0.24	0.24
	Pulses	150.00	290	0.44	0.73	0.73
	Groundnut	61.32	434	0.27	0.44	0.44
	Chillies	1262.60	656	8.28	13.80	13.80
	Bhendi	451.00	434	1.96	3.26	3.26
	Brinjal	225.00	434	0.98	1.63	1.63
	Cotton	174.60	434	0.76	1.26	1.26

	Cocoa	10.00	290	0.03	0.05	0.05
	Tomato	10.00	434	0.04	0.07	0.07
	Fodder cholam	58.00	290	0.17	0.28	0.28
	senna	390.00	290	1.13	1.89	1.89
	Total			**69.82**	**116.37**	**116.37**
II nd Crop	Paddy					
	Paddy SRI	500.00	601	3.01	5.01	5.01
	Maize	100.00	290	0.29	0.48	0.48
	Pulses	450.00	290	1.31	2.18	2.18
	Pulses (Rice Fallow)	50.00	290	0.15	0.24	0.24
	Total			**4.75**	**7.91**	**7.91**
	Grand Total			**86.85**	**144.75**	**144.75**

Water Potential

Surface water Potential in Mcum	…	46.76
Ground water potential in Mcum	…	87.25
		134.01

Water demand without project

Domestic	Mcum	22.602
Live stock	Mcum	4.891
Industrial	Mcum	12.86
Irrigation		
WRO	Mcum	144.75
PU TANKS	Mcum	31.75
		216.853
Water Balance		**-82.843**

1.2.7 WATER POTENTIAL

Surface water potential … 46.26 Mcum.

Ground water yield … 87.25 Mcum.

Total … 134.01 Mcum.

1.2.8 .**WATER DEMAND: -**	**WITHOUT PROJECT**	**WITH PROJECT**
1) Domestic	22.602	22.602
2) Live stock	4.891	4.891
3) Industrial	12.86	12.86
4) Irrigation		
PWD tanks	140.06	144.31
PU tanks	31.75	31.75
TOTAL	212.163	216.413
1.2.9 WATER BALANCE: -	- 78.153	- 82.403

1.3. HYDRAULICS OF THE COMPONENTS

1.3.1. HYDRAULICS PARTICULARS OF ANICUTS

GIRUDHUMAL SUB BASIN

S.No	NAME OF ANICUT	VILLAGE	AYACUT	LENGTH OFANICUT	CREST LEVEL OF ANICUT	FRONT	CATCHMENT IN SQ.KM		MFD IN CUSECS	H.S. LOCATION	VENT	SILL LEVEL OF SLUICE	DICCHARGE IN CUMECS	SUPPLY CHANNEL					REMARKS
							FREE	COMBINED						LENGTH (M)	BED WIDTH (M)	FSD (M)	BED SLOPE	SLUICE	
1	Melavellore	Melavellore	214.98		112.44		1.59	1.59	1715	Lt.side	2x1.50 x0.75	112.14	130	1600	6.00	0.75	1 IN 2000		
2	Ambalathadi	Ambalathadi	1436.92	66.00	100.00		15.48	71.60	6516	Rt.side	2x1.95 x0.70	98.46	178	Rt.30490	7.00	0.90	1 IN 2500		
										Lt.side	2x1.50 x0.75	98.46	125	Lt.3020	4.00	1.00	1 IN 2000		
3	Odathur	Odathur	881.77	57.50	95.88	101.30	27.88	99.48		Rt.side	1x1.95 x1.25	95.79	110	17070	9.00	0.50	1 IN 1400		
4	Kattanur	Kattanur	1336.21	81.00	100.00	101.40	40.09	139.57	9875	Lt.side	1x2.50 x0.60	99.40	102	5500	6.40	1.20	1 IN 1549		
5	Athikulam	Athikulam	1345.78	82.50	77.50	101.50	32.50	145.25	8526	Rt.side	2x1.75 x1.00	76.10	132	Rt.7280	6.00	1.00	1 IN 3000		
										Lt.side	2x1.50 x0.90	75.06	155	Lt. 8745	10.00	1.10	1 IN 3000		
6	Nallukkurichi	Nallukkurichi	384.28	85.50	100.00	101.30	44.95	214.98	12694	Rt.side	1x1.75 x0.90	98.65	85	6736	6.50	1.20	1 IN 2800		
7	Abiramam	Abiramam	484.82	80.00	100.00	101.80	28.19	243.17	14188	Lt.side	2x3x0.45	100.10	173	6300	4.00	1.00	1 IN 1000		

1.3.2 HYDRAULICS OF SYSTEM TANKS

Sl. N0	Name of Tank	Village	Ayacut Ha	Capacity	No.of Fillings	Annual Storage
MADURAI DISTRICT						
1	Pudukulam	Pudukulam	27.14	1.00	9.5	0.95
2	Thenkal	Thenkal	383.81	106.79	1.5	16.02
3	Kurukattan	Kurukattan	56.14	6.14	3.0	1.84
4	Ariyankulam	Ariyankulam	58.25	3.00	4.7	1.41
5	Seventhikulam	Seventhikulam	34.83	2.64	4.9	1.29
6	Melanedungulam	Melanedungulam	37.72	2.90	4.8	1.38
7	Perungudi	Perungudi	103.42	32.90	1.5	4.94
8	Madakulam	Madakulam	279.29			0.00
9	Muthapatti Veerangudi	Muthapatti Veerangudi	0.00			
SIVAGANGAI DISTRICT						
10	Sottathatty	Sottathatty	165.95	23.11	2	4.62
11	Kondagai tank	Kondagai	736.98	153.35	3	46.01
12	Manalur tank	Manalur tank	266.81	47.88	2.3	11.01
13	Kalukarkadai tank	Kalukarkadai tank	239.16	58.65	1.7	9.97
14	Thiruppuvanam tank	Thiruppuvanam tank	1112.00	160.00	2.2	35.20
15	Vaviyarendal	Vaviyarendal	42.36	9.00	3	2.70
16	Piramanur tank	Piramanur	743.81	89.45	2	17.89
17	Thavalaikulam	Thavalaikulam	64.75	7.00	3	2.10
18	Parayankulam	Parayankulam	58.73	9.08	1.8	1.63
19	Alangulam	Alangulam	93.70	15.86	3	4.76
20	Muthuvanthidal	Muthuvanthidal	48.83	13.00	2	2.60
21	Kothankulam tank	Kothankulam	125.92	7.66	1.6	1.23
22	Keelasorikulam tank	Keelasorikulam	106.98	23.44	1.2	2.81
23	Melasorikulam tank	Melasorikulam	68.17	14.90	3	4.47
24	Achankulam	Achankulam	61.31	27.00	3	8.10
25	Anaikualm tank	Anaikualm	98.14	19.97	2	3.99
26	Thalikulam	Thalikulam	44.00	9.50	3	2.85

27	Palayanur	Palayanur	447.81	90.63	2	18.13
28	T.Velankulam	T.Velankulam	51.58	17.3	1.25	2.16
29	Pitchaipillaiyendal tank	Pitchaipillaiyendal tank	89.75	7.83	4.71	3.69
30	Maranadu tank	Maranadu tank	1457.89	180.61	3.32	59.96
31	Saluppanodai	Saluppanodai	37.36			

1.3.3 HYDRAULICS OF NON SYSTEM TANKS

Sl. N0	Name of Tank	Village	Ayacut Ha	Capacity	No.of Fillings	Annual Storage
MADURAI DISTRICT						
1	Nedungulam	Nedungulam	41.54	4.86	3.0	1.46
2	Viradhanur	Virudhanur	297.57	19.14	3.0	5.74
3	Ayavettan	Ayavettan	91.95	24.99	1.4	3.50
4	Ayanpappakudi	Ayanpappakudi	186.09	14.61	2.0	2.92
5	Samanatham	Samanatham	249.36	10.60	3.9	4.16
6	Pudukkulam	Avaniapuram	60.93	2.79	4.0	1.12
7	Thuliapatti	Chinthamani	54.98	1.76	6.0	1.06
8	Rettaikulam	Rettaikulam	0.00	4.94		0.00
SIVAGANGAI DISTRICT						
9	Melakarisalkulam tank	Melakarisalkulam	83.25	31.15	2	6.23
10	Keelakarisalkulam tank	Keelakarisalkulam	158.83	30.70	2	6.14
11	Pottapalayam tank	Pottapalayam	61.13	13.50	2	2.70
12	Puliyur	Puliyur	66.63	15.20	2	3.04
13	Kaluvankulam tank	Kaluvankulam	64.72	11.61	2	2.32
14	Meenakshipuram tank	Meenakshipuram	128.52	18.49	2	3.70
15	Melavellur tank	Melavellur	299.97	72.60	2	14.52
16	Keelavellur tank	Keelavellur	106.93	14.28	2	2.86
17	Karunkalai tank	Karunkalai	79.09	11.15	3	3.35

18	Thavatharendal tank	Thuavatharendal	50.38	9.50	2	1.90
19	Ambalathadi tank	Ambalathadi	110.43	23.00	2	4.60
20	Mangudi tank	Mangudi	421.37	57.35	3	17.21
21	Rangiyam tank	Rangiyam	609.48	152.80	1	15.28
22	Chokkanathiruppu tank	Chokkanathiruppu	154.68	4.84	2	0.97
23	Sambakulam	Sambaikulam	44.13	9.00	2	1.80
24	Visvampettai	Visvampettai	42.04	8.98	2	1.80
25	Puliyankulam tank	Puliyankulam	74.94	21.72	2	4.34
26	Sankankulam tank	Sankankulam	100.66	22.31	2	4.46
27	Vallarendal tank	Vallarendal	43.26	9.02	2	1.80
28	Veeranendal tank	Veeranendal	68.88	9.40	1	0.94
29	Odhathur Tank	Odhathur	88.91	19.09	4	7.64
30	S.Vagaikulam tank	S.Vagaikulam	68.41	19.99	3.9	7.80
31	Pulavacheri	Pulavacheri	70.37	12.31	2.5	3.08
32	Nadukkanendal	Nadukkanendal	65.23	12.20	2.20	2.68
VIRUDHUNAGAR DISTRICT						
33	Karuvakkudi	Karuvakkudi	51.17	10.65	1.0	1.07
34	S. Nangoor	S. Nangoor	61.61	11.57	1.0	1.16
35	Poombidagai	Poombidagai	79.72	18.06	1.0	1.81
36	Thamarai kulam	Thamarai kulam	82.44	23.20	1.0	2.32
37	Thatchanendal	Thatchanendal	56.08	6.40	1.0	0.64
38	Alathur	Alathur	67.01	9.07	1.0	0.91
39	Thiruvidai Nallur	Thiruvidai Nallur	46.50	5.83	1.0	0.58
40	Rettai kulam	Rettai kulam	71.42	6.65	1.0	0.67
41	Senthanadhi	Senthanadhi	44.51	5.23	1.0	0.52
42	Eluvani	Eluvani	93.04	19.71	1.0	1.97

43	Mugavoor	Mugavoor	106.51	11.03	1.6	1.81
44	P. Vagaikulam	P. Vagaikulam	61.39	12.63	1.8	2.25
45	Vilakkanendal	Vilakkanendal	42.05	--	5.3	
46	Kundukulam	Kundukulam	56.64	7.74	1.8	1.36
47	Alagapuri	M. Pudukulam	89.24	14.93	0.9	1.40
48	Siruvanur	Siruvanur	65.08	10.16	1.4	1.45
49	Kattanoor	Kattanoor	1335.67	177.80		0.00
50	Seeniyendal	Seeniyendal	51.22	5.04	0.9	0.45
51	Naloor	Naloor	267.61	65.61	1.9	12.20
52	Irunchirai	Irunchirai	509.05	138.00		0.00
53	Karumanendal	Karumanendal	52.59	12.39	1.0	1.24
54	Kadukkoi kulam	Naloor	42.38	14.43	1.0	1.44
55	Andukondan	Andukondan	46.80	7.25	1.0	0.73
56	Pannaikudi	Pannaikudi	99.49	18.16	1.0	1.82
57	Esali	Esali	132.77	30.69	1.0	3.07
58	Sottamuri	Sottamuri	40.51	8.61	1.0	0.86
59	Theeyanur	Theeyanur	46.80	8.86	1.0	0.89
60	Ulakudi Big & Small	Olakudi	213.10	45.30	1.5	6.80
61	Manoor	Manoor	93.63	15.78	1.0	1.58
62	Athithanendal	Athithanendal	90.21	16.58	0.5	0.88
63	Narikudi	Narikudi	62.66	27.89	1.0	2.79
64	N. Mukkulam	N. Mukkulam	42.49	30.83	1.0	3.08
65	Virakudi	Virakudi	50.54	8.62	1.0	0.86
66	Maraiyur	Maraiyur	134.78	50.89	1.0	5.09
67	Mayaleri	Mayaleri	42.97	30.29	1.0	3.03
68	Sethurayanendal	Sethurayanendal	161.04	10.92	1.0	1.09

69	Varisaiyur	Varisaiyur	164.00	35.01	0.5	1.58
70	Vilakkuseri	Vilakkuseri	47.76	8.72	1.0	0.87
71	Sammanendal	Sammanendal	42.21	4.09	1.0	0.41
72	Melaparithiyur	Melaparithiyur	131.26	25.69	1.0	2.57
73	Veeracholan	Veeracholan	66.19	45.03	1.0	4.50
RAMANATHAPURAM DISTRICT						
74	Keelaparuthiyur	Keelaparuthiyur	122.10	34.84	1.5	5.23
75	Pulavar velangudi	Pulavar velangudi	55.40	3.19	2.0	0.64
76	Kurunjakulam	Kurunjakulam	62.89	7.83	3.0	2.35
77	Sirukulam sembilankudi	Sirukulam sembilankudi	56.78	13.92	1.8	2.51
78	Thadathankudi	Thadathankudi	129.52	30.30	1.8	5.30
79	T.Punavasal	T.Punavasal	43.68	11.69	2.0	2.34
80	Abiramam	Abiramam	171.85	84.26	2.0	16.85
81	Achangulam	Achangulam	44.3	9.38	2.0	1.88
82	T. Kallikulam	T. Kallikulam	56.27	9.03	2.0	1.81
83	A.Tharaikudi	A.Tharaikudi	142.34	22.34	2.0	4.47
84	Nagaratharkurichi	Nagaratharkurichi	72.24	15.91	2.0	3.18
85	Pappanam	Pappanam	43.09	7.70		

1.3.2 HYRAULIC PARTICULARS OF SYSTEM TANKS IN GIRUDHUMAL SUB BASIN

Sl.No.	Name of District	Name of Taluk	Name of Tank	Ayacut in HA	Capacity in Mcft.	Number of filling	Free Catchment in Sqkm	Combined Catchment in Sqkm	water spread area	FTL in M	MWL in M	No.of Suice	No of Weir	Length of weir	Discharge in cusecs	Length of supply channel	Length of bund	Upper Tank	Lower Tank	Nameof Village
1			Sottathatty	165.95	23.11	2	0.79	9.42	8.39	15.24	15.84	3	1	36.50	720.00		2438	Silaiman,Vaigai	Konthagai	Sottathatty
2			Kondagai tank	736.98	153.35	3	2.30	24.03	51.11	14.93	15.53	7	1	97.84	3519.00	3300	5640	Sotathatti,Vaigai	Girdhumal	Kondagai
3			Manalur tank	266.81	47.88	2	1.55	1.87	11.05	14.78	15.58	4	1	35.56	709.92		2377	Vaigai river	.Pudukulam	Manalur
4			Kalukarkadai tank	239.16	58.65	2	0.80	3.90	6.90	13.56	14.16	3	1	30.98	948.80		1980	Vaigai river	Keelavellur	Kalkarkadai
5			Thiruppuvanam tank	854.30	160.00	3	3.83	3.83	26.00	14.78	15.39	4	1	41.15	891.00	4500	4175	Vaigai river	Keelavellur	Thiruppuvanam
6			Piramanur tank	743.81	89.45	3	2.50	10.20	38.85	15.24	15.85	7	2	3.50 59.48	2500.90	4500	5400	Chokkanathiruppu, Vaigai	Girdhumal	Piramanur
7			Vaviyarendal	42.36	9.00	2	1.66	3.07	6.10	29.26	29.87	4	1	22.00	846.00	1000	2040	Vaigai river	Piramanur	Vaviyarendal
8			Melasorikulam tank	68.17	14.90	2	0.26	0.26	3.10	14.95	15.40	3	1	7.62	153.00	2000	1783	Muthuvanthidal	Anaikulam	Melasorikulam
9			Anaikualm tank	98.14	19.97	2.2	0.36	0.36	20.65	15.24	15.85	4	1	4.20	348.00	2000	2195	Melasorikulam	Panaiyanur	Anaikualm
10			Achankulam	61.31	27.00	1.8	1.40	1.40	4.30	17.00	17.60	4	1	6.00	122.00	2200	3720	Melasorikulam	Girdhumal	Achankulam
11			Thavalaikulam	64.75	7.00	2	4.18	4.18	3.75	15.39	16.00	4	1	19.80	619.00		1500	Thiruppuvanam	Panayanendhal	Thavalaikulam
12			Keelasorikulam tank	106.98	23.44	1.6	0.78	0.78	5.60	14.48	15.09	3	1	7.93	245.18	2500	2820	Muthuvanthidal	Maragathavalli	Keelasorikulam
13			Pitchaipillaiyendal tank	89.75	7.83	3	0.62	1.92	3.25	14.17	14.80	3	1	17.32	219.24	250	1440	Vaigai river	Saluppanodai	Pitchaipillaiyendal
14			Muthuvanthidal	48.83	13.00	1.2	0.65	0.65	3.71	12.80	13.41	2	1	6.71	207.46	1200	1768	Alankulam	Keelasorikulam	Muthuvanthidal
15			Parayankulam	58.73	9.08	3	1.30	1.30	8.04	14.33	14.94	3	1	10.36	320.62		1006	Villiarendhal	Alankulam	Parayankulam
16			T.Velankulam tank	51.58	17.30	3	2.64	2.64	1.14	15.24	15.85	4	1	25.00	1046.00	300	1340	Kothankulam	Saluppanodai	Velankulam
17			Kothankulam tank	125.92	7.66	2		5.70	1.28	15.24	15.85	4	1	30.60	922.62		2110	Vaigai river	Velankulam	Kothankulam
18			Alangulam	93.70	15.86	3	1.80	1.80	4.57	15.25	15.86	4	1	26.30	245.00	1000	1410	Vaigai river	Kothankulam	Alangulam
19			Maranadu tank	1457.89	180.61	3	4.48	8.92	35.86	15.24	15.85	4	1	18.90	856.20	8600	5756	Vaigai River,Saluppanodai	Pulavacheri	Maranadu
20			Palayanur	447.81	90.63	2	1.10	1.10	25.57	30.48	30.93	9	1	42.67	856.80	10300	5730	Vaigai river	Girdhumal	Palayanur
21			Thalikulam	44.00	9.50	2	1.76	17.30	4.43	30.40	31.00	3	1	41.46	1307.80		2043	Keelasorikulam,Vaigai river	Pathupatty	Thalikulam
22			Saluppanodai	37.36	5.20	2	0.30	0.55	1.35	15.65	16.25	2	1	5.50	163.20			Vaigai river	Maranadu	Saluppanodai
				5904.29																

HYRAULIC PARTICULARS OF NON SYSTEM TANKS IN GIRUDHUMAL SUB BASIN

Sl.No.	Name of District	Name of Taluk	Name of Tank	Ayacutin HA	Capacity in Mcft.	Number of filling	Free Catchmentin Sqkm	Combined Catchmentin Sqkm	water spread area	FTL in M	MWL in M	No.of Suice	No of Weir	Lengthof weir	Discharge in cusecs	Length of supply channel	Lengthof bund	Upper Tank	Lower Tank	Nameof Village
1	SIVAGANGAI	MANAMADURAI	Melakarisalkulam tank	83.25	31.15	2	3	4.75	9.4	15.2	16	4	2	16.7 15.00	919		3450	Pudhukulam	Keelakarisalkulam	Melakarisalkulam
2			Keelakarisalkulam tank	158.83	31.70	2	0.6	11.7	4.5	14.2	15	4	1	28.4	1149		2797	Melakarisalkulam	Pottappalayam	Keelakarisalkulam
3			Pottapalayam tank	61.13	13.50	2	0.4	0.96	5.8	31.1	32	2	1	22	476.6		2840	Keelakarisal	Girudhamal	Pottapalayam
4			Puliyur	66.63	15.20	2	0.3	0.75	4.8	31.1	31	3	1	19.5	392		2590		Girdhumal	
5			Kaluvankulam tank	64.72	11.61	2	1.5	4.1	4.3	15.2	16	4	1	36.5	890		2042	Thinnaneri	Virathanur	Kaluvankulam
6			Meenakshipuram tank	128.52	18.49	2	7.4	8.96	8.5	15.1	16	5	1	32.03	1010		2377	Konthagai	Melalavellore	Meenakshipuram
7			Melavellur tank	299.97	72.60	2	1.6	2.3	13	15.2	16	4	1	15.54	811		2834	Konthagai	Keelavellore	
8			Keelavellur tank	106.93	14.28	2	2.1	22.78	6.9	13.7	14	3	1	41.75	900		2600	Melavellur	Mangudi	Keelavellur
9			Karunkalaikudi tank	79.09	11.15	3	1	3.66	4.5	15	16	5	2	17.37 14.71	1130		2195	Nedungulam	valayapatti	Karunkalai
10			Thavatharendal tank	50.38	9.50	2	0.5	0.5	3.1	15	16	8	1	6.1	99.55		2987	Girdhumal	Karunkalaikudi	Thuavatharendal
11			Ambalathadi tank	110.43	23.00	2	0.5	1.25	12	12.8	13	3	1	30.4	902.3		3960	Girdhumal	Girdhumal	Ambalathadi
12			Mangudi tank	421.37	57.35	3	4.7	5.09	14	12.2	13	3	1	24.48	727.3		2995	Keelavellur	Rangiyam	Mangudi
13			Rangiyam tank	609.48	162.80	1	4.1	18.02	35	15	16	6	3	22.85 30.48 18.28	3459	2500	6705	Mangudi	Girdhumal	Rangiyam
14			Chokkanathiruppu tank	154.68	14.84	2	4.8	18.42	7.7	15.2	16	3	1	36.3	1379		2680		Piramanur	Chokkanathiruppu
15			Sambakulam	44.13	9	2	13	13.05	2.3	15.4	16	3	1	15.6	486		1500		Gidhumal	Sambakulam
16			Visvampettai	42.04	8.98	2	2.6	2.59	2.9	15.1	16	2	1	3.4	604.2		1260		Gidhumal	Visvampettai
17			Puliyankulam tank	131.53	21.70	2	1.6	1.63	3.1	14.6	15	5	1	10.73	310.5		3120	Vagaikulam	Girdhumal	Puliyankulam
18			Sankankulam tank	100.66	22.31	2	2.5	2.49	4.9	15.1	16	5	1	28.75	338.3	1000	4230	Puliyankulam	Girdhumal	Sankankulam
19			Vallarendal tank	70.66	9.02	2	3.1	2.25	2	30	31	3	1	21.6	671.7		1375	Sankankulam	Girdhumal	Vallarendal
20			Veeranendal tank	68.88	9.40	1	1	1.04	4	15.2	16	4	1	45.25 46.41	150.9		1325		Kattanur	Veeranendal
21			Nadukanendal	65.23	12.20	2	0.3	0.3	0.5	48	49	3	1	8.84	389		2896	Pulavacheri	Girdhumal	
22			Pulavachari tank	70.37	12.31	2	2.3	2.29	5.1	19.8	20	4	1	19.25	234		2824	Maranadu	Nadukkanendhal	Pulavachari
23			Odhathur	88.91	9.09	4	1.2	1.32	61	18.5	19	3	2	16.46 15.50	937		2440	Girdhumal	S.Vagaikulam	
24			S Vagaikulam	68.41	9.99	4	2	3.63	9.1	29.88	30	3	1	10	275		2408	Odhatjur	Udhanery	
				3146.23												47150				

Sl.No.	Name of District	Name of Taluk	Name of Tank	Ayacut in HA	Capacity	Catchment area	water spread area	FTL	MWL	No.of Suice	No of Weir	Length of weir	Length of bund	Nameof Village
	Madurai District													
25			Nedungulam	41.54	15.84	2.15	1.25	115.25	115.85	3	1	8.20	540	Nedunkulam
26			Viradhanur	297.57	19.14	2.35	1.19	115.83	116.28	3	1	60.94	4816	Virudhanur
27			Ayavettan	91.95	24.99	2.43	0.83	128.44	129.05	2	2	8.20	2250	Ayavettan
28			Ayanpappakudi	186.09	14.61	0.90	0.45	129.54	130.14	2	1	14.25	1525	Ayanpappakudi
29			Samanatham	249.36	10.60	--	0.89	100.00	100.60	4	2	38.70	4050	Samanatham
30			Pudukkulam	60.93	2.79	0.85	0.16	128.86	129.16	3	1	9.75	972	Avaniapuram
31			Thuliapatti	54.98	1.76	0.32	0.11	126.80	127.10	2	1	12.80	1450	Chinthamani
32			Rettaikulam	1.67										
				984.09										
33	**Virudhunagar**	Thiruchuli	Karuvakkudi	51.17	10.65	15.78	3.70	30.00	30.60	2	1	27.60	2340	Karuvakkudi
34			S. Nangoor	61.61	11.57	8.29	5.22	14.93	15.53	3	2	51.24	1830	S. Nangoor
35			Poombidagai	79.72	18.06	1.69	9.03	12.50	13.10	3	1	14.33	2836	Poombidagai
36			Thamarai kulam	82.44	23.20	1.00	5.77	15.24	15.84	6	1	13.73	2165	Thamarai kulam
37			Thatchanendal	56.08	6.40	0.75	2.18	14.48	15.08	3	1	11.29	1586	Thatchanendal
38			Alathur	67.01	9.07	0.30	3.20	26.20	26.80	2	1	4.50	2196	Alathur
39			Thiruvidai Nallur	46.50	5.83	0.18	2.69	24.65	25.25	3	1	12.20	2150	Thiruvidai Nallur
40			Rettai kulam	71.42	6.65	0.93	3.50	24.52	25.12	5	1	11.90	2227	Rettai kulam
41			Senthanadhi	44.51	5.23	1.80	2.10	21.50	22.10	4	1	2.44	1983	Senthanadhi
42			Eluvani	93.04	19.71	13.20	6.57	15.24	15.84	4	2	43.31	1922	Eluvani
43			Mugavoor	106.51	11.03		3.82			5	1	28.98	3416	Mugavoor
44			P. Vagaikulam	61.39	12.63	6.70	4.60	15.25	15.85	4	2	42.70	2074	P. Vagaikulam
45			Vilakkanendal	42.05	--		--	15.24		--	--	--	--	Vilakkanendal
46			Kundukulam	56.64	7.74	0.43	3.18	13.87	14.47	3	1	8.85	2379	Kundukulam

47			Alagapuri	89.24	14.93	13.62	7.00	86.06	86.43	5	2	89.05	3060	M. Pudukulam
48			Siruvanur	65.08	10.16	1.08	--	13.41	14.01	3	--	--	1983	Siruvanur
49			Kattanoor	1335.67	177.80	5.70	5.12	14.15	14.75	9	1	10.00	6220	Kattanoor
50			Seeniyendal	51.22	5.04		2.52			6	1	17.10	1373	Seeniyendal
51			Naloor	267.61	65.61	17.80	17.56	15.25	15.85	6	2	91.05	2867	Naloor
52			Irunchirai	509.05	138.00		27.59			6	1	38.74	5121	Irunchirai
53			Karumanendal	52.59	12.39	1.58	5.31	11.89	12.49	2	1	14.64	1830	Karumanendal
54			Kadukkoi kulam	42.38	14.43	11.64	5.41	48.00	50.00	3	1	16.17	1525	Naloor
55			Andukondan	46.80	7.25	11.03	3.93	76.21	76.81	3	1	17.90	1500	Andukondan
56			Pannaikudi	99.49	18.16	21.61	3.93	49.00	51.00	3	2	104.72	1427	Pannaikudi
57			Esali	132.77	30.69	0.42	10.42	78.83	79.43	3	1	24.38	1290	Esali
58			Sottamuri	40.51	8.61	30.54	3.78	48.50	50.50	4	1	39.62	1558	Sottamuri
59			Theeyanur	46.80	8.86	30.98	4.62	70.82	71.42	5	2	48.77	2743	Theeyanur
60			Ulakudi Big & Small	213.10	45.30	26.16	15.53	73.48	74.09	6	1	38.70	4453	Olakudi
61			Manoor	93.63	15.78	22.58	7.50	49.80	51.80	6	2	61.00	2379	Manoor
62			Athithanendal	90.21	16.58	33.25	7.65	54.50	56.50	8	1	24.40	2438	Athithanendal
63			Narikudi	62.66	27.89	25.64	5.10	50.00	52.00	3	2	74.20	3200	Narikudi
64			N. Mukkulam	42.49	30.83	23.63	12.50	45.40	47.40	4	2	38.00	2560	N. Mukkulam
65			Virakudi	50.54	8.62	18.38	4.71	49.20	51.20	6	2	49.68	1829	Virakudi
66			Maraiyur	134.78	50.89	0.38	16.17	67.69	69.99	2	1	35.35	2820	Maraiyur
67			Mayaleri	42.97	30.29	0.25	9.77	67.36	67.77	2	2	42.76	2400	Mayaleri
68			Sethurayanendal	161.04	10.92	5.51	4.33	30.30	32.30	3	1	17.07	1372	Sethurayanendal
69			Varisaiyur	164.00	35.01	0.23	12.98	64.03	64.63	7	1	10.85	3210	Varisaiyur
70			Vilakkuseri	47.76	8.72	5.25	5.66	48.00	50.00	3	1	7.32	1411	Vilakkuseri
71			Sammanendal	42.21	4.09	4.02	1.92	47.00	49.00	4	1	10.05	2286	Sammanendal
72			Melaparithiyur	131.26	25.69	7.70	13.86	90.56	92.56	7	1	37.57	3110	Melaparithiyur
73			Veeracholan	66.19	45.03	6.91	18.66	50.00	51.50	3	3	27.73	4250	Veeracholan
				4526.19										
74	**Ramnad**	Paramakudi	Keelaparuthiyur	122.10	34.84	12.33	14.93	15.24	15.84	5	1	42.00	3360	Keelaparuthiyur
75			Pulavar velangudi	55.40	3.19	1.92	2.18	19.64	20.24	6	1	4.50	1600	Pulavar velangudi
76			Kurunjakulam	62.89	7.83	7.42	3.92	15.24	15.84	6	1	27.50	2408	Kurunjakulam
77			Sirukulam sembilankudi	56.78	13.92	8.15	7.35	15.55	16.45	6	1	37.00	2621	Sirukulam sembilankudi
78			Thadathankudi	129.52	30.30	7.51	3.96	15.85	16.45	4	1	55.50	3900	Thadathankudi
				426.69										

79	**Ramnad**	Kamuthi	T.Punavasal	43.68	11.69	1.34	5.29	29.57	30.17	4	1	18.00	1800	T.Punavasal
80			Abiramam	171.85	84.26	5.69	40.00	30.80	31.70	5	1	35.35	5547	Abiramam
81			Achangulam	44.30	9.38	2.40	4.92	14.85	15.45	5	1	25.80	2100	Achangulam
82			T. Kallikulam	56.27	9.03	1.03	5.29	29.57	30.17	4	1	18.00	1800	T. Kallikulam
83			A.Tharaikudi	142.34	22.34	1.90	11.34	15.00	15.60	5	2	34.26	3600	A.Tharaikudi
84			Nagaratharkurichi	72.24	15.91	3.47	9.36	29.40	30.00	2	1	51.80	2320	Nagaratharkurichi
85			Pappanam	43.09	7.70	1.00	4.22	29.64	30.24	2	2	58.30	1765	Pappanam
				573.77										

1.3.4.HYDRAULICS PARTICULARS OF SUPPLY CHANNELS.

