



PUBLIC WORKS DEPARTMENT

WATER RESOURCES ORGANISATION

MADURAI REGION

TN – IAMWARM PROJECT

**UPPER GUNDAR SUB BASIN
(ADDITIONAL)**

DETAILED PROJECT REPORT

NODAL DIVISION: GUNDAR BASIN DIVISION

MADURAI



**TN- IAMWARM PROJECT
UPPER GUNDAR SUB BASIN**



Introduction Report

Additional proposals for providing Lining of Head Irrigation Channel and Flow Measuring Device in Upper Gundar sub basin (Phase II) under IAMWARM Project

The lining of irrigation channel and installation of measuring device has been proposed for Phase I and II sub basins by utilizing the Project Savings as discussed with the World Bank, during the implementation support mission from Sept 12-20th 2011.

Accordingly in the Upper Gundar sub basin of Phase the following works have been proposed.

1. Lining of head irrigation channel below the tanks sluice using c.c. M 15 as per sketch enclosed
2. Installing flow measuring device in the head irrigation channel as per sketch
3. L.S provision of 2.8 % for Provision of labour welfare @ 0.30 % and provision for contingencies, advertisement charges, photographic charges @ 2.5%

The package details are appended separately and works are proposed to be taken up under national shopping procedure

The total cost for the DPR works out to Rs.93.71 lakhs

Executive Engineer,WRO.
Gundar Basin Division,
Madurai

Superintending Engineer,WRD.,
Vaippar Basin Circle,
Virudhunagar.

Chief Engineer,WRD.,
Madurai Region,
Madurai

FORMAT 1

Name of Region : Madurai
Name of Circle : Vaippar Basin Circle , Virudhunagar.
Name of Division : Gundar Division, Madurai
Name of Sub Basin : Upper Gundar
Total Number of Tanks taken up under IAMWARM : 23

NO OF TANKS, SLUICES IN EACH PACKAGE

Rs in Lakhs

Sl.No.	PackageNo	Name of the Tank	No of Sluices	Flow Measuring Device		Lining of Head Irrigation Channel			Total Amount	LS Provision @ 2.80 %	Grand Total	Remarks
				No.	Amount	Type of soil BC / OS	Length in m	Amount				
1	2	3	4	5	6	7	8	9	10	11	12	13
	Package No 1	1)Kuppammal Samudhram Tank	2	2	0.24	BC	80	3.68	3.92			
2		2)Kadambankulam Tank	3	3	0.36	BC	120	5.52	5.88			
		Package Total	5	5	0.60		200	9.20	9.80	0.27	10.07	
1	Package No 2	3)saptur Periakamoi	3	3	0.36	BC	120	5.52	5.88			
2		4)Kudiseri Tank	2	2	0.24	BC	80	3.68	3.92			
3		5)Sennelperi Tank	1	1	0.12	BC	40	1.84	1.96			
		Package Total	6	6	0.72		240	11.04	11.76	0.33	12.09	
1	Package No 3	6)Poolankulam Tank	2	2	0.24	BC	80	3.68	3.92			
2		7)Alappalacheri Periakamoi	3	3	0.36	BC	120	5.52	5.88			
		Package Total	5	5	0.6		200	9.20	9.80	0.27	10.07	
1	Package No 4	8)Elumalai Periakamoi	3	3	0.36	BC	120	5.16	5.52			
2		9)Kanakkankulam Tank	2	2	0.24	BC	90	3.87	4.11			
3		10)Chokkanathan Tank	1	1	0.12	BC	45	1.94	2.06			
		Package Total	6	6	0.72		255	10.97	11.69	0.33	12.02	

