TN – IAMWARM PROJECT

KAMBAINALLUR SUB BASIN

WATER RESOURCES DEPARTMENT

Estimate Cost. Rs. 985.54 Lakhs

REPORT

VOLUME –I

1.1 INTRODUCTION

1.1 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 Pennaiyar Basin

The main Pennaiyar Basin gets its name after the name of the river Pennaiyar. The Pennaiyar River has its origin in the South Eastern slopes of Chennakesava hills in Nandhidurg in Karnataka state and after traversing about 112km in Karnataka state it enters in Tamil Nadu in Hosur Taluk and flows through Hosur, Krishnagiri and Uthangarai Taluks of Krishnagiri District and Harur Taluk of Dharmapuri District for a length of 190.50km. After traversing in Dharmapuri District, the Pennaiyar river enters into Thiruvannamalai, Vilupuram, Cuddalore District and travels a distance of 139.50km. The Pennaiyar River finally empties into the Bay of Bengal near Cuddalore. The total drainage area of Pennaiyar including the area in Karnataka state is 15101 sq.km. The catchments area in Karnataka state itself is (931.06 sq.miles) 2384. Sq.km. The total length of river is 432km. (i.e) 320km in Tamil Nadu and 112km in Karnataka state. The Pennaiyar upto Krishnagiri Reservoir sub basin is located between North latitude of 10°,45′,0″ and 13°,14′,0″ and East longitude of 77°45′ 0″ and 79°,45′,0″

This basin has been divided into 18 sub basins namely as follows.

1. 1A Chinnar, 1B Chinnar
2. Markandanadhi
3. Kambainallur
4. Pambar
5. Vaniar
6. Kottapattikallar
7. Mattur River
8. Valayar Odai
9. Ramakal Odai
10. Pambanar & Varattar
11. Musukundanadhi
12. Aliyar
13. Thurinjalar
14. Gadilam
15. Upto Krishnagiri Reservoir
16. Krishnagiri to Pambar
17. Pambar to Thirukovilur
18. Lower Pennaiyar

1.1.3 There are 61 Anicuts across Kambainallur River. In the Kambainallur Sub basin there is 1 Reservoir, such as Thumbalahalli Reservoir. Kambainallur has 2 major Tributaries. Kambainallur sub basin is located between latitude of 12°22′35″ and 12°01′10″ and longitude of 78°02′15″ and 78°18′30″. The total actual dependable run off is 3.06 TMcft. There is seasonal flow in the river during monsoon seasons. But there is flow through out the year up to Thumbalahalli Reservoir which is the

drainages of Dharmapuri District. The Maximum discharge of the river so far measured is 20,391 cusecs.

Kambainallur Sub-Basin area is 957.439 Sq km. The taluks covered in this sub basin are Dharmapuri, Palacode and Harur of Dharmapuri District.

1.1.4. Convergence Table in Annexure – I & II

Convergence Table

Kambainallur sub-basin Cluster details

Cluster	Sl no	Name of the Anicut/ tank /Supply channel	waterbodies	Name of the village	Block	Ayacut area(Ha)	Total Ayacut Area (Ha)			Total Area (Ha)			WRD							Agriculture		Horticulture		TNAU		Agricultural Marketing		Agricultural Engineering		Fisheries		Animal Husbandry	
							FI	PI	Gap	WOP	WP	Gap	Activity							Activity	Nos/ Ha	Activity	Nos /Ha	Activity	Nos/ Ha	Activity	Nos /Ha	Activity	Nos /Ha	Activity	Nos /Ha	Activity	Nos /Ha
													Re W/A	B.stone	RESl	Cul	Mes Dev	SC	REBund													
1	2	**3**	4	5	6	7	8	9	10	11	12	**13**	14	15	16	17	18	19		20	21	22	**23**	24	25	26	27	28	29	30	31	32	**33**
I		**Sangambasvathalav cluster**																															
	1	Sangambasvathalav Tank	Tank	Sanganbasvathalav	Palacode	137.3	4.31	78.73	54.21	83.04	137.25			100	2		2	1700	475	D SRI	3	Turmeric	1	D SRI	10	CG		Drip	35	AqIT	1	FC	3
	2	Jalalgan anicut	Anicut	Sanganbasvathalav	Palacode	10.7	0.33	6.11	4.21	6.44	10.65		1		2	4	1	230		D M	3	Mango	1	PF SC	5	paddy	1			Aqfp	1	AI	675
	3	P.chettihalli	Anicut	P.chettihalli	Palacode	19.1	0.60	10.93	7.53	11.53	19.06		1		2	4	1	325		D R	1	Tomato	1	IPT GLP	5	Tomato	1			FS rear	1		
	4	Puram Keel	Anicut	P.chettihalli	Palacode	4.4	0.14	2.53	1.74	2.67	4.41		1		2	4	1	700		D P	5	Bhendi	1							FI	1		
	5	Pethanahalli	Anicut	P.chettihalli	Palacode	28.5	0.89	16.32	11.24	17.22	28.46		1		2	4	1	550		D G													
	6	Kommalahalli	Anicut	P.chettihalli	Palacode	5.7	0.18	3.25	2.24	3.43	5.67		1		2	4	1	150		D Sun	1												
		Total				**205.5**	**6.45**	**117.87**	**81.17**	**124.33**	**205.50**		**5**	**100**	**12**	**20**	**7**	**3655**	**475**	D Co	1												
		Jerthalav Cluster																															
II	7	Jerthalav	Tank	Erranahalli	Palacode	165.9	5.21	95.15	65.53	100.36	165.89		1	114	3		2	1850	883														
	8	Jerthalav	Anicut	Erranahalli	Palacode	11.5	0.36	6.60	4.54	6.96	11.50		1		2	4	1	550		D SRI	8	Brinjal	1	D SRI	10	CG		Drip	20	AqIT	3	FC	4
	9	SC from jerthalav to panangalli	SC	Erranahalli	Palacode	13.5	0.42	7.74	5.33	8.17	13.50																						
	10	SC from jerthalav to panangalli	SC	Jerthalav	Palacode	23.6	0.74	13.54	9.32	14.28	23.60				7		7	17300															
	11	SC from jerthalav to panangalli	SC	Palacode	Palacode	23.7	0.74	13.60	9.37	14.34	23.71																						
	12	Vadaman Anicut	Anicut	Jerthalav	Palacode	14.8	0.46	8.47	5.83	8.93	14.76		1		2	4	1	400		D M	9	Mango	2	PF SC	10	Maize	1			Aqfp	2	AI	3375
	13	Garai oddu	Anicut	Jerthalav	Palacode	7.5	0.24	4.32	2.98	4.56	7.54		1		2	4	1	360		D R	4	Tomato	1	IPT GLP	5	Tomato	1			FS rear	3		

	14	Garai oddu	Anicut	Palacode	Palacode	9.1	0.28	5.20	3.58	5.49	9.07									D P	16	Tapioca	2							FI	1		
	15	Gundumadugu	Anicut	Jerthalav	Palacode	5.7	0.18	3.25	2.24	3.43	5.67		1		2	4	1	430		D G	1	Turmeric	2							FK	1		
	16	Sudakadu	Anicut	Chikkarthanahalli	Palacode	10.6	0.33	6.07	4.18	6.41	10.59		1		2	4	1	700		D Sun	1	Bhendi	1										
	17	Chikkarthanahalli	Anicut	Chikkarthanahalli	Palacode	29.1	0.91	16.70	11.50	17.62	29.12		1		2	4	1	550		D Co	1												
	18	Thamarai	Anicut	Chikkarthanahalli	Palacode	3.8	0.12	2.19	1.51	2.31	3.82		1		2	4	1	500														
	19	Thamarai	Eri	Chikkarthanahalli	Palacode	80.6	2.53	46.21	31.83	48.74	80.57		1		4		4	1700	950													
	20	Pulikal	Tank	pulikal	Palacode	90.7	2.85	52.05	35.84	54.90	90.74		1	99	2		2	3500	1520													
	21	Sunnampatty	Anicut	Chikkarthanahalli	Palacode	0.5	0.02	0.28	0.19	0.30	0.49		1		2	4	1	500														
	22	Sunnampatty	Anicut	Palacode	Palacode	12.8	0.40	7.32	5.04	7.73	12.77																						
	23	Viyasarkottai	Anicut	palacode	Palacode	49.0	1.54	28.10	19.35	29.64	48.99		1		2	4	1	500														
	24	Viyasar	Anicut	Belarahalli	Palacode	43.2	1.36	24.79	17.07	26.15	43.22		1		2	4	1	250														
	25	Panangalli	Eri	panagalli	Palacode	46.2	1.45	26.47	18.23	27.92	46.15		1	120	2		2	2850	420													
	26	Pullikarai	Eri	pulikari	Palacode	50.0	1.57	28.70	19.77	30.27	50.04		1	115	2		2	1500	840													
		Total				**691.7**	**21.72**	**396.78**	**273.24**	**418.50**	**691.74**		**15**	**448**	**40**	**40**	**29**	**33440**	**4613**													
		Kottumaranahalli cluster																															
III	27	Leftmain canal	dam	kottumaranahalli	Karimangalam	70.3	2.21	40.31	27.76	42.52	70.28									D SRI	10	Mango	2	D SRI	5	CG		Drip	35	AqIT	0	FC	6
	28	Leftmain canal	dam	Naganamp atty	Karimangalam	194.5	6.11	111.58	76.84	117.68	194.52									D M	12	Turmeric	4	PF SC	5	Paddy	1			Aqfp	2	AI	675
	29	LMC Branch	dam	Naganamp atty	Karimangalam	21.2	0.67	12.17	8.38	12.84	21.22									D R	5	Tapioca	2	PF veg	5	Bhendi	1			FS rear	3		
	30	LMC Branch	dam	Keragodahalli	Karimangalam	31.5	0.99	18.07	12.45	19.06	31.51									D P	22	Tomato	2	IPT GLP	10					FI	1		
	31	LMC Branch	dam	Keragodahalli	Karimangalam	55.7	1.75	31.94	22.00	33.69	55.69									D G	1	Bhendi	1	IPT sf	5								
	32	LMC Branch	dam	Keragodahalli	Karimangalam	178.5	5.60	102.36	70.49	107.96	178.45									D Sun	2												
	33	Right Main canal	dam	kottumaranahalli	Karimangalam	337.6	10.60	193.66	133.36	204.27	337.63									D Co	2												
		Total				**889.3**	**27.92**	**510.10**	**351.27**	**538.03**	**889.30**																								
		Periyampatti cluster																															
IV	34	Naganmaptty Anicut	Anicut	Naganamp atty	Karimangalam	60.3	1.89	34.58	23.81	36.47	60.28		1		1		1	100		D SRI	4	Mango	2	D SRI	5	ABC		Drip	40			FC	7
	35	Poolapatti	An	Peiryampat	Karimangalam	24.0	0.7	13.7	9.46	14.49	23.95		1		2		1	90		D M	4	Turmeric	2	PF	5	CG				Aq	2	AI	270

NO Works

			icut	ti	ngalam		5	4																Veg						fp			0
	36	Adilam	Anicut	adilam	Karimangalam	8.2	0.26	4.68	3.22	4.94	8.16		1		1		1	280		D R	2	Tapioca	1	IPT GLP	10	Maize	1						
	37	Sappanipati	Anicut	adilam	Karimangalam	28.3	0.89	16.21	11.16	17.10	28.26		1		1		1	375		D P	8	Tomato	1			Paddy	1						
	38	Jamberi	Anicut	Poonathanahalli	Karimangalam	15.6	0.49	8.97	6.17	9.46	15.63									D G	1	Bhendi	1			Tomato	1						
	39	Jamberi	Anicut	Molappanahalli	Karimangalam	16.6	0.52	9.50	6.54	10.02	16.56				1		1	400		D Sun	1												
	40	Nagasamudram	Anicut	Murkkampatty	Karimangalam	31.7	0.99	18.17	12.51	19.16	31.67		1		1		1	300		D Co	1												
	41	Chikkatimmanhalli	Eri	Chikkathimmanahalli	Karimangalam	50.0	1.57	28.70	19.77	30.27	50.04				3			500	738														
	42	Baysuhalli	Tank	Baysuhalli	Karimangalam	69.2	2.17	39.71	27.35	41.88	69.23			110	4	2		850	1050														
		Total				**303.8**	**9.54**	**174.25**	**119.99**	**183.79**	**303.78**		**5**	**110**	**14**	**2**	**6**	**2895**	**1788**														
		Kadagathur-cluster																															
	43	Konaginaickanhalli	Anicut	Konginaickanahalli	dharmapuri	4.2	0.13	2.39	1.64	2.52	4.16		1		1	2	1			D SRI	10	Banana	2	D SRI	5	CG		Drip	25	Aqfp	1	FC	14
V	44	Ramalingamudaliyar	Anicut	Hale Dharmapuri	dharmapuri	8.9	0.28	5.11	3.52	5.39	8.91		1		1		1	400		D M	12	Mango	1	IPT SF	20	Maize	1			FK	1	AI	675
	45	Kamatchiamman	Anicut	Virupatchipuram	dharmapuri	12.2	0.38	6.97	4.80	7.35	12.15		1							D R	5	Turmeric	3	IPT GLP	15	Paddy	1						
	46	Jettihalli	Anicut	Virupatchipuram	dharmapuri	23.9	0.75	13.70	9.44	14.45	23.89		1		2		1	150		D P	21	Tapioca	1										
	47	Sogathur	Tank	Sogathur	dharmapuri	140.9	4.42	80.81	55.65	85.24	140.89			109	4	1		200	1210	D G	1	Tomato	2										
	48	Ramakkal	Tank	Hale Dharmapuri	dharmapuri	111.6	3.50	64.00	44.07	67.51	111.58			165	3	2		1000	800	D Sun	2	Chrysanthemum	0.5										
	49	Seshappa Chetty	Anicut	Hale Dharmapuri	dharmapuri	4.5	0.14	2.55	1.76	2.69	4.45		1		2		1	140		D Co	2												
	50	Selliampatty	Anicut	Hale Dharmapuri	dharmapuri	16.6	0.52	9.52	6.56	10.04	16.60		1		2		1	210														
	51	Kadagathur	Eri	Kadagathur	dharmapuri	217.8	6.84	124.94	86.03	131.78	217.81				5			1000	2800													
	52	Chowlupattymel	Anicut	Cholupatty	dharmapuri	27.8	0.87	15.96	10.99	16.83	27.82		1		1		2	135														
	53	Chowlupattykeel	Anicut	Cholupatty	dharmapuri	18.2	0.57	10.45	7.20	11.02	18.22		1		1		1	110														
	54	Pattalamman	Anicut	Hale Dharmapuri	dharmapuri	10.3	0.32	5.92	4.08	6.24	10.32		1				1	140														
	55	Annasagaram	An	Annasagar	dharma	11.3	0.3	6.50	4.48	6.86	11.34							95														

			icut	am	puri		6																												
	56	Annasagaram	Tank	Annasagaram	dharmapuri	196.6	6.17	112.75	77.64	118.92	196.56			230	2	2		200	880																
	57	Noolahalli	Tank	Noolahalli	dharmapuri	47.3	1.49	27.14	18.69	28.63	47.32			285	2			400	1600																
	58	Komuttianpallam	Anicut	Noolahalli	dharmapuri	2.7	0.08	1.54	1.06	1.62	2.68		1		1		1	150																	
	59	Elanthoppeoddu	Anicut		dharmapuri	3.2	0.10	1.86	1.28	1.96	3.24																								
	60	Makkan	Anicut	Dharmapuri	dharmapuri	6.1	0.19	3.48	2.40	3.67	6.07		1		1		1	240																	
	61	Ponmalai	Anicut	Virupatchipuram	dharmapuri	8.9	0.28	5.11	3.52	5.39	8.91							50																	
	62	Lakkiampatti	Anicut	Lakkiampatti	dharmapuri	0.6	0.02	0.35	0.24	0.37	0.61							90																	
		Total				**873.5**	**27.43**	**501.06**	**345.04**	**528.49**	**873.53**		**11**	**789**	**28**	**7**	**11**	**4710**	**7290**																
		Krishnapuram cluster																																
	63	Boothalappan	Anicut	Kottayur	dharmapuri	22.3	0.70	12.77	8.80	13.47	22.27		1		2	2	2	360		DSRI	5	Banana	1	PF Tur	5	CG		Drip	11	Aqfp	2	FC	3		
	64	Chowluhalli	Anicut	Vellalapatty	dharmapuri	27.8	0.87	15.96	10.99	16.83	27.82		1		1		1	150		D M	6	Mango	1	IPT SF	5	Maize	1			orn. Fish	1				
	65	Krishnapuram Chinna	Eri	Krishnapuram	dharmapuri	53.2	1.67	30.50	21.01	32.17	53.18			110	2			850	2000	D R	2	Turmeric	3	IPT GLP	5	Paddy	1			culture					
	66	Krishnapuram Periya	Eri	Krishnapuram	dharmapuri	57.5	1.81	32.98	22.71	34.78	57.49			120	2			2000	1300	D P	9	Tapioca	1	PF Tap	5	Brinjal	1								
	67	Mayllambadi	Anicut	Pulldikarai	dharmapuri	6.1	0.19	3.48	2.40	3.67	6.07						1	500		D G	1	Tomato	1			Cowpea	1								
	68	Mullikadu	Anicut	Puiyampatti	dharmapuri	11.3	0.36	6.50	4.48	6.86	11.34		1		1		1	220		D Sun	1	Bhendi	1												
VI	69	Vellalapatti	Anicut	Vellalapatty	dharmapuri	3.6	0.11	2.09	1.44	2.20	3.64		1		2		1	150		D Co	1	Chrysanthemum	0.5												
	70	Moolakadu	Anicut	Sandampatti	dharmapuri	14.6	0.46	8.36	5.76	8.82	14.58		1		1		1	120																	
	71	Karttaru	Anicut	Vellolai	dharmapuri	41.0	1.29	23.52	16.20	24.81	41.00						1	135																	
	72	Garai oddu	Anicut	Krishnapuram	dharmapuri	20.2	0.64	11.61	7.99	12.25	20.24		1				1																		
	73	kolanachimman	Tank	Pulldikarai	dharmapuri	76.9	2.42	44.12	30.38	46.54	76.92			120	3			1000	760																
	74	Kombai Palllam	Tank	Vellolai	dharmapuri	47.0	1.47	26.94	18.55	28.41	46.96		1	110	3	2		3000	1300																
	75	Emakuttiyur	Anicut	Oddapatty	dharmapuri	4.9	0.15	2.79	1.92	2.94	4.86		1		2		2	350																	

	76	Ungaranahalli	Anicut	ungaranahalli	dharmapuri	9.3	0.29	5.34	3.68	5.63	9.31		1		1		1	130																
	77	Madhemanagalam	Tank	ungaranahalli	dharmapuri	1.6	0.05	0.91	0.62	0.96	1.58			250	3	4		240	1300															
		Total				**397.3**	**12.47**	**227.87**	**156.92**	**240.34**	**397.26**		**9**	**710**	**23**	**8**	**12**	**9205**	**6660**															
		Nallampalli cluster																																
VIII	78	Jalar	Anicut	Mittareddihalli	Nallampalli	5.2	0.16	3.01	2.07	3.17	5.24		1		1		1	360		DSRI	5	Banana	1	DSRI	5	CG		Drip	15			FC	4
	79	Sankar Ayer	Anicut	Mittareddihalli	Nallampalli	3.6	0.11	2.08	1.43	2.20	3.63		1		1		1	120		D M	6	Turmeric	3	PFSC	5	sunflower	1						
	80	Adiyamankottai	Tank	Adiyamankottai	Nallampalli	109.2	3.43	62.61	43.12	66.04	109.16			70	2	2		440	1860	D R	2	Tapioca	2	PF Tur	5	Bhendi	1						
	81	Madhemanagalam	Tank	Madhemangalam	Nallampalli	109.7	3.44	62.92	43.33	66.36	109.69									D P	11	Tomator	1	IPT GLP	5	Ragi	1						
	82	Madhemanagalam	Tank	A. Jettihalli	Nallampalli	71.2	2.24	40.85	28.13	43.09	71.22									D G	1	Brinjal	1	IPT SF	5								
	83	Kembenagoundan	Anicut	Mittareddihalli	Nallampalli	1.8	0.06	1.04	0.72	1.10	1.82		1		1		1	60		D Sun	1	Chrysanthemum	1										
	84	Palavadi	Tank	Palavadi	Nallampalli	57.5	1.81	32.98	22.71	34.78	57.49			110	3	2		240	1555	D Co	1												
	85	Kethampatti	Anicut	Mittareddihalli	Nallampalli	4.9	0.15	2.79	1.92	2.94	4.86		1		1		1	225															
	86	laligam big tank	Tank	Laligam	Nallampalli	48.6	1.53	27.87	19.19	29.40	48.59			140	2	3		225	1200														
	87	Arunachalaayer anicut	Anicut	Laligam	Nallampalli	2.4	0.07	1.35	0.93	1.43	2.36		1		2		2	100															
	88	Arunachalaayer anicut	Anicut	Mittareddihalli	Nallampalli	4.5	0.14	2.56	1.76	2.70	4.46																						
	89	Talapallam	Anicut	Laligam	Nallampalli	8.1	0.25	4.65	3.20	4.90	8.10		2		2			400															
	90	uthukuli	Anicut	Mittareddihalli	Nallampalli	17.0	0.53	9.76	6.72	10.29	17.01				2		1	640															
		Total				**443.6**	**13.93**	**254.47**	**175.23**	**268.40**	**443.63**		**7**	**320**	**17**	**7**	**7**	**2810**	**4615**															
		Kambainallur-Cluster																																
VIII	91	Bannikulam	Anicut	Bannikulam	Karimangalam	17.5	0.55	10.03	6.91	10.58	17.49		1		1		1	350		DSRI	2	banana	1	PF Tap	5	CG		Drip	10			FC	4
	92	Thippampatti	Anicut	Bannikulam	Karimangalam	8.6	0.27	4.92	3.39	5.19	8.58		1		1		1	225		D M	3	Mango	1	IPT SF	5	Maize	1						
	93	Pallipatti	Anicut	Pallipatti	Morappur	17.8	0.56	10.22	7.03	10.78	17.81		1				2	245		D R	1	Tapioca	1	IPT GLP	5	Sunflower	1						
	94	Kambainallur	Anicut	kambainallur	Morappur	46.2	1.45	26.48	18.23	27.93	46.16		1			2	1	1695		D P	5	Turmeric	2			Banana	2						
	95	Amarayan	Anicu	Vagrauppampatti	Morappur	20.9	0.66	11.97	8.24	12.62	20.86		1			4	1	100		D G	0	Tomato	1			Brinjal	1						

			t																															
	96	Kurmara ayer	Anicut	kelavalli	Morappur	42.4	1.33	24.30	16.74	25.63	42.37		1				1	91		D Sun	1	Bhendi	1			Tuemeric	1							
	97	Vannikulam	Anicut	Vagrauppampatti	Morappur	24.7	0.78	14.16	9.75	14.94	24.69		1		2		1	200		D Co	1												
	98	Kadayampatti	Anicut	Vagrauppampatti	Morappur	19.7	0.62	11.28	7.77	11.89	19.66		1		1	2	1	350															
		Total				**197.6**	**6.21**	**113.35**	**78.06**	**119.56**	**197.62**		**8**	**0**	**5**	**8**	**9**	**3256**	**0**															
		Grand Total				**4002.36**	**125.67**	**2295.75**	**1580.93**	**2421.43**	**4002.36**		**60**	**2477**	**139**	**92**	**81**	**59971**	**25441**															