NAME OF THE SUB BASIN:
GRIDHUMAL

Sl. NO	Name of supply channel	Start Point		End Point		Length in metres	Bed width	Bed slope	Side slope	MFD in cusecs.	Depth of flow	Remarks
		Location	Sill level	Location	Sill level							
	SYSTEM TANKS											
1	Konthgai	RMC - 1120	118.820	Kondakai tank	117.930	3300	8.00	1/3700	1:1	429	1.65	
2	Thirupuvanam	RMC - 6380	110.275	Thirupuvanam tank	106.675	4500	7.00	1/1250	1:1	379	1.20	
3	Vaviyarendal	At LS 2100M of Piramanur tank supply channel.	98.235	Vaviyarendal tank	97.465	1000	3.00	1/1300	1:1	165	0.60	
4	Melasorikulam	At LS 4800M of Palayanur tank supply channel.	92.890	Melasorikulam tank	91.070	2000	4.00	1/1100	1:1	190	0.75	
5	Keelasorikkulam	At LS 4200M of Palayanur tank supply channel.	91.930	Keelasorikkulam tank	90.260	2500	4.00	1/1500	1:1	110	0.60	
6	Anaikulam	At LS 6500M of Palayanur tank supply channel.	82.200	Anaikulam tank	81.200	2000	3.00	1/2000	1:1	165	0.75	
7	Achankulam	At LS 8150M of Palayanur tank supply channel.	79.560	Achankulam tank	78.140	2200	3.00	1/1550	1:1	98	0.45	
8	Maranadu	RMC 19020	97.550	Maranadu tank	92.338	8600	10.00	1/1390	1:1	165	1.15	
9	Piramanur	RMC 14730	99.790	Piramanur tank	96.457	4500	6.20	1/1350	1:1	218	0.95	
10	Palayanur	RMC - 15180	99.625	Palayanur tank	83.119	10300	12.00	1/624	1:1	415	0.75	
11	Alankulam	At LS 3550M of Palayanur tank supply channel.	93.935	Alankulam tank	93.095	1000	3.00	1/1200	1:1	190	0.80	

12	Muthuvanthidal	At LS 3900M of Palayanur tank supply channel.	93.375	Muthuvanthidal tank	92.485	1200	3.00	1/1350	1:1	220	0.90	
13	Pudukulam	At LS 19403 M of Nilaiyur channel	143.015	Pudukulam tank	142.340	1230	2.00	1/1633	1:1	90	1.10	
14	Thenkal	At LS 22215 M of Nilaiyur channel	140.765	Thenkal tank	140.400	900	2.00	1/2489	1:1	65	0.90	
15	Kurukattan	At LS 3350 M of Perunkudi channel	136.975	Kurukattan tank	133.680	350	2.00	1/796	1:1	120	0.90	
16	Sevanthikulam	At LS 2820 M of Perunkudi channel	140.720	Sevanthikulam tank	137.740	2500	2.00	1/189	1:1	198	0.95	
17	Ariyankulam	At LS 3600 M of Perunkudi channel	138.750	Ariyankulam tank	137.525	180	2.00	1/240	1:1	165	0.95	
18	Melanedungulam	At LS 5130 M of Perunkudi channel	136.975	Melanedungulam tank	134.110	220	2.00	1/796	1:1	110	0.90	
19	Perungudi	At LS 5130 M of Nilaiyur channel	136.975	Perungudi tank	134.345	5130	4.00	1/796	1:1	257	0.90	
						53610						
	NON SYSTEM TANKS											
20	Viradhanur					6000			1:1			
21	Ayanpappakudi					3500			1:1			
22	Samanatham					3500			1:1			
23	Rangiyam tank	LB of LMC from Ambalathadi anicut.	15.970	Rangiyam tank	14.970	2500	3.00	1/2500	1:1	135	0.90	
24	Sankankulam	LB of LMC Girudhumal	15.600	Sankankulam tank	15.100	1000	3.00	1/1965	1:1	118	0.75	
25	Melaparithiyur	LB of LMC of Athikulam anicut.	93.335	Melaparithiyur	90.560	3110	5.00	1/1120	1:1	125	1.30	
26	Veersolan	RB of RMC of Athikulam anicut.	51.150	Veersolan	50.000	1500	7.50	1/1300	1:1	160	1.30	
27	Thamarai kulam	RB of RMC of Odathur anicut.	17.605	Thamaraikkulam tank	15.240	2500	2.40	1/1056	1:1	112	0.60	
28	Alathur	RB of RMC of Odathur anicut.	26.745	Alathur tank	26.200	1900	4.50	1/3520	1:1	86	0.60	
29	Thiruvidai Nallur	RB of RMC of Odathur anicut.	24.815	Thiruvidai Nallur tank	24.650	400	2.40	1/2400	1:1	32	0.75	
30	Rettai kulam	RB of RMC of Odathur anicut.	24.980	Rettai kulam tank	24.520	1900	1.80	1/3017	1:1	25	0.60	
31	Senthanadhi	RB of RMC of Odathur anicut.	23.900	Senthanadhi	21.500	1950	3.00	1/812	1:1	52	0.75	
32	Eluvani	RB of RMC of Odathur anicut.	17.075	Eluvani	15.250	1300	3.30	1/712	1:1	15	0.30	
33	Varisaiyur	LB of LMC of Athikulam anicut.	64.400	Varisaiyur	60.730	3120	5.00	1/850	1:1	176	1.30	
34	Manoor	RB of RMC of Athikulam anicut.	52.450	Manoor	50.200	4500	5.00	1/2000	1:1	152	1.50	
35	Maraiyur	LB of LMC of Athikulam anicut.	71.370	Maraiyur	67.690	8100	7.50	1/2200	1:1	165	1.50	
36	Naloor	RB of RMC of Ambalathadi anicut.	15.250	Naloor	15.250	9850	6.50	1/1850	1:1	189	1.20	
37	T.Punavasal	RB of Girudhumal	31.610	T.Punavasal	29.570	2000	5.00	1/980	1:1	132	0.90	

38	A.Tharaikkudi	RB of Girudhumal	19.500	A.Tharaikkudi	15.000	4500	6.00	1/1000	1:1	145	0.60	
39	Keelaparithiyur	RB of RMC of Nallukurichi anicut	17.390	Keelaparithiyur	15.650	2610	5.00	1/1500	1:1	110	0.75	
40	Odathur	At the Right side of Abiramam anicut	33.000	Odathur	28.650	6100	9.00	1/1400	1:1	160	0.50	
41	Abiramam	At the Left side of Abiramam anicut	100.000	Abiramam tank	93.735	6300	4.00	1/1006	1:1	180	1.00	
42	Nallukurichi	At the Left side of Nallukurichi anicut	70.700	Nallukurichi tank	64.580	6736	8.00	1/1100	1:1	195		
43	Kattanur	At the Left side of Abiramam anicut	17.750	Kattanur tank	14.200	5500	6.40	1/1549	1:1	294	1.20	
44	Athikulam Left.	At the Left side of Athikulam anicut	75.060	Melaparithiyur tank	65.590	8745	10.00	1/923	1:1	232	0.90	
45	Athikulam Right	At the right side of Athikulam anicut	76.100	Narikkudi tank	68.675	7280	6.00	1/980	1:1	210	0.90	
46	LMC of Ambalathadi anicut	At the Left side of Ambalathadi anicut	98.455	Pottapalayam tank	96.950	3020	4.00	1/2000	1:1	128	1.00	
47	RMC of Ambalathadi anicut	At the Right side of Ambalathadi anicut	99.505	Naloor tank	87.105	30490	7.00	1/2500	1:1	178	0.9	
						139911						

1.4 Participatory Irrigation Management (PIM)

Salient Features of
Implementation of PIM
in Girudhumal Sub-basin

1) **The Sub-basin:** This is one of the nine sub-basins of the Gundar River Basin. Totally 116 irrigation tanks are under the control of Water Resources Department (WRD) of Public Works Department (PWD) in this sub-basin. List of Tanks covered with more details are furnished in the **Annexure – 1**. These 116 tanks are located within the sub-basin's hydraulic boundary spread over 116 villages of Madurai south taluk, Kariapatti,Thiruchuli, Manamadurai, Paramakudi and Kamuthi taluk of Madurai , Virudhunagar and Sivagangai, Ramnad District. **The total Command area under these 116 tanks works out to 17057.81 ha. (Annexure**

2) **Command area:**

i.	Under System tanks (31 Tanks)	**6886.56Ha**
ii.	Under Non-system tanks (85 tanks)	**10171.25 Ha**
Total	(116) Tanks	**17057.81Ha**

3) **An assessment of number of WUAs.**
   i) Associations **already formed** under WRCP 9 WUA in Periyar vaigai basin and 8 WUA in Sivagangai, — 19 WUA Nos (6278.71 ha)
   ii) Associations **proposed to be formed** under IAMWARM Project covering 37 WUA — 47Nos (10779.10ha)

4) An account of "Awareness creation".
   Activities undertaken and "Walkthrough Surveys" carried out:

i) There are 116 tanks in the sub-basin spread over 116 villages.

ii) As detailed out in Annexure – 01. All these villages were visited by the WRD official and awareness about various activities, contemplated under IAMWARM project has been created.

iii) Details of villages covered, walkthrough surveys conducted, farmers attended, list of works suggested by the farmers, list of works analysed and finalized by WRD officials, are all furnished in the Annexure – 02.

5) Schedule for completion of delineation and preparation for WUA documents, comprising of:
   i) Form – I : Details to be notified by District Collectors (End of March – 09)
   ii) Form – II: WUA document to be notified by District Collectors (End of April – 09)
   iii) Completion of preparatory works for the conduct of Elections for WUAs (End of May – 09)
6) Schedule for Conduct of Elections in the sub-basin for farming Management committees will be completed by end of Jan 2010.
7) Initiating and completing the process of publishing EOI to hire Support Organisation at sub-basin level (End of June 2009)
8) Providing Request for Proposals (RFPs) to all the short listed agencies, and obtaining Technical and Cost Proposals (Middle of August, 2009)
9) Selection and deployment of Support Organisation to the sub-basin (End of May, 2009)
10) Appointment and the Role of Competent Authorities:
   i) Section 26 of the Tamil Nadu Farmers' Management of Irrigation Systems (TNFMIS) Act provides for the appoint of "Competent Authorities" to assist the respective farmers organizations (WUA, Distributory Committee and Project Committee), in the implementation and execution of all decisions taken by such farmers organization. Similarly, every farmer's organization shall

extend such co-option or assistance, as may be required by the Competent Authority, for carrying out all the tasks related to implementation of TNFMIS Act.

ii) It is proposed to form 37 WUAs only under IAMWARM Project to cover a command area of 12292.73ha..

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iii) Appointment of Competent Authorities for the WUAs proposed to be formed under IAMWARM project is based on the "WRO Section officer wise" distribution as indicated below.

Name of the WRO Sub Division

Officers working in the

Gridhumal Sub-basin:

Assistant Executive Engineer, W.RO, P.W.D,
Gundar Basin Sub Division , Thirumangalam -----WUA's---- 1 - 9

Assistant Executive Engineer, W.RO, P.W.D,
Saruganiyar Basin Sub Division, Manamadurai. ---- WUA's ---- 10 – 17 & 26 - 38

Assistant Executive Engineer, W.RO, P.W.D,
Spl. Project Sub Division III, Kariapatti WUA's----- 18, 19 and 51 - 54

Assistant Executive Engineer, W.RO, P.W.D,
Spl. Project Sub Division I, Madurai WUA's----- 20 - 25

Assistant Executive Engineer, W.RO, P.W.D,
Spl. Project Sub Division II, Thirupuvanam WUA's----- 39 - 50

Assistant Executive Engineer, W.RO, P.W.D,
Lower Vaigai Basin Sub Division, Manamadurai. ---- WUA's ---- 55 - 59

Assistant Executive Engineer, W.RO, P.W.D,
Spl. Project Sub Division I V, Kumuthi WUA's----- 60 - 66

11) Involvement of farmers in the preparation "Scheme Modernisation Plans".

i) Based on the outcome of the "Awareness Creation Programme" and Walkthrough survey carried out with the involvement of farmers, a list of tasks proposed to be taken up for "Modernization" under IAMWARM project was discussed with No.of farmers from 116 villages and the tasks was also prepared and exhibited in the Notice Board of the Village Administrative Officers Office and Panchayat Office.

ii) During the meeting, the farmers present were also informed that soon after finalization of contract for carrying out "Modernization of Irrigation Systems" a "Notice Board" with the details about the nature of works, its cost, period of contract and Name of the contractor will all be fixed at the site of the work, as well as in the Panchayath Office, for information of the farmers. They have also been informed that they are free to supervise the work by the contractor and any lapse in the quality of work may be reported to the field officers of WRD, as well as the Executive Engineer of WRD, who has been designated as the Nodal Officer for the sub-basin concerned.

iii) The field officers of WRD have all been informed about the problems in handing over the operation and maintenance

responsibilities to the farmers concerned, if the tasks as desired by them are not included in the modernization of the system and also in case some of the tasks already planned are not implanted due to some reasons or other.

iv) The WRD officers were also informed that hey are personally responsible for handing over the irrigation systems after completing the tasks related to modernization of Irrigation systems.

12) Current status of Recovery of water charges:

i) An enquiry conducted with the "Village Administrative Officers" (VAO's) of randomly selected villages (15 numbers out of 89 villages), the normal water charges recovery as informed by the VAO, works out to 50-60% only, about the expected percentage of 80-90%.

ii) With the proposal to form new WUA's under IAMWARM in Kanal Odai Sub-basin", the Managing Committee **will be trained** to take up the responsibility of improving the **Water charges recovery percentage.** These will be followed up, after completing the modernization tasks and handing over of the O & M responsibilities to WUAs.

13) "Capacity Building" of the WUA farmers:

i) The "Support Organisation Group" will prepare "Training Modules" required for **building the capacity** of the WUA farmers, based on a "Training Needs" Analysis. They will also organize various "Capacity building" programmes at **suitable locations** within the sub-basin command area, to benefit the farmers of the WUA's in the sub-basin.

ii) The "Support Organisation" will also arrange for organizing the **"Study Tours" both within and outside the state** to enhance their knowledge and experiences which will help them **to improve the crop productivity** and there by the farmer's income.

iii) The Support Organisation will also conduct necessary "awareness Programme" and impart training to educate the farmers of the WUA's in all aspects of the TNFMIS Act, TNFMS

Rules and Election procedures for constituting the “Managing Committees” of the WUA’s.

14) The “Competent Authorities” appointed for the **sub-basin** will also be trained to effectively to interact with WUA farmers and maintain good rapport and relationship with the farming community in the sub-basin.

Annexure I

An Assesment of Commamd Area and WUAs under the Control of WRO OF PWD in GIRUDHUMAL SUB BASIN

WUA No	Name of Irrigation System and Tanks	Command Area Ha.	Location of the Command Area			Coverage of Command area under different Projects (Ha.)		Status of formation WUAs in sub basin	
			Village	Taluk	District	WRCP and Others	IAMWARM	Formed under WRCP (code)	To be formed under IAMWARM (code)
1	2	3	4	5	6	7	8		
Existing WUA									
GRL 1	Pudukulam	27.14	Pudukulam	Madurai south	Madurai	27.14			
GRL 2	Thenkal	383.81	Thenkal			383.81			
GRL 3	Kurukattan	56.14	Kurukattan			56.14			
GRL 4	Ariyankulam	58.25	Ariyankulam			58.25			
GRL 5	Seventhikulam	34.83	Seventhikulam			34.83			
GRL 6	Melanedungulam	37.72	Melanedungulam			37.72		WRCP	

GRL 7	Perungudi	103.42	Perungudi			103.42			
GRL 8	Madakulam	279.29	Madakulam			279.29			
GRL 9	Muthapatti Veerangudi	1.67	Muthapatti Veerangudi			1.67			
SVG 11	Manalur	266.81	Manalur	Manamadurai	Sivagangai	266.81			
SVG 12	Sottathatti	165.95	Sottathatti			165.95			
SVG 13	Melavellur	299.97	Melavellur			299.97			
SVG 14	Palayanur	447.81	Palayanur			447.81			
SVG 15	Vaviyarendhal, and PiramanurTank WUA	786.17	Vaviyarendhal, Piramanur			786.17			
SVG 16	Keelasorikulam, Melasorikulam, and Anaikulam Tank WUA	273.29	Keelasorikulam, Melasorikulam, Anaikulam			273.29			
SVG 17	Ladanendal,Pappankulam,Alangulam, Parayankulam and Kothikulam Tank WUA	152.43	Parayankulam, Achankulam			152.43			
SVG 25	Maranadu, Pitchaipillaiyendal, Salluppanodai, Velankulam.	1636.58	Maranadu, Pitchaipillaiyendal, Salluppanodai, Velankulam.			1636.58			
VNR - ATHI - RMC	Ulakudi, Narikudi, Athithanendal and Manoor.	459.6				459.6			
VNR - ATHI - LMC	Irunchirai, Maraiyur, Varisaiyur	807.83		Madurai south	Madurai	807.83			

		6278.71							
	Proposed WUA								YES
GR MDU 1	Samanatham	249.47	Samanatham				249.47		
GR MDU 2	Ayanpappakudi and Pudukkulam	195.43	Ayanpappakudi Avaniapuram				195.43		
GR MDU 3	Thuliapatti	57.2	Chinthamani				57.2		
GR MDU 4	Viradhanur	225.82	Virudhanur				225.82		
GR MDU 5	Ayavettan	101.12	Ayavettan				101.12		
GR MDU 6	Nedunkulam	41.54	Nedunkulam				41.54		
	Puliyur	66.63	Puliyur	Manamadurai	Sivagangai		66.63		YES
	Kondagai	736.98	Kondagai				736.98		
	Meenakshipuram	128.52	Meenakshipuram				128.52		
GR-SVG1		**932.13**					**932.13**		
	Kalukarkadai	239.16	Kalukarkadai				239.16		
	Thirupuvanam	1112	Thirupuvanam				1112		
GR-SVG2		**1351.16**					**1351.16**		
	Melakarisalkulam	83.25	Melakarisalkulam				83.25		
	Keelasarisalkulam	158.83	Keelasarisalkulam				158.83		
	Pottapalayam	61.13	Pottapalayam				61.13		
	Kaluvankulam	64.72	Kaluvankulam				64.72		
GR-SVG3		**367.93**					**367.93**		

	Keelavellur	106.93	Keelavellur				106.93		
	Mangudi	421.37	Mangudi				421.37		
GR-SVG4		**528.3**					**528.3**		
	Ambalathadi	110.43	Ambalathadi				110.43		
	Thavatharendal	50.38	Thavatharendal				50.38		
	Karunkalaikudi	79.09	Karunkalaikudi				79.09		
GR-SVG5		**239.9**					**239.9**		
GR-SVG6	Rangiyam	**609.48**	Rangiyam				**609.48**		
	Thavalaikulam,	64.75	Thavalaikulam,				64.75		
	Chokkanathiruppu	154.68	Chokkanathiruppu				154.68		
GR-SVG7		**219.43**					**219.43**		
	Sambaikkulam	44.13	Sambaikkulam				44.13		
	Vishvampettai	42.04	Vishvampettai				42.04		
	Puliyankulam	74.94	Puliyankulam				74.94		
GR-SVG8		**161.11**					**161.11**		
	Sankankulam	100.66	Sankankulam				100.66		
	Vallarendal	43.26	Vallarendal				43.26		
	Veeranendal	68.88	Veeranendal				68.88		
	Odathur	88.91	Odathur				88.91		
	S.Vagaikulam	68.41	S.Vagaikulam				68.41		
GR-SVG9		**370.12**					**370.12**		
GR-SVG10	Achankulam	**61.31**	Achankulam				**61.31**		

	Thalikulam	**44**	Thalikulam				**44**		
GR-SVG11	Kothankulam	**125.92**	Kothankulam				**125.92**		
GR-SVG12	Muthuvanthidal	**48.83**	Muthuvanthidal				**48.83**		
	Nadukkanendal	65.23	Nadukkanendal				65.23		
	Pulavacheri	70.37	Pulavacheri				70.37		
GR-SVG13		**135.6**					**135.6**		
	Karuvakkudi		Karuvakkudi				112.78		
GR-VNR 1	S. Nangoor	112.78	S. Nangoor				0		
GR-VNR 2	Poombidagai	79.72	Poombidagai				79.72		
	Thamarai kulam		Thamarai kulam						
	Thatchanendal		Thatchanendal						
GR VNR 3	Alathur	205.53	Alathur				205.53		
	Thiruvidainalur		Thiruvidainalur						
	Rettai kulam		Rettai kulam						
GR VNR 4	Senthanadhi	162.43	Senthanadhi	Thiruchuli	Virudhunagar		162.43		YES
GR-VNR 5	Eluvani	93.04	Eluvani				93.04		
	Mugavoor	209.95	Mugavoor						
	P. Vagaikulam		P. Vagaikulam						
GR-VNR 6	Vilakkanendal		Vilakkanendal				209.95		
GR-VNR 7	Kattanoor	1335.67	Kattanoor				1335.67		
GR VNR 8	Kundukulam	121.72	Kundukulam				121.72		

	Siruvanur		Siruvanur						
GR VNR 9	Alagapuri	89.24	Alagapuri				89.24		
GR VNR 10	Naloor	267.61	Naloor				267.61		
GR VNR 11	Seeniyendal	51.22	Seeniyendal				51.22		
GR VNR12	Karumanendal	52.59	Karumanendal				52.59		
	Pannaikudi	146.29	Pannaikudi				146.29		
GR-VNR 13	Andukondan		Andukondan						
	Esali		Esali				262.46		
	Sottamuri		Sottamuri						
	Theeyanur		Theeyanur						
GR VNR 14	Kadukkoi kulam	262.46	Kadukkoi kulam						
	N. Mukkulam		N. Mukkulam				297.04		
	Veerakudi		Veerakudi						
	Sethurayanendal		Sethurayanendal						
GR VNR 15	Mayaleri	297.04	Mayaleri						
	Vilakkuseri		Vilakkuseri						
	Sammanendal		Sammanendal						
	Melaparithiyur		Melaparithiyur						
GR VNR 16	Veeracholan	287.42	Veeracholan				287.42		
GR- RMD 1	Keelaparuthiyur Tank	**122.1**	Keelaparuthiyur	Paramakudi	Ramana-thapuram		122.1		
GR- RMD 2	Pulavar velankudi Tank	**55.4**	Pulavar velankudi				55.4		
GR- RMD 3	Kurunjakulam Tank	**62.89**	Kurunjakulam				62.89		

GR- RMD 4	sirukulam Sembilankudi	**56.78**	sirukulam Sembilankudi				56.78		
GR- RMD 5	Thaduthalankottai Tank	**129.52**	Thaduthalankottai				129.52		
GR-RNM 6	T. Punavasal	44	T. Punavasal				44		
GR-RNM 7	Abiramam	301.69	Abiramam				301.69		
GR-RNM 8	Achangulam	44.37	Achangulam				44.37		
GR-RNM 9	T. Kallikulam	52.53	T. Kallikulam				52.53		
GR-RNM 10	A.Tharaikudi	118.52	A.Tharaikudi	Kamuthi			118.52		
GR-RNM 11	Nagaratharkurichi	65.17	Nagaratharkurichi				65.17		
GR-RNM 12	Pappanam	54.78	Pappanam				54.78		

ABSTRACT:

1.Command Area already covered under WRCP and other projects/schemes	**6278.71 Ha**
2.command area proposed to be covered under IAMWARM project	**10779.10Ha**
3.Total command area controlled by WRO of PWD in the sub basin	**17057.81 Ha**
4.Total No. of WUA's already formed under WRCP	**19 Nos**
5. Total No of WUA's proposed to be formed under IAMWARM	**47 Nos**
6. Total No of WUA's that will cover the entire Sub Basin	**66 Nos**

Annexure: 2

Details of "Awareness Creation Activities and Walk - Through Surveys"

Sl. No	Date of Visit	Names if the Villages Visited	Awareness Programme (No.of farmers attended) (Prepare the list of farmers with acknowledgement seperately and attach)	Walk - Through Survey (No.of farmers Participated) (Prepare the list of farmers with acknowledgement seperately and attach)	Remarks
MADURAI DISTRICT					
1	13.01.09	Pudukkulam	15	5	
		Thenkal	10	8	
		Seventhikulam	22	12	
		Kurukkattankulam	12	8	
		Ariyankulam	10	6	
		Melanedunkulam	8	7	
		Perunkudi	11	10	
2	18.01.09	Ayanpapakkudi	15	6	
		Pudukkulam	17	7	
		Ayavattan	12	5	
		Samanatham	8	8	
SIVAGANGAI DISTRICT					
3	09.01.09	Sottathatty	12	10	

		Konthagai	15	10	
		Manalur	10	20	
		Kazhukarkadai	8	11	
		Keelakarisalkulam	5	9	
		Kazhuvankulam	8	30	
		Melakarisalkulam	8	12	
		Pottappalayam	5	15	
		Meenakshipuram and	10	18	
		Puliyur	10	10	
4	12.01.09	Thiruppuvanam	20	8	
		Thavalaikulam	11	5	
		Vaviyarendhal	9	8	
		Piramanur	30	13	
		Alankulam	12	5	
		Muthuvanthidhal	15	10	
		Melasorikulam	18	10	
		Keelasorikulam	15	12	
		Palayanur	25	15	
		Parayankulam	10	18	
		Kothankulam	9	15	
		Chokkanathiruppu	15	25	
		Puliyankulam and	10	10	

		Rangiam	20	9	
5	13.01.09	T.Velankulam	10	15	
		Pitchapillaiyendhal	8	20	
		Maranadu	30	10	
		Pulavacheri	5	8	
		Saluppanodai	5	30	
		Mankudi	16	5	
		Thavatharendhal	12	5	
		Vallarendhal	8	16	
		Nadukkanendhal	9	15	
		Anaikulam	12	10	
		Achankulam	15	13	
		Odhathur	8	15	
		S.Vagaikulam	11	8	
6	16.01.09	Visvampettai	15	9	
		Sambaikulam	10	6	
		Thalikkulam	13	15	
		Sangankulam	15	15	
		Veeranendhal	8	10	
		Karunkalaikudi	9	13	
		Keelavellur	6	15	
		Ambalathadi	15	8	

		Melavellur	11	9	
VIRUDHUNAGAR DISTRICT					
7	26.11.08	Esali	15	15	
		Pannaikudi	10	18	
		Theeyanur	13	10	
8	18.12.08	Athithanendal	15	8	
		Sottamuri	8	5	
		Siruvanur	9	8	
		Nallur	6	13	
		Kattanur	12	5	
9	19.12.08	Irunjirai	25	10	
10	23.12.08	S.Nangoor	18	10	
		Poombidagai	15	12	
		Karuvaikkudi	25	10	
		Mugavur	10	13	
11	24.12.08	Veerakudi	9	15	
		Maraiyur	15	8	
		Mayaleri	10	9	
		Varisaiyur	20	6	
		Villakkuseri	10	15	
12	18.02.09	Kottakarai	8	15	
13	03.03.09	Narikkudi	13	10	

		N.Mukkulam	15	10	
		Manur	8	8	
		Sethurayanendal	9	11	
		Melaparithiyur	6	5	
		Kadukkoikulam	12	5	
		Andukondan	15	16	
14	.05.03.09	Thamaraikulam	18	15	
		Thachanendal	15	10	
		Thiruvidainallur	25	13	
		Rettaikulam	11	15	
		Alathur	15	8	
15	.06.03.09	Eluvani	10	9	
		Senthanathi	13	6	
		P.Vagaikulam	15	15	
		Villakkanendal	15	15	
RAMANATHAPURAM DISTRICT					
16	12.11.08	T.Punavasal	12	10	
		Abiramam	20	10	
		Achankualm	9	16	
		T.Kallikulam	12	11	
		A.Thamaraikkudi	15	9	
		Nagaratharkurichi	8	5	

		pappanam	11	12	
16	03.03.09	Keelaparithiyur	22	26	
		Pulavar velankudi			
		Kurunjakulam			
		Sirukulam sembilankudi			
		Thathankudi			

Details of Modernisation works as suggested by the Farmers ans as finalized by the officials of WRO

Sl.No	Date of Visit	Names of the villages visited	Outcome of walk through survey and discussions with farmers	
			Works Suggested by **Farmers**	Works finalyzed by WRO **Officials**
	13.01.09	Pudukkulam	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		Thenkal		
		Seventhikulam		
		Kurukkattankulam		
		Ariyankulam		
		Melanedunkulam		
		Perunkudi		
	18.01.09	Ayanpapakkudi	Farmers requested to strengthen the tank bund and desilt supply channel, to	All the request mentioned by

		Pudukkulam Ayavattan Samanatham	reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	formers are to be fulfilled in General and included in the Estimate.
1	09.01.09	Sottathaty Konthagai Manalur Kalukarkadai Keelakarisalkulam Kazhuvankulam Melakarisalkulam Pottappalayam Meenakshipuram and Puliyur	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
2	12.01.09	Thiruppuvanam Thavalaikulam Vaviyarendhal Piramanur Alankulam Muthuvanthidhal Melasorikulam Keelasorikulam Palayanur Parayankulam Kothankulam Chokkanathiruppu Puliyankulam and Rangiam	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.

3	13.01.09	T.Velankulam	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		Pitchaipillaiyendal		
		Mankudi		
		Thavatharendhal		
		Vallarendhal		
		Nadukkanendal		
		Anaikulam		
		Achankulam		
		Odhathur		
		S.Vagaikulam		
4	16.01.09	Visvampettai	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		Sambaikulam		
		Thalikkulam		
		Veeranendhal		
		Sangankulam		
		Villiarendal		
		Karunkalaikudi		
		Keelavellur		
		Ambalathadi		
		Melavellur		
	26.11.08	Esali	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		Pannaikudi		
		Theeyanur		
	18.12.08	Athithanendal	Farmers requested to strengthen the tank	All the request

		Sottamuri Siruvanur Nallur Kattanur	bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	mentioned by formers are to be fulfilled in General and included in the Estimate.
	19.12.08	Irunjirai	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
	23.12.08	S.Nangoor Poombidagai Karuvaikkudi Mugavur	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
	24.12.08	Veerakudi Maraiyur Mayaleri Varisaiyur Villakkuseri	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.

	18.02.09	Kottakarai	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
	03.03.09	Narikkudi	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		N.Mukkulam		
		Manur		
		Sethurayanendal		
		Melaparithiyur		
		Kadukkoikulam		
		Andukondan		
	.05.03.09	Thamaraikulam	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		Thachanendal		
		Thiruvidainallur		
		Rettaikulam		
		Alathur		
	.06.03.09	Eluvani	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		Senthanathi		
		P.Vagaikulam		
		Villakkanendal		

	12.11.08	T.Punavasal	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		Abiramam		
		Achankualm		
		T.Kallikulam		
		A.Thamaraikkudi		
		Nagaratharkurichi		
		pappanam		
	03.03.09	Keelaparithiyur	Farmers requested to strengthen the tank bund and desilt supply channel, to reconstruct and repair the damaged sluices, to construct Retaining Walls in weaker sections, to repair and reconstruct the damaged Weir and for Providing S.G Shutters..	All the request mentioned by formers are to be fulfilled in General and included in the Estimate.
		Pulavar velankudi		
		Kurunjakulam		
		Sirukulam sembilankudi		
		Thathankudi		

ATER RESOURCES DEPARTMENT

Gundar Basin Division, Madurai

Vaippar Basin Circle, Virudhunagar

STATEMENT SHOWING DETAILS OF WALK THROUGH SURVEY CONDUCTED IN GRIDHUMAL SUB BASIN

S.No	Date of walk through survey	Location	Taluk	Farmers request	Technical solution	Proposal in the plan
1	2	3	4	5	6	7
MADURAI DISTRICT						
1	13.01.2009	Thenkal tank	Madurai south	Farmers requested to repair two sluicesand desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Repairs to two sluices and desilt the tank and supply channel may be carried out.	It is proposed to do repairs to two sluices and desilt the tank and supply channel entirely.
2	13.01.2009	Seventhikulam tank	Madurai south	Farmers requested to repair one sluice and desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Repairs to one sluice and desilt the tank and supply channel may be carried out.	It is proposed to do repairs to one sluice and desilt the tank and supply channel entirely.
3	13.01.2009	Kurukatan kulam tank	Madurai south	Farmers requested to repair two sluicesand desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Repairs to two sluices and desilt the tank and supply channel may be carried out.	It is proposed to do repairs to two sluices and desilt the tank and supply channel entirely.

