

GOVERNMENT OF TAMIL NADU PUBLIC WORKS DEPARTMENT WATER RESOURCES DEPARTMENT

TN IAMWARM PROJECT

UTHRAKOSAMANGAIYAR SUB BASIN

DETAILED PROJECT REPORT

(FOR LEFT OUT COMPONENTS)

REGION : MADURAI REGION, MADURAI CIRCLE : LOWER VAIGAI BASIN CIRCLE, SIVAGANGAI. DIVISION : LOWER VAIGAI BASIN DIVISION, PARAMAKUDI. NAME OF WORK:Rehabilitation and modernisation of Left Out Components in System and Non-system tanks covered in Package No 01, 02, 04, 05 and 06 under Uthrakosmangaiyar sub basin in Paramakudi, Muthukulathur and Ramanathapuram taluk of Ramanathapuram district.

SI.No	Description of Works	Nos	Amount in Lakhs
1	Raising and Strengthening the tank bund including Turfing	43 Nos	930.23
2	Reconstruction of Sluice	37 Nos	87.84
3	Reconstruction of weirs	16 Nos	172.75
4	Desilting of Supply Channel	6 Nos	12.09
5	Flow measuring device including Lining	37 Nos	62.47
	SubTotal Rs		1265.38
6	Labour welfare fund at 0.30%		35.62
	Total Rs		1301.00

PROJECT COST :- Rs. 1301.00 Lakhs

UTHRAKOSAMANGAIYAR SUB BASIN

		Originally Taken up in Phase III	-	Now Pr	oposed
Sl.No	Package No	Administrative Sanction in Lakhs (AS)	Revised Administrative Sanction Amount in Lakhs (RAS)	Package No	Amount in Lakhs
1	Package No - 1	358.31	418.40	Package No - 1	520.66
2	Package No - 2	274.64	321.89	Package No - 2	411.96
3	Package No - 3	106.26	106.26	Package No - 3	368.38
4	Package No - 4	479.18	563.00		
5	Package No - 5	489.76	577.94		
6	Package No - 6	313.64	366.78		
		2021.79	2354.27		1301.00

UTHRAKOSAMANGAIYAR SUB BASIN

		Total Infrastructures in	Already taken	up under Phase III	Total Infrastructures Left out in the	Now proposed i	sed in Left Out Works Nos Reconstruction in Nos itandardisation) 37 Nos 16 Nos 08 Km) (Desilting)
Sl.No	Description	the sub basin in Nos	Repairs in Nos	•		Repairs in Nos	Reconstrcution in Nos
	I) Tanks						
1	Tank Bund	120 Nos	51 (Stand	dardisation)	69 Nos	43 (Stand	ardisation)
2	Sluices	477 Nos		262	215 Nos		37 Nos
3	Weirs	127 Nos		11	116 Nos		16 Nos
4	Supply Channel	79 Nos (258.98Km)	29 (104.45 I	<m) (desilting)<="" td=""><td>50 Nos (154.43Km)</td><td>6 (12.08 Km</td><td>n) (Desilting)</td></m)>	50 Nos (154.43Km)	6 (12.08 Km	n) (Desilting)
	II) Anicuts						
1	Head Sluice	-	-	-	-	-	-
2	Repairs to Anicut	-	-	-	-	-	-
3	Flood Banks	-	-	-	-	-	-
4	Supply Channel	-	-	-	-	-	-
5	Shutters	-	-	-	-	-	-

1. No Sluices reconstruction is proposed in the tanks were already earth work bund strengthening in IAMWARM

2. For the last five years no tanks and anicuts have been rehabilitated under any scheme.

TO ACCOMPANY REPORT THE ESTIMATE FOR THE WORK OF REHABILITATION AND MODERNISATION OF LEFT OUT COMPONENTS IN NON TANKS SYSTEM AND SYSTEM COVERED IN PACKAGE NO. 01,02,04,05 AND 06 UNDER UTHIRAKOSAMANGAIYAR SUB BASIN IN PARAMAKUDI, MUTHUKULATHUR AND RAMANATHAPURAM TALUKS OF **RAMNATHAPURAM DISTRICT.**"

ESTIMATE Rs. 1301.00 Lakhs.