Note:

1. C.T Clearing scrub jungle

2. RE Sl Repairs to sluice

3. RE anicut Repairs to Anicut

4. St. Bu/B.stone Strengthening of bund and boundary stone

5. RE weir Repairs to weirs

6. SC Suply channel Desilting and selective lining

Convergence Table

Kambainallur sub-basin Cluster details

Cluster	Name of the system tank	Ayacut area (Ha)	Total Ayacut Area (Ha)			Total Area (Ha)			WRD						Agriculture		Horticulture		TNAU		Agricultural Marketing		Agricultural Engineering		Fi
			FI	PI	Gap	WOP	WP	Gap	Activity						Activity	Nos/Ha	Activity	Nos/Ha	Activity	Nos/Ha	Activity	Nos/Ha	Activity	Nos/Ha	Activ
									C.J	St. Bu/B.stone	RE Sl	RE weir	RE anicut	SC											
I	Sangambasvathalav cluster	205.5	6.4527	117.875	81.173	124.33	205.5	0	5	100	12	20	7	3655	D SRI	3	Turmeric	1	D SRI	10	CG		Drip	35	AqIT
															D M	3	Mango	1	PF SC	5	paddy	1			Aq fp
															D R	1	Tomato	1	IPT GLP	5	Tomato	1			FS rea
															D P	5	Bhendi	1							FI
															D G										
															D Sun	1									
															D Co	1									
II	Jerthalav Cluster	691.74	21.72	396.78	273.24	418.5	691.7	0	1	448	4	4	29	334											

			1	2			4		5		0	0		40	D SRI	8	Brinjal	1	D SRI	10	CG		Drip	20	AqIT
															D M	9	Mango	2	PF SC	10	Maize	1			Aq fp
															D R	4	Tomato	1	IPT GLP	5	Tomato	1			FS rear
															D P	16	Tapioca	2							FI
															D G	1	Turmeric	2							FK
															D Sun	1	Bhendi	1							
															D Co	1									
III	Kottumaranahalli cluster	889.3	27.924	510.102	351.27	538.03	889.3	0	0	0	0	0	0	0											
															D SRI	10	Mango	2	D SRI	5	CG		Drip	35	AqIT
															D M	12	Turmeric	4	PF SC	5	Paddy	1			Aq fp
															D R	5	Tapioca	2	PF veg	5	Bhendi	1			FS rear
															D P	22	Tomato	2	IPT GLP	10					FI
															D G	1	Bhendi	1	IPT sf	5					
															D Sun	2									
															D Co	2									
IV	Periyampatti cluster	303.78	9.5387	174.248	119.99	183.79	303.78	0	5	110	14	2	6	2895											
															D SRI	4	Mango	2	D SRI	5	ABC		Drip	40	
															D M	4	Turmeric	2	PF Veg	5	CG				Aq fp
															D R	2	Tapioca	1	IPT GLP	10	Maize	1			
															D P	8	Tomato	1			Paddy	1			
															D G	1	Bhendi	1			Tomato	1			
															D Sun	1									
															D Co	1									
V	Kadagathur-cluster	873.53	27.429	501.057	345.04	528.49	873.53	0	11	789	28	7	11	4710											
															D SRI	10	Banana	2	D SRI	5	CG		Drip	25	Aq fp
															D M	12	Mango	1	IPT SF	20	Maize	1			FK
															D R	5	Turmeric	3	IPT GLP	15	Paddy	1			
															D P	21	Tapioca	1							
															D G	1	Tomato	2							
															D Sun	2	Chrysanthemum	0.5							
															D Co	2									
VI	Krishnapuram cluster	397.26	12.474	227.868	156.92	240.34	397.26	0	9	710	23	8	12	9205											
															D SRI	5	Banana	1	PF Tur	5	CG		Drip	11	Aq fp
															D M	6	Mango	1	IPT SF	5	Maize	1			orn. Fish
															D R	2	Turmeric	3	IPT GLP	5	Paddy	1			culture
															D P	9	Tapioca	1	PF Tap	5	Brinjal	1			
															D G	1	Tomato	1			Cowpea	1			
															D Sun	1	Bhendi	1							
															D Co	1	Chrysanthemu	0.5							

																	m								
VII	Nallampalli cluster	443.63	13.93	254.466	175.23	268.4	443.63	0	7	320	17	7	7	2810	D SRI	5	Banana	1	D SRI	5	CG		Drip	15	
															D M	6	Turmeric	3	PF SC	5	sunflower	1			
															D R	2	Tapioca	2	PF Tur	5	Bhendi	1			
															D P	11	Tomator	1	IPT GLP	5	Ragi	1			
															D G	1	Brinjal	1	IPT SF	5					
															D Sun	1	Chrysanthemum	1							
															D Co	1									
VIII	Kambainallur-Cluster	197.62	6.2053	113.355	78.06	119.56	197.62	0	8	0	5	8	9	3256											
															D SRI	2	banana	1	PF Tap	5	CG		Drip	10	
															D M	3	Mango	1	IPT SF	5	Maize	1			
															D R	1	Tapioca	1	IPT GLP	5	Sunflower	1			
															D P	5	Turmeric	2			Banana	2			
															D G	0	Tomato	1			Brinjal	1			
															D Sun	1	Bhendi	1			Tuemeric	1			
															D Co	1									
	Grand Total	4002.36	125.67	2295.75	1580.93	2421.43	4002.36	0	60	2477	139	92	81	59971											

Note:

1	C.T	Clearing scrub jungle
2	St. Bu/B.stone	Strengthening of bund and boundary stone
3	RE Sl	Repairs to sluice
4	RE weir	Repairs to weirs
5	RE anicut	Repairs to Anicut
6	SC	Suply channel Desilting and selective lining

1.2 HYDROLOGY

1.2.1 GENERAL

Poolapatti River and Solaikottai River are worth mentioning tributaries of Kambainallur River. Finally confluences with Pennaiyar River.

1.2.2 LOCATION

Kambainallur Sub Basin area is 957.439 Sq km. The taluks covered in this sub basin are Dharmapuri, Palacode and Harur of Dharmapuri District.

1.2.3 CATCHMENT AREA OF KAMBAINALLUR SUB-BASIN

The Kambainallur Sub Basin has a typical climate, owing to the marginal catchment area in the Rayakottai Hills . Kambainallur Sub Basin enjoys the benefits of mostly North East monsoon and South West Monsoon.

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.

1.2.5 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	Winter	South west monsoon	Annual
1.	Palacode	327	163	19	416	924
2.	Dharmapuri	310	172	14	401	897
	Average	**318.50**	**167.50**	**16.50**	**408.50**	**910.50**

a. CLIMATE

The Kambainallur Sub Basin lies in a low rainfall belt having an annual average rainfall of 910.50mm. Southwest monsoon contribute 408.50 mm, while NE monsoon contributes 318.50 mm . This basin receives a major share of its rainfall during SW monsoon. This monsoon helps to build up storage in the reservoirs and tanks both system and Non system. This basin has Rayakottai Hills on Southern side. North East monsoon rainfall, though lesser than the South West monsoon rainfall. For the measurement of Hydro meteorological parameters in the basin area, there is one weather station at Rayakottai its data is taken for the study.

Above table revealed that the marginal farmers alone accounted for 49 percent in the sub basin followed by small farmers. Developmental initiatives will need to take the fact into account

b. SOIL CLASSIFICATION

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

Inceptisoil	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
Alfisoil	The red or brown soils having accumulation of alleviated clay in sub surface horizon it well	Annual crops with shallow roots systems cum up wells

	drained, poor water and nutrient holding capacity.	
Vertisoils	Black soil	Suitable for cotton, Pulses etc

c. LAND HOLDINGS

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

Category	Size of holdings	Numbers	Percentage
Marginal	Below 1.00 Ha	3597	49
Small	1.00 – 2.00 Ha	2129	29
Medium	2.00 – 5.00 Ha	1248	17
Big	5.00 ha & above	367	5
Total		**7344**	**100**

Above table revealed that the marginal farmers alone accounted for 49 percent in the sub basin followed by small farmers. Developmental initiatives will need to take the fact into account

1.2.6 DEMOGRAPHY

Name of Sub Basin	**Total No. of Blocks**	**Total No. of Villages**	**Population in Million**		
			2004	**2010**	**2025**
Kambainallur Sub basin	8	50			

1.2.10 CROPPING PATTERN OF KAMBAINALLUR SUB BASIN

S.No	Crops	WOP				WP	
		FI	PI	GAP	Total	FI	Total
I	**Perennial**						
	Coconut		147		147	147	147
	Mango					100	100
	Fodder Grass		05		05	35	35
II	**Annual Crops**						
	Sugarcane	170	487		657	677	677
	Banana	20	20		40	50	50
	Flowers		85		85	108	108
	Tapioca		127.89		127.89	509.36	509.36
	Turmeric		220		220	454	454
	Sub total	**190**	**939.89**		**1129.89**	**1798.36**	**1798.36**
	Ist CROP						
III	Paddy	214	170		384	250	
	Pulses		140		140	365	
	Maize		04		04	350	
	Cotton		216		216	60	
	Sorghum		205		205	205	
	Sun flower		03		03	272	
	Tomato		120		120	200	
	Brinjal		20		20	100	
	Bhendi		45		45	100	
	Chillies		3		03	20	
	Sub Total	**214**	**926**		**1140**	**1922**	**1922**
Gap				**1580.47**	**1580.47**		
	Sub total I+II+III	**404**	**2017.89**		**4002.36**	**4002.36**	**4002.36**
IV	**Second Crop**						
	Paddy	84			84	185	185
	Ragi		169		169	220	220
	Ground nut		64		64	64	64
	Maize				145	145	
	Pulzes		15		15	50	50
	Sorghum		51		51	60	60
	Sunflower					100	100
	Tomato		80		80	40	40
	Brinjal		05		05	10	10
	Bhendi		30		30	30	30
	Chillies		02		02	10	10

	Sub Total	**84**	**416**		**600**	**914**	**914**
	Grand Total	**488**	**2433.89**		**4502.36**	**4916.36**	**4916.36**

1.2.11 LIVE STOCK - POPULATION

Name of Sub basin	**Cattle**	**Buffalo**	**Sheep**	**Goats**	**Pigs**	**Dogs**	**Others**	**Poultry**
Kambainallur Sub basin (P.244)	50788	16998	54194	33745	3299	15194	13	96903
Annual requirement	9.394 Mcum							

1.2.12 INDUSTRIES & ANNUAL WATER DEMAND in Mcum

Name of Sub basin	**Medium Industries**			**Small Industries**			**Water Requirement**		
	2007	**2010**	**2025**	**2007**	**2010**	**2025**	**2007**	**2010**	**2025**
Kambainallur Sub basin	1	2	5	---	---	---	8.93	10.79	13.87

Crop water requirement without Project

Sl.No.	Name of Crop	Area in Ha	Crop water requirement in mm	Total Crop water requirement in Mcm	Irrigation water requirement at source Eff=53%	Total Irrigation requirement in Mcm
I	**Perennial Crops**					
1	Coconut	147.00	861	1.266	2.39	2.39
2	Mango	0.00	566	0.000	0.00	0.00
3	Fodder	5.00	386	0.019	0.04	0.04
4	Sapota	5.00	526	0.026	0.05	0.05
5	Amla	5.00	526	0.026	0.05	0.05
	Sub Total	**162.00**		**1.34**	**2.52**	**2.52**
II	**Annual Crops**					
1	Sugarcane	657.00	753	4.947	9.33	9.33
2	Banana	40.00	713	0.285	0.54	0.54
3	Rose	5.00	509	0.025	0.05	0.05
4	Tapioca	100.00	538	0.538	1.02	1.02
5	Turmeric	300.00	161	0.483	0.91	0.91
	Sub Total	**1102.00**		**6.28**	**11.85**	**11.85**
III	**1st crop (Sep-Jan)**					
1. a	Paddy	389.00	727	2.828	5.34	5.34
b	Paddy - SRI	0.00	509	0.000	0.00	0.00
2	Pulses	251.00	300	0.753	1.42	1.42
3	Maize	20.00	329	0.066	0.12	0.12
4	Cotton	18.89	166	0.031	0.06	0.06
5	Sorghum	69.00	217	0.150	0.28	0.28
6	Sunflower	25.00	440	0.110	0.21	0.21
7	Tomato	200.00	382	0.764	1.44	1.44
8	Brinjal	25.00	464	0.116	0.22	0.22
9	Bhendi	75.00	315	0.236	0.45	0.45
10	Chillies	5.00	812	0.041	0.08	0.08
11	Tuberos	20.00	509	0.102	0.19	0.19
12	Chrysanthemum	60.00	438	0.263	0.50	0.50
13	Fallow	0.00	0	0.000	0.00	0.00
	Sub Total	**1157.89**		**5.46**	**10.30**	**10.30**
	Grand Total (I+II+III)	**2421.89**		**13.08**	**24.67**	**24.67**
IV	**2nd Crop**					

1. a	Paddy	84.00	475	0.399	0.75	0.75
b	Paddy - SRI	0.00	333	0.000	0.00	0.00
2	Ragi	159.00	274	0.436	0.82	0.82
3	Groundnut	64.00	555	0.355	0.67	0.67
4	Maize	10.00	382	0.038	0.07	0.07
5	Pulses	15.00	300	0.045	0.08	0.08
6	Sorghum	51.00	269	0.137	0.26	0.26
7	Sunflower	5.00	440	0.022	0.04	0.04
8	Tomato	50.00	382	0.191	0.36	0.36
9	Brinjal	0.00	462	0.000	0.00	0.00
10	Bhendi	25.00	462	0.116	0.22	0.22
11	Chillies	2.00	370	0.007	0.01	0.01
	Total	**465.00**		**1.75**	**3.29**	**3.29**
	Great Grand Total	**2886.89**		**14.82**	**27.97**	**27.97**

Water Potential without Project

Surface Water Potential		=	108.49	Mcm
Ground Water Potential		=	130.36	Mcm
Total Potential		**=**	**238.85**	Mcm

Water Demand without Project

Domestic		=	19.04	Mcm
Livestock		=	9.39	Mcm
Industrial		=	7.71	Mcm
Irrigation	WRO	=	27.97	Mcm
	PU & GW	=	12.63	Mcm
Total Water Demand		**=**	**76.74**	Mcm
Water Balance		=	**162.11**	Mcm

Crop water requirement with Project

Sl.No.	Name of Crop	Area in Ha	Crop water requirement in mm	Total Crop water requirement in Mcm	Irrigation water requirement at source Eff=56%	Total Irrigation requirement in Mcm
I	**Perennial Crops**					
1	Coconut	212.00	861	1.825	3.26	3.26
2	Mango	100.00	566	0.566	1.01	1.01
3	Fodder	20.00	386	0.077	0.14	0.14
4	Sapota	5.00	526	0.026	0.05	0.05
5	Amla	5.00	526	0.026	0.05	0.05
	Sub Total	**342.00**		**2.52**	**4.50**	**4.50**
II	**Annual Crops**					
1	Sugarcane	627.00	753	4.721	8.43	8.43
2	Banana	50.00	713	0.357	0.64	0.64
3	Rose	8.00	509	0.041	0.07	0.07
4	Tapioca	350.00	538	1.883	3.36	3.36
5	Turmeric	330.00	161	0.531	0.95	0.95
	Sub Total	**1365.00**		**7.53**	**13.45**	**13.45**
III	**1st Crop**					
1. a	Paddy	0.00	727	0.000	0.00	0.00
b	Paddy - SRI	350.00	509	1.781	3.18	3.18
2	Pulses	636.00	300	1.908	3.41	3.41
3	Maize	400.00	329	1.316	2.35	2.35
4	Cotton	60.00	166	0.100	0.18	0.18
5	Sorghum	69.00	217	0.150	0.27	0.27
6	Sunflower	300.00	440	1.320	2.36	2.36
7	Tomato	250.00	382	0.955	1.71	1.71
8	Brinjal	30.00	464	0.139	0.25	0.25
9	Bhendi	100.00	315	0.315	0.56	0.56
10	Chillies	8.00	812	0.065	0.12	0.12
11	Tuberos	22.36	509	0.114	0.20	0.20
12	Chrysanthemum	70.00	438	0.307	0.55	0.55
13	Fallow	0.00	0	0.000	0.00	0.00
	Sub Total	**2295.36**		**8.47**	**15.12**	**15.12**

	Grand Total (I+II+III)	**4002.36**		**18.52**	**33.08**	**33.08**
IV	**2nd Crop**					
1. a	Paddy	0.00	475	0.000	0.00	0.00
b	Paddy - SRI	84.00	333	0.279	0.50	0.50
2	Ragi	220.00	274	0.603	1.08	1.08
3	Groundnut	64.00	555	0.355	0.63	0.63
4	Maize	145.00	382	0.554	0.99	0.99
5	Pulses	151.00	300	0.453	0.81	0.81
6	Sorghum	60.00	269	0.161	0.29	0.29
7	Sunflower	100.00	440	0.440	0.79	0.79
8	Tomato	75.00	382	0.287	0.51	0.51
9	Brinjal	0.00	462	0.000	0.00	0.00
10	Bhendi	30.00	462	0.139	0.25	0.25
11	Chillies	3.00	370	0.011	0.02	0.02
	Total	**932.00**		**3.28**	**5.86**	**5.86**
	Great Grand Total	**4934.36**		**21.80**	**38.94**	**38.94**

Water Potential with Project

Surface Water Potential	=	108.49	Mcm
Ground Water Potential	=	130.36	Mcm
Total Potential	**=**	**238.85**	Mcm

Water Demand with Project

Domestic		=	19.04	Mcm
Livestock		=	9.39	Mcm
Industrial		=	7.71	Mcm
Irrigation	WRO	=	38.94	Mcm
	PU & GW	=	12.63	Mcm
Total Water Demand		**=**	**87.71**	Mcm

Water Balance	=	**151.14**	Mcm

1.3 HYDRAULICS OF THE COMPONENTS

1.3.1 Reservoirs / Anicuts / Dividing Dams / Bed Dams / Off Takes

Reservoir Details :

THUMBALAHALLI RESERVOIR PROJECT

SALIENT FEATURES OF THE RESERVOIR

	Reservoir Details		
a.	a. Free Catchment area	232.5	
b.	b. Combined Catchment area	232.5	
c.	c. Capacity at F.R.L.	3.68	
d.	d. Live Capacity	2.575	
e.	e. Annual Storage	7.66mm	
f.	f. Waterspread area at F.R.L. (including bound)	1.93 sq km	
g.	g. Full Reservoir level	471.5	
h.	h. Maximum water level	471.5	
i.	i. T.B.L.	473.6	
j.	j. No. of Filling	2	
k.	Irrigation	883.85	
l.	Water Supply	Nil	
m.	Dead Storage	0.32	
n.	Total Capacity @ FRL	3.709	
o.	Total Length of Dam (118.2M+546.8M = 665.00M)	1053.5	
	Masonry Overflow Dam	-	-
a.	Length of over flow Dam (Masonry Portion)	NIL	
b.	No. of Spans	3	
c.	Spill way vent size	12.50 x 4.50	
d.	Crest of Spillway	467	
e.	Maximum flood discharge	577.47	
	Earth Dam		
a.	Total length of earth dam (excluding masonry portion)	1083.5	
b.	Top width	3.65	
c.	T.B.L.	473.6	
d.	Free Board	2.10	
	CANALS	**LENGTH**	**AYACUT**
a.	Right main Channel	4.55 Km	276.4
b.	Left main Cannel	7.20 Km	267.5
c.	Branch I of LMC	3.20 Km	
	Total	14.95 Km	
	Direct Ayacut through Anicuts 883.85 Hectares		
	Irrigation		**Period**
a.	1. Ist Crop)		September to December

HYDRAULIC PARTICULARS OF ANICUTS

Sl.No.	Name of Anicut	Village	Ayacut	Length of Anicut (M)	Crest level of Anicut(M)	Front(M)	Free Sq.Km	Combined Sq.Km	Maximum flood discharge Cumecs/Cusecs	Head of Sluice Location	Vent(M)	Sill Level Sluice (M)	Discharge cumecs	Supply Channel					Remarks
														Length (M)	Bed Width (M)	FSD(M)	Bed Slope	Sluice	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Jalalgan Anicut	Sangambasavanthalav	10.65	11.00	100.00	0.45		8.50	550		0.60x0.60	99.400		550	0.60	0.45		1	
2	P.Chettihalli	P.Chettihalli	19.06	21.00	100.00	0.60		26	3000	Right	0.60x0.60	99.400	0.085	1013	0.60	0.45		1	
3	Puram Keel Anicut	P.Chettihalli	4.41	31.00	100.00	0.60		26.34	3000	Left	0.60x0.60	99.400	0.03	1468	0.40	0.45		1	
4	Pethanahalli	P.Chettihalli	28.46	19.80	100.00	0.60		26.87	3140	Right	0.60x0.60	99.400	0.09	765	0.60	0.30		1	
5	Komalahalli Anicut	P.Chettihalli	5.67	24.35	100.00	0.60		27.15	3162	Left	0.60x0.60	99.400	0.31	300	0.45	0.30		1	
6	Jerthalav Anicut	Erranahalli	11.50	17.35	100.00	0.60		32.50	952	Right	0.60x0.60	99.400	0.31	680	0.60	0.90		1	
7	Vadaman Anicut	Jerthalav	14.80	19.80	100.00	0.60		32.50	3564	Right	0.60x0.60	99.400	0.34	1000	1.20	0.60		1	
8	Garai Oddu	Jerthalav	16.61	45.30	100.00	0.60		33.12	3610	Right	0.60x0.60	99.400	0.35	1100	0.90	0.60		1	
9	Gundumaduvu Anicut	Jerthalav	5.70	33.20	100.00	0.60		32.82	3588	Left	0.60x0.60	99.400	0.20	1200	0.90	0.38		1	
10	Sudukadu Anicut	Chikkarthanahalli	10.60	26.30	100.00	0.60		22.30	750	Left	0.60x0.60	99.400	21.2						
11	Chikkarthanahalli Anicut	Chikkarthanahalli	29.12	23.00	100.00	0.60		15.20	952	Right	0.60x0.60	99.400							
12	Thamarai	Chikkarthanahalli	3.82	72.47	100.00	0.60		33.56	3641	Right	0.60x0.60	99.400	3.92	1130	5.80			1	
13	Sunnampatty	Chikkarthanahalli	13.26	15.00	100.00	0.60		28.20	2500	Left	0.60x0.60	99.400							
14	Viyasar Kottai Anicut	Chikkarthanahalli	48.99	97.50	100.00	0.60		35.11	375	Right	0.60x0.60	99.400	0.34	1150	0.90	0.60		1	
15	Viyasar	Chikkarthanahalli	43.21	47.20	100.00	0.60		36.73	5526	Right	0.60x0.60	99.400	0.29	589	0.90	0.60		1	
16	Naganampatty anicut	Naganampatty	60.28	50.00	100.00		2	3.17	9800	Left	0.60x0.60			600		0.45			