4	13.01.2009	Ariyankulam tank	Madurai south	Farmers requested to reconstruct one sluice, repair one sluice and desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Repairs to one sluice, reconstruction of one sluice and desilt the tank and supply channel may be carried out.	It is proposed to do repairs to one sluice, reconstruct one sluice and desilt the tank and supply channel entirely.
5	18.01.2009	Ayanpppakudi	Madurai south	This village around this tank have lot of cattle like cow and sheeps and hence they requst cattle ramp and desilting the tank bund & supply channel repairs to sluices.	Problems mentioned by the farmers may be included in the proposal.	It is proposed to construct cattle ramp and retaining wall in vulnarised points and also desilt the tank & supply channels, repair to sluices.
6	18.01.2009	Pudukulam	Madurai south	The farmers request to construct retaining wall at vulnarised points, desilt the tank bund repairs to weir.and desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Problems mentioned by the farmers may be included in the proposal.	It is proposed to repair the weir, construct the retaining wall near weir, desilt the tank.
7	18.01.2009	Ayavettan	Madurai south	Farmers requested to desilting tank, leading channel for 2no. sluices. So that can use water at the end of crop peiod without any deficit.	Problems mentioned by the farmers may be included in the proposal.	It is proposed to repair the weir, construct the retaining wall near weir, desilt the tank.
8	18.01.2009	Samanatham	Madurai south	Farmers requested to desilting the tank, reconstruction of sluice No.2. So that can use water at the end of crop peiod without any deficit.	Problems mentioned by the farmers may be included in the proposal.	It is proposed to repair the weir, construct the retaining wall near weir, desilt the tank.

	Kariapatti Sub division					
9	26.11.08	Panaikudi	Thiruchuli	Farmers requested to desilt the tank, fromL.S. 0mto400m,construction the Retaining walls is weaker portion of tank bund,ramp for cattles, construction of field Channels.So that can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are correct. Desilt the tank from L.S.0mto400mconstruction of retaining walls, ramp for cattle may be carried out.	It is proposed to Desilt the tank from L.S. 0mto450m construction of retaining walls,and ramp for cattle.
10	26.11.08	Isali	Thiruchuli	Farmers requested to desilt the tank,reconstrucstion of Sluices, repairs to weir,so that can use water at the end of crop peiod without any deficit	Yes.Problem mentioned by the farmers are correct. Desilt the tank, Reconstrucstion of three Sluices, Repairs to weir may be carried out.	It is proposed to Desilt the tank,Reconstrucstion of three Sluices, Repairs to weir.
11	26.11.08	Theyanur	Thiruchuli	Farmers requested to desilt the tank,reconstrucstion of Sluices,and construction of fixed channels,so that can use water at the end of crop peiod.	Yes.Problem mentioned by the farmers are correct. Desilt the tank,Reconstrucstion of five Sluices,may be carried out.	It is proposed to Desilt the tank,Reconstrucstion of five Sluices..
12	11.12.08	Alagapuri	Thiruchuli	Farmers requested tank bund improvements, rectification of revetment, repairs to 4,5 sluices.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Tank bund improvements, rectification of revetment, repairs to 4,5 sluices may be carried out.	It is proposed to tank bund improvements, rectification of revetment, repairs to 4,5 sluices
13	11.12.08	Kundukulam	Thiruchuli	Farmers requested to reconstruction of sluice 3 Nos. supply channel improvements.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Reconstruction of sluice 3 Nos. supply channel improvements may be carried out.	It is proposed to reconstruction of sluice 3 Nos. supply channel improvements.

14	18.12.08	Siruvanur	Thiruchuli	Farmers requested to tank bund improvements, reconstruction of sluices 4 Nos. Constlruction ;of dividing dam, repairs to weir.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Tank bund improvements, reconstruction of sluices 4 Nos. Constlruction of dividing dam, repairs to weir. may be carried out.	It is proposed to tank bund improvements, reconstruction of sluices 4 Nos. Constlruction of dividing dam, repairs to weir.
15	18.12.08	Nalur	Thiruchuli	Farmers requested to reconstruction of sluice 4 Nos,desilting supply channel improvements.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Reconstruction of sluice 4 Nos,desilting supply channel improvements.may be carried out.	It is proposed to reconstruction of sluice 4 Nos,desilting supply channel improvements
16	18.12.08	Athithanendal	Thiruchuli	Farmers requested to Desilt the tank,Reconstrucstion of Sluice number three,six,seven and construcstion of leading channel.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.Desilt the tank,Reconstrucstion of Sluice number three,six,seven and construcstion of leading channel may be carried out.	It is proposed to Desilt the tank,Reconstrucstion of Sluice number three,six,seven and construcstion of leading channel.
17	18.12.08	Sottamuri	Thiruchuli	Farmers requested to Desilt the tank,Reconstrucstion of Sluice number one,two,three and four repairs to weir.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correctDesilt the tank,Reconstrucstion of Sluice number one,two,three and four repairs to weir may be carried out.	It is proposed to Desilt the tank,Reconstrucstion of Sluice number one,two,three and four repairs to weir.
18	19.12.08	Kattanur	Thiruchuli	Farmers requested to reconstruction of sluice 3 Nos, improvements to supply channel So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.reconstruction of sluice 3 Nos, improvements to supply channel may be carried out.	It is proposed to reconstruction of sluice 3 Nos, improvements to supply channel

19	19.12.08	Irunjirai	Thiruchuli	Farmers requested to reconstruction of sluice 3 Nos, improvements to supply channel So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.reconstruction of sluice 3 Nos, improvements to supply channel may be carried out.	It is proposed to reconstruction of sluice 3 Nos, improvements to supply channel
20	23.12.08	Kattanur	Thiruchuli	Farmers requested to reconstruction of sluice 3 Nos, reconstruction of surplus weir, tank bund improvements. So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are correct. Reconstruction of sluice 3 Nos, reconstruction of surplus weir, tank bund improvements may be carried out.	It is proposed to recons-truction of sluice 3 Nos, reconstruction of surplus weir, tank bund improvements
21	23.12.08	S. Nangoor	Thiruchuli	Farmers requested to improvements of tank bund,reconstrucstion of 3 Nos. of Sluices,Repairs to surplus weir, desilting of supply channel , retaining wall to near all sluice. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Improvements of tank bund,reconstrucstion of 3 Nos.of Sluices, Repairs to surplus weir, desilting of supply channel , retaining wall to near all sluice may be carried out.	It is proposed to improvements of tank bund,reconstrucstion of 3 Nos.of Sluices, Repairs to surplus weir, desilting of supply channel , retaining wall to near all sluice
22	23.12.08	Vilakkuseri	Thiruchuli	Farmers requested to desilting the tank, reconstruction of 3 sluices, retaining walls between 1 & 2 sluices. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.desilting the tank, reconstruction of 3 sluices, retaining walls between 1 & 2 sluices may be carried out.	It is proposed to desilting the tank and supply channel, reconstruction of 1 sluice and repair to 2 sluices, strengthening of tank bunds.

23	23.12.08	Karuvakudi	Thiruchuli	Farmers requested to improvements to tank bund, reconstruction of 2 sluices, repairs to weir and desilting the supply channel. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.improvements to tank bund, reconstruction of 2 sluices, repairs to weir and desilting the supply channel. may be carried out.	It is proposed to improvements to tank bund, reconstruction of 2 sluices, repairs to weir and desilting the supply channel..
24	23.12.08	Poombidagai	Thiruchuli	Farmers requested to improvements to tank bund, reconstruction of 3 sluices, . So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund, reconstruction of 3 sluices,may be carried out.	It is proposed to improvements to tank bund, reconstruction of 3 sluices,
25	23.12.08	Mugavur	Thiruchuli	Farmers requested to improvements to tank bund, reconstruction of 3 sluices, repairs to sluice 2 Nos. desilting the supply channel, and construction of pipe culvert across mugavur to Palayanur cart track. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund, reconstruction of 3 sluices, repairs to sluice 2 Nos. desilting the supply channel, and construction of pipe culvert across mugavur to Palayanur cart track may be carried out.	It is proposed to improvements to tank bund, reconstruction of 3 sluices, repairs to sluice 2 Nos. desilting the supply channel, and construction of pipe culvert across mugavur to Palayanur cart track
26	24.12.08	Veerakudi	Thiruchuli	Farmers requested to desilting tank, reonstruction of sluices 1,2 &3, retaining walls at eroded portion near 4th sluice. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting tank, reonstruction of sluices 1,2 &3, retaining walls at eroded portion near 4th sluice.may be carried out.	It is proposed to desilting tank, reonstruction of sluices 1,2 &3, retaining walls at eroded portion near 4th sluice.

27	24.12.08	Maraiyur	Thiruchuli	Farmers requested to desilting tank, leading channel for 2no. sluices. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting tank, leading channel for 2no. sluices.may be carried out.	It is proposed to desilting tank, leading channel for 2no. sluices
28	24.12.08	Mayaleri	Thiruchuli	Farmers requested to desilting the tank, reconstruction of sluice No.2. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, reconstruction of sluice No.2 may be carried out.	It is proposed to desilting the tank, reconstruction of sluice No.2
29	24.12.08	Varisaiyur	Thiruchuli	Farmers requested to desilting the tank, reconstruction of all sluices, repairs to weir. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Ddesilting the tank, reconstruction of all sluices, repairs to weir may be carried out.	It is proposed to desilting the tank, reconstruction of all sluices, repairs to weir
30	24.12.08	Sammanendal	Thiruchuli	Farmers requested to desilting the tank, reconstruction of 4 sluices, repairs to weir, retaining walls between 1 & 2 sluices. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, reconstruction of 4 sluices, repairs to weir, retaining walls between 1 & 2 sluices may be carried out.	It is proposed to desilting the tank, reconstruction of 4 sluices, repairs to weir, retaining walls between 1 & 2 sluices
31	24.12.08	Villakkuseri	Thiruchuli	Farmers requested to desilting the tank, reconstruction of 3 sluices, retaining walls between 1 & 2 sluices. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, reconstruction of 3 sluices, retaining walls between 1 & 2 sluices. may be carried out.	It is proposed to desilting the tank, reconstruction of 3 sluices, retaining walls between 1 & 2 sluices.

32	27.1.09	Veeracholan	Thiruchuli	Farmers requested to desilting the tank, reconstruction of 3 sluices, repairs to weir, desilting the supply channel for entire length and also construction of protection walls in rear side tank bund for a length of 500m to avoid the sliding of earth from the tank bund So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.desilting the tank, reconstruction of 3 sluices, repairs to weir, desilting the supply channel for entire length and also construction of protection walls in rear side tank bund for a length of 500m to avoid the sliding of earth from the tank bund may be carried out.	It is proposed to desilting the tank, reconstruction of 3 sluices, repairs to weir, desilting the supply channel for entire length and also construction of protection walls in rear side tank bund for a length of 500m to avoid the sliding of earth from the tank bund
33	3.3.09	Narikudi	Thiruchuli	Farmers requested to desilting the tank, repairs to sluice No.1, Front head wall and rear cistern.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, repairs to sluice No.1, Front head wall and rear cistern may be carried out.	It is proposed to desilting the tank, repairs to sluice No.1, Front head wall and rear cistern
34	3.3.09	N. Mukkulam	Thiruchuli	Farmers requested to desilting the tank, Reconstruction of 3 sluices.and repairs to weir. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, Reconstruction of 3 sluices.and repairs to weir. may be carried out.	It is proposed to desilting the tank, Reconstruction of 3 sluices.and repairs to weir.
35	3.3.09	Manur	Thiruchuli	Farmers requested to desilting the tank, Reconstruction of 3 sluices.repair to 2 sluices and repairs to weir. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, Reconstruction of 3 sluices.repair to 2 sluices and repairs to weir.may be carried out.	It is proposed to desilting the tank, Reconstruction of 3 sluices.repair to 2 sluices and repairs to weir.

36	3.3.09	Sethurayanendal	Thiruchuli	Farmers requested to desilting the tank, Reconstruction of 2 sluices. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, Reconstruction of 2 sluices may be carried out.	It is proposed to desilting the tank, Reconstruction of 2 sluices.
37	3.3.09	Melaparuthiyur	Thiruchuli	Farmers requested to desilting the tank, Reconstruction of 7 sluices and repairs to weir. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, Reconstruction of 7 sluices and repairs to weir. may be carried out.	It is proposed to desilting the tank, Reconstruction of 7 sluices and repairs to weir.
38	3.3.09	Kadukkaikulam	Thiruchuli	Farmers requested to desilting the tank, Reconstruction of 2 sluices and repairs to weir. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, Reconstruction of 2 sluices and repairs to weir. may be carried out.	It is proposed to desilting the tank, Reconstruction of 2 sluices and repairs to weir.
39	3.3.09	Andukondan	Thiruchuli	Farmers requested to desilting the tank, Reconstruction of 3 sluices So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank, Reconstruction of 3 sluicesmay be carried out.	It is proposed to desilting the tank, Reconstruction of 3 sluices
40	5.3.09	Thamaraikulam	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, construction of retaining wall inside the tank bund. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Improvements to tank bund and deepening the tank, reconstruction of 3 sluices, construction of retaining wall inside the tank bund.may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, construction of retaining wall inside the tank bund.

41	5.3.09	Thatchanendal	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, and construction of retaining wall inside the tank bund. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, and construction of retaining wall inside the tank bund.may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, and construction of retaining wall inside the tank bund.
42	5.3.09	Alathur	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 2 sluices, desilting the supply channel, and repairs to weir So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund and deepening the tank, reconstruction of 2 sluices, desilting the supply channel, and repairs to weir may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 2 sluices, desilting the supply channel, and repairs to weir
43	5.3.09	Thiruvidainallur	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 2 sluices, desilting the supply channel, So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund and deepening the tank, reconstruction of 2 sluices, desilting the supply channel, may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 2 sluices, desilting the supply channel,
44	5.3.09	Rettaikualm	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 2 sluices, repair to 3 sluices .desilting the supply channel, So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund and deepening the tank, reconstruction of 2 sluices, repair to 3 sluices .desilting the supply channel, may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 2 sluices, repair to 3 sluices .desilting the supply channel,
45	6.3.09	Senthanadhi	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel,

46	6.3.09	Eluvani	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, repairs to weir So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. Improvements to tank bund and deepening the tank, repairs to weir may be carried out.	It is proposed to improvements to tank bund and deepening the tank, repairs to weir
47	6.3.09	P.Vagaikulam	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, repairs to sluice 3 Nos, desilting the supply channel, So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund and deepening the tank, repairs to sluice 3 Nos, desilting the supply channel, may be carried out.	It is proposed to improvements to tank bund and deepening the tank, repairs to sluice 3 Nos, desilting the supply channel,
48	6.3.09	Villakkanendal	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel,
49	6.3.09	Seeniyeandal	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel,
50	6.3.09	Karumenendal	Thiruchuli	Farmers requested to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel, may be carried out.	It is proposed to improvements to tank bund and deepening the tank, reconstruction of 3 sluices, desilting the supply channel,

	Manamadurai sub division					
51	9.1.09	Sottathati	Manamadurai	Farmers requested to desilt the tank and supply channel and to reconstruction of sluice 3 Nos. Construction of retaining wall and lining works. So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.desilt the tank and supply channel and to reconstruction of sluice 3 Nos. Construction of retaining wall and lining works.may be carried out.	It is proposed to desilt the tank and supply channel and to reconstruction of sluice 3 Nos. Construction of retaining wall and lining works.
52	9.1.09	Konthagai	Manamadurai	Farmers requested to desilting the tank and supply channels, reconstruction of 3 sluice, repairs to weir 1. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. desilting the tank and supply channels, reconstruction of 3 sluice, repairs to weir 1, may be carried out.	It is proposed to desilting the tank and supply channels, reconstruction of 3 sluice, repairs to weir 1,
53	9.1.09	Manalur	Manamadurai	Farmers requested to desilting the tank,reconstruction of 4 sluice, reconstruction of weir, Providing retaining wall, reconstruction of head sluice, repairs to supply channel.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. desilting the tank,reconstruction of 4 sluice, reconstruction of weir, Providing retaining wall, reconstruction of head sluice, repairs to supply channel may be carried out.	It is proposed to desilting the tank,reconstruction of 4 sluice, reconstruction of weir, Providing retaining wall, reconstruction of head sluice, repairs to supply channel
54	9.1.09	Kalukarkadai	Manamadurai	Farmers requested to desilting the tank,reconstruction of 3 sluice, desilting surplus course and supply channel. Reconstruction of head sluice and retaining wall.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. Desilting the tank,reconstruction of 3 sluice, desilting surplus course and supply channel. Reconstruction of head sluice and retaining wallmay be carried out.	It is proposed to desilting the tank,reconstruction of 3 sluice, desilting surplus course and supply channel. Reconstruction of head sluice and retaining wall

55	9.1.09	Keelakarisalkulam	Manamadurai	Farmers requested to strengthening the tank,reconstruction of 1 sluice, repair weir 1.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. strengthening the tank,reconstruction of 1 sluice, repair weir 1.may be carried out.	It is proposed to strengthening the tank,reconstruction of 1 sluice, repair weir 1.
56	9.1.09	Kaluvankulam	Manamadurai	Farmers requested to strengthening the tank,reconstruction of 2 sluices,repair 2 sluices,repair weir 1. Desilting the supply channel.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. strengthening the tank,reconstruction of 2 sluices,repair 2 sluices,repair weir 1. Desilting the supply channel.may be carried out.	It is proposed to strengthening the tank,reconstruction of 2 sluices,repair 2 sluices,repair weir 1. Desilting the supply channel.
57	9.1.09	Melakarisalkulam	Manamadurai	Farmers requested to strengthening the tank,reconstruction of 1 weir,repair 4 sluices,repair weir 1. Desilting the supply channel.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. strengthening the tank,reconstruction of 1 weir,repair 4 sluices,repair weir 1. Desilting the supply channel may be carried out.	It is proposed to strengthening the tank,reconstruction of 1 weir,repair 4 sluices,repair weir 1. Desilting the supply channel.
58	9.1.09	Pottapalayam	Manamadurai	Farmers requested to strengthening the tank,reconstruction of 2 sluices repair weir 1. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. strengthening the tank,reconstruction of 2 sluices repair weir 1.may be carried out.	It is proposed to strengthening the tank,reconstruction of 2 sluices repair weir 1.

59	9.1.09	Meenakshmipuram	Manamadurai	Farmers requested to strengthening the tank, So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. strengthening the tank,may be carried out.	It is proposed to strengthening the tank
60	9.1.09	Puliyur	Manamadurai	Farmers requested to strengthening the tank, Retaining wall.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. strengthening the tank, Retaining wall.may be carried out.	It is proposed to strengthening the tank, Retaining wall.
61	12.1.09	Thirupuvanam	Manamadurai	Farmers requested to desilting the tank and supply channels, reconstruction of 1sluice, repair to 2 sluices, strengthening the tank bunds, repairs to the weir.	Yes.Problem mentioned by the farmers are correct.desilting the tank and supply channels, reconstruction of 1 sluice and repair to 2 sluices, strengthening of tank bunds may be carried out.	It is proposed to desilting the tank and supply channels, reconstruction of 1 sluice and repair to 2 sluices, strengthening of tank bunds
62	12.1.09	Thavalaikulam	Manamadurai	Farmers requested to desilting the tank, reconstruction of 2 sluices, repairs to weir, Construction of retaining wall.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.desilting the tank, reconstruction of 2 sluices, repairs to weir, Construction of retaining wall may be carried out.	It is proposed to desilting the tank, reconstruction of 2 sluices, repairs to weir, Construction of retaining wall
63	12.1.09	Vaviyerendal	Manamadurai	Farmers requested to desilting the tank and supply channel, reconstruction of 2 sluices,repairs to weir, Providing shutter arrangements for head sluices. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.desilting the tank and supply channel, reconstruction of 2 sluices,repairs to weir, Providing shutter arrangements for head sluices. may be carried out.	It is proposed to desilting the tank and supply channel, reconstruction of 2 sluices,repairs to weir, Providing shutter arrangements for head sluices.

64	12.1.09	Piramanur	Manamadurai	Farmers requested to desilting the tank and supply channel, reconstruction of 7 sluices, reconstruction of weir, Lining for sluices. So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.desilting the tank and supply channel, reconstruction of 7 sluices, reconstruction of weir, Lining for sluices may be carried out.	It is proposed to desilting the tank and supply channel, reconstruction of 7 sluices, reconstruction of weir, Lining for sluices
65	12.1.09	Alangulalm	Manamadurai	Farmers requested to desilting the tank ,supply channel and surplus course, reconstruction of 7 sluices, reconstruction of weir, Providing shutter arrangements for head sluices. So that can use water at the end of crop peiod without any deficit.	Yes the problems represented by the farmers are true.desilting the tank ,supply channel and surplus course, reconstruction of 7 sluices, reconstruction of weir, Providing shutter arrangements for head sluices may be carried out	It is proposed to desilting the tank ,supply channel and surplus course, reconstruction of 7 sluices, reconstruction of weir, Providing shutter arrangements for head sluices.
66	12.1.09	Muthuvanthidal	Manamadurai	Farmers requested to desilting the tank and supply channel, reconstruction of 2 sluices, construction of retaining walls.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.desilting the tank and supply channel, reconstruction of 2 sluices, construction of retaining walls may be carried out.	It is proposed to desilting the tank and supply channel, reconstruction of 2 sluices, construction of retaining walls
67	12.1.09	Melasorikulam	Manamadurai	Farmers requested to desilting the tank and supply channel, reconstruction of 1 sluice, reconstruction of weir,Construction of retaining wall.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.Desilting the tank and supply channel, reconstruction of 1 sluice, reconstruction of weir,Construction of retaining wall. may be carried out.	It is proposed to desilting the tank and supply channel, reconstruction of 1 sluice, reconstruction of weir,Construction of retaining wall.

68	12.1.09	Keelasorikulam	Manamadurai	Farmers requested to desilting the tank and supply channel, reconstruction of 1 sluice, reconstruction of weir,So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.desilting the tank and supply channel, reconstruction of 1 sluice, reconstruction of weir,may be carried out.	It is proposed to desilting the tank and supply channel, reconstruction of 1 sluice, reconstruction of weir,
69	12.1.09	Palayanur	Manamadurai	Farmers requested to desilting the tank and supply channel, reconstruction of 4 sluices, Repairs to sluice 5,repair of weir.Construction of retaining wall and revetment.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct.desilting the tank and supply channel, reconstruction of 4 sluices, Repairs to sluice 5,repair of weir.Construction of retaining wall and revetment may be carried out.	It is proposed to desilting the tank and supply channel, reconstruction of 4 sluices, Repairs to sluice 5,repair of weir.Construction of retaining wall and revetment
70	12.1.09	Parayankulam	Manamadurai	Farmers requested to desilting the tank and supply channel, reconstruction of 2 sluices, reconstruction of weir, .Construction of culvert.So that can use water at the end of crop peiod without any deficit.	Yes.Problem mentioned by the farmers are correct. desilting the tank and supply channel, reconstruction of 2 sluices, reconstruction of weir, .Construction of culvert may be carried out.	It is proposed to desilting the tank and supply channel, reconstruction of 2 sluices, reconstruction of weir, .Construction of culvert
71	12.1.09	Kothankulam	Manamadurai	Farmers requested to desilting the tank and surplus course, reconstruction of 3 sluices, reconstruction of weir.Construction of retaining wall.So that can use water at the end of crop peiod without any deficit.	Yes the problems mentioned by the farmers are true.desilting the tank and surplus course, reconstruction of 3 sluices, reconstruction of weir.Construction of retaining wall may be carried out.	It is proposd to desilting the tank and surplus course, reconstruction of 3 sluices, reconstruction of weir.Construction of retaining wall

72	12.1.09	Chokkanathiruppu tank	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of sluice two and three,Desilting the supply channel,Reconstruction of weir.So that can use water at the end of crop peiod without any deficit.	Yes the problems mentioned by the farmers are true.Strengthening the tank bund,Reconstruction of sluice two and three,Desilting the supply channel,Reconstruction of weir.may be carried out.	It is proposd to Strengthening the tank bund,Reconstruction of sluice two and three,Desilting the supply channel,Reconstruction of weir.
73	12.1.09	Puliyankulam	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of Weir,Reconstruction of sluice 2numbers. Repair 2 sluices. Desilting the supply channel.So that can use water at the end of crop peiod without any deficit.	Yes the problems mentioned by the farmers are true.Strengthening the tank bund,Reconstruction of Weir,Reconstruction of sluice 2numbers. Repair 2 sluices. Desilting the supply channel may be carried out.	It is proposd to Strengthening the tank bund,Reconstruction of Weir,Reconstruction of sluice 2numbers. Repair 2 sluices. Desilting the supply channel.
74	12.1.09	Rangiyam	Manamadurai	Farmers requested to Strengthening the tank bund and the supply channel, to reconstruct a sluice 2,3&6, Sluice number three inside of Retaining Wall,Weir point of Providing S.G Shutter.So that can use water at the end of crop period without any deficit.	Yes the problems mentioned by the farmers are true.Strengthening the tank bund and the supply channel, to reconstruct a sluice 2,3&6, Sluice number three inside of Retaining Wall,Weir point of Providing S.G Shutter may be carried out.	It is proposd to Strengthening the tank bund and the supply channel, to reconstruct a sluice 2,3&6, Sluice number three inside of Retaining Wall,Weir point of Providing S.G Shutter
75	13.1.09	T. Velankulam	Manamadurai	Farmers requested to desilt the tank and the supply channel, to reconstruct a sluice 1, construct retaining wall, to repair the regulator and shutter.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Desilting of the tank and the supply channel, reconstruction of a sluice, construction of retaining wall, repair to the regulator and shutter may be carried out.	It is proposed to desilt the tank and the supply channel, to reconstruct a sluice, construct retaining wall, to repair the regulator and shutter.

76	13.1.09	Pitchaipillai-yendal	Manamadurai	Farmers requested to desilt the tank reconstruct sluice 2, construct retaining wall, So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.desilt the tank, reconstruct sluice 2, construct retaining wall, may be carried out.	It is proposed to desilt the tank, reconstruct sluice 2, construct retaining wall,
77	13.1.09	Maranadu	Manamadurai	Farmers requested to desilt the tank and supply channel, reconstruct sluice 1,construction of retaining wall at the entry off take structure, reconstruction of weir, Constructin of retaining wall and providing shutters. So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.desilt the tank and supply channel, reconstruct sluice 1, reconstruction of weir, Constructin of retaining wall and providing shutters. may be carried out.	It is proposed to desilt the tank and supply channel, reconstruct sluice 1, reconstruction of weir, Constructin of retaining wall and providing shutters.
78	13.1.09	Pulavachari tank	Manamadurai	Farmers requested to desilt the tank and supply channel and to repair the sluices.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Desilting the tank and supply channel and repairs to the sluices may be carried out.	It is proposed to desilt the tank and supply channel and to repair the sluices.
79	13.1.09	Saluppanodai	Manamadurai	Farmers requested to Strengthening the tank bund,Desiltling the supply channel and retaining wall.Reconstruction of sluices 2Nos. So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,Desiltling the supply channel and retaining wall.Reconstruction of sluices 2Nos. may be carried out.	It is proposed to Strengthening the tank bund,supply channel and retaining wall. Reconstruction of sluices 2Nos.
80	13.1.09	Mangudi	Manamadurai	Farmers requested to Strengthening the tank bund, retaining wall.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund, retaining wall may be carried out.	It is proposed to Strengthening the tank bund, retaining wall

81	13.1.09	Thavatharendal	Manamadurai	Farmers requested to Strengthening the tank bund, Retaining wall.Reconstruction of sluices 3Nos.Weir repair1. So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund, Retaining wall.Reconstruction of sluices 3Nos.Weir repair1. may be carried out.	It is proposed to Strengthening the tank bund, Retaining wall.Reconstruction of sluices 3Nos.Weir repair1.
82	13.1.09	Vallarendal	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of sluices 2No.Reconstruction weir 1, repair sluice 1.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,Reconstruction of sluices 2No.Reconstruction weir 1, repair sluice 1.may be carried out.	It is proposed to Strengthening the tank bund,Reconstruction of sluices 2No.Reconstruction weir 1, repair sluice 1.
83	13.1.09	Nadurkenendal	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of sluices 3No.Repair weir 1,Desilting the supply channel.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,Reconstruction of sluices 3No.Repair weir 1,Desilting the supply channel.may be carried out.	It is proposed to Strengthening the tank bund,Reconstruction of sluices 3No.Repair weir 1,Desilting the supply channel.
84	13.1.09	Anaikulam	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of sluices 2 No.Retaining wall.Desilting the supply channel.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,Reconstruction of sluices 2 No.Retaining wall.Desilting the supply channel.may be carried out.	It is proposed to Strengthening the tank bund,Reconstruction of sluices 2 No.Retaining wall.Desilting the supply channel.
85	13.1.09	Achankulam	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of sluices 4No.Reconstruction weir 1,Retaining wall.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,Reconstruction of sluices 4No.Reconstruction weir 1,Retaining wall may be carried out.	It is proposed to Strengthening the tank bund,Reconstruction of sluices 4No.Reconstruction weir 1,Retaining wall

86	13.01.09	Odhathur	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of sluice 1No,Retaining wall. So that can use water at the end of crop peiod without any deficit.	It is proposed to Strengthening the tank bund,Reconstruction of sluice 1No.Retaining wall.	It is proposed to Strengthening the tank bund,Reconstruction of sluices,.,Retaining wall
87	13.01.09	Vagaikulam	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of sluices 2Nos.Retaining wall. So that can use water at the end of crop peiod without any deficit.	It is proposed to Strengthening the tank bund,Reconstruction of sluices 2Nos.Retaining wall.	It is proposed to Strengthening the tank bund,Reconstruction of sluices,.,Retaining wall
88	16.1.09	Vishwampettai	Manamadurai	Farmers requested to Strengthening the tank bund,weir nearest retaining wall. Reconstruction of sluices 2Nos. Desilting supply chanel. Reconstruction of weir with shutter providing.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,weir nearest retaining wall. Reconstruction of sluices 2Nos. Desilting supply chanel. Reconstruction of weir with shutter providing may be carried out.	It is proposed to Strengthening the tank bund,weir nearest retaining wall. Reconstruction of sluices 2Nos. Desilting supply chanel. Reconstruction of weir with shutter providing.
89	16.1.09	Sambaikulam	Manamadurai	Farmers requested to Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 3Nos. Retaining wall .Field channel.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 3Nos. Retaining wall .Field channel may be carried out.	It is proposed to Strengthening the tank bund,weir nearest retaining wall. Reconstruction of sluices 2Nos. Desilting supply chanel. Reconstruction of weir with shutter providing.

