GOMUKHI NADHI SUB BASIN

AN OVERVIEW

GOMUKHI NADHI SUB BASIN - AN OVER VIEW

1. Introduction :-

The Vellar river originates in the Chitteri Hills of Dharmapuri District in the name of Anaimaduvu river and Thumbal river and Singipuram river are originates at Jallattu reserve forest area at 8 Km east of Salem in Salem district and flows through Villupuram, Cuddalore, Namakkal , Trichy and Perambalur District and finally falls into the Bay of Bengal. The Vellar basin is situated between the coordinates of N latitude 11^0 13'-12^0 00' and E Longitude 78^0 13' - 79^0 47'. The Vellar basin is bounded by Ponnaiyar and Paravanar basins at north, Cauvery basin in the west & south the Bay of Bengal in the east.

The Vellar basin has been divided into 7 sub basins and Gomukhi is one of the sub basins. Gomukhi Nadhi originates from the eastern slopes of Kalrayan hills in Kallakurichi at an altitude of about 1298 metres. The river flows for a length of 13Km at which Gomukhi Nadhi reservoir has been constructed across the river at about 16Km to the north west of Kallakurichi town. About 44Km below this reservoir a tributary called Mayura Nadhi joins the Gomukhi Nadhi on its right flank. Mayura Nadhi runs for a length of 38Km which is also originates the south eastern slopes of Kalrayan hills north east of Chinnasalem taluk. Two sub tributaries namely Thirumanimuktha nadhi on the right flank and Namasivayapuram Odai on the left join the Mayura Nadhi at 8 Km above the confluence of the Mayura nadhi, with the Gomukhinadhi. Gomukhi sub basin is located between N latitude 11^0 15'-12^0 00'and E Longitude $78^0$15'-79^0 15'. The taluks covered in this subbasin are Kallakurichi (Villupuram District), Athur (Salem District) Virudhachalam and Thittakudi (Cuddalore District). It receives an annual rainfall of 956mm with its major share during north east monsoon. The winter water level varies from 1 to 1.5m and the summer water level varies from 3.55 to 4.00 m

Observation Well:-

There is only one observation well located in this sub basin. Moderate to good quality of ground water is available in Kallakurichi Sitteri village of Kallakurichi block. The concentration of all ions lies within the permissible limit. The Geochemical type is calcium bicarbonate.

2. Details of Ayacut :

There is no system tanks. The basin consists only Nonsystem tanks and Rainfed Tanks. The Gomukhi Sub basin is having 80 Nos of non-system tanks and 47 anicuts having a total ayacut 5124 Ha being maintained by PWD.

The Total Ayacut area under the sub basin : 5123.89Ha.

Though the total registered ayacut under PWD control is 5123.89 Ha average cultivation is only 4162.87 Ha leaving a gap of 961.02 Ha which are approximately 19 % of designated irrigation extent.

3. Soil Type and crops Grown

The soil types found in this sub basin are combination of Inceptisol , Alfisol, Entisol and Vertisol.

Crops grown in this sub basin area are Paddy, Sugarcane, Maize, Turmeric, Groundnut, Pulses and Tapiaco which are grown during first season and Black gram, maize, cotton, and groundnut are grown during second season.

4. Water potential.

Surface water potential	98.77 Mcum.
Ground water potential	223.05 Mcum.
Total water Potential	**321.82 Mcum.**

Present water Demand.

Domestic	16.90 Mcum
Live Stock	20.96 Mcum
Industrial	6.00 Mcum
Irrigation	105.66 Mcum
WRO & PU	25.91 Mcum
Total	**175.73 Mcum**

Therefore 146.39 Mcum (321.82 - 175.73) is higher than the current demand.

In spite of the surplus scenario the reasons for substantial gap in area coverage are

(I). This sytem is a very old system having 80 Nos of PWD tanks and 47 Anicuts for more than 100 years they were not maintained. Therefore it requires wide spread rehabilitation

(II). The tanks and its supply channel are heavily silted up with thick vegetation grown obstructing free flow of water bunds are eroded at many places which needs improvements.

(III). Fixing of Boundary stones is necessary to prevent encroachment.

(IV). The sluices and weirs of tanks need repairs.

(V). Micro irrigation needs to be propagated in the application of water to the fields

(VI). Most of the lands are in fragmented condition consequently there is a lot of water loss in field to field irrigation.

(VII). Farmers are not aware of modern techniques of irrigation and hybrid varieties of crops.

(VIII). Lack of efficient farm management.

5. Water User Assocication (WUA)

It is proposed to form 60 WUAs covering an area of 5007.58 Ha.

Stakeholders Consultations.

In order to improve the system efficiency and productivity of irrigated agriculture, a multi disciplinary approach involving the following departments are envisaged.

i. Water Resources Department (WRD)
ii. Agriculture
iii. Agricultural Engineering (AED)
iv. Horticulture Dept.
v. Agriculture Marketing and Agribusiness.
vi. Tamil Nadu Agricultural University (TNAU)
vii. Fisheries.
viii. Animal Husbandry and Veterinary Services.

WRD officials with the officials of the above line departments have conducted meetings with the stakeholders in the sub basin and also had “Joint Walkthrough Surveys” and the following table shows the constraints and countermeasures which emerged during these consultations.

5.2 OVERVIEW

Components	Constraints	Counter Measures.
WRO	The tank feeder canals and tanks are silted up and it is required to be desilted and distribution system is to be rehabilitated. Sluices, gates and weir are in damaged condition. Bunds are not to standards as prescribed by IAMWARM Post irrigation management Overdrawal by upper reaches. no water to lower reaches.	All Anicuts are in damaged condition(reconstruction and repairing of bodywall, abutment, apron etc.,) (i). A holistic approach to be adopted to include all the PWD tanks in the sub basin and improve their bunds & desilting to the minimum extent required to harvest rainwater. (ii). WUAs are to be formed and further maintenance would be with their involvement. iii). Surplus weirs, tanks sluice, are to be improved. iv). The rehabilitation of distribution system network is also proposed. Proposed WUA shall take care of its members from lower reaches in the WUA and regulatory systems shall be developed as bye laws of the WUA.
Agriculture	Traditional old practice being adopted.	(i).Productivity linked Demonstration by TNAU and by Agriculture Department is Proposed. (ii).Capacity Building of farmers and officials is proposed. (iii).Extension of new Agriculture technology on application of optimum fertilizers, IPM measures are proposed through Agriculture, Horticulture Departments and TNAU Departments. (iv).Supply of quality seeds to be ensured.
Agriculture Marketing , Horticulture Agricultural Engineering.	(i). Farmers failed to adopt new technologies, and diversification mainly due to absence of correct market information. (ii). For diversification of crops no proper extension advice is available.	(i). Agri. Marketing Department and TNAU to assess the market trend and advise the WUA through Agribusiness Cell, Kiosks & Discussion meetings. (ii). For value addition to products, grading arrangements, thrashing floor,

	iii). Modern technologies like micro irrigation, to save water, are costly and require lot of frequent training etc., iv). The value addition technologies observed are absent.	cold storage, etc., are proposed iii). The possibility of making WUA as entrepreneurs of Agri - processing units are explored and suggestions are made. iv). Depending on the marketability and Agro-Climatic suitability appropriate Horticulture crops are proposed and the extent of development is also proposed in consultation with the WUA. (v). Depending on the Horticulture crops proposed. AED proposes to link installation of micro irrigation system network and wherever required pilot cases for buried pipe conveyance is also proposed.
Animal Husbandry and Fisheries.	(i). Livestock population need health improvements schemes (ii).Quality fodder is needed iii).Infrastructure development in existing veterinary sub centres is needed. iv).In service training to veterinarians are needed. (v).Good fish fingerlings are required to promote inland fishery through farm ponds in the farmers' lands.	(i). A I Centre with improved infrastructure in existing veterinary sub centres have been proposed (ii).Sufficient fodder area is proposed to be cultivated with good quality fodder seeds supply. iii). Adequate trainings are proposed iv).Fisheries department in consultation with the AED and WUA propose inland fishing with the farm ponds etc., with provision for kiosks for improved marketability.

6. Details of Activities of Line Departments.

6.1 Water Resources Department (WRO)

6.1.1 Approach to rehabilitate the irrigation system and service delivery

a. Thematic Maps on land use soils crops, water bodies and other agricultural and demographic attributes are prepared by IWS.
b. The crop water requirements for the crops during without and with project situation are prepared by IWS. The crops proposed by Agriculture and Horticulture Department will be tailored in consultation with Agricultural Marketing Department and the Water Users Association.
c. The adequacy & status of the canal system, feeder channels to tanks, distribution system etc., have been assessed by the WRO (both regional and plan formulation wing) as follows.

- Rehabilitation of Anicuts.
- Strenghthening of tank bund by earthwork excavation using machineries.
- Desiting the supply channels by earthwork excavation using machineries.
- Providing retaining walls at Vulnerable points in the tank bund.
- Providing Model sections to maintain the TBL in the tanks.
- Reconstruction of Collapsed weirs.
- Repairs to the damaged weirs.
- Reconstruction of Collapsed Sluices.
- Repairs to the damaged sluices.
- Providing S.G shutter / Plug arrangements to Sluices, Head sluices, Scour Vents etc.,
- Removing, repairing and refixing in position of the existing S.G shuttering arrangements and providing locking arrangements etc.,
- Fixed boundary stones in the tanks to prevent encroachment.

Accordingly the following packages are proposed.

PACKAGE DETAILS

Sl. No.	Package Nos.	Name of the Package	Package Amount in Lakhs.
1	PACKAGE NO.I IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicuts, Non system tanks and its supply channels from Vadakkanadal Anicut to Empair Anicut under Gomukhi sub basin in Kallakurichi taluk of Villupuram District.	277.91
2	PACKAGE NO.II IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicuts, Non system tanks and its supply channels from Kallakurichi anicut to Vellakurichi anicut under Gomukhi sub basin in Kallakurichi taluk of Villupuram District.	395.64
3	PACKAGE NO.III IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicut, Non system tanks and its supply channels in Mayura river under Gomukhi sub basin in Kallakurichi taluk of Villupuram District.	276.18
4	PACKAGE NO.IV IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicuts, Non system tanks and its supply channels in Thirumanimuktha river under Gomukhi sub basin in Kallakurichi taluk of Villupuram District.	338.23
5	PACKAGE NO.V IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicuts Non system tanks and its supply channels in Mayura river under Gomukhi sub basin in Tittakudi and Vrsithachalam taluk of Cuddalore District.	142.09
		Environment cell	10.00
		Sub total	**1440.05**

BRIEF NARRATION :

7.1 **WATER RESOURCES ORGANISATION.**

- Anicut body wall repairing and reconstruction.
- Apron providing, sluice shutter , strengthening of tank bunds, of damage anicuts
- Restoring the original carrying capacity of supply channels from rain fed Odai, from its own catchment odai to feed the non system tanks.
- Strengthening of tank bunds.
- Reconstruction and Repairs of weirs and sluices of tanks operational arrangements by means of providing and replacing screw gearing arrangements.
- Fixing boundary stones in the tanks to prevent encroachment of tanks forming new water users Associations for Participatory Irrigation Management (PIM)
- Rehabilitation works of all Irrigation structures to improve the conveyance efficiency

Executive Engineer, WRD., Vellar Basin Division, Vridhachalam	Superintending Engineer, Vellar Basin Circle, WRD., Cuddalore.	Chief Engineer, WRD., Chennai Region, Chennai.

2. SCOPE OF THE PROJECT

PRESENT STATUS OF THE SYSTEM

1.0 GENERAL

The Deficiencies in the structure and functions of Irrigation Network casuses the inefficient functioning of the Gomukhi Nadhi Sub - Basin and creates hardship to the farming community.

1.1 System Deficiency

In Most of the command areas of the channels, tanks, irrigation channels etc., distribution are taken upto a certain limit only beyond this the water is left to be conveyed by the farmers themselves to the fields for irrigation. No technical attention is paid on the application of water to the fields. The farmers with out the proper awareness of irrigation leave most of the fields with zigzag boundaries and the field bunds are abnormal is size which reduces the cultivatable area considerably.

The major problems being experienced in the Gomukhi Nadhi sub basin are as follows.

- Lack of efficient farm water management.
- Poor infra structure facilities.
- Non - adoption of modern micro irrigation methods and new agricultural practices.
- Inadequate coordination among rural agencies, Government departments and other financial institution etc.,
- Lower crop yield.
- Low field application efficiency.
- Traditional method of farming.
- Excess use of chemical fertilizers and pesticides.
- Inadequate post harvest management facilities.

2.3 SCOPE OF THE PROJECT

The water resources Department in coordination with the following line department have proposed to improve the irrigation service delivery and productivity of irrigated agriculture with effective integrated water resources management in this sub basin. The line department are

1. Agriculture Department
2. Department of Horticulture and plantation crops.
3. Agriculture Engineering Department
4. Tamil Nadu Agricultural University.
5. Department of Agricultural marketing and Agribusiness services.
6. Animal Husbandry and Veterinary Services.
7. Fisheries Department
8. Environmental cell of water Resources Organization.

2.2 Water Resources Department.

In order to improve the conveyance and operational efficiency, it is now proposed to improve and modernize the structural components in Gomukhi Sub basin.

- Desilting the supply channels by earth work excavation using Machineries.
- Strengthening the tank bund by desilting the tank using Machineries
- Repairs to Head sluices
- Reconstruction of collapsed weirs
- Repairs to the damaged weirs
- Reconstruction of Collapsed sluices
- Repairs to the damaged sluices
- Providing Bathing Ghats, Retaining walls and Model section in selective area of the tanks
- Providing S.G shutters / Plug arrangements to sluices, Head Sluices, scour vent etc.,
- Removing, Repairing and refixing in position of the existing S.G shuttering arrangements to the sluices and providing locking arrangements etc.,
- Fixing Boundary stones in the tank bund and water spread area.

PROJECT PROPOSALS

WATER RESOURCES DEPARTMENT

CHAPTER - 1.1

INTRODUCTION

INTRODUCTION

1.1.1 GENERAL

Agriculture is the dominant sector in the Indian economy. Tamil Nadu, depends largely on the surface water irrigation as well as ground water irrigation the state has used the surface and ground water 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 Vellar Basin.

The Vellar river originates in the Chitteri Hills of Darmapuram District in the name of Anaimaduvu river and Thumbal river and Singipuram river originates at Jallattu reserve forest area at 8 Km east of Salem in Salem district and flows through Villupuram, Cuddalore, Namakkal , Trichy and Perambalur District and finally falls into the Bay of Bengal. The Vellar basin is situated between the coordinates of N latitude 11^0 13'-12^0 00' and E Longitude 78^0 13' - 79^0 47'. The Vellar basin is bounded by Ponnaiyar and Paravanar as basins with north, Cauvery basins in the west and south and the Bay of Bengal in the east.

The Vellar basin has been divided into 7 sub basins and Gomukhi is one of the sub basin.

1. Upper Vellar Sub Basin
2. Swatha Nadhi Sub Basin
3. Manimuktha Nadhi Sub Basin.
4. **Gomukhi Nadhi Sub Basin.**
5. Chinnar River Sub Basin
6. Anaivari Odai Sub Basin
7. Lower Vellar Sub Basin.

1.1.3 Description of the Gomukhi Nadhi Sub basin.

Gomukhi Nadhi originates from the eastern slopes of Kalrayan hills in Kallakurichi at an altitude of about 1298 metres. The river flows for a length of 13Km at which Gomukhi Nadhi reservoir has been constructed across the river at about 16Km to the north west of Kallakurichi town. About 44Km below this reservoir a tributary called Mayura Nadhi joins the Gomukhi Nadhi on its right flank. Mayura Nadhi runs for a length of 38Km from its origin which is also on the south eastern slopes of Kalrayan hills north east of Chinnasalem taluk. Two sub tributaries namely Thirumanimuktha nadhi on the right flank and Namasivayapuram Odai on the left join the Mayura Nadhi at 8 Km above the confluence of the Mayura nadhi, with the Gomukhinadhi. Gomukhi sub basin is located between N latitude 11^0 15'-12^0 00'and E Longitude $78^0$15'-79^0 15'. The taluks covered in this subbasin are Kallakurichi (Villupuram District), Athur (Salem District) Virudhachalam and Thittakudi (Cuddalore District). It receives an annual rainfall of 956mm with its major share during north east monsoon. The winter water level varies from 1 to 1.5m and the summer water level varies from 3.55 to 4.00 m

There are 80 Tanks and 43 Anicuts situated within the Gomukhi Nadhi Sub basin Catchment area having are Ayacut of 5007.58 Ha.

1.1.1. CLUSTER CONVERGENCE TABLE - IIIRD PHASE SUB-BASINS
GOMUKHI NADHI SUB BASIN
CLUSTER WISE / INFRASTRUCTURE WISE / VILLAGE WISE CONVERGENT TABLE

Name of the Sub-dasin : GOMUKHI NADHI SUB BASIN.

Sl. No.	Clusters with the name of the tank	Cluster	Name of the cluster Revenue village	Total Ayacut area in Ha			Total Area in Ha				WRO		Agriculture		Horticulture		AED		TNAU		Agri marketing		AHD		Fisheries	
				FI	PI	Gap	Wop	WP	Gap	(Focus crop)	Activities	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha
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
		Villupuram District																								
	KADATHUR CLUSTER																									
	CLUSTER : 1	-	-																							
1	Vadakanandal Anicut	Chinnasalem	Vadakanandal	52.31	28.40	24.00	80.71	104.71			Flood bank															
	Vadakanandal Tank										Anicut repairs															
											shutters															
2	Kadathur tank		Kadathur	55.79	11.47	22.10	67.26	89.36			Strengthening the tank bund															
											Reconstruction of sluice															

											Weir Repairs															
											Supply channel															
											Retaining wall															
3	Nallathur tank		Nallathur	15.16	35.48	1.67	50.64	52.31			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
4	Kuthiraichandal tank		Kuthiraichandal	14.53	13.05	2.35	27.58	29.93			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															

5	Karanur tank		Karanur	33.47	25.58	6.04	59.05	65.09			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
	KALLAKURICHI CLUSTER																									
	CLUSTER : 1I																									
1	Somandarkudi Anicut	Kallakurichi	Somandarkudi	9.82	5.81	6.19	15.63	21.82			Flood bank															
											Anicut repairs															
											shutters															
2	Emapair Anicut		Ka.Mammanadhal	66.79	-	1.08	66.79	67.87			Flood bank															
	Emapair tank										Anicut repairs															
											shutters															
3	Kallakurichi Anicut		Kallakurichi	95.5	32.67	103.00	128.17	207.64	23.53		Strengthening the tank bund															
	Kallakurichi tank										Reconstruction of															

											sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
4	Emapair tank		Emapair	77.68	18.65	19.35	96.33	110.03	5.65		Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
5	Thenkeeranur Anicut		Thenkeeranur	71.39	60.95	9.43	132.34	140.42	1.35		Flood bank																
	Thenkeeranur tank										Anicut repairs																
											shutters																
6	Thatchur tank		Thatchur	35.89	11.66	16.57	47.55	64.12			Strengthening the tank bund																
											Reconstruction of																

											sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
	NEELAMANGALAM CLUSTER																										
	CLUSTER : 1II																										
1	Neelamangalam Anicut	Kallakurichi	Neelamangalam	69.87	27.31	12.04	97.18	109.22			Flood bank																
	Neelamangalam tank										Anicut repairs																
											shutters																
2	Niraimathi tank		Niraimathi	28.19	2.02	2.00	30.21	32.21			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
3	Vilambar tank		Vilambar	37.01	15.43	9.25	52.44	61.69			Strengthening the tank																

											bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
4	Malaikottalam tank		Malaikottalam	57.57	21.11	17.27	78.68	95.95			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
5	Latchiyam tank		Latchiyam	48.03	12.39	17.05	60.42	77.47			Strengthening the tank bund															
											Reconstruction of sluice															

											Weir Repairs																
											Supply channel																
											Retaining wall																
6	Vanavaretti tank		Vanavaretti	37.02	14.19	10.49	51.21	61.70			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
	NAGALUR CLUSTER																										
	CLUSTER : IV																										
1	Kurur Anicut	Thiyagadurugam	Kurur	88.14	-	8.62	88.14	96.76			Flood bank																
	Kurur tank										Anicut repairs																
											shutters																
2	Mudiyanur tank		Mudiyanur	48.57	-	5.74	48.57	54.31			Strengthening the tank bund																
											Reconstruction																

											of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
3	Virugavur Anicut		Virugavur	57.19	19.21	15.85	76.40	92.25			Flood bank																
	Virugavur tank										Anicut repairs																
											shutters																
4	Nagalur tank		Nagalur	70.20	35.90	10.08	106.10	116.18			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
5	Kanangur tank		Kanangur	53.08	-	5.69	53.08	58.77			Strengthening the tank bund																
											Reconstruction of																

											sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
6	Porasakurichi tank		Porasakurichi	38.77	11.93	8.96	50.70	59.66			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
	VARANJARAM CLUSTER																										
	CLUSTER : V																										
1	Ogaiyur tank	Thiyagadurugam	Ogaiyur	61.38	1.27	9.20	62.65	71.85			Strengthening the tank bund																
											Reconstruction of																

											sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
2	Velakurichi Anicut		Velakurichi	26.93	14.52	7.37	41.45	48.82			Flood bank																
	Velakurichi tank										Anicut repairs																
											shutters																
3	Varanjaram tank		Varanjaram	26.69	-	11.50	26.69	38.19			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
4	Asakalathur Anicut		Asakalathur	87.55	-	17.94	87.55	105.49			Flood bank																

	Asakalathur tank										Anicut repairs															
											shutters															
	THAGARAI CLUSTER																									
	CLUSTER : VI																									
1	Thengiyanatham tank	Chinnasalem	Thengiyanatham	30.11	-	2.30	30.11	32.41			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
2	Paithanthurai tank		Paithanthurai	94.05	-	3.68	94.05	97.73			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															

										Supply channel																
										Retaining wall																
3	Thenchettiyandal tank		Thenchettiyandal	19.31	8.42	7.60	27.73	35.33		Strengthening the tank bund																
										Reconstruction of sluice																
										Weir Repairs																
										Supply channel																
										Retaining wall																
4	Eliyathur tank		Eliyathur	40.19	-	4.94	40.19	45.13		Strengthening the tank bund																
										Reconstruction of sluice																
										Weir Repairs																
										Supply channel																
										Retaining wall																
5	Thagarai tank		Thagarai	-	87.45	58.30	87.45	145.75		Strengthening																

											the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
	THOTTIYAM CLUSTER																									
	CLUSTER : VII																									
1	Thottiyam tank	Chinnasalem	Thottiyam	19.06	7.23	6.64	26.29	32.93			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
2	Bangaram tank		Bangaram	23.56	6.19	8.10	29.75	37.85			Strengthening the tank bund															

											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
3	Namasivayapuram tank		Namasivayapuram	18.91	11.11	7.62	30.02	37.64			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
4	Ulangakathan tank		Ulangakathan	45.19	9.52	14.29	54.71	69.00			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																

											Supply channel																
											Retaining wall																
	V.P.AGARAM CLUSTER																										
	CLUSTER : VIII																										
1	Elavadi Anicut	Chinnasalem	Elavadi	28.17	8.34	7.50	36.51	44.01			Flood bank																
	Elavadi tank										Anicut repairs																
											shutters																
2	Kallanatham Anicut		Kallanatham	3.50	2.10	1.40	5.60	7.00			Flood bank																
	Kallanatham tank										Anicut repairs																
											shutters																
3	Thimmapuram Anicut		Thimmapuram	6.09	3.65	2.44	9.74	12.18			Flood bank																
	Thimmapuram tank										Anicut repairs																
											shutters																
4	Pandiyakuppam Anicut		Pandiyakuppam	8.38	5.03	3.35	13.41	16.76			Flood bank																
	Pandiyakuppam tank										Anicut repairs																
											shutters																
5	Maravanatham Anicut		Maravanatham	17.79	-	0.51	17.79	18.30			Flood bank																

	Maravanatham tank										Anicut repairs																
											shutters																
6	V.P.Agaram tank		V.P.Agaram	55.41	31.72	18.25	87.13	105.38			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
	CHINNASALEM CLUSTER																										
	CLUSTER : IX																										
1	Chinnasalem Anicut	Chinnasalem	Chinnasalem	74.13	39.04	41.03	113.17	144.40	9.80		Flood bank																
	Chinnasalem tank										Anicut repairs																
											shutters																
2	Kaniyamoor Anicut		Kaniyamoor	45.83	15.04	10.75	60.87	71.62			Flood bank																
	Kaniyamoor tank										Anicut repairs																

											shutters																
3	Rayarpalayam tank		Rayarpalayam	25.84	16.25	11.12	42.09	53.21			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
4	Pethanur Anicut		Pethanur	23.68	8.74	4.02	32.42	36.44			Flood bank																
	Pethanur tank										Anicut repairs																
											shutters																
5	Ulagiyanallur Anicut		Ulagiyanallur	33.45	21.62	11.98	55.07	67.05			Flood bank																
	Ulagiyanallur tank										Anicut repairs																
											shutters																
	PERUMANGALAM CLUSTER																										
	CLUSTER : X																										

1	Vepudaiyan thangal Anicut	Kallakurichi	Siruvathur	48.15	17.09	15.02	65.24	80.26			Flood bank															
	Vepudaiyan thangal tank										Anicut repairs															
											shutters															
2	V.Theertha puram tank		V.Theertha puram	11.84	7.10	4.73	18.94	23.67			Flood bank															
											Anicut repairs															
											shutters															
3	Varadhappa nur Anicut		Varadhappa nur	33.70	10.98	10.31	44.68	54.99			Flood bank															
											Anicut repairs															
											shutters															
4	Pukkiravari Anicut		Pukkiravari	31.07	9.91	10.10	40.98	51.08			Flood bank															
	Pukkiravari tank										Anicut repairs															
											shutters															
5	Sirumangal am Anicut		Sirumangal am	20.68	12.41	8.27	33.09	41.36			Flood bank															
	Sirumangal am tank										Anicut repairs															
											shutters															
6	Perumangal am Anicut		Perumangal am	20.97	2.17	5.30	23.14	28.44			Flood bank															

	Perumangalam tank										Anicut repairs															
											shutters															
7	Kilnarriyappanur tank		Kilnarriyappanur	34.19	1.36	8.07	35.55	43.62			Strengthening the tank bund															
	THENPONPORAPPY CLUSTER																									
	CLUSTER : XI																									
1	Rayappanur Anicut	Chinnasalem	Rayappanur	30.82	18.49	12.33	49.31	61.64			Flood bank															
	Rayappanur tank										Anicut repairs															
											shutters															
2	Thenponporappy Anicut		Thenponporappy	35.44	21.26	14.17	56.70	66.17	4.70		Flood bank															
	Thenponporappy tank										Anicut repairs															
											shutters															

3	Vasudavanur tank		Vasudavanur	9.19	5.51	3.67	14.70	18.37			Flood bank															
											Anicut repairs															
											shutters															
4	Ammaiyagaram tank		Ammaiyagaram	6.15	1.95	2.13	8.10	10.23			Flood bank															
											Anicut repairs															
											shutters															
	THOTTAPADI CLUSTER																									
	CLUSTER : XII																									
1	Poondi Anicut	Chinnasalem	Poondi	27.29	8.82	5.88	36.11	41.99			Flood bank															
	Poondi tank										Anicut repairs															
											shutters															
2	Thagamtherthapuram tank		Thagamtherthapuram	27.49	-	2.80	27.49	30.29			Strengthening the tank bund															
											Reconstruction															

											of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
3	Thottapadi Anicut		Thottapadi	38.00	19.42	20.00	57.42	77.42			Flood bank															
	Thottapadi tank										Anicut repairs															
											shutters															
4	Kalasamudram tank		Kalasamudram	41.04	-	2.41	41.04	43.45			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
5	Pethasamudram tank		Pethasamudram	11.97	4.42	2.03	16.39	18.42			Strengthening the tank bund															
											Reconstruction															

											of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
	KRISHNAPURAM CLUSTER																									
	CLUSTER : XIII																									
1	Kural tank	Chinnasalem	Kural	29.44	-	3.30	29.44	32.74			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
2	Thattathirippuram tank		Thattathirippuram	7.00	5.30	4.00	12.30	16.30			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir															

											Repairs															
											Supply channel															
											Retaining wall															
3	Alambalam tank		Alambalam	23.00	11.65	11.00	34.65	45.65			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
4	Krishnapuram tank		Krishnapuram	46.00	30.29	26.50	76.29	102.79			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															

5	Karunthala kurichi tank		Karunthala kurichi	15.89	5.54	3.80	21.43	25.23			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
	NAINARPALAYAM CLUSTER																										
	CLUSTER : XIV																										
1	Nainarpalayam tank	Chinnasalem	Nainarpalayam	26.57	9.00	7.33	35.57	42.90			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
											Retaining wall																
2	Anumanandal Anicut		Anumanandal	27.98	8.17	6.90	36.15	43.05			Flood bank																

	Anumanandal tank										Anicut repairs																
											shutters																
3	Sampakurichi tank		Sampakurichi	17.00	9.88	7.00	26.88	33.88			Flood bank																
											Anicut repairs																
											shutters																
4	Karunkuli tank		Karunkuli	56.08	-	4.55	56.08	60.63			Flood bank																
											Anicut repairs																
											shutters																
5	Maruthamalaiyan Anicut		Ammmakalathur	4.66	2.79	1.86	7.45	9.31			Flood bank																
	Ammmakalathur tank										Anicut repairs																
											Shutters																
6	Eriyur tank		Eriyur	29.15	7.23	7.52	36.38	43.90			Flood bank																
											Anicut repairs																
											Shutters																
				2687.93	**931.19**	**817.63**	**3619.12**	**4391.72**	**45.03**																		
	Cuddalore District																										
	CLUSTER : XV	**-**	**-**																								

1	Kolavai tank	Mangalore	Kolavai	37.50	8.45	31.23	45.95	77.18			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
2	S. Naraiyur tank		S. Naraiyur	35.80	19.20	15.87	55.00	70.87			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
3	Arasankudi tank		Arasankudi	16.58	12.15	4.67	28.73	33.40			Strengthening the tank bund															
											Reconstruction															

											of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
4	Sirupakkam tank		Sirupakkam	36.85	20.19	17.25	57.04	74.29			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															
											Retaining wall															
5	Rettakurichi tank		Rettakurichi	24.23	9.38	16.10	33.61	49.71			Strengthening the tank bund															
											Reconstruction of sluice															
											Weir Repairs															
											Supply channel															

											Retaining wall																
6	J. Endal tank		J. Endal	43.26	25.96	17.30	69.22	86.52																			
	J. Endal Anicut										Flood bank																
											Anicut repairs																
											Shutters																
7	A.Marur tank		A.Marur	20.68	7.07	13.44	27.75	41.19			Strengthening the tank bund																
											Reconstruction of sluice																
											Weir Repairs																
											Supply channel																
		Nallur									Retaining wall																
8	Nagar tank		Nagar	40.39	24.23	16.15	64.62	80.77			Strengthening the tankbund																
											Reconstruction of sluice																
											Weir Repairs																

											Supply channel															
											Retaining wall															
9	Sepakkam tank		Sepakkam	28.45	17.07	11.38	45.52	56.90																		
	Kattumailur Anicut										Flood bank															
											Anicut repairs															
											Shutters															
				283.74	**143.70**	**143.39**	**427.44**	**570.83**																		

Villupuram District Total Ayacut	**2687.93**	**931.19**	**817.63**	**361 9.12**	**439 1.72**	**45.03**
Cuddalore District Total Ayacut	**283.74**	**143.70**	**143.39**	**427.44**	**570.83**	
Total	**2971.67**	**1074.89**	**961.02**	**4046.56**	**4962.55**	**45.03**

1.1.2. CONVERGENT TABLE - ABSTRACT (FOR EACH CLUSTER)

Sl.No.	Name of the cluster / Insfrastructure/ village	Total Ayacut (Ha)			Total area (Ha)			WRO	Agriculture		TNAU		Horticulture		Agri marketing		AED		Fisheries		Animal Husbandry	
		FI	PI	Gap	Wop	WP	Gap		Act	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha	Act	No./Ha
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Villupuram District																					
1	KADATHUR - I	171.26	113.98	56.16	285.24	341.40	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters																
2	KALLAKURICHI - II	357.07	129.74	155.62	486.81	611.90	30.53	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters														
3	NEELAMANGALAM - III	277.69	92.45	68.10	370.14	438.24	0.00	Strengthening the tank bund Reconstruction of sluice														

								Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters													
4	NAGALUR - IV	355.95	67.04	54.94	422.99	477.93	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters													
5	VARANJARAM - V	202.55	15.79	46.01	218.34	264.35	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters													

6	THAGARAI - VI	183.66	95.87	76.82	279.53	356.35	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall														
7	THOTTIYAM - VII	106.72	34.05	36.65	140.77	177.42	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall														
8	V.P.AGARAM - VIII	119.34	50.84	33.45	170.18	203.63	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters														

9	CHINNASALEM - IX	202.93	100.69	78.90	303.62	372.72	9.80	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters															
10	PERUMANGALAM - X	200.60	61.02	61.80	261.62	323.42	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters															
11	THENPONPOREPPY - XI	81.60	47.21	32.30	128.81	156.41	4.70	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall															

								Flood bank Anicut repairs shutters													
12	THOTTAPADI - XII	145.79	32.66	33.12	178.45	211.57	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters													
13	KRISHNAPURAM - XIII	121.33	52.78	48.60	174.11	222.71	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall													
14	NAINARPALAYAM - XIV	161.44	37.07	35.16	198.51	233.67	0.00	Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank													

								Anicut repairs shutters														
		2687.93	931.19	817.63	3619.12	4391.72	45.03															
	Cuddalore District																					
15	J.ENDAL - XV	194.22	95.33	102.42	289.55	391.97		Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters														
16	SEPPAKKAM	89.52	48.37	40.97	137.89	178.86		Strengthening the tank bund Reconstruction of sluice Weir Repairs Supply channel Retaining wall Flood bank Anicut repairs shutters														
	Cuddalore District Villupuram District TOTAL	**283.74** **2687.93** **2971.67**	**143.70** **931.19** **1074.89**	**143.39** **817.63** **961.02**	**427.44** **3619.12** **4046.56**	**570.83** **4391.72** **4962.55**	**45.03** **45.03**															

CHAPTER - 1.2

HYDROLOGY

1.2.1 General :-

Gomukhi is a tributary of Manimuktha which is a tributary of Vellar River Mayura & Thirumainmuktha are the tributaries of Gomukhi.

1.2.2 Location :-

Gomukhi Sub basin area is 1191.10Sq.Km in both hilly & plain area. The talukes covered in this sub basin are Atttur, Thalaivasal of Salem District, Kallakurichi of Villupuram and Virudhachalam & Tittagudi at Cuddalore District.

1.2.3 Catchment Area of Gomukhi Sub - Basin :-

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

1.2.4 Hydro Meteorology :-

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

1.2.5 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	South west monsoon	Winter	Annual
1	Kallakurichi	422	95	431	22	970mm
2	Kattumailur	486	74	356	26	942mm
	Avarage	**454**		**394**		**956mm**

a. CLIMATE

The Vellar basin lies in a low rainfall belt having an annual average rainfall of 956mm southwest
monsoon contribute 394mm, while NE monsoon contributes 454mm. This basin receives major share of its rainfall during NE monsoon. This monsoon helps to build up storage in the tanks Non system rainfed. This basin lies on the leeward side of western Ghats on Western sides southwest monsoon reinfall though lesser than NE monsoon rainfall still contribute some runoff helping to buildup storage in tanks for the measurement of Hydro meteorological parameters in the basin area. There are two weather stations at Lekkur & Mangalapuram and their data are taken for the study.

b. SOIL CLASSIFICATION

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

(Change as suited to this sub - basin)

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

c. LAND HOLDINGS

The Details of farm holdings and size classes prevalent in Gomukhi sub basin are given below. 80 % land holdings with he small and medium farmers.

1.2.6 DEMOGRAPHY

Name of sub basin	Total No.of Blocks	Total No.of Villages	Population		
			2004	2010	2025
Gomukhi	3	83			

1.2.7 WATER POTENTIAL

Surface water potential	:	98.77 Mcum
Ground water yield	:	223.05Mcum
Total	:	**321.82Mcum**

1.2.8 WATER DEMAND

			Without Project	With Project
i	Domestic	:	16.90 Mcum	16.90 Mcum
ii	Live stock	:	20.96 Mcum	20.96 Mcum
iii	Industrial	:	6.00 Mcum	6.00 Mcum
iv	Irrigation (PWD tank)	:	105.66 Mcum	85.94 Mcum
v	P.U. Tanks	:	25.91 Mcum	25.91 Mcum
	Total		175.43Mcum	155.71Mcum

1.2.9 WATER BALANCE :

Surplus	=	146.39Mcum	166.11Mcum

Salient features of Implementation of PIM Gomukhi Sub - basin

1) **The sub - basin :**

This is one of the seven sub basins of the Vellar river basin totally 80 irrigation tanks are under the control of Water Resources Department (WRD) of Public works Department (PWD) in this sub - basin. The list of tanks covered with more details are furnished in the Annexure - 1. These 80 tanks are located within the sub - basin's hydraulic boundary spread over 83 Villages of Vadakkanadal of Villupuram District, Seppakkam of Cuddalore District. The total command ara under these 80 tanks works out to 4345.82 Ha. (Annexure 1)

2) **Command area :**

under Non - System tanks (80 tanks)	-	4345.82 Ha
Anicut (43 Nos)	-	661.76 Ha
Total	-	5007.58 Ha

3) **An assessment of number of WUA's**

i) Association Proposed to be formed under IAWARM Project covering 80 tanks and villages only.	**60 Nos (5007.58 Ha)**

4) **An account of "Awareness creation"**

Activates undertaken and "Walkthrough Surveys" carried out.

i) There are 80 tanks in the sub-basin spread over 83 villages.

ii) As detailed out in Anexure - 01. All these villages were visited by the WRO officials and awareness about various activities, contemplated under IAMWARM Project has been created.

iii) Details of Villages covered, walkthrough surveys conducted, farmers attended, list of works suggested by the farmers, list of works officials are all furnished in the Annexure - 02.

5) Schedule for completion of delineation and preparation for WUA documents, comprising of :-

i) Form - I : Details to be notified by District collectors, (End of March - 09)

ii) Form - II : WUA document to be notified by district collectors (End of April - 09)

iii) Completion of preparatory works for the conduct of Elections for WUA's (End of May - 09)

6) Schedule for Conduct of Elections in the Sub - basin for farming management committees will be completed by end of Jan 2010.
7) Initiating and completing the process of publishing EOI to hire support Organisation at sub-bsin level. (End Jun 2009)
8) Providing request for proposals (RFPs) to all the short listed agencies, and obtaining technical and cost proposals. (Middle of August 2009)
9) Selection and deployment of support Organisation to the sub - basin (End of sep 2009)
10) Appointment and the Role of competent Authorities.

i) Section 26 of the Tamil Nadu Farmers Management of Irrigation Systems (TNFMIS) act provides for the appoint of "competent Authorities" to assist the respective farmers organization (WUA, Distributory committee and Project Committee) in the implementation and execution of all decisions taken by such farmers Organization similarly every farmer's organization shall extend such co-option or assistance as may be required by the competent authority, for carrying out all the tasks related to implementation of TNFMIS Act.

ii) It is kproposed to form 60 WUAs only under IAMWARM Project to cover a command area of 5123.89 Ha.

iii) Appointment of competent Authorities for the WUAs proposed to be formed under IAMWARM Project is based on the WRO section officer wise" distribution as indicated below.
Name of the WRO Sub Division
officers working in the

GOMUKHI SUB BASIN

a Assistant Executive Engineer W.R.O., P.W.D., Vellar Basin Sub Division, Kallakurichi.

List of Competent Authorities.

a. Section officer, WRO Irrigation section Vellar Basin. Kallakurichi.	WUAs GOMI - 2 to 13, 22 to 34, 36
b. Section officer WRO Irrigation section Vellar Basin. Chinnasalem.	WUAs GOMI - 14 to 21, 35, 37 to 52
c. Section officer WRO Irrigation Gomukhi Nadhi Project section. Vadakkandal	WUAs GOMI- 1
d. Section officer WRO Irrigation section. Vellar Basin,Veppur.	WUAs GOMI- 53 to60

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

i) Based on the outcome of the "Awareness Creation Programme" and walkthrough survey carried out with the involvement of farmers, a list of tasks proposed to be taken up for "Modernization" under IAMWARM project was discussed with No.of farmers from 83 villages and the tasks was also prepared and exhibited in the notice Board of the village Administrative officers and panchayat office.

ii) During the meeting, the farmers present were also informed that soon after finalization of contract for carrying out "Modernization of Irrigation systems" a Notice Board" with the details about the nature of works. its cost period of contract and name of the contractor will all be fixed at the site of the work as well as in the panchayath office, for information of the farmers. They have also been informed that they are free to supervise the work by the contractor and any lapse in the quality of work may be reported to the field officers of WRO as wall 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 have all been informed about the problems in handing over the operation and maintenance responsibilities to the farmers concerned, if the tasks as desired by them are not included in the modernization of the system and also in case some of the tasks already planned are not implanted due to some reasons or other.

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

12) **Current status of Recovry of water charges.**

i) An enquiry conduced with the "village Adminstrative officers" (VAO's) of randomly selected villages (15 numbers out of 83 Village) the normal water charges recovery as informed by the VAO works out to 50-60% only. about the expected percentage of 80-90%.

ii) With the proposal to form New WUAs under IAMWARM in Gomukhi sub basin the managing committee will be trained to take up the responsibility of improving the water charges recovery percentage. These wll be followed up after coimpleting the modernization tasks and handing over of the O & M responsibilities to WUAs.

13) "**Capacity Building" of the WUA farmers:**

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

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

iii) The support 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 committees” of the WUAs

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

Desilting the Supply Channel :-

There are 80 tanks situated within Gomukhi sub basin catchment area a Lesser quantum of water flows to the tanks and balance water is over flanked and flows into agricultural lands.

1.6.2 Outcome of the Project.

1. Enhancing the conveyance efficiency from **43% to 53%**
2. The out of present Gap area of **961.03** ha, **916.00** Ha has been proposed to cover as fully irrigated area. The balance gap of **45.03** Ha is left as it is since it is covered with building etc.,
3. The irrigation infrastructure development works proposed in this scheme are for **68** tanks, **41** Anicuts and the supply channel having a total length of **189.98** km.