17	Poolapatty anicut	Periyampatty	23.95	60.00	100.00		1.96	231.96	8035	Right	0.60x0.60			600					
18	ADILAM anicut	Adilam	8.16	60.00	100.00		24.51	135.19	8328	Left &	0.60x0.60			500					
19	Sappanipatty anicut	Adilam	28.36	54.00	100.00		1	285.73	9236	Left	0.60x0.60			700					
20	Jembery anicut	Poonarthanahalli	32.19	60.00	100.00		24.51	135.19	8328	Right	0.60x0.60			1000					
21	Nagasamudram anicut	Murukkampatty	31.61	101.0	100.00		23.12	156.3	10306	Right	0.60x0.60			800					
22	Bannikulam anicut	Bannikulam	17.49	50.00	102.30		3.2	238.3	9501	Left	0.60x0.60			850					
23	Thippampatty anicut	Bannikulam	8.58	51.00	100.00		3.5	155	7078	Left	0.60x0.60			800					
24	Konanginaickanahalli anicut	Konanginaic-kanahalli anicut	4.1	85.00	100.00		2.56	138.55	11798	Left	1.50x1.50			600					
25	Ramalinga Mudaliyar Anicut	Hale-Dharmapuri	8.91	60.00	100.00		3.87	59.76	5604	Right	Open			900					
26	Kamatchiyamman anicut	Virupatchipuram	12.15	30.00	100.00		1.06	56.25	4080	Right	Open								
27	Jettihally anicut	Virupatchipuram	23.89	55.00	449.50		1.806	121.26	5222	Left &	0.60x0.60			700					
28	Seshappa cetty anicut	Hale-Dharmapuri	4.45	40.00	100.00		1.46	77.65	3865	Left	Open			800					
29	Selliyampatty anicut	Hale-Dharmapuri	16.6	75.00	100.00		2.58	48.42	2849	Left	Open			600					
30	Chowlupatty mel anicut	Choulupatty	27.82	16.00	412.20		3.44	359.39	2208	Right	Open			850					
31	Chowlupatty keel anicut	Choulupatty	18.22	26.00	100.00		3.56	361.12	3210	Right	Open			1050					
32	Pattalaman anicut	Hale Dharmapuri	10.32	20.00	100.00		1.52	64.36	2760	Left	Open			800					
33	Annasagaram anicut	Annasagaram	11.34							Left	Open			150					
34	Komuttiyanpallam anicut	Noolahalli	2.68	10.00	95.350		2.3	2.3	1380	Left	Open			1300					
35	Elanthoppu anicut	Noolahalli	3.24	60.00	100.00		118.7	259.06	5141	Left &	Open								
36	Makkan anicut	Dharmapuri	6.07	60.00	100.00		0.13	75.82	3822	Left	Open			800					
37	Ponmalai anicut	Virupatchipuram	8.91	81.00	462.20		1.93	1.83	4675	Right	Open			1800					
38	Lakkiyampatty anicut	Lakkiyampatty	0.61	75.00	100.00		120	120	10410	Left	1.50x1.50			700					
39	Boothalappan anicut	Kottayur	22.27	85.25	423.71		1.59	1.59	10900	Left &	Open			1200					
40	Chowluhalli anicut	Vellalapatty	27.82	###	95.35	0.90	2.12	4.02	10900	Left	1.20x0.60		14	1300					

41	Mylambady anicut	Puluthikarai	6.07	54.00	100.00		1.42	41.82	2566	Right	1.50x1.50			500					
42	Mullikadu anicut	Puliyampatty	11.34	40.00	100.00		3.25	39.47	3093	Right	Open			800					
43	Vellalapatty anicut	Vellalapatty	3.64	16.00	100.00		10.32	10.32	1134	Left	Open			700					
44	Moolakadu anicut	Sandampatty	14.58	13.00	100.00		8.5	8.48	3108	Right	Open			700					
45	Kattaru anicut	Vellolai	41	31.00	100.00		0.82	155.9	4302	Left	Open			1700					
46	Garai oddu	Krishnapuram	20.24	16.00	98.500		1.56	34.29	1090	Left	0.60x0.60			800					
47	Jalar anicut	Mittareddihalli	5.24	7.00	99.400		0.06	9.85	230	Right	0.90x0.60								
48	Sankar iyer anicut	Mittareddihalli	3.63	30.00	99.500		0.774	19.28	4164	Left	Open			850					
49	Emakuttiur anicut	Oddapatty	4.86	30.00	100.00		0.528	19.36	5024	Left &	Open			550					
50	Ungaranahally anicut	Ungaranahalli	9.31	13.00	99.450		0.03	10.32	382	Right	Open			800					
51	Kembagoundan anicut	Mittareddihalli	1.82	20.00	100.00		0.129	15.36	1374	Left	Open			600					
52	Kethampatty anicut	Mittareddihalli	4.86	30.00	100.00		0.258	15.89	4140	Right	Open			300					
53	Arunachala Iyer anicut	Laligam	6.81	35.00	100.00		0.31	19.06	1054	Left &	Open			700					
54	Thalapallam anicut	Laligam	8.1	45.00	100.00		1.16	25.24	1359	Right	Open			1600					
55	Utthukuli anicut	Mittareddihalli	17.01							Left	Open			2000					
56	Vannikulam anicut	Vagurappampatti	24.69	60.00						Left	0.90x0.60			1000	2	0.6			
57	Kadaiyampatty anicut	Vagurappampatti	19.61	80.00						Left	0.90x0.60			700	0.9	0.45			
58	Pallipatty Anicut	Pallipatty	17.81	97.00						L&R	0.30x0.30			2920					
59	Kambinallur Anicut	Kambinallur	46.16	88.00			6.30	446.68		Right	0.60x0.30			3510	1.2				
60	Kumarayan Anciut	Kelavalli	42.37	80.00										4500	1				
61	Amarayan Anicut	Vagurappampatti	20.86	72.00						Left	0.90x0.60			1200	1.2			1	

HYDRAULIC PARTICULARS OF SYSTEM TANKS

Sl. No	District	Taluk	Name of Tank	Ayacut in Ha	Capacity in Mcft	Number of Fillings	Free catchment in SqKm	Combined Catchment in Sq.Km	Water spread area(Sq.Km)	FTL in M	MWL in M	No.of Sluices	Nos and Length of weir (m)		Discharge in Cusecs	Length of bund (M)	Lengh of supply channel	Upper Tank	Lower Tank
													Nos	Length in m					
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
1	Dharmapuri	Palacode	Sangambasavanthalav	137.25	15.00	3	--	2.06	0.40	587.70	588	2	1	35.30	477	474	4500	Amanitalav	Jerthalav
														23.75					
2			Jerthalav	165.89	36.65	2	20.6	79.98	0.57	520.75	521.45	2	2	81.60	117	882	3000	Sangambasa	Thamarai
														11.00				Vanthalav	
3			Thamarai	80.57	16.10	2	4.80	11.87	0.43	494.80	495.30	2	2	31.65	13.9	976	1535	Jerthalav	Pulikkal
4			Pulikkal	90.74	9.61	4		23.06	0.32	30.00	30.60	4	1	57.50	17.8	1523	540	Thamarai	Koratteri
																	1590		
																	1250		
5			Panangalli	46.15	10.62	2	3.92	28.04		474.50	475.00	3	1	52.00	58	750	1300	Seengal Eri	Kolagathur
																	1800		
														28.90					Cholarayan

HYDRAULIC PARTICULARS OF NON SYSTEM TANKS

Sl. No	District	Taluk	Name of Tank	Ayacut in Ha	Capacity in Mcft	Number of Fillings	Free catchment in SqKm	Catchment in Sq.Km	Water spread area(Sq.Km)	FTL in M	MWL in M	No.of Sluices	Nos and Length of weir (m)		Discharge in Cusecs	Length of bund (M)	Length of Channel (M)	Upper Tank	Lower Tank
													Nos	Length in m					
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
1	Dharmapuri	Palacode	Pulikarai	50.04	18.00	2	4.64	8.00	0.03	477.45	477.90	2	2	30.50	951	506	1500	----	Sogathur tank
2			Sikkathimmanahalli	50.04	4.64	2	2.24	22.13	0.204	432.945	433.41	3	1	24.7	1693	738	2500	Chinnachetty tank	karagathahalli big tank
3			Bysuhalli tank	69.23	15.54	2	8.15	18.31	0.416	444.625	445.39	4	1	41	1590	1021	1500	Poomandahalli tank	Poolapatty river
4		Dharmapuri	Sogathur tank	140.9	36.48	2	20.9	58.18	1.22	456.03	456.64	4	1	83	3397	1210	3000	Attukaranahalli big tank	Ramakkal tank
5			Ramakkal tank	111.6	33.5	2	14	77.58	0.82	447.78	448.92	3	1	52	4026	432	2000	Sogathur tank	Dharmapuri river
6			Kadagathur eri	217.8	66.11	2	9.03	66.2	0.81	455.23	456.06	5	1	83	3561	1686	4000	Booganahalli tank	Dharmapuri river
7			Krishnapuram Big tank	57.49	18.27	2	4.13	14.78	0.45	426.14	426.75	2	2	31.97					
														36.54	1344	450	2500	Indamangalem tank	Dharmapuri river
8			Annasagaram tank	196.6	61.46	2	24.7	158.6	1.101	464.06	464.67	4	2	73.68					
														44.15	2781	2498	2000	Veeralamman tank	Dharmapuri river
9			Noolahalli tank	47.32		2				99.05	99.65	2	1	28.3	1210		3000	Annasagaram tank	Dharmapuri river
10			Krishnapuram chinna eri	53.18	5.2	2	0.82	1.36	0.3	422.18	422.64	2	1	21.92	432	1315	l-2500	----	Dharmapuri river
																	r-1000		
11			Kolanachiyamman Tank	76.92	10.2	2	0.23	5.39	0.28	419.1	419.71	3	1	21.32	727	964	1200	Murukkan eri	Dharmapuri river
12			Kombaipallam tank	46.96	7.7	2	4.69	4.69	0.27			2	1	17.15	1165	565	2700		
13			Adhiyamankottai cholarayan tank	109.2	39.56	2	5.18	63.26	1.28	480.87	481.48	2	3	16.75			1500	Madhemangalem	Thengamarathupatty
														76				tank	tank
														41.7	3568	1860			
14			Madhemangalem cholarayan tank	182.5	32.14	2	15.8	42.62	0.67	486.73	487.41	3	1	79.25	2925	1350	3000	Laligam big tank	Adhiyamankottai cholarayan tank

15			Palavadi tank	57.49	14.58	2	5.52	7.79	0.509	481.58	482.07	3	1	19.5	1046	1555	2000	Kanapatty eri	Koorampatty eri
16			Laligam Big Tank	48.59	6.90	2	4.80	5.68		493.75	494.36	2	1	24.7	919	890	3000	---	Madhemangalam

HYDRAULIC PARTICULARS OF SUPPLY CHANNEL

Sl. No	Name of Supply Channel	Start Point		End Point		Length of Channel (M)	Bed Width (m)	Bed Slope (1 in)	Side Slope	MFD in Cusecs	Depth of Flow	Remarks
		Location	Sill Level	Location	Sill Level							
1	Jalalgan Anicut					550	0.60				0.45	
2	P.Chettihalli					1013	0.60				0.45	
3	Puram Keel Anicut					1468	0.40				0.45	
4	Pethanahalli					765	0.60				0.30	
5	Komalahalli Anicut					300	0.45				0.30	
6	SC from Jerthalav tank to Pananganalli eri					20000	3.00	1640.00	1:1		1.00	
7	Jerthalav Anicut					680	0.60				0.90	
8	Vadaman Anicut					1000	1.20				0.60	
9	Garai Oddu					1100	0.90				0.60	
10	Gundumaduvu Anicut					1200	0.90				0.38	
11	Sudukadu Anicut											
12	Chikkarthanahalli Anicut											
13	Thamarai					1130	5.80					
14	Sunnampatty											
15	Viyasar Kottai Anicut					1150	0.90				0.60	
16	Viyasar					589	0.90				0.60	
17	TRP Left & Right canal					14950						
18	Naganampatty anicut					600					0.45	
19	Poolapatty anicut					600						
20	ADILAM anicut					500						
21	Sappanipatty anicut					700						

22	Jembery anicut					1000						
23	Nagasamudram anicut					800						
24	Bannikulam anicut					850						
25	Thippampatty anicut					800						
26	Konanginaickanahalli anicut					600						
27	Ramalinga Mudaliyar Anicut					900						
28	Kamatchiyamman anicut											
29	Jettihally anicut					700						
30	Seshappa cetty anicut					800						
31	Selliyampatty anicut					600						
32	Chowlupatty mel anicut					850						
33	Chowlupatty keel anicut					1050						
34	Pattalaman anicut					800						
35	Annasagaram anicut					150						
36	Komuttiyanpallam anicut					1300						
37	Makkan anicut					800						
38	Ponmalai anicut					1800						
39	Lakkiyampatty anicut					700						
40	Boothalappan anicut					1200						
41	Chowluhalli anicut					1300						
42	Mylambady anicut					500						
43	Mullikadu anicut					800						
44	Vellalapatty anicut					700						
45	Moolakadu anicut					700						
46	Kattaru anicut					1700						

47	Jalar anicut					800						
48	Sankar iyer anicut					850						
49	Emakuttiur anicut					550						
50	Ungaranahally anicut					800						
51	Kembagoundan anicut					600						
52	Kethampatty anicut					300						
53	Arunachala Iyer anicut					700						
54	Thalapallam anicut					1600						
55	Utthukuli anicut					2000						
56	Vannikulam anicut					1000	2				0.6	
57	Kadaiyampatty anicut					700	0.9				0.45	
58	Pallipatty Anicut					2920						
59	Kambinallur Anicut					3510	1.2					
60	Kumarayan Anciut					4500	1					
61	Amarayan Anicut					1200	1.2					

1.4 PARTICIPATORY IRRIGATION MANAGEMENT (PIM)

1.4 PARTICIPATORY IRRIGATION MANAGEMENT (PIM)

1.4.1 SALIENT FEATURES OF IMPLEMENTATION OF PIM IN KAMBAINALLUR SUB-BASIN

1. **The Sub-Basin:** This is one of the eighteen sub-basins of the Pennaiyar River Basin. Totally 21 irrigation tanks, 63 Anicuts and one Reservoir are under the control of Water Resources Organization (WRO) of Public Works Department (PWD) in this sub-basin. The lists of Infrastructures covered with more details are furnished in the **Annexure -1**. These Infrastructures are located within the Sub-Basin's hydraulic boundary spread over 50 villages of 3 Taluks in Dharmapuri District. The Total Command area under these Infrastructures workouts to 4002.36 Ha. **(Annexure1).**
2. **Command area :**

Thumbalahalli Reservoir Project	:	889.30 Ha
System tanks	:	520.60 Ha
Non System Tanks	:	1515.75 Ha
Other supply channel	:	60.81 Ha
Anicuts	:	1015.80 Ha
Total	:	4002.36 Hectare

3. **An Assessment of number of WUA's.**

i)	WUA' s are formed already in WRCP	7 Nos. (1744.80)
ii)	Associates proposed to be formed under IAMWARM Project covering 18 tanks, 37 Anicuts.	25 Nos. (2257.56) Hectare.
iii)	The Total command area covered by the above (31) WUA' s works out to	4002.36 Hectare.
iv)	More details about formation of WUA's in the Sub-Basin are made available in the Annexure-1	Enclosed.

4. **An account of "Awareness creation" among the farming community: Activities undertaken and "Walkthrough Survey" carried out:**

i) There are 21 Tanks, 61 Anicuts and 1 Reservoir in the Sub-Basin spread over 50 villages as detailed out in Annexure – 01. All these Villages were visited by the WRO officials and awareness about various activities, contemplated under IAMWARM project has been created.

ii) Details of villages covered, walkthrough surveys conducted, farmers attended, list of works suggested by the farmers, list of works analyzed and finalized by WRO officials, are all furnished in the Annexure -02 and Annexure -03:

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 09)

ii) Form – II :WUA document to be notified by District Collectors
(End of 09)

iii) Completion of preparatory works for the conduct of Elections for WUAs
(End of 09)

6. **Schedule for conduct of Elections in the Sub-Basin for forming Management Committees (End of 2009)**

7. **Support Organization (SOs).**

i) Initiating and completing the process of publishing EOI to hire Support Organisation at Sub-Basin level (End of 2009)

ii) Short listing and Providing Request for Proposals (RFPs) p all the short listed agencies, and obtaining Technical and Cost Proposals (Middle of -_____2009)

iii) Selection and deployment of Support Organization to the Sub-Basin (End of_____'2009)

8. **Appointment and the Role of Competent Authorities:**

i) Section 26 of the Tamil Nadu Farmer's Management of Irrigation Systems (TNFMIS) Act provides for the appointment of "Competent Authorities"

to assist the respective Organisation (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-operation or assistance, as may be required by the competent Authority, for carrying out all the tasks related to implementation of TNFMIS Act.

ii) 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 Divisional Officers working in the Kambainallur Sub-Basin:

a. C.R.P. Sub Division WUA's 1 to 29,32.
b. Upper Pennaiyar Basin Sub-Division 30-31,

a.	Section Officer, WRO, Kesarigulihalla Reservoir Project Section, Palacode	WUA's 1 to 3 & 8 to 11
b.	Section Officer, WRO, Irrigation Section Dharmapuri.	WUA's 4 to 7 & 16 to 29,32
c.	Section Officer, WRO, Nagavathy Section, Dharmapuri	WUA's 12 to 15
D	Section Officer, Irrigation Section, Harur	WUA's 30 – 31

9. **Involvement of farmers in the preparation "Scheme Modernization 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 7340 No. of farmers from 50 Villages. The final list of tasks was also prepared and exhibited in the Notice Board of the Village Administrative Officers Office and Panchayat Office. These

details were also discussed with the farmers and the tasks to be taken up under scheme modernization finalized on (Date).

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 work, as well as the Executive Engineer of WRO, who has been designated as the Nodal Officer for the Sub-Basin concerned.

iii) The field Officers of WRO are all aware of the problems in handing over the operation and maintenance responsibilities to the farmers concerned, if the tasks as desired by the farmers in the command area are not included in the modernization of the system and also in case, some of the tasks already included and planned are not implemented due to some reasons or other.

iv) The WRO officers were also informed that they are personally responsible for handing over the irrigation systems, under IAMWARM Project.

10. **Current status of Recovery of water charges :**

i) An enquiry conduced with the "Village Administrative Officers" (VAOs) of randomly selected villages (5 numbers out of 50 Villages) located with in the Sub-Basin the normal water charges recovery as informed by the VAO, works out to 40-50% only, about the expected percentage of 80-90%.

ii) With the proposal to form new WUAs under IAMWARM in "Kambainallur 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.

11. **"Capacity Building" of the WUA farmers:**

i) The "Support Organization 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" programs at suitable locations within the Sub-Basin command area, to benefit the farmers of the WUAs in the Sub-Basin.

ii) The "Support Organization" will also arrange for organization 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 Organization will also conduct necessary "Awareness programme" and impart training to educate the farmers of the WUAs in all aspects of the TNFMIS Act, TNFMS Rules and Election procedures for constituting the "Managing Committee" of the WUAs.

12. The "Component Authorities" appointed for the Sub-Basin will also be trained to effectively to interact with WUA farmers and maintain good report and relationship with the farming community in the Sub-Basin.

