

GOVERNMENT OF TAMIL NADU

PUBLIC WORKS DEPARTMENT

WATER RESOURCES ORGANISATION

TN IAMWARM PROJECT

SWEDHA NADHI SUBBASIN

VELLAR BASIN

ESTIMATE AMOUNT Rs. 1159.88 Lakhs

ADDITIONAL DETAILED PROJECT REPORT FOR LEFTOVER STRUCTURES

TRICHY REGION

<u>Proposal for providing rehabilitation works for the leftover structures in Swetha Nadhi</u> sub basin under IAMWARM Project

In the wrap up meeting of the World Bank mission visit chaired by the Finance Secretary on 17-09-12, it was agreed that the rehabilitation of left out Structures may also be taken in sub basins using the Project savings.

The Swethanadhi originate at an altitude of 1417 M above mean sea level in southern slopes of Kollihills in Namakkal district runs eastward for a distance of 80km and joins with vasista nadhi and finally confluencing with bay of Bengal near Post Nova at Chidambaram in Cuddalore district.

The swetha nadhi is one of the sub basins of vellar river basin. The sub basin is having 23 tanks, 56 anicuts and its channels are being maintained by PWD/WRO. Namagiripettai Block of Namakkal District, Gangavalli block and Thalaivasal block In Salem district and Veppanthattai block in Perambalur District are getting benefited through the river.

In this regard for rehabilitation of left out infrastructure (tanks / anicuts / supply channels, etc.,) and rehabilitation of left out components in tanks taken up under IAMWARM Project of Swdha Nadhi sub basin already 18 Tanks, 33 anicuts and 103.100 Km of supply channels were taken up for rehabilitation for an estimate value of Rs. 895 Lakhs, with the assistance of world bank under TN-IAMWARM project. Now, the left over works in 18 tanks, 13 Anicuts are taken up for rehabilitation

The Government of Tamilnadu have accorded administrative approval vide GOMs.No.205PW/(WRI)/Dept Dt: 13.06.2008 of 20Nos of anicuts, 7 Nos of tanks and retaining wall 1No in Gangavalli block of Swetha sub basin for an estimate value of Rs.435.00Lakhs with the assistance of world bank under TN-IAMWARM project.The rehabilitation of Valasakkalpatti tank is also included in the above project to a tune of Rs.12,55,008/- and the provisions are made accordingly.

But while execution of work, it is found that the provisions made in the estimate for the above work are insufficient. The Chief Engineer PWD/WRO Trichy Region have inspected the site and instructed to prepare separate estimate contemplating all needs to rehabilitate the tank in full pledged manner, the IAMWARM project WRO consultant have

also inspected the site and offer their instructions to rehabilitate the tank fully. Based on the above, it is proposed to prepare a seperate estimate for the rehabilitation of Valasakkalpatti tank.

Asper the instructions of the Chief Engineer, the proposal has been sent to the CE/DRCS Chennai Vide Chief Engineer Trichy Lr.No.402m/DRCS/Chennai vide Chief Engineer Trichy Lr.No.402m/DO2/F51(IW)/SWN/2009/Dt: 16.12.2009 for complete design of weir. The CE/DRCS/Chennai along with their subordinate officers have inspected the site and inspection notes offered in Lr.No.232/CE/SE(D)/AEE X1/F65/CE inspection notes Dt: 21.09.2010. Based on the instructions of CE/DRCS/Chennai, the detailed design with drawings have been communicated to this office vide Lr.No.286CE/SE(D)/EE(D)/AEEXI/F651/2010/Dt:21.12.2010. for preparing the estimate.

Out of 23 tanks in the sub basin 10 tank bunds standardisation work has been carried out in the phase II of lamwarm. Now it is proposed to take up bund standardization of 12 tanks, out of 57 sluices only 7 sluices were taken up for reconstruction / repair in the phase II of lamwarm. Now it is proposed to repair 37 sluices and reconstruction of 4 sluices. Out of 56 anicuts 37 anicuts were repaired under Phase II of lamwarm,now 8 anicuts are taken up for repair works.