SI.No.	PackageNo	Name of the Tank	No of Sluices	Flow Measuring Device		Lining of Head Irrigation Channel			Total Amount	LS Provision @ 2.80 %	Grand Total	Remarks
				No.	Amount	Type of soil BC / OS	Length in m	Amount				
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Package No 5	11)Thirumanickam Tank	3	3	0.36	BC	120	5.22	5.58			
2		12)Periakattalai Tank	1	1	0.12	BC	45	1.96	2.08			
3		13)Allikundam Tank	2	2	0.24	BC	90	3.87	4.11			
		Package Total	6	6	0.72		255	11.05	11.77	0.33	12.10	
1	Package No 6	14)Mochikulam Tank	1	1	0.12	BC	40	1.84	1.96			
2		15)Kalappanpatti Tank	2	2	0.24	BC	90	4.14	4.38			
		Package Total	3	3	0.36		130	5.98	6.34	0.19	6.53	
1	Package No 7	16)Thangalacheri Periakanmoi	2	2	0.24	BC	80	3.68	3.92			
2		17)Thirali Periakanmoi	2	2	0.24	BC	80	3.68	3.92			
		Package Total	4	4	0.48		160	7.36	7.84	0.22	8.06	
1	Package No 8	18)Sivarakottai Karisalkulam	3	3	0.36	BC	80	3.68	4.04			
2		19)Arasapatti pottapacheri	1	1	0.12	BC	50	2.30	2.42			
		Package Total	4	4	0.48		130	5.98	6.46	0.19	6.65	
1	Package No 9	20)Melanesaneri Karisalkulam	2	2	0.24	BC	80	3.68	3.92			
2		21)Senkulam Tank	2	2	0.24	BC	80	3.68	3.92			
		Package Total	4	4	0.48		160	7.36	7.84	0.22	8.06	

Sl.No.	PackageNo	Name of the Tank	No of Sluices	Flow Measuring Device		Lining of Head Irrigation Channel			Total Amount	LS Provision @ 2.80 %	Grand Total	Remarks
				No.	Amount	Type of soil BC / OS	Length in m	Amount				
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Package No 10	22)Pokkampatti Tank	2	2	0.24	BC	80	3.68	3.92			
2		23)Pullamuthur Tank	2	2	0.24	BC	80	3.68	3.92			
		Package Total	4	4	0.48		160	7.36	7.84	0.22	8.06	
		Grand Total	47	47	5.64		1890	85.50	91.14	2.57	93.71	

Certified that the Tanks included in the originally approved DPR of Upper Gundar Sub Basin alone are considered now

Certified that the above works have not been taken up in any other Project

Certified that the field / Irrigation channel drawing type I is adopted in Nil number of tanks having soil other than black cotton soil.

Certified that the field / Irrigation channel drawing type II is adopted in 23 number of tanks having black cotton soil

* BC- Black Cotton soil

OS - Other Soil

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Virudhunagar.

Chief Engineer,WRO.,
Madurai Region,
Madurai

FORMAT II

Name of Region : **Madurai**
Name of Circle : **Vaippar Basin Circle , Virudhunagar.**
Name of Division : **Gundar Division, Madurai**
Name of Sub Basin : **Upper Gundar**
Total Number of Tanks taken up under IAMWARM : **23**
Method of Procurement : **National Shopping**

(Note : Procurement Plan to be got approved by world bank separately)

PACKAGEWISE ABSTRACT

Sl.No.	Package Number	Name of work	No of tanks	No of flow measuring device (Nos)	Length of Lining Head Irrigation Channel (in M)	Total amount including L.S.(Rs in Lakhs)	Remarks
1	01 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Kuppammal samudhram tank, Kadambankulam tank in Varattar river under Upper Gundar sub basin in Peraiyur Taluk of Madurai District.	2	5	200	10.07	
2	02 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Saptur Periakamoi, Kudiseri tank and Sennelperi tank in Varattar river under Upper Gundar sub basin in Peraiyur Taluk of Madurai District.	3	6	240	12.09	
3	3 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Poolankulam tank and Alappalacheri Periakamoi in Varattar river under Upper Gundar sub basin in Peraiyur and Thirumangalam Taluks of Madurai District.	2	5	200	10.07	

Sl.No.	Package Number	Name of work	No of tanks	No of flow measuring device (Nos)	Length of Lining Head Irrigation Channel (in M)	Total amount including L.S.(Rs in Lakhs)	Remarks
4	4 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Elumalai Periakamoi, Kanakkankulam tank and Chokkanathan tank in Goundanadhi under Upper Gundar sub basin in Peraiyur Taluk of Madurai District.	3	6	255	12.02	
5	5 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Thirumanickam tank, Periakattalai tank and Allikundam tank in Goundanadhi under Upper Gundar sub basin in Peraiyur and Usilamaptti Taluks of Madurai District.	3	6	255	12.10	
6	6 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Mochikulam tank and Kalappanpatti tank in Goundanadhi under Upper Gundar sub basin in Peraiyur Taluk of Madurai District.	2	3	130	6.53	
7	7 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Thangalacheri Perikanmoi and Thirali Periakamoi in Goundanadhi under Upper Gundar sub basin in Thirumangalam Taluk of Madurai District.	2	4	160	8.06	
8	8 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Sivarakottai karisalkulam and Arasapatti pottapacheri tank in Goundanadhi under Upper Gundar sub basin in Thirumangalam Taluk of Madurai District.	2	4	130	6.65	