GENERAL

Uthrakosamangaiyar sub Basin is located on the north East side of Gundar basin which is formed from the surplus courses of many tanks fed by Vaigai River and Regunatha Cauvery channel of Gundar and finaly empty theirself in gulf of Mannar. The sub basin area is 636.23 Sq.Km. covered by the portion of Parmakudi, Muthukulathur, Kadaladi and ramanathapuram taluks of Ramanathapuram district. The tanks and supply channels under the uthrakosamangaiyar sub basin has been proposed for rehabilitation under IAMWARM project in Phase III. This sub basin consists of 120 tanks and 80 supply channels.

The Government has accorded the administrative sanction for Rs.283.74 Crores Vide in G,O.No. 81/Public works (WR1) Department dated: 09.03.2010 for implementing IAMWARM Project in 26 sub basins under Phase III. The Uthrakosamangaiyar sub basin is one among the above 26 sub basins for which an amount of 20.2047 crores has been provided for rehabilitation works comprising six packages. Accordingly the following works were carried out in this sub basin.

REHABILITATION WORKS TAKEN UP UNDER PHASE III AND COMPLETED:

In the original proposals rehabilitation to infrastructures in thrakosamangaiyar sub basin have been taken up vide Phase III. Out of the 120 tanks and 79 supply channels rehabilitation works were carried out in 109 tanks and 29 supply channels.11 tanks does not require any improvement, since they were improved through other schemes. The following infrastructures have been contemplated in the Phase III works.

- Raising and strengthening the tank bund by using Machineries for 140.02Km in 51 tanks out of 120 tanks.
- Desilting the supply channels by earthwork excavation using Machineries for 104.445Km out of 258.98 Km supply channels in the sub basin.
- Reconstruction of 11 Nos. of dilapidated weirs out of 127 Nos. of weirs in the sub basin.
- Reconstruction of 262 Nos. of Collapsed Sluices out of 477 Nos. in the sub basin.
- Retaining walls and Model Section in selective area of the tanks
- Providing S.G. Shutter / Plug arrangements to Sluices, Head sluices, Scour vents etc.,
- Fixing Boundary Stones in the tank bund and water spread area

LEFT OUT COMPONENTS NOW PROPOSED TO BE TAKEN UP :

Out of the 120 tanks in the sub basin only 109 tanks have been rehabilitated. Still in these tanks certain components have been left out. But during the WRO officials visit in the sub basin the need for rehabilitation of certain components in the infrastructures which have been left out was emphasized and WUA people also requested to carry out the left out components to make up the system in functional condition.

Hence this estimate is prepared to carry out the left out components by using the overall savings amount available and based on the agreed actions in the wrap up meeting chaired by the Finance secretary on 17.09.2012, which was communicated in the Engineer in Chief WRD Letter No. Tech cell / 57252/WB Mission/ 2009/Dated: 05.10.2012 and also the World Bank Implementation support mission draft aide memoir.

- Raising and strengthening the tank bund for 105.627 Km in 43 tanks in which tank bund strengthening has not been taken up in the Phase III IAMWARM works.
- Reconstruction of 37 Nos. sluices in the above 43 tanks where tank bund strengthening is proposed now.
- o Desilting supply channels for 12.08 Km
- o Reconstruction of 16 Nos. Of dilapidated weirs.
- Providing flow measuring devices.

According the following packages are proposed in this Proposal

1	01/IAMWARM/ WRD/UKI/LEFT OUT/2012-13.	Rehabilitation and Modernisation of Left Out Components in the System and Non-system tanks covered in Package No 01 and 02 under Uthrakosmangaiyar sub basin in Paramakudi and Muthukulathur taluk of Ramanathapuram district.	520.66
2	02/IAMWARM/ WRD/UKI/LEFT OUT/2012-13.	Rehabilitation and Modernisation of Left Out Components in the System and Non-system tanks covered in Package No 04 under Uthrakosmangaiyar sub basin in Paramakudi and Muthukulathur taluk of Ramanathapuram district.	411.96
3	03/IAMWARM/ WRD/UKI/LEFT OUT/2012-13.	Rehabilitation and Modernisation of Left Out Components in the System and Non-system tanks covered in Package No 05 & 06 under Uthrakosmangaiyar sub basin in Paramakudi and Ramanathapuram taluk of Ramanathapuram district.	368.38
		Total	1301.00

Statement - I

Rehabilitation of left out works in UTHRAKOSAMANGAIAYR sub basin.