1.6 REHABILITAION OF IRRIGATION INFRASTRUCTURE OF THE GOUMUKHI SUB BASIN

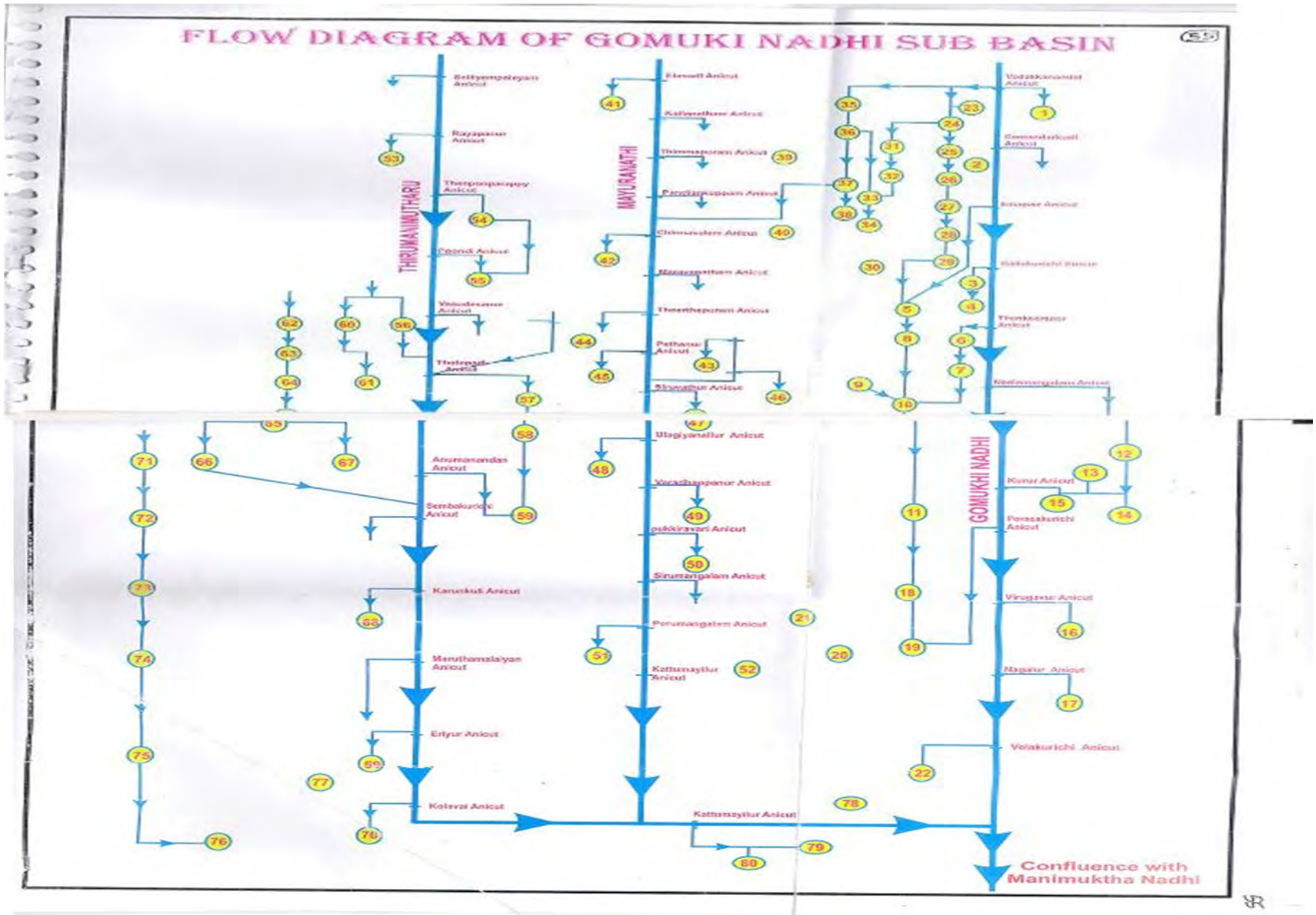
1.6.1 Structural Status & Deficiencies in the system.

The following are the present structural condition of the Gomukhi Sub Basin system.

1. This system is a old system existing for more than 100 years as such requires Rehabilitation of tanks and its supply channels.
2. The tanks and its supply channels are heavily silted up which require strengthening of tank bund and improvements to supply channels.
3. The damaged (or) dilapidated condition of the sluices, weirs of tanks and head sluices of supply channels need repairs.
4. The damaged condition of the Anicuts and its supply channels which requires rehabilitation works.

In order to improve the conveyance and operational efficiency in irrigation. It is now proposed to improve and modernize the irrigation Infrastructures in Gomukhi sub basin.

1. Repairs to damaged anicuts such as body wall, apron, shutters, flood bank, Skin wall are proposed in this estimate.
2. Strengthening of tank bund by earthwork excavation using machineries.
3. Desilting the supply channels by earthwork excavation using machineries.
4. Providing Bed bars to maintain the bed level and inner slopes of the supply channels
5. Repairing Restoring the traditional water bodies (i.e tanks)
   a. Restoring the capacity of the tanks, supply channels by desilting
   b. Strengthening the tank bund with free board of 1.50m with consolidation by power roller for effective storing the water and conveying it to the entire command area and also for conveying agriculture inputs to the field.
   c. Reconstruction of Collapsed weirs.
   d. Repairs to the damaged weirs
   e. Reconstruction of collapsed sluices
   f. Repairs to the damaged sluices.
   g. Providing Model Sections and retaining walls in selective area of the tanks.
   h. Providing S.G shutter / plug arrangements to sluices, Head sluices, scour vents etc.,
   i. Fixed boundary stones in the tanks to prevent encroachement.
   j. Removing, Repairing and refixing in position of the existing S.G. shuttering arrangements and providing locking arrangements etc.,
   k. Provisions for Turfing the rear side slopes of the tank bund near sluices and weir.


FLOW DIAGRAM OF GOMUKI NADHI SUB BASIN
THIRUMANIMUTHARU
MAYURANATHI
GOMUKHI NADHI
Kollumayilur Anicut
Confluence with
Manimuktha Nadhi

CROPPING PATTERN

Name of the sub Basin	**: Gomukhinadhi**	Fully Irrigated	2971.67	Ha
District	: Viluppuram/Cudalore	Partially Irrigated	1074.88	Ha
Registered Ayacut Area	: 5007.58 Ha	Gap	961.03	Ha
		Total Ayacut Area	**5007.58**	Ha

S.No.	Crop	Without Project				With Project				Increase
		FI	PI	RF/G	TOTAL	FI	PI	RF/G	TOTAL	
I	**Perennial crop**									
1	Coconut	15.00	13.68	0.00	**28.68**	30.68	0.00	0.00	30.68	2.00
2	Colius	0.00	0.00	0.00	**0.00**	13.00	0.00	0.00	13.00	13.00
3	Fodder	10.00	0.00	0.00	**10.00**	65.00	0.00	0.00	65.00	55.00
4	Casurina	0.00	0.84	0.00	**0.84**	0.84	0.00	0.00	0.84	0.00
5	Mango	0.00	30.00	0.00	**30.00**	40.00	0.00	0.00	40.00	10.00
6	Sapota	0.00	2.00	0.00	**2.00**	7.00	0.00	0.00	7.00	5.00
7	Guava	0.00	5.00	0.00	**5.00**	10.00	0.00	0.00	10.00	5.00
	Sub Total	**25.00**	**51.52**	**0.00**	**76.52**	**166.52**	**0.00**	**0.00**	**166.52**	90.00
II	**Annual crop**									
1	Sugar Cane	416.43	262.05	0.00	**678.48**	647.75	0.00	0.00	647.75	-30.73
2	Tapioca	0.00	179.00	242.00	**421.00**	580.00	0.00	0.00	580.00	159.00
3	Turmeric	319.91	0.00	0.00	**319.91**	422.91	0.00	0.00	422.91	103.00
4	Banana	70.00	0.00	0.00	**70.00**	115.00	0.00	0.00	115.00	45.00
	Sub Total	**806.34**	**441.05**	**242.00**	**1489.39**	**1765.66**	**0.00**	**0.00**	**1765.66**	276.27
III	**1st crop**									
1. a	Paddy	1402.33	305.67	**0.00**	1708.00	**0.00**	**0.00**	**0.00**	0.00	-1708.00
b	Paddy - SRI	**0.00**	**0.00**	**0.00**	0.00	1247.97	**0.00**	**0.00**	1247.97	1247.97
2	Maize	250.00	143.63	47.20	440.83	474.00	**0.00**	**0.00**	474.00	33.17
3	Pulses	0.00	0.00	383.40	383.40	460.00	**0.00**	**0.00**	460.00	76.60
4	Cotton	**373.00**	**133.01**	100.00	606.01	630.40	**0.00**	**0.00**	630.40	24.39
5	Tomato	3.00	**0.00**	**0.00**	3.00	10.00	**0.00**	**0.00**	10.00	7.00
6	Brinjal	20.00	**0.00**	**0.00**	20.00	35.00	**0.00**	**0.00**	35.00	15.00
7	Bhendi	10.00	**0.00**	**0.00**	10.00	30.00	**0.00**	**0.00**	30.00	20.00
8	Chillies	51.00	**0.00**	**0.00**	51.00	78.00	**0.00**	**0.00**	78.00	27.00
9	Onion	25.00	**0.00**	**0.00**	25.00	35.00	**0.00**	**0.00**	35.00	10.00
10	Gourds	6.00	**0.00**	**0.00**	6.00	25.00	**0.00**	**0.00**	25.00	19.00
11	Flowers	**0.00**	**0.00**	0.00	0.00	5.00	**0.00**	0.00	5.00	5.00
12	Buildings	**0.00**	**0.00**	45.03	45.03	0.00	**0.00**	45.03	45.03	0.00
13	Fallow	**0.00**	**0.00**	143.40	143.40	0.00	**0.00**	0.00	0.00	-143.40
	Sub Total	**2140.33**	**582.31**	**719.03**	**3441.67**	**3030.37**	**0.00**	**45.03**	**3075.40**	**-366.27**
	Grand Total (I+II+III)	**2971.67**	**1074.88**	**961.03**	**5007.58**	**4962.55**	**0.00**	**45.03**	**5007.58**	0.00
IV	**2 nd Crop**									
1. a	Paddy	300.00	**0.00**	**0.00**	300.00	**0.00**	**0.00**	**0.00**	0.00	-300.00
b	Paddy - SRI	**0.00**	**0.00**	**0.00**	0.00	647.00	**0.00**	**0.00**	647.00	647.00
2	Maize	**0.00**	220.00	100.00	320.00	800.00	**0.00**	**0.00**	800.00	480.00
3	Pulses	**0.00**	210.00	100.00	310.00	900.00	**0.00**	**0.00**	900.00	590.00
4	Groundnut	15.00	**130.00**	**100.00**	245.00	570.00	**0.00**	**0.00**	570.00	325.00
5	Gingely	10.00	**15.00**	**0.00**	25.00	30.00	**0.00**	**0.00**	30.00	5.00
6	Brinjal	20.00	**0.00**	**0.00**	20.00	20.00	**0.00**	**0.00**	20.00	0.00
7	Bhendi	0.00	0.00	0.00	0.00	15.00	**0.00**	**0.00**	15.00	15.00
8	Chillies	0.00	0.00	0.00	0.00	25.00	**0.00**	**0.00**	25.00	25.00
	Sub Total	**345.00**	**575.00**	**300.00**	**1220.00**	**3007.00**	**0.00**	**0.00**	**3007.00**	1787.00
V	**3 rd Crop**									
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
	Great Grand Total	**3316.67**	**1649.88**	**1261.03**	**6227.58**	**7969.55**	**0.00**	**45.03**	**8014.58**	**1787.00**
	Cropping Intensity				**124.36%**				**159.15%**	

EE (WRD) **JD (AH)** **TNAU** **DD (Horti)** **JD(Agri)**

GOMUKHI NADHI SUB BASIN - VELLAR BASIN

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=43%	Total Irrigation requirement in Mcm
I	**Perennial Crops**					
1	Coconut	28.68	1646	0.472	1.10	1.10
2	Mango	30.00	402	0.121	0.28	0.28
3	Sapota	2.00	526	0.011	0.02	0.02
4	Guava	5.00	256	0.013	0.03	0.03
5	Fodder	10.00	413	0.041	0.10	0.10
6	Casurina	0.84	1001	0.008	0.02	0.02
	Sub Total	**76.52**		**0.67**	**1.55**	**1.55**
II	**Annual Crops**					
1	Sugar cane	678.48	1168	7.925	18.43	18.43
2	Banana	70.00	1681	1.177	2.74	2.74
3	Tapioca	421.00	538	2.265	5.27	5.27
4	Turmeric	319.91	489	1.564	3.64	3.64
	Fodder	0.00	0.00	0.000	0.00	0.00
	Medicinal plant	0.00	0.00	0.000	0.00	0.00
	Sub Total	**1489.39**		**12.93**	**30.07**	**30.07**
III	**1st Crop**					
1. a	Paddy	1708.00	1163	19.864	46.20	46.20
b	Paddy - SRI	0.00	814	0.000	0.00	0.00
2	Cotton	606.01	231	1.400	3.26	3.26
3	Maize	440.83	550	2.425	5.64	5.64
4	Blackgram	0.00	263	0.000	0.00	0.00
5	Tomato	3.00	460	0.014	0.03	0.03
6	Onion	25.00	337	0.084	0.20	0.20
7	Bhendi	10.00	462	0.046	0.11	0.11
8	Brinjal	20.00	588	0.118	0.27	0.27
9	Gourds	6.00	268	0.016	0.04	0.04
10	Pulses	383.40	252	0.966	2.25	2.25
11	Chillies	51.00	536	0.273	0.64	0.64
12	Buildings	45.03	0	0.000	0.00	0.00
13	Fallow	143.40				
	Sub Total	**3441.67**		**25.21**	**58.62**	**58.62**
	Grand Total (I+II+III)	**5007.58**		**38.80**	**90.24**	**90.24**
IV	**2nd Crop**					
1. a	Paddy	300.00	1061	3.183	7.40	7.40
b	Paddy - SRI	0.00	743	0.000	0.00	0.00
2	Pulses	310.00	252	0.781	1.82	1.82
3	Maize	320.00	450	1.440	3.35	3.35
4	Brinjal	15.00	588	0.088	0.21	0.21
5	Bhendi	10.00	462	0.046	0.11	0.11
6	Chillies	20.00	505	0.101	0.23	0.23
7	Gingelly	15.00	342	0.051	0.12	0.12
8	Groundnut	230.00	409	0.941	2.19	2.19
	Total	**1220.00**		**6.63**	**15.42**	**15.42**
	Great Grand Total	**6227.58**		**45.43**	**105.66**	**105.66**

GOMUKHI NADHI SUB BASIN - VELLAR BASIN

Water Potential without Project

Surface Water Potential		=	98.77	Mcm
Ground Water Potential		=	223.05	Mcm
Total Potential		**=**	**321.82**	Mcm

Water Demand without Project

Domestic		=	16.9	Mcm
Livestock		=	20.96	Mcm
Industrial		=	6.00	Mcm
Irrigation	WRO	=	105.66	Mcm
	PU & GW	=	25.91	Mcm
Total Water Demand		**=**	**175.43**	Mcm
Water Balance		=	**146.39**	Mcm

GOMUKHI NADHI SUB BASIN - VELLAR BASIN

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=53%	Total Irrigation requirement in Mcm
I	**Perennial Crops**					
1	Coconut	30.68	1646	0.505	0.95	0.95
2	Colius	13.00	350	0.046	0.09	0.09
2	Mango	40.00	402	0.161	0.30	0.30
3	Sapota	7.00	526	0.037	0.07	0.07
4	Guava	10.00	256	0.026	0.05	0.05
5	Fodder	65.00	413	0.268	0.51	0.51
6	Casurina	0.84	1001	0.008	0.02	0.02
	Sub Total	**166.52**		**1.05**	**1.98**	**1.98**
II	**Annual Crops**					
1	Sugar cane	647.75	1168	7.566	14.27	14.27
2	Banana	115.00	1681	1.933	3.65	3.65
3	Tapioca	580.00	538	3.120	5.89	5.89
4	Turmeric	422.91	489	2.068	3.90	3.90
	Sub Total	**1765.66**		**14.69**	**27.71**	**27.71**
III	**1st Crop**					
1. a	Paddy	0.00	1163	0.000	0.00	0.00
b	Paddy - SRI	1247.97	814	10.160	19.17	19.17
2	Cotton	630.40	231	1.456	2.75	2.75
3	Maize	474.00	550	2.607	4.92	4.92
4	Flowers	5.00	263	0.013	0.02	0.02
5	Tomato	10.00	460	0.046	0.09	0.09
6	Onion	35.00	337	0.118	0.22	0.22
7	Bhendi	30.00	462	0.139	0.26	0.26
8	Brinjal	35.00	588	0.206	0.39	0.39
9	Gourds	25.00	268	0.067	0.13	0.13
10	Pulses	460.00	252	1.159	2.19	2.19
11	Chillies	78.00	536	0.418	0.79	0.79
12	Buildings	45.03	0	0.000	0.00	0.00
	Sub Total	**3075.40**		**16.39**	**30.92**	**30.92**
Grand Total (I+II+III)		**5007.58**		**32.13**	**60.62**	**60.62**
IV	**2nd Crop**					
1. a	Paddy	0.00	1061	0.000	0.00	0.00
b	Paddy - SRI	647.00	743	4.805	9.07	9.07
2	Pulses	900.00	252	2.268	4.28	4.28
3	Maize	800.00	450	3.600	6.79	6.79
4	Brinjal	20.00	588	0.118	0.22	0.22
5	Bhendi	15.00	462	0.069	0.13	0.13
6	Chillies	25.00	505	0.126	0.24	0.24
7	Gingelly	30.00	342	0.103	0.19	0.19
8	Groundnut	570.00	409	2.331	4.40	4.40
	Total	**3007.00**		**13.42**	**25.32**	**25.32**
	Great Grand Total	**8014.58**		**45.55**	**85.94**	**85.94**

GOMUKHI NADHI SUB BASIN - VELLAR BASIN

Water Potential with Project

Surface Water Potential		=	98.77	Mcm
Ground Water Potential		=	223.05	Mcm
Total Potential		=	**321.82**	Mcm

Water Demand with Project

Domestic		=	16.9	Mcm
Livestock		=	20.96	Mcm
Industrial		=	6.00	Mcm
Irrigation	WRO	=	85.94	Mcm
	PU & GW	=	25.91	Mcm
Total Water Demand		=	**155.71**	Mcm

Water Balance	=	**166.11**	Mcm

CHAPTER - 1.3

HYDRAULICS OF THE COMPONENTS

1.3.1. Hydraulics of Tanks

Sl.No	Name of Tank	Village	Ayacut in Ha.	Capacity Mcum.	No of Fillings	Annual Stroage
1	Vadakanandal Large Tank	Vadakanandal	104.71	40.00	2	80.00
2	Pasungayamangalam Tank	Kallakurichi	36.89	5.50	2	11.00
3	Kallakurichi Large Tank	Kallakurichi	158.96	15.86	2	31.72
4	Kallakurichi Small Tank	Kallakurichi	12.04	8.75	2	17.50
5	Emapair Tank	Emapair	115.68	35.48	2	70.96
6	Thenkeeranur Large Tank	Thenkeeranur	68.02	19.44	2	38.88
7	Thenkeeranur Small Tank	Thenkeeranur	39.47	15.86	2	31.72
8	Tatchur Tank	Tatchur	64.12	16.90	2	33.80
9	Latchiyam Tank	Latchiyam	77.47	15.95	2	31.90
10	Vilambar Tank	Vilambar	61.69	18.63	2	37.26
11	Malaikottalam Tank	Malaikottalam	95.95	22.91	2	45.82
12	Neelamangalam Tank	Neelamangalam	109.22	20.17	2	40.34
13	Niraimathi Tank	Niraimathi	32.21	15.60	2	31.20
14	Kurur Tank	Kurur	96.76	46.18	2	92.36
15	Mudiyanur Tank	Mudiyanur	54.31	11.50	2	23.00
16	Virugavur Tank	Virugavur	34.79	20.12	2	40.24
17	Nagalur Tank	Nagalur	116.18	20.53	2	41.06
18	Kanangur Tank	Kanangur	58.77	18.17	2	36.34
19	Porasakurichi Tank	Porasakurichi	41.03	10.81	2	21.62
20	Vanavaretti Tank	Vanavaretti	61.70	16.20	2	32.40
21	Ogaiyur Tank	Ogaiyur	71.85	25.60	2	51.20
22	Varanjaram Tank	Varanjaram	38.19	8.23	2	16.46
23	Samikulam Tank	Samikulam	31.47	4.44	2	8.88
24	Kadathur Tank	Kadathur	57.89	14.24	2	28.48
25	Nallathur Tank	Nallathur	52.31	18.05	2	36.10
26	Kuthiraichandal Tank	Kuthiraichandal	29.93	4.20	2	8.40

27	Karanur Peria Eri	Karanur	46.69	10.62	2	21.24
28	Karanur Chitteri	Karanur	18.40	6.48	2	12.96
29	Villangthangal Tank	Villangthangal	23.28	4.20	2	8.40
30	Ulagamkathan Tank	Ulagamkathan	69.00	19.50	2	39.00
31	Eliyathur Large Tank	Eliyathur Large	32.16	6.60	2	13.20
32	Eliyathur Small Tank	Eliyathur Small	12.97	1.50	2	3.00
33	Thottiyam Tank	Thottiyam	32.93	4.64	2	9.28
34	Bangaram Tank	Bangaram	37.85	4.46	2	8.92
35	Thengiyanatham Tank	Thengiyanatham	32.41	3.84	2	7.68
36	Paithanthurai Tank	Paithanthurai	97.73	20.39	2	40.78
37	Thenchettiyandal Tank	Thenchettiyandal	35.33	4.16	2	8.32
38	Namasivayapuram Tank	Namasivayapuram	37.64	5.34	2	10.68
39	Thagarai Tank	Thagarai	145.75	34.15	2	68.30
40	Vettiperumalagaram Tank	Vettiperumalagaram	105.38	19.15	2	38.30
41	Elavadi Tank	Elavadi	41.99	8.54	2	17.08
42	Chinnasalem Tank	Chinnasalem	143.70	36.04	2	72.08
43	Kaniyamoor Tank	Kaniyamoor	48.57	12.15	2	24.30
44	Rayarpalayam Tank	Rayarpalayam	53.21	8.69	2	17.38
45	Pethanur Tank	Pethanur	36.44	10.50	2	21.00
46	Siruvathur Large Tank	Siruvathur	42.01	19.94	2	39.88
47	Siruvathur Chitteri	Siruvathur	22.27	15.24	2	30.48
48	Ulagiyanallur Tank	Ulagiyanallur	67.05	16.40	2	32.80
49	Varathapanur	Varathapanur	54.99	12.50	2	25.00
50	Pukkiravari Tank	Pukkiravari	51.08	13.37	2	26.74
51	Perumangalam Tank	Perumangalam	28.44	20.50	2	41.00
52	Kilnarriyappanur Tank	Kilnarriyappanur	43.62	11.50	2	23.00
53	Rayappanur Tank	Rayappanur	47.80	15.33	2	30.66
54	Thenponporappy Tank	Thenponporappy	70.87	18.67	2	37.34
55	Poondi Tank	Poondi	41.99	9.68	2	19.36
56	Thagamtheerthapuram Tank	Thagamtheerthapuram	30.29	7.57	2	15.14
57	Thottapadi Tank	Thottapadi	77.42	15.33	2	30.66

58	Nainarpalayam Tank	Nainarpalayam	28.56	16.64	2	33.28
59	Anumanandal Tank	Anumanandal	14.22	7.10	2	14.20
60	Kalasamudram Tank	Kalasamudram	43.45	10.95	2	21.90
61	Pethasamudram Tank	Pethasamudram	18.42	13.29	2	26.58
62	Kural Tank	Kural	32.74	8.21	2	16.42
63	Thattathiripuram Tank	Thattathiripuram	16.30	4.00	2	8.00
64	V. Alambalam Tank	V. Alambalam	45.65	19.25	2	38.50
65	Krishnapuram Tank	Krishnapuram	37.77	14.90	2	29.80
66	Ponneri Tank	Ponneri	21.87	7.73	2	15.46
67	Krishanapuram Madathu Eri	Krishanapuram	43.15	8.96	2	17.92
68	Karunkuli Tank	Karunkuli	32.90	8.22	2	16.44
69	Eriyur Tank	Eriyur	43.90	10.92	2	21.84
70	Asakalathur Tank	Asakalathur	78.22	14.69	2	29.38
71	Karunthalakurichi Tank	Karunthalakurichi	25.23	6.30	2	12.60
72	S. Naraiyur Tank	S. Naraiyur	70.87	17.20	2	34.40
73	Arasankudi Tank	Arasankudi	33.40	3.50	2	7.00
74	Sirupakkam Tank	Sirupakkam	74.29	14.90	2	29.80
75	Rettakurichi Tank	Rettakurichi	49.71	7.90	2	15.80
76	J. Endal Tank	J. Endal	28.26	2.16	2	4.32
77	Kolavai Tank	Kolavai	77.18	2.85	2	5.70
78	A. Marur Tank	A. Marur	41.19	8.00	2	16.00
79	Nagar Tank	Nagar	80.77	9.85	2	19.70
80	Seppakkam	Seppakkam	56.90	7.25	2	14.50

1.3.1.HYDRAU LIC PARTICULARS

ANICUT

NAME OF THE SUB BASIN :
GOMUKHI NADHI.

Sl.No	Name of Anicut	Village Block	Ayacut	Length of Anicut (M)	Crest level of Anicut	Front	Free Sq.Km	Combined Sq.km	Maximum flood discharge cumecs / Cusecs	Head Sluice Location	Vent (M)	Sill Level Sluice	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
I	**GOMUKHI RIVER**																		
1	Vadakkanandal Anicut	Vadakkanandal	**327.20**	95.00	100.00	0.90	292.67	292.67	52000	**L.S**	2 Nos 2.15 x 1.25	99.10	4.83	6000	4.00	0.90	1/20000		
										RS	6 Nos 2.10 x 0.70	99.40	3.10	10000	6.00	0.6	1/20000		
2	Somandarkudi Anicut	Somandarkudi	**21.82**	130.00	100.00	0.90	30.83	323.5	54500	**L.S**	4 Nos 155 x 0.60	129.10	3.35	11700	3.00	0.90	1/20000		
	Pasungayamangalam Kondam	Pasungayamangalam Kondam	**15.55**	-	-	0.90	-17.39	340.89	55700	**RS**	0.60 x 0.60		0.32	2000	3.00	0.45	1/20000		

3	Emapair Anicut	Emapair	**402.60**	163.00	100.00	0.90	8.76	349.65	60000	**RS**	2.00x 1.20	0.60	2.16	5600	3.00	0.60	1/2000	
4	Kallakurichi Anicut	Kallakurichi	**158.21**	60.00	100.00	0.90	14.67	364.32	64500	**RS**	2.00x 1.21	59.40	2.16	2100	3.00	0.60	1/2000	
5	Thenkeeranur Anicut	Thenkeeranur	**166.31**	104.00	100.00	0.90	1.48	365.80	66000	**RS**	2.00x 1.22	103.40	2.16	2300	3.00	0.60	1/2000	
6	Neelamangalam Anicut	Neelamangalam	**102.83**	100.00	100.00	0.90	0.30	366.10	66100	**L.S**	2.00x 1.23	99.40	2.16	3000	3.00	0.60	1/2000	
7	Gurur	Gurur	**179.70**	117.00	100.00	0.90	15.84	381.94	67300	**L.S**	2.00 x 1.60	116.40	2.88	3800	3.00	0.60	1/2000	
8	Porasakurichi Anicut	Porasakurichi	**57.45**	121.00	100.00	0.90	11.46	393.40	68500	**RS**	2.00 x 1.60	120.40	2.88	6400	3.00	0.60	1/2000	
9	Virugavur Anicut	Virugavur	**57.46**	127.00	100.00	0.90	14.89	408.29	72300	**L.S**	2.00 x 1.60	126.40	2.88	2600	3.00	0.60	1/2000	
10	Nagalur Anicut	Nagalur	**114.11**	100.60	100.00	0.90	9.33	417.62	74.5	**L.S**	2.00 x 1.60	100.00	2.88	4400	3.00	0.60	1/2000	
11	Velakurichi Anicut	Velakurichi	**79.89**	57.60	100.00	0.90	12.28	429.90	79000	**RS**	2.00 x 1.60	57.00	2.88	4600	3.00	0.60	1/2000	

II	**MAYURA NADHI**																		
12	Elavadi Anicut	Elavadi	**43.50**	100.00	149.80	0.90	0.96	0.96	583 C/S	R.S	open off tank	-	2.69	2900	3.00	0.90	1/2000	-	
13	Kallanatham Anicut	Kallanatham	**7.00**	28.60	148.80	0.90	2.56	3.52	1193 C/S	L.S	open off tank	-	1.03	300	2.00	0.40	1/2000		
14	Thimmapuram Anicut	Thimmapuram	**12.18**	75.00	145.40	0.90	1.76	5.28	1355 C/S	L.S	open off tank	-	1	200	2.00	0.60	1/2000		
15	Pandiyankuppam Anicut	Pandiyankuppam	**16.75**	105.00	143.450	0.90	2.88	8.16	1823 C/S	L.S	open off tank	-	1	4500	2.00	0.45	1/2000		
16	Chinnasalem Anicut	Chinnasalem	**164.35**	160.00	139.050	0.90	6.88	15.04	2840 C/S	R.S	open off tank	-	5.80	8100	3.50	1.20	1/2000		
17	Maravanatham Anicut	Maravanatham	**28.44**	71.00	135.800	0.90	4.00	19.04	3054 C/S	L.S	open off tank	-	1	1200	2.00	0.45	1/2000		
18	Theerthapuram Anicut	Theerthapuram	**23.67**	96.00	132.150	0.90	2.40	21.44	3198 C/S	R.S	open off tank	-	1	2100	2.00	0.95	1/2000		
19	Pethanur Anicut	Pethanur	**36.44**	99.00	125.800	0.90	4.16	35.55	4486 C/S	R.S	open off tank	-	1.03	2600	3.00	0.60	1/2000		
20	Kaniyamoor Anicut	Kaniyamoor	**71.67**	65.00	132.600	0.90	1.28	8.03	1689 C/S	R.S	open off tank	-	2.70	1500	3.00	0.90	1/2000		
21	Veppudaiyanthangal Anicut	Veppudaiyanthangal	**91.71**	96.00	126.80	0.90	1.92	9.95	1970 C/S	L.S	open off tank	-	5.80	1000	3.50	1.20	1/2000		

22	Siruvathur Anicut	Siruvathur	**68.83**	125.00	123.85	0.90	4.80	40.35	4884 C/S	L.S	open off tank	-	2.69	2000	3.00	0.90	1/2000		
23	Ulagiyanallur Anicut	Ulagiyanallur	**67.17**	60.00	118.05	0.90	2.40	42.75	4970 C/S	R.S	open off tank	-	2.70	1200	3.00	0.90	1/2000		
24	Varadhappanur Anicut	Varadhappanur	**39.98**	68.00		0.90	1.92	44.67	5096 C/S	L.S	open off tank	-	2.00	1600	2.00	0.45	1/2000		
25	Pukkiravari Anicut	Pukkiravari	**50.76**	108.00	111.05	0.90	1.28	45.95	5166 C/S	L.S	open off tank	-	2.00	1000	3.00	0.45	1/2000		
26	Sirumangalam Anicut	Sirumangalam	**41.36**	95.00	-	0.90	1.28	47.23	5260 C/S	L.S	open off tank	-	1	2500	2.00	0.45	1/2000		
27	Perumangalam Anicut	Perumangalam	**24.32**	104.00		0.90	1.92	49.15	5423 C/S	R.S	5 Nos 1.20 x 1.10	-	2	1600	3.00	0.45	1/2000		
	Cuddalore																		
28	Kattumailur Anicut	Kattumailur	**137.67**	45.10	100.00	0.90	1.52	50.67	5652	R.S	1.2x1.50	-	1.62	6300	3	0.45	1/2000		

III	**THIRUMANIMUKTHA RIVER**																		
29	Selliyampalayam Anicut	Selliyampalayam	**13.84**	137.00	145.70	0.90	0.28	0.28	257	L.S	open off tank	-	1 C/S	1450	2.00	0.45	1/2000		
30	Rayappanur Anicut	Rayappanur	**47.80**	15.70	142.80	0.90	2.16	2.44	697	R.S	open off tank	-	2 C/S	950	3.00	0.45	1/2000		
31	Thenponparappi Anicut	Thenponparappi	**70.87**	159.00	141.60	0.90	1.20	3.64	1192	L.S	open off tank	-	2.69 C/S	1650	3.00	0.90	1/2000		
32	Poondi Anicut	Poondi	**41.99**	44.00	139.45	0.90	0.80	4.44	1446	L.S	open off tank	-	2.00 C/S	2750	3.00	0.45	1/2000		
33	Vasudevanur Anicut	Vasudevanur	**18.37**	135.00	135.45	0.90	3.60	11.54	2264	L.S	2 Nos 0.90 x 1.20	134.25	1 C/S	2200	2.00	0.45	1/2000		
34	Ammaiyagaram Anicut	Ammaiyagaram	**13.95**	42.00	139.25	0.90	3.50	-	1381	L.S	L.S 0.60 X 0.80	R.S 060x 0.45	L.S 0.56C/S 2 Nos R.S 0.28 1 Nos	1050	3.00		1/2000		
35	Thottapadi Anicut	Thottapadi	**71.19**	70.00	129.05	0.90	12.00	23.54	3897	L.S	open off tank		2 C/S	900	3.00		1/2000		
36	Anumanandal	Anumanandal	**42.48**	210.0	121.5	0.9	19.2	42.74	567	L.	open		2 C/S	370	1.5		1/200		

	Anicut			0	0	0	0		6	S	off tank			0	0		0		
37	Nainarpalayam Anicut	Nainarpalayam	**13.83**	50.00	129.50	0.90	19.80	23.54	2200	L.S	open off tank		2 C/S	2000	3.00		1/2000		
38	Sembakurichi Anicut	Sembakurichi	**32.91**	115.00	117.95	0.90	7.68	50.42	5729	R.S	open off tank		2.70 C/S	1000	2.00		1/2000		
39	Karunguzhi Anicut	Karunguzhi	**64.61**	75.00	112.90	0.90	4.80	55.22	5955	R.S	open off tank		1.30 C/S	1250	2.00		1/2000		
40	Maruthamalaiyan Anicut	Maruthamalaiyan	**9.31**	75.00	112.90	0.90	4.80	55.22	5955	R.S	open off tank		1.30 C/S	2000	3.00		1/2000		
41	Eriyur Anicut	Eriyur	**43.90**	90.00	108.45	0.90	2.56	57.78	6051	R.S	open off tank		1 C/S	1640	3.50		1/2000		
42	Kolavai Anicut	Askalathur	**105.91**	160.00	100.10	0.90	9.60	116.53	9777	R.S	open off tank		5.80 C/S	4050	3.50		1/2000		
	Cuddalore																		
43	Ja. Endal Anicut	Ja. Endal	**58.26**											2600			1/2000		

1.3.2.TANKS (Separate statement for system & Non System Tanks)

NAME OF THE SUB BASIN :
GOMUKHI NADHI.

Sl.No.	District	Tank	Name of Tank	Ayacut in Ha	Capacity in Mcft	Number of filling	Free catchment in Sq.km.	Combined catchmemt 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 Supply 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
	Villupuram District																		
1	Villupuram	Kallakurichi	Vadakanandal Large Tank	104.710	40	2		1.30	0.86	50.00	50.600	4	1	43		1900	800	-	Kacharapalayam
2			Pasungayamangalam Tank	36.89	5.50	2			50.90	100.00	100.450	1	1	20		900	2000	-	Emapair
3			Kallakurichi Large Tank	158.960	15.86	2			52.00	100.00	100.600	4	1	30		1200	2100	-	River & Kallakurichi
4			Kallakurichi Small Tank	12.040	8.75	2			13.39	100.00	100.600	1	1	16.5		825	800	Kallakurichi Large	Thenkeeranur Big
5			Emapair Tank	115.680	35.48	2			80.97	100.00	100.600	4	2	39.5		1640	5600	Pasungayamangalam & Villantha	Tatchur

																		ngal	
6			Thenkeeranur Large Tank	68.020	19.44	2			34.98	100.00	100.600	4	1	42		1350	2300	Kallakurichi Small	Thenkeeranur Small
7			Thenkeeranur Small Tank	39.470	15.86	2			52.00	100.00	100.600	1	1	30.5		800	1200	Thenkeeranur Big	Vilambar
8			Tatchur Tank	64.120	16.90	2			68.33	100.00	100.600	1	2	21		1400	2000	Emapair	Vilambar
9			Latchiyam Tank	77.470	15.95	2			64.78	100.00	100.600	1	1	52		750	3000	-	Thenthorasalur
10	Villupuram	Kallakurichi	Vilambar Tank	61.690	18.63	2			84.00	100.00	100.600	4	3	106.7		2600	5400	Tatchur	Malaikottalam
11			Malaikottalam Tank	95.950	22.91	2			97.94	100.00	100.600	4	2	45		2500	1400	Vilambar	Gomukhi River
12			Neelamangalam Tank	109.220	20.17	2			74.23	100.00	100.600	3	2	57		2560	2600	-	Kurur
13			Niraimathi Tank	32.210	15.60	2			64.78	100.00	100.600	2	1	40		1575	1200	-	Kurur
14			Kurur Tank	96.760	46.18	2			72.81	100.00	100.600	3	2	34		2200	3800	Neelamangalam & Niraimathi	Mudiyanur
15			Mudiyanur Tank	54.310	11.50	2			38.44	100.00	100.600	4	1	37.2		1650	1900	Kurur	Virugavur

16			Virugavur Tank	34.790	20.12	2			36.44	100.00	100.600	2	1	20		1100	1400	Mudiyan ur	Nagalur
17			Nagalur Tank	116.18 0	20.53	2			48.58	100.00	100.600	3	1	35		2000	4400	Virugavu r	Gomukhi River
18			Kanangur Tank	58.770	18.17	2			79.76	100.00	100.600	2	1	21		1400	2000	-	Porasakuric hi
19	Villupuram	Kallakurichi	Porasakuri chi Tank	41.030	10.81	2			44.53	100.00	100.600	2	1	55		1200	4800	Kanangur	River
20			Vanavaret ti Tank	61.700	16.2	2			0.338	100	100.600	2	1	23.6		1500		-	-
21			Ogaiyur Tank	71.850	25.60	2			76.30	100.00	100.600	2	2	45		1700	1500	-	Sedhuvaray ankuppam
22			Varanjara m Tank	38.190	8.23	2			36.44	100.00	100.600	2	1	45		900	4600	-	Gomukhi River
23			Samikula m Tank	31.470	4.44	2		0.22 5	0.095	100	100.600	1	1	10		600		-	Manampath an Eri
24			Kadathur Tank	57.890	14.24	2			0.387	100	100.600	2	2	24		1450		-	Nallathur Tank & Eliyathur
25			Nallathur Tank	52.310	18.05	2			0.456	100	100.600	3	1	18.4		1900		Kadathur	Kuthiraicha ndal

26			Kuthiraichandal Tank	29.930	4.2	2			0.225	100	100.600	1	1	10		820		Nallathur	Karanur Big
27	Villupuram	Kallakurichi	Karanur Peria Eri	46.690	10.62	2			0.155	100	100.600	1	1	20		1100		Kuthiraichandal	Karanur Small
28			Karanur Chitteri	18.400	6.48	2			0.267	100	100.600	1	1	15		850		Karanur Big	Villanthangal
29			Villangthangal Tank	23.280	4.2	2			0.229	100	100.600	1	1	10		820		Karanur Small	Emapair
30			Ulagamkathan Tank	69.000	19.5	2			0.335	100	100.600	2	2	23		1100		-	-
31			Eliyathur Large Tank	32.160	6.6	2			0.095	100	100.600	2	1	16		1700		Kadathur	Eliyathur Small
32			Eliyathur Small Tank	12.970	1.5	2			0.094	100	100.600	1	1	10		1100		Eliyathur Large	Thottiyam
33			Thottiyam Tank	32.930	4.64	2			0.445	100	100.600	2	1	15		1400		Paithanthurai	Bangaram
34			Bangaram Tank	37.850	4.46	2			0.380	100	100.600	1	1	15		1100		Thottiyam	-
35	Villup[illegible]	Kallakurichi	Thengiyanatham	32.410	3.84	2			0.090	100	100.600	2	1	15		1200		-	Paithanthurai

			Tank															
36			Paithanthurai Tank	97.730	20.39	2			0.309	100	100.600	3	3	60		1300		Thengiyanatham	Thenchettiyandal
37			Thenchettiyandal Tank	35.330	4.16	2			0.315	100	100.600	1	1	16		1100		Paithanthurai	Chinnaselam
38			Namasivayapuram Tank	37.640	5.34	2			0.320	100	100.600	3	1	17		1250		Thenchettiyandal	-
39			Thagarai Tank	145.750	34.15	2			0.905	100	100.600	1	2	38		2100		-	-
40			Vettiperumalagaram Tank	105.380	19.15	2			0.503	100	100.600	2	2	47		1200		-	-
41			Elavadi Tank	41.990	8.54	2			0.355	100	100.600	2	1	18		1350		-	-
42			Chinnasalem Tank	143.700	36.04	2			0.811	100	100.600	3	2	71		1350		-	-

43	Villupuram	Kallakurichi	Kaniyamoor Tank	48.570	12.15	2			0.750	100	100.600	2	1	18		1500		-	-
44			Rayarpalayam Tank	53.210	8.69	2			0.385	100	100.600	2	1	19		1000		-	-
45			Pethanur Tank	36.440	10.5	2			0.279	100	100.600	2	1	14		1450		-	-
46			Siruvathur Large Tank	42.010	19.94	2			0.335	100	100.600	3	2	53		1400		-	-
47			Siruvathur Chitteri	22.270	15.24	2			0.254	100	100.600	1	1	30		900		-	-
48			Ulagiyanallur Tank	67.050	16.4	2			0.385	100	100.600	5	1	14		1700		-	-
49			Varathapanur	54.990	12.50	2			0.284	100	100.600	1	1	10		1000		-	-
50			Pukkiravari Tank	51.080	13.37	2			0.290	100	100.600	3	2	17		1500		-	-
51			Perumangalam Tank	28.440	20.5	2			0.205	100	100.600	1	1	21		1400		-	-
52			Kilnarriyappanur Tank	43.620	11.5	2			0.425	100	100.600	1	1	14		1300		-	-
53	pura	Kallakurichi	Rayappan	47.800	15.33	2			0.375	100	100.600	2	2	52.5		1650		-	-

			ur Tank															
54			Thenponporappy Tank	70.870	18.67	2			0.415	100	100.600	2	1	30		1300		-	Poondi
55			Poondi Tank	41.990	9.68	2			0.280	100	100.600	1	1	14.75		1150		Thenponporappy	-
56			Thagamtheerthapuram Tank	30.290	7.57	2			0.288	100	100.600	1	1	14.75		1500		Pakkambadi	Thottapadi
57			Thottapadi Tank	77.420	15.33	2			0.410	100	100.600	2	1	15.5		1700		T.Puram	N.Palaynur
58			Nainarpalayam Tank	28.560	16.64	2			0.468	100	100.600	1	1	10		1300		Thottapadi	Anumanandal
59			Anumanandal Tank	14.220	7.1	2			0.060	100	100.600	1	1	10		1200		N.Palayn ur	-
60			Kalasamudram Tank	43.450	10.95	2			0.375	100	100.600	2	1	12		1400		Pakkambadi	Pethasamudram

61			Pethasamudram Tank	18.420	13.29	2			0.338	100	100.600	2	1	10		1500		Kalasamudram	-
62	Villupuram	Kallakurichi	Kural Tank	32.740	8.21	2			0.375	100	100.600	1	1	10		1400		Pakkambadi	T.Puram
63			Thattathiripuram Tank	16.300	4	2			0.145	100	100.600	1	1	10		1000		Kural	V. Alambalam
64			V. Alambalam Tank	45.650	19.25	2			0.548	100	100.600	2	4	73		1390		T.Puram	Krishnapuram
65			Krishnapuram Tank	37.77	14.9	2			0.325	100	100.600	1	1	14		1250		V. Alambalam Tank	Ponneri Tank
66			Ponneri Tank	21.870	7.73	2			0.199	100	100.600	1	2	30		1600		Krishnapuram	-
67			Krishanapuram Madathu Eri	43.150	8.96	2			0.107	100	100.600	1	1	10		1400		Krishanapuram	-
68			Karunkuli Tank	32.900	8.22	2			0.201	100	100.600	2	1	15		1200		-	-
69			Eriyur Tank	43.900	10.92	2			0.274	100	100.600	3	1	18.5		1250		-	-
70			Asakalathur Tank	78.220	14.69	2			0.765	100	100.600	2	1	18		1680		-	-

71			Karunthalakurichi Tank	25.230	6.3	2			0.219	100	100.600	1	2	20		1500		Googaiyur	S. Naraiyur
	Cuddalore District																		
72	Cuddalore	Tittakudi	S. Naraiyur Tank	70.87		2				100.00	100.60					2600		K.Kurichi	Arasankudi
73			Arasankudi Tank	33.40		2				100.00	100.60					1600		S. Naraiyur	Sirupakkam
74			Sirupakkam Tank	74.29		2				100.00	100.60					800		Arasankudi	Rettakurichi
75			Rettakurichi Tank	49.71		2				100.00	100.60					3500		Sirupakkam	J. Endal
76			J. Endal Tank	28.26		2				100.00	100.60					3200		Rettakurichi	-
77			Kolavai Tank	77.18		2				100.00	100.60					6300		-	-
78		Virudhachalam	A. Marur Tank	41.19		2				100.00	100.60					-		-	-
79			Nagar Tank	80.77		2				100.00	100.60								
80			Seppakkam	56.90		2				100.00	100.60								

1.3.3. SUPPLY CHANNELS HAVING DIRECT AYACUT

NAME OF THE SUB BASIN : GOMUKHI NADHI

Sl.No	Name of Supply Channel	Start Point		End Point		Length in metres	Bed Width	Bed Slope	MFD	Depth of Flow	Remarks.
		Location	Sill level	Location	Sill level						
1	Virugavur Anicut S.Channel	Virugavur	99.400	Virugavur	97.900	3000	3	1/2000	-	0.60	
2	Kallanatham Anicut S.Channel	Kallanatham	148.400	Kallanatham	148.250	300	2	1/2000	-	0.40	
3	Thimmapuram Anicut	Thimmapuram	144.800	Thimmapuram	144.700	200	2	1/2000	-	0.60	
4	Pandiyankuppam Anicut S.Channel	Pandiyankuppam	143.000	Pandiyankuppam	142.750	500	2	1/2000	-	0.45	
5	Maravanatham Anicut	Maravanatham	135.350	Maravanatham	134.750	1200	2	1/2000	-	0.45	
6	(Namasivayapuram) Anicut. S.Channel	Namasivayapuram	131.200	Namasivayapuram	130.150	2100	2	1/2000	-	0.95	
7	Sirumangalam Anicut S.Channel	Pukkiravari	106.500	Pukkiravari	105.250	2500	2	1/2000	-	0.45	
8	Selliyampalayam Anicut S.Channel	Selliyampalayam	145.250	Selliyampalayam	145.000	500	2	1/2000	-	0.45	
9	Vasudevanur Anicut	Vasudevanur	135.000	Vasudevanur	133.750	2500	2	1/2000	-	0.45	
10	Ammaiyagaram Anicut S.Channel	Ammaiyagaram	138.800	Ammaiyagaram	137.850	1900	2	1/2000	-	0.45	
11	Nainarpalayam Anicut S.Channel	Nainarpalayam	128.900	Nainarpalayam	127.900	2000	1.5	1/2000	-	0.60	
12	Sembakurichi Anicut S.Channel	A.Nandal	117.050	Sembakurichi	116.550	1000	3	1/2000	-	0.90	
13	Maruthamalaiyan Anicut S.Channel	A.Kulathur	112.450	Eriyur	111.450	2000	2	1/2000		0.45	

1.4 Participatory Irrigation Management (PIM)

Salient features of Implementation of PIM Gomukhi Sub - basin

1. The sub - basin :

This is one of the seven sub basins of the Vellar river basin totally 80 irrigation tanks are under the control of Water Resources Department (WRD) of Public works Department (PWD) in this sub - basin. The list of tanks covered with more details are furnished in the Annexure - 1. These 80 tanks are located within the sub - basin's hydraulic boundary spread over 83 Villages of Vadakkanadal of Villupuram District, Seppakkam of Cuddalore District. The total command ara under these 80 tanks works out to 4345.82 Ha. (Annexure 1)

2. **Command area :**

under Non - System tanks (80 tanks)	-	4345.82 Ha
Anicut (43 Nos)	-	661.76 Ha
Total	-	5007.58 Ha

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

a. Association Proposed to be formed under IAWARM Project covering 80 tanks and villages only.	**60 Nos (5007.58 Ha)**

4. **An account of "Awareness creation"**

Activates undertaken and "Walkthrough Surveys" carried out.

iv) There are 80 tanks in the sub-basin spread over 83 villages.
v) As detailed out in Anexure - 01. All these villages were visited by the WRO officials and awareness about various activities, contemplated under IAMWARM Project has been created.
vi) Details of Villages covered, walkthrough surveys conducted, farmers attended, list of works suggested by the farmers, list of works officials are all furnished in the Annexure - 02.