The following works are proposed taken up for the left over structures

- 1. Standardisation of bund, Turfing and Boundary stone fixing
- 2. Weir reconstruction / repair works
- 3. Sluice reconstruction/ repair works
- 4. Culvert , Flow measuring Devices construction and lining the irrigation channel
- 5. Carryingout repairs to anicut and head sluice
- **6.** Renewal of old worn out shutters and desilting of supply channels

Executive Engineer PWD/ WRD Sarabanga Basin Division Namakkal

Superindenting engineerPWD / WRD Upper Cauvery Basin Circle Salem

Cheif Engineerpwd/wrd Trichy Region Trichy

STATEMENT - I

Rehabilitation of left out works in Swetha sub basin.

Abstract showing the details of Rehabilitation works proposed

SI.No.	Description	Tanks Nos.	Anicut Nos	Supply chanel in Meter
1	Available infrastructure in Sub Basin	23	56	171340
	Rehabilitation taken up under IAMWARM Project	18	33	103100
2	a) Infrastructure in which all the componants are in good condition and does not require rehabilitation now	5	33	103100
	b) Infrastructure taken up under IAMWARM but certain components not taken up then but require rehabilitation now	8	0	0
	Infrastructure not taken up for rehabilitation since 2005 under any other schemes.			
3	a) Infrastructure in which certain components are in good condition and does not require rehabilitation now			0
	b) Infrastructure in which certain components are not taken up since 2005 but require rehabilation now	10	13	29085
	Total No. of infrastructures requiring rehabilitation now.	18	13	29085

Certified that the works are proposed in the selected IAMWARM sub basin 1 area

- 2 Certified that the panchayat union tanks are not considered in this project
 - Certified that for item 2b, the components of the infrastucture now proposed were not
- 3 taken up under IAMWARM project
 - For Items No.3 Certified that the works are not executed under various scheme(Viz., NABARD, Part II Schemes, etc.,) (Viz.,NABARD,part II
- 4 schemes, etc.,) and IAMWARM since 2005.

B. WRO COST TABLE(PHYSICAL AND FINANCIAL PROGRAM)

B.Break up estimate cost

Swdha Nadhi Sub Basin

	ABSTRACT		TOTA	AI	
SL.NO	COMPONENT	QTY	1017	AMOUNT IN LAKHS	
I	Tank Component				
1	Tank Bund Improvement	17616.00	M	125.86	
2	Repairs to sluice	37.00	No	95.49	
3	Reconstruction of sluices	4	No	24.53	
4	Repairs to weirs	13.00	M	609.44	
5	Reconstruction of Weirs	0.00	M	0.00	
6	Shutter renewal	8	Nos	2.59	
II	Irrigation Channel				
1	Desilting of irrigation chanel	16340	M	7.70	
2	Lining of irrigation channel	590	M	21.90	
3	Repairs to drops, shyphons, cistern	4	No	34.60	
4	Repairs to culvert, acqeduct, etc.,	-		-	
5	Shutter renewal	-		-	
III	Anicut component				
1	Reconstruction of Anicut	-		-	
2	Repairs to Anicut	8	No	149.62	
3	Repairs to head sluice	0	No	0.00	
4	Shutter renewal	7	No	2.44	
5	Supply Channel	12805	М	54.12	
IV	Labour welfare fund 0.3%			3.38	
V	L.S. Provision @ 2.5%			28.21	
	TOTAL			1159.88	

Executive Engineer, PWD/WRD,

Sarabanga Basin Division, Namakkal

Chief Engineer , PWD/ WRD Trichy Region Trichy Superintending Engieer,PWD/WRD, Upper Cauvery Basin Circle, Trichy.

statement II - A

REHABILITATION OF LEFT OUT TANKS & INFRASTUCTURE IN SUB BASIN OF IAMWARM PROJECT REHABILITATION OF TANK WORKS

Name of sub basin : Swetha Nadhi Sub

Basin

Amount in lakhs 857.91

SI.	Name of Tanks	Tank Improv		Turf	ing		pairs to Sluice		onstuction Sluices		pairs to Weirs		nstuction Weirs	_	Shutter enewal	Total
		Length in M	Amount	Length in M	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	
1	Jangamasamudram	620	2.50	620.00	0.48	1	1.00			1	2.58					6.56
2	Sendarapatty	1830	19.00	1830	1.76					1	33.50					54.26
3	Kondayampalli			1435.00	1.15	5	10.70									11.85
4	Goodamalai			1066.00	0.92	2	10.15									11.07
5	Anaiampatti			1984.00	1.78	3	15.27									17.05
6	Nadavalur			2089.00	1.94	3	15.42									17.36
7	Thedavur			2037.00	2.08	4	20.25									22.33
8	Valasalkalpatty	720	4.67	720.00	0.55			1	11.65	1	505.32				0.00	522.19
9	Vellaiur	1900	6.27	1900	1.58					2	15.59			2	2.59	26.03