WALK THROUGH SURVEY

Sl.	Walk Through Survey		Farmers request	Technical Solution								Proposals in Plan								Remarks
No.	Date	Location		WRD	Agri	Horti	AED	TNAU	AGMT	AHD	Fisheries	WRO	Agri	Horti	AED	TNAU	AGMT	AHD	Fisheries	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
A	10.12.08	1)Pulikarai Tank	Panchapalli Channel, Megalampatty, Katteri, Kamanaickanpatty Eri Channel works to be taken repairs to head sluices, weir Anicuts, Apron is to be repaired lining of Supply Channel to be taken. Shutters to be reapaired, New Culverts and Foot Path to be provided.	Anicuts and Anicuts Supply Channel is to be improved	Lack of Irrigation Water& Lack of improved practices	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines &Drip irrigation	SRI in Paddy, Precision farming in sugarcane	Lack of market Information & Post harvest Techniques	AI vety Health cover,Fertility camp, Fodder Development.	Aquaculture in Farm ponds, IEC.	Improving Anicuts and Anicuts Supply Channel to have adequacy,Std. of tank	SRI demo crop Diveg	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines &Drip irrigation	SRI in Paddy, Precision farming in sugarcane	Forming Commodity Groups & Training to farmers about post harvesting techniques	AI vety Health cover, Fertility camp, Fodder Development.	Aquaculture in Farm ponds, IEC.	
		2)Earankalli Tank																		
		3)Garai Anicut																		
		4)SuduKadu Anicut																		
		5)Thamarai Anicut																		
		6)Sunnampatty Anicut																		
		7)Viyasar Anicut																		
		8)Viyasar Kottai Anicut																		
B	11.12.08	1) Ramalinga Mudhaliyar Anicut	Anicut and Tank Improvements	Improvements on Anicut and tanks	Lack of Irrigation Water& Lack of improved practices	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines & Micro irrigation System	SRI in Paddy, Precision farming in sugarcane, IPT in pulzes	Lack of market Information & Post harvest Techniques	AI vety Health cover,Fertility camp, Fodder Development.	Aquaculture in Farm ponds, IEC, Fish Kiosk	Improvements on Anicut & supply channel	SRI demo crop Diveg	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines & Micro irrigation System	SRI in Paddy, Precision farming in sugarcane,IPT in pulzes	Forming Commodity Groups	AI vety Health cover, Fertility camp, Fodder Development.	Aquaculture in Farm ponds, IEC, Fish Kiosk	
	P.No.	2) Kamatchiamman Anicut																		
	B7	3) Jettihalli Anicut																		
		4) Seehappa Chetty Anicut																		
		5) Annasagaram Anicut																		
		6) Ramakkal Tank																		
		7) Sogathur Tank																		
		8) Kolagathur Cholarayan Tank																		
C	12.12.08	1) Choulupatty Mel Anicut	Tanks and Anicuts repairs, Desilting of Irrigation Channel Anicut Body wall coping Concrete, Shutters to sluices lining to supply channel,Culverts Desilting of Anicuts,Retaining Wall on upstream of anicut, Repairs to Apron, Bund Strengthening.	Bund Strengthening in Tanks, Supply Channel Lining, Repairs to head Sluice and Weir, Aapron and Culverts	Lack of Irrigation Water& Lack of improved practices	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines & Micro irrigation System	SRI in Paddy,IPT in garden land pulzes	Lack of market Information & Post harvest Techniques	AI vety Health cover,Fertility camp, Fodder Development.	Aquaculture in Farm ponds, IEC, Fish Kiosk	Bund Strengthening in Tanks, Supply Channel Lining,Repairs to head Sluice and Weir, Aapron and Culverts	SRI demo crop Diveg	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines & Micro irrigation System	SRI in Paddy,IPT in garden land pulzes	Forming Commodity Groups	AI vety Health cover, Fertility camp, Fodder Development.	Aquaculture in Farm ponds, IEC, Fish Kiosk	
	P.No.	2)Choulupatty keel anicut																		
	C12(2)	3)Pattalamman Anicut																		
	C16	4)Selliampatty Anicut																		
	C17(2)	5)Annasagaram Tank																		
	C19(2)	6)Noolahalli Tan																		
		7)Karuthanpallam Anicut																		
		8)Elanthappa Anicut																		
		9)Makkan anicut																		
		10)Ponmalai Anicut																		
		11)Lakkiampatty Anicut																		
		12)Thamarai Eri																		
		13)Pulikkal Eri																		
		14)Chikkarthanahalli Anicut																		
		15)Gundumaduvu Anicut																		
		16)P.Chettihalli Tank																		
		17)Puram Mel Anicut																		
		18)Puram Keel Anicut																		
		19)Pethanahalli Anicut																		

D	13.12.08	1)Jerthalav Tank	Repairs to Tank Bund Channel, Providing Culverts in Channel, Repairs to Anicuts Apron Channel and Anicut Desilting and Anicut Sluice Shutters.	Tanks,Anicuts and Anicuts Supply Channel is to be improved								To improve Anicuts and Anicuts Supply Channel								
	P.No.	2)Jerthalav Anicut																		
	D1	3)Arali Oddu																		
	D6(2)	4)Vadaman Anicut																		
	D7(2)	5)Komalahalli Anicut																		
		6)Sangampasavanthav Tank																		
		7)Jalalgan Anicut																		
		8)Ungaranahalli Anicut		Providing Culverts	Lack of Irrigation Water& Lack of improved practices	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines &Micro irrigation System	SRI in Paddy, Precision farming in sugarcane, Vegetable &Turmeric	Lack of market Information & Post harvest Techniques	AI vety Health cover,Fertility camp, Fodder Development.	Aquaculture in Farm ponds & Irigation Tank , IEC, Fish KioskFish seeds Rearing in cages.		SRI demo crop Diveg	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines &Micro irrigation System	SRI in Paddy, Precision farming in sugarcane,Vegetable &Turmeric	Forming Commodity Groups &Provision for Training to farmers about post harvesting techniques	AI vety Health cover, Fertility camp, Fodder Development.	Aquaculture in Farm ponds & Irigation Tank , IEC, Fish KioskFish seeds Rearing in cages.	
		9)Adhiyamankottai Tank																		
		10)Emakuttiyur Anicut																		
		11)Jalar Anicut																		
		12)Mademangalam Tank																		
		13)Kethampatty Anicut																		
		14)Uthukuli Anicut																		
		15)Kembana Goundan Anicut																		
		16)Thalapallam Anicut																		
		17)Sankara Iyer Oddu																		
		18)Laligam Tank																		
		19)Arunachala Iyer Anicut																		
E	16.12.08	1)Garai Oddu	Repairs to Anicuts , Skinwall to Anicut, Apron, Desilting of Anicut,Desilting of Supply Channels, Lining to Anicut Supply channel, Providing Culverts and Footpaths.	Anicuts and Anicuts Supply Channel is to be improved, Providing Culverts	Lack of Irrigation Water& Lack of improved practices	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines, Drip & Micro irrigation system	Precision farming in Tarpioca, Crop diversification in sugarcane	Lack of market Information & Post harvest Techniques	AI vety Health cover,Fertility camp, Fodder Development.	Aquaculture in Farm ponds, IEC, Ornamental Fish Culture unit.	Improvements to Anicuts and Anicuts Supply Channel,Providing Culverts	SRI demo crop Diveg	Timely Distribution of hybrid seeds & Planting material of Horticultural Crops	To Improve the agri. Machines,Drip & Micro irrigation system	Precision farming in Tarpioca, Crop diversification in sugarcane	Forming Commodity Groups & Provision for Training to farmers about post harvesting techniques& Drying yard	AI vety Health cover, Fertility camp, Fodder Development.	Aquaculture in Farm ponds, IEC, Ornamental Fish Culture unit.	
	P.No.	2)Kattar Anicut																		
		3)Kombaipallam Tank																		
		4)Moolakadu Anicut																		
		5)Mullikadu Anicut																		
		6)Vellalapatty Anicut																		
		7)Kolanachiamman Tank																		
		8)Mylambadi Anicut																		
		9)Krishnapuram Periya Eri																		
		10)Krishnapuram Chinna Eri																		
		11)Chowluhalli Anicut																		
		12)Konanginaickanahalli Anicut																		
		13)Bysuhalli Anicut																		
		14)Thippampaty Anicut																		
		15)Bannikulam Anicut																		
		16)Nagasamudram Anicut																		
		17)Sikkathimmanahalli Tank																		
		18)Jemberi Anicut																		
		19)Sappanipatty Anicut																		
F	17.12.08	1)Poolapatty Anicut	Repairs to Anicuts , Skinwall to Anicut, Apron, Desilting	Anicuts and	Lack of Irrigatio	Timely Distribution	To Improve	SRI in Paddy,	Lack of market	AI vety Health	Aquaculture in Farm	Improvements to Anicuts	SRI demo	Timely Distribu	To Improv	SRI in Paddy,	Forming	AI vety	Aquaculture in Farm	
	P.No.	2)Naganampatty Anicut																		

		3)Adilam Anicut	of Anicut,Desilting of Supply Channels, Lining to Anicut Supply channel, Providing Culverts and Footpaths.	Anicuts Supply Channel is to be improved, Providing Culverts	n Water& Lack of improved practices	of hybrid seeds & Planting material of Horticultural Crops	the agri. Machines &Micro irrigation System	Precision farming in sugarcane	Information & Post harvest Techniques	cover,Fertility camp, Fodder Development.	ponds, IEC.	and Anicuts Supply Channel, Providing Culverts	crop Diveg	tion of hybrid seeds & Planting material of Horticultural Crops	e the agri. Machines &Micro irrigation System	Precision farming in sugarcane	Commodity Groups & Provision for Agri business centre	Health cover, Fertility camp, Fodder Development.	ponds, IEC.	
		4)TRP Dam, RMC & LMC																	

SOGATHUR TANK NO:B7 Dt: 11.12.08

THAMARAI ERI C.12 Dt:12.12.09

THAMARAI ERI C.12 Dt:12.12.09

P.CHETTIHALLI ANICUT C.16
Dt:12.12.09

PURAM MEL ANICUT C . 17 Dt:12.12.09

PURAM MEL ANICUT C . 17 Dt:12.12.09

PETHANAHALLI C.19 Dt:12.12.09

PETHANAHALLI C.19 Dt:12.12.09

SANGAMBASAVANTHALAV D.6
Dt:13.12.09

SANGAMBASAVANTHALAV D.6
Dt:13.12.09

JALALGAN ANICUT D.7 Dt:13.12.09

JALALGAN ANICUT D.7 Dt:13.12.09

JALALGAN ANICUT D.7 Dt:13.12.09

JALALGAN ANICUT D.7 Dt:13.12.09

JERTHALAV TANK D.1 Dt:13.12.09

Annexure: 1

AN ASSESSMENT OF COMMAND AREA AND WUAs UNDER THE CONTROL OF WRO OF PWD IN KAMBAINALLUR SUB - BASIN

WUA No	Name of Irrigation Systems and Tanks	Command Area in (Ha)	Location of the Command Area			Coverage of Command area under different projects (Ha)		Status of formation of WUAs in the Sub-Basin	
			Villages	Taluk	District	WRCP and Others	IAMWARM	Formed under WRCP	To be formed under IAMWARM
1	2	3	4	5	6	7	8	9	10
WUA - 1	Marandahalli anicut (chinnar basin)	16.31	Marandahalli	Palacode	Dharmapuri	16.31		Yes	
	Sangambasuvanthalav Tank		Sangambasuvanthalav	Palacode	Dharmapuri			Yes	-
	Jalalgan Anicut	147.90	Sangambasuvanthalav	Palacode	Dharmapuri	147.90		Yes	-
		164.20				**164.20**			
WUA - 2	P.chettihalli Anicut	19.06	P.Chettihalli	Palacode	Dharmapuri	19.06		Yes	-
	Puram Keel Anicut	4.41	Purathur	Palacode	Dharmapuri	4.41		Yes	-
	Pethanahalli Anicut	28.46	P.Chettihalli	Palacode	Dharmapuri	28.46		Yes	-
	Kombalahalli Anicut	5.67	P.Chettihalli	Palacode	Dharmapuri	5.67		Yes	-
	Jerthalav Tank	165.89	Jerthalav	Palacode	Dharmapuri	165.89		Yes	-
	Vadaman Anicut	31.37	Jerthalav	Palacode	Dharmapuri	31.37		Yes	-
	Garai Oddu Anicut		Palacode	Palacode	Dharmapuri			Yes	-
	Jerthalav Anicut	57.83	Erranahalli	Palacode	Dharmapuri	57.83		Yes	-
	Gundumaduvu Anicut		Jerthalav	Palacode	Dharmapuri			Yes	-
	Sudukadu Anicut		Chikkathimmanahalli	Palacode	Dharmapuri			Yes	-
	Thamarai Anicut		Chikkathimmanahalli	Palacode	Dharmapuri			Yes	-
	Thamarai Eri		Belarahalli	Palacode	Dharmapuri			Yes	

		312.68				**312.68**			
WUA - 3	Chikkarthanahalli Anicut	29.12	Chikkathimmanahalli	Palacode	Dharmapuri	29.12		Yes	-
	Thamarai Anicut		Chikkathimmanahalli	Palacode	Dharmapuri			Yes	-
	Thamarai Eri	54.53	Belarahalli	Palacode	Dharmapuri	54.53		Yes	
	Viyasar anicut	43.22	Belarahalli	Palacode	Dharmapuri	43.22		Yes	-
	Sunnampatty anicut	13.26	Chikkathimmanahalli	Palacode	Dharmapuri	13.26			
		140.11				**140.11**			
WUA-4	Left Main Canal of TRP	551.67	Kottumaranahalli	Palacode	Dharmapuri	551.67		Yes	-
		551.67				**551.67**			-
WUA-5	Right Main Canal of TRP	337.63	Kottumaranahalli	Palacode	Dharmapuri	337.63		Yes	-
		337.63				**337.63**			-
WUA-6	Naganampatti anicut	60.28	Naganampatti	Palacode	Dharmapuri	60.28		Yes	
	Poolapatti Anicut	23.95	Periyamapatti	Palacode	Dharmapuri	23.95		Yes	
	Adilam Anicut	8.16	Adilam	Palacode	Dharmapuri	8.16		Yes	
	Jemberi Anicut	32.19	Poonarthanahalli	Palacode	Dharmapuri	32.19		Yes	
	Sappanipatti Anicut	28.26	Adilam	Palacode	Dharmapuri	28.26		Yes	
		152.84				**152.84**			
WUA-7	Nagasamudiram Anicut	31.61	Murukkampatty	Palacode	Dharmapuri	31.61		Yes	
	Bannikulam Anicut	17.49	Bannikulam	Palacode	Dharmapuri	17.49		Yes	
	Thippampatty Anicut	8.58	Bannikulam	Palacode	Dharmapuri	8.58		Yes	
	Vannikulam Anicut	24.69	Vagurappampatty	Harur	Dharmapuri	24.69		Yes	
	Kadaiyampatty Anicut	19.61	Vagurappampatty	Harur	Dharmapuri	19.61		Yes	
		101.98				**101.98**			

WUA – 8	Supply channel from Jrthalav tank to Panangalli tank	23.60	Jerthalav	Palacode	Dharmapuri		23.60	-	Yes
	Supply channel from Jrthalav tank to Panangalli tank	13.50	Eranahalli	Palacode	Dharmapuri		13.50	-	Yes
	Supply channel from Jrthalav tank to Panangalli tank	23.71	Palacode	Palacode	Dharmapuri		23.71	-	Yes
		60.81					**60.81**		
WUA - 9	Pulikkal Eri	90.74		Palacode	Dharmapuri	-	90.74	-	Yes
	Viyasarkottai Anicut	48.99	Belarahalli	Palacode	Dharmapuri	-	48.99	-	Yes
		139.73					**139.73**		
WUA-10	Panangalli Eri	46.15	Panangalli	Palacode	Dharmapuri	-	46.15	-	Yes
		46.15					**46.15**		
WUA-11	Pulikarai Eri	50.04	Pulikarai	Palacode	Dharmapuri	-	50.04	-	Yes
		50.04					**50.04**		
WUA-12	Uthukuli Anicut	17.01	Mittareddihalli	Dharmapuri	Dharmapuri	-	17.01	-	Yes
	Kembanagoundan Anicut	1.82	Mittareddihalli	Dharmapuri	Dharmapuri	-	1.82	-	Yes
	Sankar Iyer Anicut	3.63	Mittareddihalli	Dharmapuri	Dharmapuri	-	3.63	-	Yes
	Kethampatti Anicut	4.86	Mittareddihalli	Dharmapuri	Dharmapuri	-	4.86	-	Yes
	Thalappallam Anicut	8.10	Laligam	Dharmapuri	Dharmapuri	-	8.1	-	
	Arunachala Iyer Anicut	6.82	Laligam	Dharmapuri	Dharmapuri	-	6.82	-	Yes
		42.24				-	**42.24**	-	
WUA-13	Laligam Big Tank	48.59	Laligam	Dharmapuri	Dharmapuri	-	48.59	-	Yes
		48.59				-	**48.59**	-	
WUA-14	Madhemangalam Tank	182.49	Madhemangalam	Dharmapuri	Dharmapuri	-	182.49	-	Yes
	Jalar Anicut	5.24	Mittareddihalli	Dharmapuri	Dharmapuri	-	5.24	-	Yes
		187.73				-	**187.73**	-	

WUA-15	Adhiyamankottai Cholarayan Tank	109.16	Adhiymankottai	Dharmapuri	Dharmapuri	-	109.16	-	Yes
		109.16				-	**109.16**		
WUA-16	Ungaranahalli Anicut	9.31	Ungaranahalli	Dharmapuri	Dharmapuri	-	9.31	-	Yes
	Emakuttiyur Anicut	4.86	Oddapatti	Dharmapuri	Dharmapuri	-	4.86	-	Yes
	Lakkiampatti Anicut	0.61	Lakkiampatti	Dharmapuri	Dharmapuri	-	0.61	-	Yes
	Ponmali Anicut	8.91	Virupatchipuram	Dharmapuri	Dharmapuri	-	8.91	-	Yes
	Makkan Anicut	6.07	Dharmapuri	Dharmapuri	Dharmapuri	-	6.07	-	Yes
	Annasagaram Anicut	11.34	Annasagaram	Dharmapuri	Dharmapuri	-	11.34	-	Yes
	Jettihalli Anicut	23.89	Virupatchipuram	Dharmapuri	Dharmapuri	-	23.89	-	Yes
	Kamatchiamman Anicut	12.15	Virupatchipuram	Dharmapuri	Dharmapuri	-	12.15	-	Yes
		77.14				-	**77.14**	-	
WUA-17	Noolahalli Eri	47.32	Noolahalli	Dharmapuri	Dharmapuri	-	47.32	-	Yes
	Komuttiyanpallam Anicut	2.68		Dharmapuri	Dharmapuri	-	2.68	-	Yes
		50.00				-	**50**	-	Yes
WUA-18	Kombaipallam Eri	46.96	Vellolai	Dharmapuri	Dharmapuri	-	46.96	-	Yes
	Kattaru Anicut	41.00	Vellolai	Dharmapuri	Dharmapuri	-	41	-	Yes
		87.96				-	**87.96**	-	Yes
WUA-19	Annsagaram tank	196.56	Annasagaram	Dharmapuri	Dharmapuri	-	196.56	-	yes
	Elanthoppu Anicut	3.24	Noolahalli	Dharmapuri	Dharmapuri	-	3.24	-	Yes
		199.80				-	**199.8**	-	
WUA-20	Kadagathur Tank	217.81	Kadagathur	Dharmapuri	Dharmapuri	-	217.81	-	yes
	Selliampatty Anicut	16.60	Hale-Dharmapuri	Dharmapuri	Dharmapuri	-	16.6	-	yes
		234.41				-	**234.41**	-	

WUA-21	Sogathur Tank	140.89	Sogathur	Dharmapuri	Dharmapuri	-	140.89	-	yes
		140.89				-	**140.89**	-	
WUA-22	Choulupatty Mel Anicut	27.82	Choulupatty	Dharmapuri	Dharmapuri	-	27.82	-	yes
	Choulupatty Keel Anicut	18.22	Choulupatty	Dharmapuri	Dharmapuri	-	18.22	-	yes
	Pattalamman Anicut	10.32	Hale-Dharmapuri	Dharmapuri	Dharmapuri	-	10.32	-	yes
		56.36				-	**56.36**	-	
WUA-23	Ramalinga Mudhaliar Anicut	8.91	Hale-Dharmapuri	Dharmapuri	Dharmapuri	-	8.91	-	yes
	Seshappa Chetty Anicut	4.45	Hale-Dharmapuri	Dharmapuri	Dharmapuri	-	4.45	-	yes
	Boothalappan Anicut	22.27	Kottayur	Dharmapuri	Dharmapuri	-	22.27	-	yes
		35.63				-	**35.63**	-	
WUA-24	Moolakadu Anicut	14.58	Kandampatty	Dharmapuri	Dharmapuri	-	14.58	-	yes
	Mullikadu anicut	11.34	Puliampatty	Dharmapuri	Dharmapuri	-	11.34	-	yes
	Vellalapatti Anicut	3.64	Vellalapatty	Dharmapuri	Dharmapuri	-	3.64	-	yes
	Choulihalli Anicut	27.82	Vellalapatty	Dharmapuri	Dharmapuri	-	27.82	-	yes
		57.38				-	**57.38**	-	
WUA-25	Mylambadi Anicut	6.07	Pulidikarai	Dharmapuri	Dharmapuri	-	6.07	-	yes
	Kolanachiamman tank	76.92	Pulidikarai	Dharmapuri	Dharmapuri	-	76.92	-	yes
	Krishnapuram Chinna Eri	53.18	Krishnapuram	Dharmapuri	Dharmapuri	-	53.18	-	yes
	Garai Oddu Anicut	20.24	Krishnapuram	Dharmapuri	Dharmapuri	-	20.24	-	yes
		156.41				-	**156.41**	-	
WUA-26	Bysuhalli Tank	69.23	Bysuhalli	Dharmapuri	Dharmapuri	-	69.23	-	yes
	Konanginaickanahalli Anicut	4.10	Konanginaickanahalli	Dharmapuri	Dharmapuri	-	4.1	-	yes
		73.33				-	**73.33**	-	
WUA-27	Ramakkal Tank	111.58	Hale-Dharmapuri	Dharmapuri	Dharmapuri	-	111.58	-	yes

		111.58				-	**111.58**	-	
WUA-28	Palavadi Tank	57.49	Palavadi	Dharmapuri	Dharmapuri	-	57.49	-	yes
		57.49				-	**57.49**	-	
WUA-29	Chikkathimmanahalli Tank	50.04	Chikkathimmanahalli	Dharmapuri	Dharmapuri	-	50.04	-	yes
		50.04				-	**50.04**	-	
WUA-30	Pallipatti Anicut	17.81	Pallipatti	Morappur	Dharmapuri	-	17.81	-	yes
	Kambinallur Anicut	46.16	Kambinallur	Morappur	Dharmapuri	-	46.16	-	yes
		63.97				-	**63.97**	-	
WUA-31	Amarayan Anicut	20.86	Vellalapatty	Morappur	Dharmapuri	-	20.86	-	yes
	Kumarayan Aniut	42.37	Kelavalli	Morappur	Dharmapuri	-	42.37	-	yes
		63.23				-	**63.23**	-	
WUA-32	KRishnapuram Periya Eri	57.49	Krishnapuram	Dharmapuri	Dharmapuri	-	57.49	-	yes
		57.49				-	**57.49**	-	

ABSTRACT :

1. Command area already covered under WRCP and other project schemes in sub basin	1744.80	Ha.
2.Command area proposed to be covered under IAMWARM in sub basin	2257.56	Ha.
3.Total command area controlled by WRO of PWD in the Sub basin	4002.36	Ha.
4.Total No. of WUA already formed under WRCP	7	nos
5.Total no of WUAs Proposed to be formed under IAMWARM	25	nos
6.Total no of WUAs that will cover the entire sub basin	32	nos