Abstract showing the details of Rehabilitation Works proposed

SI.No.	Description	Tanks	Anicut	Suppl	y channel Nos.
51.NO.	Description	Nos.	Nos.	- Suppi	y channel 1005.
1	Available Infrastructure in the sub basin	120	Nil	79	(258.98 KM)
	Rehabilitation works taken up under IAMWARM Project	109+1 = 110	Nil	29	(104.45 KM)
2	a) Infrastructure in which all the components are in good condition and does not require rehabilitation now	53	Nil		
	b) Infrastructures taken up under IAMWARM but certain components not taken up then, but require rehabilitation now.	56	Nil		
	Tanks not taken up for rehabilitation since 2005 under any other schemes.	Nil	Nil	50	(154.53 KM)
3	a) Infrastructure in which all the components are in good condition and does not require rehabilitation now	Nil	Nil	44	(142.05 Km)
	b) Infrastructures in which certain components not taken up since 2005 but require rehabilitation now.	Nil	Nil	6	(12.08 Km)

SI.No.	Description	Tanks	Anicut	Supply channel Nos.
51.140.	Description	Nos.	Nos.	
4	Total No. of infrastructures requiring rehabilitation now.	56	Nil	6 (12.08 Km)

- 1 Certified that the works are proposed in the selected IAMWARM Sub basin area
- 2 Certified that the Panchayat Union tanks are not considered in this Project.
- 3 Certified that for item 2b, the components of the infrastructure now proposed were not taken up under IAMWARM Project
- 4 For Items No.3 Certified that the works are not executed under various scheme(Viz., NABARD, Part II Schemes, etc.,) and IAMWARM **since 2005.**

NAME OF WORK:Rehabilitation and modernisation of Left Out Components in System and Non-system tanks covered in Package No 01, 02, 04, 05 and 06 under Uthrakosmangaiyar sub basin in Paramakudi, Muthukulathur and Ramanathapuram taluk of Ramanathapuram district.

SI. No	Name of Tanks	-	Tank Bund Improvements		Reconstruction of sluices		Reconstruction to weirs		Desilting Supply channel		Flow easuring Device	Total
		Length	Amount	No	Amount	No	Amount	Length	Amount	Nos	Amount	
1	Vengalure	3444	2873531					2500	284230			3157761
2	Urakudi Big	3120	2594897	1	239263					1	167942	3002102
3	Madanthai	2652	2207158			1	901731	1530	177531			3286420
4	Kandakulam	1100	912374					600	28719			941093
5	Kamudhakudi	4180	3479128	2	470417			2100	232453	2	336044	4518043
6	Vikkirapandiyapuram	2660	2216034	2	562053	1	652628			2	336000	3766715
7	Pulikulam	3353	2826021	3	815224					3	504001	4145246
8	Kumaranendal	1602	1325243									1325243
9	Andakudi					1	1092402	2050	194992			1287394
10	Kulavipatti			1	244013					1	168644	412657
11	Melayakudi	4390	3665553	1	365490			3300	291454	1	168097	4490594
12	Tholur	3750	3176333	1	277573					1	168186	3622092
13	Kanjiendal	2500	2091660	1	244580					1	168738	2504978
14	Pamboor	3654	3067822									3067822
15	Thiruvakki	1850	1570935									1570935
16	Paranthan	1450	1214855									1214855
17	Keelapanaiyadiendal	2050	1728265									1728265
18	Veneervoikkal	1900	1614191	1	224614					1	168197	2007002
19	Keelakanniseri	1600	1330655									1330655