5. Schedule for completion of delineation and preparation for WUA documents, comprising of :-

iv) Form - I : Details to be notified by District collectors, (End of March - 09)
v) Form - II : WUA document to be notified by district collectors (End of April - 09)
vi) Completion of preparatory works for the conduct of Elections for WUA's (End of May - 09)

6. Schedule for Conduct of Elections in the Sub - basin for farming management committees will be completed by end of Jan 2010.
7. Initiating and completing the process of publishing EOI to hire support Organisation at sub-bsin level. (End Jun 2009)
8. Providing request for proposals (RFPs) to all the short listed agencies, and obtaining technical and cost proposals. (Middle of August 2009)
9. Selection and deployment of support Organisation to the sub - basin (End of sep 2009)
10. Appointment and the Role of competent Authorities.
    a. Section 26 of the Tamil Nadu Farmers Management of Irrigation Systems (TNFMIS) act provides for the appoint of "competent Authorities" to assist the respective farmers organization (WUA, Distributory committee and Project Committee) in the implementation and execution of all decisions taken by such farmers Organization similarly every farmer's organization shall extend such co-option or assistance as may be required by the competent authority, for carrying out all the tasks related to implementation of TNFMIS Act.
    b. It is kproposed to form 60 WUAs only under IAMWARM Project to cover a command area of 5123.89 Ha.
    c. Appointment of competent Authorities for the WUAs proposed to be formed under IAMWARM Project is based on the WRO section officer wise" distribution as indicated below.
    Name of the WRO Sub Division
    officers working in the

GOMUKHI SUB BASIN

a Assistant Executive Engineer W.R.O., P.W.D., Vellar Basin Sub Division, Kallakurichi.

List of Competent Authorities.

e. Section officer, WRO Irrigation section Vellar Basin. Kallakurichi.	WUAs GOMI - 2 to 13, 22 to 34, 36
f. Section officer WRO Irrigation section Vellar Basin. Chinnasalem.	WUAs GOMI - 14 to 21, 35, 37 to 52
g. Section officer WRO Irrigation Gomukhi Nadhi Project section. Vadakkandal	WUAs GOMI- 1
h. Section officer WRO Irrigation section. Vellar Basin,Veppur.	WUAs GOMI- 53 to60

11. **Involvement of farmers in the preparation "Scheme Modernisation Plans"**
    a. Based on the outcome of the "Awareness Creation Programme" and walkthrough survey carried out with the involvement of farmers, a list of tasks proposed to be taken up for "Modernization" under IAMWARM project was discussed with No.of farmers from 83 villages and the tasks was also prepared and exhibited in the notice Board of the village Administrative officers and panchayat office.
    b. During the meeting, the farmers present were also informed that soon after finalization of contract for carrying out "Modernization of Irrigation systems" a Notice Board" with the details about the nature of works. its cost period of contract and name of the contractor will all be fixed at the site of the work as well as in the panchayath office, for information of the farmers. They have also been informed that they are free to supervise the work by the contractor and any lapse in the quality of work may be reported to the field officers of WRO as wall as the Executive Engineer of WRO, who has been designated as the Nodal officer for the sub - basin concerned.
    c. The field officers of WRO have all been informed about the problems in handing over the operation and maintenance responsibilities to the farmers concerned, if the tasks as desired by them are not included in the modernization of the system and also in case some of the tasks already planned are not implanted due to some reasons or other.
    d. The WRO officers were also informed that hey are personally responsible for handing over the irrigation systems after completing the tasks related to modernization of irrigation systems.

12. **Current status of Recovry of water charges.**

    a. An enquiry conduced with the "village Adminstrative officers" (VAO's) of randomly selected villages (15 numbers out of 83 Village) the normal water charges recovery as informed by the VAO works out to 50-60% only. about the expected percentage of 80-90%.
    b. With the proposal to form New WUAs under IAMWARM in Gomukhi sub basin the managing committee will be trained to take up the responsibility of improving the water charges recovery percentage. These wll be followed up after coimpleting the modernization tasks and handing over of the O & M responsibilities to WUAs.

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

    a. The Support Organisation Group" will prepare "Training Modules" required for building the capacity of the WUA farmers. based on a "Training Needs" Analysis. They will also Organize various "Capacity building" Programmes at suitable locations within the sub - basin command area, to benefit the farmers of the WUAs in the sub - basin.
    b. The "Support Organization" will also arrange for organizing the "Study Tours" both within and outside the state to enhance their knowledge and experiences which will help them to improve the crop productivity and there by the farmer's income.

c. 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 committees” of the WUAs

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

DETAILS OF WUA's PROPOSED / EXISTING IN GOMUKHI SUB-BASIN				
Sl No.	**WUA No**	**Tank & Village it covers**	**Name of the WUA**	**Ayacut Area in Ha**
Existing WUA's				
			NIL	
Proposed WUA's				
1	**GOM-1**	Vadakanandal Large Tank	Vadakanandal tank Water Users Association	104.71
2	**GOM-2**	Pasungayamangalam Tank	Pasungayamangalam tank Water Users Association	36.89
		Somandarkudi Anicut		21.82
		Emapair Anicut		402.60
3	**GOM-3**	Kallakurichi Large Tank	Kallakurichi tank Water Users Association	158.96
		Kallakurichi Small Tank		12.04
4	**GOM-4**	Neelamangalam Tank	Neelamangalam tank Water Users Association	109.22
		Niraimathi Tank		32.21
5	**GOM-5**	Kurur Tank	Kurur tank Water Users Association	96.76
6	**GOM-6**	Mudiyanur Tank	Mudiyanur tank Water Users Association	54.31
7	**GOM-7**	Virugavur Tank	Virugavur tank Water Users Association	34.79
		Virugavur Anicut		57.46
8	**GOM-8**	Nagalur Tank	Nagalur tank Water Users Association	116.18
9	**GOM-9**	Samikulam Tank	Kadathur tank Water Users Association	31.47
		Kadathur Tank	Kadathur tank Water Users Association	57.89
10	**GOM-10**	Nallathur Tank	Nallathur tank Water Users Association	52.31
11	**GOM-11**	Kuthiraichandal Tank		29.93
		Karanur Peria Eri	Karanur tank Water Users Association	46.69

		Karanur Chitteri		18.40
		Vilangthangal Tank		23.28
12	**GOM-12**	Ulagamkathan Tank	Ulagamkathan tank Water Users Association	69.00
13	**GOM-13**	Emapair Tank	Emapair tank Water Users Association	115.68
14	**GOM-14**	Thatchur Tank	Thatchur tank Water Users Association	64.12
15	**GOM-15**	Thenkeeranur Large Tank	Thenkeeranur tank Water Users Association	68.02
		Thenkeeranur Small Tank		39.47
		Thenkeeranur Anicut		166.31
16	**GOM-16**	Vilambar Tank	Vilambar tank Water Users Association	61.69
17	**GOM-17**	Malaikottalam Tank	Malaikottalam tank Water Users Association	95.95
18	**GOM-18**	Kanangur Tank	Kanangur tank Water Users Association	58.77
19	**GOM-19**	Porasakurichi Tank	Porasakurichi tank Water Users Association	41.03
		Porasakurichi Anicut		57.45
20	**GOM-20**	Varanjaram Tank	Varanjaram tank Water Users Association	38.19
		Velakurichi Anicut		79.89
21	**GOM-21**	Latchiyam Tank	Latchiyam tank Water Users Association	77.47
22	**GOM-22**	Vanavaretti Tank	Vanavaretti tank Water Users Association	61.70
23	**GOM-23**	Ogaiyur Tank	Ogaiyur tank Water Users Association	71.85
24	**GOM-24**	Thengiyanatham Tank	Thengiyanatham tank Water Users Association	32.41
		Paithanthurai Tank		97.73
25	**GOM-25**	Thenchettiyandal Tank	Thenchettiyandal tank Water Users Association	35.33
		Namasivayapuram Tank		37.64
26	**GOM-26**	Eliyathur Large Tank	Eliyathur tank Water Users Association	32.16

		Eliyathur Small Tank		12.97
27	**GOM-27**	Thottiyam Tank	Thottiyam tank Water Users Association	32.93
		Bangaram Tank	Bangaram tank Water Users Association	37.85
28	**GOM-28**	Thagarai Tank	Thagarai tank Water Users Association	145.75
29	**GOM-29**	Elavadi Tank	Elavadi tank Water Users Association	41.99
		Elavadi Anicut		43.50
		Kallanatham Anicut		7.00
		Thimmapuram Anicut		12.18
		Pandiyankuppam Anicut		16.75
30	**GOM-30**	Vettiperumalagaram Tank	Vettiperumalagaram tank Water Users Association	105.38
		Maravanatham Anicut		28.44
31	**GOM-31**	Chinnasalem Tank	Chinnasalem tank Water Users Association	143.70
		Chinnasalem Anicut		164.35
32	**GOM-32**	Kaniyamoor Tank	Kaniyamoor tank Water Users Association	48.57
		Theerthapuram Anicut		23.67
		Kaniyamoor Anicut		71.67
33	**GOM-33**	Rayarpalayam Tank	Rayarpalayam tank Water Users Association	53.21
		Pethanur Tank		36.44
34	**GOM-34**	Siruvathur Large Tank	Siruvathur tank Water Users Association	42.01
		Siruvathur Chitteri		22.27
		Veppudaiyanthangal Anicut		91.71
35	**GOM-35**	Ulagiyanallur Tank	Ulagiyanallur tank Water Users Association	67.05

36	**GOM-36**	Varathapanur Tank	Varathapanur tank Water Users Association	54.99
37	**GOM-37**	Pukkiravari Tank	Pukkiravari tank Water Users Association	51.08
38	**GOM-38**	Perumangalam Tank	Perumangalam tank Water Users Association	28.44
		Sirumangalam Anicut		41.36
39	**GOM-39**	Kilnarriyappanur Tank	Kilnarriyappanur tank Water Users Association	43.62
40	**GOM-40**	Rayappanur Tank	Rayappanur tank Water Users Association	47.80
		Selliyampalayam Anicut		13.84
41	**GOM-41**	Thenponporappy Tank	Thenponporappy tank Water Users Association	70.87
		Poondi Tank		41.99
		Ammaiyagaram Anicut		13.95
42	**GOM-42**	Thagamtheerthapuram Tank	Thagamtheerthapuram tank Water Users Association	30.29
		Vasudevanur Anicut		18.37
43	**GOM-43**	Thottapadi Tank	Thottapadi tank Water Users Association	77.42
44	**GOM-44**	Kalasamudram Tank	Kalasamudram tank Water Users Association	43.45
		Pethasamudram Tank		18.42
45	**GOM-45**	Nainarpalayam Tank	Nainarpalayam tank Water Users Association	28.56
		Nainarpalayam Anicut		13.83
46	**GOM-46**	Anumanandal Tank	Anumanandal tank Water Users Association	14.22
		Anumanandal Anicut		42.48
47	**GOM-47**	Karunkuli Tank	Karunkuli	32.90
		Sembakurichi Anicut		32.91
		Karunkuli Anicut	Karunguzhi	64.61

48	**GOM-48**	Eriyur Tank	Eriyur tank Water Users Association	43.90
		Maruthamalaiyan Anicut		9.31
49	**GOM-49**	Asakalathur Tank	Asakalathur tank Water Users Association	78.22
		Kolavai Anicut		105.91
50	**GOM-50**	Kural Tank	Kural tank Water Users Association	32.74
		Thattathiripuram Tank		16.30
51	**GOM-51**	V. Alambalam Tank	V. Alambalam tank Water Users Association	45.65
52	**GOM-52**	Krishnapuram Tank	Krishnapuram tank Water Users Association	37.77
		Ponneri Tank		21.87
		Madathu Eri		43.15
		Karunthalakurichi Tank		25.23
53	**GOM-53**	S. Naraiyur Tank	S. Naraiyur tank Water Users Association	70.87
54	**GOM-54**	Arasankudi Tank		33.40
		Sirupakkam Tank	Sirupakkam tank Water Users Association	74.29
55	**GOM-55**	Rettakurichi Tank	Rettakurichi tank Water Users Association	49.71
56	**GOM-56**	J. Endal Tank	J. Endal tank Water Users Association	28.26
57	**GOM-57**	Kolavai Tank	Kolavai tank Water Users Association	77.18
58	**GOM-58**	A. Marur Tank	A. Marur tank Water Users Association	41.19
59	**GOM-59**	Nagar Tank	Nagar tank Water Users Association	80.77
60	**GOM-60**	Seppakkam Tank	Seppakkam tank Water Users Association	56.90

NOTE:

a. St. TB - Standardisation of Tank Bund
b. RC Sluices - Reconstruction of Sluices
c. RE Sluices - Repairs to Sluices
d. RC weir - Reconstruction of Weir
e. RE weir - Repairs to weir
f. DS chl - Desilting of Supply Channels

Annexure - 1

AN ASSESSMENT OF COMMAND AREA AND WUAs UNDER THE CONTROL OF WRO OF PWD IN GOMUKHI NADHI SUB BASIN.

Sl.No		Name of Irrigation System and Tanks	Command Area in (Ha)	Location of the Command Area			Coverage of Command area under different project (Ha)		Status of formation of WUAs in the Sub-Basin	
				Village	Taluk	District	WRCP and Others	IAMWARM	Formed under WRCP (Code)	To be formed under IAMWARM (Code)
1	1	Vadakanandal Large Tank	104.71	Vadakanandal	Kallakurichi	Villupuram	----	104.71	----	Yes
2	1	Pasungayamangalam Tank	126.58	Kallakurichi			----	126.58	----	Yes
	2	Somandarkudi Anicut		Somandarkudi			----		----	
	3	Emapair Anicut		Emapair			----		----	
3	1	Kallakurichi Large Tank	171.00	Kallakurichi			----	171.00	----	Yes
	2	Kallakurichi Small Tank		Kallakurichi			----		----	
4	1	Neelamangalam Tank	141.43	Neelamangalam			----	141.43	----	Yes
	2	Niraimathi Tank		Niraimathi			----		----	
5	1	Kurur Tank	96.76	Kurur			----	96.76	----	Yes
6	1	Mudiyanur Tank	54.31	Mudiyanur			----	54.31	----	Yes
7	1	Virugavur Tank	92.25	Virugavur			----	92.25	----	Yes
	2	Virugavur Anicut		Virugavur			----		----	
8	1	Nagalur Tank	116.18	Nagalur			----	116.18	----	Yes
9	1	Samikulam Tank	89.36	Kadathur			----	89.36	----	Yes
	2	Kadathur Tank		Kadathur			----		----	
10	1	Nallathur Tank	52.31	Nallathur			----	52.31	----	Yes
11	1	Kuthiraichandal Tank	118.30	Kuthiraichandal			----	118.30	----	Yes

	2	Karanur Peria Eri		Karanur			----		----	
	3	Karanur Chitteri		Karanur			----		----	
	4	Villangthangal Tank		Kallakurichi			----		----	
12	1	Ulagamkathan Tank	69.00	Ulagamkathan			----	69.00	----	Yes
13	1	Emapair Tank	115.68	Emapair			----	115.68	----	Yes
14	1	Tatchur Tank	64.12	Tatchur			----	64.12	----	Yes
15	1	Thenkeeranur Large Tank	141.77	Thenkeeranur			----	141.77	----	Yes
	2	Thenkeeranur Small Tank		Thenkeeranur			----		----	
	3	Thenkeeranur Anicut		Thenkeeranur			----		----	
16	1	Vilambar Tank	61.69	Vilambar			----	61.69	----	Yes
17	1	Malaikottalam Tank	95.95	Malaikottalam			----	95.95	----	Yes
18	1	Kanangur Tank	58.77	Kanangur			----	58.77	----	Yes
19	1	Porasakurichi Tank	59.66	Porasakurichi			----	59.66	----	Yes
		Porasakurichi Anicut		Porasakurichi			----		----	
20	1	Varanjaram Tank	87.01	Varanjaram			----	87.01	----	Yes
	2	Velakurichi Anicut		Velakurichi			----		----	
21	1	Latchiyam Tank	77.47	Latchiyam			----	77.47	----	Yes
22	1	Vanavaretti Tank	61.70	Vanavaretti	Kallakurichi	Villupuram	----	61.70	----	Yes
23	1	Ogaiyur Tank	71.85	Ogaiyur			----	71.85	----	Yes
24	1	Thengiyanatham Tank	130.14	Thengiyanatham			----	130.14	----	Yes
	2	Paithanthurai Tank		Paithanthurai			----		----	
25	1	Thenchettiyandal Tank	72.97	Thenchettiyandal			----	72.97	----	Yes

	2	Namasivayapuram Tank		Namasivayapuram			----		----	
26	1	Eliyathur Large Tank	45.13	Eliyathur			----	45.13	----	Yes
	2	Eliyathur Small Tank		Eliyathur			----		----	
27	1	Thottiyam Tank	70.78	Thottiyam			----	70.78	----	Yes
	2	Bangaram Tank		Bangaram			----		----	
28	1	Thagarai Tank	145.75	Thagarai			----	145.75	----	Yes
29	1	Elavadi Tank	79.95	Elavadi			----	79.95	----	Yes
	2	Elavadi Anicut		Elavadi			----		----	
	3	Kallanatham Anicut		Kallanatham			----		----	
	4	Thimmapuram Anicut		Thimmapuram			----		----	
	5	Pandiyankuppam Anicut		Pandiyankuppam			----		----	
30	1	Vettiperumalagaram Tank	123.68	Vettiperumalagaram			----	123.68	----	Yes
	2	Maravanatham Anicut		Maravanatham			----		----	
31	1	Chinnasalem Tank	154.2	Chinnasalem	Kallakurichi	Villupuram	----	154.2	----	Yes
	2	Chinnasalem Anicut		Chinnasalem			----		----	
32	1	Kaniyamoor Tank	95.29	Kaniyamoor			----	95.29	----	Yes
	2	Theerthapuram Anicut		Theerthapuram			----		----	
	3	Kaniyamoor Anicut		Kaniyamoor			----		----	
33	1	Rayarpalayam Tank	89.65	Rayarpalayam			----	89.65	----	Yes
	2	Pethanur Tank		Pethanur			----		----	
34	1	Siruvathur Large Tank	80.26	Siruvathur			----	80.26	----	Yes
	2	Siruvathur Chitteri		Siruvathur			----		----	
	3	Veppudaiyanthangal Anicut		Veppudaiyanthangal			----		----	
35	1	Ulagiyanallur Tank	67.05	Ulagiyanallur			----	67.05	----	Yes

36	1	Varathapanur	54.99	Varathapanur			----	54.99	----	Yes
37	1	Pukkiravari Tank	51.08	Pukkiravari			----	51.08	----	Yes
38	1	Perumangalam Tank	69.80	Perumangalam			----	69.80	----	Yes
	2	Sirumangalam Anicut		Sirumangalam			----		----	
39	1	Kilnarriyappanur Tank	43.62	Kilnarriyappanur			----	43.62	----	Yes
40	1	Rayappanur Tank	61.64	Rayappanur			----	61.64	----	Yes
	2	Selliyampalayam Anicut		Selliyampalayam			----		----	
41	1	Thenponporappy Tank	123.09	Thenponporappy	Kallakurichi	Villupuram	----	123.09	----	Yes
	2	Poondi Tank		Poondi			----		----	
	3	Ammaiyagaram Anicut		Ammaiyagaram			----		----	
42	1	Thagamtheerthapuram Tank	48.66	Thagamtheerthapuram			----	48.66	----	Yes
	2	Vasudevanur Anicut		Vasudevanur			----		----	
43	1	Thottapadi Tank	77.42	Thottapadi			----	77.42	----	Yes
44	1	Kalasamudram Tank	61.87	Kalasamudram			----	61.87	----	Yes
	2	Pethasamudram Tank		Pethasamudram			----		----	
45	1	Nainarpalayam Tank	42.90	Nainarpalayam			----	42.90	----	Yes
	2	Nainarpalayam Anicut		Nainarpalayam			----		----	
46	1	Anumanandal Tank	43.05	Anumanandal			----	43.05	----	Yes
	2	Anumanandal Anicut		Anumanandal			----		----	
47	1	Karunkuli Tank	94.51	Karunkuli			----	94.51	----	Yes
	2	Sembakurichi Anicut		Sembakurichi			----		----	
	3	Karunguzhi Anicut		Karunguzhi			----		----	
48	1	Eriyur Tank	53.21	Eriyur			----	53.21	----	Yes

	2	Maruthamalaiyan Anicut		Maruthamalaiyan			----		----	
49	1	Asakalathur Tank	105.49	Asakalathur	Kallakurichi	Villupuram	----	105.49	----	Yes
	2	Kolavai Anicut		Asakalathur			----		----	
50	1	Kural Tank	49.04	Kural			----	49.04	----	Yes
	2	Thattathiripuram Tank		Thattathiripuram			----		----	
51	1	V. Alambalam Tank	45.65	V. Alambalam			----	45.65	----	Yes
52	1	Krishnapuram Tank	128.02	Krishnapuram			----	128.02	----	Yes
	2	Ponneri Tank		Ponneri			----		----	
	3	Madathu Eri		Krishanapuram Madathu			----		----	
	4	Karunthalakurichi Tank		Karunthalakurichi			----		----	
53	1	S. Naraiyur Tank	70.87	S. Naraiyur	Tittakudi	Cuddalore	----	70.87	----	Yes
54	1	Arasankudi Tank	33.40	Arasankudi			----	33.40	----	Yes
	2	Sirupakkam Tank	74.29	Sirupakkam			----	74.29	----	Yes
55	1	Rettakurichi Tank	49.71	Rettakurichi			----	49.71	----	Yes
56	1	J. Endal Tank	28.26	J. Endal			----	28.26	----	Yes
57	1	Kolavai Tank	77.18	Kolavai			----	77.18	----	Yes
58	1	A. Marur Tank	41.19	A. Marur	Vriudhachalam		----	41.19	----	Yes
59	1	Nagar Tank	80.77	Nagar			----	80.77	----	Yes
60	1	Seppakkam Tank	56.90	Seppakkam			----	56.90	----	Yes

1 Command Ares already conered under WRCP and other projects / schemes **Nil**
2 Command Ares Proposed to be conered under IAMWARM project **5007.58 ha.**
3 Total Command area controlled by WRO of PWD in the sub basin **5007.58 ha.**
4 Total No.of WUA's already formed under WRCP **Nil**
5 Total No. of WUA's proposed to be formed under IAMWARM **60 Nos.**
6 Total No.of WUA's that will cover the entire sub - basin **60 Nos**.

Annexure - 2

Details of "Awarness Creation Activities and Walk Through Surveys"

Name of Sub Basin : Gomukhi.

Sl.No	Date of Visit	Names if the Villages Visited	Awareness programme (No.of Farmers attended) (Prepare the list of farmers with ackonolwdgement sperately and attach)		Walk Through Survey (No.of Farmers Participated) (Prepare the list of farmers with ackonolwdgement sperately and attach)		Remarks
1	2	3	4		5		6
1	15.10.08	Vadakanandal	10	Nos	10	Nos	
2	15.10.08	Kadathur	42	Nos	42	Nos	
3	15.10.08	Nallathur	12	Nos	12	Nos	
4	15.10.08	Kuthiraichandal	11	Nos	11	Nos	
5	15.10.08	Karanur	21	Nos	21	Nos	
6	16.10.08	Somandarkudi	15	Nos	15	Nos	
7	16.10.08	Ka.Mammanadhal	4	Nos	4	Nos	
8	16.10.08	Kallakurichi	7	Nos	7	Nos	
9	16.10.08	Emapair	5	Nos	5	Nos	
10	16.10.08	Thenkeeranur	7	Nos	7	Nos	
11	16.10.08	Thatchur	12	Nos	12	Nos	
12	22.10.08	Neelamangalam	11	Nos	11	Nos	
13	22.10.08	Niraimathi	14	Nos	14	Nos	
14	22.10.08	Vilambar	5	Nos	5	Nos	
15	22.10.08	Malaikottalam	3	Nos	3	Nos	
16	22.10.08	Latchiyam	4	Nos	4	Nos	
17	22.10.08	Vanavaretti	5	Nos	5	Nos	
18	29.10.08	Kurur	12	Nos	12	Nos	
19	29.10.08	Mudiyanur	11	Nos	11	Nos	
20	29.10.08	Virugavur	15	Nos	15	Nos	
21	29.10.08	Nagalur	12	Nos	12	Nos	
22	29.10.08	Kanangur	24	Nos	24	Nos	

23	29.10.08	Porasakurichi	5	Nos	5	Nos	
24	30.10.08	Ogaiyur	5	Nos	5	Nos	
25	30.10.08	Velakurichi	11	Nos	11	Nos	
26	30.10.08	Varanjaram	12	Nos	12	Nos	
27	30.10.08	Asakalathur	10	Nos	10	Nos	
28	4.11.08	Thengiyanatham	9	Nos	9	Nos	
29	4.11.08	Paithanthurai	11	Nos	11	Nos	
30	4.11.08	Thenchettiyandal	7	Nos	7	Nos	
31	4.11.08	Eliyathur	12	Nos	12	Nos	
32	4.11.08	Thagarai	9	Nos	9	Nos	
33	6.11.08	Thottiyam	7	Nos	7	Nos	
34	6.11.08	Bangaram	6	Nos	6	Nos	
35	6.11.08	Namasivayapuram	7	Nos	7	Nos	
36	6.11.08	Ulangakathan	9	Nos	9	Nos	
37	10.12.08	Elavadi	12	Nos	12	Nos	
38	10.12.08	Kallanatham	11	Nos	11	Nos	
39	10.12.08	Thimmapuram	13	Nos	13	Nos	
40	10.12.08	Pandiyakuppam	12	Nos	12	Nos	
41	10.12.08	Maravanatham	7	Nos	7	Nos	
42	10.12.08	V.P.Agaram	6	Nos	6	Nos	
43	12.12.08	Chinnasalem	15	Nos	15	Nos	
44	12.12.08	Kaniyamoor	7	Nos	7	Nos	
45	12.12.08	Rayarpalayam	9	Nos	9	Nos	
46	12.12.08	Pethanur	7	Nos	7	Nos	
47	12.12.08	Ulagiyanallur	7	Nos	7	Nos	
48	13.12.08	Siruvathur	12	Nos	12	Nos	
49	13.12.08	V.Theerthapuram	7	Nos	7	Nos	
50	13.12.08	Varadhappanur	6	Nos	6	Nos	
51	13.12.08	Pukkiravari	9	Nos	9	Nos	
52	13.12.08	Sirumangalam	7	Nos	7	Nos	
53	13.12.08	Perumangalam	16	Nos	16	Nos	

54	13.12.08	Kilnarriyappanur	7	Nos	7	Nos	
55	15.12.08	Rayappanur	9	Nos	9	Nos	
56	15.12.08	Thenponporappy	8	Nos	8	Nos	
57	15.12.08	Vasudavanur	7	Nos	7	Nos	
58	15.12.08	Ammaiyagaram	10	Nos	10	Nos	
59	16.12.08	Poondi	6	Nos	6	Nos	
60	16.12.08	Thagamtheerthapuram	7	Nos	7	Nos	
61	16.12.08	Thottapadi	8	Nos	8	Nos	
62	16.12.08	Kalasamudram	7	Nos	7	Nos	
63	16.12.08	Pethasamudram	10	Nos	10	Nos	
64	17.12.08	Kural	9	Nos	9	Nos	
65	17.12.08	Thattathiripuram	8	Nos	8	Nos	
66	17.12.08	Alambalam	7	Nos	7	Nos	
67	17.12.08	Krishnapuram	11	Nos	11	Nos	
68	17.12.08	Karunthalakurichi	10	Nos	10	Nos	
69	18.12.08	Nainarpalayam	12	Nos	12	Nos	
70	18.12.08	Anumanandal	9	Nos	9	Nos	
71	18.12.08	Sampakurichi	7	Nos	7	Nos	
72	18.12.08	Karunkuli	9	Nos	9	Nos	
73	18.12.08	Ammmakalathur	10	Nos	10	Nos	
74	18.12.08	Eriyur	11	Nos	11	Nos	
75	19.1.09	S. Naraiyur	10	Nos	10	Nos	
76	19.1.09	Arasankudi	7	Nos	7	Nos	
77	19.1.09	Sirupakkam	6	Nos	6	Nos	
78	19.1.09	Rettakurichi	5	Nos	5	Nos	
79	19.1.09	J. Endal	4	Nos	4	Nos	
80	19.1.09	Kolavai	6	Nos	6	Nos	
81	6.2.09	A. Marur	7	Nos	7	Nos	
82	6.2.09	Nagar	5	Nos	5	Nos	
83	6.2.09	Seppakkam	6	Nos	6	Nos	

Annexure-3

Details of Modernisation works as suggested by the Farmers and as finalised by the Officials od WRO

Name of the Sub Basin: Gomughi

Sl.No	Date of Visit	Name if the Villages Visited	Outcome of walk through survey and discussions with farmers	
			Works suggedted by Farmers	Works finalized by WRO officials
1	2	3	4	5
1	15.10.08	Vadakanandal	Dividing dam to be reconstructed	Included
			Supply channel to be widened and desilted	Included
			Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Small culverts in supply channel	Included
			Repairs to Anicut & Shutters	Included
2	15.10.08	Kadathur	Small culverts in supply channel	Included
			Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Separate leading channel in each tank is requested	Included
3	15.10.08	Nallathur	Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Small culverts in supply channel	Included
			Separate leading channel in each tank is requested	Included
			Removal of encroachments	Included
4	15.10.08	Kuthiraichandal	Supply channel to be widened and desilted	Included

			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Small culverts in supply channel	Included
			Separate leading channel in each tank is requested	Included
			Removal of encroachments	Included
5	15.10.08	Karanur	Tank bund to be widened and strengthened	Included
			Weir to be repaired	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Small culverts in supply channel	Included
			Separate leading channel in each tank is requested	Included
			Removal of encroachments	Included
6	16.10.08	Somandarkudi	Small culverts in supply channel	Included
			Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Repairs to Anicut & Shutters	Included
7	16.10.08	Ka.Mammanadhal	Small culverts in supply channel	Included
			Supply channel to be widened and desilted	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
8	16.10.08	Kallakurichi	Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included

			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Small culverts in supply channel	Included
			Repairs to Anicut & Shutters	Included
9	16.10.08	Emapair	Supply channel to be widened and desilted	Included
			Small culverts in supply channel	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
10	16.10.08	Thenkeeranur	Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Small culverts in supply channel	Included
			Repairs to Anicut & Shutters	Included
11	16.10.08	Tatchur	Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
12	22.10.08	Neelamangalam	Small culverts in supply channel	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Repairs to Anicut & Shutters	Included
13	22.10.08	Niraimathi	Tank sluices to be repaired and reconstructed	Included

			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
14	22.10.08	Vilambar	Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
15	22.10.08	Malaikottalam	Supply channel to be widened and desilted	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Removal of encroachments	Included
16	22.10.08	Latchiyam	Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
17		Vanavaretti	-	
18	29.10.08	Kurur	Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included

			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
19	29.10.08	Mudiyanur	Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Supply channel to be widened and desilted	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Tank sluices to be repaired and reconstructed	Included
20	29.10.08	Virugavur	Repairs to Anicut & Shutters	Included
			Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
21	29.10.08	Nagalur	WBM road over the top of the bank of supply channel	Not included
			Repairs to Anicut & Shutters	Included
			Tank sluices to be repaired and reconstructed	Included

			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
22	29.10.08	Kanangur	Tank bund to be widened and strengthened	Included
			Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
23	29.10.08	Porasakurichi	Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Repairs to Anicut & Shutters	Included
			Tank sluices to be repaired and reconstructed	Included
			Field channel lining for 200 m lemgth from sluice is required	Not included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
24	30.10.08	Ogaiyur	-	
25	30.10.08	Valakurichi	Repairs to Anicut & Shutters	Included
			Removal of encroachments	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included

26	30.10.08	Varanjaram	Tank sluices to be repaired and reconstructed Field channel lining for 200 m lemgth from sluice is required Supply channel to be widened and desilted Weir to be repaired Tank bund to be widened and strengthened Retaining wall in Vulnerable points in supply channel to be provided. Removal of encroachments	Included Not included Included Included Included Included Included
27	30.10.08	Asakalathur	Small culverts in supply channel Tank sluices to be repaired and reconstructed Supply channel to be widened and desilted Tank bund to be widened and strengthened Retaining wall in Vulnerable points in supply channel to be provided.	Included Included Included Included Included
28	4.11.08	Thengiyanatham	Tank sluices to be repaired and reconstructed Supply channel to be widened and desilted Weir to be repaired Tank bund to be widened and strengthened Removal of encroachments	Included Included Included Included Included
29	4.11.08	Paithanthurai	-	
30	4.11.08	Thenchettiyandal	Tank bund to be widened and strengthened Removal of encroachments	Included Included
31	4.11.08	Eliyathur	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments	Included Included Included
32	4.11.0	Thagarai	Tank sluices to be repaired and reconstructed Field channel lining for 200 m lemgth from sluice is required Weir to be repaired Tank bund to be widened and strengthened	Included Not included Included Included

33	6.11.08	Thottiyam	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments	Included Included Included
34	6.11.08	Bangaram	Weir to be repaired Tank bund to be widened and strengthened Removal of encroachments	Included Included Included
35	6.1108	Namasivayapuram	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments	Included Included Included
36	6.1108	Ulangakathan	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments	Included Included Included
37	10.12.08	Elavadi	Removal of encroachments	Included
38	10.12.08	Kallanatham	Repairs to Anicut & Shutters	Included
39	10.12.08	Thimmapuram	Repairs to Anicut & Shutters	Included
39	10.12.08	Pandiyakuppam	Repairs to Anicut & Shutters	Included
40	10.12.08	Maravanatham	Repairs to Anicut & Shutters	Included
41	10.12.08	V.P.Agaram	Tank sluices to be repaired and reconstructed Weir to be repaired Tank bund to be widened and strengthened Removal of encroachments	Included Included Included Included
42	12.12.08	Chinnasalem	Small culverts in supply channel Tank sluices to be repaired and reconstructed Supply channel to be widened and desilted Weir to be repaired Tank bund to be widened and strengthened Removal of encroachments Repairs to Anicut & Shutters	Included Included Included Included Included Included Included
43	12.12.08	Kaniyamoor	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments	Included Included Included

			Repairs to Anicut & Shutters	Included
44	12.12.08	Rayarpalayam	Tank sluices to be repaired and reconstructed	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
45	12.12.08	Pethanur	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
46	12.12.08	Ulagiyanallur	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
47	13.12.08	Siruvathur	Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
48	13.12.08	V.Theerthapuram	Repairs to Anicut & Shutters	Included
49	13.12.08	Varadhappanur	Tank sluices to be repaired and reconstructed	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
50	13.12.08	Pukkiravari	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Repairs to Anicut & Shutters	Included
51	13.12.08	Sirumangalam	Repairs to Anicut & Shutters	Included
52	13.12.08	Perumangalam	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included

			Weir to be repaired	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Repairs to Anicut & Shutters	Included
53	13.12.08	Kilnarriyappanur	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Removal of encroachments	Included
54	15.12.08	Rayappanur	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Repairs to Anicut & Shutters	Included
55	15.12.08	Thenponporappy	Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Retaining wall in Vulnerable points in supply channel to be provided.	Included
			Repairs to Anicut & Shutters	Included
56	15.1208	Vasudavanur	Repairs to Anicut & Shutters	Included
57	15.12.08	Ammaiyagaram	Repairs to Anicut & Shutters	Included
58	16.12.08	Poondi	Repairs to Anicut & Shutters	Included
59	16.12.08	Thagamtheerthapuram	Tank sluices to be repaired and reconstructed	Included
			Tank bund to be widened and strengthened	Included
60	16.12.08	Thottapadi	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Repairs to Anicut & Shutters	Included
61	16.12.08	Kalasamudram	Tank sluices to be repaired and reconstructed	Included
			Tank bund to be widened and strengthened	Included
62	16.12.08	Pethasamudram	Tank sluices to be repaired and reconstructed	Included

			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
63	17.12.08	Kural	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
64	17.12.08	Thattathiripuram	Tank sluices to be repaired and reconstructed	Included
			Tank bund to be widened and strengthened	Included
65	17.12.08	Alambalam	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Weir to be repaired	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
66	17.12.08	Krishnapuram	Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
67	17.12.08	Karunthalakurichi	Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
68	18.12.08	Nainarpalayam	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
69	18.12.08	Anumanandal	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included

70	18.12.08	Sampakurichi	Repairs to Anicut & Shutters	Included
71	18.12.08	Karunkuli	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
72	18.12.08	Ammakulathur	Repairs to Anicut & Shutters	Included
73	18.12.08	Eriyur	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
74	19.1.09	S. Naraiyur	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
75	19.1.09	Arasankudi	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Repairs to Anicut & Shutters	Included
76	19.1.09	Sirupakkam	Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
			Tank bund to be widened and strengthened	Included
			Removal of encroachments	Included
77	19.1.09	Rettakurichi	Tank sluices to be repaired and reconstructed	Included
			Supply channel to be widened and desilted	Included
			Tank bund to be widened and strengthened	Included
			Repairs to Anicut & Shutters	Included
78	19.1.09	J. Endal	Supply channel to be widened and desilted	Included

			Tank bund to be widened and strengthened Removal of encroachments Tank bund to be widened and strengthened Removal of encroachments	Included Included Included Included
79	19.1.09	Kolavai	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments Repairs to Anicut & Shutters	Included Included Included Included
80	6.2.09	A. Marur	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments Repairs to Anicut & Shutters	Included Included Included Included
81	6.2.09	Nagar	Repairs to Anicut & Shutters Tank sluices to be repaired and reconstructed Supply channel to be widened and desilted Tank bund to be widened and strengthened Removal of encroachments Repairs to Anicut & Shutters	Included Included Included Included Included Included
82	6.2.09	Seppakkam	Repairs to Anicut & Shutters Tank sluices to be repaired and reconstructed Supply channel to be widened and desilted Tank bund to be widened and strengthened Removal of encroachments Repairs to Anicut & Shutters	Included Included Included Included Included Included

Annexure-I

1.4.1.WALK THROUGH SURVEY

Sl.No	Walk Through Survey		Farmers request	Technical Solution								Proposals in Plan								Remarks
	Date	Location	WRO	WRO	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
	Villupuram District																			
1	15.10.08	Vadakanandal	Dividing dam to be reconstructed	Can be reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Small culverts in supply channel	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
2	15.10.08	Kadathur	Small culverts in supply channel	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Separate leading channel in each tank is requested	Can be provided								Included								
3	15.10.08	Nallathur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								

			Tank bund to be widened and strengthened	Can be provided								Included								
			Small culverts in supply channel	Can be provided								Included								
			Separate leading channel in each tank is equested	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
4	15.10.08	Kuthiraichandal	Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Small culverts in supply channel	Can be provided								Included								
			Separate leading channel in each tank is requested	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
5	15.10.08	Karanur	Tank bund to be widened and strengthened	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Small culverts in supply channel	Can be provided								Included								
			Separate leading channel in each tank is requested	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
6	16.10.08	Somandarkudi	Small culverts in supply channel	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								

			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
7	16.10.08	Ka.Mammanadhal	Small culverts in supply channel	Can be provided								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account								Not included								
8	16.10.08	Kallakurichi	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Small culverts in supply channel	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
9	16.10.08	Emapair	Supply channel to be widened and desilted	Can be provided								Included								