DETAILS OF WUAs PROPOSED IN KAMBAINALLUR SUB BASIN

WUA No	Taluk and Villages it covers	Name of WUA	Ayacut in Ha
WUA-8	**Palacode Taluk :** Eranahalli, Jerthalav,palacode	Palacode	60.81
WUA-9	**Palacode Taluk :** Belarahalli.	Belarahalli-1	139.73
WUA-10	**Palacode Taluk:** Panangali	Panangalli	46.15
WUA-11	**Palacode Taluk:** Pulikarai	Pulikarai	50.04
WUA-12	**Dharmapuri :** Mittareddihalli, Laligam	Mittareddihalli	42.24
WUA-13	**Dharmapuri:** Laligam	Laligam	48.59
WUA-14	**Dharmapuri:** Madhemangalam, Mittareddihalli	Madhemangalam	187.73
WUA-15	**Dharmapuri :**Adhiyamankottai	Adhiyamankottai	109.16
WUA-16	**Dharmapuri :**Ungaranahalli, Oddapatti, Lakkiampatty, Dharmapuri, Annasagaram, Virupatchipuram	Dharmapuri	77.14
WUA-17	**Dharmapuri:** Noolahali	Noolahalli	50
WUA-18	**Dharmapuri:** Vellolai	Vellolai	87.96
WUA-19	**Dharmapuri:** Annasagaram	Annasagaram	199.8
WUA-20	**Dharmapuri:** Kadagathur, Hale-Dharmapuri	Kadagathur	234.41
WUA-21	**Dharmapuri :** Sogathur	Sogathur	140.89
WUA-22	**Dharmapuri:** Choulupatty	Choulupatty	56.36
WUA-23	**Dharmapuri:** Hale-Dharmapuri, Kottayur	Kottayur	35.63
WUA-24	**Dharmapuri:** Kandampatty, Puliampatty, Vellalapatty, Puluthikarai	Puluthikarai	57.38
WUA-25	**Dharmapuri:** Vellalapatty, Krishanapuram	Krishnapuram-1	156.41
WUA-26	**Dharmapuri:** Bysuhalli, Konanginaickanpatty	Bysuhalli	73.33
WUA-27	**Dharmapuri:** Hale-Dharmapuri	Hale-Dharmapuri,	111.58
WUA-28	**Dharmapuri:** Palavadi	Palavadi	57.49
WUA-29	**Dharmapuri:** Sikkathimmanahalli	Sikkathimmanahalli	50.04
WUA-30	**Harur Taluk:** Pallipatti, Kambainallur	Kambainallur	63.97
WUA-31	**Harur Taluk:** Vagurappampatty, Kelavalli	Kelavalli	63.23
WUA-32	**Dharmapuri:** Krishanapuram	Krishnapuram-II	57.49

ANNEXURE II

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

Sl. No	Date of Visit	Name of Location	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
1	2	3	4	5	6
1	10.09.08	Adhiyamankottai	13		
2	10.09.08	Annasagaram	9		
3	12.09.08	Kolagathur	19		
4	12.09.08	Krishnapuram	18		
5	16.09.08	Kambainallur	25		
6	18.09.08	Palacode	36		
7	18.09.08	Thumbalahalli Dam	18		
8	10.12.08	Nallampalli	11	6	
9	10.12.08	Dharmapuri	17	12	
10	11.12.08	Palacode,Pulikarai,Chikkarthanahalli	40	41	
11	11.12.08	Karimangalam	14	9	
12	11.12.08	Sogathur , Kadagathur,P.Chettihalli	41	14	
13	12.12.08	Lakkiyampatty,Noolahalli,Komuttiyan pallam,Annasagaram,Selliyampatty.	---	47	
14	13.12.08	Laligam,Madhemangalam, Adhiyamankottai.	---	59	
15	16.12.08	Kombaipallam, Vellalapatti,Thippampatti	---	55	
16	17.12.08	Thumbalahalli Dam (2 batches)	---	71	

ANNEXURE -III

Details of Modernisation works as Suggested By farmers and as Finalised by the Officals 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 finalised by WRO Officals
1	10.12.08	Chickarthanahalli	To improve the supply channel , Provide culvert, to provide proper shutter arrangement	All Works are fulfilled
2	10.12.08	Pulikarai	To improve the Field channel , to provide proper shutter arrangement in sluice, improve bund	All Works are fulfilled
3	11.12.08	Kariamangalam	To improve the Anicut & supply channel , Provide culvert, to provide proper shutter arrangement in sluice	All Works are fulfilled
4	11.12.08	Sogathur	To improve the Field channel , to provide proper shutter arrangement in sluice, improve bund	All Works are fulfilled
5	11.12.08	Kadagathur	To improve the Field channel , to provide proper shutter arrangement in sluice, improve bund	All Works are fulfilled
6	12.12.08	Lakkiampatty	To improve the supply channel , Provide culvert, to provide proper shutter arrangement	All Works are fulfilled
7	12.12.08	Noolahalli	To improve the Field channel , to provide proper shutter arrangement in sluice, improve bund	All Works are fulfilled
8	12.12.08	Selliyampatty	To improve the Anicut & supply channel , Provide culvert, to provide proper shutter arrangement in sluice	All Works are fulfilled
9	12.12.08	Annasagaram	To improve the Field channel , to provide proper shutter arrangement in sluice, improve bund	All Works are fulfilled
10	13.12.08	Adhiyamankottai	To improve the Field channel , to provide proper shutter arrangement in sluice, improve bund	All Works are fulfilled
11	13.12.08	Madhemangalam	To improve the Field channel , to provide proper shutter arrangement in sluice, improve bund	All Works are fulfilled
12	13.12.08	Laligam	To improve the Field channel , to provide proper shutter arrangement in sluice, improve bund	All Works are fulfilled

13	16.12.08	Konbaipallam	To improve the supply channel , Provide culvert, to provide proper shutter arrangement	All Works are fulfilled
14	16.12.08	Vellapatti	To improve the Anicut & supply channel , Provide culvert, to provide proper shutter arrangement in sluice	All Works are fulfilled
15	16.12.08	Tippampatty	To improve the supply channel , Provide culvert, to provide proper shutter arrangement	All Works are fulfilled
16	17.12.08	Poolapattty	To improve the Anicut & supply channel , Provide culvert, to provide proper shutter arrangement in sluice	All Works are fulfilled
17	17.12.08	Nagnampatty	To improve the Anicut & supply channel , Provide culvert, to provide proper shutter arrangement in sluice	All Works are fulfilled

1.5 IRRIGATION INFRASTRUCTURE

LIST OF ANICUTS IN SUB BASIN

Sl. No.	Anicuts	Village	Block	Taluk	District	Direct Ayacut Area in Ha	Capacity
1	2	3	4	5	6	7	8
	Sangambasavanthalav Cluster						
1	Jalalgan anicut	Sanganbasvathalav	Palacode	Palacode	Dharmapuri	10.65	
2	P.chettihalli	P.chettihalli	Palacode	Palacode	Dharmapuri	19.06	
3	Puram Keel	P.chettihalli	Palacode	Palacode	Dharmapuri	4.41	
4	Pethanahalli	P.chettihalli	Palacode	Palacode	Dharmapuri	28.46	
5	Kommalahalli	P.chettihalli	Palacode	Palacode	Dharmapuri	5.67	
	Total					**68.25**	
	Jerthalav Cluster						
6	Jerthalav	Erranahalli	Palacode	Palacode	Dharmapuri	11.5	
7	Vadaman Anicut	Jerthalav	Palacode	Palacode	Dharmapuri	14.8	
8	Garai oddu	Jerthalav	Palacode	Palacode	Dharmapuri	16.61	
9	Gundumaduvu	Jerthalav	Palacode	Palacode	Dharmapuri	5.7	
10	Sudukadu Anicut	Chikkarthanahalli	Palacode	Palacode	Dharmapuri	10.6	
11	Chikkarthanahalli Anicut	Chikkarthanahalli	Palacode	Palacode	Dharmapuri	29.12	
12	Thamarai	Chikkarthanahalli	Palacode	Palacode	Dharmapuri	3.82	
13	Sunnampatty	Chikkarthanahalli	Palacode	Palacode	Dharmapuri	13.26	
14	Viyasarkottai	palacode	Palacode	Palacode	Dharmapuri	48.99	
15	Viyasar	Belarahalli	Palacode	Palacode	Dharmapuri	43.21	
	Total					**197.61**	
	Kottumaranahalli cluster	NIL					
	Periyampatti cluster						
16	Naganmaptti Anaicut	Naganampatty	Karimangalam	Palacode	Dharmapuri	60.28	
17	Poolapatti	Peiryampatti	Karimangalam	Palacode	Dharmapuri	23.95	
18	Adilam	adilam	Karimangalam	Palacode	Dharmapuri	8.16	
19	Sappanipati	adilam	Karimangalam	Palacode	Dharmapuri	28.36	
20	Jamberi	Poonathanahalli	Karimangalam	Palacode	Dharmapuri	32.19	
21	Nagasamudram	Murkkampatty	Karimangalam	Palacode	Dharmapuri	31.61	
	Total					**184.55**	
	Kadagathur- cluster						
22	Konaginaickanhalli	Konginaickanahalli	dharmapuri	dharmapuri	Dharmapuri	4.1	
23	Ramalingamudaliyar	Hale Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	8.91	

24	Kamatchiamman	Virupatchipuram	dharmapuri	dharmapuri	Dharmapuri	12.15	
25	Jettihalli	Virupatchipuram	dharmapuri	dharmapuri	Dharmapuri	23.89	
26	Seshappa Chetty	Hale Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	4.45	
27	Selliampatty	Hale Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	16.6	
28	Chowlupatty mel	Cholupatty	dharmapuri	dharmapuri	Dharmapuri	27.82	
29	Chowlupatty keel	Cholupatty	dharmapuri	dharmapuri	Dharmapuri	18.22	
30	Pattalamman	Hale Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	10.32	
31	Annasagaram	Annasagaram	dharmapuri	dharmapuri	Dharmapuri	11.34	
32	Komuttianpallam	Noolahalli	dharmapuri	dharmapuri	Dharmapuri	2.68	
33	Elanthoppe oddu	Noolahalli	dharmapuri	dharmapuri	Dharmapuri	3.24	
34	Makkan	Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	6.07	
35	Ponmalai	Virupatchipuram	dharmapuri	dharmapuri	Dharmapuri	8.91	
36	Lakkiampatti	Lakkiampatti	dharmapuri	dharmapuri	Dharmapuri	0.61	
	Total					**159.31**	
	Krishnapuram cluster						
37	Boothalappan	Kottayur	dharmapuri	dharmapuri	Dharmapuri	22.27	
38	Chowluhalli	Vellalapatty	dharmapuri	dharmapuri	Dharmapuri	27.82	
39	Mayllambadi	Pulldikarai	dharmapuri	dharmapuri	Dharmapuri	6.07	
40	Mullukadi	Puiyampatti	dharmapuri	dharmapuri	Dharmapuri	11.34	
41	Vellalapatti	Vellalapatty	dharmapuri	dharmapuri	Dharmapuri	3.64	
42	Moolakadu	Sandampatti	dharmapuri	dharmapuri	Dharmapuri	14.58	
43	Kartturu	Vellolai	dharmapuri	dharmapuri	Dharmapuri	41	
44	Garai oddu	Krishnapuram	dharmapuri	dharmapuri	Dharmapuri	20.24	
45	Emakuttiyur	Oddapatty	dharmapuri	dharmapuri	Dharmapuri	4.86	
46	Ungaranahalli	ungaranahalli	dharmapuri	dharmapuri	Dharmapuri	9.31	
	Total					**161.13**	
	Nallampalli cluster						
47	Jalar	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	5.24	
48	Sankar Ayer	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	3.63	
49	Kembenagoundan	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	1.82	
50	Kethampatti	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	4.86	
51	Arunachalaayer anicut	Laligam	Nallampalli	dharmapuri	Dharmapuri	6.82	
52	Talapallam	Laligam	Nallampalli	dharmapuri	Dharmapuri	8.1	
53	uthukuli	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	17.01	
	Total					**47.48**	
	Kambainallur- Cluster						
54	Bannikulam	Bannikulam	Karimangalam	Palacode	Dharmapuri	17.49	

55	Thippampatti	Bannikulam	Karimangalam	Palacode	Dharmapuri	8.58	
56	Pallipatti	Pallipatti	Morappur	Harur	Dharmapuri	17.81	
57	Kambainallur	kambainallur	Morappur	Harur	Dharmapuri	46.16	
58	Amarayan	Vagrauppampatti	Morappur	Harur	Dharmapuri	20.86	
59	Kurmara ayer	kelavalli	Morappur	Harur	Dharmapuri	42.37	
60	Vannikulam	Vagrauppampatti	Morappur	Palacode	Dharmapuri	24.69	
61	Kadayampatti	Vagrauppampatti	Morappur	Palacode	Dharmapuri	19.61	
	Total					**197.57**	
	Grand Total					**1015.90**	

LIST OF SYSTEM TANKS

Sl. No.	Name of Tank	Village	Block	Taluk	District	Direct Ayacut Area in Ha	Capacity
1	Sangambasavanthalav Tank	Sanganbasvathalav	Palacode	Palacode	Dharmapuri	137.25	15.00
2	Jerthalav Tank	Erranahalli	Palacode	Palacode	Dharmapuri	165.89	36.65
3	Thamarai Eri	Chikkarthanahalli	Palacode	Palacode	Dharmapuri	80.57	16.10
4	Pulikkal Tank	Pulikkal	Palacode	Palacode	Dharmapuri	90.74	9.61
5	Panangalli Eri	Panangalli	Palacode	Palacode	Dharmapuri	46.15	10.62
					total	520.60	

LIST OF NON SYSTEM TANKS

Sl. No.	Name of tanks	Village	Block	Taluk	District	Direct Ayacut Area in Ha	Capacity
1	Pulikarai Eri	Pulikarai	Palacode	Palacode	Dharmapuri	50.04	18.00
2	Sikkathimmanahalli Eri	Sikkathimmanahalli	Karimangalam	Palacode	Dharmapuri	50.04	4.64
3	Bysuhalli tank	Bysuhalli	Karimangalam	Palacode	Dharmapuri	69.23	15.54
4	Sogathur Tank	Sogathur	Dharmapuri	Dharmapuri	Dharmapuri	140.89	36.48
5	Ramakkal Tank	Hale Dharmapuri	Dharmapuri	Dharmapuri	Dharmapuri	111.58	33.5
6	Kadagathur Eri	Kadagathur	Dharmapuri	Dharmapuri	Dharmapuri	217.81	66.11
7	Krishnapuram Periya Eri	Krishnapuram	Dharmapuri	Dharmapuri	Dharmapuri	57.49	18.27
8	Annasagaram Tank	Annasagaram	Dharmapuri	Dharmapuri	Dharmapuri	196.56	61.46
9	Noolahalli Tank	Noolahalli	Dharmapuri	Dharmapuri	Dharmapuri	47.32	
10	Adhiymankottai Tank	Adhiymankottai	Nallampalli	Dharmapuri	Dharmapuri	109.16	39.56
11	Madhemangalam Tank	Madhemangalam	Nallampalli	Dharmapuri	Dharmapuri	182.49	32.14
12	Krishnapuram Chinna Eri	Krishnapuram	Dharmapuri	Dharmapuri	Dharmapuri	53.18	5.20
13	Kolanachiamman Tank	Puluthikarai	Dharmapuri	Dharmapuri	Dharmapuri	76.92	10.20
14	Kombaipallam Tank	Vellolai	Dharmapuri	Dharmapuri	Dharmapuri	46.96	7.70
15	Palavadi Tank	Palavadi	Nallampalli	Dharmapuri	Dharmapuri	57.49	14.58
16	Laligam Big Tank	Laligam	Nallampalli	Dharmapuri	Dharmapuri	48.59	6.90
					TOTAL	1515.75	

LIST OF SUPPLY CHANNELS

Sl. No.	Name of Supply Channel	Off take point	Length in Km	Village	Block	Taluk	District	Direct Ayacut in Ha
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	Jalalgan anicut		550	Sanganbasvathalav	Palacode	Palacode	Dharmapuri	10.65
2	P.chettihalli		1013	P.chettihalli	Palacode	Palacode	Dharmapuri	19.06
3	Puram Keel		772	P.chettihalli	Palacode	Palacode	Dharmapuri	4.41
4	Pethanahalli		765	P.chettihalli	Palacode	Palacode	Dharmapuri	28.46
5	Kommalahalli		300	P.chettihalli	Palacode	Palacode	Dharmapuri	5.67
6	Supply channel from jerthalav tank to panagalli tank		20000	Jerthalv	Palacode	Palacode	Dharmapuri	60.81
7	Jerthalav		680	Erranahalli	Palacode	Palacode	Dharmapuri	11.50
8	Vadaman Anicut		1000	Jerthalav	Palacode	Palacode	Dharmapuri	14.80
9	Garai oddu		1100	Jerthalav	Palacode	Palacode	Dharmapuri	16.61
10	Gundumaduvu		1200	Jerthalav	Palacode	Palacode	Dharmapuri	5.70
11	Sudukadu Anicut			Chikkarthanahalli	Palacode	Palacode	Dharmapuri	10.60
12	Chikkarthanahalli Anicut			Chikkarthanahalli	Palacode	Palacode	Dharmapuri	29.12
13	Thamarai		1130	Chikkarthanahalli	Palacode	Palacode	Dharmapuri	3.82
14	Sunnampatty			Chikkarthanahalli	Palacode	Palacode	Dharmapuri	13.26

15	Viyasarkottai		1150	palacode	Palacode	Palacode	Dharmapuri	48.99
16	Viyasar		589	Belarahalli	Palacode	Palacode	Dharmapuri	43.21
17	Thumbalahalli Reservoir		14950	Kottumaranahalli	Palacode	Palacode	Dharmapuri	889.3
18	Naganmaptti Anaicut		600	Naganampatty	Karimangalam	Palacode	Dharmapuri	60.28
19	Poolapatti		600	Peiryampatti	Karimangalam	Palacode	Dharmapuri	23.95
20	Adilam		500	adilam	Karimangalam	Palacode	Dharmapuri	8.16
21	Jamberi		1000	Poonathanahalli	Karimangalam	Palacode	Dharmapuri	32.19
22	Sappanipatti		700	Adilam	Karimangalam	Palacode	Dharmapuri	28.36
23	Nagasamudram		800	Murkkampatty	Karimangalam	Palacode	Dharmapuri	31.61
24	Bannikulam		850	Bannikulam	Karimangalam	Palacode	Dharmapuri	17.49
25	Thippampatti		800	Bannikulam	Karimangalam	Palacode	Dharmapuri	8.58
26	Selliampatty		600	Hale Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	16.6
27	Chowlupatty mel		850	Cholupatty	dharmapuri	dharmapuri	Dharmapuri	27.82
28	Chowlupatty keel		1050	Cholupatty	dharmapuri	dharmapuri	Dharmapuri	18.22
29	Pattalamman		800	Hale Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	10.32
30	Seshappa Chetty		800	Hale Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	4.45
31	Boothalappan		1200	Kottayur	dharmapuri	dharmapuri	Dharmapuri	22.27
32	Konaginaickanahalli		600	Konginaickanahalli	dharmapuri	dharmapuri	Dharmapuri	4.1

33	Kartturu		1700	Vellolai	dharmapuri	dharmapuri	Dharmapuri	41
34	Moolakadu		700	Sandampatti	dharmapuri	dharmapuri	Dharmapuri	14.58
35	Vellalapatti		700	Vellalapatty	dharmapuri	dharmapuri	Dharmapuri	3.64
36	Mullikadu		800	Puliyampatti	dharmapuri	dharmapuri	Dharmapuri	11.34
37	Chowluhalli		1300	Vellalapatty	dharmapuri	dharmapuri	Dharmapuri	27.82
38	Mayilambadi		500	Puludikarai	dharmapuri	dharmapuri	Dharmapuri	6.07
39	Vannikulam		1000	Vagrauppampatti	Morappur	Palcode	Dharmapuri	24.69
40	Kadayampatti		700	Vagrauppampatti	Morappur	Palcode	Dharmapuri	19.61
41	Uthukuli		2000	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	17.01
42	Kembenagoundan		600	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	1.82
43	Sankar Ayer		850	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	3.63
44	Kethampatti		300	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	4.86
45	Thalapallam		1600	Laligam	Nallampalli	dharmapuri	Dharmapuri	8.1
46	Arunachalaayer anicut		700	Laligam	Nallampalli	dharmapuri	Dharmapuri	6.82
47	Jalar		800	Mittareddihalli	Nallampalli	dharmapuri	Dharmapuri	5.24
48	Ungaranahalli		800	ungaranahalli	dharmapuri	dharmapuri	Dharmapuri	9.31
49	Emakuttiyur		550	Oddapatty	dharmapuri	dharmapuri	Dharmapuri	4.86
50	Lakkiampatti		700	Lakkiampatti	dharmapuri	dharmapuri	Dharmapuri	0.61

51	Ponmalai		1800	Virupatchipuram	dharmapuri	dharmapuri	Dharmapuri	8.91
52	Makkan		800	Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	6.07
53	Annasagaram		150	Annasagaram	dharmapuri	dharmapuri	Dharmapuri	11.34
54	Jettihalli		700	Virupatchipuram	dharmapuri	dharmapuri	Dharmapuri	23.89
55	Kamatchiamman			Virupatchipuram	dharmapuri	dharmapuri	Dharmapuri	12.15
56	Ramalingamudaliyar		900	Hale Dharmapuri	dharmapuri	dharmapuri	Dharmapuri	8.91
57	Komuttianpallam		1300	Noolahalli	dharmapuri	dharmapuri	Dharmapuri	2.68
58	Pallipatti		2920	Pallipatti	Morappur	Harur	Dharmapuri	17.81
59	Kambainallur		3510	kambainallur	Morappur	Harur	Dharmapuri	46.16
60	Amarayan		4500	Vagrauppampatti	Morappur	Harur	Dharmapuri	20.86
61	Kurmarayan		1200	kelavalli	Morappur	Harur	Dharmapuri	42.37

LIST of TANKS/Anicuts executed under various schemes (Viz, Part II Scheme, NABARD,WRCP I etc.,) since 2000

Sl. No.	Name of Anicuts/ Tank	Ayacut	Scheme in executed	Amount	Details of components exeuted	Remarks
NIL						

ABSTRACT ON THE DETAILS OF IRRIGATION INFRASTRUCTURE AVAILABLE AND WORKS TAKEUP UNDER IAMWARM PROJECT

Name of Sub Basin: Kambainallur

Sl. No.	Details	Anicut			System Tanks			Non System Tanks			Any other Supply Channel		Remarks
		Nos	Supply Channel in 'm'	Direct Ayacut	Nos	Supply Channel in 'm'	Direct Ayacut	Nos	Supply Channel in 'm'	Direct Ayacut	Length in 'm'	Direct Ayacut	
1	Available Infrastructure in sub basin	61	56775	1015.90	5	15515	520.6	16	39900	1515.75	20000	60.81	
	Reservoir TRP	1	14950	889.3									
2	Infrastructure excluded in iamwarm project since works carried out under various schemes from 2000	**NIL**											
3	Infrastructures that does not require any rehabilitation works.	1(res) 1(anicut)	14.95	889.3 3.24	**NIL**								
4	Works taken up in iamwarm project	60	17495	1012.66	5	11600	520.6	16	13544	1515.75	17300	60.81	

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

1.6.1 Structural Status & Deficiencies in the System

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

1. This system is an old system existing for more than 100 Years as such requires Rehabilitation.
2. Heavy accumulation of silt due to hilly region and contour nature of canal system.
3. Lack of adequate control of regulating structures like Anicuts, Head Sluices, Sand/ scour vents etc.,
4. The damaged (or) dilapidated condition of the existing Anicuts, diversion head works etc. and supply channels causes to poor standard of the entire conveyance system.
5. The System and Non system tanks are to be rehabilitated.