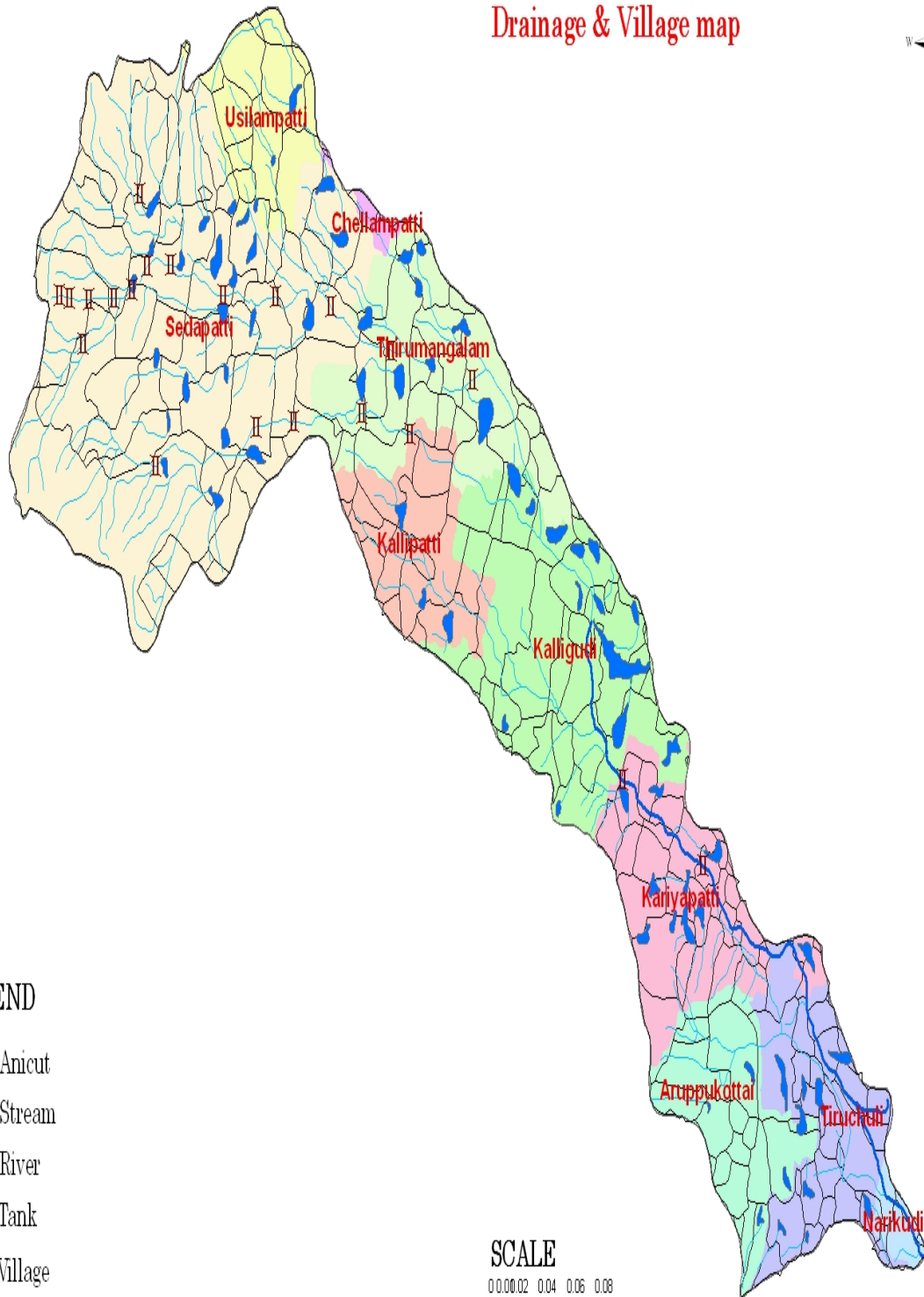
Sl.No.	Package Number	Name of work	No of tanks	No of flow measuring device (Nos)	Length of Lining Head Irrigation Channel (in M)	Total amount including L.S.(Rs in Lakhs)	Remarks
9	9 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Melanesaneri karisalkulam and Senkulam tank in Goundanadhi under Upper Gundar sub basin in Thirumangalam Taluk of Madurai District.	2	4	160	8.06	
10	10 / IAMWARM / WRD / UGR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Pokkampatti tank and Pullamuthur tank in Goundanadhi under Upper Gundar sub basin in Thirumangalam Taluk of Madurai District.	2	4	160	8.06	
		TOTAL	23	47	1890	93.71	