10	Thittacheri	1700	5.13	1700	1.47	3	4.54			2	13.47					24.61
11	Navalur			1680.00	1.51	4	9.73									11.24
12	Veeraganur	2600	15.59	2600.00	2.60	7	4.45			1	1.13					23.77
13	Chokkanur	1130	3.16	1130.00	1.19											4.35
14	Vengalam Tank (Chitteri)	1050	7.66	1050.00	0.95			2	8.20	1	4.03					20.84
15	Arumbavur Tank (Chitteri)	2100	5.17	2100.00	2.37	2	0.81			1	7.31					15.66
16	Poolambadi Ponneri	927	8.50	927.00	0.84	1	0.71			2	15.38					25.43
16b	Poolambadi Chitteri	1173	7.37	1173.00	1.07	1	0.77									9.21
17	Thondamandurai tank			1915.00	2.35			1	4.68							7.03
18	Keeravadi Tank	1866	12.26	1866.00	2.01	1	1.69			1	11.13					27.09
	Total	17616.00	97.26	29822.00	28.60	37	95.49	4	24.53	13	609.44	0.00	0.00	2	2.59	857.91

125.86

Executive Engineer,PWD/WRD, Sarabanga Basin Division, Namakkal. Superintending Engieer,PWD/WRD, Upper Cauvery Basin Circle, Salem. Chief Engineer,PWD/WRD, Trichy Region, Trichy.

STATEMENT II - B REHABILITATION OF IRRIGATION CHANNELS

Name of sub basin: Swetha NadhiSub Basin Amount in lakhs 64.20

SI. No	Name of Tanks		of irrigation ly channel	irr	ning of rigation hannel	Drop	epairs to os, Syphon cistern	(epairs to culvert queduct etc.,		hutter enewal	Total
		Length	Amount	No	Amount	No	Amount	No	Amount	No	Amount	
1	Jangamasamudram			30	1.00	2	19.50					20.50
2	Sendarapatty	1800	1.00	30	1.00	2	15.10					17.10
3	Kondayampalli	2600	1.10									1.10
4	Goodamalai	4600	2.90									2.90
5	Valasalkalpatty			30	1.50							1.50
6	Vellaiur tank supply channel	3590	1.10	60	2.00							3.10
7	Veeraganur Tank supply channel	200	0.32									0.32
8	Thittacheri tank supply channel	3550	1.28	90	3.00							4.28
9	Vengalam Tank (Chitteri)			100	3.78							3.78
10	Arumbavur Tank (Chitteri)			100	3.90							3.90
11 a	Poolambadi Ponneri			50	1.75							1.75
12 b	Poolambadi Chitteri			50	2.02							2.02
13	Keeravadi Tank			50	1.95							1.95
	Total	16340	7.70	590	21.90	4	34.60	-	-	-	-	64.20

Executive Engineer,PWD/WRD Sarabanga Basin Division, Namakkal.

Superintending Engineer,PWD/WRD, Upper Cauvery Basin Circle, Salem. Chief Engineer,PWD/WRD, Trichy Region, Trichy.