Salient Features of Proposals:

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

1. Repairs to the damaged Anicuts Body wall.
2. Repairs to Head Sluice to some of the supply channels to avoid breaches during floods and for better water management
3. Trimming the supply channels by earthwork excavation
4. Providing revetments and Retaining walls in selective area of the supply channels.
5. Repairing, Restoring the traditional water bodies (i.e. tanks)
   a. Desilting the supply channels to tank.
   b. Strengthening the bunds of the tanks and channels wherever necessary for effectively storing the water and conveying it to the entire command area and also for conveying agriculture inputs to the field.
   c. Repairs to the damaged weirs
   d. Repairs to the damaged Sluices

e. Providing revetments and Retaining walls in selective area of the tanks
f. Providing S.G. Shutter / Plug arrangements to Sluices, Head sluices, Scour vents etc.,
g. Removing, Repairing and re fixing in position of the existing S.G. shuttering arrangements and providing locking arrangements etc.,

1.6.2 Expected Outcome

1. Increase in conveyance efficiency by from 53% to 56%
2. The present Gap area of 1580.93 ha. is to be converted as a fully irrigated area
3. The following irrigation infrastructure development works are proposed in the sub basin.

   Rehabilitation works for 60 Anicuts,

   Rehabilitation works for 21 tanks

   Rehabilitation of supply channel for 59.939KM

A.Details of proposals in each infrastructure of the Sub-Basin

1.ANICUTS

Pck No	Sl. No.	Name of tank/ Anicut/ Reservoir	Measuring Device		Repairs Sluice		Culvert/Foot path		Repairs Anicut		Supply Channel		Amount in Rs
			Nos	Amt	Nos	Amt	No	Amt	No	Amt	Length	Amt	
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
I	1	Jalalgan Anicut	1	16822	2	50000	4	168750	1	504624	230	448310	1188506
I	2	P.Chettihalli	1	16781	2	50000	4	161552	1	212419	325	610397	1051149
I	3	Puram Keel Anicut	1	16781	2	50000	4	151104	1	363924	700	1093903	1675712
I	4	Pethanahalli	1	16698	2	50000	4	153217	1	128053	550	1021320	1369288
I	5	Komalahalli	1	16654	2	50000	4	138716	1	31798	150	287120	524288
I	6	Jerthalav	1	17987	2	50000	4	140041	1	30139	550	1024668	1262835
I	7	Vadaman Anicut	1	16631	2	50000	4	138252	1	227709	400	783542	1216134
I	8	Garai Oddu	1	16614	2	50000	4	138038	1	204485	360	712648	1121785
I	9	Gundumaduvu Anicut	1	16614	2	50000	4	174857	1	1038083	430	807132	2086686
I	10	Sudukadu Anicut	1	16614	2	50000	4	134405	1	486391	700	1307250	1994660
I	11	Chikkarthanahalli Anicut	1	16619	2	50000	4	138402	1	27650	550	1016970	1249641
I	12	Thamarai Anicut	1	16623	2	50000	4	175808	1	654351	500	914106	1810888
I	13	Sunnampatty Anicut	1	16637	2	50000	4	135857	1	251666	500	925956	1380116
I	14	Viyasarkottai Anicut	1	16646	2	50000	4	135965	1	801277	500	852151	1856039
I	15	Viyasar Anicut	1	16646	2	50000	4	135908	1	657434	250	416076	1276064
II	16	Adilam	1	18878	1	25000	-		1	89893	280	552229	686000
II	17	Bannikulam	1	18448	1	25000	-		1	53325	350	688418	785191
II	18	Boothalappan Anicut	2	35030	2	50000	2	196012	1	56703	360	935241	1272986
II	19	Choulupatti Keel	1	18277	1	25000	-		1	109808	110	617631	770716
II	20	Choulupatti Mel	2	36235	1	25000	-		1	121334	135	273528	456097
II	21	Chowluhalli	1	18327	1	25000	-		1	13463	150	417502	474292
II	22	Garai Oddu	1	18414		0			1	483315			501730
II	23	Jemberi	1	18607	1	25000	-				400	852225	895832
II	24	Kadaiyampatty	1	18454	1	25000	2	197450	1	358821	350	606979	1206704
II	25	Kattaru	1	19802		0	-				135	452796	472598
II	26	Konaginaickanahalli Anicut	1	18369	1	25000	2	197747	1	781410			1022526
II	27	Moolakadu	1	18381	1	25000	-		1	64425	120	280359	388165
II	28	Mullikadu	1	18353	1	25000	-		1	288031	220	453960	785344

II	29	Mylambadi Anicut	1	18426		0	-		-		500	454076	472502
II	30	Naganampatty	1	18655	1	25000	-		1	139369	100	317953	500977
II	31	Nagasamudiram	1	18545	1	25000	-		1	122277	300	606988	772810
II	32	Pattalamman Anicut	1	18320		0	-		1	48498	140	274207	341025
II	33	Poolapatti	1	18607	2	50000	-		1	194736	220	484845	748188
II	34	Sappanipatty	1	18483	1	25000	-		1	60801	375	758824	863108
II	35	Selliampatty	1	18426	2	50000	-		1	149615	210	396880	614921
II	36	Sesappachetty	1	18320	2	50000	-		1	394157	140	309788	772265
II	37	Thippampatty	1	18440	1	25000	-		1	182885	225	468158	694483
II	38	Thumbanahalli Res.					-		-		-		0
II	39	Vannikulam	1	18454	2	50000	-		1	814644	200	411847	1294945
II	40	Vellalapatty	1	18426	2	50000	-		1	156605	150	334031	559062
III	41	Annasagaram Anicut				0	-		-		95	307006	307006
III	42	Arunachala Iyer	2	36000	2	50000	-		1	191655	144	307991	585646
III	43	Elanthoppu Oddu	No Work			0							0
III	44	Emakuttiyur	2	35000	2	50000	-		1	279680	345	682395	1047075
III	45	Jalar	1	17500	1	25000	-		1	136097	385	635327	813924
III	46	Jettihalli	1	17500	2	50000	-		1	297613	165	339171	704284
III	47	Kamatchiamman Anicut				0			1	290808			290808
III	48	Kembegoundan	1	17500	1	25000	-		1	111121	52	369905	523526
III	49	Kethampatty	1	17500	1	25000			1	81523	230	472331	596354
III	50	Komuttiyanpallam	1	17500	1	25000	-		1	150565	155	301053	494118
III	51	Lakkiampatty	1	17500		0	-		1	316077	70	141848	475425
III	52	Makkan Anicut	1	17500	1	25000	-		1	336015	240	503719	882234
III	53	Ponmalai Anicut	-			0	-		-		50	223888	223888
III	54	Ramalinga Mudhaliyar	1	17500	1	25000	-		1	275296	360	698149	1015945
III	55	Sankar Iyer	1	17500	1	25000	-		1	98335	135	264256	405091
III	56	Thalapallam	2	36000	2	50000	-		1	160290	400	603537	849827
III	57	Ungaranahalli	2	35000	1	25000	-		1	93846	125	250692	404538
III	58	Uthukuli anicut	1	18000	1	25000	-		-		690	1314899	1357899
IV	59	Amarayan Anicut	1	16142		0	4	241119	1	580922	100	559554	1397737
IV	60	Kambinallur Anicut	1	16173		0	2	87148	1	192841	1553	12548368	12844530
IV	61	Kumarayan Anciut	1	16142		0	-		1	679676	91	524465	1220283
IV	62	Pallipatty Anicut	2	33214		0	-		1	513386	245	1306883	1853483
		TOTAL	**64**	**1129215**	**73**	**1825000**	**72**	**3140348**	**54**	**15089865**	**17495**	**45525451**	**66709879**

A.Details of proposals in each infrastructure of the Sub-Basin

2.SUPPLY CHANNEL

Pck No	Sl. No.	Name of Supply Channel	Measuring Device		Repairs Sluice		Weir		Repairs Anicut		Supply Channel		Amount in lakhs
			nos	Amt	Nos	Amt	No	Amt	No	Amt	Length	Amt	
I	1	Supply channel from Jerthalav tank to Panganali tank	7	118825	7	175000	-				17300	1350540	1644365
		TOTAL	**7**	**118825**	**7**	**175000**	**0**	**0**	**0**	**0**	**17300**	**1350540**	**1644365**

A.Details of proposals in each infrastructure of the Sub-Basin

4. SYSTEM TANKS

Pack No	Sl. No.	Name of tank/ Anicut/Reservoir	Repairs to bund		B. Stone		Sluice Repairs		Weir Repairs		Measuring Device		Supply Channel		Amount in Rs
			Length	Amt	nos	Amt	Nos	Amt	No	Amt	No	Amt	Length	Amt	
I	1	Sangambasavanthalav	475	239645	100	199550	2	50000			2	33495	1700	2260653	2783343
I	2	Jerthalav Tank	883	455373	114	230115	3	75000	1	111675	2	33103	1850	13032	918298
I	3	Thamarai Eri	950	23560			4	100000	1	43569	4	66555	1700	11378	245062
I	4	Pulikkal Tank	1520	975234	99	207405	2	50000	1	93567	2	33292	3500	19450	1378948
I	5	Panangalli Eri	420	236689	120	251400	2	50000	1	497020	2	33292	2850	19450	1087851
		TOTAL	**4248**	**1930501**	**433**	**888470**	**13**	**325000**	**4**	**745831**	**12**	**199737**	**11600**	**2323963**	**6413502**

A.Details of proposals in each infrastructure of the Sub-Basin

4.NON SYSTEM TANKS

Pack no	Sl. No.	Name of tank/ Anicut/Reservoir	Repairs to bund		B. Stone		Sluice Repairs		Weir Repairs		measuring Device		culvert		Supply Channel		Amount in Rs
			Length	Amt	nos	Amt	Nos	Amt	No	Amt	No	Amt	No	Amt	Length	Amt	
I	1	Pulikarai Eri	840	24800	115	205338	2	50000	1	20640	2	33292			1500	10114	344184
II	2	Bysuhalli tank	1050	14725	110	100871	4	100000					2	180407	850	559223	955226
II	3	Kadagathur Eri	2800	39091			5	125000							1000	952506	1116597
II	4	Kolanachiamman Tank	760	9455	120	115974	3	75000							1000	212614	413043
II	5	Kombaipallam Tank	1300	39000	110	106163	3	75000	1	76397			2	186915	3000	463490	946965
II	6	Krishnapuram Chinna Eri	2000	55878	110	106237	2	50000							850	722676	934791
II	7	Krishnapuram Periya Eri	1300	18173	120	116121	2	50000							2000	705836	890130
II	8	Ramakkal Tank	800	19918	165	162879	3	75000					2	181809	1000	460269	899875
II	9	Sikkathimmanahalli Eri	738	5735			3	75000							500	580949	661684
II	10	Sogathur Tank	1210	30075	109	103495	4	100000					1	107593	200	742761	1083924
III	11	Adhiymankottai Tank	1860	39390	70	66858	2	50000					2	183191	230	1854618	2194057
III	12	Annasagaram Tank	880	9610	230	228046	2	50000					2	181696	160	733601	1202953
III	13	Laligam Big Tank	1200	9300	140	134421	2	50000					3	241401	306	1116271	1551393
III	14	Madhemangalam Tank	1300	32639	250	239769	3	75000					4	628914	268	1574909	2551231
III	15	Noolahalli Tank	1600	37218	285	283358	2	50000							440	1400249	1770825
III	16	Palavadi Tank	1555	12051	110	106056	3	75000					2	178190	240	1042424	1413721
		TOTAL	**21193**	**397058**	**2044**	**2075586**	**45**	**1125000**	**2**	**97037**	**2**	**33292**	**20**	**2070116**	**13544**	**13132510**	**18930599**

TANK DETAILS WITH FREE BOARD PROVIDED

Sl. No.	Name of the Tank	Maximum Height of Bund	Free Board Provided Previously	Provided now	Length of Bund
1	Jerthalav Tank	8.03	1.22	1.50	883
2	Pulikkal Tank	2.85	0.46	1.25	1523
3	Panangalli Eri	2.35	1.00	1.25	750

Note :

1) For Height of bund upto 3.0m - Free Board is 1.25m
2) For Height of bund more than 3.0m - Free Board is 1.50m

WRO COST TABLE of Kambainallur sub basin

Sl. No	Description of work	Quantity		Amount in Lakhs	Remarks
I. Tank Component					
1	Repairs to bund	25441	m	23.28	
2	Providing boundary stone	2477	nos.	29.64	
3	Repairs to sluice	58	nos.	14.50	
4	Repairs to weir	6	nos.	8.43	
5	Construction of culvert	20	nos.	20.70	
6	Construction of Measuring device	14	nos.	2.33	
7	Improvements to supply channel	25144	m	154.56	
	Total			**253.44**	
II. Non Tank Component					
1	Repairs to Anicut	54	nos	150.90	
2	Repairs to Head Sluices	80	nos	20.00	
3	Construction of culvert	72	nos	31.40	
4	Construction of Measuring device	71	nos	12.48	
5	Improvements to Supply Channels (anicut)	17495	m	455.25	
6	Improvements to other Supply Channels	17300	m	13.51	
7	Providing Bed bars to supply channel			6.22	
	Total			**689.76**	
III	**Environment cell**			**8.00**	
IV	**Ground water**			**0.00**	
	Total (II +III + IV)			**697.76**	
	Grand TOTAL (I+II +III + IV)			**951.20**	
	Rupees Nine Hundred and Eighty Three point two eight lakhs				
1).	Tank component			253.440	lakhs
2).	Non-Tank component			697.763	lakhs

C. (PHYSICAL AND FINANCIAL PROGRAM)

Sl. No	Description	I Year			II Year			Total		
		Quantity		Amount in RS	Quantity		Amount in RS	Quantity		Amount in RS
A	**Anicuts**									
1	Repairs to Anicut	22	nos	61	32	nos	90	54	nos	151
2	Repairs to Head Sluices	32	nos	8	48	nos	12	80	nos	20
3	Construction of culvert	29	nos	13	43	nos	18	72	nos	31
4	Construction of Measuring device	29	nos	5	42	nos	7	71	nos	12
5	Improvements to Supply Channels (anicut)	6998	m	183	10497	m	272	17495	m	455
6	Improvements to other Supply Channels	6920	m	6	10380	m	8	17300	m	14
	Total			**276**			**414**			**690**
B	**Tanks**									
1	Repairs to bund	10177	m	10	15264	m	13	25441	m	23
2	Providing boundary stone	991	nos.	12	1486	nos.	18	2477	nos.	30
3	Repairs to sluice	24	nos.	6	34	nos.	9	58	nos.	15
4	Repairs to weir	3	nos.	4	3	nos.	4	6	nos.	8
5	Construction of culvert	8	nos.	9	12	nos.	12	20	nos.	21
6	Construction of Measuring device	6	nos.	1	8	nos.	1	14	nos.	2
7	Improvements to supply channel	10058	m	62	15086	m	93	25144	m	155
	Total			**104**			**149**			253
	GRAND TOTAL			**380**			**563**			**943**

Details of Package vise works in kambaianllur sub basin

Sl No.	Package No	Name of Work	Amount in Lakhs
1	I	Rehabilitation of anicuts, Tanks and its supply channel in Kambainallur Sub-Basin in Palcode Taluk of Dharmapuri District	297.04
2	II	Rehabilitation of anicuts, Tanks and its supply channel in Kambainallur Sub-Basin in Dharmapuri Taluk and Palcode Taluk of Dharmapuri District	254.13
3	III	Rehabilitation of anicuts, Tanks and its supply channel in Kambainallur Sub-Basin in Dharmapuri Taluk of Dharmapuri District	218.87
4	IV	Rehabilitation of anicuts, Tanks and its supply channel in Kambainallur Sub-Basin in Harur Taluk of Dharmapuri District	173.16
5		Environmental Component	8.00
		Grand Total	951.20

Rehabilitation of anicuts, Tanks and its supply channel in Kambainallur Sub-Basin in Palcode Taluk of Dharmapuri District

PACKAGE - I

Sl.No	Name of Tank / Anicut	Amount in Lakhs
	Anicuts	
1	Jalalgan Anicut	11.89
2	P.Chettihalli	10.51
3	Puram Keel Anicut	16.76
4	Pethanahalli	13.69
5	Komalahalli	5.24
6	Jerthalav	12.63
7	Vadaman Anicut	12.16
8	Garai Oddu	11.22
9	Gundumaduvu Anicut	20.87
10	Sudukadu Anicut	19.95
11	Chikkarthanahalli Anicut	12.50
12	Thamarai Anicut	18.11
13	Sunnampatty Anicut	13.80
14	Viyasarkottai Anicut	18.56
15	Viyasar Anicut	12.76
	Tanks	
1	Sangambasavanthalav	27.83
2	Jerthalav	9.18
3	Thamarai	2.45
4	Pulikkal	13.79
5	Panangalli	10.88
6	Pulikarai	3.44
	Supply Channel	
1	Supply channel from Jerthalav tank to Panganali tank	16.44
c.	**Bed bars**	
1	Providing Bed bars	2.38
	Total	297.04

Rehabilitation of anicuts, Tanks and its supply channel in Kambainallur Sub-Basin in Dharmapuri Taluk and Palcode Taluk of Dharmapuri District

PACKAGE II

Sl.No	Name of Tank / Anicut	Amount in Lakhs
A.ANICUTS		
1	Adilam	6.86
2	Bannikulam	7.85
3	Boothalappan Anicut	12.73
4	Choulupatti Keel	7.71
5	Choulupatti Mel	4.56
6	Chowluhalli	4.74
7	Garai Oddu	5.02
8	Jemberi	8.96
9	Kadaiyampatty	12.07
10	Kattaru	4.73
11	Konaginaickanahalli Anicut	10.23
12	Moolakadu	3.88
13	Mullikadu	7.85
14	Mylambadi Anicut	4.73
15	Naganampatty	5.01
16	Nagasamudiram	7.73
17	Pattalamman Anicut	3.41
18	Poolapatti	7.48
19	Sappanipatty	8.63
20	Selliampatty	6.15
21	Sesappachetty	7.72
22	Thippampatty	6.94
23	Vannikulam	12.95
24	Vellalapatty	5.59
B.TANKS		
1	Bysuhalli	9.55
2	Kadagathur eri	11.17
3	Kolanachiyamman Tank	4.13
4	Kombaipallam Tank	9.47
5	Krishnapuram chinna eri	9.35
6	Krishnapuram periya eri	8.90
7	Ramakkal Tank	9.00
8	Sikkathimmahalli eri	6.62
9	Sogathur Tank	10.84
c.	**Bed bars**	
1	Providing Bed bars	1.59
	Total	254.13

Rehabilitation of anicuts, Tanks and its supply channel in Kambainallur Sub-Basin in Dharmapuri Taluk of Dharmapuri District

PACKAGE III

Sl.No	Name of Tank / Anicut	Amount in Lakhs
A.ANICUTS		
1	Annasagaram Anicut	3.07
2	Arunachala Iyer	5.86
3	Elanthoppu Oddu	0.00
4	Emakuttiyur	10.47
5	Jalar	8.14
6	Jettihalli	7.04
7	Kamatchiamman Anicut	2.91
8	Kembegoundan	5.24
9	Kethampatty	5.96
10	Komuttiyanpallam	4.94
11	Lakkiampatty	4.75
12	Makkan Anicut	8.82
13	Ponmalai Anicut	2.24
14	Ramalinga Mudhaliyar	10.16
15	Sankar Iyer	4.05
16	Thalapallam	8.50
17	Ungaranahalli	4.05
18	Uthukuli anicut	13.58
B.TANKS		
1	Adhiyamankottai cholarayan Tank	21.94
2	Annasagaram Tank	12.03
3	Laligam big Tank	15.51
4	Madhemangalam cholarayan Tank	25.51
5	Noolahalli eri	17.71
6	Palavadi tank	14.14
c.	**Bed bars**	
1	Providing Bed bars	2.25
	TOTAL	**218.87**

Rehabilitation of anicuts, Tanks and its supply channel in Kambainallur Sub-Basin in Harur Taluk of Dharmapuri District

PACKAGE IV

Sl.No	Name of Tank / Anicut	Amount in Lakhs
1	Amarayan Anicut	13.98
2	Kambinallur Anicut	128.45
3	Kumarayan Anciut	12.20
4	Pallipatty Anicut	18.53
	TOTAL	**173.16**

KAMBINALLUR SUB- BASIN
PACKAGE I

Calculation of machineries Requirement

A. Hydraulic excavator & Tippers:

Working period for earth work	:	15	months +	(3 Months rainy season)
Working period Per Day	:	6	Hours / Day	& 2 loads/ hour
QTY for 1 No of Tipper :				
Per Day	:	48	m3/day	
Per Month (20 working days)	:	960	m3/month	
Total Period (15 months)	:	14400	m3	
Total quantity of earth work	:	93845	m3	
No. of Trippers Required Per day	:	7	nos.	

B.Machinaries required for earth work :

1. Hydraulic excavator	:	5	nos.
2. Tippers	:	13	nos.
3. Power roller	:	6	nos.
4. Vibrated compactor	:	6	nos.
5. Water lorries	:	6	nos.

C.Mixer machine:

QTY for 1 No of Mixer machine :		(2 m^3/hour)		(For 6 hours / day)
Per Day	:	12	m3/day	
Per Month (15 working days)	:	180	m3/Month	
Total Period (15 months)	:	2700	m3	
Total quantity of concrete	:	10000.5	m3	
No. of Mixer machine required	:	4	nos.	