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Upper Gundar Sub Basin Drainage & Village map



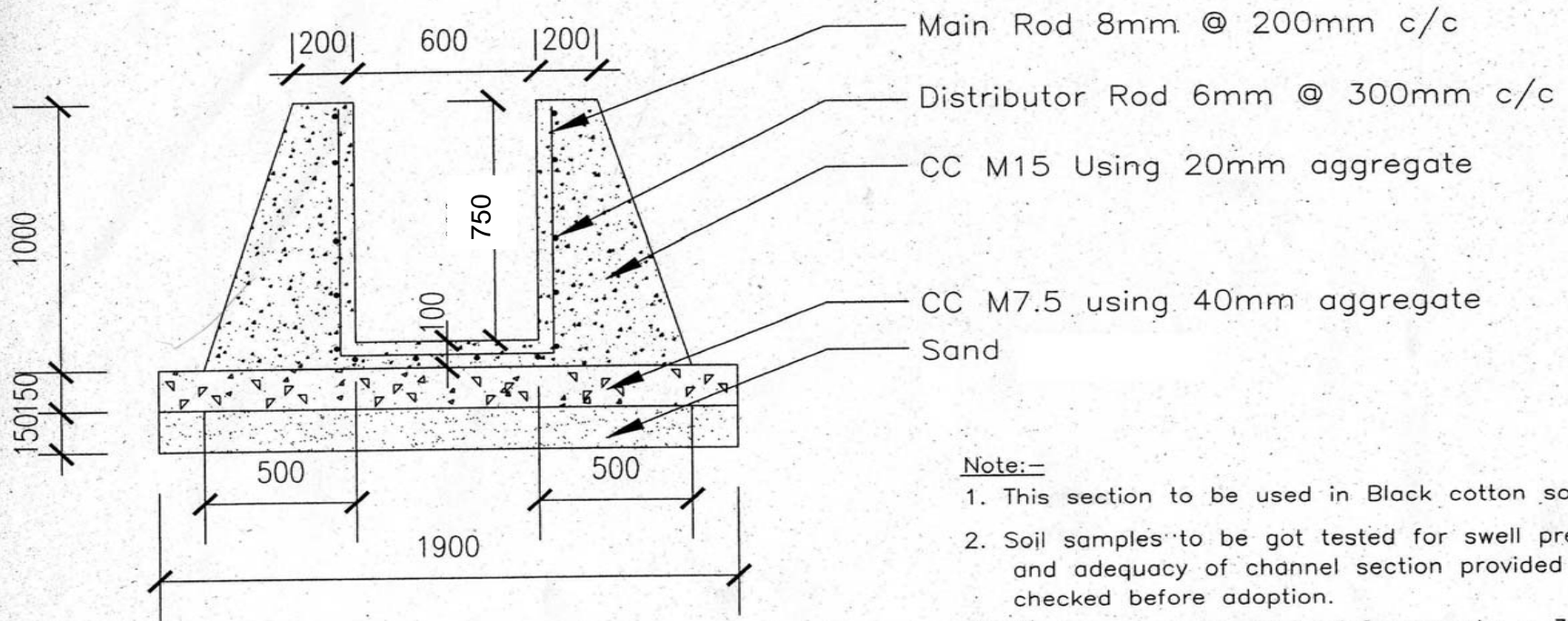
LEGEND

- II Anicut
- Stream
- River
- Tank
- Village
- Block

SCALE

0 0.0002 0.04 0.06 0.08
Kilometers

LINING OF IRRIGATION CHANNEL
TYPICAL CROSS SECTION
FOR BLACK COTTON SOIL



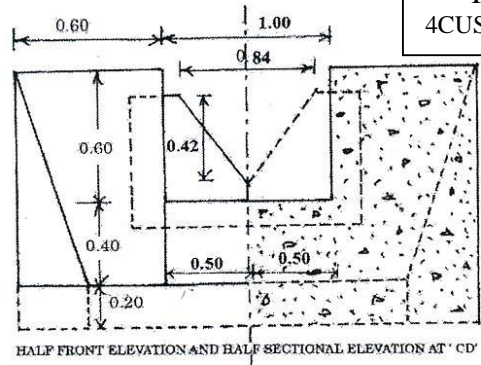
Note:-

1. This section to be used in Black cotton soil.
2. Soil samples to be got tested for swell pressure and adequacy of channel section provided to be checked before adoption.
3. Nominal cover to steel reinforcements = 30 mm