90	16.1.09	Thalikulam	Manamadurai	Farmers requested to Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 1No. Desilting the supply channel.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.SStrengthening the tank bund,weir reconstruction. Reconstruction of sluices 1No. Desilting the supply channel may be carried out.	It is proposed to Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 1No. Desilting the supply channel
91	16.1.09	Sangankulam	Manamadurai	Farmers requested to Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 3Nos. Retaining wall .Desilting the supply channel.Retaining wall with shutter providing. So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 3Nos. Retaining wall .Desilting the supply channel.Retaining wall with shutter providing. may be carried out.	It is proposed to Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 3Nos. Retaining wall .Desilting the supply channel.Retaining wall with shutter providing.
92	16.1.09	Veeranendal	Manamadurai	Farmers requested to Strengthening the tank supply channel Reconstruction of sluices 2 Nos. Retaining wall.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank supply channel Reconstruction of sluices 2 Nos. Retaining wall. may be carried out.	It is proposed to Strengthening the tank supply channel Reconstruction of sluices 2 Nos. Retaining wall.
93	16.1.09	Chellappanendal	Manamadurai	Farmers requested to Strengthening the tank supply channel Field channel.Reconstruction of sluices 2 Nos. Retaining wall.Desilting the supply channel.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank supply channel Field channel.Reconstruction of sluices 2 Nos. Retaining wall.Desilting the supply channel may be carried out.	It is proposed to Strengthening the tank supply channel Field channel.Reconstruction of sluices 2 Nos. Retaining wall.Desilting the supply channel.

94	16.1.09	Villiyarendal	Manamadurai	Farmers requested to Strengthening the tank supply channel Reconstruction of sluices 2 Nos. Repair weir.Desilting the supply channel.Retaining wall.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank supply channel Reconstruction of sluices 2 Nos. Repair weir.Desilting the supply channel.Retaining wall may be carried out.	It is proposed to Strengthening the tank supply channel Reconstruction of sluices 2 Nos. Repair weir.Desilting the supply channel.Retaining wall
95	16.1.09	Karunkalikudi	Manamadurai	Farmers requested to Strengthening the tank bund,Reconstruction of sluices 2Nos.Weir repair. So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,Reconstruction of sluices 2Nos.Weir repair may be carried out.	It is proposed to Strengthening the tank bund,Reconstruction of sluices 2Nos.Weir repair.
96	16.1.09	Keelavellore	Manamadurai	Farmers requested to Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 1No. Repair sluice.So that can use water at the end of crop peiod without any deficit.	The problems mentioned by the farmers are true.Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 1No. Repair sluicemay be carried out.	It is proposed to Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 1No. Repair sluice
97	16.1.09	Ambalathadi	Manamadurai	Farmers requested to Strengthening the tank bund,weir reconstruction. Reconstruction of sluices 1No. Desilting supply channel, Head sluice.So that can use water at the end of crop peiod without any deficit.	It is proposed toStrengthening the tank bund,weir reconstruction. Reconstruction of sluices 1No. Desilting supply channel, Head sluice.	It is proposed to Strengthening the tank bund desilting supply channel,weir reconstruction. Reconstruction of sluices ,Repair sluice
98	16.1.09	Melavellore	Manamadurai	Farmers requested to Strengthening the tank bund.So that can use water at the end of crop peiod without any deficit.	It is proposed to Strengthening the tank bund,	It is proposed to strengthen the tank bund.

99	39875	Keelaparuthiyur Tank	Paramakudi	Farmers requested to Strengthening the tank bund.So that can use water at the end of crop peiod without any deficit.	It is proposed to Strengthening the tank bund,	It is proposed to strengthen the tank bund.
100	39875	Pulavar velankudi Tank	Paramakudi	Farmers requested to Strengthening the tank bund.So that can use water at the end of crop peiod without any deficit.	It is proposed to Strengthening the tank bund,	It is proposed to strengthen the tank bund.
101	39875	Kurunjakulam Tank	Paramakudi	Farmers requested to Strengthening the tank bund.So that can use water at the end of crop peiod without any deficit.	It is proposed to Strengthening the tank bund,	It is proposed to strengthen the tank bund.
102	39875	Thaduthalankottai Tank	Paramakudi	Farmers requested to Strengthening the tank bund.So that can use water at the end of crop peiod without any deficit.	It is proposed to Strengthening the tank bund,	It is proposed to strengthen the tank bund.
103	39875	sirukulam Sembilankudi	Paramakudi	Farmers requested to Strengthening the tank bund.So that can use water at the end of crop peiod without any deficit.	It is proposed to Strengthening the tank bund,	It is proposed to strengthen the tank bund.
	Kamuthi					
104	12.11.2008	T. Punavasal	Kamuthi	Farmers requested to desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel

105	12.11.2008	Abiramam	Kamuthi	Farmers requested to desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel
106	12.11.2008	Achangulam	Kamuthi	Farmers requested to desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel
107	12.11.2008	T. Kallikulam	Kamuthi	Farmers requested to desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel
108	12.11.2008	A.Tharaikudi	Kamuthi	Farmers requested to desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel
109	12.11.2008	Nagaratharkurichi	Kamuthi	Farmers requested to desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel

110	12.11.2008	Pappanam	Kamuthi	Farmers requested to desilt the tank and supply channel, So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel
111		Thulipatti	Madurai south	Farmers requested to desilt the tank bund reconstruct & repairs to sluices.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank bundand to reconstruct & repair the sluices.
112		Pudukulam	Madurai south	Farmers requested to desilt the tank and supply channel, reconstruct & repairs to sluices.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel and to reconstruct & repair the sluices.
113		Melanedunkulam	Madurai south	Farmers requested to desilt the tank and supply channel, reconstruct & repairs to sluices.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel and to reconstruct & repair the sluices.
114		Perunkudi	Madurai south	Farmers requested to desilt the tank and supply channel, reconstruct & repairs to sluices.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel and to reconstruct & repair the sluices.

115		Viradhanur	Madurai south	Farmers requested to desilt the tank and supply channel, repairs to weir.So that they can use water at the end of crop period without any deficit.	Yes.Problem mentioned by the farmers are found be correct.desilt the tank and supply channel, may be carried out.	It is proposed to desilt the tank and supply channel and to repair the weir

1.5 IRRIGATION INFRASTRUCTURE

1.5.1.List of Anicuts

NAME OF THE SUB BASIN: GRIDHUMAL

Sl. No	Anicuts	Village	Block	Taluk	District	Direct Ayacut Area in Ha	Capacity
1	2	3	4	5	6	7	8
1	Melavellur Regulator	Melavellur	Thiruppuvanam	Manamadurai	Sivagangai		
2	Ambalathai	Ambalathai	Thirupparan-kundram	Madurai south	Madurai		
3	Odathur	Odathur	Narikudi	Thiruchuli	Virudhunagar		
4	Kattanur	Kattanur	Narikudi	Thiruchuli	Virudhunagar		
5	Athikulam	Athikulam	Narikudi	Thiruchuli	Virudhunagar		
6	Nallukurichi	Nallukurichi	Narikudi	Thiruchuli	Virudhunagar		
7	Abiramam	Abiramam	Kamuthi	Kamuthi	Ramnad		

1.5.2.List of Supply channels

NAME OF THE SUB BASIN:
GRIDHUMAL

Sl. No	NAME OF SUPPLY CHANNEL	OFFTAKE POINT	LENGTH IN KM	VILLAGE	BLOCK	TALUK	DISTRICT	TANK AYACUT
1	2	3			4	5	6	7
1	Konthgai	RMC - 1120	3300	Konthgai	Thirupuvanam	Manamadurai	Sivagangai	736.98
2	Thirupuvanam	RMC - 6380	4500	Thirupuvanam				854.3
3	Vaviyarendal	At LS 2100M of Piramanur tank supply channel.	1000	Vaviyarendal				42.36
4	Melasorikulam	At LS 4800M of Palayanur tank supply channel.	2000	Melasorikulam				68.17
5	Keelasorikkulam	At LS 4200M of Palayanur tank supply channel.	2500	Keelasorikkulam				106.98
6	Anaikulam	At LS 6500M of Palayanur tank supply channel.	2000	Anaikulam				98.14
7	Achankulam	At LS 8150M of Palayanur tank supply channel.	2200	Achankulam				61.31

8	Maranadu	RMC 19020	8600	Maranadu				51.58
9	Piramanur	RMC 14730	4500	Piramanur				89.75
10	Palayanur	RMC - 15180	10300	Palayanur				1457.89
11	Alankulam	At LS 3550M of Palayanur tank supply channel.	1000	Alankulam				743.81
12	Muthuvanthidal	At LS 3900M of Palayanur tank supply channel.	1200	Muthuvanthidal				447.81
13	Pudukulam	At LS 19403 M of Nilaiyur channel	1230	Pudukulam	THIRUPPARANKUNDRAM	MADURAI SOUTH	MADURAI	93.7
14	Thenkal	At LS 22215 M of Nilaiyur channel	900	Thenkal				48.83
15	Kurukattan	At LS 3350 M of Perunkudi channel	350	Kurukattan				27.14
16	Sevanthikulam	At LS 2820 M of Perunkudi channel	2500	Sevanthikulam				383.81
17	Ariyankulam	At LS 3600 M of Perunkudi channel	180	Ariyankulam				56.14
18	Melanedungulam	At LS 5130 M of Perunkudi channel	220	Melanedungulam				34.83
19	Perungudi	At LS 5130 M of Nilaiyur channel	5130	Perungudi				58.25
			54.16					37.72
	NON SYSTEM TANKS							103.42

20	Viradhanur		6000	Viradhanur	THIRUPPARANKUNDRAM	MADURAI SOUTH	MADURAI	
21	Ayanpappakudi		3500	Ayanpappakudi				
22	Samanatham		3500	Samanatham				297.57
23	Rangiyam tank	LB of LMC from Ambalathadi anicut.	2500	Rangiyam tank	THIRUPUVANAM	MANAMADURAI	SIVAGANGAI	186.09
24	Sankankulam	LB of LMC Girudhumal	1000	Sankankulam				249.36
25	Melaparithiyur	LB of LMC of Athikulam anicut.	3110	Melaparithiyur	NARIKKUDI	THIRUCHULI	VIRUDHUNAGAR	609.48
26	Veersolan	RB of RMC of Athikulam anicut.	1500	Veersolan				100.66
27	Thamarai kulam	RB of RMC of Odathur anicut.	2500	Thamarai kulam				51.17
28	Alathur	RB of RMC of Odathur anicut.	1900	Alathur				61.61
29	Thiruvidai Nallur	RB of RMC of Odathur anicut.	400	Thiruvidai Nallur				82.44
33	Varisaiyur	LB of LMC of Athikulam anicut.	3120	Varisaiyur				71.42
34	Manoor	RB of RMC of Athikulam anicut.	4500	Manoor				44.51
35	Maraiyur	LB of LMC of Athikulam anicut.	8100	Maraiyur				93.04
36	Naloor	RB of RMC of Ambalathadi anicut.	9850	Naloor				106.51

38	Abiramam	At the Left side of Abiramam anicut	7350	Abiramam				51.22
39	Nallukurichi	At the Left side of Nallukurichi anicut	6736	Nallukurichi				122.1
40	Kattanur	At the Left side of Abiramam anicut	5500	Kattanur				43.68
43	LMC of Ambalathadi anicut	At the Left side of Ambalathadi anicut	3020	LMC of Ambalathadi anicut				1335.67
44	RMC of Ambalathadi anicut	At the Right side of Ambalathadi anicut	30490	RMC of Ambalathadi anicut				
45	Keelaparithiyur	RB of RMC of Nallukurichi anicut	2610	Keelaparithiyur	PARAMAKKUDY	PARAMAKKUDY	RAMANATHAPURAM	89.24
46	T.Punavasal	RB of Girudhumal	2000	T.Punavasal	KAMUTHI	KAMUTHI	RAMANATHAPURAM	61.39
47	A.Tharaikkudi	RB of Girudhumal	4500	A.Tharaikkudi				56.64
			113686					

1.5.2.LIST OF System Tanks IN GRIDHUMAL SUB BASIN

Sl. N0	Name of Tank	Village	Block	Taluk	District	Ayacut Ha	Capacity
1	Pudukulam	Pudukulam	Thirupparankundram	Madurai south	Madurai	27.14	1.000
2	Thenkal	Thirupparankudram				383.81	106.790
3	Kurukattan	Melanedungulam				56.14	6.140
4	Ariyankulam	Thirupparankudram				58.25	3.000
5	Seventhikulam	Thirupparankudram				34.83	2.640
6	Melanedungulam	Melanedungulam				37.72	2.900
7	Perungudi	Perungudi				103.42	32.900
8	Madakulam	Madakulam				279.29	
9	Muthapatti Veerangudi	Muthapatti Veerangudi				0.00	
10	Sottathatty	Sottathatty	Thiruppuvanam	Manamadurai	Sivagangai	165.95	23.11
11	Kondagai tank	Kondagai				736.98	153.35
12	Vaviyarendal	Vaviyarendal				42.36	9.00
13	Piramanur tank	Piramanur				743.81	89.45
14	Thavalaikulam	Thavalaikulam				64.75	7.00
15	Parayankulam	Parayankulam				58.73	9.08
16	Alangulam	Alangulam				93.70	15.86
17	Muthuvanthidal	Muthuvanthidal				48.83	13.00

18	Kothankulam tank	Kothankulam				125.92	7.66
19	Keelasorikulam tank	Keelasorikulam				106.98	23.44
20	Melasorikulam tank	Melasorikulam				68.17	14.90
21	Achankulam	Achankulam				61.31	27.00
22	Anaikualm tank	Anaikualm				98.14	19.97
23	Thalikulam	Thalikulam				44.00	9.50
24	Palayanur	Palayanur				447.81	90.63
25	Manalur tank	Manalur				266.81	47.88
26	Kalukarkadai tank	Kalukarkadai				239.16	58.65
27	Thiruppuvanam tank	Thiruppuvanam				1112.00	160.00
28	T.Velankulam tank	T.Velankulam				51.58	17.30
29	Maranadu tank	Maranadu tank				1457.89	180.61
30	Pitchaipillaiyendal tank	Pitchaipillaiyendal				89.75	7.83
31	Saluppanodai	Saluppanodai				37.36	
						6884.89	

1.5.3.LIST OF Non system Tanks IN GRIDHUMAL SUB BASIN

Sl. N0	Name of Tank	Village	Block	Taluk	District	Ayacut Ha	Capacity
1	Nedungulam	Nedungulam	upparankundrai	Madurai sou	Madurai	41.54	

2	Viradhanur	Virudhanur				297.57	19.140
3	Ayavettan	Ayavettan				91.95	24.990
4	Ayanpappakudi	Ayanpappakudi				186.09	14.610
5	Samanatham	Samanatham				249.36	10.600
6	Pudukkulam	Avaniapuram				60.93	2.790
7	Thuliapatti	Chinthamani				54.98	1.760
8	Rettaikulam	Rettaikulam				0.00	
9	Melakarisalkulam tank	Melakarisalkulam	Thirupuvanam	Manamadurai	Sivagangai	83.25	31.15
10	Keelakarisalkulam tank	Keelakarisalkulam				158.83	30.70
11	Pottapalayam tank	Pottapalayam				61.13	13.50
12	Puliyur	Puliyur				66.63	15.20
13	Kaluvankulam tank	Kaluvankulam				64.72	11.61
14	Meenakshipuram tank	Meenakshipuram				128.52	18.49
15	Melavellur tank	Melavellur				299.97	72.60
16	Keelavellur tank	Keelavellur				106.93	14.28
17	Karunkalai tank	Karunkalai				79.09	11.15
18	Thavatharendal tank	Thuavatharendal				50.38	9.50
19	Ambalathadi tank	Ambalathadi				110.43	23.00
20	Mangudi tank	Mangudi				421.37	57.35
21	Rangiyam tank	Rangiyam				609.48	152.80

22	Chokkanathiruppu tank	Chokkanathiruppu				154.68	4.84
23	Sambakulam	Sambaikulam				44.13	9.00
24	Visvampettai	Visvampettai				42.04	8.98
25	Puliyankulam tank	Puliyankulam				131.53	21.72
26	Sankankulam tank	Sankankulam				100.66	22.31
27	Vallarendal tank	Vallarendal				70.66	9.02
28	Veeranendal tank	Veeranendal				68.88	9.40
29	Odhathur Tank	Odhathur				88.91	19.09
30	S.Vagaikulam tank	S.Vagaikulam				68.41	19.99
31	Nadukanendal	Nadukanendal				65.23	12.20
32	Pulavachari tank	Pulavachari tank				70.37	12.31
						4128.65	

SI.N0	Name of Tank	Village	Block	Taluk	District	Ayacut Ha	Capacity
33	Karuvakkudi	Karuvakkudi	Narikkudy	Thiruchuli	Virudhunagar	51.17	10.65
34	S. Nangoor	S. Nangoor				61.61	11.57
35	Poombidagai	Poombidagai				79.72	18.06
36	Thamarai kulam	Thamarai kulam				82.44	23.20
37	Thatchanendal	Thatchanendal				56.08	6.40
38	Alathur	Alathur				67.01	9.07
39	Thiruvidai Nallur	Thiruvidai Nallur				46.50	5.83
40	Rettai kulam	Rettai kulam				71.42	6.65

41	Senthanadhi	Senthanadhi				44.51	5.23
42	Eluvani	Eluvani				93.04	19.71
43	Mugavoor	Mugavoor				106.51	11.03
44	P. Vagaikulam	P. Vagaikulam				61.39	12.63
45	Vilakkanendal	Vilakkanendal				42.05	--
46	Kundukulam	Kundukulam				56.64	7.74
47	Alagapuri	M. Pudukulam				89.24	14.93
48	Siruvanur	Siruvanur				65.08	10.16
49	Kattanoor	Kattanoor				1335.67	177.80
50	Seeniyendal	Seeniyendal				51.22	5.04
51	Naloor	Naloor				267.61	65.61
52	Irunchirai	Irunchirai				509.05	138.00
53	Karumanendal	Karumanendal				52.59	12.39
54	Kadukkoi kulam	Naloor				42.38	14.43
55	Andukondan	Andukondan				46.80	7.25
56	Pannaikudi	Pannaikudi				99.49	18.16
57	Esali	Esali				132.77	30.69
58	Sottamuri	Sottamuri				40.51	8.61
59	Theeyanur	Theeyanur				46.80	8.86
60	Ulakudi Big & Small	Olakudi				213.10	45.30
61	Manoor	Manoor				93.63	15.78
62	Athithanendal	Athithanendal				90.21	16.58
63	Narikudi	Narikudi				62.66	27.89

64	N. Mukkulam	N. Mukkulam				42.49	30.83
65	Virakudi	Virakudi				50.54	8.62
66	Maraiyur	Maraiyur				134.78	50.89
67	Mayaleri	Mayaleri				42.97	30.29
68	Sethurayanendal	Sethurayanendal				161.04	10.92
69	Varisaiyur	Varisaiyur				164.00	35.01
70	Vilakkuseri	Vilakkuseri				47.76	8.72
71	Sammanendal	Sammanendal				42.21	4.09
72	Melaparithiyur	Melaparithiyur				131.26	25.69
73	Veeracholan	Veeracholan				66.19	45.03
SI.N0	Name of Tank	Village	Block	Taluk	District	Ayacut Ha	Capacity
74	Keelaparuthiyur	Keelaparuthiyur	Paramakkudy	Paramakkudy	Ramanathapuram	122.10	34.84
75	Pulavar velangudi	Pulavar velangudi				55.40	3.19
76	Kurunjakulam	Kurunjakulam				62.89	7.83
77	Sirukulam sembilankudi	Sirukulam sembilankudi				56.78	13.92
78	Thadathankudi	Thadathankudi				129.52	30.3
79	T.Punavasal	T.Punavasal	Kamuthy	Kamuthy		11.69	1.34
80	Abiramam	Abiramam				84.26	5.69
81	Achangulam	Achangulam				9.38	2.40
82	T. Kallikulam	T. Kallikulam				9.03	1.03

83	A.Tharaikudi	A.Tharaikudi				22.34	1.90
84	Nagaratharkurichi	Nagaratharkurichi				15.91	3.47
85	Pappanam	Pappanam				7.70	1.00

1.5.4.List of tanks/Anicuts executed under various schemes (Viz, Part II Scheme, NABARD, WRCP I etc.,) since 2000.						
NAME OF THE SUB BASIN: GRIDHUMAL						
Sl. No.	Name of Anicut / Tank	Ayacut	Scheme in which executed	Amount (lakhs)	Details of components executed	Remarks
1	2	3	4	5	6	7
1	Samanatham	249.36	NABARD	32.01	Earthwork for tank bund,Two sluices reconstruction.	
2	Viradhanur	297.57	NABARD	59.29	Earthwork for tank bund,three sluices reconstruction, weir repair and construction of retaining wall.	
3	Nallur	267.61	NABARD	66.84	Improvements to tank bund, reconstruction of 2 sluices, Repairs to sluice 1, repairs to weir and Construction of field channel.	
4	Irunchirai	509.05	NABARD	87.24	Improvements to tank bund, reconstruction of 2 sluices, Repairs to sluices 2, repairs to weir 2 and reconstruction of weir1 and construction of field channel	
5	Ulakkudi	213.1	NABARD	44.67	Improvements to tank bund, , Repairs to sluice and desilting the supply channel.	
6	Athithanendal	90.21	NABARD		Improvements to tank bund 400m - 1600m, Repairs to sluices , and Construction of retaining wall, fixing boundry stone.	

7	Panaikudi	99.49	NABARD-State plan scheme	10.00	Improvements to tank bund, reconstruction of 2 sluices, Repairs to sluice 1, repairs to weir and Construction of field channel.	
8	Puliyur	66.63	NABARD	21.58	Earth work for tank bundconstruction of sluice No3, Repairs to sluice No 2, Desilting supply channel, field channel lining	
9	Mangudy	421.37	NABARD	63.16	--- Do ----'	
10	Keelavellur	106.93	NABARD	23.07	--- Do ----'	
11	Chokanathiruppu	154.68	NABARD	20.18	Earth work for tank bund , sluice Repair in two numbers , Desilting supply channel, field channel lining and wier reconstruction.	
12	Melavellur	299.97	NABARD	40.00	Earth work for tank bund , sluice Repair in four numbers , Desilting supply channel, field channel lining and wier reconstruction.	
13	Pulavacheri	70.37	NABARD	15.56	Earth work for tank bund , sluice Repair in two numbers , field channel lining and wier reconstruction.	
14	Meenakshipuram	128.52	NABARD	19.22	Earth work for tank bund , sluice Repair in five numbers , Desilting supply channel, field channel lining and wier reconstruction.	
		2974.86				

1.5.4.List of tanks/Anicuts executed under various schemes (Viz, Part II Scheme, NABARD, WRCP I etc.,) since 2000.						
NAME OF THE SUB BASIN: GRIDHUMAL						
SI.No.	Name of Anicut / Tank	Ayacut	Scheme in which executed	Amount (lakhs)	Details of components executed	Details of components now proposed.
1	2	3	4	5	6	7
1	Samanatham	249.36	NABARD	32.01	Earthwork for tank bund,Two sluices reconstruction.	Desiting supply channel,repairs to weir and construction of retaining wall.
2	Viradhanur	297.57	NABARD	59.29	Earthwork for tank bund,three sluices reconstruction, weir repair and construction of retaining wall.	Desiting supply channel and construction of retaining wall.
3	Nallur	267.61	NABARD	66.84	Improvements to tank bund, reconstruction of 2 sluices, Repairs to sluice 1, repairs to weir and Construction of field channel.	Sluice reconstruction 3 Nos.
4	Irunchirai	509.05	NABARD	87.24	Improvements to tank bund, reconstruction of 2 sluices, Repairs to sluices 2, repairs to weir 2 and reconstruction of weir1 and construction of field channel	Sluice reconstruction 2 Nos.
5	Ulakkudi	213.1	NABARD	44.67	Improvements to tank bund, , Repairs to sluice and desilting the supply channel.	Nil
6	Athithanendal	90.21	NABARD	15.00	Improvements to tank bund 400m - 1600m, Repairs to sluices , and Construction of retaining wall, fixing boundry stone.	Reconstruction of sluices 3 Nos.
7	Panaikudi	99.49	NABARD-State plan scheme	10.00	Improvements to tank bund, reconstruction of 2 sluices, Repairs to sluice 1, repairs to weir and Construction of field channel.	construction of retainng wall.

8	Puliyur	66.63	NABARD	21.58	Tand bund standardisation.Reconstruction of sluice No.3,Repairs to sluice No.2,Field channel lining.	Tand bund standardisation to make up the free board from 0.76m to 1.50m.Retaining wall in supply channel.
9	Mangudy	421.37	NABARD	63.16	Tand bund standardisation.Reconstruction of sluice No.3 & 2,Repairs to sluice No.1,Field channel lining, repairs to weir.	Tand bund standardisation to make up the free board from 0.90m to 1.50m.Retaining wall in supply channel.
10	Keelavellur	106.93	NABARD	23.07	Tand bund standardisation.Reconstruction of sluice No.3 & 2,Repairs to sluice No.1,Field channel lining, repairs to weir.	Tand bund standardisation to make up the free board from 0.90m to 1.50m.Retaining wall in supply channel.
11	Chokanathiruppu	154.68	NABARD	20.18	Earth work for tank bund , sluice Repair in two numbers , Desilting supply channel, field channel lining and wier reconstruction.	Tand bund standardisation to make up the free board from 1.00m to 1.50m.Retaining wall in supply channel.
12	Melavellur	299.97	NABARD	40.00	Earth work for tank bund , sluice Repair in four numbers , Desilting supply channel, field channel lining and wier reconstruction.	Tand bund standardisation to make up the free board from 0.90m to 1.50m.Retaining wall in supply channel.
13	Pulavacheri	70.37	NABARD	15.56	Earth work for tank bund , sluice Repair in two numbers , field channel lining and wier reconstruction.	Tand bund standardisation to make up the free board from 1.00m to 1.50m.Retaining wall in supply channel.

14	Meenakshipuram	128.52	NABARD	19.22	Earth work for tank bund , sluice Repair in five numbers , Desilting supply channel, field channel lining and wier reconstruction.	Tand bund standardisation to make up the free board from 0.90m to 1.50m.Retaining wall in supply channel.
		2974.86				

NAME OF THE SUB BASIN: GIRDHUMAL

Sl. No	DETAILS	ANICUT			SYSTEM TANK		NON- SYSTEM TANK				ANY OTHER SUPPLY CHANNEL		REMARKS
		NOS	SUPPLY CHANNEL IN KM	DIRECT AYACUT	NOS	SUPPLY CHANNEL IN KM	AYACUT	NOS	SUPPLY CHANNEL IN KM	AYACUT	LENGTH	DIRECT AYACUT	
1	Available Infrastructure in sub basin	7	71.205	--	31	54.16	6886.56	85	113.686	10171.25	--	--	
2	Infrastructure excluded in iamwarm project since works carried out under various schemes from 2000	--	--	--	--	--	--	14	--	2974.86	--	--	
3	Infrastructures that does not require any rehabilitation works	1	1.60	--	2	9.45	280.96	2	64.526	213.10	--	--	
4	Works taken up in iamwarm project i)Works taken up under WRCP but also in IAMWARM	--	--	--	--	--	--	13	--	2930.19	--		Though the 13 Nos.of tanks taken up in other scheme,they are included in this scheme also balance components works are only proposed in this scheme.
	ii)Work proposed in IAMWARM	(6+1)	69.605	--	29	44.71	6605.60	69	49.16	7027.96	--	--	

1. Certified that the Panchayat Union Tanks are not considered in this project.
2. Certified that the tanks executed under various schemes (Viz, WRCP I, NABARD, PART II schemes etc.,) . Since 2000 were not proposed in this project.

1.6 REHABILITATION OF IRRIGATION INFRASTRUCTURE

1.6. Rehabilitation of IRRIGATION Infrastructure of

THE GIRDHUMAL SUB-BASIN

1.6.1 STRUCTURAL STATUS & DEFICIENCIES IN THE SYSTEM

The following are the present structural condition of the Girudhumal sub basin system.

1. This system is a old system existing for more than 100 Years, as such requires Rehabilitation of tanks and its supply channels.
2. The tanks and its supply channels are heavily silted up which require Strengthening of tank bund and Improvements to Supply Channels.
3. The damaged (or) dilapidated condition of the Sluices, Weirs of tanks and Head Sluices of Supply Channels need Repairs.

In order to improve the conveyance and Operational Efficiency in Irriagtion, it is now proposed to improve and modernize the Irrigation Infrastructures in Girudhumal Sub basin.

1. Strengthening of tank bund by earthwork excavation using machineries.
2. Desilting the supply channels by earthwork excavation using machineries
3. Providing Bed bars to maintain the bed level and inner slopes of the supply channels
4. Repairing, Restoring the traditional water bodies (i.e. tanks)
   a. Restoring the capacity of the tanks, supply channels by desilting
   b. Strengthening the tank bund with Free board of 1.50m with consolidation by power roller for effective storing the water and conveying it to the entire command area and also for conveying agriculture inputs to the field.
   c. Reconstruction of Collapsed weirs
   d. Repairs to the damaged weirs
   e. Reconstruction of Collapsed Sluices
   f. Repairs to the damaged Sluices

g. Providing Model Sections and Retaining walls in selective area of the tanks
h. Providing S.G. Shutter / Plug arrangements to Sluices, Head sluices, Scour vents etc.,
i. Fixing Boundary Stones in the tanks to prevent encroachment
j. Removing, Repairing and refixing in position of the existing S.G. shuttering arrangements and providing locking arrangements etc.,
k. Provisions for Turfing the rear side slopes of the tank bund near Sluices and Weir

Desilting the Supply channel:

There are 116 tanks situated within Girudhumal Sub Basin catchment area. The Supply origin from its own water spread area of the tanks.. These supply channels are heavily silted up, which results adequate quantum of water is not carried out through these channels to these tanks; and finds its way though adjacent cultivated fields. Lesser quantum of water flows to the tanks and balance water is over flanked and flows into agricultural lands.

By restoring these supply channel to the original section to carry adequate discharge to the tanks without over flanking, the desilting of supply channel is proposed in this project, with necessary Bed bars.

1.6.2 Outcome of the Project

1. Increase in conveyance efficiency from 53% to 60%

2. The present Gap area of 5476.11ha. is to be reduced as 3513.36ha and 13544.45
ha converted as fully irrigated area.

3. The following irrigation infrastructure development works are proposed in the sub basin

Rehabilitation works for 112 tanks (14 Nos of Tanks were taken up during the year 2002-2007 in Nabard and Part II scheme, for which balance components of work only proposed, which were not done in those Schemes.)

Rehabilitation of supply channel for 93.870 KM.

Rehabilitation of Anicuts for 6 Nos and construction of Anicut 1 No.

Name of work: Rehabilitation of system tanks under Girudhumal Sub Basin in Madurai South taluk in Madurai district

Package -I

COMPONENT WISE ABSTRACT

Sl No	Name of Tank	Standarditation of Bund		Reconstn of Sluice		Repairs to Sluices		Desilting of Channel		Providing SG Shutter				Model Section		Measuring device		Boundary stone		Total Amt in Lakhs
										Tanks		Head Sluices								
		Length	Amt	Nos	Amt	Nos	Amt	Length	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	
1	Pudukulam	960	6.38			2	4.74	1230	1.06	1	0.45	1	0.85	2	0.42	3	0.43	124	0.56	14.89
2	Thenkal	916	5.14			2	0.39	900	0.70	2	0.90			3	0.53	2	0.28	300	1.35	9.29
3	Seventhikulam	957				3	5.12	1050	0.82	1	0.45	3	3.60	2	0.40	2	0.28	100	0.45	11.12
4	Aryan kulam	980	6.63	1	2.41					1	0.45			2	0.37	3	0.44	125	0.56	10.86
5	Kurukattan	1054	5.83							2	0.90	1	1.00	2	0.40	4	0.59	150	0.68	9.40
6	Melanedunkulam	830	5.40			1	0.85			2	0.90			2	0.37	2	0.29	125	0.56	8.37
7	Perungudi	1980	12.85			2	3.93	5130	5.41	2	0.70			4	0.87	2	0.29	150	0.68	24.73
	Total																			**88.66**

Name of work: Rehabilitation of system tanks under Girudhumal Sub Basin in Madurai South taluk in Madurai district andd Thiruchuly Taluk in Virudhunagar District.