COMPONENT WISE ABSTRACT

SI.	Name of Tanks	Tank Bund	I Improvements		struction of luices		onstruction o weirs		g Supply annel		Measuring Device	Total
No		Length	Amount	No	Amount	No	Amount	Length	Amount	Nos	Amount	TOLAI
20	Athanakurichi	2500	1873490			1	1190804					3064294
21	Magindi	3109	2615919	2	480707					2	336528	3433155
22	Surankulam	1775	1520949									1520949
23	Erumaipatti	1450	1294507									1294507
24	Posukudi	2155	1878429	1	253724					1	167593	2299746
25	Neerkundram	1114	1034303									1034303
26	Vadapuliyankudi	1500	1410433									1410433
27	Pokkaranendal	2100	1844525									1844525
28	Meesal	1800	1778558	1	240535					1	167658	2186751
29	Kodarendal	1700	1545912									1545912
30	Ponnakkaneri	1050	956961									956961
31	Ponnakkaraiendal	1050	980643									980643
32	Poduvakudi	2134	1913151									1913151
33	Sundanendal	1950	2000901									2000901
34	Thelichathanallur	2100	1806766									1806766
35	Kattuparamakudi	3292	2965788									2965788
36	Vendoni	4530	4129449									4129449
37	Venkatankurichi	4538	4007421	2	581555					2	335054	4924031
38	K.Karungulam	2900	2684366									2684366
39	Ulaiyur					1	1112713					1112713
40	Malangudi Tank	4267	4419002									4419002
41	Vadavalankulam Tank					1	537192					537192
42	Sirunaguneri Tank					1	451505					451505
43	Semanur Big Tank					1	2552031					2552031

SI.	Name of Tanks	Tank Bund	Improvements		struction of luices		onstruction o weirs	1	g Supply annel		Measuring Device	Total
No		Length	Amount	No	Amount	No	Amount	Length	Amount	Nos	Amount	
45	Kadambankudi Tank					1	543624					543624
46	Ariyakudi Tank					1	1036517					1036517
47	Anumaneri Tank					1	1390499					1390499
48	Keelakottai Tank					1	945376					945376
49	Vaigai Tank					1	1047625					4796335
50	Keelendal Tank											1034718
51	Alangulam Tank											3394982
52	Vella Big Tank					1	2973843					2973843
53	Vella Small Tank					1	455704					2340320
54	Deivachillainallur Tank											3431321
55	Kothankulam Tank											3150799
56	Pakkiripudukulam Tank											2446881
						16	17274623					126538990
												1265.38
	Provision for Labou	ır welfare fur	nd at 0.30%									3.80
	Provision for Photo at 2.50%	graphic chai	rges, Advertiser	ment ch	arges, Nam	e boa	rd, Petty su	pervisior	n charges,	unfors	seen items	31.82
	Total Amount Rs.								1301.00			

Statement II - B

REHABILITATION OF IRRIGATION CHANNELS

Amount in Lakhs

SI.No	Name of Tanks	Channel			Lining of Irrigation channel		Repairs to Drops, Syphon cistern		Repairs to culvert aqueduct etc.,		er Renewal
		Length	Amount	No	Amount	No	Amount	No	Amount	(No)	Amount
	1			1	Nil	1	1	1	1		1

Statement II - C

REHABILITATION OF ANICUTS AND SUPPLY CHANNEL

Name of sub basin:

Amount in Lakhs

SI.No	Name of Anicut / Supply		nstruction of anicut	Repa	irs to Anicut	Rep	airs to Head Sluice	Shu	tter Renewal	Supply Channel		Total
	Channel	No	Amount	No	Amount	No	Amount	No	Amount	(No)	Amount	
					Nil							

Uthrakosamangaiyar Sub basin - WRO COST TABLE

SI.No	Description of Works	Oty	Amount in Lakhs	Remarks
I	Supply channel	·		
1	Desilting of Supply channels to its standard providing with bed bars	12.08 Km	12.09	
п	<u>Tank :-</u>			
1	Raising and Strengthening the tank bund including Turfing	105 .63 KM (43 Tanks)	930.23	
2	Reconstruction to Sluice	37 Nos	87.84	
3	Reconstructio to weirs	16 Nos	172.75	
4	Flow measuring device including Lining	37 Nos	62.47	
	SubTotal		1265.38	
	LS Provisions			
1	Labour welfare fund at 0.30%		3.80	
2	Provision for Photographic charges, Advertisement charges, Name board, Petty supervision charges, unforseen items at 2.50%		31.82	
	SubTotal		35.62	
	Total		1301.00	

NAME OF WORK:Rehabilitation and modernisation of Left Out Components in System and Non-system tanks covered in Package No 01, 02, 04, 05 and 06 under Uthrakosmangaiyar sub basin in Paramakudi, Muthukulathur and Ramanathapuram taluk of Ramanathapuram district.