			Small culverts in supply channel	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
10	16.10.08	Thenkeeranur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Small culverts in supply channel	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
11	16.10.08	• Tatchur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
12	22.10.08	Neelamangalam	Small culverts in supply channel	Can be provided								Included								
			Retaining wall in Vulnerable points in	Can be provided								Included								

			supply channel to be provided. Repairs to Anicut & Shutters	 Can be provided								 Included								
13	22.10.08	Niraimathi	Tank sluices to be repaired and reconstructed Field channel lining for 200 m lemgth from sluice is required Supply channel to be widened and desilted Weir to be repaired Tank bund to be widened and strengthened	To be repaired and reconstructed May be provided if funds are available in WRO account. Can be provided Can be provided Can be provided								Included Not included Included Included Included								
14	22.10.08	Vilambar	Tank sluices to be repaired and reconstructed Field channel lining for 200 m lemgth from sluice is required Supply channel to be widened and desilted Weir to be repaired Tank bund to be widened and strengthened Removal of encroachments Retaining wall in Vulnerable points in supply channel to be provided.	To be repaired and reconstructed May be provided if funds are available in WRO account. Can be provided Can be provided Can be provided Can be provided Can be provided								Included Not included Included Included Included Included Included								
15	22.10.08	Malaikottalam	Supply channel to be widened and desilted Retaining wall in Vulnerable points in supply channel to be provided. Removal of encroachments	Can be provided Can be provided Can be provided								Included Included Included								
16	22.10.08	Latchiyam	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								

			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
17	22.10.08	Vanavareddi	-																	
18	29.10.08	Kurur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
19	29.10.08	Mudiyanur	Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in								Not included								

				WRO account.																
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
20	29.10.08	Virugavur	Repairs to Anicut & Shutters	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
21	29.10.08	Nagalur	WBM road over the top of the bank of supply channel	Can be considered provided fund are available								Not included								
			Repairs to Anicut & Shutters	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								

			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
22	29.10.08	Kanangur	Tank bund to be widened and strengthened	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
23	29.10.08	Porasakurichi	Removal of encroachments	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
24	30.10.08	Ogaiyur	-																	
25	30.10.08	Velakurichi	Repairs to Anicut & Shutters	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								

			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
26	30.10.08	Varanjaram	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Field channel lining for 200 m lemgth from sluice is required	May be provided if funds are available in WRO account.								Not included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
27	30.10.08	Asakalathur	Small culverts in supply channel	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
28	4.11.08	Thengiyanatham	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened	Can be provided								Included								

			and strengthened Removal of encroachments	 Can be provided								Included								
29	4.11.08	Paithanthurai	-																	
30	4.11.08	Thenchettiyandal	Tank bund to be widened and strengthened Removal of encroachments	Can be provided Can be provided								Included Included								
31	4.11.08	Eliyathur	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments	To be repaired and reconstructed Can be provided Can be provided								Included Included Included								
32	4.11.08	Thagarai	Tank sluices to be repaired and reconstructed Field channel lining for 200 m lemgth from sluice is required Weir to be repaired Tank bund to be widened and strengthened	To be repaired and reconstructed May be provided if funds are available in WRO account. Can be provided Can be provided								Included Not included Included Included								
33	6.11.08	Thottiyam	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments	To be repaired and reconstructed Can be provided Can be provided								Included Included Included								
34	6.11.08	Bangaram	Weir to be repaired Tank bund to be widened and strengthened Removal of encroachments	Can be provided Can be provided Can be provided								Included Included Included								
35	6.11.08	Namasivayapuram	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments	To be repaired and reconstructed Can be provided Can be provided								Included Included Included								

36	6.11.08	Ulangakathan	Removal of encroachments	Can be provided								Included								
37	10.12.08	Elavadi	Removal of encroachments	Can be provided								Included								
38	10.12.08	Kallanatham	Repairs to Anicut & Shutters	Can be provided								Included								
39	10.12.08	Thimmapuram	Repairs to Anicut & Shutters	Can be provided								Included								
40	10.12.08	Pandiyakuppam	Repairs to Anicut & Shutters	Can be provided								Included								
41	10.12.08	Maravanatham	Repairs to Anicut & Shutters	Can be provided								Included								
42	10.12.08	V.P.Agaram	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
43	12.12.08	Chinnasalem	Small culverts in supply channel	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
44	12.12.08	Kaniyamoor	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								

45	12.12.08	Rayarpalayam	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
46	12.012.08	Pethanur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
47	12.12.08	Ulagiyanallur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
48	13.12.08	Siruvathur	Removal of encroachments	Can be provided								Included								
49	13.12.08	V.Theerthapuram	Repairs to Anicut & Shutters	Can be provided								Included								
50	13.12.08	Varadhappanur	Repairs to Anicut & Shutters	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
51	13.12.08	Pukkiravari	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								

			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
52	13.12.08	Sirumangalam	Repairs to Anicut & Shutters	Can be provided								Included								
53	13.12.08	Perumangalam	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
54	13.12.08	Kilnarriyappanur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
55	15.12.08	Rayappanur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
56	15.12.08	Thenponporappy	Supply channel to be widened and desilted	Can be provided								Included								
			Weir to be repaired	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								

			Retaining wall in Vulnerable points in supply channel to be provided.	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
57	15.12.08	Vasudavanur	Repairs to Anicut & Shutters	Can be provided								Included								
58	15.12.08	Ammaiyagaram	Repairs to Anicut & Shutters	Can be provided								Included								
59	16.12.08	Poondi	Repairs to Anicut & Shutters	Can be provided								Included								
60	16.12.08	Thagamtheerthapuram	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
61	16.12.08	Thottapadi	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
62	16.12.08	Kalasamudram	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
63	16.12.08	Pethasamudram	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
64	17.12.08	Kural	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be	Can be provided								Included								

			widened and desilted Tank bund to be widened and strengthened	Can be provided								Included								
65	17.12.08	Thattathiripuram	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened	To be repaired and reconstructed Can be provided								Included Included								
66	17.12.08	Alambalam	Tank sluices to be repaired and reconstructed Supply channel to be widened and desilted Weir to be repaired Tank bund to be widened and strengthened Removal of encroachments	To be repaired and reconstructed Can be provided Can be provided Can be provided Can be provided								Included Included Included Included Included								
67	17.12.08	Krishnapuram	Supply channel to be widened and desilted Tank bund to be widened and strengthened Removal of encroachments	Can be provided Can be provided Can be provided								Included Included Included								
68	17.12.08	Karunthalakurichi	Tank bund to be widened and strengthened Removal of encroachments	Can be provided Can be provided								Included Included								
69	18.12.08	Nainarpalayam	Tank sluices to be repaired and reconstructed Supply channel to be widened and desilted Tank bund to be widened and strengthened Removal of encroachments Repairs to Anicut & Shutters	To be repaired and reconstructed Can be provided Can be provided Can be provided Can be provided								Included Included Included Included Included								
70	18.12.08	Anumanandal	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								

			Supply channel to be widened and desilted	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
71	18.12.08	Sampakurichi	Repairs to Anicut & Shutters	Can be provided								Included								
72	18.12.08	Karunkuli	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
73	18.12.08	Ammakulathur	Repairs to Anicut & Shutters	Can be provided								Included								
74	18.12.08	Eriyur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
	Cuddalore District																			
75	19.1.09	S. Naraiyur	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								

			Supply channel to be widened and desilted	Can be provided								Included							
			Tank bund to be widened and strengthened	Can be provided								Included							
			Removal of encroachments	Can be provided								Included							
			Repairs to Anicut & Shutters	Can be provided								Included							
76	19.1.09	Arasankudi	Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included							
			Supply channel to be widened and desilted	Can be provided								Included							
			Tank bund to be widened and strengthened	Can be provided								Included							
			Removal of encroachments	Can be provided								Included							
			Repairs to Anicut & Shutters	Can be provided								Included							
77	19.1.09	Sirupakkam	Supply channel to be widened and desilted	Can be provided								Included							
			Tank bund to be widened and strengthened	Can be provided								Included							
			Removal of encroachments	Can be provided								Included							
			Tank bund to be widened and strengthened	Can be provided								Included							
			Removal of encroachments	Can be provided								Included							
78	19.1.09	Rettakurichi	Tank sluices to be repaired and reconstructed	Can be provided								Included							
			Supply channel to be widened and desilted	Can be provided								Included							
			Tank bund to be widened and strengthened	Can be provided								Included							

			Repairs to Anicut & Shutters	Can be provided								Included								
79	19.1.09	J. Endal	Supply channel to be widened and desilted Tank bund to be widened and strengthened Removal of encroachments Tank bund to be widened and strengthened Removal of encroachments									Included Included Included Included Included								
80	19.1.09	Kolavai	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments Repairs to Anicut & Shutters	To be repaired and reconstructed Can be provided Can be provided Can be provided								Included Included Included Included								
81	6.2.09	A. Marur	Tank sluices to be repaired and reconstructed Tank bund to be widened and strengthened Removal of encroachments Repairs to Anicut & Shutters	To be repaired and reconstructed Can be provided Can be provided Can be provided								Included Included Included Included								
82	6.2.09	Nagar	Repairs to Anicut & Shutters Tank sluices to be repaired and reconstructed Supply channel to be widened and desilted	Can be provided To be repaired and reconstructed Can be provided								Included Included Included								

			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								
83	6.2.09	Seppakkam	Repairs to Anicut & Shutters	Can be provided								Included								
			Tank sluices to be repaired and reconstructed	To be repaired and reconstructed								Included								
			Supply channel to be widened and desilted	Can be provided								Included								
			Tank bund to be widened and strengthened	Can be provided								Included								
			Removal of encroachments	Can be provided								Included								
			Repairs to Anicut & Shutters	Can be provided								Included								

1.4 IRRIGATION INFRASTRUCTURE

1.5.1.LIST OF ANICUTS

NAME OF THE SUB BASIN : GOMUKHI

Sl.No	Anicuts	Village	Block	Taluk	District	Direct Ayacut Area in Ha	Capacity
	Villupuram District						
1	Vadakkanandal Anicut	Vadakkanandal	Chinnasalem	Kallakurichi	Villupuram	1014.44	
2	Somandarkudi Anicut	Somandarkudi	Chinnasalem	Sankarapuram	Villupuram	478.29	
3	Pasungayamangalam Kondam	Pasungayamangalam Kondam	Kallakurichi	Kallakurichi	Villupuram	15.55	
4	Emapair Anicut	Emapair	Kallakurichi	Kallakurichi	Villupuram	402.6	
5	Kallakurichi Anicut	Kallakurichi	Kallakurichi	Kallakurichi	Villupuram	158.21	
6	Thenkeeranur Anicut	Thenkeeranur	Kallakurichi	Kallakurichi	Villupuram	166.31	
7	Neelamangalam Anicut	Neelamangalam	Kallakurichi	Kallakurichi	Villupuram	102.83	
8	Kurur	Kurur	Kallakurichi	Kallakurichi	Villupuram	179.70	
9	Porasakurichi Anicut	Porasakurichi	Thiyagai	Kallakurichi	Villupuram	57.45	
10	Virugavur Anicut	Virugavur	Thiyagadurugam	Kallakurichi	Villupuram	57.46	
11	Nagalur Anicut	Nagalur	Thiyagadurugam	Kallakurichi	Villupuram	114.11	
12	Velakurichi Anicut	Velakurichi	Chinnasalem	Kallakurichi	Villupuram	79.89	
13	Elavadi Anicut	Elavadi	Chinnasalem	Kallakurichi	Villupuram	43.5	
14	Kallanatham Anicut	Kallanatham	Chinnasalem	Kallakurichi	Villupuram	7	
15	Thimmapuram Anicut	Thimmapuram	Chinnasalem	Kallakurichi	Villupuram	12.18	
16	Pandiyankuppam Anicut	Pandiyankuppam	Chinnasalem	Kallakurichi	Villupuram	16.75	
17	Chinnasalem Anicut	Chinnasalem	Chinnasalem	Kallakurichi	Villupuram	164.35	
18	Maravanatham Anicut	Maravanatham	Chinnasalem	Kallakurichi	Villupuram	28.44	
19	Theerthapuram Anicut	Theerthapuram	Chinnasalem	Kallakurichi	Villupuram	23.67	
20	Pethanur Anicut	Pethanur	Chinnasalem	Kallakurichi	Villupuram	36.44	
21	Kaniyamoor Anicut	Kaniyamoor	Chinnasalem	Kallakurichi	Villupuram	71.67	
22	Veppudaiyanthangal Anicut	Veppudaiyanthangal	Chinnasalem	Kallakurichi	Villupuram	91.71	
23	Siruvathur Anicut	Siruvathur	Chinnasalem	Kallakurichi	Villupuram	68.83	

24	Ulagiyanallur Anicut	Ulagiyanallur	Chinnasalem	Kallakurichi	Villupuram	67.17	
25	Varadhappanur Anicut	Varadhappanur	Chinnasalem	Kallakurichi	Villupuram	39.98	
26	Pukkiravari Anicut	Pukkiravari	Kallakurichi	Kallakurichi	Villupuram	50.76	
27	Sirumangalam Anicut	Sirumangalam	Kallakurichi	Kallakurichi	Villupuram	41.36	
28	Perumangalam Anicut	Perumangalam	Kallakurichi	Kallakurichi	Villupuram	24.32	
29	Selliyampalayam Anicut	Selliyampalayam	Chinnasalem	Kallakurichi	Villupuram	13.84	
30	Rayappanur Anicut	Rayappanur	Chinnasalem	Kallakurichi	Villupuram	47.8	
31	Thenponparappi Anicut	Thenponparappi	Chinnasalem	Kallakurichi	Villupuram	70.87	
32	Poondi Anicut	Poondi	Chinnasalem	Kallakurichi	Villupuram	41.99	
33	Vasudevanur Anicut	Vasudevanur	Chinnasalem	Kallakurichi	Villupuram	18.37	
34	Ammaiyagaram Anicut	Ammaiyagaram	Chinnasalem	Kallakurichi	Villupuram	13.95	
35	Thottapadi Anicut	Thottapadi	Chinnasalem	Kallakurichi	Villupuram	71.19	
36	Anumanandal Anicut	Anumanandal	Chinnasalem	Kallakurichi	Villupuram	42.48	
37	Nainarpalayam Anicut	Nainarpalayam	Chinnasalem	Kallakurichi	Villupuram	13.83	
38	Sembakurichi Anicut	Sembakurichi	Chinnasalem	Kallakurichi	Villupuram	32.91	
39	Karunguzhi Anicut	Karunguzhi	Chinnasalem	Kallakurichi	Villupuram	64.61	
40	Maruthamalaiyan Anicut	Maruthamalaiyan	Chinnasalem	Kallakurichi	Villupuram	9.31	
41	Eriyur Anicut	Eriyur	Chinnasalem	Kallakurichi	Villupuram	43.9	
	Cuddalore District						
42	Kattumailur Anicut	Sepakkam	Nallur	Virudhachalam	Cuddalore	28.45	
43	Ja. Endal Anicut	Ja. Endal	Mangalore	Tittakudi	Cuddalore	28.26	

1.5.3.LIST OF SUPPLY CHANNEL

NAME OF THE SUB BASIN : GOMUKHI SUB BASIN

Sl.No.	Name of Supply Channel	Off take point	Length in mm	Village	Block	Taluk	District
	Villupuram District	-					
1	Vadakanandal Anicut supply channel	Vadakanandal Anicut	1900	Vadakanandal			
2	Somandarkudi Anicut Supply Channel	Somandarkudi Anicut	500	Somandarkudi			
3	Pasungayamangalam Tank Supply Channel	Open off tank	2000	Kallakurichi			
4	Emapair Anicut Supply Channel	Emapair Anicut	5600	Kallakurichi			
5	Vilangthangal Tank surplus channel	Vilangthangal tank surplus.	1500	Kallakurichi			
6	Kallakurichi Anicut Supply Channel	Kallakurichi Anicut	2100	Kallakurichi			
7	Kallakurichi Small Tank Supply Channel	Kallakurichi Large Tank surplus	800	Kallakurichi			
8	Thenkeeranur Anicut Supply Channel	Thenkeeranur Anicut	2300	Thenkeeranur			
9	Thenkeeranur Small Tank SupplyChannel	Thenkeeranur large tank surplus	1200	Thenkeeranur			
10	Thenkeeranur - Vilambar Tank Supply Channel	Thenkeeranur small tank surplus	1500	Vilambar			
11	Emapair -Tatchur Tank SupplyChannel	Emapair tank surplus	1000	Thatchur			
12	Tatchur Tank - Vilambar Tank Supply Channel	Thatchur tank surplus	1750	Vilambar			
13	Latchiyam Tank Supply Channel	Reinfed tanks	1400	Malaikottalam			

14	Neelamangalam Anicut Supply Channel	Neelamangalam Anicut	3000	Neelamangalam			
15	Neelamangalam - Kurur Tank Supply Channel	Neelamangalam tank surplus	1900	Kurur			
16	Niraimathi Tank - Kurur SupplyChannel	Niraimathi tank surplus	1350	Kurur			
17	Kurur Anicut SupplyChannel	Kurur Anicut	3800	Mudiyanur			
18	Porasakurichi Anicut SupplyChannel	Porasakurichi Anicut	6400	Porasakurichi			
19	Kanangur - Porasakurichi Tank Supply Channel	Kanangur tank surplus	1300	Porasakurichi			
20	Virugavur Anicut SupplyChannel	Virugavur Anicut	2600	Virugavur			
21	Nagalur Anicut SupplyChannel	Nagalur Ancut	4400	Nagalur			
22	Velakurichi Anicut SupplyChannel	Velakurichi Anicut	4600	Varanjaram			
23	Vadakanandal - Kadathur dividing dam Supply Channel	Vadakanandal Anicut	4200	Kadathur			
24	Kadathur Tank Supplychannel	Dividing dam	2500	Kadathur			
25	Nallathur tank Supplychannel	Kadathur surplus	2600	Nallathur			
26	Kudiraichandal tank Supplychannel	Nallathur surplus	1000	Kudiraichandal			
27	Karanur Peri Eri Supplychannel	Kudiraichandal surplus	500	Karanur			
28	Karanur Chitt Eri Supplychannel	Karanur peri eri surplus	300	Karanur			
29	Villanthangal Tank Supplychannel	Karanur chitt eri surplus	1000	Kallakurichi			
30	Eliyathur Large Tank Supplychannel	Kadathur surplus	1000	Eliyathur			
31	Eliyathur Small Tank Supplychannel	Eliyathur large surplus	1500	Eliyathur			

32	Thottiyam Tank Supplychannel	Eliyathur small surplus	2000	Thottiyam			
33	Bangaram Tank Supplychannel	Thottiyam surplus	1500	Bangaram			
34	Thengiyanatham Tank Supplychannel	Kadathur dividing dam	3000	Kadathur			
35	Thengiyanatham Tank Surplus channel	Thengiyanatham surplus	3500	Paithanthurai			
36	Thenchettiyandal Tank Supplychannel	Paithanthurai surplus	1000	Thenchettiyandal			
37	Namasivayapuram Tank Supply channel	Thenchettiyandal surplus	1000	Namasivayapuram			
38	Paithanthurai -Thottiyam tank supply channel	Paithanthurai surplus	2000.00	Thottiyam			
39	Thenchettiyandal - Chinnasalem Anicut supply channel	Thenchettiyandal surplus	4100	Thenchettiyandal			
40	Kaniyamoor Anicut Supplychannel	Kaniyamoor anicut	1500	Kaniyamoor			
41	Veppudayanthangal Anicut Supplychannel	Veppudayanthangal Anicut	1000	Siruvathur			
42	Elavadi Anicut Supplychannel	Elavadi Anicut	2900	Elavadi			
43	Kallanatham Anicut Supplychannel	Kallanatham Anicut	300	Kallanatham			
44	Thimmapuram Anicut Supplychannel	Thimmapuram Anicut	200	Thimmapuram			
45	Pandiyankuppam Anicut Supplychannel	Pandiyankuppam Anicut	500	Pandiyankuppam			
46	Chinnasalem Anicut Supplychannel	Chinnasalem Anicut	4000	Chinnasalem			
47	Maravanatham Anicut Supplychannel	Maravanatham Anicut	1200	Maravanatham			
48	V.Theerthapuram Anicut Supplychannel	V.Theerthapuram Anicut	2100	V.Theerthapuram			

49	Pethanur Anicut Supplychannel	Pethanur Anicut	2600	Pethanur			
50	Siruvathur Anicut Supplychannel	Siruvathur Anicut	2000	Siruvathur			
51	Ulugiyanallur Anicut Supplychannel	Ulugiyanallur Anicut	1200	Ulagiyanallur			
52	Varadappanur Anicut Supplychannel	Varadappanur Anicut	1600	Varadappanur			
53	Pukkiravari Anicut Supplychannel	Pukkiravari Anicut	1000	Pukkiravari			
54	Sirumangalam Anicut Supplychannel	Sirumangalam Anicut	2500	Sirumangalam			
55	Perumangalam Anicut Supplychannel	Perumangalam Anicut	1600	Perumangalam			
56	Selliyampalayam Anicut Supplychannel	Salliyampalayam Anicut	1450	Rayappanur			
57	Rayappanur Anicut Supplychannel	Rayappanur Anicut	950	Rayappanur			
58	Thenponporappy Anicut Supplychannel	Thenponporappy Anicut	1650	Thenponporappy			
59	Poondi Anicut Supply channel	Poondi Anicut	2750	Poondi			
60	Thenponporappy -Poondi Tank Supply channel	Thenponporappy surplus	1700	Poondi			
61	Vasudevanur Anicut Supplychannel	Vasudevanur Anicut	2200	Vasudevanur			
62	Ammaiyagaram Anicut supply channel	Ammaiyagaram Anicut	1050	Ammaiyagaram			
63	Tottapadi Anicut Supply channel	Tottapadi Anicut	900	Tottapadi			
64	Thagamtheerthapuram - Tottapadi Tank Supply channel	Thagamtheerthapuram surplus	1860	Tottapadi			

65	Tottapadi - Nainarpalayam Tank Supply channel	Tottapadi surplus	2500	Nainarpalayam			
66	Nainarpalayam -Anumanandal Tank Supplychannel	Nainarpalayam surplus	1300	Anumanandal			
67	Anumanandal Anicut Supplychannel	Anumanandal Anicut	3700	Anumanandal			
68	Nainarpalayam Anicut Supplychannel	Nainarpalayam Anicut	2000	Nainarpalayam			
69	Sembakuruchi Anicut Supplychannel	Sembakuruchi Anicut	1000	Sembakuruchi			
70	Karunkuli Anicut Supplychannel	Karunkuli Anicut	1250	Karunkuli			
71	Maruthamalaiyan Anicut Supplychannel	Maruthamalaiyan Anicut	2000	Ammakulathur			
72	Eriyur Anicut Supplychannel	Eriyur Anicut	1640	Eriyur			
73	Asakalathur Anicut Supplychannel	Asakulathur Anicut	4100	Asakulathur			
74	Pakkambadi - Kalasamudram Tank Supply channel	Pakkambadi tank	2250	Kalasamudram			
75	Pethasamudram Tank Supply channel	Kalasamudram surplus	3800	Pethasamudram			
76	Pakkambadi - Thagamtheerthapuram Tank Supply channel	Pakkambadi tank	4250	Thagamtheerthapuram			
77	Pakkambadi - Kural Tank Supply channel	Pakkambadi tank	2300	Kural			
78	Thattathiripuram Tank Supplychannel	Kural surplus	650	Thattathiripuram			
79	V.Alambalam Tank Supplychannel	Thattathiripuram surplus	1150	V.Alambalam			
80	Krishnapuram Tank Supplychannel	V. Alambalam surplus	1660	Krishnapuram			

81	Ponneri Tank Supplychannel	Krishnapuram surplus	1270	Krishnapuram			
82	Madatheri Tank Supplychannel	Krishnapuram surplus	1360	Krishnapuram			
83	Karunthalakurichi Tank Supplychannel	Gugaiyur surplus	3800	Karunthalakurichi			
	Cuddalore District						
84	S. Naraiyur Tank Supply Channel	Karunthalakurichi Tank surplus	2600	S. Naraiyur			
85	Arasankudi Tank SupplyChannel	karunkuli tank surplus	1600	Arasankudi			
86	Sirupakkam Tank SupplyChannel	Arasankudi Tank surplus	800	Sirupakkam			
87	Rettakurichi Tank SupplyChannel	Sirupakkam Tank surplus	3500	Rettakurichi			
88	J. Endal Tank SupplyChannel	Rettakurichi Tank surplus	3200	J. Endal			
89	J.Endal Anicut SupplyChannel	A. Kalathur	100	Kalavai			
90	A. Marur tank SupplyChannel	Asakalathur	1500	A. Marur			
91	Kattumayilur Anicut SupplyChannel	Kattumailur Anicut	6300	Nagar			
92	Seppakam tank supply channel	Kattumailur Anicut	300	Sappakkam			
		Total	**189980**				

1.5.4.List of Tanks / Anicuts Executed under various Schemes (Viz, Part II Scheme, NABARD, WRCP I etc.,) Since 2000

NAME OF THE SUB BASIN : GOMUKHI

Sl.No	Name of Anicut / Tank	Ayacut	Scheme in which executed	Amount	Details of Components executed	Details of Components Proposed IAMWARM	Remarks
	Villupuram District						
	PILOT SCHEME C.W.C.						
1	Neelamangalam Tank	102.83	**Pilot Scheme - Centrel Water Commission**	22.94	Reconstruction of Sluice, improvements to weir, strengthing of bund desiting of supply channel		**Work Completed 2005 - 06**
2	Thenkeeranur Large Tank	68.02		15.63			
3	Malaikottalam Tank	95.95		22.84			
4	Vanavaretti Tank	63.51		13.12			
5	Ulagamkathan Tank	68.95		14.48		Nil	
6	Siruvathur Large Tank	75.71		13.33			
7	Siruvathur Chitteri	68.83					
8	Elavadi Tank	41.48		8.82			
9	Vadakanandal Large Tank	84.21		23.6			
	Part II scheme						
10	Emapair Tank	115.68	**Part II scheme**	10.00	Reconstruction of Sluice, improvements to weir, strengthing of bund.	Nil	**Work Completed 2007 - 08**
	MLA scheme						
11	Paithanthurai Tank	94.10	**MLA Scheme**	10.00	Reconstruction of Sluice, improvements to weir, strengthing of bund desiting of supply channel	Nil	**Work Completed 2008 - 09**
12	Ogaiyur Tank	71.86		10.00			
		951.13					

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

NAME OF THE SUB BASIN : GOMUKHINADHI

Sl. No	DETAILS	ANICUT			SYSTEM TANK			NON SYSTEM TANK			ANY OTHER SUPPLY CHANNEL		REMARKS
		NOS	SUPPLY CHANNEL IN KM	DIRECT AYACUT	NOS	SUPPLY CHANNEL IN KM	DIRECT AYACUT	NOS	SUPPLY CHANNEL IN KM	DIRECT AYACUT	LENGTH	DIRECT AYACUT	
1	Available Infrastructure in Sub basin	43	114.24	661.76	-	-	-	80	99.74	4345.82	-	-	
2	Infrastructure excluded in iamwarm project since works carried out under various schmes from 2000	-	-	-	-	-	-	12	24	951.13	-	-	
3	Infrastructures that does not require any rehabilitaion works	-	-	-	-	-	-	-	-	-	-	-	
4	works taken up in iamwarm project. i) Works taken up under Part II but also in IAMWARM	-	-	-	-	-	-				-	-	
	ii) Work proposed in IAMWARM	43	114.24	661.76	-	-	-	68	75.74	3394.69	-	-	-

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

1.6 REHABILATATION OF IRRIGATION INFRASTRUCTURE

1.6.1.Details of proposals in each Infrastructure of the sub basin

Name of the subbasin: GOMUKHI NADHI

Sl.No	Name of tank / Anicut / Reservior	Anicut						Shutter				Supply Channel					Total Amount
		Flood bank		Repairs		Reconstruction		Repairs		New		Retaining wall		Desilting			
		Length in K.M.	Amt	No	Amt	No	Amt	No	Amt	No	Amt	Length in 'm'	Amt	Length	No.	Amt	
1	Vadakanandal Anicut	1	5.84	1	5.15					9.00	2			11600	2	14.18	27.17
2	Somandarkudi Anicut	1	1.87	1	25.01									2000	1	1.6	28.48
3	Kallakurichi Anicut	1	5.44	1	10.21									2100	1	4.53	20.18
4	Emapair Anicut	1	2.62	1	9.02									5600	1	1.29	12.93
5	Thenkeeranur Anicut	1	1.87	1	8.27									2300	1	0.62	10.76
6	Neelamangalam Anicut			1	4.98									3000	1	4.49	9.47
7	Kurur Anicut	1	7.66	1	67.70									3800	1	5.52	80.88
8	Virugavur Anicut			1	23.35									2600	1	0.47	23.82
9	Nagalur Anicut			1	15.52									4400	1	1.23	16.75
10	Porasakurichi Anicut			1	11.61									6400	1	1.57	13.18
11	Velakurichi Anicut			1	8.84									4600	1	5.13	13.97
12	Asakalathur Anicut			1	11.32									4100	1	5.36	16.68

13	Elavadi Anicut	1	4.18	1	5.90									2900	1	0.97	11.05
14	Kallanatham Anicut	1	3.03	1	1.89									300	1	0.08	5.00
15	Thimmapuram Anicut	1	3.89	1	5.77									200	1	0.06	9.72
16	Pandiyankuppam Anicut	1	3.08	1	4.49									500	1	0.1	7.67
17	Chinnasalem Anicut	1	1.91	1	4.73									8100	2	0.61	7.25
18	Maravanantham Anicut	1	4.20	1	1.58									1200	1	3.36	9.14
19	Theerthapuram Anicut	1	3.33	1	3.31									2100	1	0.98	7.62
20	Kaniyamoor Anicut	1	2.07	1	4.97									1500	1	0.57	7.61
21	Pethanur Anicut	1	5.36	1	2.84									2600	1	1.77	9.97
22	Vepudiyanthangal Anicut	1	4.98	1	7.85									1000	1	1.11	13.94
23	Siruvathur Anicut	1	2.01	1	7.83									2000	1	0.83	10.67
24	Ulagiyanallur Anicut	1	1.59	1	5.18									1200	1	0.66	7.43
25	Varathappanur Anicut	1	2.31	1	3.47									1600	1	0.72	6.5
26	Pukkiravari Anicut	1	5.07	1	2.38									1000	1	0.32	7.77
27	Sirumangalam Anicut	1	4.83	1	5.18									2500	1	0.54	10.55
28	Perumangalam Anicut	1	2.38	1	4.90									1600	1	0.54	7.82
29	Selliyampalayam Anicut	1	3.54	1	5.47									1450	1	0.29	9.3
30	Rayappanur Anicut	1	2.20	1	5.47									950	1	0.32	7.99
31	Thenponporappy Anicut	1	2.98	1	9.57									1650	1	0.55	13.1
32	Poondi Anicut	1	4.07	1	4.18									2750	1	1.73	9.98

33	Vasudevanur Anicut	1	2.41	1	5.48									2200	1	0.42	8.31
34	Ammaiyagaram Anicut	1	1.34									30	0.91	1050	1	2.3	4.55
35	Thottapadi Anicut	1	3.98	1	1.89									900	1	0.15	6.02
36	Anumanandal Anicut	1	1.33	1	6.03									3700	1	0.48	7.84
37	Nainarpalayam Anicut			1	3.14									2000	1	0.26	3.4
38	Sembakurichi Anicut	1	0.70	1	4.57									1000	1	0.19	5.46
39	Karunkuli Anicut			1	2.88									1250	1	0.29	3.17
40	Maruthamalayan Anicut			1	6.81									2000	1	4.35	11.16
41	Eriyur Anicut			1	3.06									1640	1	4.28	7.34
42	J. Endal Anicut													2600	1	0.85	0.85
43	Kattumailur Anicut			1	12.62									6300	1	2.55	15.17
	Total	**31**	**102.07**	**41**	**344.42**			**0**	**0**	**9.00**	**2.00**	**30**	**0.91**	**114240**	**45**	**78.22**	**527.62**

1.6.1.Details of proposals in each Infrastructure of the sub basin

Name of the sub basin : GOMUKHI NADHI

Sl.No.	Name of tank / Anicut / Reservior	Bund			Sluice						Weir				Supply channel desilting			Total Amount
					Repairs		Reconstruction		Field channel		Repairs		Reconstruction					
		Length	Quantity in M3	Amt	No	Amt	No	Amt	No.	Amount.	No	Amt	No	Amt	Length	Qty. m3	Amt	
1	Samikulam Tank	400	4800	2.81			1	3.1	1	1.00	1	1.57						8.48
2	Kadathur Tank	1200	12900	6.64			1	3.45	2	2.00	2	0.76						12.85
3	Nallathur Tank	1900	16000	9.06			1	3.86	2	2.00	1	0.55			2600	4680	4.62	20.09
4	Kuthiraichandal Tank	1100	13000	7.32	1	0.53			1	1.00	1	1.48			1000	1350	0.38	10.71
5	Karanur Peria Eri	1000	13800	7.63	1	0.53			1	1.00	1	0.64			500	700	0.2	10.00
6	Karanur Chitteri	800	9400	4.84	1	0.53			1	1.00	1	5.06			300	450	0.13	11.56
7	Vilangthangal Tank	900	10700	6.05	1	0.52			1	1.00	1				1000	1600	0.44	8.01
8	Eliyathur Large Tank	1200	12700	7.33	1	0.98			1	1.00	1	0.48			1000	1350	0.38	10.17
9	Eliyathur Small Tank	600	7100	4.18	1	0.71			1	1.00	1	1.01			1500	2025	0.56	7.46
10	Thottiyam Tank	1700	17500	8.64	1	1.16			2	2.00	1	0.77			2000	2700	0.79	13.36
11	Bangaram Tank	900	10900	6.47			1	3.99	2	2.00	1	0.88			1500	2400	0.66	14.00
12	Thengiyanatham Tank	800	9200	5.35	1	1.2			2	2.00	1	0.83						9.38
13	Thenchettiyandal Tank	1100	13800	7.87	1	0.82			1	1.00	1	0.88			1000	1650	0.46	11.03

14	Namasivayapuram Tank	1000	12000	6.87	1	0.54			1	1.00	1	0.42			1000	1350	0.38	9.21
15	Pasungayamangalam Tank	1000	10200	5.86			1	2.64	1	1.00	1	0.87						10.37
16	Thagarai Tank	1700	27000	24.56	1	3.86			1	1.00	1	2.71						32.13
17	Vettiperumalagaram Tank	1200	12700	7.04	1	1.11			2	2.00	1	0.37						10.52
18	Kallakurichi Large Tank	950	17200	6.91			1	3.86	4	3.99	1	1.41						16.17
19	Kallakurichi Small Tank	825	3200				1	2.89	1	1.00	1	7.27			800	2100	0.56	11.72
20	Thenkeeranur Small Tank	1330	12000	6.87			2	5.71	1	0.99	1	2.55			1200	3085	0.82	16.94
21	Tatchur Tank	1600	14160	9.57			1	2.88	1	0.99	2	0.33			1000	2590	0.53	14.30
22	Latchiyam Tank	750	8100	5.00			1	2.86	1	1.00	1	1.15			1400	2100	0.56	10.57
23	Vilambar Tank	1930	19600	10.63			1	3.58	4	3.97	3	1.23			2100	5450	1.12	20.53
24	Niraimathi Tank	1230	13750	7.75			1	3.11	2	1.99	1	0.44						13.29
25	Kurur Tank	2200	24150	12.79			1	2.9	1	1.00	2	0.55			2800	7260	1.44	18.68
26	Mudiyanur Tank	1500	17600	9.62			1	2.97	1	1.00	1	1.04						14.63
27	Virugavur Tank	750	9500	5.68			1	3.13	2	1.99	1	1.19						11.99
28	Nagalur Tank	2000	19200	10.36			1	3.42	3	2.99								16.77
29	Kanangur Tank	1630	14000	8.12			1	4.8	2	1.99	1	1.07						15.98

30	Porasakurichi Tank	1080	13000	7.40			1	3.07	2	1.99	1	0.34			700	1800	0.48	13.28
31	Varanjaram Tank	825	9800	5.84			1	3.17	2	1.99	1	0.78						11.78
32	Chinnasalem Tank	1300	15900	9.30			1	4.54	3	3.00	2	1.75						18.59
33	Kaniyamoor Tank	1500	18100	10.22			1	3.78	3	3.01	1	0.73						17.74
34	Rayarpalayam Tank	950	11100	6.45	1	0.76			1	1.00	1	0.51						8.72
35	Pethanur Tank	1000	12000	6.78			1	3.57	1	1.00	1	0.66						12.01
36	Ulagiyanallur Tank	1500	17900	10.18			1	4.29	4	3.12	1	0.44						18.03
37	Varathappanur Tank	1000	12200	6.85			1	3.01	1	1.00	1	0.68						11.54
38	Pukkiravari Tank	1400	16700	9.46			1	3.94	3	3.00	2	1.82						18.22
39	Perumangalam Tank	1400	17200	9.75			1	3.47	2	1.99	1	0.84						16.05
40	Kilnarriyappanur Tank	1500	18300	10.36	2	1.32			2	2.00	1	1.89						15.57
41	Rayappanur Tank	1400	10300	5.93	2	1.27			2	2.01	1	0.15						9.36
42	Thenponporappy Tank	1200	9800	5.66	2	1.17			2	2.01	1	0.91			1700	2550	0.7	10.45
43	Poondi Tank	1200	7700	4.90	1	1.22			2	2.01	1	0.24			1700	2600	0.71	9.08
44	Thagamtheerthapuram Tank	1300	10200	5.32	1	0.92			2	2.01	1	1.58			2250	7500	2.14	11.97
45	Thottapadi Tank	1600	13000	7.45	2	1.11			2	2.00	1	0.88			1860	2430	2.98	14.42

46	Kalasamudram Tank	1400	7900	4.90			1	3.52	2	2.01	1	0.17			2250	3000	0.83	11.43
47	Pethasamudram Tank	1000	9500	5.37	2	1.49			2	2.00	2	0.83			3800			9.69
48	Nainarpalayam Tank	1100	13930	7.88			1	3.35	2	2.00	1	0.62			2500	3750	2.55	16.40
49	Anumanandal Tank	500	5200	3.03	1	1.18			2	2.00	1	1.19			1300	1950	0.54	7.94
50	Kural Tank	1000	8300	4.79	1	0.74			1	1.00	1	0.5			2300	4140	1.12	8.15
51	Thattathiripuram Tank	600	3600	2.38	1	0.99			2	2.00	1	0.27			650	1000	1.25	6.89
52	V. Alambalam Tank	1300	10000	5.93	1	1.22			2	2.00	3	2.18			1150	1750	0.48	11.81
53	Krishnapuram Tank	1250	15000	8.53			1	3.47	2	2.00	2	1.12			1660	2100	8.64	23.76
54	Ponneri Tank	1100	9000	5.15	1	0.69			1	1.00	1	0.59			1270	1450	0.41	7.84
55	Madathu Eri	800	6900	3.96	1	0.91			1	1.00	1	1.23			1360	1020	0.32	7.42
56	Karunkuli Tank	1400	13300	7.37	2	1.4			2	2.00	2	1.76						12.53
57	Eriyur Tank	1300	15700	9.22	3	1.74			3	3.01	1	1.04						15.01
58	Karunthalakurichi Tank	1000	12000	6.99	2	1.18			2	2.00	2	0.34			3800	8400	2.28	12.79
59	Asakalathur Tank	2200	22000	12.27	2	1.68			2	2.00	1	1.04						16.99
	Cuddalore District																	0.00
60	S. Naraiyur Tank	2435	18100	10.55			1	2.4	3	3.13	2	3.88			3000		0.01	19.97
61	Arasankudi Tank	788	6800	4.16			2	4.37	3	3.13	1	1.19			2900		0.08	12.93
62	Sirupakkam Tank	2000					2	4.5	4	4.14	1	1.48			3000		0.17	10.29

63	Rettakurichi Tank	2000	7000	4.56			2	4.32	3	3.10	3	5.51			6200		5.85	23.34
64	J. Endal Tank	1800	7600	4.88			1	2.23	2	2.07					3200			9.18
65	Kolavai Tank	1000	7850	4.41	1	0.46			1	1.04					500		0.06	5.97
66	A. Marur Tank	1500	10300	5.91			1	2.25	2	2.08	1	3.31			1500		0.06	13.61
67	Nagar Tank	1170	7300	5.27			1	2.33	3	3.03							4.43	15.06
68	Seppakkam tank	1600	10600	5.98			1	2.15	1	1.01	1	0.81			2490		5.77	15.72
	Total	**8559 3**	**827240**	**477.1 6**	**41**	**33.9 4**	**41**	**126.88**	**12 8**	**127.79**	**80**	**80.7 7**	**0**	**0**	**7574 0**	**8828 0**	**55.8 9**	**902.43**

1.6.2.TANK DETAILS WITH FREE BOARD PROVIDED

NAME OF THE SUB BASIN:
GOMUKHI

Sl.No.	Name of the Tank	Maximum Height of Bund	Free Board		Length of Bund
			Provided Previously	Provided now	
	Villupuram District				
1	Pasungayamangalam Tank	3.10	0.90	1.50	1000
2	Kallakurichi Large Tank	4.00	1.20	1.50	950
3	Kallakurichi Small Tank	3.70	1.10	1.50	825
4	Thenkeeranur Small Tank	3.30	0.90	1.50	1330
5	Tatchur Tank	4.00	1.20	1.50	1600
6	Latchiyam Tank	3.30	1.10	1.50	750
7	Vilambar Tank	3.30	1.10	1.50	1930
8	Niraimathi Tank	3.70	1.10	1.50	1230
9	Kurur Tank	4.20	1.30	1.50	2200
10	Mudiyanur Tank	3.30	1.10	1.50	1500
11	Virugavur Tank	3.30	1.10	1.50	750
12	Nagalur Tank	3.60	1.20	1.50	2000
13	Kanangur Tank	3.40	1.10	1.50	1630
14	Porasakurichi Tank	3.70	1.20	1.50	1080
15	Varanjaram Tank	3.40	1.20	1.50	825
16	Samikulam Tank	3.30	1.10	1.50	400
17	Kadathur Tank	3.90	1.30	1.50	1200
18	Nallathur Tank	3.60	1.20	1.50	1900
19	Kuthiraichandal Tank	3.90	1.30	1.50	1100
20	Karanur Peria Eri	3.90	1.30	1.50	1000
21	Karanur Chitteri	3.90	1.30	1.50	800
22	Vilangthangal Tank	3.60	1.20	1.50	900
23	Varadhapanur	2.40	0.75	1.25	1000

24	Eliyathur Large Tank	3.60	1.00	1.50	1200
25	Eliyathur Small Tank	3.00	1.00	1.50	600
26	Thottiyam Tank	3.90	1.20	1.50	1700
27	Bangaram Tank	2.75	0.75	1.25	900
28	Thengiyanatham Tank	3.30	0.90	1.50	800
29	Thenchettiyandal Tank	4.00	1.20	1.50	1100
30	Namasivayapuram Tank	4.50	1.30	1.50	1000
31	Thagarai Tank	9.50	1.40	1.50	1700
32	Vettiperumalagaram Tank	4.20	1.20	1.50	1200
33	Chinnasalem Tank	5.10	1.40	1.50	1300
34	Kaniyamoor Tank	4.50	1.40	1.50	1500
35	Rayarpalayam Tank	3.90	1.30	1.50	950
36	Pethanur Tank	3.50	1.20	1.50	1000
37	Ulagiyanallur Tank	4.50	1.40	1.50	1500
38	Pukkiravari Tank	3.60	1.20	1.50	1400
39	Perumangalam Tank	3.90	1.30	1.50	1400
40	Kilnarriyappanur Tank	3.90	1.30	1.50	1500
41	Rayappanur Tank	3.90	1.30	1.50	1400
42	Thenponporappy Tank	4.50	1.40	1.50	1200
43	Poondi Tank	3.90	1.30	1.50	1200
44	Thagamtheerthapuram Tank	3.50	1.20	1.50	1300
45	Thottapadi Tank	3.60	1.20	1.50	1600
46	Nainarpalayam Tank	3.50	1.10	1.50	1100
47	Anumanandal Tank	3.30	1.00	1.50	500
48	Kalasamudram Tank	3.30	1.00	1.50	1400
49	Pethasamudram Tank	3.30	1.00	1.50	1000
50	Kural Tank	3.30	1.00	1.50	1000
51	Thattathiripuram Tank	3.00	0.90	1.50	600
52	V. Alambalam Tank	4.20	1.30	1.50	1300
53	Krishnapuram Tank	3.30	1.00	1.50	1250