Package -II

COMPONENT WISE ABSTRACT

Sl No	Name of Tank	Standarditation of Bund		Sluice						Amount	Weir Repair		Supply Channnel		Protection wall		Total Amt in Lakhs
				Reconstn of Sluice		Repairs to Sluices		Measuring Device									
		Length	Amt	Nos	Amt	Nos	Amt	Nos	Amt		Nos	Amt	Length	Amt	Length	Amt	
1	Viradhanur	4816	0.67			3	0.9	3	0.29	1.19			6000	17.89	42	5.31	25.06
2	Ayavettan	2250	19.98					1	0.10	0.10							20.08
3	Ayanpappakudi	1525	12.06			1	1.48	2	0.19	1.67			3500	10.52	40	4.85	29.10
4	Samanatham	4050	0.69			3	2.94	4	0.38	3.32	1	2.35	3500	10.53	40	4.89	21.78
5	Pudukkulam	972	9.04			1	0.52	1	0.10	0.62	1	0.84					10.50
6	Thuliapatti	1450	12.33	1	2.91			2	0.19	3.10	1	1.44					16.87
7	Nedunkulam	1200	10.82			2	4.2	2	0.19	4.39							15.21
8	Karuvakkudi	2340	16.02	2	4.57			2	0.19	4.76	1	0.16			40	4.87	25.81
9	S. Nangoor	1830	15.35	3	9.12			3	0.29	9.41	1	0.23			40	5.01	30.00
10	Poombidagai	2836	23.04	2	6.91	1	0.3	3	0.29	7.50							30.54
11	Thamarai kulam	2165	18.58	2	6.3	4	1.8	6	0.57	8.67	1	0.18			40	4.99	32.42
12	Thatchanendal	1586	14.98	3	8.38			3	0.29	8.67					40	5.11	28.76
13	Alathur	2196	19.29	2	6.64			2	0.19	6.83							26.12
14	Thiruvidai Nallur	2150	14	1	3.03	2	0.86	3	0.29	4.18							18.18

15	Rettai kulam	2227	15.15	2	5.84	3	1.77	5	0.48	8.09							23.24
16	Senthanadhi	1983	17.1	3	8.14	1	0.85	4	0.38	9.37							26.47
17	Eluvani	1922	15.47			4	2.32	4	0.38	2.70							18.17
18	Mugavoor	3416	26.72	3	8.14	2	0.6	5	0.48	9.22	1	0.38			20	2.73	39.05
19	P. Vagaikulam	2074	16.54			4	2.11	4	0.38	2.49							19.03
20	Vilakkanendal	1400	11.7	1	3.04	2	0.51	3	0.29	3.84							15.54
21	Kundukulam			1	2.84	2	0.6	3	0.29	3.73							3.73
22	Alagapuri	3060	16.99	1	2.68	4	1.54	5	0.48	4.70							21.69
23	Siruvanur	1983	17.21	3	8.9	1	0.4	4	0.38	9.68					40	5.08	31.97
24	Kattanoor					9	2.7	9	0.86	3.56							3.56
25	Seeniyendal	1373	12.62	4	10.64	1	0.3	5	0.48	11.42							24.04
26	Naloor			2	7.21	4	1.7	6	0.57	9.48					40	5.02	14.50
27	Irunchirai			3	12.64	1	0.9	6	0.57	14.11							14.11
28	Karumanendal	1830	16.08	2	8.5			2	0.19	8.69							24.77
		52634	352.43	41	126.43	55	29.3	102	9.69	165.42	7	5.58	13000	38.94	382	47.86	610.23

Cost Analysis Statement for Rehabilitation of Anicuts And Supply Channels

Sl No	Name of Anicut & Supply Channel	Repairs to Anicut		Resectioning of Supply Channel		Constn of R/Wall		Constn of Dividing Dam		Constn of Bed Bar		Constn of Head Sluice		constn of road Culvert		Constn of Syphon		Total
		No	Amt	Length	Amt	Length	Amt	No	Amt	No	Amt	No	Amt	No	Amt	No	Amt	
1	Amalathadi anicut & Supply Channel			RMC-30490 m	21.8					151	4.63							
		1	53.99	LMC-3020 m	1.28					16	0.35							
		1	**53.99**	**33510**	**23.08**					**167**	**4.98**							**82.05**
2	Odathur Anicut	1	5.21			50	3.91	3	18.94									
	Supply Channels																	
a)	Odathur			6100														
b)	Rettaikulam			1400														
c)	Thiruvidainallur			400														
d)	T.Puliankulam			1500	12.44					43	1.42							
e)	Alathur			1920														
f)	Senthanathi			1950														
g)	Eluvani			1300														
		1	**5.21**	**14570**	**12.44**	**50**	**3.91**	**3**	**18.94**	**43**	**1.42**							**41.92**
3	Kattanur Anicut & Supply Channel	1	3.44	5500	6.16					26	0.85							
		1	**3.44**	**5500**	**6.16**					**26**	**0.85**							**10.45**

4	Formation Of Supply Channel to Kattanur Tank from Nattandi Odai			2600	3.08							1	10.84	1	2.12	1	0.85	
				2600	**3.08**							**1**	**10.84**	**1**	**2.12**	**1**	**0.85**	**16.89**
	Grand Total	**3**	**62.64**	**56180**	**44.76**	**100**	**3.91**	**3**	**18.94**	**236**	**7.25**	**1**	**10.84**	**1**	**2.12**	**1**	**0.85**	**151.31**

ESTIMATE ABSTRACT

(Amount in Lakhs)

A)	**TOTAL VALUE OF CIVIL WORKS FOR TANKS**	**610.23**
B)	**TOTAL VALUE OF CIVIL WORKS FOR ANICUTS & SUPPLY CHANNELS**	**151.31**
	SUB TOTAL	**761.54**

Name of work: Rehabilitation of system tanks under Girudhumal Sub Basin in Manamadurai Taluk of Sivagangai District.

Package -III

COMPONENT WISE ABSTRACT

(Amt in Lakhs)

Sl No	Name of Tank	Supply Channel						Tank												Total Amt in Lakhs
		Desilting Channel		Culvert		Prot.Wall		Strengthening tank bund		Reconstn of Sluice		Repairs to Sluices		Measuring Device		Weir reconstn		Weir Repair		
		Length	Amt	Nos	Amt	Length	Amt	Length	Amt	Nos	Amt	Nos	Amt	Nos	Amt		Nos	Amt	Length	
1	Konthagai	3300	9.21			240	29.34	5640	52.09	2	8.19	2	4.76	4	0.6			1	5.7	109.89
2	Manalur					380	24.35	2377	19.02	3	10.09			3	0.45			1	2.16	56.07
3	Kalukarkadai					300	33.89	1980	15.95	3	6.96			3	0.45			1	1.9	59.15
4	Sottathatti							2438	18.72	2	4.72			2	0.3			1	2.17	25.91
5	Melavellur			3	7.44	60	3.89	2834	16.81											28.14
6	Keelakarisalkulam							2797	21.66	4	9.22			4	0.6	1	10.42			41.9
7	Kaluvankulam							2043	16.75	4	9.85			4	0.6			1	2.28	29.48
8	Meenakshipuram							2377	14.48							1	9.22			23.7
9	Pottapalayam							2840	18.63	2	4.87			2	0.3	1	8.09			31.89
10	Puliyur							2591	14.91							1	6.7			21.61
11	Melakarisalkulam							3450	26.34	3	9.52			3	0.45	1	5.7			42.01
	Total	**3300**	**9.21**	**3**	**7.44**	**980**	**91.47**	**31367**	**235.36**	**23**	**63.42**	**2**	**4.76**	**25**	**3.75**	**5**	**40.13**	**5**	**14.21**	**469.75**
																			Total	**469.75**

Name of work: Rehabilitation of system tanks under Girudhumal Sub Basin in Manamadurai Taluk of Sivagangai District.-Part II

Package -IV

COMPONENT WISE ABSTRACT

(Amt in Lakhs)

Sl No	Name of Tank	Tank Bund		Model Section		Supply Channel		Weir reconstn		Weir Repair		Reconstn of Sluice		Repairs to Sluices		S.G.Shutter		Measuring Devices		Head Sluice		Anicut		Prot.wall		Culvert		Total Amt in Lakhs
		Length	Amt	Nos	Amt	Length	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	length	Amt	Nos	Amt	
1	Tirupuvanam	4175	25.44	10	3.78	4500	9.36					2	8.27			4	1.2	4	0.57	2	49.8			170	18.68	1	1.79	118.85
2	Thavalaikulam	1500	8.99	4	0.93							4	8.26			4	1.2	4	0.58									19.96
3	Vavirendal	2040	12.07	5	0.97	1000	1.08			1	1.53	4	6.06			4	1.2	4	0.57									23.48
4	Ambalathadi	3960	22.84	9	2.41	1000	1.08	1	7.5			3	6.08			3	0.9	3	0.43			1	50.7					91.95
5	Chokkanathiruppu	2680	9.59	6	1.57			1	10.3					3	6.03	3	0.9	3	0.44									28.83
6	Keelavellur	2600	8.22	6	1.49					1	4.56	1	2.45			2	0.6	3	0.43					68	14.2			31.95
7	Mangudi	2995	15.28	7	1.62													3	0.43					64	17.98			35.31
8	Thavatherendal	2987	10.37	7	1.4			1	2.73			5	11.04			8	2.4	8	1.15									29.09
9	Karunkalagudi	2195	13.28	5	1.04							3	7.43			5	1.5	5	0.72									23.97
10	Puliyankulam	3120	15.69	7	1.82			1	4.12			4	10.31			5	1.5	5	0.73									34.17
11	Sambakulam	1500	6.21	4	0.96			1	4.87			3	6.91			3	0.9	3	0.44									20.29
12	Visvampettai	1260	5.25	4	0.89			1	4.75			2	4.16			3	0.9	2	0.29									16.24
13	Rangiyam	6705	40.21	6	1.87	2500	2.51	1	7.02			4	13.13			6	1.8	6	0.86					50	16.2			83.6
	Total	**37717**	**193.44**	**80**	**20.75**	**9000**	**14.03**	**7**	**41.29**	**2**	**6.09**	**35**	**84.1**	**3**	**6.03**	**50**	**15**	**53**	**7.64**	**2**	**49.8**	**1**	**50.7**	**352**	**67.06**	**1**	**1.79**	**557.69**
																											Total	**557.69**

Name of work: Rehabilation of System and Non-System tanks and its supply channel under Gridhumal sub basin in Manamadurai taluk in Sivagangai Dist.-Part-IV

Package -V

COMPONENT WISE ABSTRACT

S.NO	NAME OF TANK	TANK BUND		SUPPLY CHANNEL				SLUICE						MEASURING DIVICE		OFF TAKE	WEIR					TOTAL
		LENGTH OF BUND	STRENGTHING OF BUND	MODEL SECTION	LENGTH	DESILTING AMOUNT	RETAINING WALL LENGTH	AMOUNT	NO OF SLUICES	NO OF SLUICE TO BE REPAIRED	AMOUNT	NO OF SLUICES TO BE RECONSTRUCTED	AMOUNT	NOS	AMOUNT		TOTAL NO OF WEIRS	NO OF WEIR TO BE REPAIRED	AMOUNT	NO OF WEIR TO BE RECOSTRUCTED	AMOUNT	
1	Piramanur	5400	42.33	2.90	4500	9.27	--		7	5	14.40	2	9.11	6	0.89		2	--		2	23.89	102.79
2	Sankankulam	4230	29.58	2.98	1600	2.47	--		5	2	3.20	2	5.77	4	0.60		1	--		--		44.60
3	Parayankulam	1006	7.01	1.10	--		--		3	2	1.45	1	2.58	3	0.45		1	1	1.01	--		13.60
4	Anaikulam	2195	14.01	1.49	2000	2.72	--		2	--		1	4.01	1	0.15		1	--		1	3.26	25.64
5	Achankulam	3720	25.93	2.61	2200	3.07	45	2.83	4	2	2.17	2	7.15	4	0.60	24.77	1	--		1	3.39	72.52
6	Palayanur	5730	40.49	3.36	10300	25.30	--		7	3	4.52	4	15.66	7	1.05		1	1	5.48	--		95.86
7	S.Vagaikulam	2408	16.92	1.51	1500	2.34	30	1.91	5	3	4.01	2	7.40	5	0.75		1	--		--		34.84
8	Vallarendal	1375	9.56	0.75	--		--		3	2	6.30	1	6.76	3	0.45		1	--		--		23.82
9	Veeranendal	1325	8.57	0.75	--		--		4	2	4.35	2	6.83	4	0.60		1	--		--		21.10
10	Odathur	2440	17.19	1.51	--		--		2	1	1.90	1	3.74	2	0.30		1	--		--		24.64
		29829	211.59	18.96	22100	45.17	75	4.74	42	22	42.3	18	69.01	39	5.84	24.8	11	2	6.49	4	30.54	459.41
	L.S.Provisions																					
											Total											**459.41**

Name of work: Rehabilation of System and Non-System tanks and its supply channel under Gridhumal sub basin in Manamadurai taluk in Sivagangai Dist.-Part-IV

Package -VI

COMPONENT WISE ABSTRACT

(Amt in Lakhs)

Sl No	Name of Tank	Tank bund		Sluice				weir				Sluice						Supply Channel		Measuring Devices		H.S./C.Regulator		Groyne wall		Ret.Wall		Total Amt in Lakhs
				Reconstn		Repair		Reconstn		Repair		Tank Sluice		Head Sluice		Weir Sluice												
		Length	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	length	Amt	Nos	Amt	Nos	Amt	length	Amt	length	Amt	
1	Maranadu	5856	55.45	1	2.76	1	3.72	1	12.59			2	0.7	5	10	4	6	8600	20.25	4	0.38	1	6.49	150	99.29	50	4.49	222.12
2	Pichaipillaiyendal	1440	12.62			1	0.94					1	0.35							3	0.29							14.195
3	Saluppanodai	960	7.99			3	2.82					3	1.05							3	0.29							12.145
4	Velankulam	1340	11.74			1	0.92					1	0.35							4	0.38							13.39
5	Nadukkanendal	2896	24.22	2	4.47							2	0.7							3	0.29							29.675
6	Pulavacheri	2824	16.45	1	2.28							1	0.35							4	0.38							19.46
7	Thalikulam	2043	14.83	2	3.76			1	13.5			2	0.7							3	0.29							33.075
8	Alankulam	1410	12.00	1	2.03	1	0.77	1	12.62			2	0.7	5	5					4	0.38	1	17.85					51.35
9	Muthuvanthidal	1410	11.38	2	4.54							2	0.7	5	5					2	0.19	1	17.40					39.21
10	Melasorikulam	1785	15.23	2	4.4			1	2.6			2	0.7	6	6					3	0.29	1	19.88			85	5.6	54.695
11	Keelasorikulam	2820	24.81	1	2.46	2	1.88	1	4.88			3	1.05							3	0.29							35.365
12	kothankulam	2042	16.91	2	4.23	1	0.74			2	11.1	3	1.05							4	0.38							34.41
	Total	**26826**	**223.63**	**14**	**30.93**	**10**	**11.79**	**5**	**46.19**	**2**	**11.1**	**24**	**8.4**	**21**	**26**	**4**	**6**	**8600**	**20.25**	**40**	**3.80**	**4**	**61.62**	**150**	**99.29**	**135**	**10.09**	**559.09**
																											Total	**559.09**

Name of work: Rehabilitation of system tanks under Girudhumal Sub Basin in Madurai South taluk in Madurai district andd Thiruchuly Taluk in Virudhunagar District.

Package -VII

COMPONENT WISE ABSTRACT

(Amt in Lakhs)

Sl No	Name of Tank	Tank bund		Sluice				Weir		Supply Channel		Measuring Devices		Model section		Total Amt in Lakhs
				Reconstn		Repair		Repair								
		Length	Amt	Nos	Amt	Nos	Amt	Nos	Amt	length	Amt	Nos	Amt	Nos	Amt	
1	Kadukkoi kulam	1525	10.72	2	6.07			1	0.18			3	0.28	3	0.89	18.14
2	Andukondan	1427	10.39	2	6.07							3	0.28	2	0.76	17.50
3	Pannaikudi				3.85							2	0.18			4.03
4	Esali	1290	9.6	1	3.85	2	0.9	1	1.20			3	0.28	2	0.85	16.68
5	Sottamuri	1558	9.75	3	9.38			1	0.06			4	0.37	2	0.76	20.32
6	Theeyanur	2743	20.03	4	12.16							5	0.46	4	1.49	34.14
7	Ulakudi Big & Small		0.74									6	0.55			1.29
8	Manoor	2379	15.59	3	9.55			1	0.22	4500	6.56	6	0.55	4	1.85	34.32
9	Athithanendal		0.74	4	11.34							8	0.74			12.82
10	Narikudi	3200	19.05			2	1.28					3	0.28	4	1.49	22.10
11	N. Mukkulam	2560	16.9	1	3.37	1	0.64	1	0.61			4	0.37	5	1.83	23.72
12	Virakudi	1829	12.28	3	8.58							6	0.55	3	1.84	23.25
13	Maraiyur	2820	17.32			1	0.64			8100	13.5	2	0.18	5	2.1	33.74

14	Mayaleri	2400	15.34	1	3.21	1	0.64					2	0.18	4	1.63	21.00
15	Sethurayanendal	1372	10.26	2	5.79							3	0.28	2	0.76	17.09
16	Varisaiyur	3210	23.56	6	17.5			1	0.12	3120	3.96	7	0.64	6	2.39	48.17
17	Vilakkuseri	1411	8.77	3	8.46							3	0.28	2	0.7	18.21
18	Sammanendal	2286	15.06	4	12.1							4	0.37	4	1.45	28.98
19	Melaparithiyur	3110	22.43	5	15.32			1	1.8			7	0.64	6	2.15	42.34
20	Veeracholan	4250	28.22			1	0.65	1	0.12	1500	2.59	3	0.28	4	1.55	33.41
	Total	**39370**	**266.75**	**44**	**136.60**	**8**	**4.75**	**8**	**4.31**	**17220**	**26.61**	**84**	**7.73**	**62**	**24.49**	**471.24**
															Total	**471.24**
II	ANICUTS															
	Abiramam anicut								RMC	7280						
									LMC	8745	13.97					13.97
	Nallukurichi anicut							1	18							17.95
																503.16
																503.16

Name of work: Rehabilitation of system tanks under Girudhumal Sub Basin in Madurai South taluk in Madurai district andd Thiruchuly Taluk in Virudhunagar District.

Package -VIII

COMPONENT WISE ABSTRACT

(Amt in Lakhs)

Sl No	Name of Tank	Tank bund		Sluice				Supply Channel		Measuring Devices		Total Amt in Lakhs
				Reconstn		Repair						
		Length	Amt	Nos	Amt	Nos	Amt	length	Amt	Nos	Amt	
1	kurunchakulam	2408	15.88	5	12.23					5	0.75	28.86
2	Keelaparithiyur	3360	21.51	5	12.34			2610	4.57	5	0.75	39.17
3	Pulavarvelankudi	1600	0.32	2	4.89					5	0.75	5.96
4	Srikulam sembilankudi	2621	17.36							2	0.3	17.66
5	Thaduthalankottai	3900	22.68	1	2.56					4	0.6	25.84
	Total	**13889**	**77.75**	**13**	**32.02**	**0**	**0**	**2610**	**4.57**	**21**	**3.15**	**117.49**
	L.s.Provisions											
											Total	**117.49**

Name of work: Rehabilitation of system tanks under Girudhumal Sub Basin in Madurai South taluk in Madurai district andd Thiruchuly Taluk in Virudhunagar District.

Package -IX

COMPONENT WISE ABSTRACT

(Amt in Lakhs)

Sl No	Name of Tank	Tank bund		Sluice				Weir				Shutter				Supply Channel		Measuring Devices		Total Amt in Lakhs
				Reconstn		Repair		Reconstn		Repair		Tank Sluice		Anicut Sluice						
		Length	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Nos	Amt	Length	Amt	Nos	Amt	
1	T.Punavachal	1800	12.28	1	3.7							4	1.20			1900	5.14	4	0.38	22.70
2	Abiramam	5547	43.88			5	3.52					5	1.50			7330	5.12	5	0.48	54.50
3	Achankulam	2100	18.92			4	1.85					4	1.20					4	0.38	22.35
4	T.kallikulam	2170	8.38	1	2.18							1	0.30					1	0.10	10.96
5	A.Tharaikudi	3600	31.18			5	0.88					5	1.50					5	0.48	34.04
6	Nagaratharkurichi	2320	19.96	1	2.25							2	0.60					2	0.19	23.00
7	Papparam	1765	11.6									2	0.60					2	0.19	12.39
	Abiram Anicut		148.47											6	5					153.46
	Total	**19302**	**294.67**	**3**	**8.13**	**14**	**6.25**	**0**	**0**	**0**	**0**	**23**	**6.9**	**6**	**5**	**9230**	**10.26**	**23**	**2.20**	**333.40**
	L.s.Provisions																			
																			Total	**333.40**

TANK DETAILS WITH FREE BOARD PROVIDED					
NAME OF THE SUB BASIN: GRIDHUMAL SUB BASIN					
Sl. No	**Name of the Tank**	**Maximum Height of Bund**	**Free Board**		**Length of Bund(M)**
			Provided previously	**Provided now**	
1	2	3	4	5	6
	MADURAI DISTRICT				
1	Pudukulam	4.10	0.30	1.50	960
2	Thenkal	7.22	0.60	1.50	1300
3	Kurukattan	4.16	0.60	1.50	1054
4	Ariyankulam	2.87	0.45	1.50	1017
5	Seventhikulam	3.80	0.45	1.50	957
6	Melanedungulam	3.30	0.60	1.50	830
7	Perungudi	5.05	0.60	1.50	1981
12	Ayavettan	4.960	1.350	1.500	2250
13	Ayanpappakudi	5.165	1.000	1.500	1525
15	Pudukkulam	3.320	1.000	1.500	972
16	Thuliapatti	3.275	0.910	1.500	1450
	SIVGANGAI DISTRICT				
18	Sottathatty	4.05	0.91	1.50	2438
19	Kondagai tank	6.10	0.92	1.50	5640
20	Manalur tank	5.79	1.37	1.50	2377
21	Kalukarkadai tank	4.11	0.86	1.50	1980
22	Thiruppuvanam tank	7.16	0.92	1.50	4175
23	Vaviyarendal	2.18	1.00	1.25	2040
24	Piramanur tank	4.78	1.00	1.50	5400
25	Thavalaikulam	3.32	1.00	1.50	1500
26	Parayankulam	3.37	1.00	1.50	1006
27	Alangulam	4.04	1.00	1.50	1410
28	Muthuvanthidal	4.05	1.00	1.50	1768
29	Kothankulam tank	3.94	1.00	1.50	2042
30	T.Velankulam	3.13	1.00	1.50	1341
31	Thalikulam	2.94	1.00	1.25	2043

32	Melasorikulam tank	3.89	1.00	1.50	1783
33	Achankulam	3.71	1.00	1.50	3720
34	Anaikualm tank	4.35	1.00	1.50	2195
35	Keelasorikulam tank	4.89	1.00	1.50	2820
36	Pitchaipillaiyendal tank	4.10	1.00	1.50	1440
37	Maranadu tank	7.64	1.37	1.50	5756
38	Palayanur	4.51	1.00	1.50	5730
39	Saluppanodai	4.30	1.00	1.50	960
40	Melakarisalkulam tank	4.52	0.92	1.50	3450
41	Keelakarisalkulam tank	3.03	0.90	1.50	2797
42	Pottapalayam tank	3.58	1.00	1.50	2840
43	Puliyur	4.14	0.76	1.50	2591
44	Kaluvankulam tank	4.05	1.00	1.50	2042
45	Meenakshipuram tank	4.31	0.91	1.50	2377
46	Melavellur tank	4.57	0.90	1.50	2834
47	Keelavellur tank	3.93	0.90	1.50	2600
48	Karunkalakudi tank	3.20	0.92	1.50	2195
49	Thavatharendal tank	2.13	0.90	1.50	2987
50	Ambalathadi tank	4.50	1.00	1.50	3960
51	Mangudi tank	3.58	0.90	1.50	2995
52	Rangiyam tank	5.34	1.19	1.50	6705
53	Chokkanathiruppu tank	3.65	1.00	1.50	2680
54	Sambakulam	3.32	1.00	1.50	1500
55	Visvampettai	3.20	0.90	1.50	1260
56	Puliyankulam tank	3.74	1.00	1.50	3120
57	Sankankulam tank	6.90	1.00	1.50	4230
58	Vallarendal tank	1.71	1.00	1.50	1375
59	Veeranendal tank	3.74	1	1.5	1325
60	Nadukkanendhal	2.72	0.60	1.50	2896
61	Pulavacheri	3.60	1.00	1.50	2824
62	Odathur Tank	4.59	1.52	1.5	2440
63	S.Vagaikulam Tank	2.5	1.01	1.25	2408

	VIRUDHUNAGAR DISTRICT				
64	Karuvakkudi	2.410	1.00	1.25	2340
65	S. Nangoor	3.630	1.00	1.50	1830
66	Poombidagai	3.440	1.00	1.50	2836
67	Thamarai kulam	4.350	1.00	1.50	2165
68	Thatchanendal	3.580	1.00	1.50	1586
69	Alathur	4.200	1.00	1.50	2196
70	Thiruvidai Nallur	3.590	1.00	1.50	2150
71	Rettai kulam	2.700	1.00	1.50	2227
72	Senthanadhi	3.440	1.00	1.50	1983
73	Eluvani	4.580	1.00	1.50	1922
74	Mugavoor	5.355	1.00	1.50	3416
75	P. Vagaikulam	4.320	1.00	1.50	2074
76	Vilakkanendal	3.385	1.00	1.50	1400
77	Kundukulam	3.480	1.00	1.50	2374
78	Alagapuri	3.430	1.00	1.50	3060
79	Siruvanur	3.900	1.00	1.50	1983
80	Kattanoor	5.700	1.00	1.50	6220
81	Seeniyendal	3.475	1.00	1.50	1373
82	Naloor	4.010	1.00	1.50	2867
83	Irunchirai	4.000	1.00	1.50	5121
84	Karumanendal	3.430	1.00	1.50	1830
85	Kadukkoi kulam	3.650	1.00	1.50	1525
86	Andukondan	3.470	1.00	1.50	1427
87	Pannaikudi	3.700	1.00	1.50	400
88	Esali	4.545	1.00	1.50	1290
89	Sottamuri	3.600	1.00	1.50	1558
90	Theeyanur	3.720	1.00	1.50	2743
92	Manoor	3.635	1.00	1.50	2379
93	Athithanendal	3.395	1.00	1.50	2440
94	Narikudi	3.78	1.00	1.50	3200
95	N. Mukkulam	3.60	1.00	1.50	2560

96	Virakudi	3.60	1.00	1.50	1829
97	Maraiyur	4.58	1.00	1.50	2820
98	Mayaleri	4.49	1.00	1.50	2400
99	Sethurayanendal	3.75	1.00	1.50	1372
100	Varisaiyur	3.95	1.00	1.50	3210
101	Vilakkuseri	3.10	1.00	1.50	1411
102	Sammanendal	3.40	1.00	1.50	2286
103	Melaparithiyur	3.30	1.00	1.50	3100
104	Veeracholan	4.18	1.00	1.50	4250
	RAMANATHAPURAM DISTRICT				
105	Keelaparuthiyur Kanmoi	3.20	1.00	1.50	3360
107	Kurunjakulam Kanmoi	3.50	1.00	1.50	2408
108	Sirukulam sembilankudi tank	3.30	1.00	1.50	2621
109	Thadathankudi Kanmoi	3.50	1.00	1.50	3900
110	T.Punavasal	3.73	0.60	1.50	1800
111	Abiramam	4.41	1.00	1.50	5547
112	Achangulam	3.33	0.60	1.50	2100
113	T. Kallikulam	2.80	0.60	1.25	1800
114	A.Tharaikudi	3.50	0.60	1.50	3600
115	Nagaratharkurichi	3.13	0.60	1.50	2320
116	Pappanam	2.72	0.60	1.25	1765
	NOTE:				
	1. For height of bund up to 3.00m - Free board is 1.25m				
	2. For height of bund More than 3.00m - Free board is 1.50m				

1.6.6. WRO cost table				
NAME OF THE SUB BASIN: - GIRUDHUMAL.				
S. No	**DESCRIPTION OF WORK**	**QUANTITY**	**AMOUNT IN LAKHS**	**REMARKS**
I TANK COMPONENT				
1	Improvements to tank bund	259.01 KM	1838.23	
2	Improvements to supply channel	93.89 Km	363.87	
3	Improvements to sluice - Repair - 125Nos. – 120.09	317	823.57	
	Reconstruction - 192 Nos. – 703.48			
4	Improvements to weir - Repair - 26 Nos. – 48.37	47	212.52	
	Reconstruction - 21Nos. – 164.15			
5	Improvements to Head Sluice	7	172.37	
6	Improvements to anicut	7	338.55	
	Improvements to Groyne wall	1	99.29	
7	Improvements to CD works	1	1.79	
	Sub Total		3850.19	
	L S PROVISIONS :-			
	TOTAL		3850.19	
	Environment cell		34.30	
	Ground water		Nil	
	Total		3884.49	

1.6.4. PHYSICAL AND FINANCIAL PROGRAM

NAME OF THE SUB BASIN: GRIDHUMAL

(Amount in lakhs)

Sl. No	Description	I Year(2009-2010)		II Year(2010-2011)		Total	
		Quantity	Amount in Lakhs	Quantity	Amount in Lakhs	Quantity (Component Wise)	Amount in Lakhs
1	Improvements to Bund	100 Km	694.00	159.01Km	1139.55	259.01	1833.55
2	Improvements to Supply Channel	20 Km	77.50	73.87Km	286.35	93.87 Km	363.85
3	Improvements to Sluice	50	128.00	267	695.57	317	823.57
4	Improvements to Weir	30	150.00	17	62.52	47	212.52
5	Dividing Dam and Head Sluice	0	0.00	7	172.37	7	172.37
6	Improvements to anicut	4	200.50	3	138.07	7	338.57
	Improvements to Groyne wall	0	0.00	150 m	99.29	150 m	99.29
7	Improvements to CD works	0	0.00	1	1.79	1	6.47
	Total		**1250.00**		**2600.19**		**3850.19**

1.6. ABSTRACT FOR ALL PACKAGES

NAME OF THE SUB BASIN :-
GIRUDHUMAL.