D.Material conveyance (Tippers)

I.CEMENT:

QTY for 1 No ofTipper :		(10mt/Trip)		(1 trip/ day)
Per Day	:	10	mt/day	
Total quantity of cement	:	1994.94	Mt	
Total No. of Tippers required	:	200	nos.	
Tippers req. per month	:	14	nos/month	
Tippers req. per Day	:	0.7	nos/day	

II.SAND

QTY for 1 No ofTipper :		(5.66m3/Trip) (2 trip/ day)	
Per Day	:	11.32	m3/day
Total quantity of Sand	:	4500.2	m3
Total No. of Tippers required	:	398	nos.
Tippers req. per month	:	27	nos/month
Tippers req. per Day	:	1.4	nos/day

III.METAL

QTY for 1 No ofTipper :		(5.6m3/Trip) (3 trip/ day)	
Per Day	:	16.8	m3/day
Total quantity of Metal	:	9000.4	m3
Total No. of Tippers required	:	536	nos.
Tippers req. per month	:	36	nos/month
Tippers req. per Day	:	1.8	nos/day

IV.STONE

QTY for 1 No ofTipper :		(5.6m3/Trip) (3 trip/ day)	
Per Day	:	16.8	m3/day
Total quantity of Stone	:	0	m3
Total No. of Tippers required	:	0	nos.
Tippers req. per month	:	0	nos/month
Tippers req. per Day	:	0	nos/day

Total no of Tippers req.	**:**	**4**	**nos/day**

Calculation of machineries Requirement
PACKAGE II

Calculation of machineries Requirement

A. Hydraulic excavator & Tippers:

Working period for earth work	:	15	months +	(3 Months rainy season)
Working period Per Day	:	6	Hours / Day	& 2 loads/ hour
QTY for 1 No of Tipper :				
Per Day	:	48	m3/day	
Per Month (20 working days)	:	960	m3/month	
Total Period (9 months)	:	14400	m3	
Total quantity of earth work	:	70370	m3	
No. of Trippers Required Per day	:	5	nos.	

B.Machinaries required for earth work :

1. Hydraulic excavator	:	4	nos.
2. Tippers	:	9	nos.
3. Power roller	:	4	nos.
4. Vibrated compactor	:	4	nos.
5. Water lorries	:	4	nos.

C.Mixer machine:

QTY for 1 No of Mixer machine :		(2 m^3/hour)		(For 6 hours / day)
Per Day	:	12	m3/day	
Per Month (15 working days)	:	180	m3/Month	
Total Period (15 months)	:	2700	m3	
Total quantity of concrete	:	7411.5	m3	
No. of Mixer machine required	:	3	nos./day	

D.Material conveyance (Tippers)

I.CEMENT:

QTY for 1 No ofTipper :		(10mt/Trip)		(1 trip/ day)
Per Day	:	10	mt/day	
Total quantity of cement	:	1481	mt	
Total No. of Tippers required	:	149	nos.	
Tippers req. per month	:	10	nos/month	
Tippers req. per Day	:	0.5	nos/day	

II.SAND

QTY for 1 No ofTipper :		(5.66m3/Trip) (2 trip/ day)	
Per Day	:	11.32	m3/day
Total quantity of Sand	:	3692	m3
Total No. of Tippers required	:	327	nos.
Tippers req. per month	:	22	nos/month
Tippers req. per Day	:	1.1	nos/day

III.METAL

QTY for 1 No ofTipper :		(5.6m3/Trip) (3 trip/ day)	
Per Day	:	16.8	m3/day
Total quantity of Metal	:	6645	m3
Total No. of Tippers required	:	396	nos.
Tippers req. per month	:	27	nos/month
Tippers req. per Day	:	1.4	nos/day

IV.STONE

QTY for 1 No ofTipper :		(5.6m3/Trip) (3 trip/ day)	
Per Day	:	16.8	m3/day
Total quantity of Stone	:	0	m3
Total No. of Tippers required	:	0	nos.
Tippers req. per month	:	0	nos/month
Tippers req. per Day	:	0	nos/day

Total no of Tippers req.	**:**	**3**	**nos/day**

KAMBINALLUR SUB- BASIN
PACKAGE III

Calculation of machineries Requirement

A. Hydraulic excavator & Tippers:

Working period for earth work	:	15	months +	(3 Months rainy season)
Working period Per Day	:	6	Hours / Day	& 2 loads/ hour
QTY for 1 No of Tipper :				
Per Day	:	48	m3/day	
Per Month (20 working days)	:	960	m3/month	
Total Period (15 months)	:	14400	m3	
Total quantity of earth work	:	46616	m3	
No. of Trippers Required Per day	:	4	nos.	

B.Machinaries required for earth work :

1. Hydraulic excavator	:	5	nos.
2. Tippers	:	9	nos.
3. Power roller	:	6	nos.
4. Vibrated compactor	:	6	nos.
5. Water lorries	:	6	nos.

C.Mixer machine:

QTY for 1 No of Mixer machine :		(2 m^3/hour)		(For 6 hours / day)
Per Day	:	12	m3/day	
Per Month (10 working days)	:	120	m3/Month	
Total Period (15 months)	:	1800	m3	
Total quantity of concrete	:	6278	m3	
No. of Mixer machine required	:	4	nos.	

D.Material conveyance (Tippers)

I.CEMENT:

QTY for 1 No ofTipper :		(10mt/Trip)		(1 trip/ day)
Per Day	:	10	mt/day	
Total quantity of cement	:	1270	mt	
Total No. of Tippers required	:	127	nos.	
Tippers req. per month	:	9	nos/month	
Tippers req. per Day	:	0.5	nos/day	

II.SAND

QTY for 1 No ofTipper :		(5.66m3/Trip) (2 trip/ day)	
Per Day	:	11.32	m3/day
Total quantity of Sand	:	3140	m3
Total No. of Tippers required	:	278	nos.
Tippers req. per month	:	19	nos/month
Tippers req. per Day	:	1	nos/day

III.METAL

QTY for 1 No ofTipper :		(5.6m3/Trip) (3 trip/ day)	
Per Day	:	16.8	m3/day
Total quantity of Metal	:	5652	m3
Total No. of Tippers required	:	337	nos.
Tippers req. per month	:	23	nos/month
Tippers req. per Day	:	1.2	nos/day

IV.STONE

QTY for 1 No ofTipper :		(5.6m3/Trip) (3 trip/ day)	
Per Day	:	16.8	m3/day
Total quantity of Stone	:	0	m3
Total No. of Tippers required	:	0	nos.
Tippers req. per month	:	0	nos/month
Tippers req. per Day	:	0	nos/day

Total no of Tippers req.	**:**	**3**	**nos/day**

KAMBINALLUR SUB- BASIN
PACKAGE IV

Calculation of machineries Requirement

A. Hydraulic excavator & Tippers:

Working period for earth work	:	6	months +	(3 Months rainy season)
Working period Per Day	:	6	Hours / Day	& 2 loads/ hour
QTY for 1 No of Tipper :				
Per Day	:	48	m3/day	
Per Month (20 working days)	:	960	m3/month	
Total Period (6months)	:	5760	m3	
Total quantity of earth work	:	23095	m3	
No. of Trippers Required Per day	:	5	nos.	

B.Machinaries required for earth work :

1. Hydraulic excavator	:	2	nos.
2. Tippers	:	10	nos.
3. Power roller	:	2	nos.
4. Vibrated compactor	:	2	nos.
5. Water lorries	:	2	nos.

C.Mixer machine:

QTY for 1 No of Mixer machine :		(2 m^3/hour)		(For 6 hours / day)
Per Day	:	12	m3/day	
Per Month (10 working days)	:	240	m3/Month	
Total Period (12 months)	:	2880	m3	
Total quantity of concrete	:	10574	m3	
No. of Mixer machine required	:	4	nos.	

D.Material conveyance (Tippers)

I.CEMENT:

QTY for 1 No ofTipper :		(10mt/Trip)		(1 trip/ day)
Per Day	:	10	mt/day	
Total quantity of cement	:	1258	mt	
Total No. of Tippers required	:	126	nos.	
Tippers req. per month	:	14	nos/month	
Tippers req. per Day	:	0.7	nos/day	

II.SAND

QTY for 1 No ofTipper :		(5.66m3/Trip) (2 trip/ day)	
Per Day	:	11.32	m3/day
Total quantity of Sand	:	2393	m3
Total No. of Tippers required	:	212	nos.
Tippers req. per month	:	24	nos/month
Tippers req. per Day	:	1.2	nos/day

III.METAL

QTY for 1 No ofTipper :		(5.6m3/Trip) (3 trip/ day)	
Per Day	:	16.8	m3/day
Total quantity of Metal	:	4758	m3
Total No. of Tippers required	:	284	nos.
Tippers req. per month	:	32	nos/month
Tippers req. per Day	:	1.6	nos/day

IV.STONE

QTY for 1 No ofTipper :		(5.6m3/Trip) (3 trip/ day)	
Per Day	:	16.8	m3/day
Total quantity of Stone	:	64	m3
Total No. of Tippers required	:	4	nos.
Tippers req. per month	:	1	nos/month
Tippers req. per Day	:	0.1	nos/day

Total no of Tippers req.	**:**	**4**	**nos/day**

KAMBAINALLUR SUB BASIN

PACKAGE - I

REQUIREMENT OF EQUIPMENTS AND MATERIALS

PACKAGE NUMBER	Equipments Required Numbers							Material Required						
	HYDRAULIC EXCAVATOR	POWER ROLLER	VIBRATED COMPACTOR	TIPPER	WATER LORRY	CONCRETE MIXER MACHINE	CONCRETE VIBRATOR	CEMENT IN M.T	SAND IN M3	STEEL IN Qtl	METAL 40MM IN M3	METAL 20MM IN M3	RR IN M3	FUEL
	Nos.													
Package Number I	5	6	6	13	6	4	6	1995	4500	404.75	4034	4966	0	

KAMBAINALLUR SUB BASIN

PACKAGE – II

REQUIREMENT OF EQUIPMENTS AND MATERIALS

PACKAGE NUMBER	Equipments Required Numbers							Material Required						
	HYDRAULIC EXCAVATOR	POWER ROLLER	VIBRATED COMPACTOR	TIPPER	WATER LORRY	CONCRETE MIXER MACHINE	CONCRETE VIBRATOR	CEMENT IN M.T	SAND IN M3	STEEL IN Qtl	METAL 40MM IN M3	METAL 20MM IN M3	RR IN M3	FUEL
	Nos.													
Package Number II	4	4	4	9	4	3	4	1481	3692	532	3470	3175	0	

KAMBAINALLUR SUB BASIN

PACKAGE – III

REQUIREMENT OF EQUIPMENTS AND MATERIALS

PACKAGE NUMBER	Equipments Required Numbers							Material Required						
	HYDRAULIC EXCAVATOR	POWER ROLLER	VIBRATED COMPACTOR	TIPPER	WATER LORRY	CONCRETE MIXER MACHINE	CONCRETE VIBRATOR	CEMENT IN M.T	SAND IN M3	STEEL IN Qtl	METAL 40MM IN M3	METAL 20MM IN M3	RR IN M3	FUEL
	Nos.													
Package Number III	5	6	6	9	6	4	6	1270	3140	644	2554	3098		

KAMBAINALLUR SUB BASIN

PACKAGE – IV

REQUIREMENT OF EQUIPMENTS AND MATERIALS

PACKAGE NUMBER	Equipments Required Numbers							Material Required						
	HYDRAULIC EXCAVATOR	POWER ROLLER	VIBRATED COMPACTOR	TIPPER	WATER LORRY	CONCRETE MIXER MACHINE	CONCRETE VIBRATOR	CEMENT IN M.T	SAND IN M3	STEEL IN MT	METAL 40MM IN M3	METAL 20MM IN M3	RR IN M3	FUEL
	Nos.													
Package Number IV	2	2	2	10	2	4	4	1258	2393	77.17	1116	1237	64	

PACKAGE I

CONSTRUCTION METHODOLOGY

Sl. No.	Description of Item	Working Months									Rainy Season			Working Months						Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	Earthwork Channel	14000	14000	14000	14000	14000	14000	14000	13670	---	---	---	---	---	---	---	---	---	---	111670
2	Earthwork Foundation	---	400	400	400	400	400	400	400	---	---	---	---	400	400	300	300	300	259	4759
3	M.7.5 Grade	---	---	400	400	400	400	400	500	409	---	---	---	---	390	420	420	---	---	4139
4	M.10 Grade 20mm	--	220	220	220	220	220	220	---	300	---	---	---	340	380	263	220	---	---	2823
5	M.10 Grade(20 mm & 40mm)	---	---	230	230	230	230	230	230	230	---	---	---	230	230	230	---	---	---	2300
6	M15 Grade	---	---	---	---	---	---	---	70	74	---	---	---	70	70	70	70	70	70	564
7	RCC 1:1.5:3	--	---	--	---	--	---	--	---	---	---	---	---	35	35	35	35	35	---	175
8	Fabrication steel	---	---	---	32	32	32	32	32	40	---	---	---	45	45	40	40	35	---	405
9	boundary stone	---	---	---	---	---	---	---	---	---	---	---	---	110	110	---	110	110	108	548

KAMBAINALLUR SUB BASIN
PACKAGE II
CONSTRUCTION METHODOLOGY

Sl. No.	Description of Item	Working Months									Rainy Season			Working Months						Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	Earthwork Channel	7037	7037	7037	7037	7037	7037	7037	7037	7037	---	---	---	7037	---	---	---	---	---	70370
2	Earthwork Foundation	---	900	900	900	900	900	900	1000	1000	---	---	---	---	1000	900	900	577	---	10777
3	PCC 1:4:8	---	200	200	236	200	300	250	250	250	---	---	---	250	250	250	250	220	---	3106
4	PCC 1:3:6 20mm	--	175	175	175	175	175	175	175	175	---	---	---	200	200	200	225	200	200	2625
5	PCC 1:3:6 Graded	---	95	95	95	95	95	95	95	95	---	---	---	95	95	95	95	109	---	1249
6	RCC 1:2:4	---	---	25	25	25	25	25	25	25	---	---	---	25	25	25	25	33		308
7	RCC 1:1.5:3	--	---	--	---	--	---	--	---	16	---	---	---	16	16	16	16	15		95
8	Fabricating Steel	---	---	45	45	45	45	45	45	45	---	---	c	45	45	45	45	37	---	532
9	Revetment removing & refixing	---	100	100	100	100	115	---	---	---	---	---	---	---	---	---	---	---	---	515

KAMBAINALLUR SUB BASIN
PACKAGE III
CONSTRUCTION METHODOLOGY

Sl. No.	Description of Item	Working Months									Rainy Season			Working Months						Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	Earthwork Channel	5200	5200	5200	5200	5200	5200	5200	5200	5016	---	---	---	---	---	---	---	---	---	46616
2	Earthwork Foundation	---	500	500	500	500	500	500	500	500	---	---	---	500	500	500	586	---	---	6086
3	PCC 1:4:8	---	185	185	185	185	185	185	185	185	---	---	---	195	195	195	195	196	185	2641
4	PCC 1:3:6 20mm	--	--	--	--	190	190	190	190	190	---	---	---	190	190	190	190	190	---	1900
5	PCC 1:3:6 Graded	---	---	120	120	120	120	120	120	120	---	---	---	120	120	120	120	15	---	1335
6	RCC 1:2:4	---	---	---	---	25	25	25	25	35	---	---	---	30	40	40	30	29		304
7	RCC 1:1.5:3	--	---	--	---	--	---	15	15	15	---	---	---	15	15	10	10	13		108
8	Fabricating Steel	---	---	50	50	50	60	60	60	60	---	---	---	60	50	50	50	44	-	644

PACKAGE IV

CONSTRUCTION METHODOLOGY

Sl. No.	Description of Item	Working Months									Rainy Season			Working Months						Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	Earthwork Channel	3000	3500	4500	4650	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15650
2	Earthwork Foundation	---	1500	1500	1500	1500	1445	---	---	---	---	---	---	---	---	---	---	---	---	7445
3	M.7.5 Grade	---	200	200	200	250	250	114	---	---	---	---	---	---	---	---	---	---	---	1214
4	M.10 Grade	--	100	500	500	500	400	500	500	500	---	---	---	288	---	---	288	---	---	4076
5	M.15 Grade RCC	---	---	---	---	100	100	100	100	100	---	---	---	100	100	100	85	---	---	885
6	Pointing	---	---	---	---	---	---	---	---	200	---	---	---	200	300	300	300	283	200	1783
7	Random Rubble Masonry	--	---	--	---	--	---	--	---	20	---	---	---	20	24	-	-	-	-	64
8	Plastering	---	---	---	---	---	---	---	---	100	---	---	---	150	150	33	-	-	-	433
9	Centering	---	75	150	250	250	250	250	200	100	---	---	---	75	75	75	33	-	-	1783
10	Fabrication steel	---	50	75	75	100	50	50	100	75	---	---	---	59	-	-	-	-	-	634
11	Revetment	---	---	---	---	---	---	---	2	2	---	---	---	50	75	75	75	34	-	313

1.7. ENVIRONMENTAL COMPONENT

Report to accompany the estimate for the work of Environmental Component in Detailed Project Report for KAMBAINALLUR SUB BASIN of Pennaiyar River Basin" under TN – IAMWARM PROJECT

Estimate Amount: Rs 8.00 Lakhs

Under TNWRCP, with World Bank assistance, special emphasis was given for the first time to assess the Environmental Status and degradation caused for all River basins in Tamil Nadu. Soil Assessment study has been conducted by **Environment Protection Training and Research Institute (EPTRI), Hyderabad**. This institute has identified the Environmental issues, mitigatory measures and given their recommendations on the following issues.

Environmental Issues :		- Soil Erosion, Sand Mining - Water Pollution due to Industries - Encroachment of river and tank beds - Poor solid waste management
ii)	Social Issues:	- Dry Land Agriculture - Reduction in Livestock - Women empowerment-SHG's - No storing facilities. - Health problems due to industrial water pollution
iii)	Mitigatory Measures: and regulated. management	- Non-judicial and excessive sand mining have to be controlled - Livestock services delivery and -Common storage facilities may be established
iv)	Agency:	- The above measures can be improved By the combined working of Environmental Cell wing and Animal Husbandry Department.

The Environmental Cell of WRO assessed the Environmental impact on the quality of Surface and Ground water and Soil by collecting water & soil samples and testing them, preparation of Micro level Environmental Status Reports for all the River basins with the World Bank assistance for these works 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 the 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 Environmental issues pertaining to that area and remedial action to overcome the problems is must.

Accordingly, Environmental issues prevailing in the Kambainallur Sub basin is taken up under IAMWARM Project.

PENNAIYAR RIVER

Pennaiyar River originates on the South Eastern slope of Chinnakesava Hills in Karnataka State. The river is called Dakshina Pinakini in Karnataka. The river enters into Tamil Nadu at Sakkarasam palli near Bagalur village of Hosur taluk. The total length of river is 432 Km and out of which 112 Km length of river is in Karnataka State and 320 Km is in Tamil Nadu, it confluences in Bay of Bengal at Cuddalore.

KAMBAINALLUR SUB-BASIN

Kambainallur sub basin is located between latitude of 12°22'35" and 12°01'10" and longitude of 78°02'15" and 78°18'30".Kambainallur Sub-Basin area is 957.439 Sq km. The taluks covered in this sub basin are Dharmapuri, Palacode and Harur of Dharmapuri District. Poolapatti River and Solaikottai River are worth mentioning tributaries of Kambainallur River & finally confluences with Pennaiyar River. There are 61 Anicuts across Kambainallur River. In the Kambainallur Sub basin there is 1 Reservoir, such as Thumbalahalli Reservoir. Kambainallur has 2 major Tributaries. there is flow through out the year up to Thumbalahalli Reservoir which is the drainages of Dharmapuri District.

ENVIRONMENTAL PROBLEMS:

SOIL EROSION:

Soil erosion causes depletion of fertility through removal of valuable surface soil and lead to reduction in the effective arable soil depth and hence it is one of limiting factors for crop production.

SAND MINING:

One of the major problem in river basin related to Sand Mining as it poses major threat to River Bed. Sand quarrying for construction and other purposes is growing at an alarming rate which causes failure of Anicuts and Diversion structures, stagnation of water in the deep mined river bed causing consequent health hazards. This needs to be prevented by all means. Now the sand mining has come under the control of WRO. Sand is being collected only at the approved site and the Regular Territorial Division is closely monitoring.

INDUTRIAL POLLUTION:

The effluent from industries located in this sub basin are let into ditches and water drains which ultimately reach the River or supply channels of tanks or lands. Special attention is needed for treating the effluent to avoid water pollution in the sub basin.

SOLID WASTE DISPOSAL:

The problem of Garbage collection and its disposal has assumed importance, in the context of rapid growth of population, urbanization, industrial growth and development. There is no organized scientific method of disposal in all the Municipalities and Panchayats in this sub basin.

AQUATIC WEEDS :

It is observed from the field officers in this basin area that the Aquatic weeds growth Ipomoea locally known as Kadal Palai is found to be in almost 80% of the tanks. According to the officials in the sub basin, the plant growth varies from 40% to 80% in various tanks. In general weeds growth restricts the water storage and loss in capacity of the tanks.

SEWAGE DISPOSAL LET INTO WATER BODIES:

Almost all the village has no safe disposal of sewage or proper treatment method is adopted. This affect the near by water source directly or affecting the ground water potential indirectly.

So, creating awareness among the Presidents of the local bodies is essential and to motivate them to adapt Solid waste management and Sewage management, wherever required, Workshop including field visits, exclusively for them is to be conducted under the IAMWARM project.

ACTIVTIES PROPOSED:

River Basin Monitoring:-

To monitor the quality of water and soil and create database regarding the environmental status for the sub basin, the following activities are proposed at the sub basin level.

Collection and testing of water and soil samples:

Water samples will be collected and tested in the sub basin at identified sampling points regularly. 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 for a period of **Three years** to assess the environmental impact on the quality of surface water of this sub basin more accurately.

In addition to the above identified locations, water samples will also be collected from tanks and near by wells to estimate the level of pollution in selected locations, where sewage is directly let into tanks and Channels. These samples will be tested, to assess the impact on the quality of surface and ground water.

Soil samples are to be collected from selected locations to assess 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 numbers of samples at regular interval have to be collected and tested to determine precisely the impact on the degradation of the quality of the soil. Therefore testing soil samples are essential.

Under this item following provisions have been made.

1 Testing charges for the water& soil samples.

2 Provision of Labour charges, purchase of materials, conveyance, driver salary and computer operator.

Transfer of technical know-how for solid waste management system including source segregation, recycle of dry waste and linkage with user agencies.

Now a new scheme for solid waste management plan is under implementation in all municipalities and Panchayats. Under this scheme, collection tank for disposal and non-disposable garbage have been constructed in most of the local bodies. But recycling the waste and converting the solid waste into manure and production of energy from them are yet to be come up.

Hence demonstration and action programs are planned with user agencies and necessary field visits are programmed to transfer of technical know how for solid waste management system.

Awareness Program

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, no awareness Programs were conducted in this sub basin.

Hence, to create and motivate the people, Awareness programmes are to be conducted in the villages where sewage is directly let into water bodies. It is also proposed to conduct awareness meetings in School/ Institutions during the study period of three years covering the following subjects in addition to placing Stickers, Tin sheets and Pamphlets containing messages about Environmental Awareness.

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

Mode of Execution:

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

Total Cost.