S1.No	Name of Tank/ Supply channel	Total Amount in Lakhs.
1	Vengalure	3157761
2	Urakudi Big	3002102
3	Madanthai	3286420
4	Kandakulam	941093
5	Kamudhakudi	4518043
6	Vikkirapandiyapuram	3766715
7	Pulikulam	4145246
8	Kumaranendal	1325243
9	Andakudi	1287394
10	Kulavipatti	412657
11	Melayakudi	4490594
12	Tholur	3622092
13	Kanjiendal	2504978
14	Pamboor	3067822
15	Thiruvakki	1570935
16	Paranthan	1214855
17	Keelapanaiyadiendal	1728265
18	Veneervoikkal	2007002
19	Keelakanniseri	1330655
20	Athanakurichi	3278694
21	Magindi	3433155
22	Surankulam	1520949
23	Erumaipatti	1294507

GENERAL ABSTRACT

S1.No	Name of Tank/ Supply channel	Total Amount in Lakhs.
24	Posukudi	2299746
25	Neerkundram	1034303
26	Vadapuliyankudi	1410433
27	Pokkaranendal	1844525
28	Meesal	2186751
29	Kodarendal	1545912
30	Ponnakkaneri	956961
31	Ponnakkaraiendal	980643
32	Poduvakudi	1913151
33	Sundanendal	2000901
34	Thelichathanallur	1806766
35	Kattuparamakudi	2965788
36	Vendoni	4129449
37	Venkatankurichi	4924031
38	K.Karungulam	2684366
39	Ulaiyur	1112713
40	Malangudi Tank	4419002
41	Vadavalankulam Tank	537192
42	Sirunaguneri Tank	451505
43	Semanur Big Tank	2552031
44	Kovilanchathan Tank	390429
45	Kadambankudi Tank	543624
46	Ariyakudi Tank	1036517
47	Anumaneri Tank	1390499
48	Keelakottai Tank	945376
49	Vaigai Tank	4796335
50	Keelendal Tank	1034718

S1.No	Name of Tank/ Supply channel	Total Amount in Lakhs.
51	Alangulam Tank	3394982
52	Vella Big Tank	2973843
53	Vella Small Tank	2340320
54	Deivachillainallur Tank	3431321
55	Kothankulam Tank	3150799
56	Pakkiripudukulam Tank	2446881
	Sub Total	126538990
		1265.38
L.S PRO	OVISIONS	
	Provision for Labour welfare fund at0.3%	3.80
	Provision for Photographic charges, Advertisement charges, Name board, Petty supervision charges, unforseen items at2.5%	31.82
	Total	1301.00