54	Ponneri Tank	3.25	1.00	1.50	1100
55	Krishanapuram Madathu Eri	3.30	1.00	1.50	800
56	Karunkuli Tank	2.75	0.75	1.25	1400
57	Eriyur Tank	3.90	1.30	1.50	1300
58	Asakalathur Tank	4.20	1.40	1.50	2200
59	Karunthalakurichi Tank	3.30	1.00	1.50	1000
	Cuddalore District				
60	S. Naraiyur Tank	3.50	1.10	1.50	2435
61	Arasankudi Tank	3.25	1.10	1.50	788
62	Sirupakkam Tank	3.10	0.90	1.50	2000
63	Rettakurichi Tank	3.20	1.00	1.50	2000
64	J. Endal Tank	3.40	1.10	1.50	1200
65	Kalavai Tank	3.20	1.00	1.50	1000
66	A. Marur Tank	3.40	1.10	1.50	1500
67	Nagar Tank	3.60	1.20	1.50	1170
68	Seppakkam	3.10	1.00	1.50	1600

Note:-

1) For height of bund up to 3.0 m – Free board is 1.25 m
2) For height of bund more than 3.0 m – Free board is 1.50 m

1.6.3.WRO COST TABLE

NAME OF THE SUB BASIN: GOMUKHI

Sl.No.	Description of work	Quantity		Amount in Lakhs	Remarks
1. Tank Component		-			
1	Standardisation of tank Bund	85593m	827240 m3	477.16	
2	Desilting of Supply Channel	75740m	88280 m3	55.90	
3	Repairs to Sluice		41 Nos.	33.94	
4	Reconstruction of Sluice		41 Nos.	105.75	
5	Field channel in Sluices		128 Nos.	127.79	
6	Repairs to Weir		80 Nos.	80.77	
7	Reconstruction of Weir				
8	Providing measuring device		132 Nos.	21.12	
	Sub Total			902.43	
1. Non Tank Component		-			
1	Improvements to Flood Bank	31 Km.	160098 m3	102.07	
2	Anicut Repairs		41 Nos.	344.42	
3	Improvements to Shutter - Repairs				
4	Providing Shutter - New		9 Nos.	2.00	
5	Desilting supply channel	114240 m	136762 m3	79.13	
	Sub Total			527.62	
	Grand Total			1430.05	
	Environment cell			10.00	
	Ground water			Nil	
	Total			**1440.05**	

1).	**Tank component**	**=**	**902.43**
2).	**Non tank component**	**=**	**527.62**
3)	**Envirionment cell**	**=**	**10.00**
			1440.05

1.6.4.PHYSICAL AND FINANCIAL PROGRAMME

NAME OF THE SUB BASIN : GOMUKHI

Sl.No.	Description of work	I Year(2009-2010)		II Year(2010-2011)		Total	
		Qty	Amt. in Lakhs	Qty	Amt. in Lakhs	Quantity (Component Wise)	Amount in Lakhs
1. Tank Component		-	-	-	-		
1	Standardization of tank bund	400000 m3	230.72	427240 m3	246.44	827240 m3	477.16
2	Desilting of supply channel	42140 m3	26.68	40140 m3	29.22	88280m3	55.90
3	Reconstruction of Sluice	21 Nos	65.00	20 Nos	61.87	41 Nos	126.87
4	Repairs to Sluice	21 Nos	17.4	20 Nos	16.54	41 Nos	33.94
5	Field channel in sluices.	65 Nos.	64.9	63 Nos	62.89	128 Nos	127.79
6	Improvements to weirs	42 Nos	42.66	38 Nos	38.11	80 Nos	80.77
7	Reconstruction of weir						
	Sub total		**447.36**		**455.07**		**902.43**
II	**Non tank component**						
1	Improvements to flood bank	78000 m3	49.73	82098 m3	52.34	160098 m3	102.07
2	Anicut repairs	22 Nos	184.80	20 Nos	159.62	41 Nos	344.42
3	Shutters repairs	0	0	0	0	0	0
4	Shutters New	5 Nos	1.20	4 Nos	0.80	9 Nos	2.00
5	Desilting of supply channel	65000 m3	37.17	71762 m3	41.05	136762 m3	78.22
6	Retaining wall	15 RM	0.46	15 RM	0.45	30 RM	0.91
8	Environmental		5.00		5.00		10.00
	Sub Total		**278.36**		**259.26**		**537.62**

Tank Component	**447.36**	**455.07**	**902.43**
Non tank component	**278.36**	**259.26**	**537.62**
Total	**725.72**	**714.33**	**1440.05**

Name of Work: **Rehabilitation of Anicuts, non system tanks and its supply channels from Vadakkanandal anicut to Emapair anicut under Gomukhi nadhi sub basin in Kallakurichi taluk of Villupuram district.**

PACKAGE NO.I

Sl.No.	Name of tank / Anicut / Reservior	Amount in Lakhs
	Tank Component	
1	Samikulam Tank	8.48
2	Kadathur Tank	12.85
3	Nallathur Tank	20.09
4	Kuthiraichandal Tank	10.71
5	Karanur Peria Eri	10.00
6	Karanur Chitteri	11.56
7	Vilangthangal Tank	8.01
8	Eliyathur Large Tank	10.17
9	Eliyathur Small Tank	7.46
10	Thottiyam Tank	13.36
11	Bangaram Tank	14.00
12	Thengiyanatham Tank	9.38
13	Thenchettiyandal Tank	11.03
14	Namasivayapuram Tank	9.21

15	**Thagarai Tank**	**32.13**
16	**Vettiperumalagaram Tank**	**10.52**
17	**Pasungayamangalam Tank**	**10.37**
	Total	**209.33**
	Non tank Component	
1	**Vadakanandal Anicut**	**27.17**
2	**Somandarkudi Anicut**	**28.48**
3	**Emapair Anicut**	**12.93**
	Total	**68.58**
	Grand Total.	**277.91**
	Total	**277.91**

Name of Work: **Rehabilitation of Anicuts, non system tanks and its supply channels from Kallakurichi anicut to Velakurichi anicut under Gomukhi nadhi sub basin in Kallakurichi taluk of Villupuram district.**

PACKAGE NO.II

Sl.No.	Name of tank / Anicut / Reservior	Amount in Lakhs
	Tank Component	
1	Kallakurichi Large Tank	16.17
2	Kallakurichi Small Tank	11.72
3	Thenkeeranur Small Tank	16.94
4	Tatchur Tank	14.30
5	Latchiyam Tank	10.57
6	Vilambar Tank	20.53
7	Niraimathi Tank	13.29
8	Kurur Tank	18.68
9	Mudiyanur Tank	14.63
10	Virugavur Tank	11.99
11	Nagalur Tank	16.77
12	Kanangur Tank	15.98
13	Porasakurichi Tank	13.28
14	Varanjaram Tank	11.78
	Total	**206.63**

	Non tank Component	
1	Kallakurichi Anicut	**20.18**
2	Thenkeeranur Anicut	**10.76**
3	Neelamangalam Anicut	**9.47**
4	Kurur Anicut	**80.88**
5	Virugavur Anicut	**23.82**
6	Nagalur Anicut	**16.75**
7	Porasakurichi Anicut	**13.18**
8	Velakurichi Anicut	**13.97**
	Total	**189.01**
	Grand total	**395.64**

Name of work :

REHABILITATION OF ANICUT, NON SYSTEM TANKS AND ITS SUPPLY CHANNELS IN MAYURA RIVER UNDER GOMUKHI SUB BASIN IN KALLAKURICHI TALUK OF VILLUPURAM DISTIRICT

PACKAGE NO.III

Sl.No.	Name of tank / Anicut / Reservior	Amount in Lakhs
	Tank Component	
1	Chinnasalem Tank	18.59
2	Kaniyamoor Tank	17.74
3	Rayarpalayam Tank	8.72
4	Pethanur Tank	12.01
5	Ulagiyanallur Tank	18.03
6	Varathappanur Tank	11.54
7	Pukkiravari Tank	18.22
8	Perumangalam Tank	16.05
9	Kilnarriyappanur Tank	15.57
	Total	**136.47**

	Non tank Component	
1	Elavadi Anicut	11.05
2	Kallanatham Anicut	5.00
3	Thimmapuram Anicut	9.72
4	Pandiyankuppam Anicut	7.67
5	Chinnasalem Anicut	7.25
6	Maravanantham Anicut	9.14
7	Theerthapuram Anicut	7.62
8	Kaniyamoor Anicut	7.61
9	Pethanur Anicut	9.97
10	Vepudiyanthangal Anicut	13.94
11	Siruvathur Anicut	10.67
12	Ulagiyanallur Anicut	7.43
13	Varathappanur Anicut	6.50
14	Pukkiravari Anicut	7.77
15	Sirumangalam Anicut	10.55
16	Perumangalam Anicut	7.82
	Total	139.71
	Grand Total	276.18

Name of work :

REHABILITATION OF ANICUT, NON SYSTEM TANKS AND ITS SUPPLY CHANNELS IN THIRUMANIMUKTHA RIVER UNDER GOMUKHI SUB BASIN IN KALLAKURICHI TALUK OF VILLUPURAM DISTIRICT

PACKAGE NO.IV

Sl.No.	Name of tank / Anicut / Reservior	Amount in Lakhs
	Tank Component	
1	Rayappanur Tank	9.36
2	Thenponporappy Tank	10.45
3	Poondi Tank	9.08
4	Thagamtheerthapuram Tank	11.97
5	Thottapadi Tank	14.42
6	Kalasamudram Tank	11.43
7	Pethasamudram Tank	9.69
8	Nainarpalayam Tank	16.40
9	Anumanandal Tank	7.94
10	Kural Tank	8.15
11	Thattathiripuram Tank	6.89
12	V. Alambalam Tank	11.81
13	Krishnapuram Tank	23.76
14	Ponneri Tank	7.84
15	Madathu Eri	7.42
16	Karunkuli Tank	12.53
17	Eriyur Tank	15.01
18	Karunthalakurichi Tank	12.79
19	Asakalathur Tank	16.99
	Total	223.93

	Non tank Component	
1	**Selliyampalayam Anicut**	**9.30**
2	**Rayappanur Anicut**	**7.99**
3	**Thenponporappy Anicut**	**13.10**
4	**Poondi Anicut**	**9.98**
5	**Vasudananur Anicut**	**8.31**
6	**Ammaiyagaram Anicut**	**4.55**
7	**Thottapadi Anicut**	**6.02**
8	**Anumanandal Anicut**	**7.84**
9	**Nainarpalayam Anicut**	**3.40**
10	**Sembakurichi Anicut**	**5.46**
11	**Karunkuli Anicut**	**3.17**
12	**Maruthamalayan Anicut**	**11.16**
13	**Eriyur Anicut**	**7.34**
14	**Asakalathur Anicut**	**16.68**
	Total	**114.30**
	Total	**338.23**

Name of work :

REHABILITATION OF ANICUT, NON SYSTEM TANKS AND ITS SUPPLY CHANNELS IN MAYURA RIVER UNDER GOMUKHI SUB BASIN IN TITATAKUDI & VRITHACHALAM TALUK OF CUDDALORE DISTIRICT

PACKAGE NO.V

Sl.No.	Name of tank / Anicut / Reservior	Amount in Lakhs
	Tank Component	
1	A.Marur Tank	13.61
2	Arasankudi Tank	12.93
3	Kolavai Tank	5.97
4	Rettakurichi Tank	23.34
5	S.Naraiyur Tank	19.97
6	Seppakkam Tank	15.72
7	Sirupakkam Tank	10.29
8	Ja. Endal Tank	9.18
9	Nagar Tank	15.06
	Total	126.07
	Non tank Component	
1	Ja.Endal Anicut	0.85
2	Kattumailur Anicut	15.17
	Total	16.02
	Grand Total	142.09

1.6.7.PACKAGE -1

Calculation of machineries Requirement

NAME OF THE SUB BASIN: GOMUKHI

Hydraulic excavator & 4 Tippers / Lorries for bund earthwork.		12 Hours / Day		
(2 No x 8 loads / hour x 12 Hr x 5 m3 / trip)			960 m3 / Day	
Hydraulic excavator for desilting supply channel.		12 Hours / Day		
(2 No x 20 m3 /hour x 10 Hr)			400 m3 / Day	
For 1 month (25 Working days)		25 x 960 m3	24000 m3 / month	
Total quantity of earth work		**115015+26300 =141315 m^3**		
Working period for earth work		5 month.		
Machineries required for earth work: 1)Tank bund Earthwork = 115015 m3				
2) Supply channel Earthwork = 26300 m3				
1. Hydraulic excavator . ± 0.90 m3/1 m3 - = 2 nos				
2. Hydraulic excavator . ± 0.30 m3/1 m3 - = 2 nos				
2. Tippers / Lorries = 8 nos				
3. Power roller 8- 10 T = 2 nos				
4. Vibratory compactor . (1± 0.90 m width) = 2 nos				
5. Truck mounted Water lorries . . (10000 -15000 litres) = 2 nos				
Mixer machine	2 m3 / Hour	For 7 hours / day		14 m3 / day
Total quantity of concrete		2829 m3		
Mixer machine required		**3** nos for **14** days / months		5 month

PACKAGE NO 1
1.6.8.REQUIREMENT OF EQUIPMENTS AND MATERIALS

NAME OF THE SUB BASIN: GOMUKHI NADHI

PACKAGE NUMBER	EQUIPMENTS REQUIRED IN NUMBERS								MATERIAL REQUIRED					
	Hydraulic excavator +l 0.90 m3/1 m3 -	Hydraulic excavator ± 0.30 m3/1 m3	Tippers / Lorries	Power roller 8- 10 T	Vibratory compactor (1± 0.90 m width)	Truck mounted Water lorries (10000 -15000 litres)	Concrete mixer machine	Concrete vibrator.	Cement IN M.T.	Sand in m3	Steel in M.T.	Metel 40MM. in m3	Metel 20 MM. in m3	RR IN m3
Package - I	2	2	8	2	2	2	3	3	876	1432	85	396	2154	435

PACKAGE - I
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: GOMUKHI NADHI

Name of Work: Rehabilitation of non system tanks under Gomukhi Nadhi Sub Basin in Kallakurichi Taluk of Villupuram District.

Sl.No	Description of Item	Working Months																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
							Rainy season													
1	Earth Work Bund	19500	20500	22500	25500	27015				14000	14100	14200	14115	19500	19600	19800				230330 m^3
2	Earth Work Channel	5000	5200	5500	5500	5100				3200	3250	3300	3300	4300	4400	4455				52505 m^3
3	Earth Work Foundation		500	500	1200	1500				120	1500	1680								7000 m^3
4	Cement Concret 1:4:8		50	175	175	175					167	140								882 m^3
5	PCC 1:3:6		175	150	200	150					175	175	180	171						1376 m^3
6	P.C.C. 1:2:4		250	450	350	25					50	25	25	25						1200 m^3
7	RCC 1:11/2:3		250	300	275	200					200	250	200	200	150	150				2175 m^3
8	Steel					20.00					35.00	35.00	35	25.00	10.00	5.00				165 MT
9	RR Masonry					200					200	200	117	115						832 m^3
10	RSDP												100	22						122 m^2

GOMUKHI SUB BASIN

PACKAGE-I

Sl.No.	Description of work	Total quantity		Milestone-I		Milestone-II		Milestone-III	
1. Tank Component		Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh
1	Standardisation of tank Bund	213700 M^3	128.50	106850 M^3	64.25	53425 M^3	32.13	53425 M^3	32.13
2	Desilting of Supply Channel	20255 M^3	9.00	10125 M^3	4.50	5067 M^3	2.25	5064 M^3	2.25
3	Reconstruction of Sluice	5 Nos	17.04	3 Nos	8.52	1 Nos	4.26	1 Nos	4.26
4	Repairs to Sluice	12 Nos	12.49	6 Nos	6.25	3 Nos	3.12	3 Nos	3.12
5	Field channel in sluices	23 Nos	23.02	12 Nos	11.51	6 Nos	5.76	6 Nos	5.76
6	Improvements to weirs	18 Nos	19.28	9 Nos	9.64	5 Nos	4.82	5 Nos	4.82
7	Reconstruction of weir	- -	-	- -	-	- -	-	- -	-
	Sub total		**209.33**		**104.67**		**52.33**		**52.33**

	Non tank component								
1	Improvements to flood bank	16330	M^3	10.33	8165	M^3	5.17	4082 M^3	2.58	4083 M^3	2.58
2	Anicut repairs	3	Nos	39.18	2	Nos	19.59	1 Nos	9.80	1 Nos	9.80
3	Shutters repairs	-	-	-	-	-	-	- -	-	- -	-
4	Shutters new	9	Nos	2	5	Nos	1.00	2 Nos	0.50	2 Nos	0.50
5	Desilting of Supply Channel	32350	M^3	17.07	16175	Nos	8.54	8087 M^3	4.27	8088 M^3	4.27
6	Retaining wall	-	-	-	-	-	-	- -	-	- -	-
	Sub total			**68.58**			**34.29**		**17.15**		**17.15**

1.6.7.PACKAGE - 2

Calculation of machineries Requirement

NAME OF THE SUB BASIN: GOMUKHI

Hydraulic excavator & 4 Tippers / Lorries for bund earthwork.	12 Hours / Day		
(2 No x 8 loads / hour x 12 Hr x 5 m3 / trip)		960 m3 / Day	
Hydraulic excavator for desilting supply channel.	12 Hours / Day		
(2 No x 20 m3 /hour x 10 Hr)		400 m3 / Day	
For 1 month (25 Working days)	25 x 960 m3	24000 m3 / month	
Total quantity of earth work	**109500+27500 =137000 m^3**		
Working period for earth work	**6 month.**		
Machineries required for earth work: 1)Tank bund Earthwork = 109500 m3			
2) Supply channel Earthwork = 27500 m3			
1. Hydraulic excavator . ± 0.90 m3/1 m3 - = 2 nos			
2. Hydraulic excavator . ± 0.30 m3/1 m3 - = 2 nos			
2. Tippers / Lorries = 8 nos			
3. Power roller 8- 10 T = 2 nos			
4. Vibratory compactor . (1± 0.90 m width) = 2 nos			
5. Truck mounted Water lorries . . (10000 -15000 litres) = 2 nos			
Mixer machine 2 m3 / Hour	For 7 hours / day		14 m3 / day
Total quantity of concrete	3290 m3		
Mixer machine required	**3** nos for **14** days / months		**6 month**

PACKAGE NO 2
1.6.8.REQUIREMENT OF EQUIPMENTS AND MATERIALS

NAME OF THE SUB BASIN: GOMUKHI NADHI

PACKAGE NUMBER	EQUIPMENTS REQUIRED IN NUMBERS								MATERIAL REQUIRED					
	Hydraulic excavator +\- 0.90 m3/1 m3 -	Hydraulic excavator +\- 0.30 m3/1 m3	Tippers / Lorries	Power roller 8- 10 T	Vibratory compactor (1+\- 0.90 m width)	Truck mounted Water lorries (10000 -15000 litres)	Concrete mixer machine	Concrete vibrator.	Cement IN M.T.	Sand in m3	Steel in M.T.	Metel 40MM. in m3	Metel 20 MM. in m3	RR IN m3
Package - II	2	2	8	2	2	2	3	3	995	1670	87	347	2614	701

PACKAGE - II

1.6.9.Construction Methodology

NAME OF THE SUB BASIN: GOMUKHI NADHI

Name of Work: Rehabilitation of non system tanks under Gomukhi Nadhi Sub Basin in Kallakurichi Taluk of Villupuram District.

Sl.No	Description of Item	Working Months																			
		1	2	3	4	5	6	7	8	9		10	11	12	13	14	15	16	17	18	Total
							Rainy season														
1	Earth Work Bund	18200	18500	18200	18200	18200				18200	**109500**	10900	10900	11100	11000	11100	13800	13500	13700	13647	328647 m^3
2	Earth Work Channel	4600	4500	4400	4600	4700				4700	**27500**	2800	2700	2600	2800	2800	3400	3500	3600	3337	82537 m^3
3	Earth Work Foundation	2100	2000	2100	2000	2100				2000	**12300**	1200	1200	1300	1200	1200	1500	1600	1700	1400	36900 m^3
4	Cement Concret 1:4:8	64	65	66	64	63				64	**386**	38	39	37	38	40	48	46	45	53	1156 m^3
	P.C.C. 1:2:4	81	82	83	81	84				82	**493**	49	47	46	49	50	61	60	62	63	1473 m^3
5	PCC 1:3:6	206	210	208	207	204				210	**1245**	123	125	127	126	125	155	153	154	141	3719 m^3
6	RCC 1:11/2:3	195	193	196	194	195				193	**1166**	115	117	120	119	117	143	143	145	117	3468 m^3
7	Steel	15	16	13	14	15				15	**88**	9	10	11	10	9.00	11.00	12	14	5	267 **MT**
8	RR Masonry	92	91	93	94	95				93	**558**	55	54	52	51	55	69	71	68	67	1658 m^3
9	RSDP	47	48	49	47	49				50	**290**	28	29	30	28	27	35	34	36	33	860 m^2

GOMUKHI SUB BASIN

PACKAGE-II

Sl.No.	Description of work	Total Qty		Milestone-I		Milestone-II		Milestone-III	
1. Tank Component		Qty	**Amount**	Qty	**Amount**	Qty	**Amount**	Qty	**Amount**
-	-		Rs in Lakh		Rs in Lakh		Rs in Lakh		Rs in Lakh
1	Standardisation of tank Bund	195260 M^3	106.54	97600 M^3	53.27	48830 M^3	26.64	48830 M^3	26.64
2	Desilting of Supply Channel	24385 M^3	5.51	12174 M^3	2.76	6105 M^3	1.38	6106 M^3	1.38
3	Reconstruction of Sluice	15 Nos	48.35	8 Nos	24.18	4 Nos	12.09	4 Nos	12.09
4	Repairs to Sluice	0 Nos	0.00	0 Nos	0.00	0 Nos	0.00	0 Nos	0.00
5	Field channel in sluices	27 Nos	26.88	14 Nos	13.44	7 Nos	6.72	7 Nos	6.72
6	Improvements to weirs	17 Nos	19.35	9 Nos	9.68	4 Nos	4.84	4 Nos	4.84
7	Reconstruction of weir	- -	-	- -	-	- -	-	- -	-
	Sub total		**206.63**		**103.32**		**51.66**		**51.66**

	Non tank component								
1	Improvements to flood bank	23887 M^3	14.97	11900 M^3	7.49	5993 M^3	3.74	5994 M^3	3.74
2	Anicut repairs	8 Nos	150.48	4 Nos	75.24	2 Nos	37.62	2 Nos	37.62
3	Shutters repairs	- -	-	- -	-	- -	-	- -	-
4	Shutters new	- -	-	- -	-	- -	-	- -	-
5	Desilting of Supply Channel	30652 M^3	23.56	15326 Nos	11.78	7663 Nos	5.89	7663 Nos	5.89
6	Retaining wall	- -	-	- -	-	- -	-	- -	-
	Sub total		**189.01**		**94.51**		**47.25**		**47.25**

1.6.7.PACKAGE -3
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GOMUKHI

Hydraulic excavator & 4 Tippers / Lorries		8 Hours / Day		
(10 No x 4 loads / hour x 8 Hr x 4 m3 / trip)			1280 m3 / Day	
For 1 month (20 Working days)		20 x 1280 m3	25600 m3 / month	
Total quantity of earth work		26900 m^3		
Working period for earth work		11 months + 3 Months rainy season		
Machineries required for earth work:		**269000 m3**		
1. Hydraulic excavator - 10nos				
2. Tippers / Lorries - 40 nos				
3. Power roller - 10 nos				
4. Vibrated compactor - 10 nos				
5. Water lorries - 10 nos				
Mixer machine	2 m3 / Hour	For 6 hours / day		12 m3 / day
Total quantity of concrete		2300 m3		
Mixer machine required		2 nos for 10 days / months		8 month
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m3 / Trip	2 trips / day		11.32m3 / day
Metal / stone	5.60 m3 / Trip	3 trips / day		16.80 m3 / day
Total quantity of cement		703 MT		
Lorry required for conveyence		703/10		71 Lorries
Total quantity of sand		1035 m3		
Lorry required for conveyence		1035 / 11.20		92 Lorries
Total quantity of metal		2070 m3		
Lorry required for conveyence		2070/16.8		124 Lorries
Total quantity of stone		1870 m3		
Lorry required for conveyence		1870/16.8		112 Lorries
Tipper / Lorry for conveyence of materials		5 Nos for 20 days for 8months		

PACKAGE NO 3
1.6.8.REQUIREMENT OF EQUIPMENTS AND MATERIALS

NAME OF THE SUB BASIN: GOMUKHI NADHI

PACKAGE NUMBER	EQUIPMENTS REQUIRED IN NUMBERS								MATERIAL REQUIRED					
	Hydraulic excavator +I 0.90 m3/1 m3 -	Hydraulic excavator ± 0.30 m3/1 m3	Tippers / Lorries	Power roller 8- 10 T	Vibratory compactor (1± 0.90 m width)	Truck mounted Water lorries (10000 -15000 litres)	Concrete mixer machine	Concrete vibrator.	Cement IN M.T.	Sand in m3	Steel in M.T.	Metel 40MM. in m3	Metel 20 MM. in m3	RR IN m3
Package - III	2	2	8	2	2	2	2	2	513	862	104	202	1313	389

PACKAGE - III

1.6.9.Construction Methodology

NAME OF THE SUB BASIN:
GOMUKHI NADHI

Name of Work: Rehabilitation of non system tanks under Gomukhi Nadhi Sub Basin in Kallakurichi Taluk of Villupuram District.

Sl.No	Description of Item	Working Months																			
		1	2	3	4	5	6	7	8	9		10	11	12	13	14	15	16	17	18	Total
							Rainy season														
1	Earth Work Bund	18700	18600	18600	18700	18800				18800	**112200**	11500	11400	11200	11600	11700	15000	16000	13000	10741	336541 m^3
2	Earth Work Channel	2900	3000	2800	3000	2900				2900	**17500**	2200	2100	2300	2100	2300	1700	1500	1700	1660	52560 m^3
3	Earth Work Foundation	700	800	700	700	800				800	**4500**	600	500	700	600	500	600	500	400	100	13500 m^3
4	Cement Concret 1:4:8	37	38	39	35	37				38	**224**	25	27	24	22	23	25	26	24	20	664 m^3
5	PCC 1:3:6	32	33	31	30	33				32	**191**	24	23	25	26	28	20	16	18	9	571 m^3
6	PCC 1:2:4	101	103	105	103	102				101	**615**	76	80	80	73	75	61	63	64	35	1837 m^3
7	RCC 1:11/2:3	109	111	110	108	106				109	**653**	73	75	74	69	60	62	63	58	51	1891 m^3
8	Steel	15	17	19	20	18				15	**104**	11	10	8	11	10	9	7	9	6	289 MT
9	RR Masonry	52	54	53	50	51				49	**309**	39	40	35	37	35	30	25	33	17	909 m^3
10	RSDP	93	92	90	91	92				95	**553**	69	70	68	68	65	55	50	53	49	1653 m^2

GOMUKHI SUB BASIN

PACKAGE-III

Value of work Rs.
DURATION:15 Months including rainy season

Sl.No.	Description of work	Total Qty		Milestone-I		Milestone-II		Milestone-III	
1. Tank Component		Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh
-	-								
1	Standardisation of tank Bund	139400 M^3	79.35	69700 M^3	39.68	34850 M^3	19.84	34850 M^3	19.84
2	Desilting of Supply Channel	- -	-	- -	-	- -	-	- -	-
3	Reconstruction of Sluice	7 Nos	26.60	4 Nos	13.30	2 Nos	6.65	2 Nos	6.65
4	Repairs to Sluice	3 2	2.08	2 Nos	1.04	1 Nos	0.52	1 Nos	0.52
5	Field channel in sluices	20 Nos	19.12	10 Nos	9.56	5 Nos	4.78	5 Nos	4.78
6	Improvements to weirs	11 Nos	9.32	6 Nos	4.66	3 Nos	2.33	3 Nos	2.33
7	Reconstruction of weir	- -	-	- -	-	- -	-	- -	-
	Sub total		**136.47**		**68.24**		**34.12**		**34.12**
	Non tank component								

1	Improvements to flood bank	84941	M^3	54.22	42500	M^3	27.11	21220	M^3	13.56	21221	M^3	13.56
2	Anicut repairs	16	Nos	72.27	8	Nos	36.14	4	Nos	18.07	4	Nos	18.07
3	Shutters repairs	-	-	-	-	-	-	-	-	-	-	-	-
4	Shutters new	-	-	-	-	-	-	-	-	-	-	-	-
5	Desilting of Supply Channel	35060	M^3	13.22	17500	Nos	6.61	8765	M^3	3.31	8765	M^3	3.31
6	Retaining wall	-	-	-	-	-	-	-	-	-	-	-	-
	Sub total			**139.71**			**69.86**			**34.93**			**34.93**

1.6.7.PACKAGE -4
Calculation of machineries Requirement

NAME OF THE SUB BASIN: GOMUKHI

Hydraulic excavator & 4 Tippers / Lorries		8 Hours / Day		
(11 No x 4 loads / hour x 8 Hr x 4 m3 / trip)			1408 m3 / Day	
For 1 month (20 Working days)		20 x 14080m3	28160 m3 / month	
Total quantity of earth work		261600 m^3		
Working period for earth work		11 months + 3 Months rainy season		
Machineries required for earth work:		**261600 m3**		
1. Hydraulic excavator - 11 nos				
2. Tippers / Lorries - 44 nos				
3. Power roller - 11 nos				
4. Vibrated compactor - 11 nos				
5. Water lorries - 11 nos				
Mixer machine	2 m3 / Hour	For 6 hours / day		12 m3 / day
Total quantity of concrete		2970 m3		
Mixer machine required		3 nos for 14 days / months		6 month
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m3 / Trip	2 trips / day		11.32m3 / day
Metal / stone	5.60 m3 / Trip	3 trips / day		16.80 m3 / day
Total quantity of cement		820 MT		
Lorry required for conveyence		820/10		82 Lorries
Total quantity of sand		1337 m3		
Lorry required for conveyence		1337 / 11.20		118 Lorries
Total quantity of metal		2675 m3		
Lorry required for conveyence		2675/16.8		159 Lorries
Total quantity of stone		1991 m3		
Lorry required for conveyence		1991/16.8		119 Lorries
Tipper / Lorry for conveyence of materials		5 Nos for 20 days for 8months		

PACKAGE NO 4
1.6.8.REQUIREMENT OF EQUIPMENTS AND MATERIALS

NAME OF THE SUB BASIN: GOMUKHI

PACKAGE NUMBER	EQUIPMENTS REQUIRED IN NUMBERS								MATERIAL REQUIRED					
	Hydraulic excavator ± 0.90 m3/1 m3 -	Hydraulic excavator ± 0.30 m3/1 m3	Tippers / Lorries	Power roller 8- 10 T	Vibratory compactor (1± 0.90 m width)	Truck mounted Water lorries (10000 -15000 litres)	Concrete mixer machine	Concrete vibrator.	Cement IN M.T.	Sand in m3	Steel in M.T.	Metel 40MM. in m3	Metel 20 MM. in m3	RR IN m3
Package - IV	2	2	8	2	2	2	4	4	1537	2262	285	265	3953	666

1.6.9.Construction Methodology

NAME OF THE SUB BASIN: GOMUKHI
NADHI

Name of Work: Rehabilitation of non system tanks under Gomukhi Nadhi Sub Basin in Kallakurichi Taluk of Villupuram District.

Sl. No	Description of Item	Working Months																			
		1	2	3	4	5	6	7	8	9		10	11	12	13	14	15	16	17	18	Total
							Rainy season														
1	Earth Work Bund	19800	19900	20000	19700	19800				19700	**118900**	14900	15000	14800	14900	14800	11900	12000	11800	9270	238270 m^3
2	Earth Work Supply Channel	5900	5800	5700	6000	5800				5800	**35000**	4400	4300	4500	4400	4300	3500	3600	3500	2740	70240 m^3
3	Earth Work Foundation	400	450	500	480	460				450	**2740**	300	340	350	310	300	290	270	250	50	5200 m^3
4	Cement Concret 1:4:8	50	49	48	47	51				49	**294**	38	39	41	36	35	32	30	31	24	600 m^3
5	PCC 1:3:6 Plain	88	87	85	84	86				85	**515**	70	68	69	65	64	55	58	51	45	1060 m^3
6	P.C.C. 1:2:4	272	270	268	273	275				271	**1629**	200	210	210	235	215	169	161	160	63	3252 m^3
7	RCC 1:11/2:3	380	375	376	374	372				371	**2248**	282	280	278	271	279	220	249	215	190	4512 m^3
8	Steel	48	49	50	47	46				45	**285**	39	37	36	35	37	35	29	28	22	583 MT
9	RR Masonry	75	76	73	75	78				75	**452**	56	55	54	52	51	46	48	41	35	890 m^3
10	RSDP	78	80	79	81	77				75	**470**	58	60	57	54	53	46	40	43	39	920 m^3

GOMUKHI SUB BASIN

PACKAGE-IV

Sl.No.	Description of work	Total Qty		Milestone-I		Milestone-II		Milestone-III	
1. Tank Component		Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
-	-		Rs in Lakh		Rs in Lakh		Rs in Lakh		Rs in Lakh
1	Standardisation of tank Bund	203330 M^3	117.03	101430 M^3	58.52	50950 M^3	29.26	50950 M^3	29.26
2	Desilting of Supply Channel	43640 M^3	24.95	21700 M^3	12.48	10970 M^3	6.24	10970 M^3	6.24
3	Reconstruction of Sluice	3 Nos	10.34	2 Nos	5.17	1 Nos	2.59	1 Nos	2.59
4	Repairs to Sluice	25 Nos	18.91	13 Nos	9.46	6 Nos	4.73	6 Nos	4.73
5	Field channel in sluices	36 Nos	36.06	18 Nos	18.03	9 Nos	9.02	9 Nos	9.02
6	Improvements to weirs	25 Nos	16.64	13 Nos	8.32	6 Nos	4.16	6 Nos	4.16
7	Reconstruction of weir	- -	-	- -	-	- -	-	- -	-
	Sub total		**223.93**		**111.97**		**55.98**		**55.98**

	Non tank component								
1	Improvements to flood bank	34940 M^3	22.55	17470 M^3	11.28	8735 M^3	5.64	8735 M^3	5.64
2	Anicut repairs	14 Nos	69.87	7 Nos	34.94	4 Nos	17.47	4 Nos	17.47
3	Shutters repairs	- -	-	- -	-	- -	-	- -	-
4	Shutters new	- -	-	- -	-	- -	-	- -	-
5	Desilting of Supply Channel	26600 M^3	20.97	13300 Nos	10.49	6650 M^3	5.24	6650 M^3	5.24
6	Retaining wall	30 RM	0.91	15 Nos	0.46	8 RM	0.23	8 RM	0.23
	Sub total		**114.30**		**57.15**		**28.58**		**28.58**

1.6.7.PACKAGE -5

Calculation of machineries Requirement

NAME OF THE SUB BASIN: GOMUKHI

Hydraulic excavator & 4 Tippers / Lorries		8 Hours / Day		
(6 No x 4 loads / hour x 8 Hr x 4 m3 / trip)			768 m3 / Day	
For 1 month (20 Working days)		20 x 768 m3	15360 m3 / month	
Total quantity of earth work		92300 m^3		
Working period for earth work		6 months + 3 Months rainy season		
Machineries required for earth work:		**92300 m3**		
1. Hydraulic excavator - 6 nos				
2. Tippers / Lorries - 24 nos				
3. Power roller - 6 nos				
4. Vibrated compactor - 6 nos				
5. Water lorries - 6 nos				
Mixer machine	2 m3 / Hour	For 6 hours / day		12 m3 / day
Total quantity of concrete		1390 m3		
Mixer machine required		2 nos for 10 days / months		6 month
Material conveyence		**Tippers / Lorries**		
Cement	10 mt / Trip	1 trip / day		10 mt / day
Sand	5.66 m3 / Trip	2 trips / day		11.32m3 / day
Metal / stone	5.60 m3 / Trip	3 trips / day		16.80 m3 / day
Total quantity of cement		426 MT		
Lorry required for conveyence		426/10		43 Lorries
Total quantity of sand		626 m3		
Lorry required for conveyence		626 / 11.20		55 Lorries
Total quantity of metal		1255 m3		
Lorry required for conveyence		1255/16.8		75 Lorries
Total quantity of stone		300 m3		
Lorry required for conveyence		300/16.8		18 Lorries
Tipper / Lorry for conveyence of materials		2 Nos for 20 days for 8months		

PACKAGE NO 5
1.6.8.REQUIREMENT OF EQUIPMENTS AND MATERIALS

NAME OF THE SUB BASIN: GOMUKHI

PACKAGE NUMBER	EQUIPMENTS REQUIRED IN NUMBERS							MATERIAL REQUIRED						
	Hydraulic excavator ± 0.90 m3/1 m3 -	Hydraulic excavator ± 0.30 m3/1 m3	Tippers / Lorries	Power roller 8- 10 T	Vibratory compactor (1± 0.90 m width)	Truck mounted Water lorries (10000 -15000 litres)	Concrete mixer machine	Concrete vibrator.	Cement IN M.T.	Sand in m3	Steel in M.T.	Metel 40MM. in m3	Metel 20 MM. in m3	RR IN m3
Package - V	1	1	4	1	1	1	2	2	179	536	53	129	869	38

PACKAGE - V
1.6.9.Construction Methodology

NAME OF THE SUB BASIN: GOMUKHI NADHI

Name of Work: Rehabilitation of non system tanks under Gomukhi Nadhi Sub Basin in Kallakurichi Taluk of Villupuram District.

Sl.No	Description of Item	Working Months																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
							Rainy season													
1	Earth Work Bund	10000	14000	17000	18000	17000														76000 m^3
2	Earth Work Supply Channel	15000	15000	15000	15000	12100														72100 m^3
3	Earth Work Foundation	1200	1100	1500	400															4200 m^3
4	Cement Concret 1:4:8	100	100	50	50															300 m^3
5	PCC 1:3:6 Plain			75	75	85				60	80	55								430 m^3
6	RCC 1:11/2:3				100	120				140	150	150								660 m^3
7	Steel			10	8	10														28.00 m^3
8	RR Masonry				5	10				10	20	25								70 m^3
9	RSDP					50				50	50	50								200 m^3

GOMUKHI SUB BASIN

PACKAGE-V

Value of work Rs.