STATEMENT II - C
REHABILITATION OF ANICUTS AND SUPPLY CHANNEL

Name of sub basin: Swetha Nadhi Sub Basin

Amount in Lakhs= 206.18

SI. No	Name of Anicut / supply channel		ructon of		pairs to		pairs to	Ве	ed Bar	1	Shutter Renewal	Supply	channal	Total in Lakhs
		Length	Amount	No	Amount	No	Amount	No	Amount	No	Amount	Length in m	Amount	Lakiis
1	Salakkadu anicut			1	23.00									23.00
2	Watchukkal anicut			1	19.00									19.00
3	Sendharapatti renkatchi anicut			1	4.96					1	0.12	30	1.00	6.08
4	Krishnapuram renkatchi reddi anicut			1	2.51					1	0.12	30	1.00	3.63
5	Maduraiveerankoil anicut 2,3			1	11.46					2	0.24	60	2.00	13.70
6	Illupanatham odai anicut			1	7.42							2000	2.71	10.13
7	Pagadapadi anicut			1	24.60							1000	0.99	25.59
11	Sathasivaredi anicut			1	26.19							800	16.31	42.50
12	Thaluthalai Large anicut			1	11.34							500	1.28	12.62
13	Mamarathu Vaithyakara Ravuthar Anicut			1	7.91							700	4.36	12.27
14	Thennanthoopu anicut			1	7.66							600	3.86	11.52
15	Vallikannu Ravuthar Anicut			1	3.57							600	4.42	7.99
16	Sendarapatty							9	0.44					0.44
17	Kondayampalli							13	0.67					0.67
18	Goodamalai							5	0.22					0.22
19	Vellaiur							3	0.21					0.21
20	Thittacheri							3	0.29					0.29

21	Vengalam Chitteri Supply Channel							6	0.35			2500	1.51	1.86
22	Arumbavur Chitteri Supply Channel							3	0.19			945	1.14	1.33
23 a	Poolambadi Ponneri Supply Channel							6	0.35			1100	1.42	1.77
23 b	Poolambadi Chitteri Supply Channel							5	0.25			1000	1.28	1.53
24	Keeravadi Tank Supply Channel							5	0.32			1000	7.55	7.87
25	Thodamandurai tank Tank Supply Channel									3	1.96			1.96
	TOTAL	-	-	8	149.62	0	0	58.00	3.29	7	2.44	12805	50.83	206.18

Executive Engineer,PWD/WRD Sarabanga Basin Division, Namakkal.

Superintending Engieer,PWD/WRD, Upper Cauvery Basin Circle, Salem. Chief Engineer,PWD/WRD, Trichy Region, Trichy.