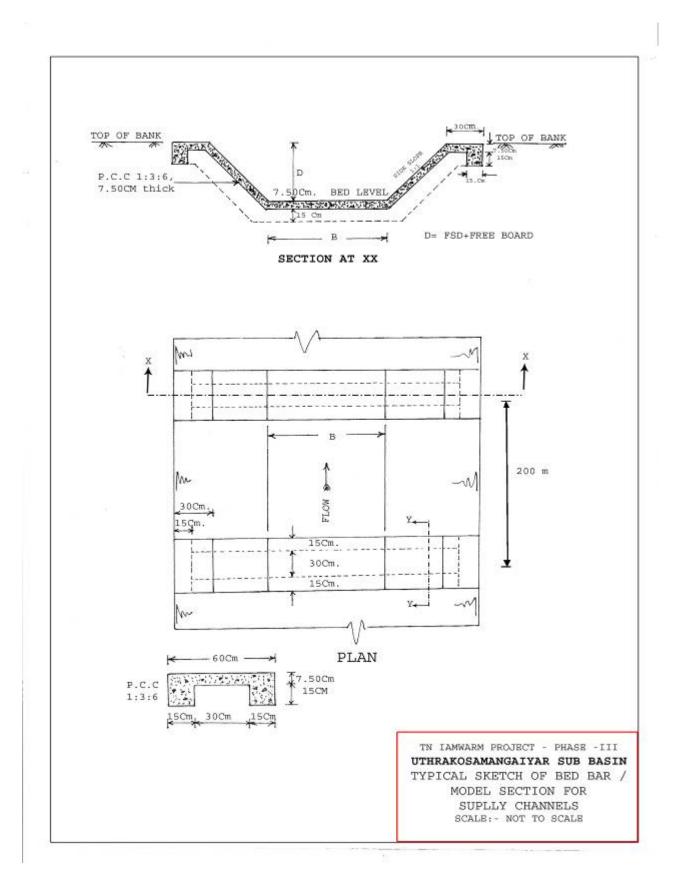
STATEMENT SHOWING THE COMPONENETS ALREADY TAKEN UP AND NOW PROPOSED

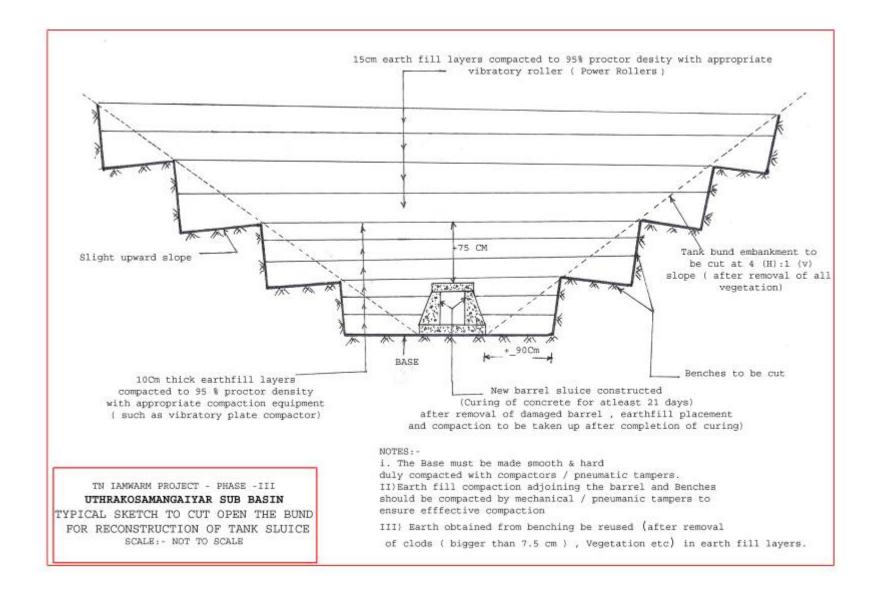
		No	of Slu	uice		onstru of weir		Leng	th of Bu metres			th of Si channe (M)			Flow easuri device	ing
SI no	Name of Tank	Total	Already taken up	Now proposed	Total	Already taken up	Now proposed	Length	Already taken up	Now proposed	Length	Already taken up	Now proposed	Nos	Already taken up	Now proposed
1	Vengalure	3	3		1			3444		3444	2500		2500	3	3	
2	Urakudi Big	4	3	1	1			3120		3120	3510	3510		4	3	1
3	Madanthai	3	3		1		1	2652		2652	1530		1530	3	3	
4	Kandakulam	1	1		1			1100		1100	600		600	1	1	
5	Kamudhakudi	4	2	2	1			4180		4180	2100		2100	4	2	2
6	Vikkirapandiyapuram	5	3	2	1		1	2660		2660	3500			5	3	2
7	Pulikulam	6	3	3	1			3353		3353	800			6	3	3
8	Kumaranendal	4	3		1			1602		1602				4	3	
9	Andakudi	4	3		1		1	2271	2271		2050		2050	4	3	
10	Kulavipatti	3	2	1	1			2500	2500		1400			3	2	1
11	Melayakudi	4	3	1	1			4390		4390	3300		3300	4	3	1
12	Tholur	3	2	1	1			3750		3750	2500			3	2	1
13	Kanjiendal	4	3	1	1			2500		2500	550			4	3	1
14	Pamboor	3	3		1			3654		3654	1200			3	3	
15	Thiruvakki	1	1		1			1850		1850	550	550		1	1	
16	Paranthan	2	2		1			1450		1450				2	2	
17	Keelapanaiyadiendal	3	3		1			2050		2050	300	300		3	3	
18	Veneervoikkal	3	2	1	1			1900		1900				3	2	1
19	Keelakanniseri	2	2		1			1600		1600	150	150		2	2	
20	Athanakurichi	3	3		1		1	2500		2500				3	3	
21	Magindi	5	3	2	1			3109		3109	1900			5	3	2
22	Surankulam	3	3		1			1775		1775	2450	2450		3	3	