DURATION:15 Months including rainy season

Sl.No.	Description of work	Total Qty		Milestone-I		Milestone-II		Milestone-III	
1. Tank Component		Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh	Qty	Amount Rs in Lakh
1	Standardisation of tank Bund	75550 M^3	45.72	37900 M^3	22.86	18825 M^3	11.43	18825 M^3	11.43
2	Desilting of Supply Channel (Retaining wall)	133 RM	16.43	67 RM	8.22	33 RM	4.11	33 RM	4.11
3	Reconstruction of Sluice	11 Nos	24.55	6 Nos	12.28	3 Nos	6.14	3 Nos	6.14
4	Repairs to Sluice	1 Nos	0.46	1 Nos	0.23	0 Nos	0.12	0 Nos	0.12
5	Field channel in sluices	22 Nos	22.73	11 Nos	11.37	6 Nos	5.68	6 Nos	5.68
6	Improvements to weirs	9 Nos	16.18	5 Nos	8.09	2 Nos	4.05	2 Nos	4.05
7	Reconstruction of weir	- -	-	- -	-	- -	-	- -	-
	Sub total		**126.07**		**63.04**		**31.52**		**31.52**

	Non tank component								
1	Improvements to flood bank	- -	-	- -	-	- -	-	- -	-
2	Anicut repairs	2 Nos	12.62	1 Nos	6.31	1 Nos	3.16	1 Nos	3.16
3	Shutters repairs	- -	-	- -	-	- -	-	- -	-
4	Shutters new	- -	-	- -	-	- -	-	- -	-
5	Desilting of Supply Channel	12100 M^3	3.4	6050 M^3	1.70	3025 M^3	0.85	3025 M^3	0.85
6	Retaining wall	- -	-	- -	-	- -	-	- -	-
	Sub total		**16.02**		**8.01**		**4.01**		**4.01**

Description of Items

Sl. No.	Description of Items
1	Clearing Scrub jungle complete as per standard specifications.
2	Dismantling, with out damaging the near by structures if any clearing away and carefully stacking material useful for reuse for any thickness of brick or stone masonry in Cement Mortar walls under 3 (Three) meters high complying with standard specification and as directed by the Engineer..
3	Dismantling with out damaging the near by structures if any ,clearing away plain cement concrete as directed by the Engineer in charge of the works as per technical Specification and as directed by the Engineer..
4	Earth work excavation in all kind of soils except rock requiring blasting for open excavation and depositing the earth in places shown by the engineer with all leads and lifts including dewatering by baling , pumping, diverting water wherever necessary and spreading the earth at site in layers not exceeding 250 mm thickness breaking clods neat sectioning etc. including watering as desired by the engineer in charge based on the work for cut open the bund
5	Earthwork excavation for foundation in all soils and depositing on bank inclusive of shoring, strutting and bailing out water wherever necessary, well rammed, consolidated and depositing the surplus earth in places as shown by the departmental officers with an initial lead of 10 (Ten) metres and initial lift of 2 (Two) metres and clearing, leveling the site complete as per standard specifications.
6	Earthwork in all soils except hard rock requiring blasting and conveying for formation of bund with lead of **0 to 300 metre** deploying earth moving machinery and tippers for formation of bund in layers of suitable thickness, depending upon type of compaction equipment deployed, and not exceeding 23 cm thickness, benching of slopes prior to placement of earth fill, breaking clods, watering to OMC (optimum moisture content) and compaction of each layer to 95% Proctor density through deployment of appropriate compaction equipment (8-10 T power roller / vibratory deployment of appropriate width (+ 0.90 m width drum) power roller or vibratory power roller / fuel-operated or elect – operated vibratory plate compactors, ensuring compaction of designed bund section including side slopes, complete as per specification.
7	Earthwork deploying earth moving machinery for de-silting channels, depositing earth on banks for forming bund , well consolidated and dressed, including sectioning and jungle clearance etc. complete. (**having width upto 3 m)** complying with the standard specification
8	Turfing in slopes of bund including watering and fixing with a lead of up to 3 KMCT complete as per standard specifications.
9	Providing and placing in Position of Cement concrete M7.5 grade with well graded aggregates and the nominal maximum size of coarse aggregate of 40 mm mixing by mixer machine including dewatering by bailing/pumping wherever necessary laying the concrete in layers and in bays with all leads and lifts , compacting and finishing the surface watering curing, so as to attain the profile and strength specified in the drawings for various depths below ground level and various heights above ground level as per the direction of the Engineer and complying with standard specification
10	Reinforced Cement concrete M20 grade for Cement Concrete works with well graded hard aggregates and the nominal maximum of coarse aggregate of 20 mm gauge weigh batching the ingredients and mixing in approved mixers/batching plant (to produce concrete of the specified characteristic strength of 20N/mm^2 at 28days) including dewatering of placement site by bailing/pumping and by diverting wherever necessary

Sl. No.	Description of Items
	laying the concrete in layers and in bays, compacting and finishing the surface water curing so as to attain the profile and strength specified in the approved drawing and specification and including the cost component of providing rigid and smooth centering and shuttering wherever necessary but excluding cost component of providing fabrication of reinforcements for various depths below ground level and various heights above ground level as per the direction of the Engineer complete in all respect but excluding the cost and placing of reinforced grill in position complying with standard specification
11	Supplying, fabricating & placing in position of ribbed tor steel grills for Reinforcement of RCC works including cost of steel and binding wire and labour charges for de-coiling, cutting, bending and tying the grills complete as per standard specifications.
12	Providing cut stone roughly dressed and set in cement mortar 1:3 (one cement and three sand) including fixing in position etc complete as directed by the Engineer in charge of work complying with the standard specification
13	Random rubble masonry in cement mortar 1:4 (one cement and four sand)mixed using mixer machine using new hard rough stone bond stones for various depth and height below and above ground level with all leads and lifts including simultaneous flush pointing the exposed surface with same mortar and withal incidental charges such as scaffolding and dewatering by baling pumping and diverting water wherever required water wherever required finishing curing complete so as to attain the profile and strength in the drawing and specification including providing shrinkage ,construction joint for closing the days work at intervals specified wherever required and as directed by the Engineer complete complying with specification
14	Plastering with Cement Mortar 1:4 (One cement and four sand) 20mm thick including all incidental chares such as scaffolding finishing curing for various depth and height below and above ground level etc complete as directed by the Engineer in charge of work complying with the standard specification
15	Refilling with excavated earth (other than sand) available at site with all leads and lifts for filling the cut open portion wherever necessary including breaking clods sectioning etc. including extra watering and compaction of Earth Fill layers earth fill layers to specified density of 95% of proctor density through deployment of appropriate compaction equipment as directed by the Engineers and complying with standard specification
16	Rough stone dry packing for apron and revetment using new hard granite stone including stacking the stones for Pre-measurements complying with standard specification.
17	Supplying demarcation R.C.C. pre cast post in Cement concrete M15 grade with well graded aggregates and the nominal maximum size of coarse aggregate of size 20 mm of size 0.20 x 0.20 x 1.30 M and fixing the post 40 Cm depth below ground level, the post includes using 4 numbers of 8 mm RTS main rod to a length of 1.325 M, using 6 mm MS 9 numbers as strips with steel centering and painting the post with enamel paint to a height of 0.80 M around the post etc. complete and conveying the post to the site of demarcation boundary such as tank bund and foreshore including earth work excavation for foundation in HSC, and the post embedded by using Cement concrete M7.5 grade with well graded aggregates and the nominal maximum size of coarse aggregate of 40 mm, as per the direction of the Engineers and complying with standard specification

Sl. No.	Description of Items
18	Supplying and fixing of 'V' notch made up of steel plate of 6 mm thick and fixing it in concrete of grade M-10 using 20 mm grade metal to IS specified to the profile specified in the drawing including the cost of earthwork and all materials etc. complete as per the direction of the Engineers and complying with standard specification for Measuring device.
19	Fabricating, supplying and fixing of steel screw gearing shutters of following sizes made out of 75 x 40 mm M.S. Medium Channel for outer frame with same section of vertical stiffeners 3 Nos. with 10mm skin plate. The grooves 2 Nos. to a required height made out of 100 x 50 mm M.S. Channel with hold fast arrangements. The Top Beam to be made out of 200 x 100mm R.S. joists 2 Nos. to a width of shutter plus 0.60mm to a width of shutter plus 0.30M for bearing. Screw Gearing arrangements to be made using 80mm dia M.S. shaft to a required height duly threaded with capstain head arrangements [heavy type] with ball bearing arrangements suitable to operate the screw gearing rod with operating key. Necessary bed bolts and fish plates to be provided for anchorage arrangements to place the R.S.Joist in position. All the components to be painted with two coats of A.C. Black paint over one coat of quality red oxide (for Weir and Sluices) for the size of shutter 1.00 m X 1.00m.
20	Providing and placing in Position of Cement concrete of grade M10 using well graded aggregates and with maximum nominal size of 20mm to I.S. specified grading mixing in mixer machine (to produce concrete of the specified characteristic strength of 10N/mm2 at 28 days) including dewatering the placement site laying Vibrating, compacting and finishing the surface with all leads and lifts watering, curing complete so as to attain the profile and strength specified in the drawing and specification for various height above ground level complete as directed by the Engineer complying with standard specification..
21	Cement concrete M15 grade with well graded aggregates and the nominal maximum size of coarse aggregate of size 20mm weigh batching the ingredients and mixing in approved mixers/batching plant (to produce concrete of the specified characteristic strength of 15N/mm^2 at 28days) including dewatering the placement site by bailing/pumping and by diverting wherever necessary laying the concrete in layers and in bays vibrating, compacting and finishing the surface water curing so as to attain the profile and strength specified in the approved drawing and specification and including the cost component of providing rigid and smooth centering and shuttering wherever necessary various heights above and below ground level and as per the direction of the Engineers complying with standard specification.
22	Earthwork in all soils except hard rock requiring blasting and conveying for formation of bund with lead of **0 to 100 metre** deploying earth moving machinery and tippers for formation of bund in layers of suitable thickness, depending upon type of compaction equipment deployed, and not exceeding 23 cm thickness, benching of slopes prior to placement of earth fill, breaking clods, watering to OMC (optimum moisture content) and compaction of each layer to 95% Proctor density through deployment of appropriate compaction equipment (8-10 T power roller / vibratory deployment of appropriate width (+ 0.90 m width drum) power roller or vibratory power roller / fuel-operated or elect – operated vibratory plate compactors, ensuring compaction of designed bund section including side slopes, complete as per specification for forming foreshore bund.
23	Earth work excavating and depositing on bank with a lead of 10 m & initial lift of 2 m in Hard stiff clay, stiff black cotton, hard red earth, shales, murram, gravel, stoney earth and earth mixed with small size of boulders hard gravelly soil with a lead of 0 to 3 KM CT, complying with standard specification and as directed by the departmental officers, complete including extra watering and compaction of earth fill layers to specified

Sl. No.	Description of Items
	density of 95% of proctor density @ OMC through deployment of appropriate compaction equipment including trimming the side slope for side compaction t (standard 8-10 ton power roller; short width drum vibratory power roller; vibratory power roller; fuel-operated vibratory plate compactor of adequate capacity, as per space available for compaction) for forming flood bank.
24	Cement concrete M20 grade with well graded aggregates and the nominal maximum size of coarse aggregate of size 20mm weigh batching the ingredients and mixing in approved mixers/batching plant (to produce concrete of the specified characteristic strength of 15N/mm^2 at 28days) including dewatering the placement site by bailing/pumping and by diverting wherever necessary laying the concrete in layers and in bays vibrating, compacting and finishing the surface water curing so as to attain the profile and strength specified in the approved drawing and specification and including the cost component of providing rigid and smooth centering and shuttering wherever necessary various heights above and below ground level and as per the direction of the Engineers complying with standard specification.
25	Pointing with cement mortar 1:3(one cement and three sand) for flush pointing in Random rubble masonry using mixer machine for mixing water complying with standard specification.
26	Fabricating and supply of Teak wood plug size of 60 cm height . The plug rod with 63 mm mild steel rod size of 5 m height.The plug rod top side , middle, center and bottom side covered iron stap – 3 nos. Plate thickness size 3mm steel plate . The plug hold size 12 cm to 15 cm Dia. The plug rod fittings top side 2 numbers 200 X 100 mm channel total length of 1.80 metre -2 nos. and anchor bolt with plate 2 sets and the headset with thrust bearing type with Hexagonal nuts one set, with locking arrangements key one number the plug painted and conveyance to the work site including loading, unloading . (The rates should be inclusive of all taxes and duties and including fixing charges etc., complete complying specification and ad directed by the Engineer.)
27	Centering and sofitts of Reinforced concrete slabs plain surface including structing upto 3m height M.S sheet of size 90 cm x 60cm and B.G 10 Gauge screws with welding M.S Angle of size 25mm x 25mm lide over silver oad (country wood) joist of size 6.5cm spaced at about 90cm c/c and supported casurnia poles of 10cm to 13cm dia. Complying with standard specification.
28	Supplying and fixing of TBL stones and B.M. stones the exposed surface neatly dressed to a height of 15 cm including cutting letters 10x10x25 cm.as directed by the departmental officers.
29	Clean removal of lime plaster from walls and racking out joints 20 mm deep and Plastering with cement Mortar 1:4 (One cement and four sand) 20 mm thickness etc., complete complying with standard specification.

PACKAGE DETAILS

Sl. No.	Package Nos.	Name of the Package	Package Amount in Lakhs.
1	PACKAGE NO.I IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicuts, Non system tanks and its supply channels from Vadakkanadal Anicut to Empair Anicut under Gomukhi sub basin in Kallakurichi taluk of Villupuram District.	277.91
2	PACKAGE NO.II IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicuts, Non system tanks and its supply channels from Kallakurichi anicut to Vellakurichi anicut under Gomukhi sub basin in Kallakurichi taluk of Villupuram District.	395.64
3	PACKAGE NO.III IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicut, Non system tanks and its supply channels in Mayura river under Gomukhi sub basin in Kallakurichi taluk of Villupuram District.	276.18
4	PACKAGE NO.IV IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicuts, Non system tanks and its supply channels in Thirumanimuktha river under Gomukhi sub basin in Kallakurichi taluk of Villupuram District.	338.23
5	PACKAGE NO.V IAMWARM/WRD/ GMN/WORKS/ III 2009 - 2010	Rehabilitation of Anicuts Non system tanks and its supply channels in Mayura river under Gomukhi sub basin in Tittakudi and Vrsithachalam taluk of Cuddalore District.	142.09
		Environment cell	10.00
		Sub total	**1440.05**

1.7 ENVIRONMENTAL CELL

IAMWARM PROJECT

ENVIRONMENTAL ACTIVITIES IN GOMUKHI NADHI SUB BASIN OF VELLAR RIVER BASIN

Sl.No.	Description of Work	No	Measurement			Contents
			L	B	D	
1	**Environments Social Monitoring of River Basin including peroidical water and soil quality testing and documentation.**					
1	Collection and testing of water samples and soil samples.					
a)	Water samples from river in one location collected once in Three months in a year for a period of Three Years 3x1x4 = 12 Nos.					
b)	Soil samples collected near tanks 5 Nos once in a year for period of Three years = 5x1x3 = 15 Nos.					
c)	Testing charges for water samples (Rivers)	12				12 Nos
d)	Testing charges for soil samples from polluted sit (tanks and wells)	15				15 Nos
e)	Hiring Jeep driver on service contract basis fro the Dept Vehicle	1 No	3 x 2 = 6 Monts			6 Months
f)	Collection and conveyance charges including all purchases like cans, bottles, chemicals etc.,	Ls				Ls
II	**Environments Social Knowledge base analysis and developements**					
a)	Village level Environmental & Social Data Collection by engaging Technical Assistant / Research Assistant	1 No				6 Months
b)	Expert analysis and development reporting	Ls				Ls
III	**Transfer of technical know how for solid waste management system including source segregation, recycle of dry waste and linkage with user agancies.**					
a)	Motivating the local bodies for soild waste managements project and Sewage treatment plants to prevent pollution of water sources and using for irrigation by transfering technical know how through demonstration Documentary film and technical visit.	Ls				Ls
b)	Formation of Herbal Garben	Ls				Ls

c)	Promoting Entrepreneurship Policy for Eradication for weeds by setting up Bio gas plant / Vermi compost by WUA through Awareness creation, Demonstration and consultative.	Ls				Ls
IV	**Conducting Environmental and social Awareness meeting, programme, demostration and Exhibitions on various enviromentsal and social related issues including capacity building.**					
a)	Printing Stickers, Pamphlets, Tin Sheets, Providing Banners for Propagating Enviromental Awareness among public,	Ls				Ls
b)	Conducting Awareness programe for Public,	Ls				Ls
c)	Conducting Meetings for WRO officials / line department officals.	1 X 1				1 No
d)	Conducting Meetings in school / Institution	1 x 3				3 Nos
e)	Exposures and field visit to eco friendly practices	1 X 1				1 No
f)	Environmental fair / exhibition, bench marking, recognition of good eco friendly practices, green awards.	1 X 1				1 No
g)	Preparing and Publishing Environmental Atlas for the sub basin for the use of Line Departments / Institutins for better Management of sub basin					Ls
h)	Environmental related books./ journal, publishing, Annual report for the sub basin					Ls
i)	Documentatin of the entire activities, Up gradation of Computer and Accessories, Video films Website developments etc.,	Ls				Ls
V	Variation in Rates and unforeseen items	**Ls**				Ls

Assistant Engineer., PWD., WRO

Environmental Cell section - III
Environmental Cell Sub Division-1
Chepauk, Chennai - 5.

Assistant Engineer., PWD., WRO
Environmental Cell Sub Division-1
Chepauk, Chennai - 5.

IAMWARM PROJECT

ENVIRONMENTAL ACTIVITIES IN GOMUKHI NADHI SUB BASIN OF VELLAR RIVER BASIN

(Ayacut : 5007.58 Ha)

Sl.No.	Qty	Description of Work	Rate	Per	Amount
1	**Environments Social Monitoring of River Basin including peroidical water and soil quality testing and documentation.**				
c)	12 Nos	Testing charges for water samples (Rivers)	1000	Each	12000
d)	15 Nos	Testing charges for soil samples from polluted sit (tanks and wells)	6000	Each	90000
e)	6 Months	Hiring Jeep driver on service contract basis fro the Dept Vehicle	4000	Months	24000
f)	Ls	Collection and conveyance charges including all purchases like cans, bottles, chemicals etc.,	Ls		7500
II	**Environments Social Knowledge base analysis and developements**				
a)	6 Months	Village level Environmental & Social Data Collection by engaging Technical Assistant / Research Assistant	6000	Each	36000
b)	Ls	Expert analysis and development reporting	Ls		50000
III	**Transfer of technical know how for solid waste management system including source segregation, recycle of dry waste and linkage with user agancies.**				
a)	Ls	Motivating the local bodies for soild waste managements project and Sewage treatment plants to prevent pollution of water sources and using for irrigation by transfering technical know how through demonstration Documentary film and technical visit.	Ls		30000
b)	Ls	Formation of Herbal Garben	Ls		75000

c)	Ls	Promoting Entrepreneurship Policy for Eradication for weeds by setting up Bio gas plant / Vermi compost by WUA through Awareness creation, Demonstration and consultative.	Ls		30000
IV	**Conducting Environmental and social Awareness meeting, programme, demostration and Exhibitions on various enviromentsal and social related issues including capacity building.**				
a)	Ls	Printing Stickers, Pamphlets, Tin Sheets, Providing Banners for Propagating Enviromental Awareness among public,	Ls		50000
b)	Ls	Conducting Awareness programe for Public,	Ls		125000
d)	3 Nos	Conducting Meetings in school / Institution	30000	Each	90000
c)	1 No	Conducting Meetings for WRO officials / line department officals.	125000	Each	125000
e)	1 No	Exposures and field visit to eco friendly practices	50000	Each	50000
f)	1 No	Environmental fair / exhibition, bench marking, recognition of good eco friendly practices, green awards.	50000	Each	50000
g)	Ls	Preparing and Publishing Environmental Atlas for the sub basin for the use of Line Departments / Institutins for better Management of sub basin	Ls		40000
h)	Ls	Environmental related books./ journal, publishing, Annual report for the sub basin	Ls		20000
i)	Ls	Documentatin of the entire activities, Up gradation of Computer and Accessories, Video films Website developments etc.,	Ls		75000
V	Ls	Variation in Rates and unforeseen items	Ls		20500
		Total			**1000000**

Assistant Engineer., PWD., WRO

Environmental Cell section - III
Environmental Cell Sub Division-1
Chepauk, Chennai - 5.

Assistant Engineer., PWD., WRO
Environmental Cell Sub Division-1
Chepauk, Chennai - 5.

1.8 GROUND WATER

DESIGN

STRUCTURAL DESIGN OF RETAINING WALL

Thenkeeranur Anicut -Retaining wall in Supply channel

HYDRAULIC PARTICULARS

Top level of wingwall			102.000	m	
Foundation level			100.000	m	
Height of abutment			2	m	
Width of platform		b1 =	0.6	m	
Front slope			0	: 1	
Front batter			0	m	
Rear slope			0.5	: 1	
Rear batter			1	m	
b3 =	Base width =		1.6	m	
Soil metwith at Foundation level			Coarse sand with Clay		
SBC of Soil (Assumed)			200	KN/m^2	(As per IS 1904-1978)
Density of Backfill material			20	KN/m^3	
Angle of Internal Friction, ϕ =			22	°	
δ =	$\phi/2$=		11	°	
α_o =			0		
α_h =	$B*I*\alpha_o$		0		
α_v =	$1/2*\alpha_h$ =		0		
λ =	$\tan^{-1}\alpha(h)/(1\pm\alpha(v))$=		0	0	or 0 0
α =			26.57	°	
I =			0		
Increment =			0	%	
Unit weight of Concrete			24	KN/m^3	
Unit weight of Water			10	KN/m^3	

Stresses at O	
84.547	KN/m^2
1.687	KN/m^2

STRESS DUE TO EARTH PRESSURE (ACTIVE EARTH PRESSURE):

$\cos\lambda$			1
$\cos^2(\phi-\lambda-\alpha)$=			0.9937
$\cos^2\alpha$=			0.8000
$\cos(\delta+\lambda+\alpha)$=			0.7927
$\sin(\phi+\delta)$=			0.5446
$\sin(\phi-\iota-\lambda)$=			0.3746
$\cos(\alpha-\iota)$=			0.8944
$\cos(\delta+\lambda+\alpha)$=			0.7927
$\left\{1+\frac{\sin(\phi+\delta)*\sin(\phi-\iota-\lambda)}{\cos(\alpha-\iota)*\cos(\delta+\alpha+\lambda)}\right\}^{0.5}$	=		1.53644557
$\left\{1+\frac{\sin(\phi+\delta)*\sin(\phi-\iota-\lambda)}{\cos(\alpha-\iota)*\cos(\delta+\alpha+\lambda)}\right\}^{0.5}$	=		0.42360945
$\frac{\cos^2(\phi-\alpha-\lambda)}{\cos\lambda*\cos^2\alpha*\cos(\delta+\alpha+\lambda)}$	=		1.56697575

$$Ca=\frac{\cos^2(\phi-\alpha)}{\cos\lambda*\cos^2\alpha*\cos(\delta+\alpha)}\left\{1+\sqrt{\frac{\sin(\phi+\delta)*\sin(\phi-\iota)}{\cos(\alpha-\iota)*\cos(\delta+\alpha)}}\right\}^2$$

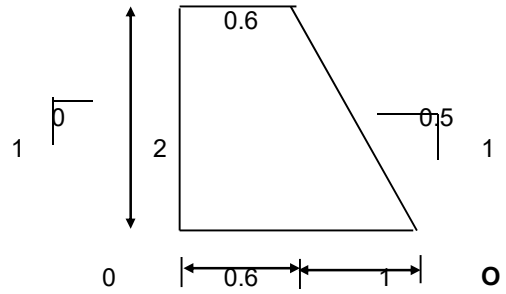
Ca	=	**0.663786**

Pa=1/2*w*h^2*Ca= 26.55143 KN

Earth pressure:

Vertical component= 16.18739 KN

Horizontal component= 21.0463 KN



Coeff.	L (m)	B (m)	D (m)	Unit.wt. (t/m^3)	Forces(t) V	Forces(t) H	E (m)	Moment T m
Weight of masonry								
1	1	0.6	2	24	28.8		1.3	37.440
0.5	1	1	2	24	24		0.666667	16.000
0.5	1	0	2	24	0		1.6	0.000
Static Earth pressure:								
Vertical component=					16.187392		0.333333	5.396
Horizontal component=						21.0463	0.666667	14.031
					68.987392	21.0463		72.867
				ΣV=	68.987392		ΣM=	72.867

$\bar{x}$ = 1.056232

e= 0.256232

6e/b= 0.960869

Maximum stress	**=**	**P/A(1+6e/b)**	**=**	**84.547**	**KN/m^2**	**<**	**200** **KN/m^2**
Minimum stress	**=**	**P/A(1- 6e/b)**	**=**	**1.687**	**KN/m^2**	**<**	**200** **KN/m^2**

Maximum Stress developed is less than assumed SBC of soil. Hence safe.

STABILITY ANALYSIS OF ANICUT

Kurur Anicut

Hydraulic Particulars

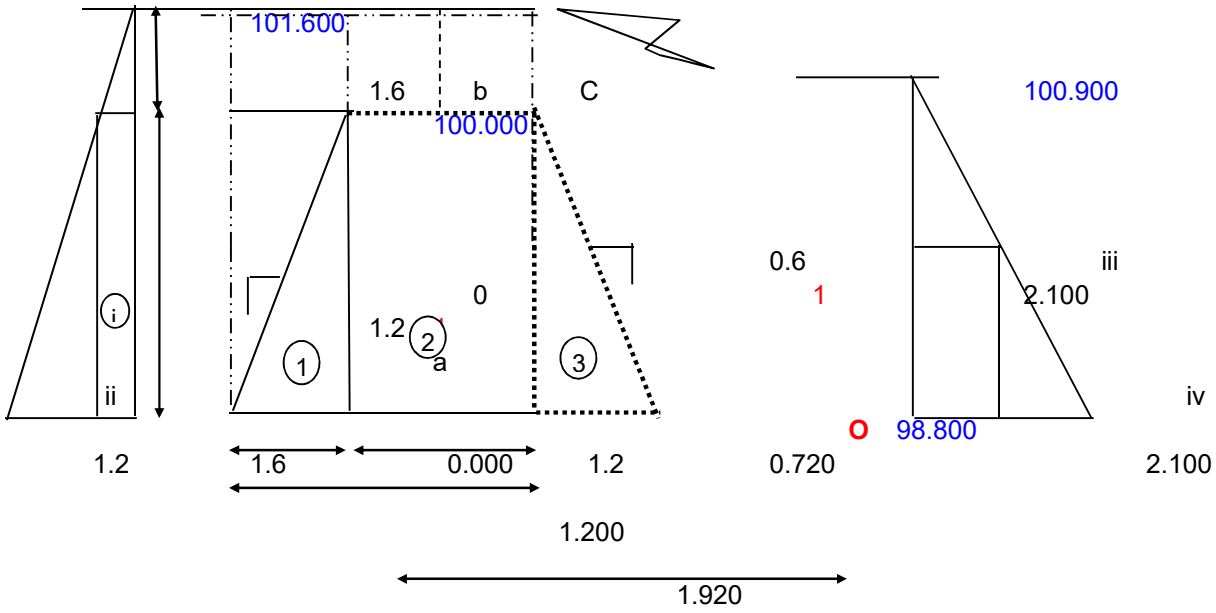
Maximum flood discharge		406	m^3/sec	14337.9 c/s
Top of crest	+	100.000	m	
Front Maximum Water Level	+	101.600	m	
Rear Water Level	+	100.900	m	
Upstream bed level	+	98.800	m	
Downstream Bed level	+	97.600	m	
Head over Crest		1.6	m	
Downstream side slope		0.6	H to 1 V	
Upstream side slope		0	H to 1 V	
Top width		1.2	m	
Unit weight of Concrete		2.4	t/m^3	

The stability of body wall of the anicut was checked for the following conditions

1 Reservoir empty without EQ

2 Reservoir at MWL, with tailwater with uplift

3 Reservoir at FRL, no tail water with uplift



Stability analysis:

1.Reservoir empty without EQ

Sl. N0.	DESCRIPTION				FORCE		L.A	MOMENT	
	Coefficient	length	depth	Unit wt.	V	H	+	+	-
Weight of masonry									
1	0.5	0.000	1.200	2.4	0		1.920	0	
2	1	1.2	1.200	2.4	3.456		1.320	4.562	
3	0.5	0.720	1.200	2.4	1.04		0.480	0.498	
				ΣV=	**4.4928**		ΣM=	**5.05958**	

Base width= 1.920 m

X= ΣM / ΣV = 1.126 m

e = b/2-X 0.166 m

6e/b= 0.519

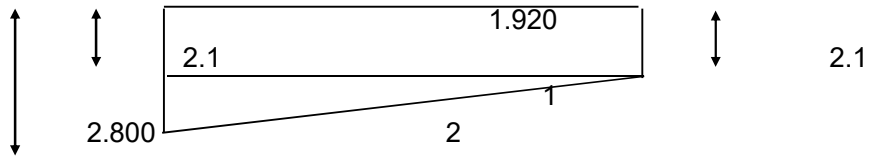
Maximum stress = ΣV/b*(1+6e/b)

= **3.56** t/m^2

Minimum stress = ΣV/b*(1-6e/b)

= **1.13** t/m^2

2.Reservoir at MWL, with tailwater, weir with uplift



Sl. No.	DESCRIPTION				FORCE		L.A	MOMENT	
	Coefficient	length	depth	Unit wt.	V	H		+	-
Weight of masonry									
1	0.5	0.000	1.200	2.4	0		1.920	0	
2	1	1.2	1.200	2.4	3.456		1.320	4.562	
3	0.5	0.720	1.200	2.4	1.04		0.480	0.498	
Weight of water									
a	0.5	0.000	1.2	1	0		1.920	0	
b	1	0.000	1.600	1	0		1.920	0	
c	1	0.600	1.600	1	0.96		1.62	1.555	
Water Pressure									
i	1	1.6	1.2	1		1.92	0.6		1.152
ii	0.5	1.2	1.2	1		0.72	0.4		0.288

Uplift Pressure									
1	1	1.920	2.1	1	-4.03		0.960		3.871
2	0.5	1.920	0.70	1	-0.67		1.280		0.860
				ΣV=	**0.749**		ΣM=	**6.615**	**6.171**

Base width= 1.920 m

X= ΣM /ΣV = 0.593 m

e = b/2-X 0.36718 m

6e/b= 1.14744

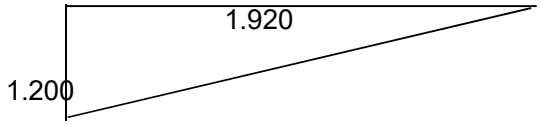
Maximum stress = ΣV/b*(1+6e/b)

= **0.837** t/m^2

Minimum stress = ΣV/b*(1-6e/b)

= **-0.057** t/m^2

3.Reservoir at FRL, no tailwater, with uplift condition



SL. NO.	DESCRIPTION				FORCE		L.A	MOMENT	
	Coefficient	length	depth	Unit wt.	V	H		+	-
Weight of masonry									
1	0.5	0.000	1.200	2.4	0		1.920	0	
2	1	1.2	1.200	2.4	3.456		1.320	4.562	
3	0.5	0.720	1.200	2.4	1.04		0.480	0.498	
Weight of water									
a	0.5	0.000	1.2	1	0		1.920	0	
Water Pressure									
i	0.5	1.2	1.2	1		0.72	0.4		0.288
Uplift pressure									
	0.5	1.920	1.2	1	-1.152		1.28		1.475
				ΣV=	**3.341**		ΣM=	**5.060**	**1.763**

Base width= 1.920 m

X= ΣM /ΣV = 0.987 m

e = b/2-X 0.027 m

6e/b=		0.084
Maximum stress	=	ΣV/b*(1+6e/b)
	=	**1.886** t/m^2
Minimum stress	=	ΣV/b*(1-6e/b)
	=	**1.594** t/m^2

STRESS		Maximum	Minimum
Condition I	Empty condition	3.555 t/m^2	1.125 t/m^2
Condition II	MWL condition	0.837 t/m^2	-0.057 t/m^2
Condition III	FRL condition	1.886 t/m^2	1.594 t/m^2

DESIGN OF ANICUT ON PERMEABLE FOUNDATION

Check for Length of Apron

Surface Flow Condition

Design Data:

Top of Check dam	=	100.000	m			
Rear Water Level	=	100.900	m			
Front Maximum Water Level	=	101.600	m			
Maximum Flood Discharge	=	14338	c/s	or	406	cumecs
Average Bed level / U/s bed level	=	98.800	m			
D/S bed level	=	97.600	m			
Length of Check Dam	=	117	m			
Concentration factor	=	0	%			
Depth of rear water	=	3.3	m			
Depth of u/s water	=	2.8	m			
Head over crest	=	1.60	m			

Design of structure for surface flow considerations:

Discharge intensity/Unit discharge, q = 406.000 / 117

q = 3.4701 m^3/s/m

Regime Width:

Regime width R	=	4.83√ Q	
	=	4.83 X sqrt (406.000)	
	=	97.3218	m
	say	97.4	m
Looseness factor	=	Existing Over all length / Regime width	
	=	117 / 97.4	
	=	1.201232 >	1

Hence, the scour depth may be calculated as follows

Scour depth:

Assume silt factor,

f = 1

Scour depth (R) = 0.475 (Q / f) ^(1/3)

= 0.475 X (406.000 / 1)^(1/3)

Normal Scour depth (R) = **3.517 m**

Scour Depth with Concentration

= 0.475 X (406.000 x (1 + 0%) / 1)^(1/3)

= **3.517 m**

Energy level:

Depth of water in front of weir = 2.800 m

Scour Depth (With Concentration) = 3.517 m

Velocity of approach (V_a) = Q / A

= 406.000 / (117 x (3.517))

= 0.99 m/sec

Velocity head (h_{va}) = $V_a^2/2g$ = 0.987^2 / (2 X 9.81)

= 0.0496518 m

say 0.05 m

U/s Energy Line (U/s E.L) = U/S F.S.L + h_{va}

= 101.6 + 0.05

U/s EL = 101.65 m

V_d = 0.9867 m / sec (From RWL calculation)

D/s velocity (V_d) = 0.99 m/sec

Velocity head (h_{vd}) = $V_d^2/2g$ = 0.99^2 /(2 X 9.81)

= 0.0499541 m

say 0.05 m

D/s Energy Line (D/s E.L) = D/S W.L + h_{vd}

= 100.9 + 0.05

= 100.95 m

Head loss (H_L) = U/S E.L - D/S E.L

= 101.65 - 100.95

= 0.7 m

2.Fixation of Stilling basin level:

Hydraulic jump calculations:

Sl. No.	Item	High flood condition without concentration and retrogression
1	Discharge intensity (q)	3.470 m^2/sec
2	D/S Water level in m	100.900 m
3	U/S Water level in m	101.600 m

4	D/S Total Energy Level (D/S E.L) in m	100.950	m
5	U/S Total Energy Level (U/S E.L) in m	101.650	m
6	Head Loss (H_L) in m	0.700	m
7	Postjump Depth D_2 (Assume)	**1.9294**	m
8	Velocity (V_2) = q / D_2 = 3.47 / 1.92944269430126	1.798	m/sec
9	D/S specific energy E_{f2} $E_{f2} = D_2 + V_2^2/2g$	2.094	m
10	Froude's Number F_2 $=V_2 / \sqrt{gD_2}$ = 1.798/ sqrt(9.81 X 1.92944269430126)	0.413	

11	Prejump Depth corresponding to D_2 (D_1) $D_1 = D_2/2 (-1+\sqrt{(1+8F_2^2)})$ = 1.92944269430126/2 X (-1+ sqrt (1+ 8 X 0.4131^2))	0.519	m
12	Velocity (V_1) = q / D_1 = 3.4701 / 0.519	6.682	m/sec
13	Froude's Number F_1 $=V_1 / \sqrt{gD_1}$ = 6.6821 / sqrt(9.81 X 0.5191)	2.960	
14	U/S specific energy $E_{f1} = D_1 + V_1^2 / 2g$	2.795	m
15	$E_{f1} - E_{f2} - H_L = 0$	0.001	~ 0
16	Level at which jump would form (D/s Total Energy Lvl - E_{f2})	98.855	m
17	Length of concrete floor required beyond the jump Floor length = 5 * (D_2-D_1)	7.05	m

Existing Floor level	=	97.600	m
The Stilling Basin level is	=	97.600	m
Depth of stilling basin	=	0	m
Provide a depth of stilling basin	=	**0.3**	m
The Stilling Basin level is	=	**97.300**	m

3.Total horizontal floor length:

U/s floor level	=	98.800	m
D/s floor level	=	97.600	m

1. D/s floor length (hydraulic criteria) / Basin length + cutoff	=	7.651	m
2. Width of the body wall (from stability calculations) @ basin level	=	3.120	m
3. Length of U/s floor (Assumed)	=	0.000	m
Total Floor length required	=	10.771	m

However provide a total floor length of **11.22** **m**
Hence Provide Stilling Basin length of **7.50** **m**
Existing floor length is **11.70** **m**
Hence Safe

KURUR ANICUT

Calculation for Depth of apron and scour depth for cutoff wall

Design Data:

Maximum Flood Discharge	406.00	cumecs or	14337.9	cusecs
Crest level	100.000	m		
Front Maximum Water Level	101.600	m		
Rear Water Level	100.900	m		
Crest level of anicut	100.000	m		
Exit gradient 1 in 5	0.2			
U/S bed level	98.800	m		
D/S bed level	97.600	m		
Total length of structure	117	m		
Discharge per unit length/discharge intensity	3.47	cumecs/m run		i.e., (406 /117)
Assume u/s floor thickness as	0.6	m		
Assume d/s floor thickness as	1.1	m		
Unit weight of the floor material	2.4	t/m^3		
Unit weight of water	1	t/m^3		
Specific gravity of floor material	2.4			

For static condition the FTL has been taken as FMFL = 100.000 m
For dynamic condition the MWL has been taken as FMFL = 101.600 m

Normal Scour depth, R = 3.517 m
Scour depth (with Concentration) = **3.517** m

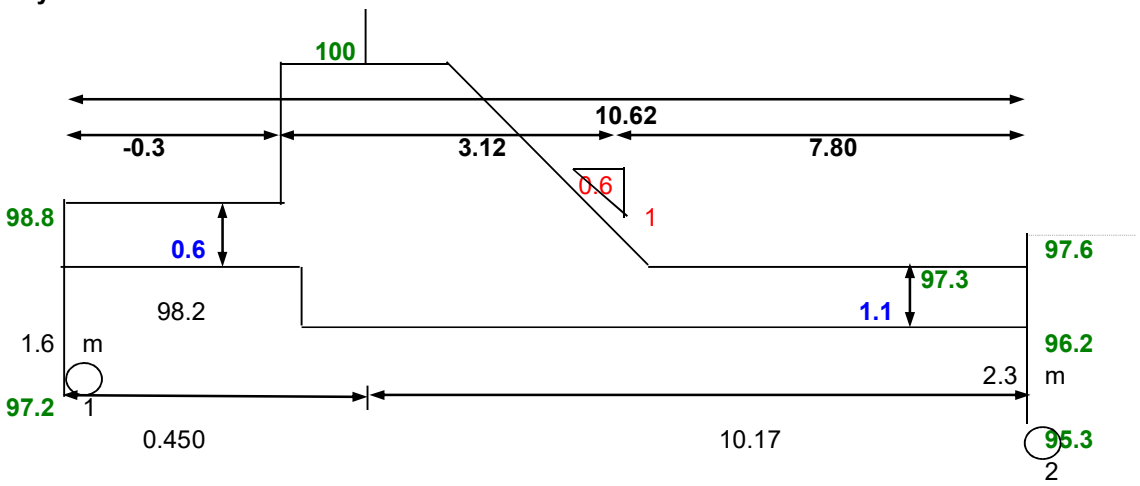
U/s Cut-Off :

U/S scour level = U/s Water level - R
= 101.6 - 1 X 3.517
= 98.080 m
Depth of upstream water = 2.80 m
Minimum depth of upstream cutoff Y/3+0.6
= 1.533 m
98.8 -
Depth of u/s cut off = 98.08
Depth of u/s cut off = 0.72 m
Depth of u/s cut off to be provided= 1.533 m

Provide a depth of 1.6 m
Bottom of u/s cut off = + 97.200 m

D/s Cut-Off
:
Depth of downstream
water = 3.30 m
Minimum depth of downstream cutoff Y/2+0.6
= 2.25 m
Rear Water level - 1.25
D/S scour level = R
= 100.9 - 1.25 X 3.517
= 96.504 m
Depth of d/s cut off = **1.096** m
(Based on scour considerations)
Provide a depth of 2.3 m
Bottom of d/s cut off = + 95.300 m

To draw Hydraulic Gradient Line



Proposed Floor

Floor Length Required From Exit Gradient Considerations

Exit gradient	0.2	
Taking head upto MFL		
Static head H = FRL - D/S Bed level	2.4	m
d = Depth of d/s cutoff	2.3	m

$$Ge = \frac{H}{d} \quad \frac{1}{\Pi\sqrt{\lambda}}$$

$$\lambda = \frac{2.7580813}{7}$$

$$\alpha = \sqrt{(2\lambda-1)^2 - 1}$$

	4.40405	
	8	
Length of floor required from exit	10.1293	
gradient	3	m
	11	m
Length of floor required (Exit gradient criteria)	**11**	m
Length of floor provided (hydraulic jump criteria)	**11.22**	m

Hence provide a total floor length of **11.22** m

Uplift Pressures:
for Pile 1
Total length of floor (b) = 11.22 m
Depth of pile (d) = 1.6 m

$\alpha = b / d$
$\alpha =$ 11.22 / 1.6
$\alpha =$ 7.013

$\lambda = (1 + \sqrt{1+ \alpha^2})/ 2$
$\lambda =$ (1 + sqrt(1 + 7.013 ^2)) / 2
$\lambda =$ 4.042

$\phi_c = 1 / \pi \cos^{-1} ((\lambda - 2)/\lambda)$
$\phi_c =$ 33.142 %

$\phi_D = 1 / \pi \cos^{-1} ((\lambda - 1)/\lambda)$
$\phi_D =$ 22.880 %
$\phi_{C1} = 100 - \phi_c$
$\phi_{C1} =$ 66.858 %

$\phi_{D1} = 100 - \phi_D$
$\phi_{D1} =$ 77.120 %

$\phi_{E1} =$ **100** %

Corrections for C1
(a) Correction at C1 for mutual interference with pile2

Correction factor = 19 $\sqrt{}$ (D/b') (d+D) / b

D = Depth of interfering pile2 = 2.9 m
d = Depth of the pile 1= 1 m
b' =Distance between pile1and2 10.62 m
b = Total length of the floor = 11.22 m

Correction = 3.4511361 4 % +ve

(b) Correction due to floor thickness

Correction factor = $\frac{\phi_{D1} - \phi_{C1}}{\text{Depth of pile}}$ X Thickness of the floor
(77.12-66.86)/(98.8-97.2)*0.6

Correction = 3.848 % +ve

Corrected values
corrected $\phi_{C1} =$ 74.157 %

ϕ_{E1} =	100	%
ϕ_{D1} =	77.12	%
ϕ_{C1} =	74.157	%

for Pile 2

Total length of floor (b) = 11.22 m

Depth of pile (d) = 2.3 m

$\alpha = b / d$

α = 11.22 / 2.3

α = 4.878261

$\lambda = (1 + \sqrt{1 + \alpha^2}) / 2$

λ = (1 + sqrt(1 + 4.878261 ^2)) / 2

2.9898509

λ = 2

$\phi_E = 1 / \pi \cos^{-1} ((\lambda - 2)/\lambda)$

39.259026

ϕ_E = 2 %

$\phi_D = 1 / \pi \cos^{-1} ((\lambda - 1)/\lambda)$

26.820336

ϕ_D = 3 %

ϕ_{C2} = **0** %

26.820336

ϕ_{D2} = 3 %

39.259026

ϕ_{E2} = 2 %

Corrections for E2

(a) Correction at E2 for mutual interference with pile1

Correction factor = $19 \sqrt{(D/b')(d+D)} / b$

D = Depth of interfering pile1 =	0	m
d = Depth of the pile 2=	0.9	m
b' =Distance between pile2and1	10.62	m
b = Total length of the floor =	11.22	m

Correction = 0 % -ve

(b) Correction due to floor thickness

Correction factor = $\frac{\phi_{E4} - \phi_{D4}}{\text{Depth of pile}}$ X Thickness of the floor

=(39.26-26.82)/(97.6-95.3)*(97.6-96.2)

Correction = 7.5713765 % -ve

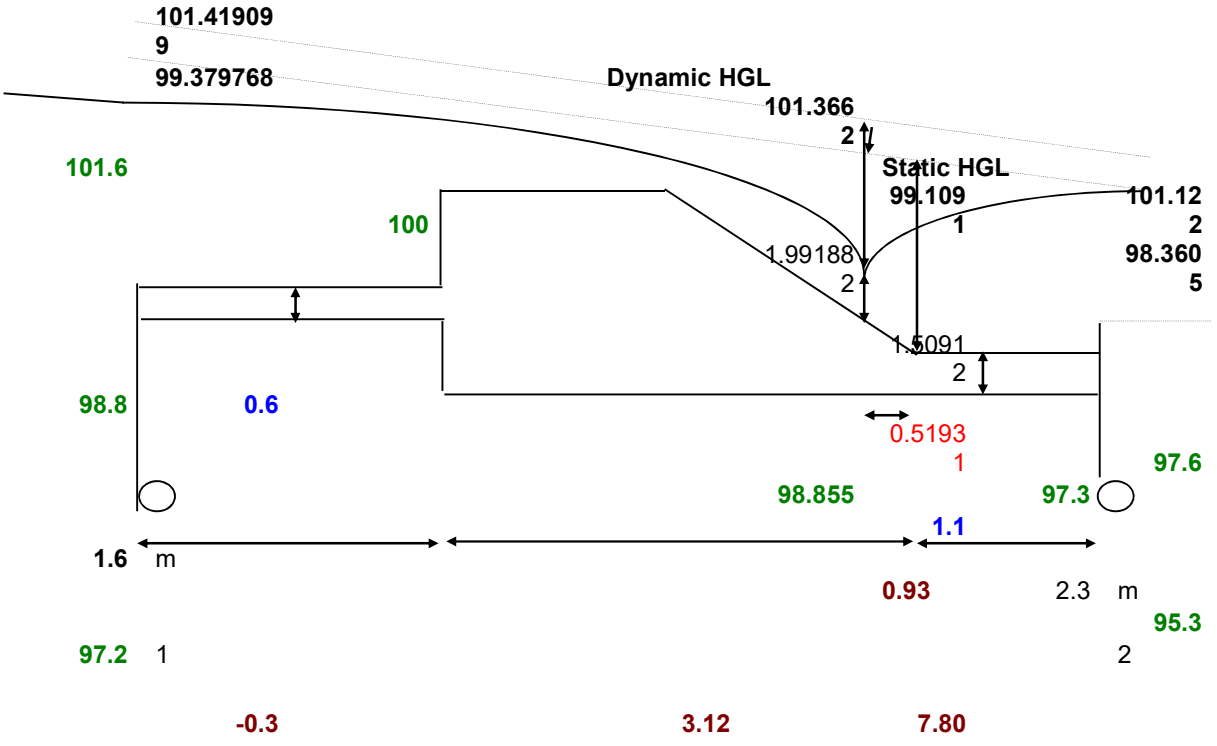
Corrected values

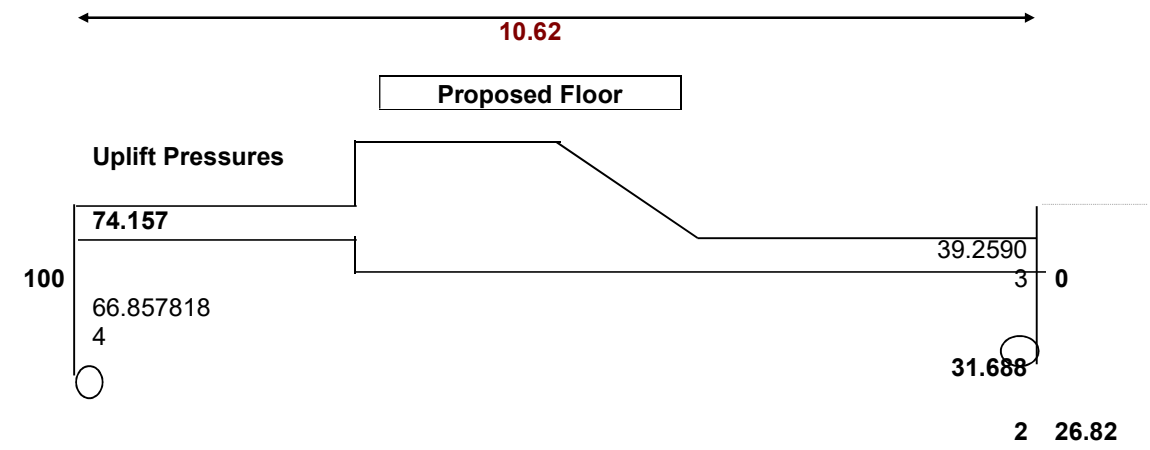
corrected ϕ_{E2} = 31.688 %

ϕ_{E2} =	31.688	%
ϕ_{D2} =	26.82	%
ϕ_{C2} =	0	%

Pile No	1 Upstream pile		2 Downstream pile	
Pressure at the pt	ϕ_{E1} =	100	ϕ_{E2} =	31.688
	ϕ_{D1} =	77.12	ϕ_{D2} =	26.82
	ϕ_{C1} =	74.157	ϕ_{C2} =	0

U/S water Level	D/S water Level	Un-balanced Head	Elevation of HGL					
			Pile1			Pile2		
			ϕ_{E1}	ϕ_{D1}	ϕ_{C1}	ϕ_{E2}	ϕ_{D2}	ϕ_{C2}
			100	77.12	74.157	31.688	26.82	0
Static condition								
100.000	97.6	2.400	2.4	1.85088	1.779768	0.76051	0.64368	0
			100	99.45088	99.37977	98.3605	98.24368	97.6
Dymanic condition								
101.600	100.9	0.700	0.7	0.53984	0.519099	0.22182	0.18774	0
			101.6	101.43984	101.4191	101.122	101.0877	100.9





FLOOR THICKNESS

(Dynamic head)

At the point of formation of jump 8.73 m from the centre of d/s pile

Dynamic head unbalance	1.992	m
2/3 rd of head	1.328	m
Thickness required	0.949	m
Provide a depth of	1.000	m

(Static head)

The static head is calculated from D/s basin level.