statement II - A

REHABILITATION OF LEFT OUT TANKS & INFRASTUCTURE IN SWDHA NADHI SUB BASIN OF IAMWARM PROJECT

REHABILITATION OF TANK WORKS

Name of sub basin :Swetha Nadhi
Basin
Amount in lakhs

SI.	ş	age	Name of Taylor	Tank Improve	I	Turf	ing		airs to luice		enstuction Sluices		pairs to Veirs	Be	d Bar		onstuction Weirs	1	nutter newal		g of irrigation channel	Lir	ning of irrigation channel	D Sy	pairs to rops, phon stern	Tatal
No	Block	Package	Name of Tanks	Length in M	Amount	Length in M	Amount	No	Amount	No	Amount	No	Amount	9 N	Amount	o N	Amount	o _N	Amount	o N	Amount	o N	Amount	o _N	Amount	Total
1			Jangamasamudram	680	2.50	620	0.48	1	1.00	-		1	2.58			-		-				30	1.00	2	19.50	27.06
2			Sendarapatty	1830	19.00	1830	1.76	-	0.00	-		1	33.50	9	0.44	-		-		1800	1.00	30	1.00	2	15.10	71.80
3	≡		Kondayampalli	-		1435	1.15	5	10.70			-		13	0.67	-		-		2600	1.10	-		-		13.62
4	Gangavalli		Goodamalai	-		1066	0.92	2	10.15			-		5	0.22	-		-		4600	2.90	-		-		14.19
5	Ga		Anaiampatti	-		1984	1.78	3	15.27			-				-		-		-		-		-		17.05
6		age l	Nadavalur	-		2089	1.94	4	15.42			-				-		-		-		-		-		17.36
7		Package	Thedavur	-		2037	2.08	3	20.25			-				-		-		-		-		-		22.33
9		ъ.	Navalur	-		720	1.51	4	9.73			-				-		-		-		-		-		11.24
10	sal		Vellaiur	1900	6.27	1900	1.58	-				2	15.59	3	0.21	-		2	2.59	3590	1.10	60.00	2.00	-		29.34
11	Thalaivasal		Thittacheri	1700	5.13	1700	1.47	3	4.54			2	13.47	3	0.29			-		3550	1.28	90.00	3.00	-		29.18
12	Tha		Veeraganur	2600	15.59	1680	2.59	7	4.45			1	1.13			-		-		200	0.32	-		-		24.08
13			Chokkanur	1130	3.16	2600	1.18	-				-				-		-		-		-		-		4.34
			TOTAL	9840	51.65	19661	18.44	32	91.51	0	0	7	66.27	33	1.83	0	0	2	2.59	16340	7.70	210	7.00	4	34.60	281.59
8	Gangavall	Package II		720	4.67	720.00	0.55			1	11.65	1	505.32									30	1.50			523.69
14			Vengalam Tank (Chitteri)	1050	7.66	1050	0.95	0	0.00	2	8.20	1	4.03	6	0.35	-		-				100	3.78	-		24.97
15	atai	=	Arumbavur Tank (Chitteri)	2100	5.17	2100	2.37	2	0.81			1	7.31	3	0.19	-		-				100	3.90	-		19.75
16	Vepantha	Package	Poolambadi Ponneri	927	8.50	927	0.84	1	0.71			2	15.38		0.35			-				50	1.75	-		27.53
16b	ban	Ska	Poolambadi Chitteri	1173	7.37	1173	1.07	1	0.77			0	0.00		0.25			-				50	2.02	-		11.48
17	\ 	Ра	Thondamandurai tank	0	0.00	1915	2.35	0	0.00	1	4.68	0	0.00		0.32	-		-						ļ -		7.35
18			Keeravadi Tank	1866	12.26	1866	2.01	1	1.69		40.00	1	11.13	0	0.00	<u> </u>		-				50	1.95	-		29.04
			TOTAL	7116	40.96	9031	9.59	5	3.98	3	12.88	5	37.85		1.46		0	0	0	0	0.00	350	13.40	0	0	120.12
			Total	1/0/0	31.20	29412	28.58	اد	95.49	4	24.53	13	609.44	Dδ	3.29	U	0	2	2.59	16340	7.70	590	21.90 Chief	4	34.60	925.40

Executive Engineer,PWD/WRD

Superintendent Engieer, PWD/WRD,

Chief Engineer,PWD/WRD,

Sarabanga Basin Division, Namakkal. Upper Cauvery Basin Circle, Salem.

Trichy Region, Trichy.

925.40

STATEMENT II - C REHABILITATION OF ANICUTS AND SUPPLY CHANNEL

Name of sub basin: Swetha Nadhi Sub Basin

Amount in Lakhs =

202.89

SI.	Block		Name of Anicut / supply channel		ructon of cut	Repair	s to anicut		pairs to	_	nutter newal	Supply cl	nannal	Total
No			Name of Amount supply chainles	Length	Amount	No	Amount	No	Amount	No	Amount	Length in m	Amount	in Lakhs
1	ma pet มi		Salakkadu anicut	-	-	1	23.00	-	1					23.00
2	Nama giripet tai	_	Vachukkal anicut	-	-	1	19.00	-	-					19.00
3	Gangava IIi	ge	Sendharapatti renkatchi anicut	-	-	1	4.96	-	-	1	0.12	30	1	6.08
4	ng≅	Package	Krishnapuram renkatchi reddi anicut	-	-	1	2.51	-	-	1	0.12	30	1	3.63
5	Ga	Рас	Maduraiveerankoil anicut 1,2	-	-	1	11.46	-	-	2	0.24	60	2	13.70
6	Thalai		Illupanatham odai anicut	-	-	1	7.42	-		-		2000	2.71	10.13
7	Tha va:		Pagadapadi anicut	-	-	1	24.60	-		-		1000	0.99	25.59
			TOTAL			7.00	92.95			4.00	0.48	3120.00	7.70	101.13
25			Sathasivaredi anicut	-	-	1.00	26.19					800	16.31	42.50
26			Thaluthalai Large anicut	-	-	1.00	11.34					500	1.28	12.62
27			Mamarathu Vaithyakara Ravuthar Anicut	-	-	1.00	7.91					700	4.36	12.27
28			Thennanthoopu anicut	-	-	1.00	7.66					600	3.86	11.52
29			Vallikannu Ravuthar Anicut	-	-	1.00	3.57					600	4.42	7.99
30	ata	=	Vengalam Chitteri Supply Channel	-	-							2500	1.51	1.51
31	nth	age	Arumbavur Chitteri Supply Channel	-	-							945	1.14	1.14
32	Vepanthatai	Package III	Poolambadi Ponneri Supply Channel	-	-							1100	1.42	1.42
32	>	Ь	Poolambadi Chitteri Supply Channel	_	_							1000	1.28	1.28
a			r columbati crittori cappiy criamici									1000	1.20	1.20
32 b			Keeravadi Tank Supply Channel	-	-							1000	7.55	7.55
33			Thodamandurai tank Tank Supply Channel	-	-			-	-	3	1.96			1.96
			TOTAL	0	0	5	56.67	0	0	3	1.96	9745	43.13	101.76
			TOTAL	0	0	12	149.62	0	0	7	2.44	12865	50.83	202.89