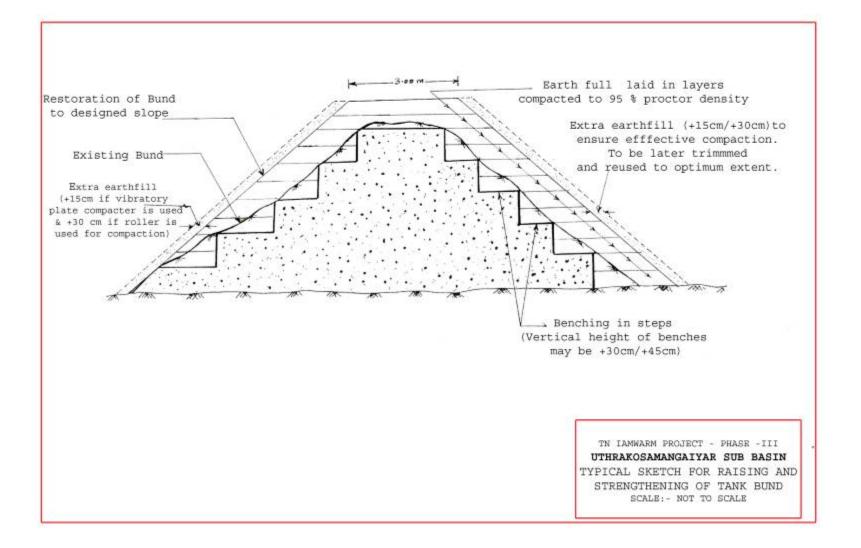
		No	of Slu	uice		onstru of weir		Leng	th of Bu metres			h of Supp hannel (M)	oly		Flow easuri device	ing
SI no	Name of Tank	Total	Already taken up	Now proposed	Total	Already taken up	Now proposed	Length	Already taken up	Now proposed	Length	Already taken up	Now proposed	Nos	Already taken up	Now proposed
23	Erumaipatti	2	2		1			1450		1450	11000	11000		2	2	
24	Posukudi	2	1	1	1			2155		2155	900			2	1	1
25	Neerkundram	2	2		1			1114		1114	500			2	2	
26	Vadapuliyankudi	7	7		1			1500		1500	2150			7	7	
27	Pokkaranendal	2	2		1			2100		2100	500			2	2	
28	Meesal	2	1	1	1			1800		1800				2	1	1
29	Kodarendal	3	3		1			1700		1700	4750			3	3	
30	Ponnakkaneri	4	4		1			1050		1050	600			4	4	
31	Ponnakkaraiendal	4	4		1			1050		1050	700			4	4	
32	Poduvakudi	3	3		1	1		2134		2134	1600			3	3	
33	Sundanendal	4	4		1			1950		1950	900			4	4	
34	Thelichathanallur	2	2		1			2100		2100	2450			2	2	
35	Kattuparamakudi	3	3		1			3292		3292	650			3	3	
36	Vendoni	4	4		1			4530		4530	1900			4	4	
37	Venkatankurichi	3	1	2	1			4538		4538	300			3	1	2
38	K.Karungulam	2	2		1			2900		2900	650			2	2	
39	Ulaiyur	4			1		1	3658	3658		1650	1650		4		
40	Malangudi	4	2					4267		4267				4	2	
41	Vadavalankulam	3			1		1	2835	2835		3000	3000		3		
42	Sirunaguneri	3	2		1		1	637	637					3	2	
43	Semanur Big	6	3		1		1	3050	3050		1650	1650		6	3	
44	Kovilanchathan	6	3		1		1	2500	2500					6	3	
45	Kadambankudi	5	2		1		1	1900	1900					5	2	
46	Ariyakudi	4	1		1		1	1211	1211					4	1	
47	Anumareri	3	2		1		1	2846	2846					3	2	