S. No	NAME OF TANK / ANICUT	Package - I	Package - II	Package - III	Package - IV	Package - V	Package - VI	Package - VII	Package - VIII	Package - IX	Total
1	Rehabilitation of System and Non system tanks and its supply channels covered under Girudhumal Sub Basin	88.66	761.54	469.75	557.69	459.41	559.09	503.16	117.49	333.40	3850.19

GIRUDHUMAL SUB BASIN

Name of work: Rehabilation of Anicuts,Non-System tanks and its supply channel under Gridhumal sub basin in Madurai south taluk in Madurai Dist

Package No: 01/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	Pudukulam	**14.46**	3	0.43	**14.89**
2	Thenkal	**9.01**	2	0.28	**9.29**
3	Seventhikulam	**10.84**	2	0.28	**11.12**
4	Aryan kulam	**10.42**	3	0.44	**10.86**
5	Kurukattan	**8.81**	4	0.59	**9.40**
6	Melanedunkulam	**8.08**	2	0.29	**8.37**
7	Perungudi	**24.44**	2	0.29	**24.73**
	Sub Total	**86.06**	**18**	**2.6**	**88.66**
	Total				**88.66**

GIRUDHUMAL SUB BASIN

Name of work: Modernisation of System and Non-System tanks and its supply channel under Gridhumal sub basin in Manaadurai taluk in Sivagangai Dist-Part-I

Package No: 02/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	Viradhanur	24.77	3	0.29	25.06
2	Ayavettan	19.98	1	0.10	20.08
3	Ayanpappakudi	28.91	2	0.19	29.10
4	Samanatham	21.40	4	0.38	21.78
5	Pudukkulam	10.40	1	0.10	10.50
6	Thuliapatti	16.68	2	0.19	16.87
7	Nedunkulam	15.02	2	0.19	15.21
8	Karuvakkudi	25.62	2	0.19	25.81
9	S. Nangoor	29.71	3	0.29	30.00
10	Poombidagai	30.25	3	0.29	30.54
11	Thamarai kulam	31.85	6	0.57	32.42
12	Thatchanendal	28.47	3	0.29	28.76
13	Alathur	25.93	2	0.19	26.12
14	Thiruvidai Nallur	17.89	3	0.29	18.18
15	Rettai kulam	22.76	5	0.48	23.24
16	Senthanadhi	26.09	4	0.38	26.47
17	Eluvani	17.79	4	0.38	18.17

18	Mugavoor	**38.57**	5	0.48	**39.05**
19	P. Vagaikulam	**18.65**	4	0.38	**19.03**
20	Vilakkanendal	**15.25**	3	0.29	**15.54**
21	Kundukulam	**3.44**	3	0.29	**3.73**
22	Alagapuri	**21.21**	5	0.48	**21.69**
23	Siruvanur	**31.59**	4	0.38	**31.97**
24	Kattanoor	**2.70**	9	0.86	**3.56**
25	Seeniyendal	**23.56**	5	0.48	**24.04**
26	Naloor	**13.93**	6	0.57	**14.50**
27	Irunchirai	**13.54**	6	0.57	**14.11**
28	Karumanendal	**24.58**	2	0.19	**24.77**
	Odathur Anicut				**41.92**
	Ambalathadi Anicut				**82.06**
	Katttanur Anicut				**10.45**
	Nattandi Odai				**16.88**
	Sub Total	**600.54**		**9.69**	**761.54**
	Total				**761.54**

GIRUDHUMAL SUB BASIN

Name of work: Modernisation of System and Non-System tanks and its supply channel under Gridhumal sub basin in Manaadurai taluk in Sivagangai Dist-Part-I

Package No: 03/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	Konthagai	109.29	4	0.6	109.89
2	Manalur	55.62	3	0.45	56.07
3	Kalukarkadai	58.70	3	0.45	59.15
4	Sottathatti	25.61	2	0.3	25.91
5	Melavellur	28.14			28.14
6	Keelakarisalkulam	41.30	4	0.6	41.90
7	Kaluvankulam	28.88	4	0.6	29.48
8	Meenakshipuram	23.70			23.70
9	Pottapalayam	31.59	2	0.3	31.89
10	Puliyur	21.61			21.61
11	Melakarisalkulam	41.56	3	0.45	42.01
	Sub Total	**466.00**		**3.75**	**469.75**
	Total				**469.75**

GIRUDHUMAL SUB BASIN

Name of work: Modernisation of System and Non-System tanks and its supply channel under Gridhumal sub basin in Manaadurai taluk in Sivagangai Dist-Part-II

Package No: 04/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	Tirupuvanam	118.28	4	0.57	118.85
2	Thavalaikulam	19.38	4	0.58	19.96
3	Vavirendal	22.91	4	0.57	23.48
4	Ambalathadi	91.52	3	0.43	91.95
5	Chokkanathiruppu	28.39	3	0.44	28.83
6	Keelavellur	31.52	3	0.43	31.95
7	Mangudi	34.88	3	0.43	35.31
8	Thavatherendal	27.94	8	1.15	29.09
9	Karunkalagudi	23.25	5	0.72	23.97
10	Puliyankulam	33.44	5	0.73	34.17
11	Sambakulam	19.85	3	0.44	20.29
12	Visvampettai	15.95	2	0.29	16.24
13	Rangiyam	82.74	6	0.86	83.60
	Sub Total	**550.05**		**7.64**	**557.69**
	Total				**557.69**

GIRUDHUMAL SUB BASIN

Name of work: Rehabilation of System and Non-System tanks and its supply channel under Gridhumal sub basin in Manamadurai taluk in Sivagangai Dist

Package No: 05/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	Piramanur	101.90	6	0.89	102.79
2	Sankan Kulam	44.00	4	0.60	44.60
3	Parayan Kulam	13.15	3	0.45	13.60
4	Anai Kulam	25.49	1	0.15	25.64
5	Achan Kulam	71.92	4	0.60	72.52
6	Palayanur	94.81	7	1.05	95.86
7	S.Vagai Kulam	34.09	5	0.75	34.84
8	Vallarendal	23.37	3	0.45	23.82
9	Veeranendal	20.50	4	0.60	21.10
10	Odathur	24.34	2	0.30	24.64
	Sub Total	453.57		5.84	459.41
	Total				459.41

GIRUDHUMAL SUB BASIN

Name of work: Modernisation of System and Non-System tanks and its supply channel under Gridhumal sub basin in Manaadurai taluk in Sivagangai Dist-Part-IV

Package No: 06/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	Maranadu	221.71	4	0.38	222.09
2	Pichaipillaiyendal	13.92	3	0.285	14.20
3	Saluppanodai	11.87	3	0.285	12.15
4	Velankulam	13.01	4	0.38	13.39
5	Nadukkanendal	29.40	3	0.285	29.68
6	Pulavacheri	19.08	4	0.38	19.46
7	Thalikulam	32.80	3	0.285	33.08
8	Alankulam	50.97	4	0.38	51.35
9	Muthuvanthidal	39.02	2	0.19	39.21
10	Melasorikulam	54.42	3	0.285	54.70
11	Keelasorikulam	35.09	3	0.285	35.37
12	kothankulam	34.03	4	0.38	34.41
	Sub Total	**555.29**		**3.80**	**559.09**
	Total				**559.09**

GIRUDHUMAL SUB BASIN

Name of work: Modernisation of System and Non-System tanks and its supply channel under Gridhumal sub basin in Manaadurai taluk in Sivagangai Dist-Part-IV

Package No: 07/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	Kadukkoi kulam	**17.864**	3	0.28	**18.14**
2	Andukondan	**17.224**	3	0.28	**17.50**
3	Pannaikudi	**3.846**	2	0.18	**4.03**
4	Esali	**16.394**	3	0.28	**16.67**
5	Sottamuri	**19.942**	4	0.37	**20.31**
6	Theeyanur	**33.69**	5	0.46	**34.15**
7	Ulakudi Big & Small	**0.748**	6	0.55	**1.30**
8	Manoor	**33.80**	6	0.55	**34.35**
9	Athithanendal	**12.084**	8	0.74	**12.82**
10	Narikudi	**21.824**	3	0.28	**22.10**
11	N. Mukkulam	**23.342**	4	0.37	**23.71**
12	Virakudi	**22.698**	6	0.55	**23.25**
13	Maraiyur	**33.556**	2	0.18	**33.74**
14	Mayaleri	**20.816**	2	0.18	**21.00**
15	Sethurayanendal	**16.804**	3	0.28	**17.08**
16	Varisaiyur	**47.526**	7	0.64	**48.17**

17	Vilakkuseri	**17.914**	3	0.28	**18.19**
18	Sammanendal	**28.612**	4	0.37	**28.98**
19	Melaparithiyur	**41.706**	7	0.64	**42.35**
20	Veeracholan	**33.124**	3	0.28	**33.40**
21	Athikulam anicut & Supply Channnel				**13.97**
22	Nallukurichi Anicut				**17.95**
	Total	**286.10**	**84**	**7.73**	**503.16**

GIRUDHUMAL SUB BASIN

Name of work: Modernisation of Non-System tanks and its supply channel under Gridhumal sub basin in Paramakudi taluk in Ramnad Dist

Package No: 08/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	kurunchakulam	28.11	5	0.75	28.86
2	Keelaparithiyur	38.42	5	0.75	39.17
3	Pulavarvelankudi	5.21	5	0.75	5.96
4	Srikulam sembilankudi	17.36	2	0.3	17.66
5	Thaduthalankottai	25.24	4	0.6	25.84
	Sub Total	**114.34**	**21**	**3.15**	**117.49**
	Total				**117.49**

GIRUDHUMAL SUB BASIN

Name of work: Modernisation of Non-System tanks and its supply channel under Gridhumal sub basin in Paramakudi taluk in Ramnad Dist

Package No: 08/IAMWARM/WRD/GML/Works/III/2009-2010

GENERAL ABSTRACT

Sl No	Name of Tank	Amount in Lakhs	Measurinng Devices		Estimate Amount in Lakhs
			Nos	Amount in Lakhs	
1	T.Punavachal	22.31	4	0.38	22.69
2	Abiramam	54.02	5	0.48	54.5
3	Achankulam	21.97	4	0.38	22.35
4	T.kallikulam	10.86	1	0.1	10.96
5	A.Tharaikudi	33.56	5	0.48	34.04
6	Nagaratharkurichi	22.82	2	0.19	23.01
7	Papparam	12.19	2	0.19	12.38
8	Abiram Anicut	153.47			153.47
	Sub Total	331.20	23	2.20	333.40
	Total				333.40

1.6.7.PACKAGE I
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GRIDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)			192 m^3 /Day	
For 1 month (20 Working days)		20 x 192 m^3	3840 m^3/ month	
Total quantity of earth work		128600 m^3		
Working period for earth work		6months + 3 Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 6 nos				
2. Tippers / Lorries - 24 nos				
3. Power roller - 3 nos				
4. Vibrated compactor - 1 nos				
5. Water lorries - 3 nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		1126 m3		
Mixer machine required		**4 No.** for 12 days / month -- 4 months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		240 MT		
Lorry required for conveyence		240/10		24 Lorries
Total quantity of sand		502 m^3		
Lorry required for conveyence		502/11.32		45 Lorries
Total quantity of metal		1086m^3		
Lorry required for conveyence		1086/16.8		65 Lorries
Total quantity of stone				
Lorry required for conveyence				134
Tipper / Lorries for conveyance of materials		**4 Nos** for 10 days for 4 months		

1.6.7.PACKAGE II
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GRIDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)				192 m^3 /Day
For 1 month (20 Working days)		20 x 192 m^3		3840 m^3/ month
Total quantity of earth work		1067900 m^3		
Working period for earth work		18 months + 6 Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 17 nos				
2. Tippers / Lorries - 68 nos				
3. Power roller - 17 nos				
4. Vibrated compactor - 17 nos				
5. Water lorries - 17 nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		10320 m3		
Mixer machine required		**5 Nos.** for 12 days / month -- 18 months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		2560 MT		
Lorry required for conveyence		2560/10		256 Lorries
Total quantity of sand		5410 m^3		
Lorry required for conveyence		5410/11.32		478 Lorries
Total quantity of metal		9290 m^3		
Lorry required for conveyence		9290/16.8		553 Lorries
Total quantity of stone		2475 m^3		
Lorry required for conveyence		2475/16.80		148 Lorries
Total Nos of Lorries required				1435 Lorries
Tipper / Lorries for conveyance of materials		**9Nos** for 10 days for 18months		

1.6.7.PACKAGE III
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GIRUDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)			192 m^3 /Day	
For 1 month (20 Working days)		20 x 192 m^3	3840 m^3/ month	
Total quantity of earth work		550121 m^3		
Working period for earth work		12months + 6 Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 12 Nos				
2. Tippers / Lorries - 48 Nos				
3. Power roller - 5 Nos				
4. Vibrated compactor - 2 Nos				
5. Water lorries - 5 Nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		6708 m3		
Mixer machine required		**5 Nos** for 12 days / month -- 10 months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		1449 MT		
Lorry required for conveyence		1449/10		145 Lorries
Total quantity of sand		3019 m^3		
Lorry required for conveyence		3019/11.32		267 Lorries
Total quantity of metal		6037 m^3		
Lorry required for conveyence		6037/16.8		360 Lorries
Total quantity of stone		269		
Lorry required for conveyence		269/16.80		16 Lorries
Total Nos of Lorries required				788 Lorries
Tipper / Lorries for conveyance of materials		**9 Nos** for 10 days for 9 months		

1.6.7.PACKAGE IV

Calculation of machineries Requirement

NAME OF THE SUB BASIN: GIRUDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)			192 m^3 /Day	
For 1 month (20 Working days)		20 x 192 m^3	3840 m^3/ month	
Total quantity of earth work		485239 m^3		
Working period for earth work		12 months + 6 Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 11 Nos				
2. Tippers / Lorries - 44 Nos				
3. Power roller - 5 Nos				
4. Vibrated compactor - 2 Nos				
5. Water lorries - 5 Nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		7846m3		
Mixer machine required		**6 Nos** for 12 days / month -- 10 months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		1708MT		
Lorry required for conveyence		1708/10		171Lorries
Total quantity of sand		3530 m^3		
Lorry required for conveyence		3530/11.32		312Lorries
Total quantity of metal		7060 m^3		
Lorry required for conveyence		7060/16.8		420 Lorries
Total quantity of stone				
Lorry required for conveyence				903
Tipper / Lorries for conveyance of materials		**11 Nos** for 10 days for 9months		

1.6.7.PACKAGE V
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GIRUDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)				192 m^3 /Day
For 1 month (20 Working days)		20 x 192 m^3		3840 m^3/ month
Total quantity of earth work		601550 m^3		
Working period for earth work		12 months + 6Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 13 Nos				
2. Tippers / Lorries - 52 Nos				
3. Power roller - 2 Nos				
4. Vibrated compactor - 1Nos				
5. Water lorries - 2 Nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		4778 m3		
Mixer machine required		**4Nos** for 12 days / month -- 10 months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		1084 MT		
Lorry required for conveyence		1084/10		108 Lorries
Total quantity of sand		2150 m^3		
Lorry required for conveyence		2150/11.32		190Lorries
Total quantity of metal		7336 m^3		
Lorry required for conveyence		7336 / 16.8		265 Lorries
Total quantity of stone		900 m^3		
Lorry required for conveyence		900/16.80		54 Lorries
Total Lorry required for conveyence				608 Lorries
Tipper / Lorries for conveyance of materials		**7Nos** for 10 days for10 months		

1.6.7.PACKAGE VI
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GIRUDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)			192 m^3 /Day	
For 1 month (20 Working days)		20 x 192 m^3	3840 m^3/ month	
Total quantity of earth work		565031 m^3		
Working period for earth work		12 months + 6 Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 13 Nos				
2. Tippers / Lorries - 52 Nos				
3. Power roller - 5Nos				
4. Vibrated compactor - 2 Nos				
5. Water lorries - 5 Nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		7317 m3		
Mixer machine required		**5 Nos** for 12 days / month --10months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		1780MT		
Lorry required for conveyence		1780/10		178 Lorries
Total quantity of sand		3293 m^3		
Lorry required for conveyence		3293/11.32		291 Lorries
Total quantity of metal		6586 m^3		
Lorry required for conveyence		6586/16.8		392Lorries
Total quantity of stone		8000 m^3		
Lorry required for conveyence		8000/16.80		477
TotalLorry required for conveyence				1338 Lorries
Tipper / Lorries for conveyance of materials		**12 Nos** for 10 days for 12months		

1.6.7.PACKAGE VII
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GRIDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)			192 m^3 /Day	
For 1 month (20 Working days)		20 x 192 m^3	3840 m^3/ month	
Total quantity of earth work		810750 m^3		
Working period for earth work		12 months + 6Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 18 nos				
2. Tippers / Lorries - 72 nos				
3. Power roller - 18 nos				
4. Vibrated compactor - 18 nos				
5. Water lorries - 18 nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		5060 m3		
Mixer machine required		**6 Nos** for 12 days / month -- 12 months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		1120MT		
Lorry required for conveyence		1120/10		112Lorries
Total quantity of sand		2080 m^3		
Lorry required for conveyence		2080/11.32		202 Lorries
Total quantity of metal		4970 m^3		
Lorry required for conveyence		4970/16.8		296 Lorries
Total quantity of stone		955 m^3		
Lorry required for conveyence		955/16.80		57 Lorries
Total Lorry required for conveyence				**667 Lorries**
Tipper / Lorries for conveyance of materials		**6 Nos** for 10 days for 12 months		

1.6.7.PACKAGE VIII
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GRIDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)			192 m^3 /Day	
For 1 month (20 Working days)		20 x 192 m^3	3840 m^3/ month	
Total quantity of earth work		195810 m^3		
Working period for earth work		9months + 3 Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 6 nos				
2. Tippers / Lorries - 24 nos				
3. Power roller - 3 nos				
4. Vibrated compactor - 1 nos				
5. Water lorries - 3 nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		1129m^3		
Mixer machine required		**2 Nos** for 12 days / month -- **6** months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		225 MT		
Lorry required for conveyence		225/10		23Lorries
Total quantity of sand		505 m^3		
Lorry required for conveyence		505/11.32		45 Lorries
Total quantity of metal		1013 m^3		
Lorry required for conveyence		1013/16.8		61Lorries
Total quantity of stone				
Total Lorry required for conveyence				129 Lorries
Tipper / Lorries for conveyance of materials		**3 Nos** for 10 days for 6 months		

1.6.7.PACKAGE IX
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GRIDHUMAL

Hydraulic excavator & 4 Tippers/Lorries		6 Hours / Day		
(4 No x 2 loads/ hour x 6 Hr x 4 m^3/ trip)			192 m^3 /Day	
For 1 month (20 Working days)		20 x 192 m^3	3840 m^3/ month	
Total quantity of earth work		379700 m^3		
Working period for earth work		12months + 6 Months rainy season		
Machineries required for earth work:				
1. Hydraulic excavator - 9nos				
2. Tippers / Lorries - 36nos				
3. Power roller - 9 nos				
4. Vibrated compactor - 9 nos				
5. Water lorries - 9 nos				
Mixer machine	2 m^3 / hour	For 6 hours / day		12 m^3 / day
Total quantity of concrete		3420 m^3		
Mixer machine required		**3 Nos** for 12 days / month – **10** months		
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m^3 / Trip	2 trips / day		11.32m^3 /day
Metal / stone	5.60 m^3 / Trip	3 trips / day		16.80 m^3 /day
Total quantity of cement		820 MT		
Lorry required for conveyence		820 /10		82 Lorries
Total quantity of sand		1540 m^3		
Lorry required for conveyence		1540/11.32		136 Lorries
Total quantity of metal		3080 m^3		
Lorry required for conveyence		3080 /16.8		183 Lorries
Total quantity of stone				
Total Lorry required for conveyence				401 Lorries
Tipper / Lorries for conveyance of materials		**4Nos** for 10 days for 10 months		

1.6.8.REQUIREMENT OF EQUIPMENTS AND MATERIALS

NAME OF THE SUB BASIN:Gridhumal

PACKAGE NUMBER	EQUIPMENTS REQUIRED IN NUMBERS							MATERIAL REQUIRED						
	HYDRAULIC EXCAVATOR	POWER ROLLER	VIBRATED COMPACTOR	TIPPER / LORRY	WATER LORRY	CONCRETE MIXER MACHINE	CONCRETE VIBRATOR	CEMENT IN M.T.	SAND IN m^3	STEEL IN M.T.	METAL 40MM IN m^3	METAL 20MM IN m^3	RR IN m^3	FUEL
Package I	6	3	1	24	3	4	4	240	502	5	652	435	140	--
Package II	17	17	17	68	17	5	5	2560	5410	30	5574	3716		
Package III	12	5	2	48	5	5	5	1449	3019	12	4700	2008	269	
Package IV	11	5	2	44	5	6	6	1708	3530	13	4900	3160		
Package V	13	2	1	52	2	4	4	1084	2150	12	2890	1410	900	
Package VI	13	5	2	52	5	5	5	1780	3293	15	4611	1975	8020	
Package VII	18	18	18	72	18	6	6	1120	2080	10	3500	1470	955	
Package VIII	6	3	1	24	3	2	2	225	505	5	700	313	150	
Package IX	9	9	9	36	9	3	3	820	1540	7	2100	980	250	

NAME OF THE SUB BASIN: Gridhumal **PACKAGE I**

Sl No	Description of Item	Working Months												Total
		4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	
	Earth work excavation							**Rainy season**						
1	Bund	11000	11000	11000	11000	11000	11000				11000	11000	8100	96100
2	Channel	3600	3600	3600	3600	3600	3600				3700	3600	3600	32500
3	Foundation		150	150	150	150	250				150	126		1126
	Concrete													
4	M 7.5 grade		30	30	30	50	53				20	30		243
5	M 10 grade			100	100	100	100				100	100	132	732
6	M 15 grade				15	15	25				25	25	33	138
7	M 20 grade					3	3				2	2	2.5	
8	Random rubble masonry				40.50	50	50							

PACKAGE II
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: Gridhumal

Name of Work:Rehabilitation of system tanks under Gridhumal sub basin in Madurai South Taluk in Madurai District and Thiruchulytaluk in Virudhunagar district.

Sl No	Description of Item	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12	4/12	Total
	Earth work excavation						**Rainy season**												**Rainy season**							
1	Bund	30000	40000	40000	40000	40000				40000	40000	40000	40000	40000	40000	40000	40000	40000				40000	40300	25000	25000	680300
2	Channel	13000	25500	25500	25500	25500				25500	25500	25500	25500	25500	25500	25500	25500	12500				12500	12400	13000	13000	382400
3	Foundation	290	290	290	290	290				290	290	290	290	290	290	290	290	290				290	270	290	290	5200
	Concrete																									
4	M 7.5 grade	150	175	175	175	175				175	175	150	150	150	150	150	150	150				150	110	50	100	2660
5	M 10 grade	200	250	250	250	250				250	250	250	250	250	250	250	250	250				250	170	50	100	4020
6	M 15 grade	50	100	100	100	100				75	75	75	75	75	75	75	75	75				75	65	25	25	1315
7	M 20 grade				25	25				25	25	20	20	20	20	20	20	20				20	20	20	25	325
8	RR masonry				150	150				150	150	150	150	150	150	150	150	150				150	150	150	150	2250

PACKAGE III
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: Gridhumal

Sl No	Description of Item	Working Months																	Total
		3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	
	Earth work excavation								Rainy season											
1	Bund	44000	44000	44000	44000	44000		44000				34000	34000	34000	34000	34000	34000	24000	36921	528921
2	Channel		1500	1500	1500	1500		1500				1500	1500	1500	1700	1500	1500	1500	3000	21200
3	Foundation		400	400	400	400		400				200	200	200	200	348	400	400	200	4148
	Concrete																			0
4	M 7.5 grade		150	150	100	150		150				40	47	40	40	60	100	50	50	1127
5	M 10 grade		500	500	500	500		300				300	300	300	300	300	360	500	364	5024
6	M 15 grade				20							50	50	50	50			100	100	420
7	M 20 grade																	50	150	200
																				0

PACKAGE VI
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: Gridhumal

Sl No	Description of Item	Working Months																	Total
		3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	
	Earth work excavation								Raising season											
1	Bund	35000	35000	35000	55000	35000	35000	20000				40000	40000	20000	25000	15000	30000	34431	35000	489431
2	Channel	5400	5400	5400	5400	5400	5400	5400				5400	5400	5400	3000	3000	4800	5400	5400	75600
3	Foundation	2500	2500	2500	2500	2500	2500	2500				2500	2500	2144	1500	1000	1000			28144
	Concrete																			0
4	M 7.5 grade	25	85	85	85	85	40	40				85	85	85	85	67	50			902
5	M 10 grade		250	250	250	250		250				250	250	250	250	100	150	250	250	3000
6	M 15 grade		250	250	250	250	250	250				250	250	250	250	150	100	200	250	3200
7	M 20 grade												30	30	30	15	15	30	30	180
8	RR Masonry			1000	1000							1000	1000	1000	1000	500	500	500	500	8000

PACKAGE V
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: Gridhumal

Sl No	Description of Item	Working Months																	Total
		3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	
	Earth work excavation								Rainy season											
1	Bund	30000	30000	30000	30000	30000	30000	30000				30000	30000	30000	30000	30000	30000	30000	22000	442000
2	Channel	10000	10000	10000	10000	10000	10000	10000				10000	10000	10000	10000	10000	15000	14550	10000	159550
3	Foundation	985	985	985	985	700	700	482				500	500	500	500	500	500	500	500	9822
	Concrete																			0
4	M 7.5 grade	75	75	75	75	75	75	75				75	75	75	75	100	100	100	100	1225
5	M 10 grade	200	200	200	200	200	200	200				250	250	250	250	250	250	250	240	3390
6	M 15 grade											25	25	25	25	25	25	13		163
7	RR Masonry						160					80	80	80	80	80	40	40	178	818

PACKAGE VI
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: Gridhumal

Sl No	Description of Item	Working Months																	Total
		3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	
	Earth work excavation								Raising season											
1	Bund	35000	35000	35000	55000	35000	35000	20000				40000	40000	20000	25000	15000	30000	34431	35000	489431
2	Channel	5400	5400	5400	5400	5400	5400	5400				5400	5400	5400	3000	3000	4800	5400	5400	75600
3	Foundation	2500	2500	2500	2500	2500	2500	2500				2500	2500	2144	1500	1000	1000			28144
	Concrete																			0
4	M 7.5 grade	25	85	85	85	85	40	40				85	85	85	85	67	50			902
5	M 10 grade		250	250	250	250		250				250	250	250	250	100	150	250	250	3000
6	M 15 grade		250	250	250	250	250	250				250	250	250	250	150	100	200	250	3200
7	M 20 grade												30	30	30	15	15	30	30	180
8	RR Masonry			1000	1000							1000	1000	1000	1000	500	500	500	500	8000

PACKAGE VII
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: Gridhumal

Sl No	Description of Item	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	04/11	05/11	06/11	07/11	08/11	09/11	10/11	Total
	Earth work excavation						Rainy season												Rainy season	
1	Bund	9200	29200	39200	49200	49200				39200	49200	39200	39200	49200	39200	49200	49200	58400		588000
2	Channel	52667	10267	10267	10267	10267				10267	15267	10267	10267	15267	13267	13267	14534	10267		154000
3	Reconstrution works	467	467	2467	1467	1467				2467	1467	1467	1467	1467	1467	1467	2667	1734		22000
	Concrete																			
4	M 7.5 grade		100	150	100	150				100	100	100	100	100	100	100	200	100		1500
5	M 10 grade		103	209	103	103				103	103	103	103	103	103	103	103	206		1550
6	M 15 grade	70	70	70	70	70				70	70	70	70	70	70	70	105	105		1050
7	M 20 grade	27	27	27	27	27				27	27	27	27	27	27	36	36	36		400
8	Random rubble masonry	83	83	83	83	83				83	83	83	83	83	83	113	113	106		1250
9	Plastering	100	100	100	100	100				100	100	100	100	100	100	100	150	150		1500

1.6.9.Construction Methodology

NAME OF THE SUB BASIN: Gridhumal

Sl No	Description of Item	Working Months												Total
		5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	4/11	
	Earth work excavation						Rainy season							
1	Bund	19581	19581	19581	19581	19581				19581	19581		39161	195809
2	Channel	980	980	980	980	980				980		980	1960	9800
3	Foundation	43	43	43		43				43		43	86	430
	Concrete													
4	M 7.5 grade	33	33	33		33				33	49		98	326
5	M 10 grade			3531						1412		1412	706	7061
6	M 15 grade									4	4		4	16
7	M 20 grade	6	8	8		2				15	16	33	8	79
8	Random rubble masonry									33			33	132

PACKAGE IX
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: Gridhumal

Sl No	Description of Item	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	04/11	05/11	06/11	07/11	8/11	9/11	Total
	Earth work excavation						Rainy season													
1	Bund	16320	16320	32640	32640	32640	32640				22640	22640	32640	22640	22640	10000	10000	10000	10000	326400
2	Channel			7600	7600	7600	7600				7600	7600								45600
3	Reconstrution works		500	500	500	800	1000				500	500	500	500	400	300	600	600		7200
	Concrete																			
4	M 7.5 grade		20	20	40	20														100
5	M 10 grade			30	45	50	50													175
6	M 15 grade			200	250	350	400				400	200	300	400	200	125	250	150		3225
7	M 20 grade										100	100			100	55	125	75		555
8	Random rubble masonry										115	300	300	150	300	75	150	150	125	1665

1.7. ENVIRONMENTAL COMPONENT

Name of Work: Environmental Monitoring on water and soil quality and creating awareness & updating of "Environmental and Social Assessment report" for GIRUDHUMAL SUB BASIN.