Maximum ordinate for static condition is at toe of the Check dam.

Unbalanced head at	7.80	m from center of d/s pile	1.809	
Thickness required			1.292	m
Provide a depth of			1.300	m

Static dominates the flow

Provided thickness at toe ***1.300 m***

(a)	Unbalanced head at	4.3	m from center of d/s pile	1.473	
	Thickness required			1.05	m
	However provide a depth of			1.10	m
(b)	Unbalanced head at	6.3	m from center of d/s pile	1.665	
	Thickness required			1.189	m
	However provide a depth of			1.20	m

SOMANDARKUDI ANICUT

Design for cutoff wall

Design Data:

Maximum Flood Discharge		265.51	cumecs or	9376.49	cusecs
Crest level		100.000	m		
Front Maximum Water Level		101.800	m		
Rear Water Level		100.500	m		
Crest level of anicut		100.000	m		
Exit gradient	1 in 5	0.2			
U/S bed level		99.000	m		
D/S bed level		97.500	m		
Total length of structure		130	m		
Discharge per unit length/discharge intensity		2.04	cumecs/m run		i.e., (265.51 /130)
Assume u/s floor thickness as		0.6	m		
Assume d/s floor thickness as		1.1	m		
Unit weight of the floor material		2.4	t/m^3		
Unit weight of water		1	t/m^3		
Specific gravity of floor material		2.4			

For static condition the FTL has been taken as FMFL = 100.000 m

For dynamic condition the MWL has been taken as FMFL = 101.800 m

Normal Scour depth, R = 3.053 m

Scour depth (with Concentration) = **3.053** m

U/s Cut-Off :

U/S scour level = U/s Water level - R

= 101.8 - 1 X 3.053

= 98.750 m

Depth of upstream water = 2.80 m

Minimum depth of upstream cutoff Y/3+0.6

= 1.533 m

Depth of u/s cut off = 99 - 98.75

Depth of u/s cut off = 0.25 m

Depth of u/s cut off to be provided= 1.533 m

Provide a depth of **1.6** m

Bottom of u/s cut off = + **97.400** m

D/s Cut-Off :

Depth of downstream water = 3.00 m

Minimum depth of downstream cutoff Y/2+0.6

= 2.1 m

D/S scour level = Rear Water level - 1.25 R

= 100.5 - 1.25 X 3.053

= 96.684 m

Depth of d/s cut off = **0.816** m

(Based on scour considerations)

Provide a depth of **2.1** m

Bottom of d/s cut off = + **95.400** m

AMMAIYAGARAM ANICUT
SUPPLY CHANNEL DESIGN

CHANNEL I (Anicut to dividing dam)

Discharge through channel	=	12 Cusecs
As per Mannings formula, Velocity (V)	=	$1/n\ R^{2/3}\ S^{1/2}$
n	=	0.025
Bed width	=	2 m
Full supply depth	=	0.3 m
Slope (S)	=	1/800
Area (A)	=	((2+2.30) /2) x 0.30
	=	0.645 M^2
Wetted Perimeter (P)	=	$2+2(\sqrt{(0.30)^2 + (0.15)^2})$
	=	2.67 m
Hydraulic Mean Depth R = A/P	=	0.24 m
Velocity (V)	=	$1/0.25 *(0.36)^{2/3}*(1/800)^{1/2}$
	=	0.62 M/S
Discharge (Q)	=	A*V
	=	0.645*0.62
	=	$0.40 M^3 / S$
(or)	=	14.21 Cusecs > 12.00 Cusecs

Hence safe

Channel I (Dividing dam to direct ayacut channel end)

Discharge through channel	=	8.27 Cusecs
As per Mannings formula, Velocity (V)	=	$1 / n\ R^{2/3}\ S^{1/2}$
n	=	0.025
Bed width	=	2 M
Full supply depth	=	0.3 M
Slope (S)	=	1 / 1000
Area (A)	=	((2+2.30) / 2) x 0.30
	=	0.645 M^2
Wetted perimeter (P)	=	$2+2(\sqrt{(0.30)^2+(0.15)^2})$
	=	2.67 M
Hydraulic Mean Depth R = A / P	=	0.24 M
Velocity (V)	=	$1/0.25 *(0.36)^{2/3}*(1/1000)^{1/2}$
	=	0.62 M/S
Discharge (Q)	=	A*V
	=	0.645*0.49

		=	$0.32M^3$ / S
	(or)	=	11.23 Cusecs > 8.27 Cusecs

Hence safe

Channel I (Dividing dam to direct ayacut channel end)

Discharge through channel	=	3.44 Cusecs
As per Mannings formula, Velocity (V)	=	$1 / n \ R^{2/3} \ S^{1/2}$
n	=	0.025
Bed width	=	1.5 M
Full supply depth	=	0.3 M
Slope (S)	=	1 / 1200
Area (A)	=	((1.5+1.830) / 2) x 0.30
	=	$0.495 \ M^2$
Wetted perimeter (P)	=	$1.5+2(\sqrt{(0.30)^2+(0.15)^2})$
	=	2.17 M
Hydraulic Mean Depth R = A / P	=	0.23 M
Velocity (V)	=	$1/0.25 *(0.36)^{2/3}*(1/1200)^{1/2}$
	=	0.43 M/S
Discharge (Q)	=	A*V
	=	0.495*0.43
	=	$0.21M^3$ / S
(or)	=	7.41Cusecs > 3.44 Cusecs

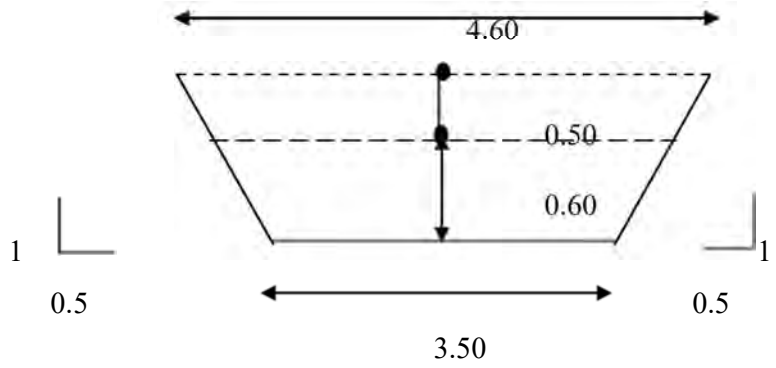
Hence safe

KOLAVAI

Hydraulic calculation

CHECK THE ADEQUANCY OF THE EXIXTING SUPPLY CHANNEL

Total Ayacut	=	261.60 Acres
Requirement of water	=	6 Acres/mcft
Hence the total requirement of water is	=	43.60 Mcft
It is proposed to give supply in 7 days	=	7 days
Therefore the discharge required per second	=	$\frac{43.60 \times 10^6}{7x24x60x60}$
	=	72 Cusecs
Add 20% for Evaporation & Transmission losses	=	14.42 Cusecs
(i.e) 72 + 14.42	=	86.51 Cusecs
	or	2.45 Cusecs
Bed width	=	3.50 M
Side slope	=	1 IN 2000
Mannings coefficient (N)	=	0.025
Free Board	=	0.50 M
Depth of Water F.S.D	=	0.60 M



Area "A"	=	4.46 Sqm
Wetted Perimeter "P"	=	5.96 m
Hydraulic Mean Radius R = A/P	=	0.75 m
Velocity "V" = 1/n x $R^{2/3}xS^{1/n}$	=	0.74 m/sec
Discharge "Q" = V x A	=	3.28 m^3/sec
Carrying discharge = 115.90 cusecs	=	

The carrying capacity of the existing supply channel is 115.90 cuses against the

required discharge of 86.51 cusecs

DIVIDING DAM DESIGN

Discharge through channel I	=	8.27	Cusecs
Q	=	5 A √h	
A	=	Area	
h	=	head	
8.27	=	5 x A x √0.75	
A	=	1.91 Square feet	
	=	(or) 0.18 Square meter	
	=	0.7 m x 0.3m	
Adopt vent size	=	0.7m x 0.3m	
		0.21 > 0.18	

Hence safe

ROAD CULVERT DESIGN

Discharge through channel		=	12	Cusecs
Channel bed level		=	138.950	m
Road level		=	139.650	m
Bed width		=	2	M
Full supply depth		=	0.3	M
Difference between Road level and				
Channel bed level		=	0.7	M
Velocity (V)		=	0.62	M/S
	Q	=	$6A\sqrt{h}$	
	A	=	Area	
	h	=	head	
Discharge (Q)		=	$6x[(2x3.28)*(0.7x3.28)*\sqrt{0.25}]$	
		=	45.18 Cusecs > 12 Cusecs	

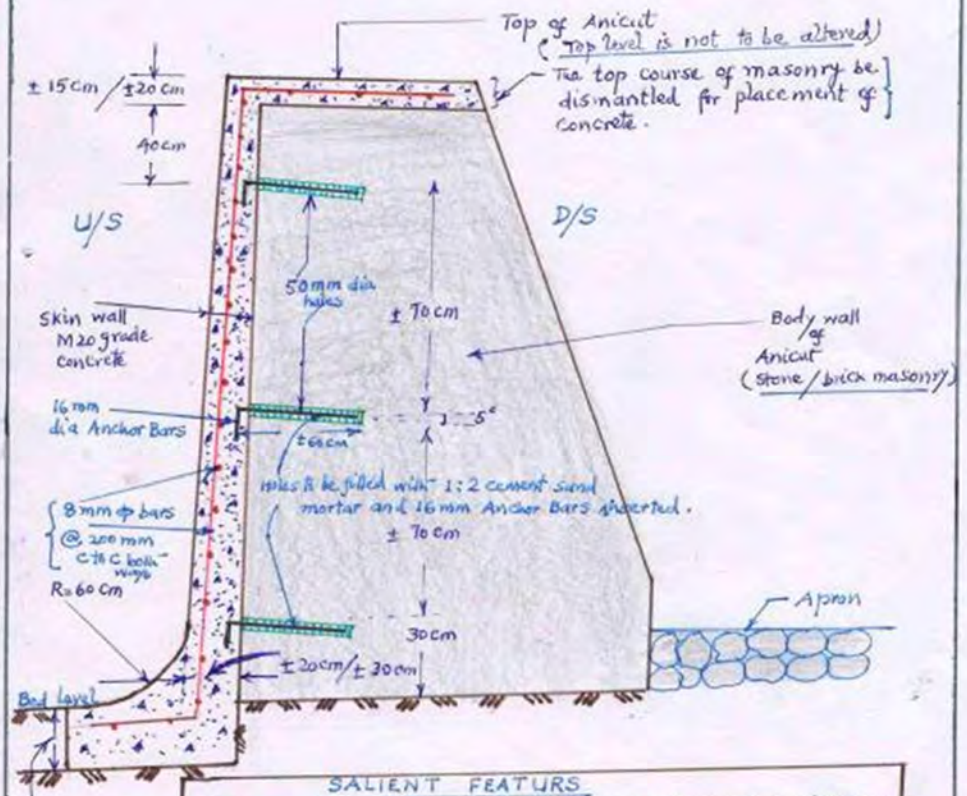
Hence safe

Velocity (V)	=	1.27 / (2*0.7)	
	=	0.91 M/S > 0.62 M/S	

Velocity is within the permisible limit

TYPICAL SKETCH

Rehabilitation of Anicut through SKIN WALL Concrete

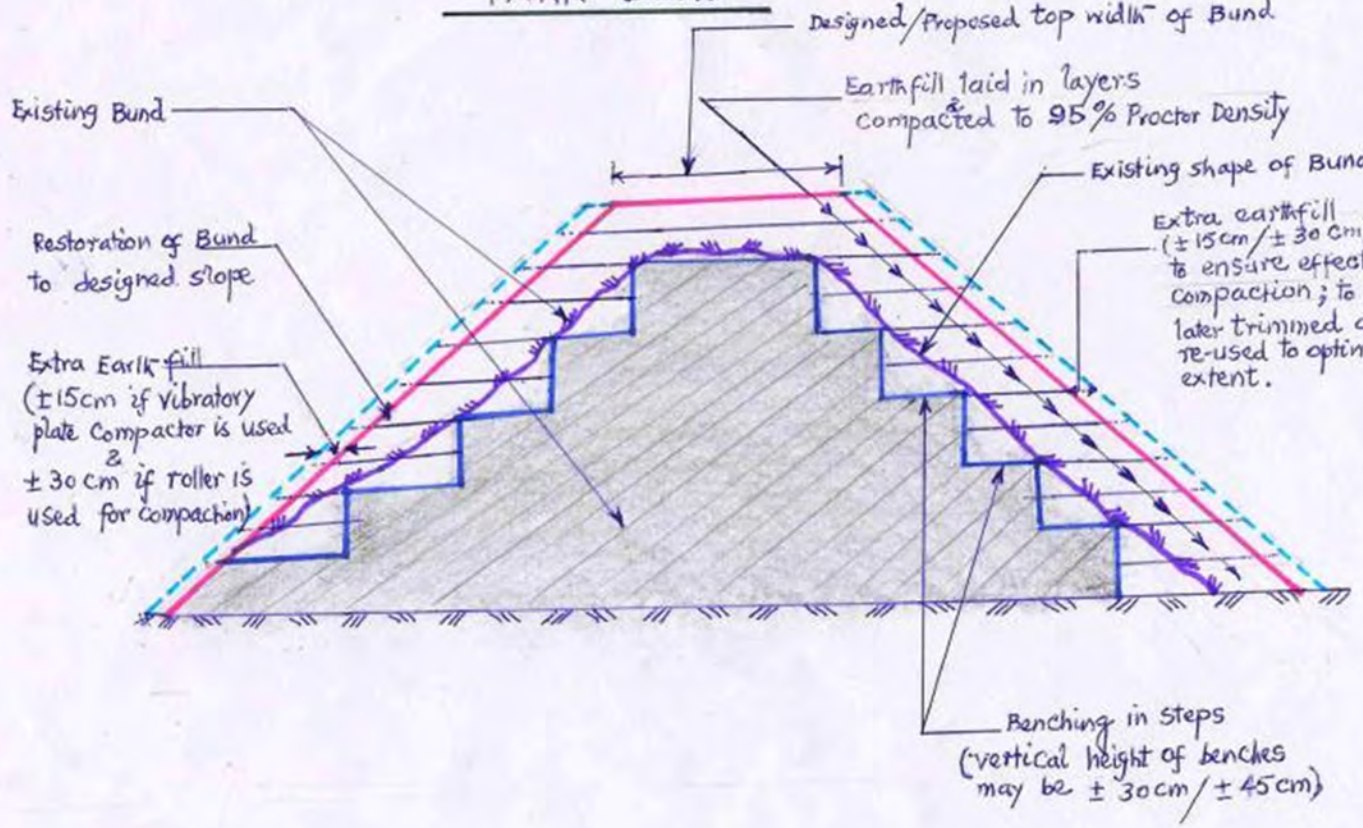


SALIENT FEATURS

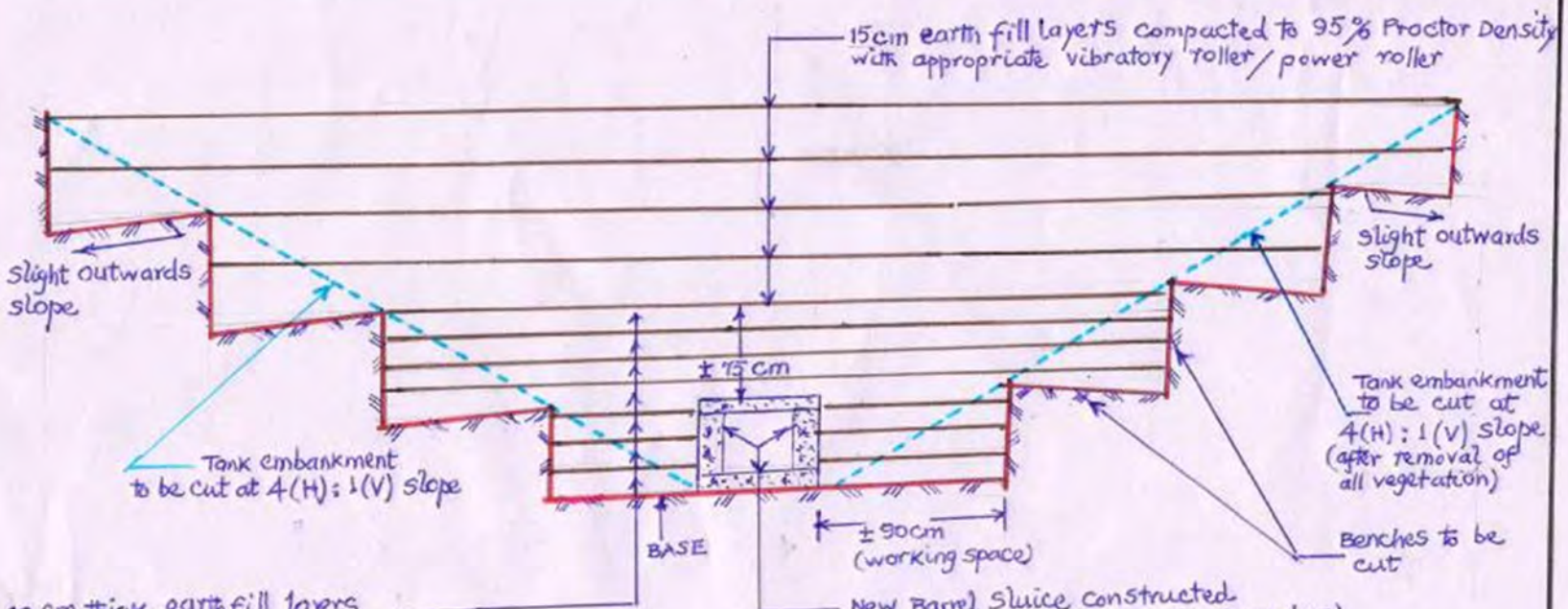
- Joints on u/s surface to be raked to 25 mm depth & surface roughened by chipping; Drill holes of 50 mm to be filled with 1:2 mortar and 16 mm Anchor Bars to be pushed in. The roughened surface to be kept wet for 72 hours and cement slurry (1:2·5) of 0·70 water-cement ratio be applied over the surface 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 ± 1·5 m.

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.

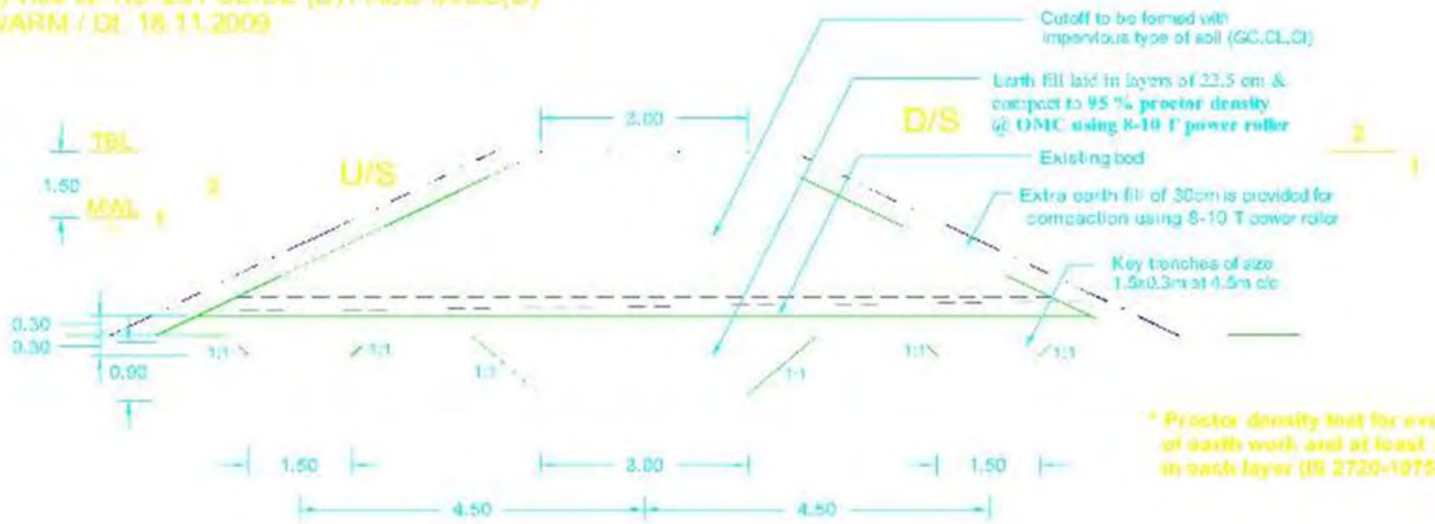
(ii) Earth fill compaction adjoining the Barrel and Benches should be compacted by mechanical / pneumatic tampers to ensure effective compaction.

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

TYPICAL CROSS SECTION OF FORMATION OF FLOOD BANK

(Homogenous Section)

* This drawing has been prepared as per the guidelines of C.E (DRCS) vide Lr. No. 251 CE/SE (D) / AEE-IX/EE(D) / IAMWARM / Dt. 18.11.2009



* Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part-XXIX))

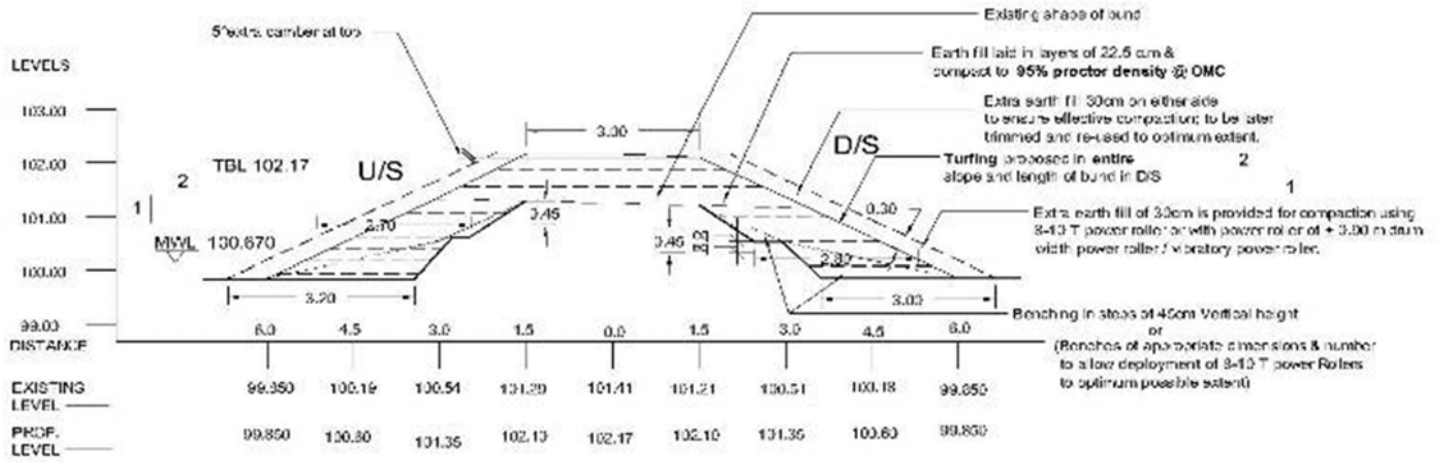
GOMUKHI NADHI SUB BASIN

Note :- Suitability of borrow earth shall be ascertained prior to its placement

* All Dimensions and Levels are in Meters

Scale 1:100

METHODOLOGY OF RAISING & STRENGTHENING OF KADATHUR TANK BUND



C.S@L.S - 1000 M

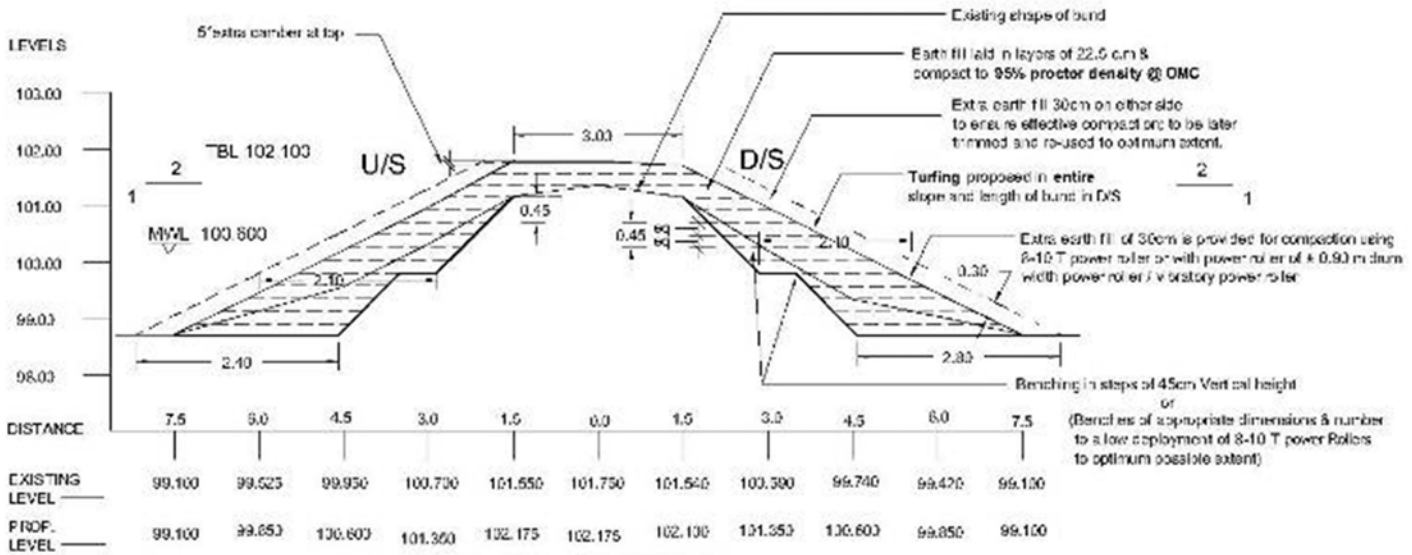
GOMUKHI NADHI SUB BASIN, PACKAGE NO.1

* **Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))**

* **All Dimensions and Levels are in Meters**

Scale 1:100

METHODOLOGY OF RAISING & STRENGTHENING OF THENKEERANUR TANK BUND



C.S@L.S - 800 M

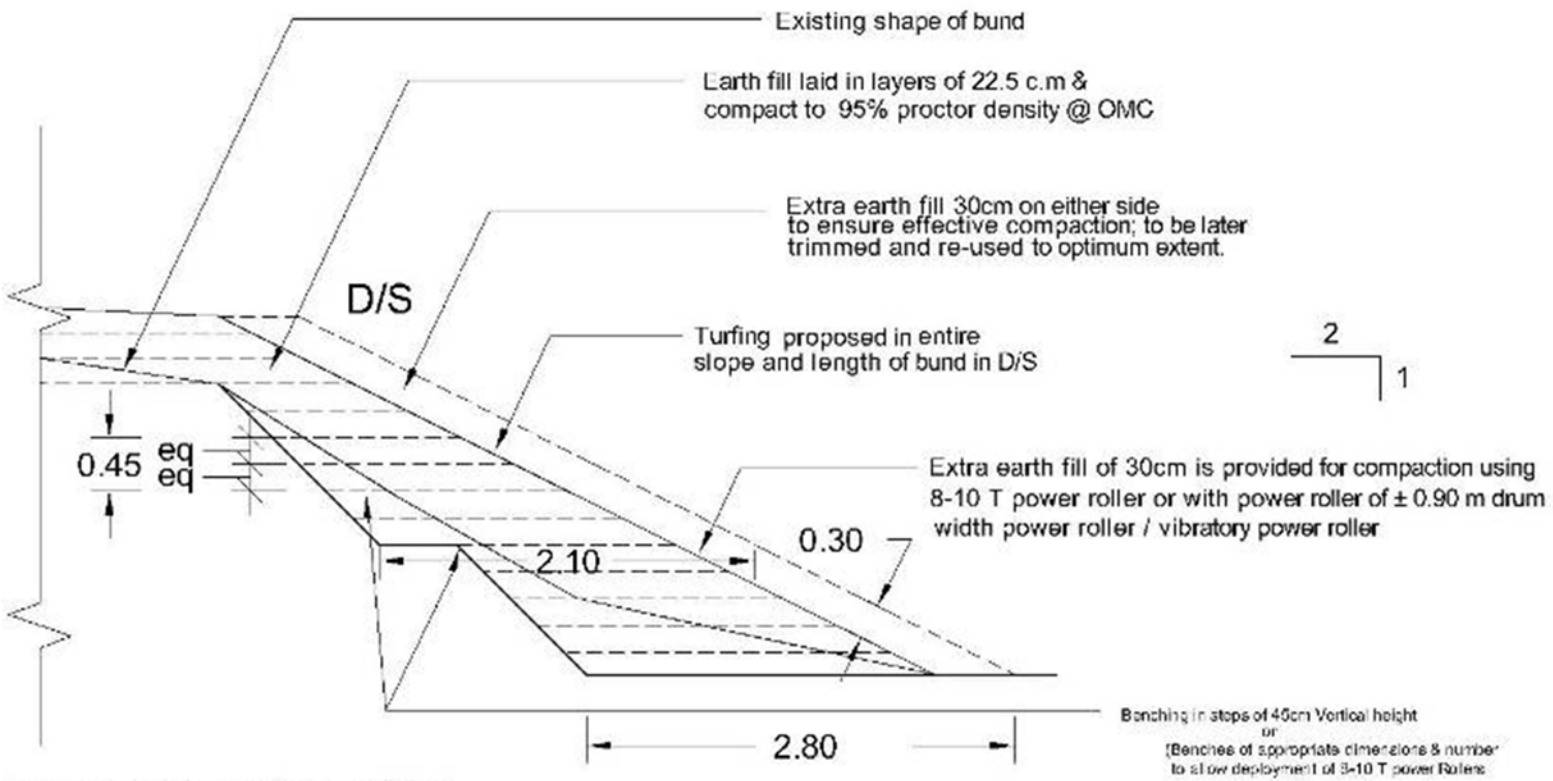
GOMUKHI NADHI SUB BASIN, PACKAGE NO.2

* **Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))**

* **All Dimensions and Levels are in Meters**

Scale 1:100

METHODOLOGY OF RAISING & STRENGTHENING OF THENKEERANUR TANK BUND



* Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))

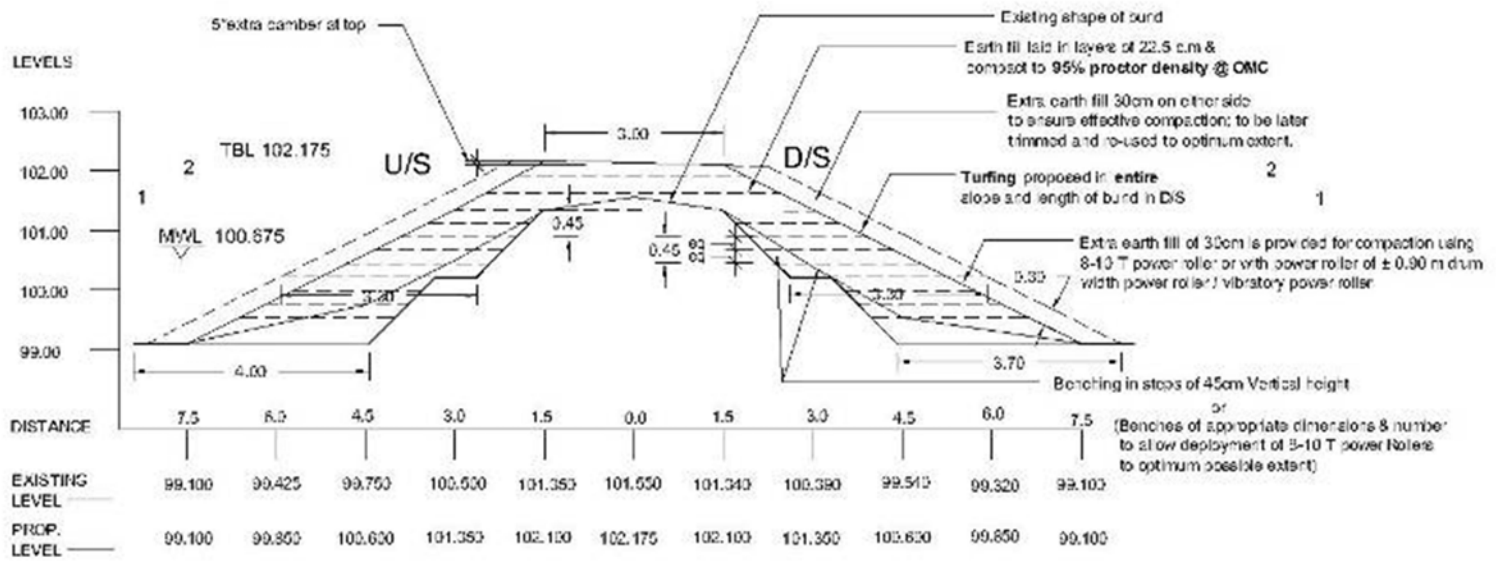
ENLARGED (PART SECTION)

GOMUKHI NADHI SUB BASIN, PACKAGE NO.2

* All Dimensions and Levels are in Meters

Scale 1:50

METHODOLOGY OF RAISING & STRENGTHENING OF CHINNASALEM TANK BUND



C.S@L.S - 1000 M

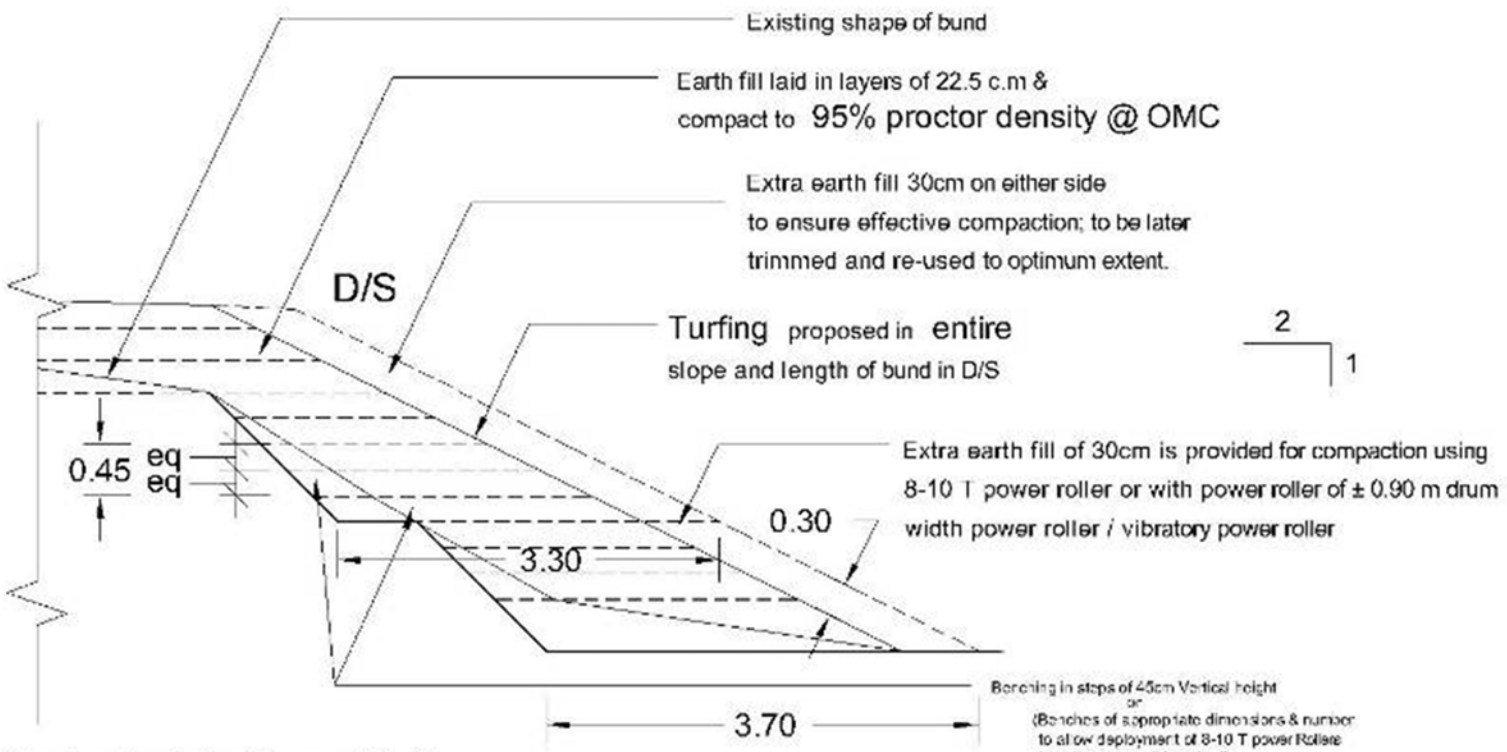
GOMUKHI NADHI SUB BASIN, PACKAGE NO.3

* **Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))**

* **All Dimensions and Levels are in Meters**

Scale 1:100

METHODOLOGY OF RAISING & STRENGTHENING OF CHINNASALEM TANK BUND



* Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))

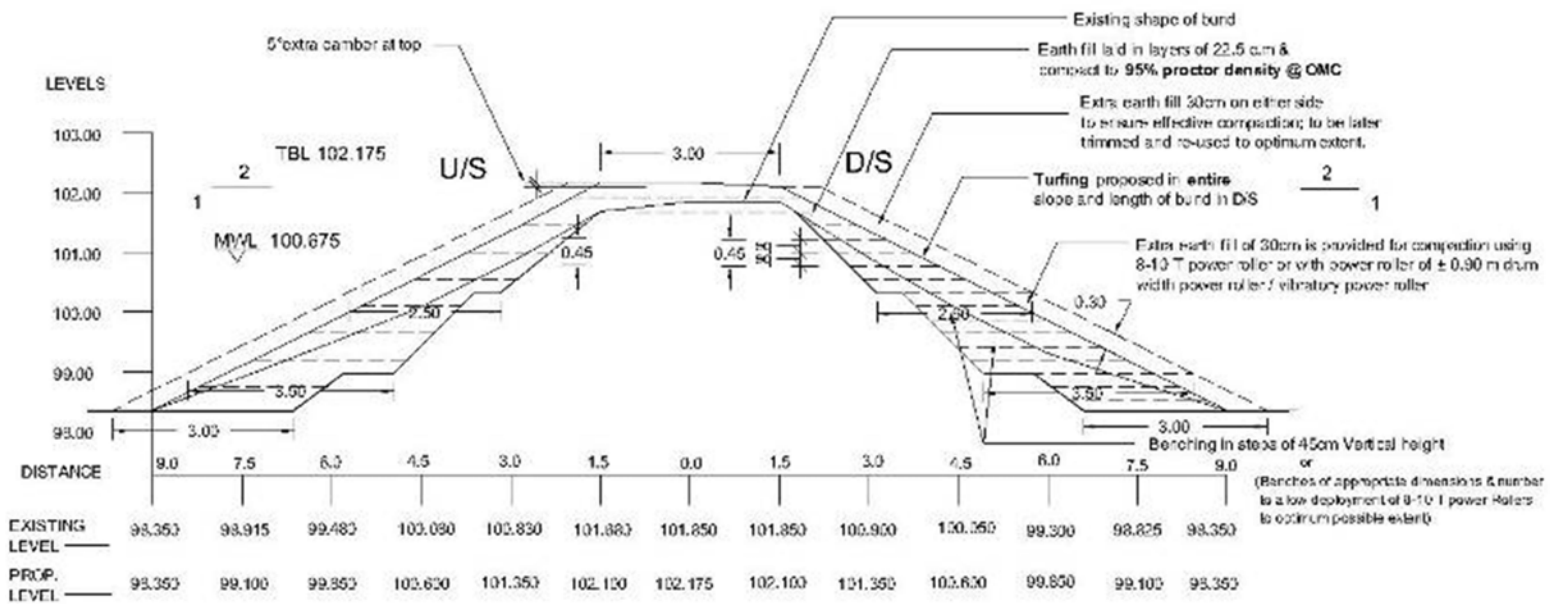
ENLARGED (PART SECTION)