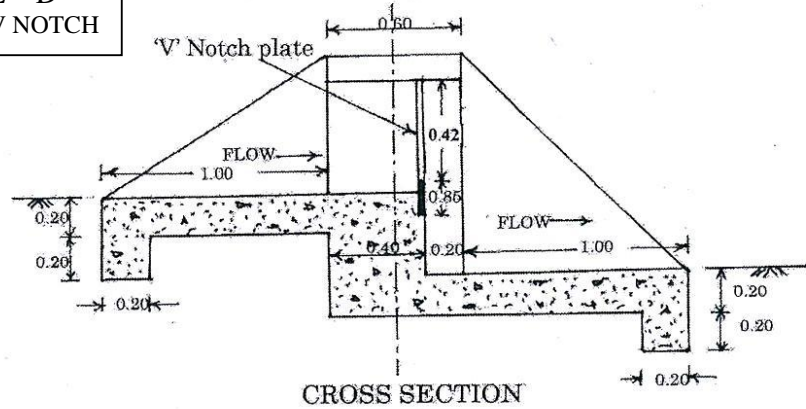
Executive Engineer PWD
 Gundar Basin Division
 Madurai

IAMWARM PROJECT
 UPPER GUNDAR SUB BASIN
 IRRIGATION CHANNEL LINING
 Scale:- 1:1000
 All Dimension are in Metre

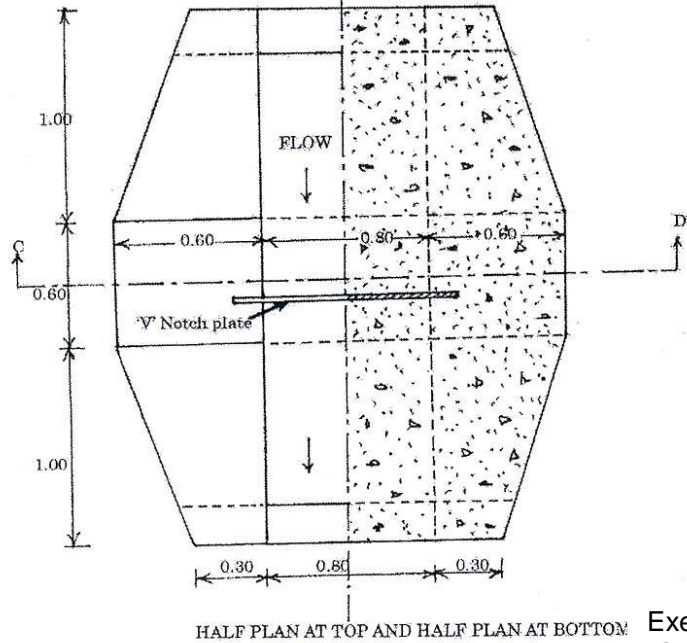
**TYPE - D
4CUSEC V NOTCH**



HALF FRONT ELEVATION AND HALF SECTIONAL ELEVATION AT 'CD'



CROSS SECTION



HALF PLAN AT TOP AND HALF PLAN AT BOTTOM

V' NOTCH - SALIENT DETAILS (For 1 to 4 C/s)

Discharge		Head Over Crest Cm	V' Notch size Cm	Overall size Cm
Cusec	Litre / sec			
1	28.3	20.5	25 x 50	50 x 65
2	56.6	27	30 x 80	50 x 75
3	85	32	35 x 70	55 x 90
4	113.27	36	42 x 84	60 x 100

IAMWARM PROJECT
UPPER GUNDAR SUB BASIN
PROVIDING FLOW MEASURING
DEVICE('V') NOTCH) IN THE
FIELD CHANNEL OF TANK
SLUICE Scale 1cm=0.25m All
dimention are in Metre

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Gundar Basin Division
Madurai

TYPE - D