Sl No	DETAILS	SHEET NO
1	Environmental Details Proforma	
2	List Of Water User Association	
3	Tanks Severely Affected by Weeds	(Annexure-I)
4	Sewage discharged into water bodies(Domestic sewage)	(Annexure-II)
5	Solid Waste into Water bodies	(Annexure- III)
6	List of Industries in the Sub basin	(Annexure –IV)
7	List of Ground water sampling point	(Annexure –V)
8	Result of Ground water quality	(Annexure - VI)
9	Estimate Report	
10	Detailed Estimate	
11	Abstract Estimate	
12	Baseline Data Proforma	
13	Sub Basin Map	

IAMWARM PROJECT

(ENVIRONMENT COMPONENT IN SUB BASINS)

Name of River Basin:	**Gundar river basin**
Name of Sub Basin:	**Girudhumal**
Name of WUA:	**Enclosed**
Name of Division:	**Gundar Basin Division, Madurai.** **Periyar Vaigai basin division, Madurai.** **Lower vaigai division, Paramakudi** **Saruguniar basin division, Sivagangai**
Name of Sub Division:	**Gundar basin sub Division, Thirumangalam.** **Periyar Vaigai basin sub division, Madurai.** **Gundar basin sub Division, Kariyapatti.** **Saruguniar basin sub division, Manamadurai.** **Gundar basin sub Division, Kamuthi.** **Lower vaigai sub division, Paramakudi.**
District:	**Virudhunagar ,Madurai,** **Sivagangai ,Ramanathapuram.**
Taluk:	**Madurai south, Manamadurai, Thiruchulli,** **Paramakudi, Kamuthi.**
Block:	**Thiruparankundram, Thiruppuvanam,** **Manamadurai, Narikudi, Paramakudi, Kamuthi .**
I. Name of the Tank Severly affected by Aquatic weeds	Annexure- I
II. Domestic Sewage:	Annexure –II
III.Municipal Solid Waste:	Annexure –III
III. Industreies:	Annexure –IV
IV. Water Quality Status:	
i. Surface water:	So for No water sampling points
II. Ground water:	Annexure –VI

ANNEXURE-1

GIRUDHUMAL SUB BASIN

WEEDS DETAILS

SI. No	Name of the village	Name of the tank	Block	Ayacut	Water weeds		
				In Ha.	ProsopisJuliflora(P.J)	Ipomea carnea	Water Hyacinth
1	Nedungulam	Nedungulam kanmoi		41.54	PJ		
2	Viradhanur	Viradhanur kanmoi		297.57	PJ		
3	Ayavettan	Ayavettan kanmoi		91.95	PJ		
4	Rettaikulam	Rettaikulam kanmoi		0	PJ		
5	Ayanpappakudi	Ayanpappakudi kanmoi		186.09	PJ		
6	Samanatham	Samanatham kanmoi		249.36	PJ		
7	Avaniyapuram	Pudukulam kanmoi		60.93	PJ		
8	Melanedengulam	Melanedengulam		37.72	PJ		
9	Thirupparankundarm	Seventhikulam		34.83	PJ		
10	Chinthamani	Thuliapatti kanmoi		54.98	PJ		
11	Perungudi	Perungudi kanmoi		103.42	PJ		
12	Thirupparankundarm	Ariyankulam kanmoi		58.25	PJ		
13	Muthupatti veerangudi	Muthupatti veerangudi kanmoi		1.67	PJ		
14	Madakulam	Madakulam kanmoi		279.29	PJ		
15	Thirupparankundarm	Thenkal kanmoi		383.81	PJ		
16	Pudukulam	Pudukulam kanmoi		27.14	PJ		
17	Melanedengulam	Kuru kattan		56.14	PJ		
18	Veerakudi	Veerakudi kanmoi	diNariku	50.54	PJ		
19	Maraiyur	Maraiyur kanmoi		134.78	PJ		
20	Karumanedal	Karumanedal		52.59	PJ		
21	Melaparuthiyur	Melaparuthiyur kanmoi		131.26	PJ		
22	Samenendal	Samenendal kanmoi		42.21	PJ		
23	Vilakkuseri	Vilakkuseri kanmoi		47.76	PJ		
24	Varisaiyur	Varisaiyur kanmoi		164.00	PJ		
25	Sethurayenendal	Sethurayenendal kanmoi		161.04	PJ		
26	Mayaleri	Mayaleri kanmoi		42.97	PJ		
27	Eluvani	Eluvanikanmoi		93.04	PJ		
28	M.Pudukulam	Alagapuri		89.24	PJ		

29	Siruvanur	Siruvanur		65.08	PJ		
30	Nalloor	Nalloor		267.61	PJ		
31	S.Nagoor	S.Nagoor kanmoi		61.61	PJ		
32	Rettaikulam	Rettaikulam kanmoi		71.42	PJ		
33	Senthanathi	Senthanathi kanmoi		44.51	PJ		
34	Tamaraikulam	Tamaraikulam kanmoi		82.44	PJ		
35	Thatchenendal	Thatchenendal kanmoi		56.08	PJ		
36	Poombidagai	Poombidagai kanmoi		79.72	PJ		
37	Alathur	Alathur kanmoi		67.01	PJ		
38	Thiruvidainallur	Thiruvidainallur kanmoi		46.5	PJ		
39	Kattanur	Kattanur kanmoi		1335.67	PJ		
40	Vilakkanendal	Vilakkanendal kanmoi		42.05	PJ		
41	Mugavur	Mugavur kanmoi		106.51	PJ		
42	P.Vagaikulam	P.Vagaikulam kanmoi		61.39	PJ		
43	Nalloor	Kadukkaikulam		42.38	PJ		
44	Andukondan	Andukondan kanmoi		46.80	PJ		
45	Esali	Esali kanmoi		132.77	PJ		
46	Sottamuri	Sottamuri kanmoi		40.51	PJ		
47	Pannikudi	Pannikudi kanmoi		99.49	PJ		
48	Thyeeyanur	Theeyanur kanmoi		46.8	PJ		
49	Olakudi	Olakudi big &small kanmoi		213.1	PJ		
50	Irunchirai	Irunchirai kanmoi		509.05	PJ		
51	Seeniyendal	Seeniyendal kanmoi		51.22	PJ		
52	Kundukulam	Kundukulam kanmoi		56.64	PJ		
53	Karuvakudi	Karuvakudi kanmoi		51.17	PJ		
54	Manoor	Manoor kanmoi		93.63	PJ		
55	Narikudi	Narikudi kanmoi		62.66	PJ		
56	N.Mukkulam	N.Mukkulam kanmoi		42.49	PJ		
57	Veeracholan	Veeracholan kanmoi		66.19	PJ		
58	Athithanendal	Athithanendal kanmoi		90.21	PJ		
59	Kondagai	Kondagai tank	**Thirupuvanum**	736.98	PJ		
60	Manalur	Manalur tank		266.81	PJ		
61	Kalukarkadai	Kalukarkadai tank		239.16	PJ		
62	Thirupuvanam	Thirupuvanam tank		854.30	PJ		
63	Thavalaikulam	Thavalaikulam tank		64.75	PJ		
64	Vaviyarendal	Vaviyarendal tank		42.36	PJ		

65	Piramanur	Piramanur tank		743.81	PJ		
66	Alangulam	Alangulam		93.70	PJ		
67	Kothankulam	Kothankulam tank		125.92	PJ		
68	Muthuvanthidal	Muthuvanthidal		48.83	PJ		
69	Melasorikulam	Melasorikulam tank		68.17	PJ		
70	Keelasorikulam	Keelasorikulam tank		106.98	PJ		
71	Thalikulam	Thalikulam		44.00	PJ		
72	Anaikulam	Anaikulam tank		98.14	PJ		
73	Achankulam	Achankulam		61.31	PJ		
74	Palayanur	Palayanur		447.81	PJ		
75	Parayankulam	Parayankulam		58.73	PJ		
76	Puliyur	Puliyur		66.63	PJ		
77	Saluppanodai	Saluppanodai		37.36	PJ		
78	Pitchaipillaiyendal	Pitchaipillaiyendal Tank		89.75	PJ		
79	Maranadu	Maranadu tank		1457.89	PJ		
80	Melavellur	Melavellur tank		299.97	PJ		
81	Keelavellur	Keelavellur tank		106.93	PJ		
82	Sottathatty	Sottathatty		165.95	PJ		
83	Karrunkalai	Karrunkalai tank		79.09	PJ		
84	Thavatharendal	Thavatharendal tank		50.38	PJ		
85	Sambakulam	Sambakulam		44.13	PJ		
86	Chokkanathiruppu	Chokkanathiruppu tank		154.68	PJ		
87	Visvampatty	Visvampatty		42.04	PJ		
88	Puliyankulam	Puliyankulam tank		131.53	PJ		
89	Veeranendal	Veeranendal tank		68.88	PJ		
90	Nadukanendal	Nadukanendal		65.23	PJ		
91	Plavacheri	Plavacheri tank		70.37	PJ		
92	Keelakarisakulam	Keelakarisakulam tank		158.83	PJ		
93	Kaluvankulam	Kaluvankulam tank		64.72	PJ		
94	Mangudi	Mangudi tank		421.37	PJ		
95	Meenakshipuram	Meenakshipuram tank		128.52	PJ		
96	Melakarisakulam	Melakarisakulam tank		83.25	PJ		
97	Pottapalayam	Pottapalayam tank		61.13	PJ		
98	Sankankulam	Sankankulam tank		100.66	PJ		
99	Vallarendal	Vallarendal tank		70.66	PJ		
100	Velankulam	Velankulam tank		51.58	PJ		
101	Ambalathadi	Ambalathadi tank		110.43	PJ		

102	Odatur	Odatur tank		88.91	PJ		
103	S. Vagaikulam	S. Vagaikulam tank		68.41	PJ		
104	Rangiyam	Rangiyam tank		609.48	PJ		
105	T.Punavasal	T.Punavasal kanmoi	**Kamuthi**	43.68	PJ		
106	Abiramam	Abiramam kanmoi		418.05	PJ		
107	Achankulam	Achankulam kanmoi		44.3	PJ		
108	T. Kallikulam	T. Kallikulam tank		56.27	PJ		
109	A. Tharaikudi	A. Tharaikudi tank		142.34	PJ		
110	Nagaratharkuruchi	Nagaratharkuruchi tank		72.24	PJ		
111	Pappanam	Pappanam tank		43.09	PJ		
112	Keelaparithiyur	Keelaparithiyur kanmoi	**Paramakudi**	122.1	PJ		
113	Pulavar velankudi	Pulavar velankudi kanmoi		55.40	PJ		
114	Kurunjakulam	Kurunjakulam Kanmoi		62.91	PJ		
115	Serikulam sembilankudi	Serikulam sembilankudi tank		56.32	PJ		
116	Thadathankudi	Thadathankudi Kanmoi		121.32	PJ		
				18021.43			

ANNEXURE-II

Girudhumal sub basin

DOMESTIC SEWAGE

Sl.no	Name of the town	Water body into which Sewage is discharged
1	Thiruparankundram	Thenkal tank, Pudukulam tank
2	Manamadurai	vaigai river,
3	Paramakudi	Grass form maintained by municipality Right bank river and vaigai river
4	Kamuthi	Urani near bus stand
5	Narikudi	Open land
6	Thirupuvannam	Vaigai river, Piramanu channel, Piramanur tank

ANNEXURE-III

Girudhumal sub basin

Solid Waste

Sl.no	Location of solid waste disposal	Disposal of solid waste in Land	Qty.in.M.T	Disposal of solid waste into water body		
				River	Tank	Odai
1	Madurai corporation		228	Girudhumal river		Chinthamanni channel Avaniapuram channel Annupanadi channel Panaiyur channel
2	Thiruparankundram	Emptry space of Thiruparankundram Nilayur road	12		Thenkal tank	
3	Manamadurai	Compost yard				
4	Paramakudi	Compost yard	14.4			
5	Kamuthi	Open space and, Urani near bus stand	2			
6	Narikudi	Open land				
7	Thirupuvannam	Right bank side near karumathi pottal	7			

ANNEXURE-IV

List of industries in Girudhumal sub basin

Sl.no	Name of industry and address	District	Category	Type
1.	Four yes industries	Madurai	Poly bags manufacturing	Gs
2.	Ram plastic works	Madurai	Poly bags manufacturing	Gs
3.	Madurai district sarvodya sangam	Madurai	Silk twisting	Ol
4.	Anand mills(south)	Madurai	Spinning	Ol
5.	Bharat textilemills 'C'unit	Madurai	Spinning	Ol
6.	Bharat textilemills 'D'unit	Madurai	Spinning	Ol
7.	Bharat textilemills 'B'unit	Madurai	Spinning	Ol
8.	Bharat textilemills 'A'unit	Madurai	Spinning	Ol
9.	Bright spinner	Madurai	Spinning	Ol
10.	Deivanai cotton mill	Madurai	Spinning	Ol
11.	Ishwarya textiles	Madurai	Spinning	Ol
12.	K.G.N.textiles	Madurai	Spinning	Ol
13.	Mahalakshimi textiles mills ltd.	Madurai	Spinning	Ol
14.	New mercury yarns	Madurai	Spinning	Ol
15.	Sitalakshmi mills ltd.	Madurai	Spinning	Ol
16.	Sree meenakshisundaram mills	Madurai	Spinning	Ol
17.	Sri kanthimathi mills	Madurai	Spinning	Ol
18.	Sri managayarkarasi mills (p) ltd.	Madurai	Spinning	Ol
19.	Sri sathu spinning mills	Madurai	Spinning	Ol
20.	Sri thirumalai spinning mills	Madurai	Spinning	Ol
21.	The miseroor co-operative spinning	Madurai	Spinning	Ol
22.	Seeta lakshmi mills ltd.	Madurai	Checking of fabrics	Om
23.	Ancient Pharma	Madurai	Drug manufacturing	Om
24.	Ariya vaidhya nilayam ltd.	Madurai	Drug manufacturing	Om
25.	Jersey pharma	Madurai	Drug manufacturing	Om
26.	Paris dakners	Madurai	Drug manufacturing	Om
27.	Tamilnadu state transport corporation (madurai division) ltd.	Madurai	Maintenance of buses	Om
28.	Sri thirumalai industries	Madurai	RCC pipes	Om
29.	Jasmine towels (p) ltd.	Madurai	Sizing	Om
30.	Samba stationers	Madurai	stationers	Om
31.	T.Ravichandran & co	Madurai	Aerated Water	Os
32.	Tamilnadu state corporation ltd.	Madurai	Automobile body building	Os
33.	Vinayaka body building industries	Madurai	Automobile body building	Os
34.	Thangam motors(p) ltd	Madurai	Automobile servicing	Os
35.	ABT industries	Madurai	Automobile servicing	Os
36.	Nagappa motors	Madurai	Automobile servicing	Os
37.	Solaimalai motors	Madurai	Automobile servicing	Os
38.	Vimeeka autos	Madurai	Automobile servicing	Os
39.	A.G.S auto enterprices	Madurai	Automobile repairing	Os
40.	Kalyani auto sales and service	Madurai	Automobile repairing	Os
41.	Kodai automobiles	Madurai	Automobile repairing	Os
42.	Krishnaveni automobiles	Madurai	Automobile repairing	Os
43.	Madurai motors	Madurai	Automobile repairing	Os

44.	Susee auto	Madurai	Automobile repairing	Os
45.	A.B.T parcel service	Madurai	Automobile repairing	Os
46.	Akbar auto works	Madurai	Automobile repairing	Os
47.	Jai auto works	Madurai	Automobile repairing	Os
48.	Melwyn motors	Madurai	Automobile repairing	Os
49.	Sunrays textile process ltd.	Madurai	Bleeching and dying	Os
50.	Neutral fibrics	Madurai	Cotton dubbing	Os
51.	Uma textiles	Madurai	Cotton dubbing	Os
52.	Chunking estate 'p' ltd.	Madurai	Crushing of tamarind seeds	Os
53.	Jeyam corporation	Madurai	Dhall mills	Os
54.	Woodlands furniture	Madurai	Furniture	Os
55.	Amuthum rice mill	Madurai	Huling	Os
56.	maris modern rice mill	Madurai	Huling	Os
57.	N.S. rice mill	Madurai	Huling	Os
58.	S.T.arasakumar rice mill	Madurai	Huling	Os
59.	Thiru pathi madern rice mill	Madurai	Huling	Os
60.	Vathiyar modern rice mill	Madurai	Huling	Os
61.	Lakshmi agencies	Madurai	Manu of sambirani	Os
62.	Bhanu boards	Madurai	Manu of boards	Os
63.	Royal madras pappad	Madurai	Manu of pappads	Os
64.	J.S products	Madurai	Manu of sambirani	Os
65.	T.T.products	Madurai	Manu of sweets	Os
66.	Madurai terry tex	Madurai	Manu of terry towels	Os
67.	The pandiyan thread manufactures	Madurai	Manu of thread	Os
68.	Kamali confectionery	Madurai	Manu of towels	Os
69.	Sri mapillai vinayagar mosaic marbles	Madurai	Marble sales	Os
70.	Chittu note books	Madurai	Note book	Os
71.	Ramsons enterprices	Madurai	Note book	Os
72.	Sanjana industries	Madurai	Twisling & Winding of yarns	Os
73.	Annamalai retreading company	Madurai	Tyre retrading	Os
74.	Sri standard retreading company	Madurai	Tyre retrading	Os
75.	Stanes tyre and rubber products ltd.	Madurai	Tyre retrading	Os
76.	Buvaneswari traders	Madurai	Waste cotton cleaning	Os
77.	Ever green industries	Madurai	Waste cotton cleaning	Os
78.	Ganapathy traders	Madurai	Waste cotton cleaning	Os
79.	Jothimani industries	Madurai	Waste cotton cleaning	Os
80.	K.G.industries	Madurai	Waste cotton cleaning	Os
81.	Sivabalan textiles	Madurai	Waste cotton cleaning	Os
82.	T.N krisnamoorthy&co.sons	Madurai	Waste cotton cleaning	Os
83.	Tex waste thanankulam village	Madurai	Waste cotton cleaning	Os
84.	Thiru murugan industries	Madurai	Waste cotton cleaning	Os
85.	Thruthful industries	Madurai	Waste cotton cleaning	Os
86.	Uma traders	Madurai	Waste cotton cleaning	Os
87.	Vijayalakshmi industries	Madurai	Waste cotton cleaning	Os
88.	Thirumalai steel industries	Madurai	Wire drawing	Os
89.	Southern textiles industries	Madurai	Yarn spinning	Os
90.	Sri santhia industries	Madurai	Yarn twisting	Os
91.	M.G.S.packs(p) ltd.	Madurai	Manufacture of	Os

			corrugated box	
92.	Tayub mahammed hajemoosa &co	Madurai	Manufacture of corrugated box	RI
93.	Metro products	Madurai	Manufacture of PVC chappals	RI
94.	Sri devi industries	Madurai	Manufacture of rice mill machine	RI
95.	Fenner India industries	Madurai	Manufacture of V-belt	RI
96.	Krishnaveni metal works	Madurai	Manufacture of vessels	RI
97.	Raja lakshmi metal works	Madurai	Manufacture of vessels	RI
98.	Mega shield productive coats	Madurai	Paints manufacturing	RI
99.	Thangavel industries	Madurai	Manufacture of vessels	Rs
100.	Elmo engineering works	Madurai	Manufacture of jet pumps	Rs
101.	Dhinesh greases	Madurai	Manufacture of lubricating grease	Rs
102.	S.R soap factory	Madurai	Manufacture of soap	Rs
103.	Shenbagam paints &chemicals	Madurai	Manufacture of coloroxides	Rs
104.	United rubber industries	Madurai	Manufacture of rubber roilers	Rs
105.	E.I.D.parry(India) ltd.	Madurai	Mixing of fertilizers	Rs
106.	Aravind polymers	Madurai	Petrol product selling	Rs
107.	Balaji Tex	Madurai	Powerloom	Rs
108.	Madan Textiles	Madurai	Powerloom	Rs
109.	S.R.Textiles	Madurai	Powerloom	Rs
110.	Sri Krishna textiles	Madurai	Powerloom	Rs
111.	Lenox press	Madurai	Printing and binding	Rs
112.	C.M.S.Ravi agencies unit II	Madurai	Processing of fried grams	Rs
113.	C.M.S.Ravi agencies	Madurai	Processing of fried grams	Rs
114.	Periyandavar & co	Madurai	Processing of fried grams	Rs
115.	Sri Kumaran Tex	Madurai	Reeling	Rs
116.	TN Chlorate Limited	Manamadurai	Chemical	Os
117.	Kalaimagal natraj Paper Mills Private	Manamadurai	Bricks	Os
118.	Prakash paper mills	Manamadurai	Bricks	Os
119.	Vivek paper boards	Manamadurai	Bricks	Os
120.	M/S Yen tiyes Match industries	Manamadurai	Bricks	Os
121.	Abthaheer bricks	Manamadurai	Bricks	Os
122.	Abthakir bricks	Manamadurai	Bricks	Os
123.	Amman brick works	Manamadurai	Bricks	Os
124.	Ananadan chamber bricks	Manamadurai	Bricks	Os
125.	Anandam Chamber bricks	Manamadurai	Bricks	Os
126.	Anipa bricks	Manamadurai	Bricks	Os
127.	Ascard spinners	Manamadurai	Bricks	Os
128.	Guna prints	Manamadurai	Bricks	Os
129.	Jhothi bricks	Manamadurai	Bricks	Os
130.	Kannimar brick works	Manamadurai	Bricks	Os

131.	M/S Abthakir bricks	Manamadurai	Bricks	Os
132.	M/S Anandam chamber bricks	Manamadurai	Bricks	Os
133.	M/S Krishnasamy bricks	Manamadurai	Bricks	Os
134.	M/S NPS wire bricks	Manamadurai	Bricks	Os
135.	M/S Sri periyandavar chamber works	Manamadurai	Bricks	Os
136.	M/S Thayar bricks	Manamadurai	Bricks	Os
137.	Murugan bricks	Manamadurai	Bricks	Os
138.	NPS wire bricks	Manamadurai	Bricks	Os
139.	R.N.Jayaram bricks	Manamadurai	Bricks	Os
140.	S.P.J.bricks	Manamadurai	Bricks	Os
141.	Sakthi bricks	Manamadurai	Bricks	Os
142.	Siva bricks	Manamadurai	Bricks	Os
143.	Sri kamatchi chamber works	Manamadurai	Bricks	Os
144.	Sri karpaga vinayaga chamber works	Manamadurai	Bricks	Os
145.	Sri mahalakshmi bricks	Manamadurai	Bricks	Os
146.	Sri periyandavar chamber works	Manamadurai	Bricks	Os
147.	Sri sudarshan bricks	Manamadurai	Bricks	Os
148.	Standard bricks	Manamadurai	Bricks	Os
149.	Star bricks industries	Manamadurai	Bricks	Os
150.	Thangam bricks works	Manamadurai	Bricks	Os
151.	Thayar bricks	Manamadurai	Bricks	Os
152.	Santhya charcoal company	Manamadurai	Charcoal	Os
153.	M/S Rukmini electronics	Manamadurai	Conveyor belt	Os
154.	M/S Maduri agar agar industries	Manamadurai	Food	Os
155.	M/S rao & rao bottlers pvt ltd	Manamadurai	Food	Os
156.	Tnstc Ltd	Manamadurai	Food	Os
157.	Prakash paper mills	Manamadurai	Hand made	Os
158.	The Indian poultry farm	Manamadurai	Hatchery	Os
159.	M/S the Indian hume pipe co	Manamadurai	Hume pipe	Os
160.	The Indian hume pipe company	Manamadurai	Hume pipe	Os
161.	Instalities potapalayam village	Manamadurai	Lighters	Os
162.	Yen tiyes match industries	Manamadurai	Misc splink	Os
163.	Geetha Papers	Manamadurai	Packing	Os
164.	Ksas paper industries	Manamadurai	Papers	Os
165.	Golden bricks	Manamadurai	Pulp & paper	Os
166.	Geetha paper industries	Manamadurai	Pulp & paper	Os
167.	Kalaimagal natraja paper mills	Manamadurai	Pulp & paper	Os
168.	Ksas paper industries	Manamadurai	Pulp & paper	Os
169.	Kwality paper mills	Manamadurai	Pulp & paper	Os
170.	M/S Tnstc Ltd	Manamadurai	Service station	Os
171.	Aswin polymers	Manamadurai	Spinning	Os
172.	Rukmani mills	Manamadurai	Spinning	Os
173.	The visalakshi mills	Manamadurai	Spinning	Os
174.	Varadalakshmi mills	Manamadurai	Spinning	Os
175.	M/S Sri jothi steel rolling mill	Manamadurai	Steel rolling	Os
176.	Indiana rocks	Manamadurai	Stone polishing	Os
177.	M/S Indian rocks	Manamadurai	Stone polishing	Os
178.	M/S Sri Kasi Viswanath products	Manamadurai	Textile	Os
179.	Royal fabrics	Manamadurai	Textile	Os
180.	Dhanush packing	Manamadurai	Tile works	Os

181.	The gowri tile works	Manamadurai	Tiles	Os
182.	Jasmine towels private limited	Manamadurai	Towels	Os
183.	Indra metal components	Manamadurai	Vessels	Os
184.	Sirius zip manufacturing	Manamadurai	Zip	Os
185.	Patel brothers	Manamadurai		Os
186.	Southern polymers	Manamadurai		Os
187.	Sri balajee associates	Manamadurai		Os
188.	Sri Devi corporation	Manamadurai		Os
189.	Sri Raja sundarai industries	Manamadurai		Os
190.	Super polytex private limited	Manamadurai		Os
191.	The TN state pampkar & fibre marketing co-op	Manamadurai		Os
192.	The TNST corporation limited	Manamadurai	Automobiles	Rs
193.	Rukmimi electronics limited	Manamadurai	Conveyor belt	Rs
194.	Chitra tile works	Manamadurai	Polymers	Rs
195.	Suni rubber industries	Manamadurai	Rubber	Rs
196.	Indiayana rocks	Manamadurai		Rs
197.	Kasirajan industries	Manamadurai		Rs
198.	Kutuva silicates	Manamadurai		Rs
199.	Mahesh elestomers private limited	Manamadurai		Rs
200.	Polygraphs	Manamadurai		Rs
201.	Rukmini electronics limited	Manamadurai		Rs
202.	Anisha bricks	Paramakudi	Bricks	Os
203.	Pioneers spinners	Paramakudi	Spinning	Ol
204.	Annai chamber bricks	Paramakudi	Bricks	Os
205.	Balakrishna chamber bricks	Paramakudi	Bricks	Os
206.	Deen chamber bricks	Paramakudi	Bricks	Os
207.	Golden rexin India pvt ltd	Paramakudi	Bricks	Os
208.	Habeer chamber works	Paramakudi	Bricks	Os
209.	Krishna bricks	Paramakudi	Bricks	Os
210.	M.S.bricks	Paramakudi	Bricks	Os
211.	Manaoharan chamber bricks	Paramakudi	Bricks	Os
212.	Maria chamber bricks	Paramakudi	Bricks	Os
213.	Meena paper products	Paramakudi	Hand made	Os
214.	National textile corporation	Paramakudi	Bricks	Os
215.	Neelam B.K.Rice mill	Paramakudi	Rice mill	Os
216.	Nijam chamber bricks	Paramakudi	Bricks	Os
217.	P.S.N.brick works	Paramakudi	Bricks	Os
218.	Prakashsam chamber bricks	Paramakudi	Bricks	Os
219.	Praveen chamber bricks	Paramakudi	Bricks	Os
220.	Raju bricks	Paramakudi	Bricks	Os
221.	Sivagami modern rice mill	Paramakudi	Rice mill	Os
222.	Sri seeniappa brickworks	Paramakudi	Bricks	Os
223.	Sri amman bricks	Paramakudi	Bricks	Os
224.	Sri kamatchi & sons chamber bricks	Paramakudi	Bricks	Os
225.	Suba auto services	Paramakudi	Bricks	Os
226.	Geetha chemicals	Thiruchuli	Lime klin	Os
227.	Sri Magenta chemicals	Thiruchuli	Chemicals	Rs
228.	A1 Acqua pipes (India)Ltd	Kamuthi	Acqua pipes	Os
229.	Jaya vinayagar chamber bricks	Kamuthi	Bricks	Os

230.	Murugeswari chamber bricks	Kamuthi	Bricks	Os
231.	Siva palani chamber bricks	Kamuthi	Bricks	Os
232.	Suganya brick works	Kamuthi	Bricks	Os
233.	Eswari flour mills	Kamuthi	Flour mill	Os
234.	Gopi modern rice mill	Kamuthi	Hulling	Os
235.	Sree vinayaga modern mills	Kamuthi	Hulling	Os
236.	Emess rubber India	Kamuthi	Lining	Os
237.	Rexien sea India	Kamuthi	Lining	Os
238.	Ayesha cotton mills	Kamuthi	Spinning mill	Os
239.	Jai bairavan mills	Kamuthi	Spinning mill	Os
240.	Mannan cotton mills ltd	Kamuthi	Spinning mill	Os
241.	Ramnad cotton mills ltd	Kamuthi	Spinning mill	Os
242.	Ramasamy Match works	Kamuthi	Fire works	Rs
243.	TNSTC ltd(div III)	Kamuthi	Automobiles	Os

GROUND WATER SAMPLING STATIONS LOCATIONS

Sl.No	Station code No.	Location
1	21001	Avaniapuram
2	21035	Thallakulam
3	83121B	Kamuthi
4	83202A	Perunalli
5	83305A	Mandalamanickam
6	26013	Panthampuli
7	83109	Thiruchulli
8	83218A	Panaiyur
9	83219	Udayananthal
10	83220	Vidathakulam
11	83228	Pulvaikarai
12	83236	Nallakulam
13	83239	Pudupatti
14	83240	Manakulam
15	83241	Thatchanenthal
16	83242	Satharasankotai
17	83243	Maravamangalam
18	83272	Parthipanur
19	83277	Vairavanenthal
20	26007	Manjur
21	26008	Satrakudi
22	26009	S.V.Mangalam

ANNEXURE- V I

GROUND WATER TEST RESULTS IN GIRUDHUMAL SUB BASIN

Station code	General			Nutrients	Alkalinity		Hardness		Major Ions								Other In-Organics			Biol
	PH	EC, Umho/ cm	TDS ,MG/L	No3+No2 as N,mg/L	mg CaCo3	mg CaCo3	mg CaCo3 mg/L	Ca++mg CaCo3	Ca++mg/L	Mg++ mg/L	Na++mg/L	K++ mg/L	Cl mg/L	SO4 mg/L	CO3 MG/l	HCO3 mg/L	Sl.mg/L	F.mg/L	Bmg/l	SAR
21001	8.1	2280	1267	4	0	450	400	130	52	66	345	2	390	118	0	549		1.4		5.1
21035	7.6	2370	1369	38	0	475	540	120	48	102	294	9	305	154	0	580		0.75		6.7
83121B	8.2	870	490	6	0	275	175	100	40	18	110	10	78	40	0	336		0.37		1.3
83202A	8.2	670	386	4	0	145	115	60	24	13	92	23	92	36	0	177		0.19		2.4
83305A	8.3	630	358	1	10	220	115	70	28	11	87	3	32	58	12	244		0.32		1.4
26013	8.2	1820	1129	11	0	360	410	380	152	7	239	8	177	276	0	439		0.57		0.7
83109	8	360	199	1	0	150	150	70	28	19	21	1	21	12	0	183		0.12		3.2
83218A	7.9	3570	2183	17	0	350	480	240	96	58	621	2	638	480	0	427		0.24		6.8
83219	8	760	415	4	0	230	330	105	42	55	35	3	89	34	0	289		0.27		3.7
83220	7.9	1000	590	9	0	210	215	115	46	24	136	2	163	53	0	256		0.37		5.1
83228	7.7	160	94.5	3	0	45	60	40	16	5	11	1	11	10	0	55		0.3		4.4
83236	8.2	3140	1813	5	0	650	340	80	32	63	575	12	638	72	0	793		0.68		8.1
83239	8	1360	798	21	0	140	335	160	64	42	162	23	269	71	0	171		0.52		1.8
83240	8	1060	597	10	0	375	370	215	86	38	71	22	103	3	0	458		0.44		5.4
83241	7.8	2400	1392	4	0	240	640	460	184	44	248	43	681	29	0	293		0.44		
83242	8.2	590	326	1	0	200	110	55	22	13	85	2	50	27	0	244		0.49		
83243	7.6	3900	2181	22	0	215	1420	620	248	194	230	58	1163	58	0	262		0.48		
83272	8	1350	820	4	0	300	130	60	24	17	276	1	213	86	0	366		0.55		14.9
83277	8	920	539	10	0	305	100	35	14	16	168	2	53	58	0	372		1.5		10.3
26007	8.2	2270	1248	1	0	580	190	40	16	36	419	3	319	96	0	708		0.7		18.7
26008	8	13900	8651	4	0	290	3000	2000	800	243	1955	2	4254	1200	0	354		0.57		21.9
26009	8	10100	6609	3	0	430	4000	3000	1200	243	736	3	3191	9600	0	525		0.58		7.2
83123B	8	1720	943	21	0	120	380	160	64	126	90	6	461	29	0	146		0.3		1.5

Name of Work: Environmental Monitoring on water and soil quality and creating awareness & updating of "Environmental and Social Assessment report" for Girudhumal sub-basin in Gundar basin.

Estimate Cost Rs 34.30 Lakhs

INTRODUCTION

Under TNWRCP, with World Bank assistance, special emphasis was given for the first time in WRO, to assess the environmental status and degradation caused for all River basins in Tamilnadu. The Environmental Cell of WRO assessed soil and water samples in this Gundar river basin. The assessment include Environmental impact on the quality of surface ,Ground water and soil by collecting water & soil Samples and testing them. Moreover, Micro Level Environmental Status Reports for all the River Basins have also prepared. These works have been carried out with the World Bank Assistance up to March 2004.

Also few Awareness programs & Workshops were conducted to create awareness on the Environmental issues & remedies among the public, farmers, Govt. officials and NGOs. Seminars were conducted to find out new techniques and methods developed recently to solve Environmental problems.

Now under IAMWARM project, focus is at each sub basin level to identify and prioritize the requirements for improvements to storage structures, rehabilitation, new schemes for water harvest, and diversification of crops. Any new schemes or rehabilitation of existing one, consideration of the environment issues pertaining to that area and remedial action to overcome the problems is must.

DESCRIPTION OF SUB BASIN

Gundar river basin is one of the major river basins of Tamilnadu with a drainage area of 5912 sq.km. Total length of the River from the origin is 150 km. The basin covers part of Madurai, Sivagangai, and Virudhunagar, part of Dindigul, Ramanathapuram and Thoothukudi Districts.

Girudhumal is one of the main tributary of Gundar river. The tributary Girudhumal river starts near Thuvariman village about 2km west of madurai city and it runs for a distance of 15km in madurai south taluk, 20km in Manamadurai taluk, 30km in Thiruchuli taluk and 23km in kamudi taluk. It brings down the surplus water of Madakulam big tank and other Vaigai fed tanks on its way before joining river Gundar near keelavalasai village. Total length of the river is about 83km. Girudhumal river gets supply from Vaigai river through a flood carrier off taking above Viraganur regulator. Girudhumal River comes under Lower Gundar Sub basin. Irrigation is carried out through supply channels taking off from Girudhumal River with open heads at various places and from five anicuts constructed across the river.