Executive Engineer,PWD/WRO, Sarabanga Basin Division, Namakkal. Superintendent Engieer,PWD/WRD, Upper Cauvery Basin Circle, Salem. Chief Engineer,PWD/WRD, Trichy Region, Trichy.

statement II - A

REHABILITATION OF LEFT OUT TANKS & INFRASTUCTURE IN SWEDHA NADHI SUB BASIN OF IAMWARM PROJECT REHABILITATION OF TANK WORKS

Name of sub basin : Swetha Nadhi Amount in lakhs = 1159.88

		or sub busin . Owelliu					_	Amou							133.00	<u>, </u>											
SI.		Name of Tanks		Bund vements	Tur	J	s	ce Repair + hutter enewal	Wie	er Repair	irrig	ng of jation innel		channal	Bed	l Bar		onstructon f anicut	s	epairs to anicut + shutter enewal		rs to CD orks	Supply cl	nannal	Sub Total	L.S	Total
NO.			Length in M	Amount	Length in M	Amount	No	Amount	No	Amount	No	Amount	Length in m	Amount	o N	Amount	Length	Amount	N ON	Amount	o N	Amount	Length in m	Amount	Total	Provision	
1	1/ IAMWARM/ WRD/ SWN/ LEFTOVER WORKS / 2012-2013	PACKAGE 1 REHABILITATION AND MODERNISATION OF 8 NOS. ANICUTS AND 12 NOS. TANKS OF SWETHANADHI SUB BASIN IN NAMAGIRIPETTAI BLOCK OF NAMAKKAL DISTRICT AND GANGAVALLI BLOCK THALAIVASAL BLOCK OF SALEM DISTRICT	9840	51.65	19661	18.44	32	94.10	7	66.27	210	7.00	16340	7.70	33.0	1.83			7	93.43	4.00	34.60	3120.00	7.70	382.72	10.72	393.44
2	2/ IAMWARM/ WRD/ SWN/ LEFTOVER WORKS / 2012-2013	PACKAGE 2 REHABILITATION AND MODERNISATION OF VALASAKALPATTY TANK IN GANGAVALLI BLOCK OF SALEM DISTRICT.																									
			720	4.67	720	0.55	1	11.65	1	505.32	30	1.50					1	11.65							523.69	14.66	538.35
3	3/ IAMWARM/ WRD/ SWN/ LEFTOVER WORKS / 2012-2013	PACKAGE 3 REHABILITATION AND MODERNISATION OF 5 NOS ANICUTS AND 5 NOS TANKS IN VEPPANTHATTAI BLOCK OF PERAMBALUR DISTRICT.	7116	40.96	9031	9.59	8	16.86	5	37.85	350	13.40	9745	43.13	25	1.46	0	0.00	5	58.63					221.88	6.21	228.09
			17676	97.28	29412	28.58	41	122.61	13	609.44	590	21.90	26085	50.83	58	3.29	1	11.65	12	152.06	4	34.60	3120	7.70	1128.29	31.59	1159.88

Executive Engineer,PWD/WRD, Sarabanga Basin Division, Namakkal. Superindenting Engineer, PWD/ WRD

Upper Cauvery Basin Circle
Salem

Chief Engineer, PWD/ WRD
Trichy Region
Trichy