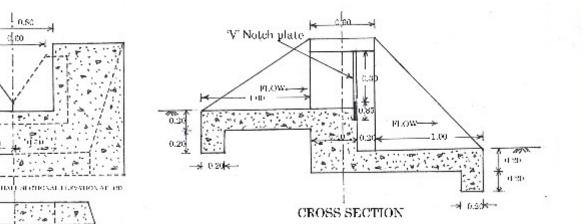
		No	of Slu	ice	Recc o	onstru f weir		Lenç	gth of Bu metres	ind in		gth of Su channel (M)		me	Flow asurir levice	ng
SI no	Name of Tank	Total	Already taken up	Now proposed	Total	Already taken up	Now proposed	Length	Already taken up	Now proposed	Length	Already taken up	Now proposed	Nos	Already taken up	Now proposed
48	Keelakottai	4	2		1		1	1252	1252		1650	1650		4	2	
49	Vaigai	5	2	3	1		1	2652		2652				5	2	3
50	Keelendal	4	3	3				3109	3109		1950	1950		4	3	3
51	Alangulam	4	2	2				2860		2860	900	900		4	2	2
52	Vella Big	3	1		1		1	805	805					3	1	
53	Vella Small	6	3	1	1		1	1600		1600	9200	9200		6	3	1
54	Deivachillainallur	5		5	1	1		1750		1750				5		5
55	Kothankulam	8	3	3	2	2		2196		2196				8	3	3
56	Pakkiripudukulam	4	2	1	1			2300		2300				4	2	1
		203	134	37	54	4	16	134201	28574	105627	80440	37960	12080	203	134	37

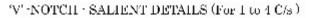
DRAWINGS



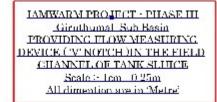


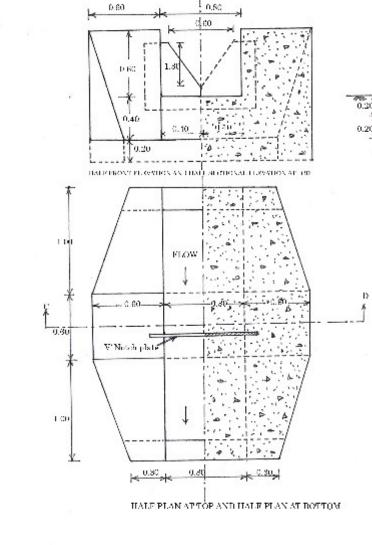


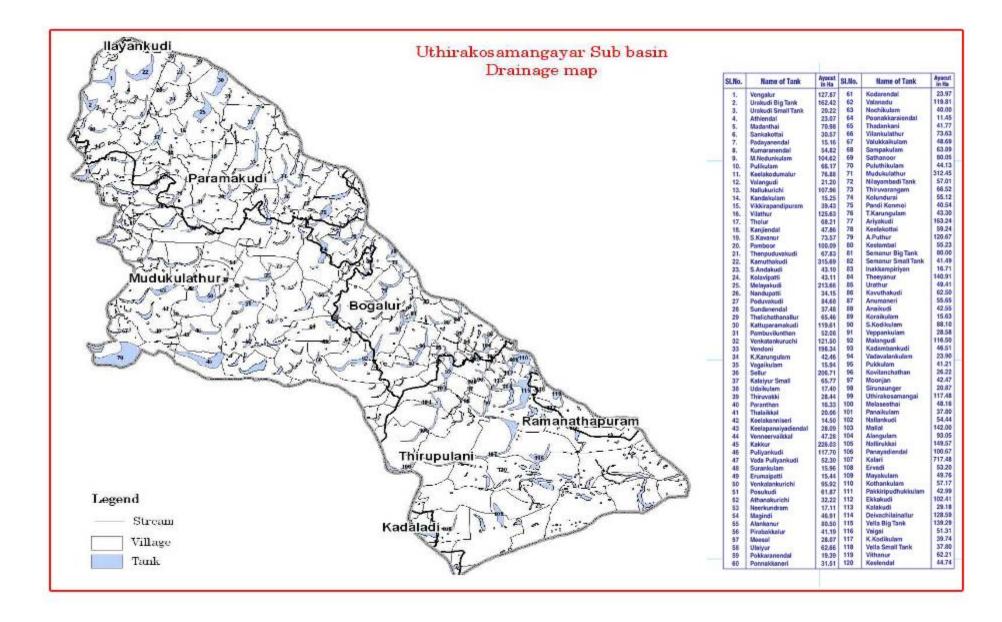




Dis	charge	Head Over		i .		
Cusec Litre/sec		Crest Cm	V" Notch size Cm	Overall size Cm		
1	28.3	20.5	25 x 50	50 x 65		
2	56.6	27	30 x 60	50 x 75		
3	85	32	35 x 70	56 x 90		
4	113.27	36	42 x 84	60 x 100		







THANK YOU