The total Proposal cost works out to **Rs.8.00 Lakhs. Rupees Eight Lakhs Only).**

(ENVIRONMENTAL COMPONENT)

Name of River Basin	**Pennaiyar River Basin**
Name of Sub Basin	**Kambainallur Sub-Basin**
Number of WUA	Already formed:7 Nos / yet to be formed: 25 Nos.
Name of Division	Upper Pennaiyar Basin Division,Dharmapuri
Name of Sub-Division	Chinnar Reservoir Project Sub-Division,Dharmapuri
	Upper Pennaiyar Basin Sub-Division,Dharmapuri
District	**Dharmapuri**
Taluk	1) Palacode
	2) Harur
	3) Dharmapuri
Block	1) Palacode
	2) Kariyamangalam
	3) Dharmapuri
	4) Nallampalli
	5) Morrapur
Name of Tanks/ Anaicuts severly affected by water weedsunder this sub-basin	List enclosed
Domestic Sewage (Name of River/ Tank with specific location polluted by Domestic sewage)	Sewage generated are disposed in land & tanks in Dharmapuri Distict
Municipal Solid Waste (Name of River/ Tank with specific location where Municipal solid waste is dumped)	Solid waste generated are disposed in land & tanks in Dharmapuri Distict which may cause ground water pollution.
Water Quality Status:	
i) Ground Water	In the Upper & Middle Part of the Kambainallur Sub-basin ground water is Moderate to good.
ii)Surface Water	Water can be utilized for irrugation purpose,however it need treatment before using drinking purpose.

Environmental Activities in Kambainallur Sub-Basin of Pennaiyar River Basin under **IAMWARM PROJECT**

DETAILED ESTIMATE

Sl No	Description of work	No	Measurement			Contents
			L	B	D	
I. Environmental Social Monitoring of river basin including peroidical water and soil quality testing and documentation. (By fixing nodel agency or any educational instituition)						
1	Collection and testing of water samples and Soil samples					
i)	Water samples collected from river & tanks for a period of **Three years**					9 Nos
ii)	Soil samples collected from irrigation fields for a period of **Three years**					6 Nos
iii.)	Hiring jeep driver for the department vehicle	1 No	2 x 1 =2 months			2
iv.)	Collection and conveyance charges including all purchases like cans, bottles,chemicals,Documentation of test results including labour charges.					LS
II	**Environmental Social knowledge base analysis and development (By fixing nodel agency or any educational instituition)**					
	Preparation of Impact Assessment report with expert analysis for 3 yrs @ every 6 months and documentation for					
a)	Impacts due to project investment.					LS
b)	Other impacts observed in the river basin.					LS
III.	**Transfer of technical know how for solid waste management system including source segregation, recycle of dry waste and linkage with user agencies. (By fixing nodel agency or any educational instituition)**					

a)	Promoting Entrepreneurship Policy for Eradication for weeds by setting up Bio gas Plant / Vermi compost By WUA through Awareness creation, Demonstration and consultative meeting and pilot study.					LS
IV.	**Conducting Environmental and social Awareness meeting, programme, demonstration and Exhibitions on various environmental and social related issues including capacity building.(By fixing nodel agency or any educational instituition)**					
a)	Printing Stickers, Pamphlets, Tin sheets, Providing Banners for Propagating Environmental Awareness among public	LS				LS
b)	Conducting Awareness Programs for Public					LS
c)	Conducting meetings in school/Institutions	1 x 1				1 No
d)	Preparing and publishing Environmental Atlas for the Sub Basin for the use of Line departments / Institutions for better Management of Sub basin					LS
e)	Documentation of the entire activities, Videofilms,hire purchase of LCD,Preparation of sub-basin maps of all size & Upgradation of computer and accessories.	LS				LS
f)	Engaging Computer Operator grade-II for the preparation of reports,Documents etc..	1 x 4				4 Months
g)	Exposure to field visit and Eco-friendly practices and environmental monitoring.	LS				LS

Environmental Activities in Kambainallur Sub-Basin of Pennaiyar River Basin under **IAMWARM PROJECT**

Working Sheet

Water Samples

1	Testing Charges rate as per ground water division (Dept) (Partly)		650.00	/Sample
2	Testing Charges rate as per SGS Laboratory (private) (Total Coliform,Faecal Coliform, Pesticides Residual) (Partly)		5250.00	/Sample
3	Service Charges @ 10.30 %		540.75	
		TOTAL	6440.75	(or)
			6441	

Soil Samples

1	Testing Charges rate as per SM & R Division (Dept) (Partly)		6000	/Sample
2	Testing Charges rate as per SGS Laboratory (private) (Pesticides Residual) (Partly)		4500	/Sample
	Service Charges @ 10.3 %		463.50	
		TOTAL	10963.5	(or)
			10964	

Environmental Activities in Kambainallur Sub-basin of Pennaiyar River Basin under **IAMWARM PROJECT**

ABSTRACT ESTIMATE

S.No	Qty		Description of Work	Rate	Per	Amount
I. Environmental Social Monitoring of river basin including peroidical water and soil quality testing and documentation. (By fixing nodel agency or any educational instituition)						
a)	9	Nos	Testing charges for Water samples	6441	Each	57969
b)	6	Nos	Testing charges for soil samples from polluted site	10964	Each	65784
c)	2	months	Hiring Jeep driver for the Dept Vehicle @ Rs 151.80/day (26 days)	151.8	/day	7894
d)	LS		Collection and conveyance charges including all purchases like cans, bottles,chemicals,Documentation of test results including labour charges.	LS		3000
II	**Environmental Social knowledge base analysis and development (By fixing nodel agency or any educational instituition)**					
			Preparation of Impact Assessment report with expert analysis for 3 yrs @ every 6 months and documentation for			
a)	LS		Impacts due to project investment.			150000
b)	LS		Other impacts observed in the river basin.			50000
III.	**Transfer of technical know how for solid waste management system including source segregation, recycle of dry waste and linkage with user agencies. (By fixing nodel agency any educational instituition)**					
a)	L.S.		Promoting Entrepreneurship Policy for Eradication for weeds by setting up Bio gas Plant / Vermi compost By WUA through Awareness creation, Demonstration and consultative meeting and pilot study.	LS		100000
b)	1	No	Herbal garden in institutions	30000		30000

IV.	**Conducting Environmental and social Awareness meeting, programme, demonstration and Exhibitions on various environmental and social related issues including capacity building. (By fixing nodel agency)**				
a)	LS	Printing Stickers, Pamphlets, Tin sheets, Providing Banners for Propagating Environmental Awareness among public	LS		10000
b)	LS	Conducting Awareness Programs for Public	LS		100000
c)	1 No	Conducting meetings in school/Institutions	20000		20000
d)	LS	Preparing and publishing Environmental Atlas for the Sub Basin for the use of Line departments / Institutions for better Management of Sub basin	LS		100000
e)	LS	Documentation of the entire activities, Videofilms,hire purchase of LCD,Preparation of sub-basin maps of all size & Upgradation of computer and accessories.	LS		9137
f)	4 Months	Engaging Computer Operator grade-II for the preparation of reports,Documents etc..	204	/day	21216
g)	LS	Exposure to field visit and Eco-friendly practices and environmental monitoring.	LS		75000
		Total			**800000**

(Rupees Eight Lakhs Only)

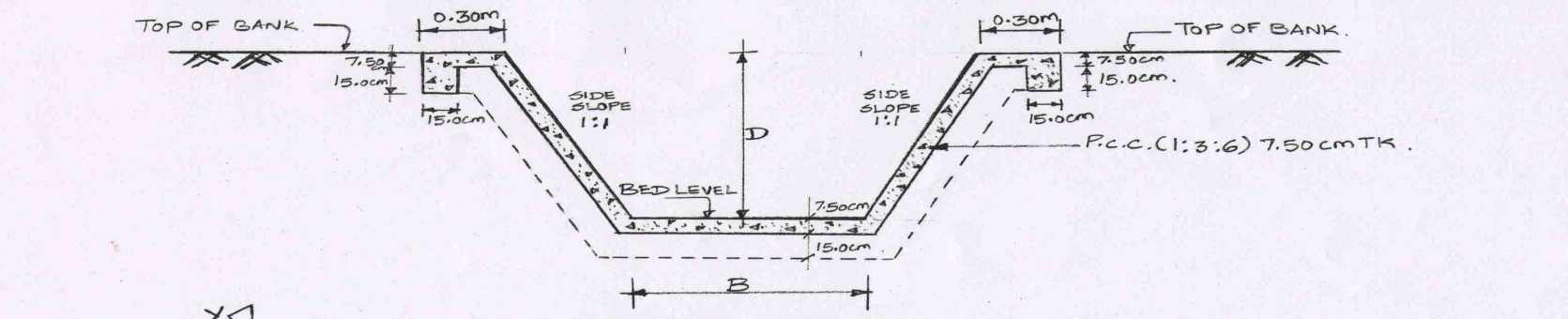
Water Supply, Sewage and Solid Waste Generation

Local Body	Population 2001	Designed Capacity of Protected Water Supply (Lakh Litre)	Total Estimated water Consumption (Lakh Litre)	Estimated Sewage generation (Lakh Litre)	Solid Waste Management (Tonnes)	
					Generation	Collection
A.Town Panchayat						
Palacode	18667	4.3	2.9	2.0	4.5	4.50
Kariya mangalam	12035	5.0	2.9	3.1	0.8	0.80
Grand Total	**30702**	**9**	**5.8**	**5.1**	**5.3**	**5.3**

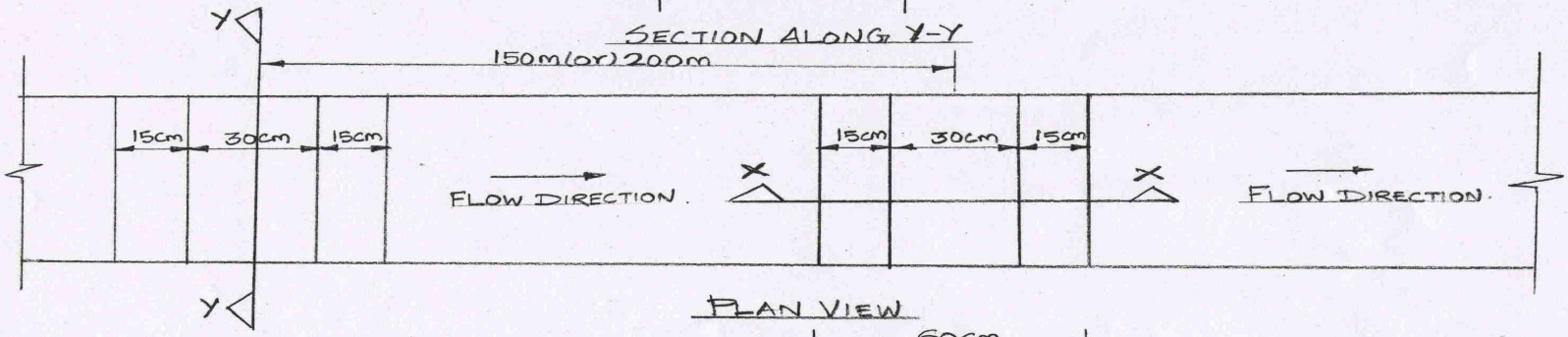
Status of Sewerage condition

Town	Population 2001	Estimated Sewarage generation in Lakh litre	No Treatment	Nature of Disposal & Quantity in Lakh litre		
				Water Body		
				River	Reservoir	Land
Palacode	18667	2.0	yes	2.0		
Kariya mangalam	12035	3.1	yes		3.1	

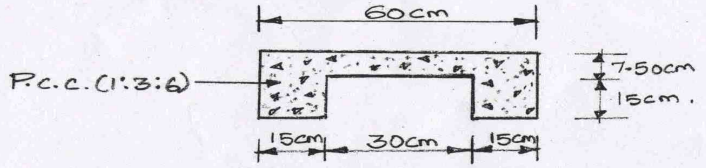
DESIGN AND DRAWING



SECTION ALONG Y-Y



PLAN VIEW



SECTION ALONG X-X

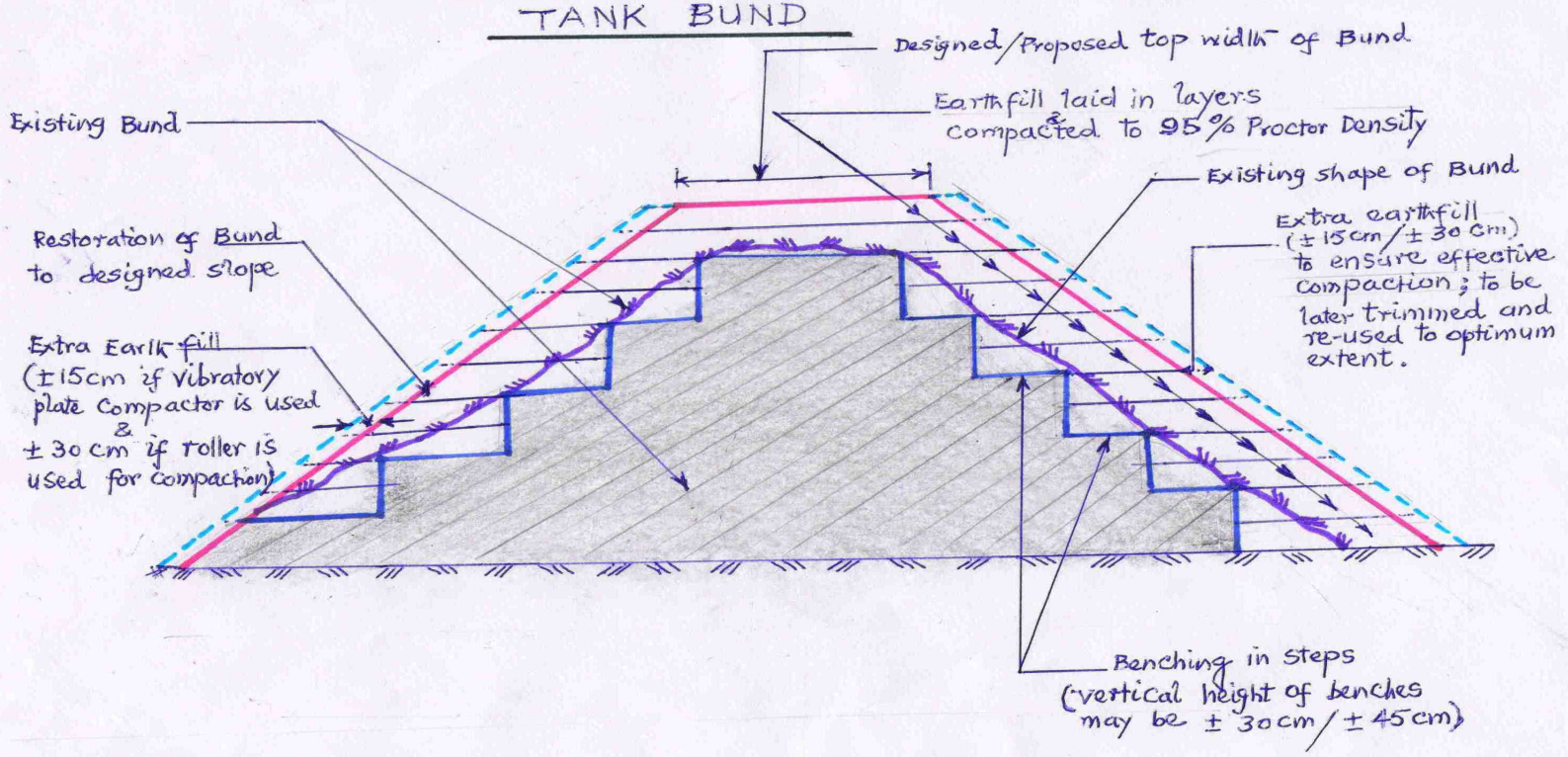
TYPICAL SECTION OF BEDBAR/MODEL SECTION FOR SUPPLY CHANNEL.

DIMENSIONS TO SUIT SITE CONDITION.

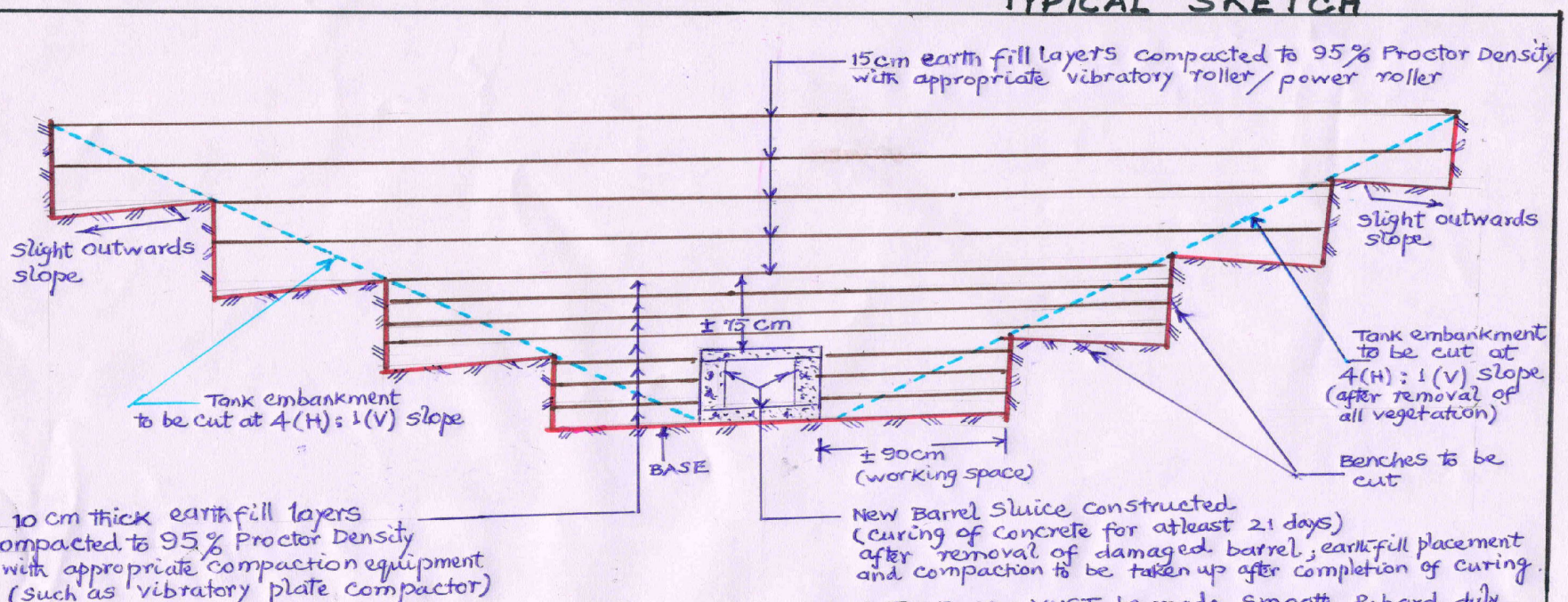
DRAWING NOT TO SCALE

TYPICAL SKETCH

RAISING & STRENGTHENING OF TANK BUND



TYPICAL SKETCH



RECONSTRUCTION OF SLUICES

NOTES

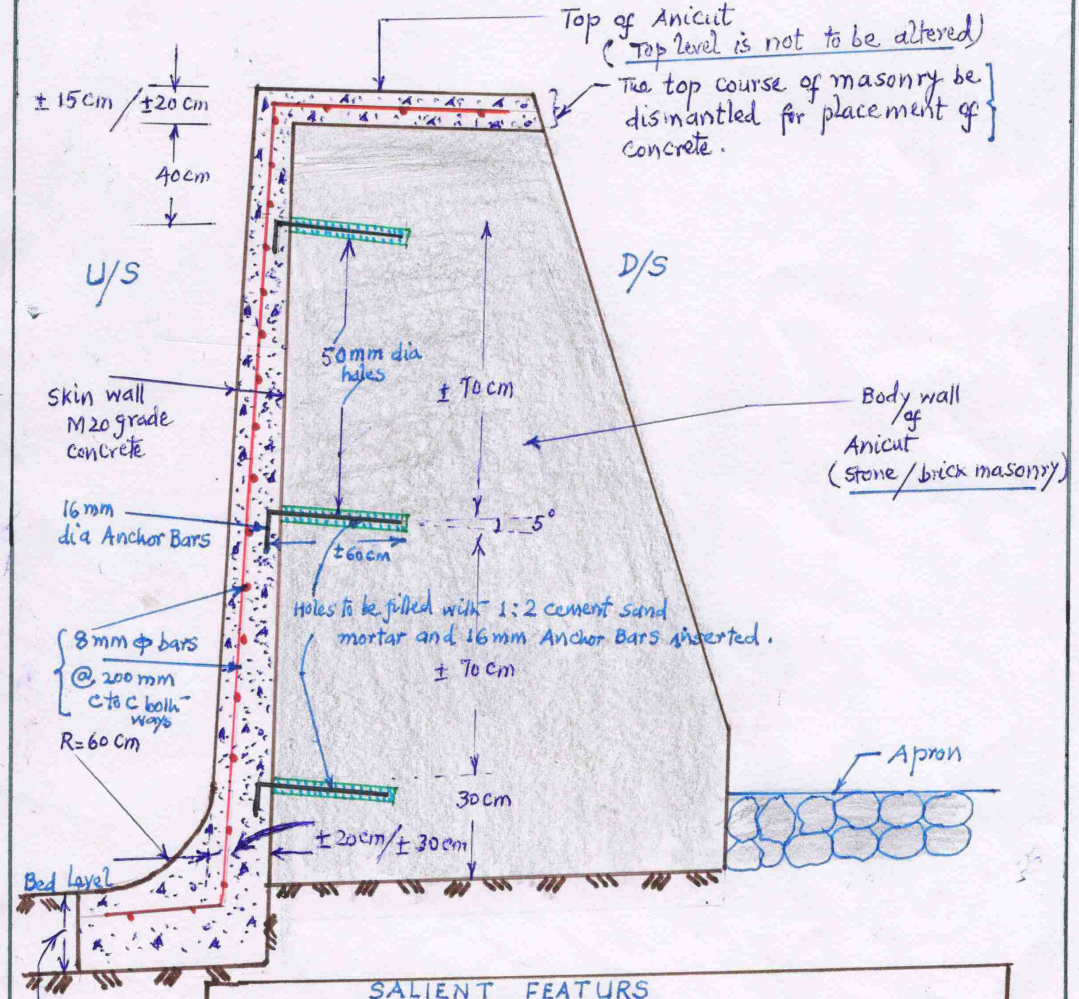
(i) The Base MUST be made smooth & hard, duly compacted with compactors/pneumatic tampers.

(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.

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