ENVIRONMENTAL PROBLEMS IN THIS SUB BASIN

SAND MINING

The Girudhumal sub basin many location sand deposited over decades forming natural aquifer is being mined indiscriminately at several places by digging pits to depths more than 10 feet. Without concern for its impact on ground water and to the surrounding environment at that location mining is carried out. At various places wherever sand is available mining is being carried out in small quantities for local use.

INDUSTRIAL POLLUTION

There are no major industries situated in this sub basin. The Dying, bleaching and Textile processing Industries located within Madurai and Thirumangalm areas does not treat the effluent and simply let into the river or irrigation channels. This in turn pollutes the Ground Water in the area. About 57 automobile servicing and repairing stations are functioning in Madurai and Thirumangalm Taluk areas. These stations are polluting the water resources with the oil, grease and car washes discharged from their servicing stations. They are discharging the wastes into the nearby channels without treatment.

ID WASTE DISPOSAL

SOLID WASTE DISPOSAL IN MADURAI CITY

Madurai city generates more solid waste than it collects or disposes off. Inadequate collection and unmanaged disposal present a number of problems for human health and productivity. A large number of solid waste bins are placed at various places of the city. The local people are dumping their domestic wastes in these bins. In the evenings the municipal scavengers come and collect them in Lorries, tricycles, tippers and tractors.

These vehicles first dump the wastes in nearby common dumping points. There are three dumping points. They are at 1.Chinna Anuppanadi, 2.Keeraithurai and 3.Sammattipuram. From these dumping points contract tippers and tractors along with Municipal tippers are re-transporting the dumped wastes to the main dumping yard at Avaniyapuram Sewage Farm.The Madurai city generates 500 tones of solid waste daily. A total of 400 tones of solid waste collected and dumped in the sewage farm. But a quantity of 100 tones of solid wastes dumped in alleys, streets, ditches and irrigation channels for eventual destruction by the time and element.

Thirupparankundram town panchayat having a population of 39,009 is daily generating solid waste of about 10 to 12 tones comprising street refuse, market refuse and domestic refuses. The refuses are collected and transported by lorries and tractors to the dumping point. A portion waste about 40% collected is dumped on the empty space available by the side of Thirupparankundram- Nilayur road. But apportion of the solid waste about 60% of the collected is tipped off into the Thenkal tank water spread by the side of Madurai – Thirunelveli national highway. During festival season there is increase in the quantum of solid waste disposed into the tank

SOLID WASTE DISPOSAL IN MUNICIPALITIES AND TOWN PANCHAYATS

Within this sub basin most of the panchayats have no systematic collection and disposal of solid waste. The local people used to throw the solid waste into the nearby open channels or drains choking them and thereby polluting the water resources.Scheme for Solid waste Management plan is under implementation by Rural Development Department. Under this scheme, collection tank for disposable and undisputable garbage have been constructed. But in most of the panchayats, recycling the waste and converting the solid waste into manure and production of energy is yet to come up

SOLID WASTE DISPOSAL IN VILLAGES

Dumping of solid wastes by the villagers is very limited. Usually they are being dumped near the toe of the tank bunds. Major portion of the wastes are mainly animal droppings and leftover animal feeds collected from cattle sheds. These wastes are converted into manure and used in their lands. Only in urban areas solid wastes are dumped near the roadside drains, nearby irrigation channels and low – lying areas. Even the civic bodies are recklessly dumping the solid waste into water bodies.

Sold waste if allowed to accumulate is health hazard and there is a correlation between improper disposal of solid waste and incidence of vector-borne diseases Hence motivating the local bodies for proper implementation of solid waste management in IAMWARM project is must, to protect the water bodies from the accumulation of wastes.

SEWAGE DISPOSAL IN MADURAI CITY

In Madurai, the quantity of Sewage collected from the city area lying in Therkar Basin is 37 million litres per day. Out of this 37 MLD only 15 MLD is being treated and the remaining 22 MLD of Sewage and other wastes are directly let into the irrigation channels running across the city and the adjoining Vaigai River.There are 51 Municipal wards in the Therkar sub basin out of 72 total wards in Madurai city. There is one main pumping station at Sandhipettai. It connects with the trunk sewer of size 34”x51” elliptical in shape ends in Vellakkal sewage treatment plant.

Since the existing pumping main is very old, it has been corroded and its present carrying capacity is only 15 MLD the remaining 22 MLD of sewage is let into various irrigation channels.The preliminary treatments like removing the trash, scum and silt are done at the pumping stations and only the liquid wastes with suspended matters are pumped to the sewage farm.In the sewage Farm, the sewage water is directly let into farm through water courses. On its way to the crops the sewage get aerated and there by the BOD is get reduced By consuming the spinach and other vegetables cultivated by using raw or partially treated sewage there would be heavy metal poisoning in the food chain.

The farm laborers working in the farms in the environment of partially treated sewage is subjected to “Hook Worm” diseases. Prevalent of diseases such as tuberculosis, typhoid are high in the areas surrounding the firm. The field cultivated with untreated sewage becomes sick and require reclamation once in two years.The ground water in the vicinity of sewage farm get polluted and become unfit for agricultural and domestic purposes.

SEWAGE DISPOSAL IN MUNICIPALITY, TOWN PANCHYATS AND VILLAGES.

Thirupparankunram, Thiruppuvanam, Harvipatti, Avaniyapuram, Thirumangalm Municipality, Usilampatti Municipality are the standing examples of civic bodies those who are let the sewage into the water bodies. In most of the Villages no safe disposal arrangements of sewage are exist.

WATER WEEDS

"Prosopis Juliflora" plants are multi-stemmed shrubby bushes growing from 3m to 15m tall. Juliflora has been known to send its roots 10, 20 or even 30m to catch water. The roots lift water much higher than it can be lifted by capillary action of the soil. The draft on water supply is greatest during a long, hot growing season, with scanty precipitation and low humidity. *Prosopis* Juliflora has invaded the cultivable lands in Girudhumal, in the beds of almost all the tanks. Hence, these plants need to be eliminated totally for the conserving precious water resources. But on the contrary, in some villages local people desire to grow this plant in the water spread area of the tanks. Once in 4 or 5 years they get cutting order from the revenue authorities, sale the Juliflora or coal produced from it and keep the money for the common expenses like court case for the litigation with the nearby villages, temple repair and Local festivals etc. This is on account of lack of guidance and ignorance of its ill effects.

Hence, this problem has to be addressed in all forms, wherever possible Bio gas plant has to be promoted.

ENCROACHMENTS

Once Girudhumal was a holy river, last rituals of demised were done on the banks of the Girudhumal river. Still there are many bathing ghats and cremation grounds on the banks of the river. But now it has lost its holiness, and become a dumping place for garbage's and other solid waste for the people. About 2000 huts and other elements are on its bank. All the filths of these encroachments are dumped in the river. Sewage, liquid wastes of dying industries, servicing stations and some portions of municipal sewages are being directly let into this river. The solid wastes and garbage collected from the houses situated in the vicinity are being dumped in Girudhumal.

There are two supply channels namely Avaniapuram supply channel and Chinthamani channel crossing the river at the same level. These two channels are also contributing much sewage into Girudhumal. These are two unauthorized culverts provided by the promoters of house site in each house reach, which cause obstruction to flood flow in the river. Near its origin the river is encroached by the adjoining landholders. These are encroachments in some areas in Ponmeni village by the adjoining land holders.

These are some built up in the Girudhumal river near K.L.N Engineering College. The course of the river has been diverted and converted in some places near this area. In Virathanur Village, the main course of the river has been encroached by the adjoining landholders and coconut plantations have been raised. Some unauthorized house sites are also situated in the Virathanur village area.

GROUND WATER QUALITY

From the chemical composition data for the observation wells, the ground water in the lower reaches of sedimentary formation is of moderate quality.

ACTIVITIES PROPOSED

I. WATER, SOIL QUALITY MONITORING AND PROJECT WORKS MONITORING

Water samples were collected from six locations and tested in Gundar river basin from December 2002. Continuance of collection and testing of water samples is essential as good and long - range data will enable to understand the problems more precisely. Hence, now it is proposed to collect and test water samples at the following locations for the period of three years to assess the environmental Impact on the quality of surface water of this sub basin more precisely. Water samples will be collected at the following locations once in 3 months, when flow occurs.

1. **GR1-Madurai Theni road bridge at Varatipathu.**
2. **GR3-Madurai Arrupukotai railway bridge near Therku vassal.**
3. **GR5-Thirupuvanam Narikudi road bridge at Kararakudi**
4. **GR6-Narikudi Manamadurai road bridge near Narikudi**
5. **GR7-Abiramam Kamuthi road bridge near Abiramam**

In addition to the above identified FIVE locations, water samples will also be collected twice in a year for the period of three years from tanks and near by wells in five villages where sewage is directly let into tanks, channels for assessing the quality. Soil samples are to be collected from selected locations to Asses the impact on the quality of soil due to various Environmental problems like use of chemical fertilizer and using the polluted water. From these locations 5 numbers of samples at regular one-year interval have to be collected and tested to determine precisely the impact on the degradation of the quality of the soil. Testing of soil samples are essential and will be tested in the Agricultural College.

II.ENVIRONMENTAL AND SOCIAL KNOWLEDGE BASE:

Micro Level Environmental Status Report has been prepared for the entire Gundar River Basin. To prepare an Environmental Action Plan of a River basin data regarding environmental issues in sub basin wise is necessary. Hence, provisions for collecting the data regarding environmental and social issues in village wise analyzing them, preparing development report have also made in this proposal.

III. TRANSFER OF TECHNICAL KNOW HOW FOR SOLID WASTE MANAGEMENT SYSTEM

Creating awareness among the presidents of the local bodies is must and to motivate them to adapt Solid waste management and Sewage management, wherever required. Hence, Demonstration programmed exclusively for local body officials and presidents are planned with user agencies and necessary field visits are programmed to transfer of Technical Know how for solid waste management.

IV. ENVIROMENTAL SOCIAL AWARENESS CREATION:

Awareness Programs are necessary to create awareness among the public about Environmental aspects and the action to be taken by them to remove or reduce the impacts due to the Environmental problems. So far two, awareness Programs were conducted in this basin. Hence, to create and motivate the people, awareness programmes are to be conducted in the villages. It is proposed to conduct 5 Awareness Meeting in School/ Institutions and 7 Nos. of awareness programs during the study period of three years covering the following subjects in addition to Placing Stickers, Tin sheets, Pham lets and Placing banner containing messages about, the Environmental Awareness.

- Sanitation.
- Solid waste treatment.
- Sewage treatment and converting the same into gas
- Organic farming.
- Conversion of aquatic weeds into manure etc

As per the instructions of the environmental specialist Anupham Joshi, the following alterations are made in the proposal,

In addition to the above, pesticides test for water quality is added and test will be carried out for five locations for twice in a year.

Moreover, it is proposed to conduct field visits for environmental monitoring of project activities with respect to environmental safe guards.

It is proposed to study the impact due to project investments and hence, provisions for data collection and development reports have now been added.

Provision for preparing environmental atlas is now inserted in the context of marking all environmental and social issues with consultations of stake holders, line departments and NGOS.

MODE OF EXECUTION

All the works proposed are to be carried out by outsourcing through an Educational Institute.

TOTAL COST.

The total cost works out to Rs: **34.30 Lakhs (Rupees Thirty Four Lakhs and Thirty Thousand only)** based on the current schedule of rate for the year 2008-09.

ENVIRONMENTAL MONITORING ON WATER AND SOIL QUALITY AND CREATING AWARENESS , UPDATING OF " ENVIRONMENTAL & SOCIAL ASSESSMENT REPORT" FOR GIRUDHUMAL SUB BASIN						
DETAILED ESTIMATE						
Sl no	**Description of work**	**No**	**Measurement**			**Contents**
			L	**B**	**D**	
I.Water & Soil Quality, project works Monitoring						
i)	Water samples from rivers in 5 locations collected once in three months in a year for a period of Three years 5x4x3 =60					
	Water samples from tanks and wells collected once in six months 5x 2x 3= 30					
a)	Testing charges for Water samples	60+30				90 Nos
b)	Testing charges for Water samples(pesticides)5x3=15	5x3=15				15 Nos
c)	Testing charges for soil samples collected from polluted site	5X 3				15 Nos
d)	Hiring Jeep driver	1No	6 Months			18 Man
			per year X 3 year			months
e)	Conveyance, Purchases of Cans, Bottles, Chemicals hire Purchase of Still camera etc and Documentation of Water quality data, engaging labour etc.,	1x 3 years				3 years

f)	Provisions for field visits for environmental monitoring of project activities with respect to environmental safeguards	1x3 = 3 years	3 years
II Environmetal, Social Knowledge base			
a)	Village Level Data collection on Environmental And social state.	100 Man months	100 Man months
b)	Expert Analysis and Development Reporting on other impacts	LS	LS
c)	Impact Studies due to project Investements	45 Man months	45 Man months
d)	Expert Analysis and Development Reporting due to project investments (After Project)	LS	LS
III. Transfer of technical know how for solid waste & weed management			
a)	Motivating office bearers of local bodies for solid waste & Sewage treatment to prevent pollution of Water Sources through Demo, technical Visit.	2Nos in a year X 3 years	6 Nos
b)	Formation of Herbal Garden in Institutions	6 Nos	6 Nos
c)	Demonstration and consultative meeting for eradication of weed and making manure.	3 Nos	3 Nos
IV. Environmental Social Awareness Creation			
a)	Propagation through Stickers, Tin Sheets, pamphlets,Banners	1x3 = 3 years	3 years
b)	Awareness Programs for Public	10 Nos.	10 Nos.
c)	Awareness Meeting for Offcials	1 no / year / 3year	3 Nos

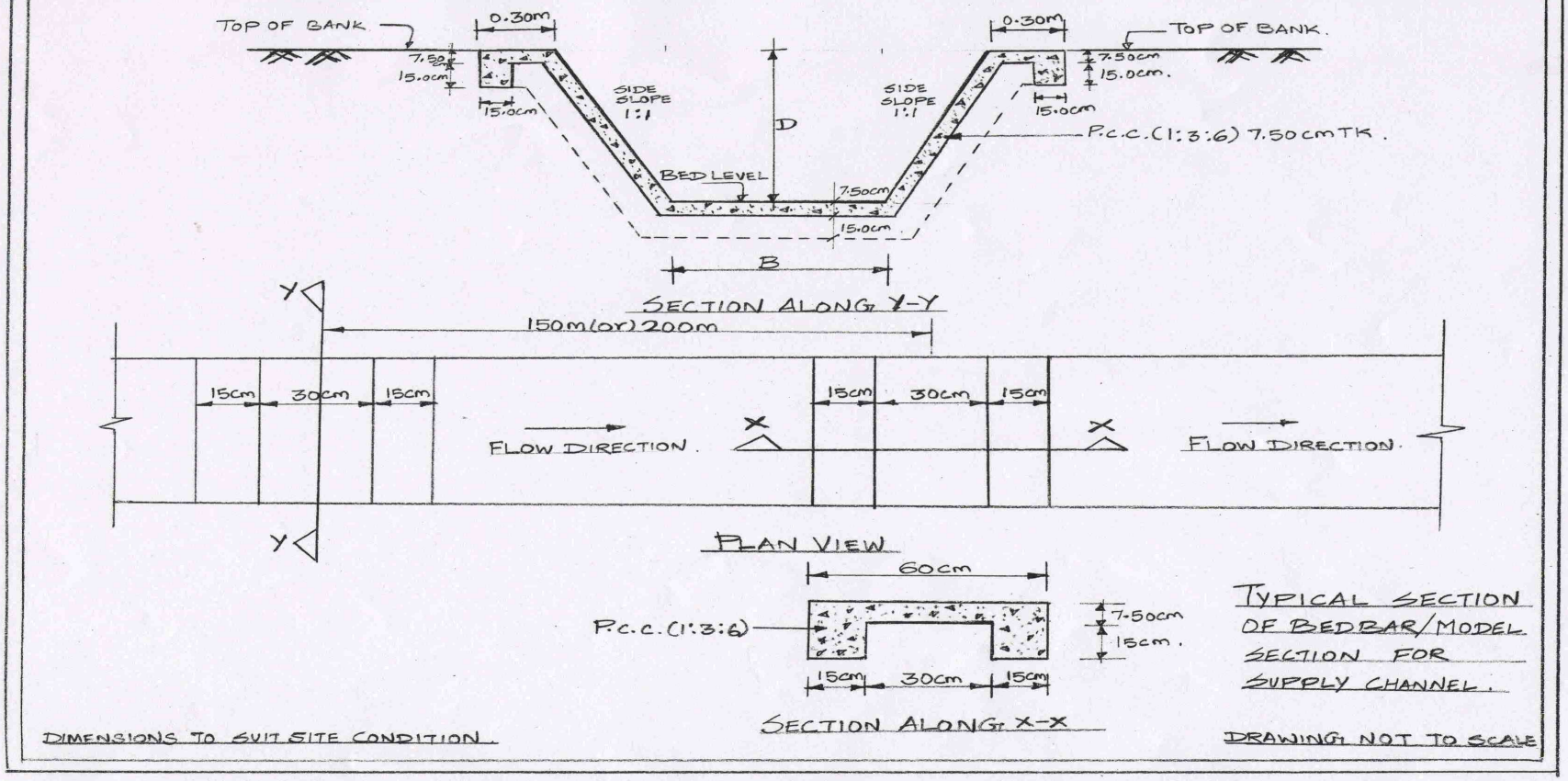
d)	Awareness Meeting in school/Institutions	5 Nos	5 Nos
e)	Annual Workshop at Sub basin level	1 nos/ year / 3year	3 Nos
f)	Annual Workshop at Region level		1 No
g)	Exposure Field Visit to Eco friendly practises	2 Nos	2Nos
h)	Environmental fair/ Exbition, Green Awards	1No	1 No
i	Preparing and Publishing Environmental Atlas for the Sub Basin for the use of Line departments /Institutions for better Management of Sub basin	LS	LS
j)	Environmental Related Books/Journal, Publishing Annual report for the Sub- basin	1 X 3 years	LS
j)	Documentation of the entire activities, and HirePurchase of LCD , Up gradation of Computer and Accessories, Video films and Web site development	LS	LS
IV.	**Variation in Rates and unforeseen items**	**LS**	**LS**

Environmental Monitoring on Water and Soil quality and Creating awareness, updating of " Environmental and Social Assessment report" for Girudhumal Sub-Basin.					
ABSTRACT ESTIMATE					
Sl no	**Qty.**	**Description of Work**	**Rate**	**Per**	**Amount**
I.Water & Soil Quality Monitoring					
a)	90Nos.	Testing charges for Water Samples	1400	each	126000
b)	15 Nos	Testing charges for Water Samples (pesticides)	12000	each	180000
c)	15 Nos	Testing charges for Soil Samples	7350	L.S	110250
d)	18 Man months	Hiring Jeep Driver	3500	1 Man month	63,000
e)	L.S	Conveyance, Purchases like Cans,Bottles,Chemicals hire Purchase of camera etc and Documentation of Water and Soil quality data, including labour charges.	L.S	L.S	45000
f)	3 years	Provisions for field visits for environmental monitoring of project activities with respect to environmental safeguards	15000	per year	45000
II.Environmental, Social Knowledge Base, Analysis and Development base					
a)	100 Man months	Village Level Data Collection on Envirnmntal and Social State.	6000	month	600000
b)	L.S	Expert Analysis and Development Reporting	L.S	L.S	100000
c)	45 man months	Impact studies due to project Investments	6000	month	270000
d)	L.S	Expert Analysis and Development Reporting (After Project)	L.S	L.S	50000

III. Transfer of technical know how for solid waste & weed management					
a	6Nos.	Motivating office bearers of local bodies for solid waste & Sewage treatment to prevent pollution of Water Sources through Demo, technical Visit.	20,000	each	120000
b)	6 Nos	Herbal Gardens in Institutions	25000	each	150000
c)	3 Nos	Demonstration and consultative meeting for eradication of weed and making manure.	15000	each	45000
IV. Environmental Social Awareness Creation					
a)	3 years	Propagation through stickers, Tin Sheets, pamphlets, banners.	50000	per year	150000
b)	10 Nos.	Awareness Program for Public	20000	each	200000
c)	3 Nos	Awareness Meetings for Official	20000	each	60000
d)	5Nos	Awareness Meetings in School/ Institution	20000	each	100000
e)	3Nos	Annual Workshop at Sub basin level	100000	each	300000
f)	1 No	Annual Workshop at Region level	200000		200000
g)	2 Nos	Exposure Field Visit to Eco friendly practises	30000	each	60,000
h)	1Nos	Environmental fair/ Exbition, green awards	60000	each	60000

i	LS	Preparing and Publishing Environmental Atlas for the Sub Basin for the use of Line departments /Institutions for better Management of Sub basin	LS		250,000
j	3Year	Environmental Related Books/Journal, Publishing Annual report for the Sub- basin	5000	Year	15000
k	LS	Documentation of the entire activities, hire purchase of LCD and Up gradation of Computer and Accessories, Video films and Web site development and engaging computer operater	L.S		**100000**
IV.Variation in rates and unforeseen items.					**30750**
		Total			**3,430,000**
Rupees THIRTY FOUR Lakhs AND THIRTY THOUSAND only					

DESIGN AND DRAWINGS



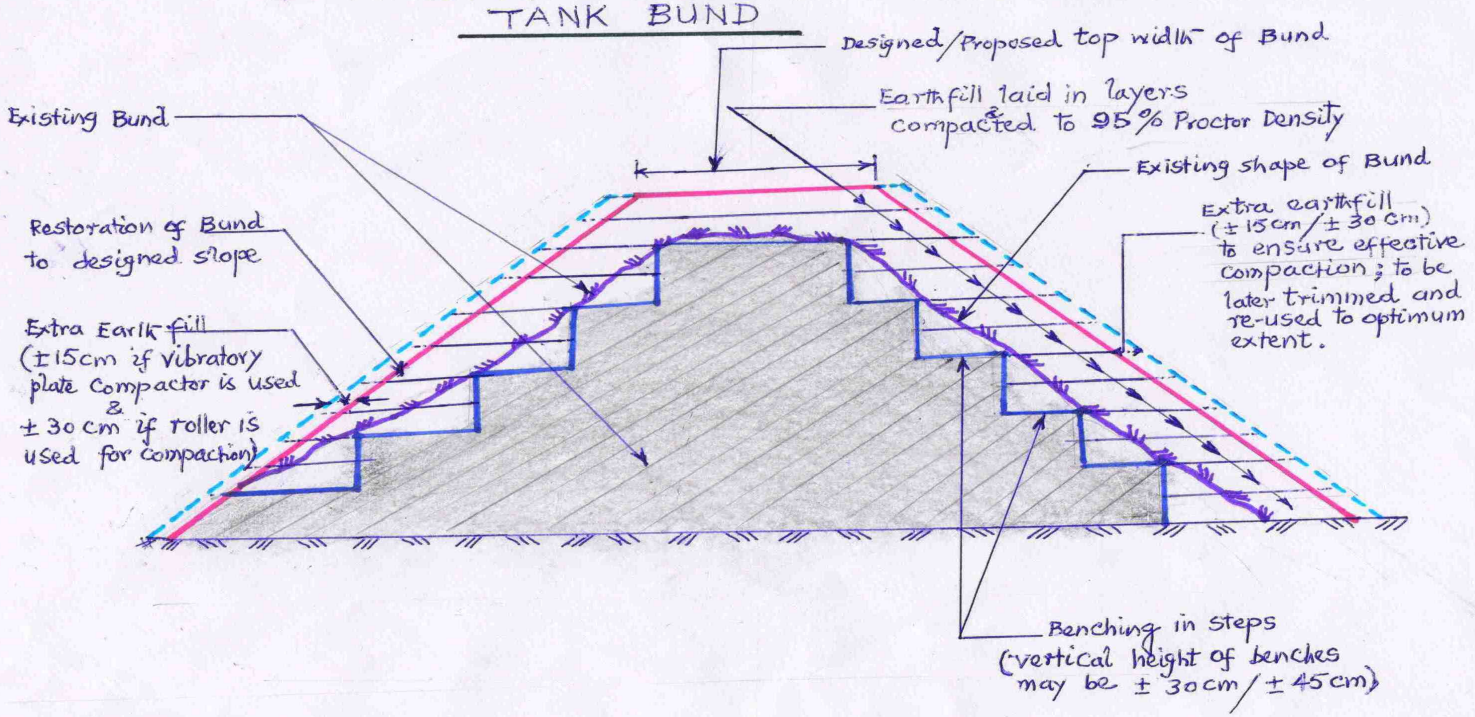
TYPICAL SECTION OF BEDBAR/MODEL SECTION FOR SUPPLY CHANNEL.

DIMENSIONS TO SUIT SITE CONDITION.

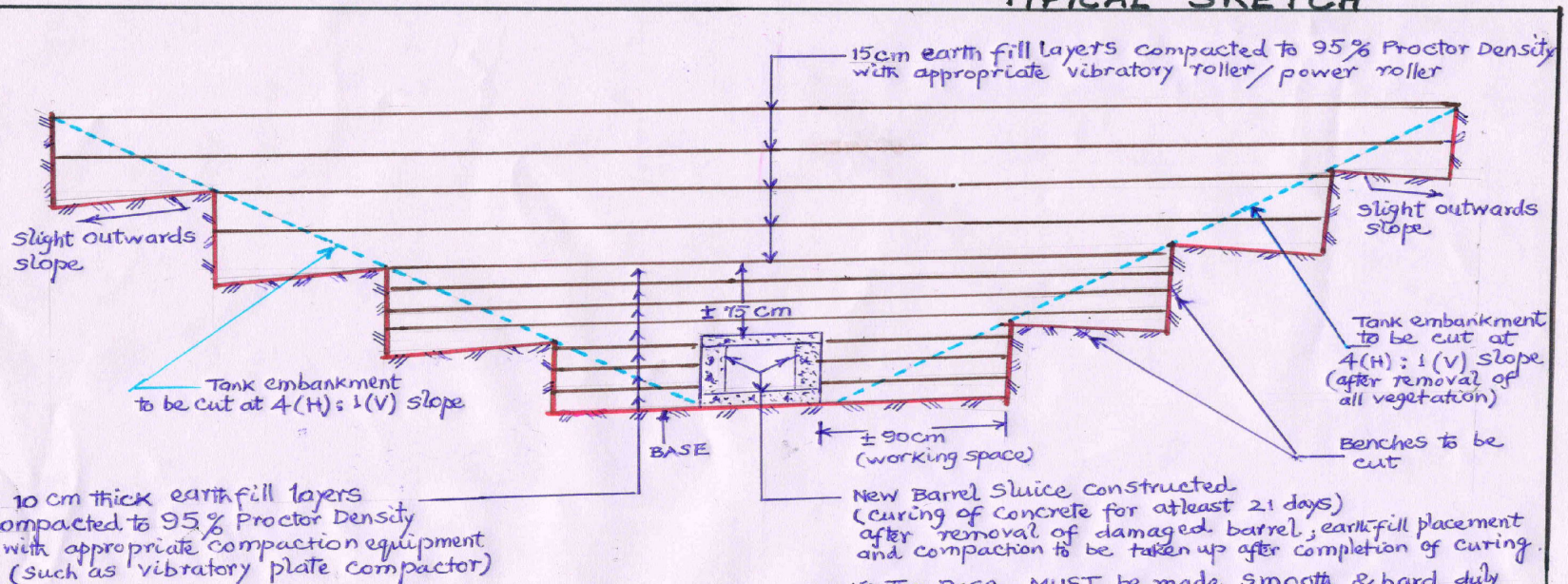
DRAWING NOT TO SCALE

TYPICAL SKETCH

RAISING & STRENGTHENING OF TANK BUND



TYPICAL SKETCH



NOTES

(i) The Base MUST be made smooth & hard, duly compacted with compactors / pneumatic tampers.

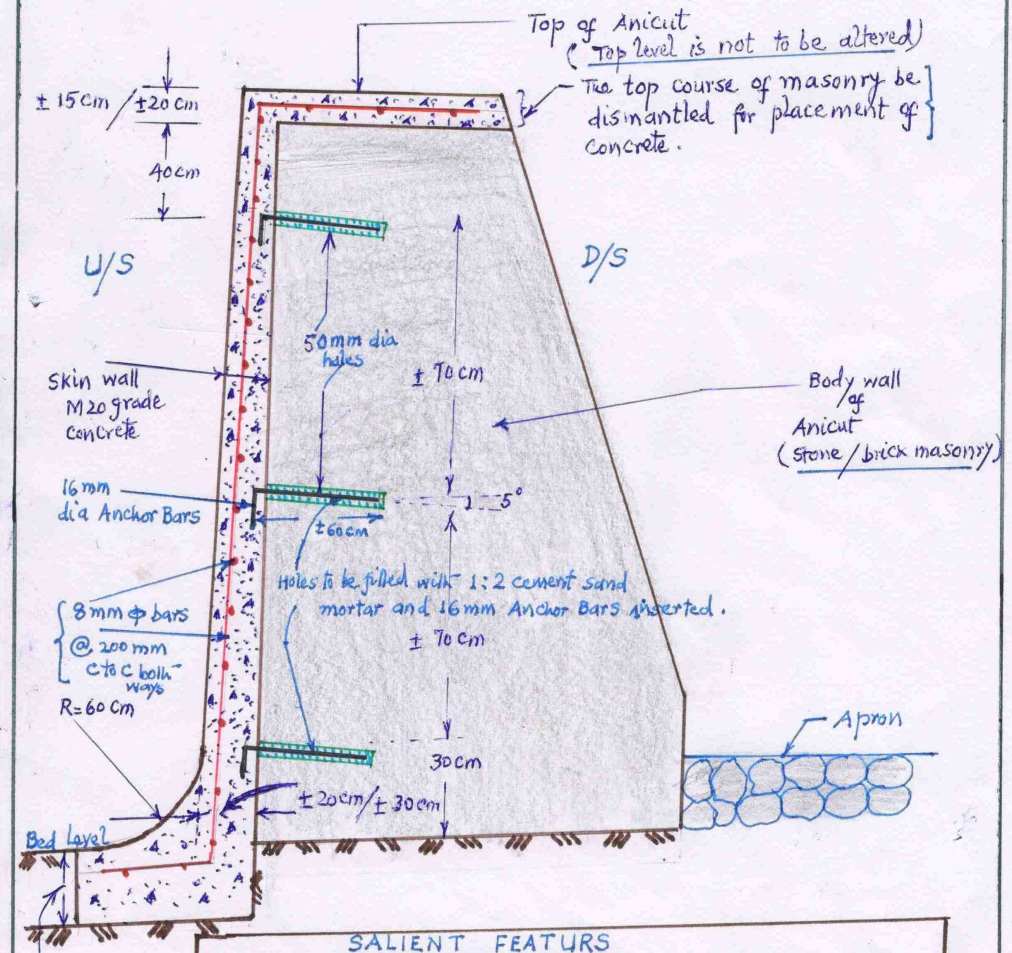
(ii) Earth fill compaction adjoining the Barrel and Benches should be compacted by mechanical / pneumatic tampers to ensure effective compaction.

(iii) Earth obtained from "benching" be re-used (after removal of clods (bigger than 7.5 cm), vegetation etc) in earth fill layers.

RECONSTRUCTION OF SLUICES

TYPICAL SKETCH

Rehabilitation of Anicut through SKIN WALL Concrete



SALIENT FEATURS

- Joints on u/s surface to be raked to 25 mm depth & Surface roughened by Chipping.
- Drill holes of 50 mm to be filled with 1:2 mortar and 16 mm Anchor Bars to be pushed in.
- The roughened surface to be kept wet for 72 hours and cement slurry (1:2.5) of 0.70 water-cement ratio be applied over the surface prior to placement of Skin Concrete.
- Concrete of M20 Grade is to be used with 20 mm maximum aggregate Size.
- Curing is to be done for 21 days.
- Thickness of skin concrete : 15 cm at top & 20 cm at bottom for Anicuts of height upto ± 1.50 m and 20 cm at top & 30 cm at bottom for Anicuts of height more than ± 1.50 m.