GOMUKHI NADHI SUB BASIN, PACKAGE NO.3

* All Dimensions and Levels are in Meters

Scale 1:50

METHODOLOGY OF RAISING & STRENGTHENING OF KALASAMUTHRAM TANK BUND



C.S@L.S - 600 M

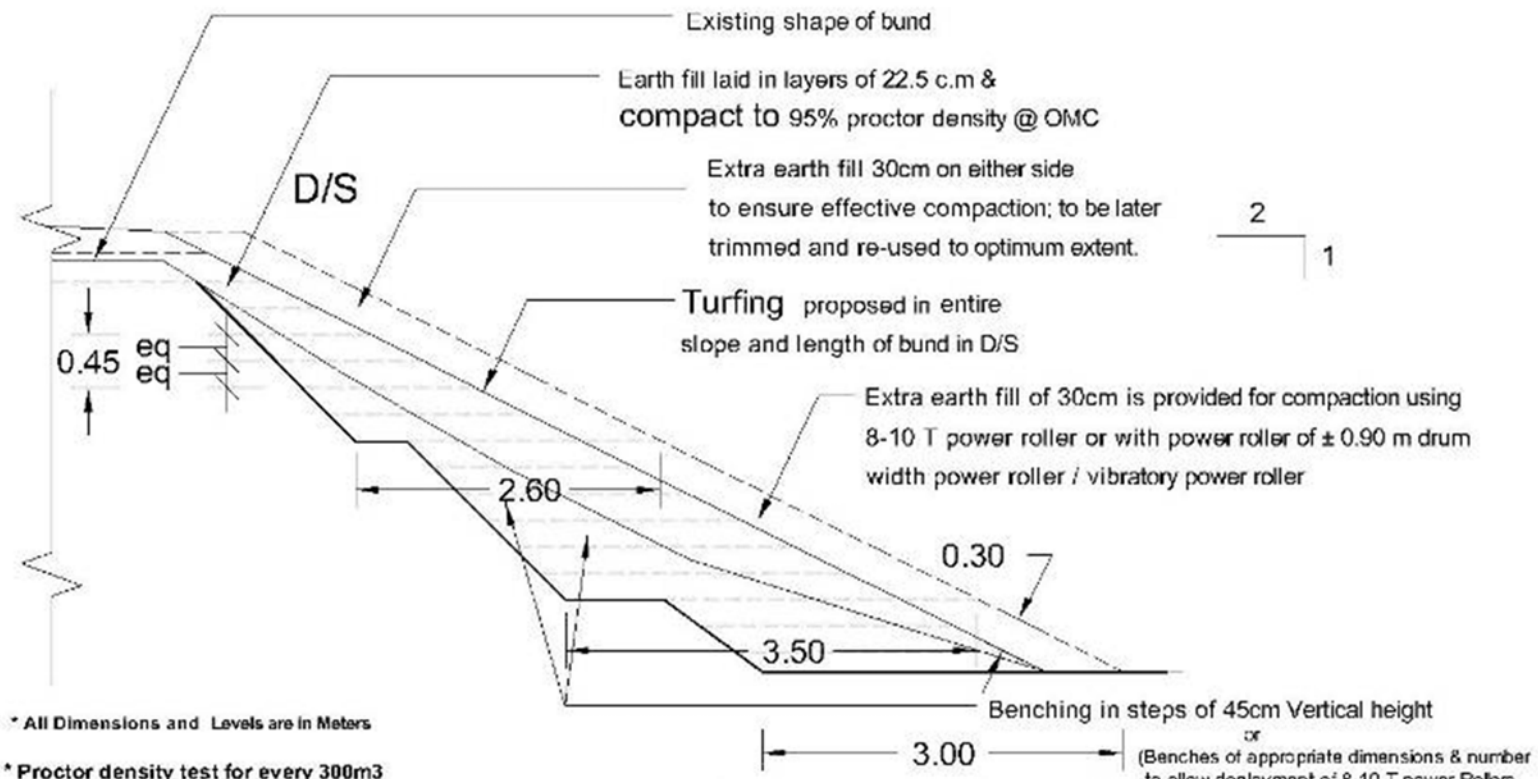
GOMUKHI NADHI SUB BASIN, PACKAGE NO.4

* **Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))**

* **All Dimensions and Levels are in Meters**

Scale 1:100

METHODOLOGY OF RAISING & STRENGTHENING OF KALASAMUTHRAM TANK BUND



* All Dimensions and Levels are in Meters

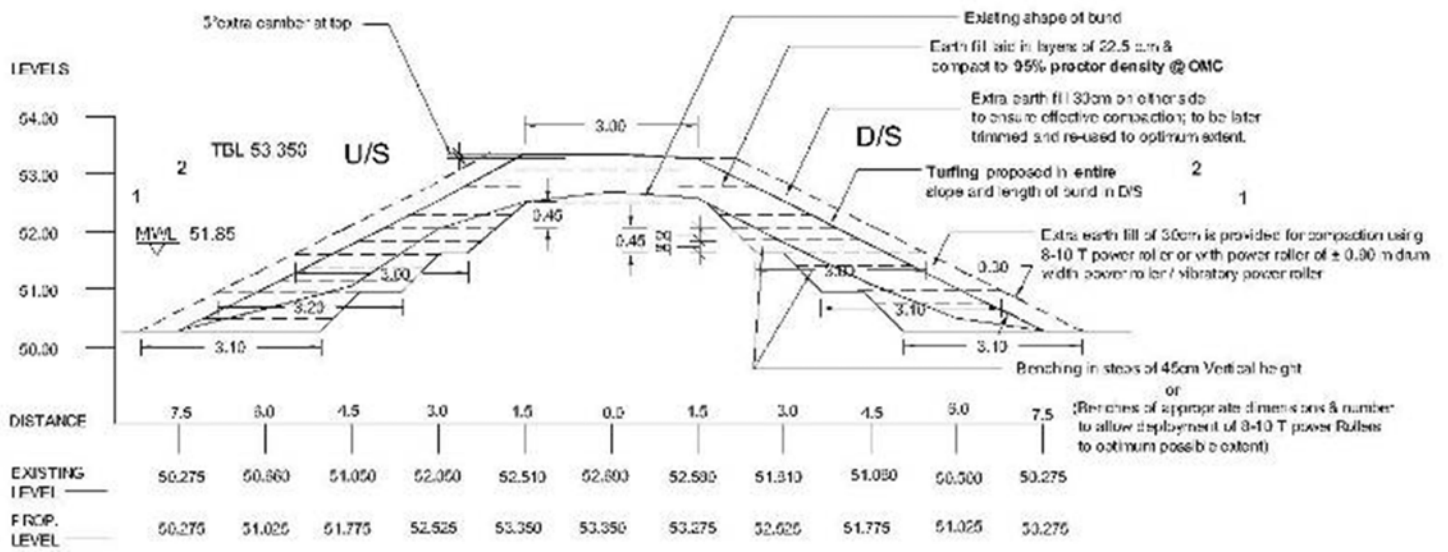
* Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))

ENLARGED (PART SECTION)

GOMUKHI NADHI SUB BASIN, PACKAGE NO.4

Scale 1:50

METHODOLOGY OF RAISING & STRENGTHENING OF SIRUPAKKAM TANK BUND



C.S@L.S - 800 M

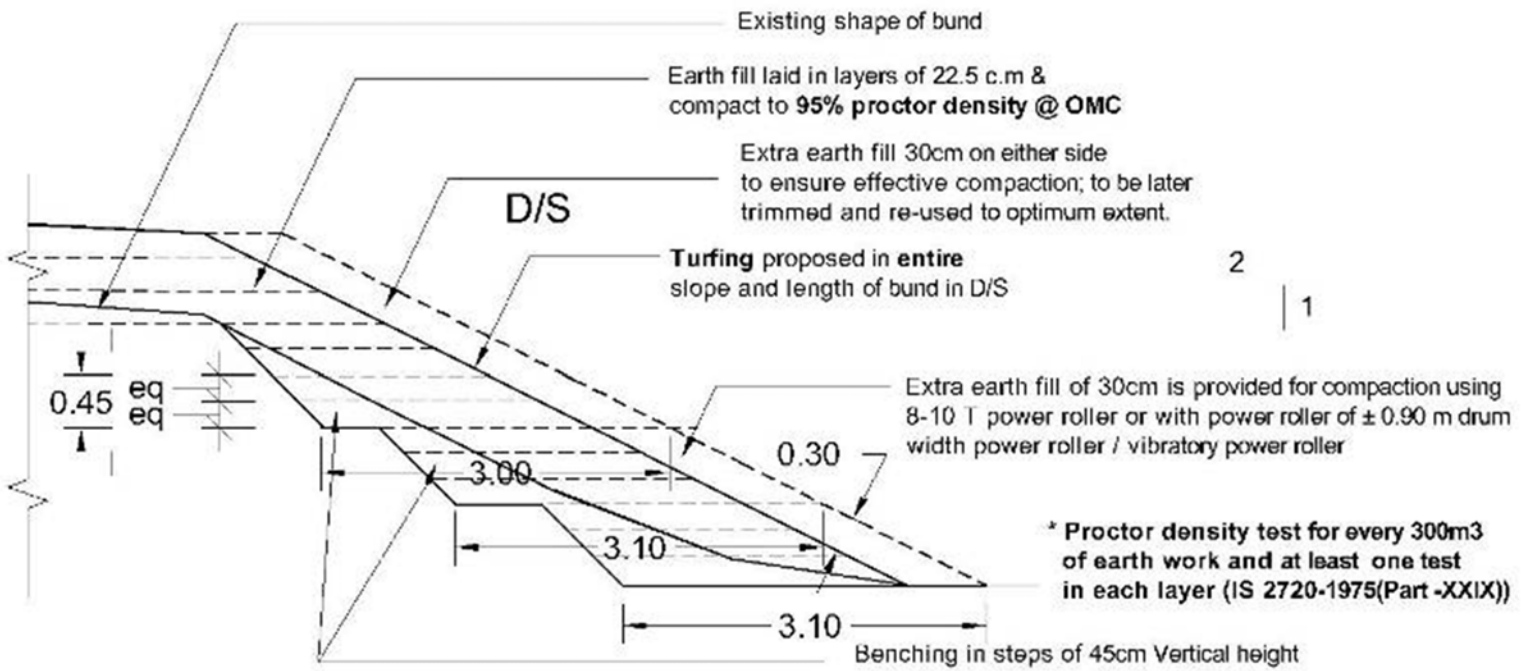
GOMUKHI NADHI SUB BASIN, PACKAGE NO.5

*** Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))**

*** All Dimensions and Levels are in Meters**

Scale 1:100

METHODOLOGY OF RAISING & STRENGTHENING OF SIRUPAKKAM TANK BUND



* **Proctor density test for every 300m3 of earth work and at least one test in each layer (IS 2720-1975(Part -XXIX))**

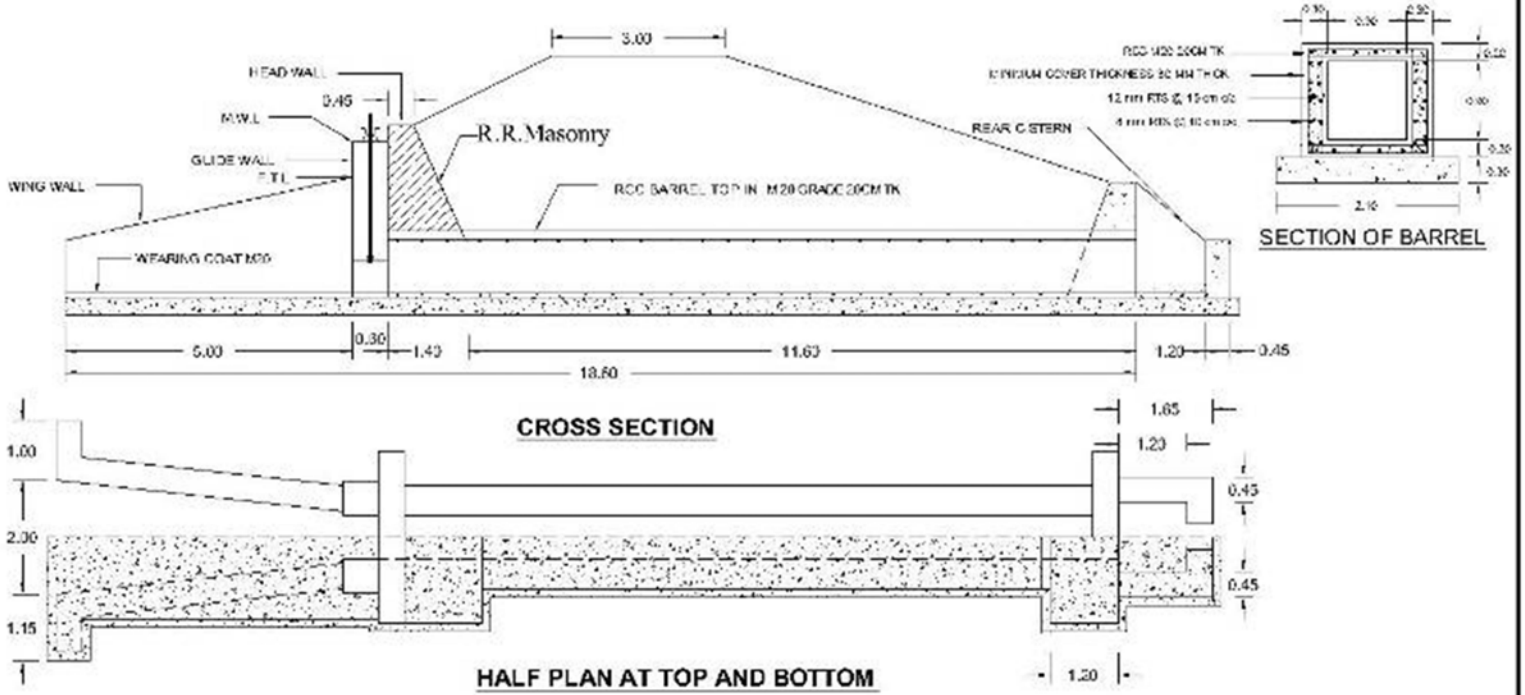
ENLARGED (PART SECTION)

GOMUKHI NADHI SUB BASIN, PACKAGE NO.5

* **All Dimensions and Levels are in Meters**

Scale 1:50

RECONSTRUCTION OF WING WALL SLUICE IN VILAMBAR TANK

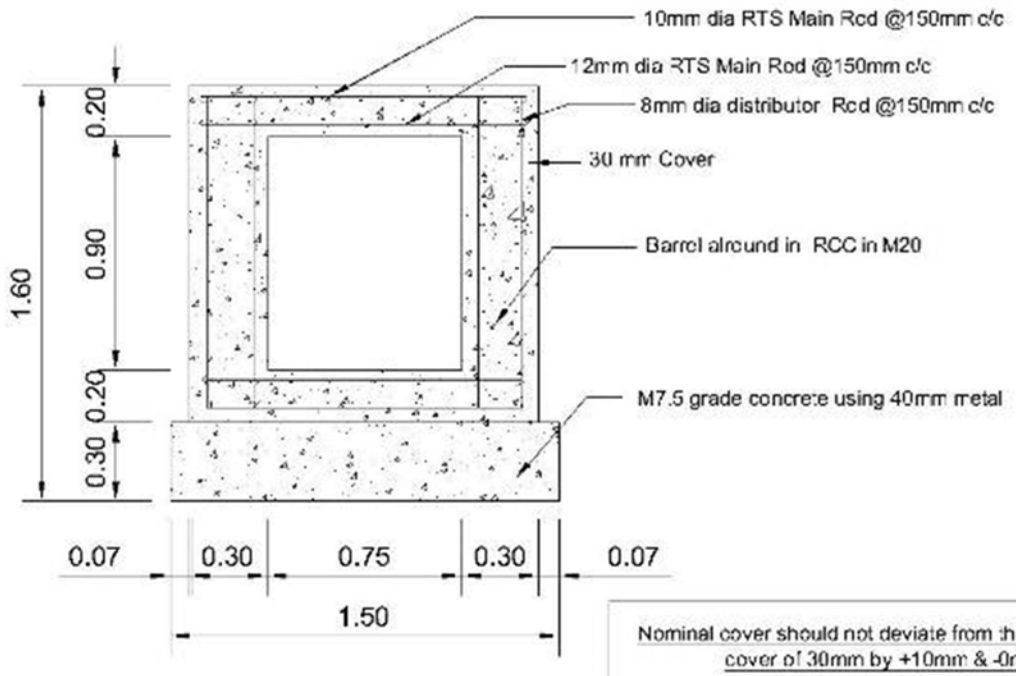


Certified that the reconstruction work is done as per the existing hydraulic particulars.

* All Dimensions are in Meters

Scale 1:100

TYPICAL CROSS SECTION OF SLUICE BARREL



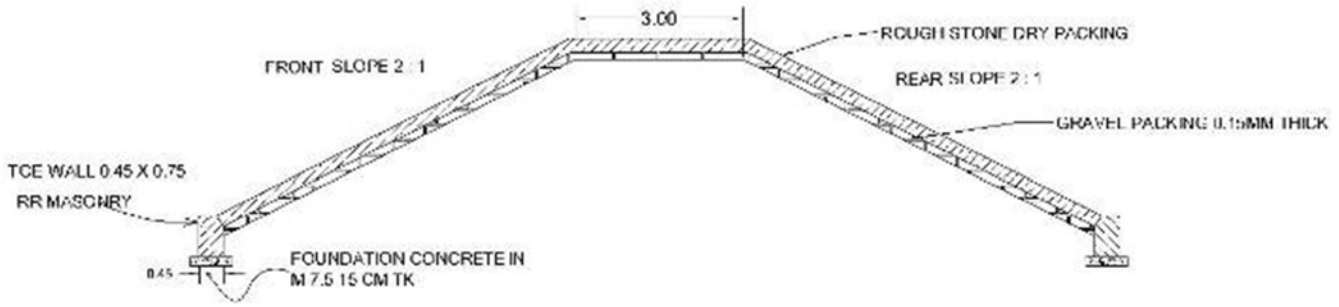
Nominal cover should not deviate from the specific cover of 30mm by +10mm & -0mm

Nominal cover to steel rod= 30mm

* All Dimensions are in Meters

Scale 1:10

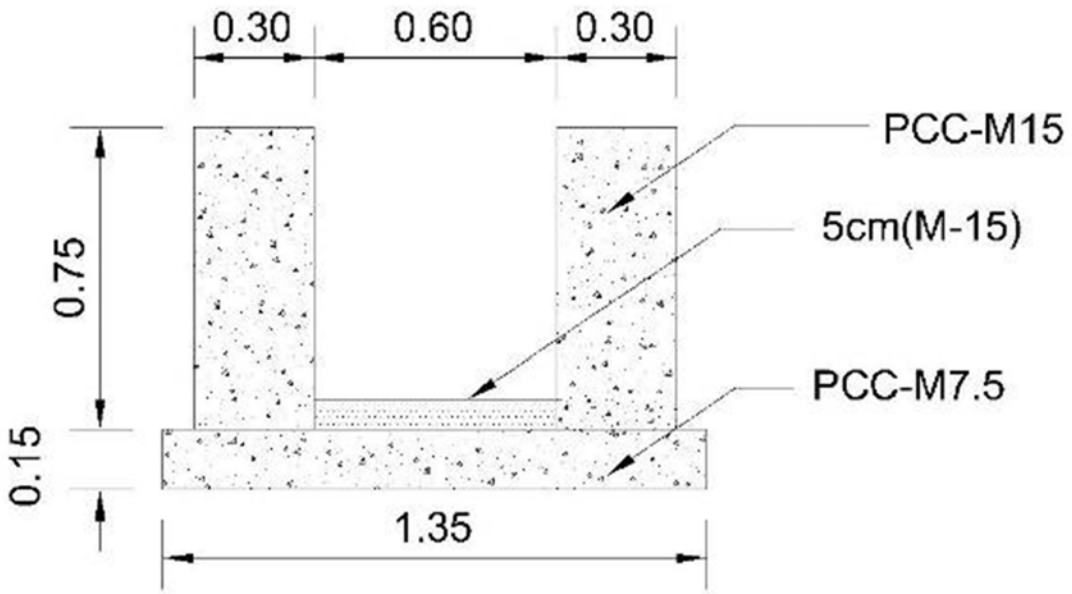
CONSTRUCTION OF MODEL SECTION IN VILAMBAR TANK



* All Dimensions are in Meters

Scale 1:10

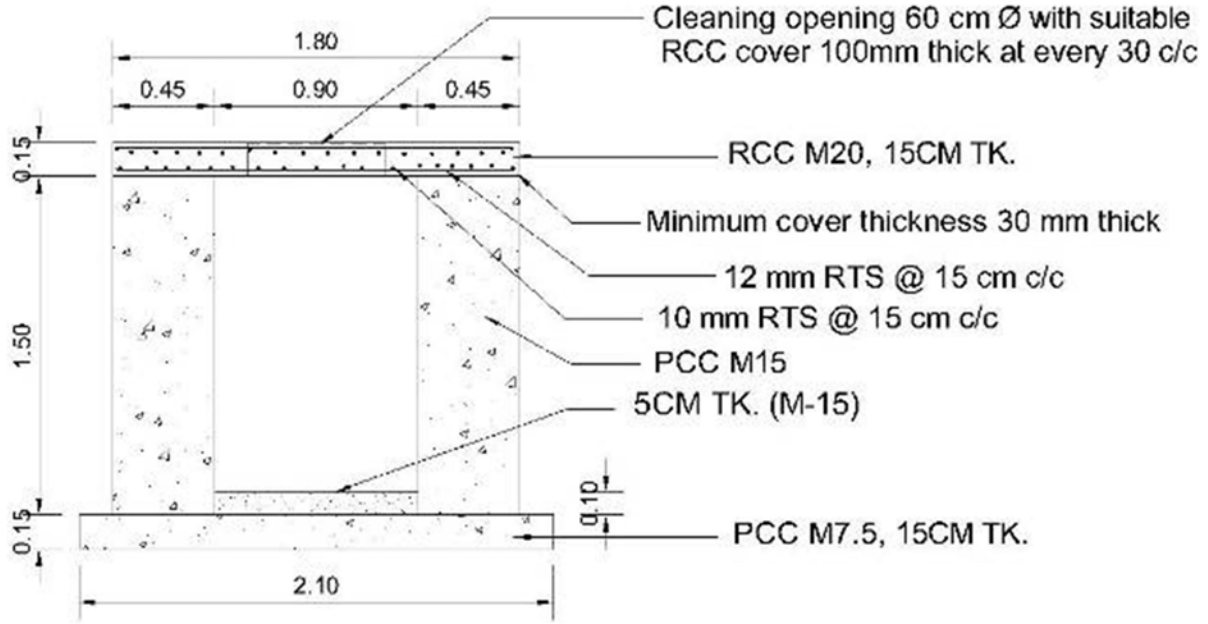
CROSS SECTION OF FIELD CHANNEL LINING FROM SLUICES



* All Dimensions are in Meters

Scale 1:10

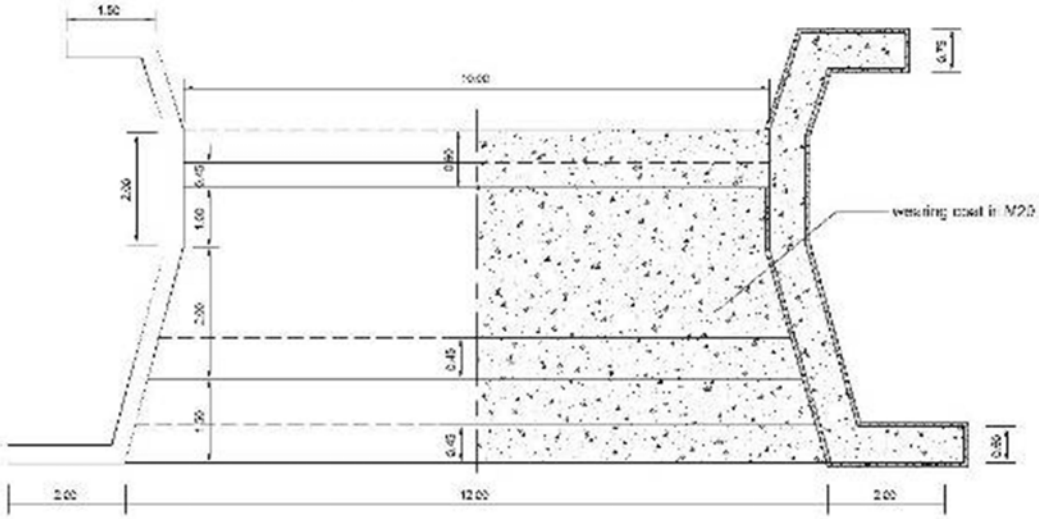
CROSS SECTION OF FIELD CHANNEL OF KALLAKURICHI SMALL TANK



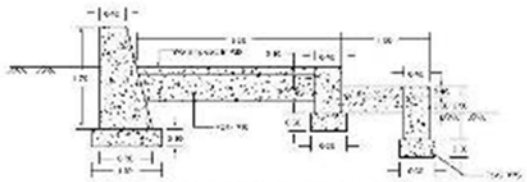
* All Dimensions are in Meters

Scale 1:10

REPAIRS TO KARANUR SMALL TANK WEIR



HALF PLAN AT TOP & BOTTOM



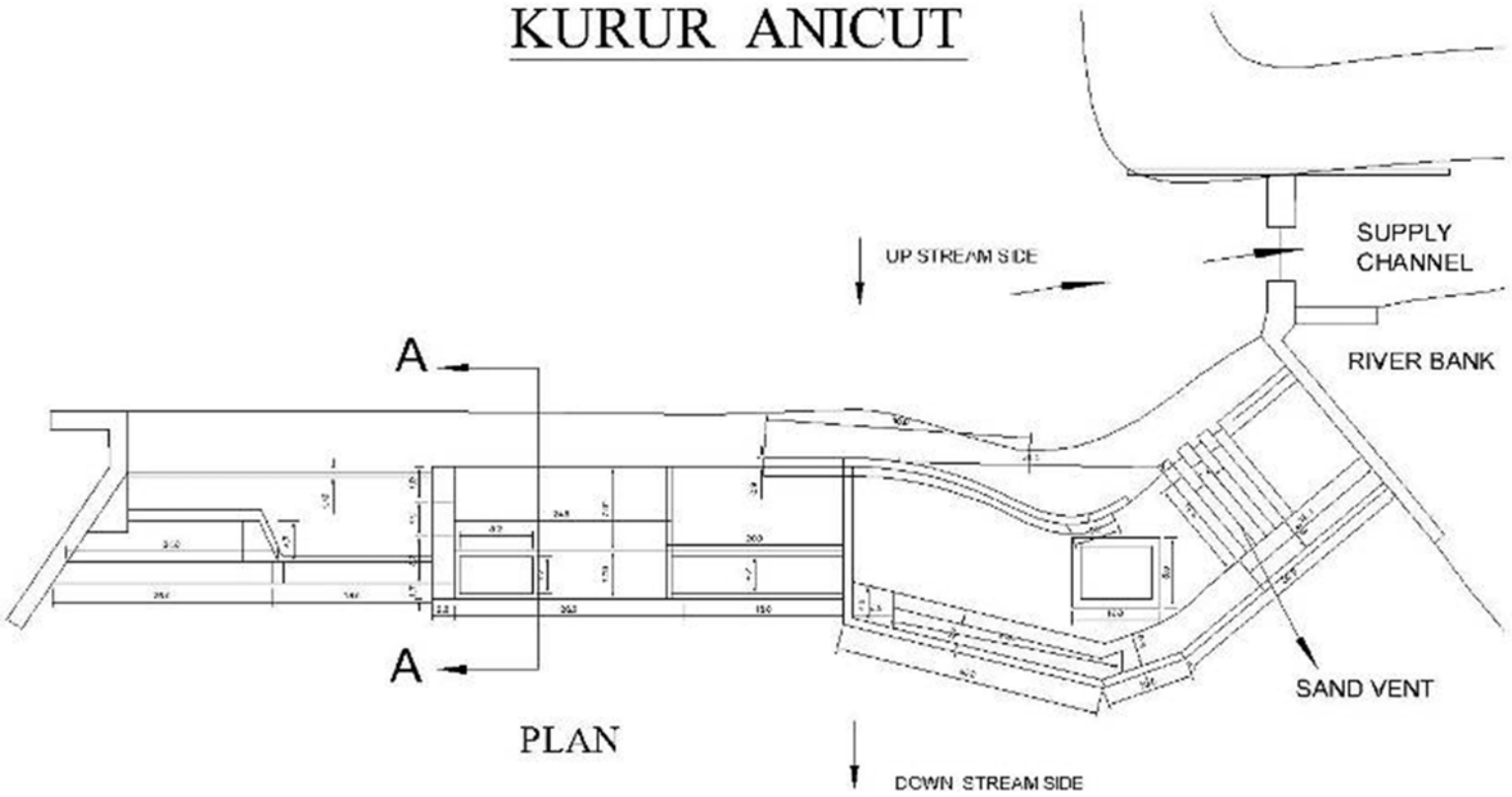
CROSS SECTION OF WEIR

* This drawing has been prepared as per the guidelines of CE (DRCS) vide Lr. No. 251 CE/SE (D) / AEE-IX/EE(D) / IAMWARM / Dt. 18.11.2009

*** All Dimensions are in Meters**

Scale 1:100

KURUR ANICUT



PLAN

* All Dimensions are in Meters

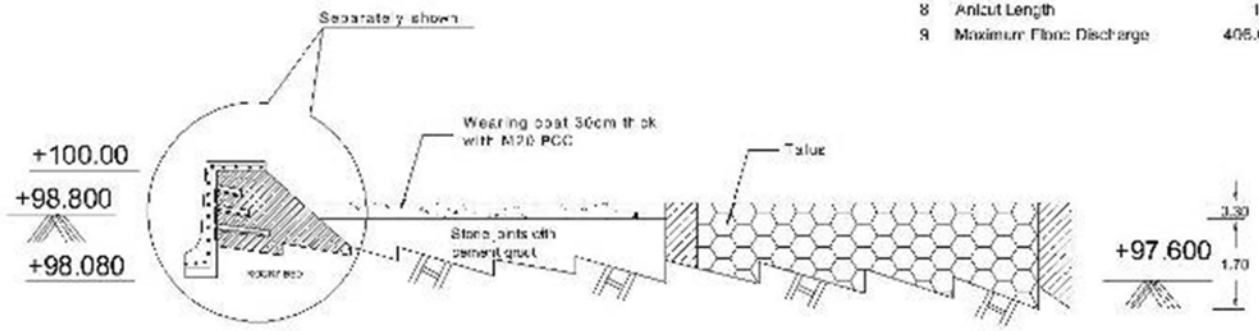
Scale 1:100

KURUR ANICUT

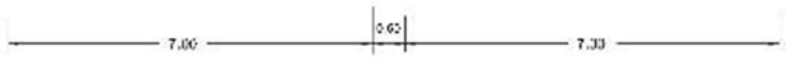
* This drawing has been prepared as per the guidelines of C.E (DRCS) vide Lr. No. 251 CE/SE (D) / AEE-IX/EE(D) / IAMWARM / Dt. 18.11.2009

HYDRAULIC PARTICULARS

1	Crest Level	+100.00
2	Up stream Bed Level	+98.800
3	Front Maximum Flood Level	+101.600
4	Up stream scour level	+98.080
5	Down stream Bed level	+97.600
6	Rear Water Level	+100.900
7	Rear Scour Level	+97.380
8	Anicut Length	117.00 m
9	Maximum Flood Discharge	406.00 cum / sec



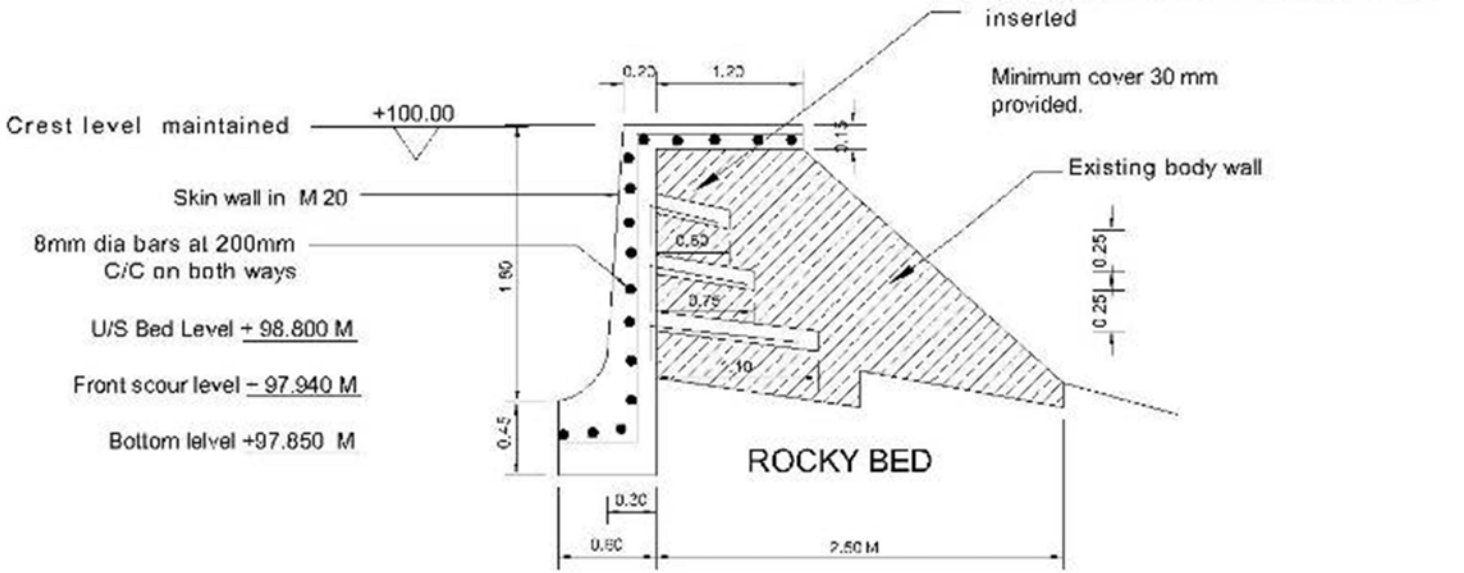
CROSS SECTION @ AA



* All Dimensions are in Meters

Scale 1:100

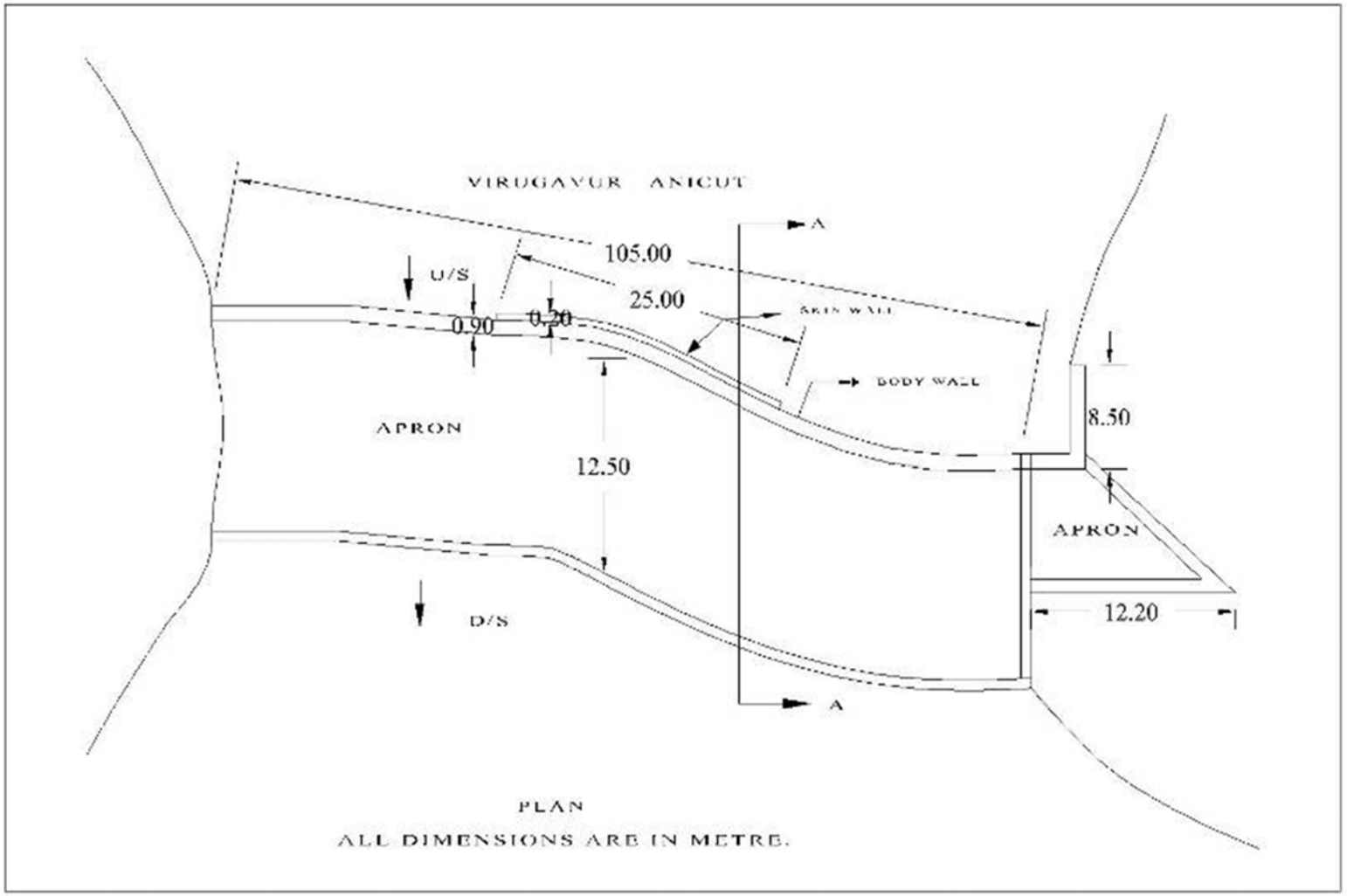
KURUR ANICUT



DETAILS OF SKIN WALL AND BODY WALL

* All Dimensions are in Meters

Scale 1:100



PLAN

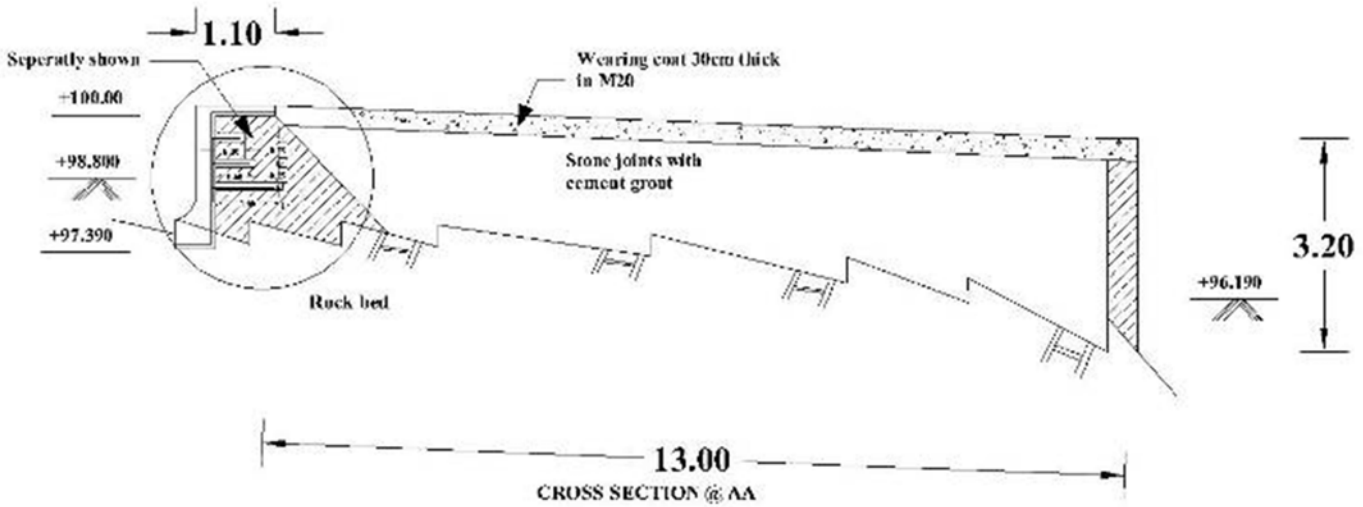
ALL DIMENSIONS ARE IN METRE.

VIRUGAVUR ANICUT

HYDRAULIC PARTICULARS

1	Crest Level	+100.00
2	Up stream Bed Level	+98.800
3	Front Maximum Flood Level	+103.100
4	Up stream scour level	+97.390
5	Down stream Bed level	+97.700
6	Rear Water Level	+101.900
7	Rear Scour Level	96.190
8	Anicut Length	65.00 m
9	Maximum Flood Discharge	565.55 cum/sec

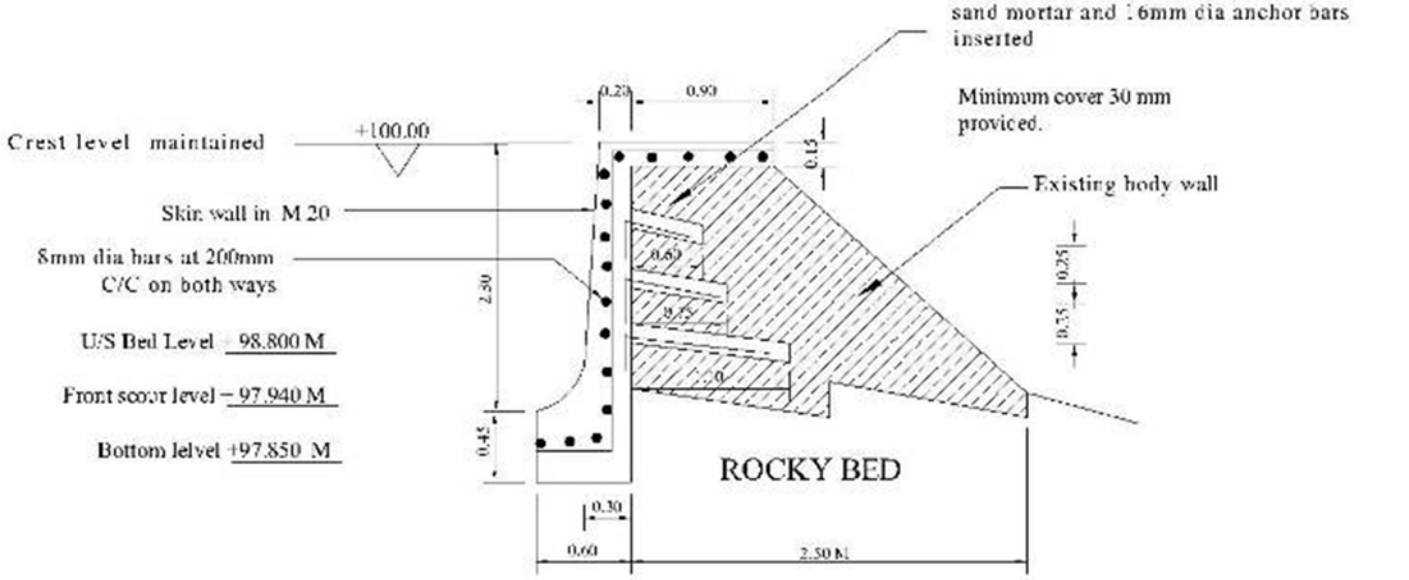
* This drawing has been prepared as per the guidelines of C.E (DRCS) vide Lr. No. 251 CE/SE (D) / AEE-IX/EE(D) / IAMWARM / Dt. 18.11.2009



CROSS SECTION @ AA

ALL DIMENSIONS ARE IN METRE

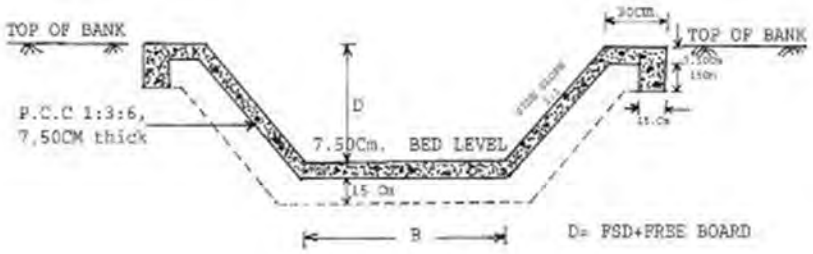
VIRUGAVUR ANICUT



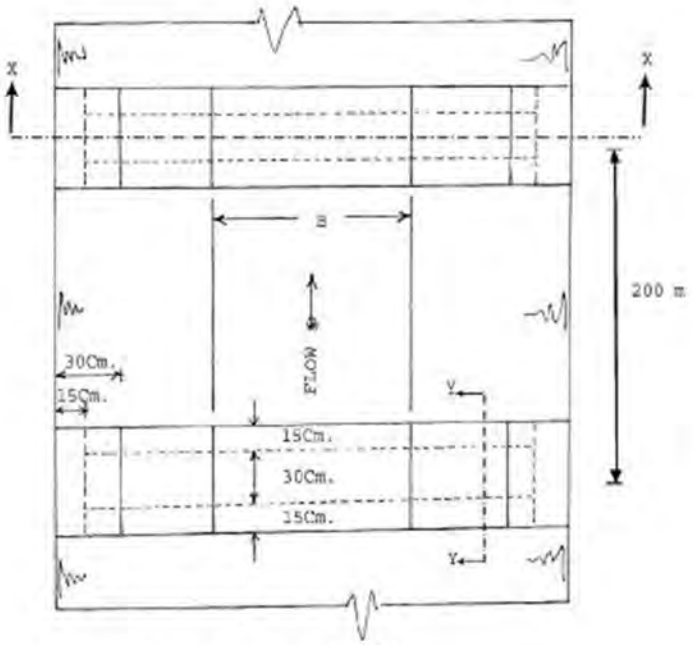
DETAILS OF SKIN WALL AND BODY WALL

* All Dimensions are in Meters

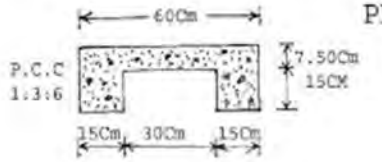
Scale 1:100



SECTION AT XX

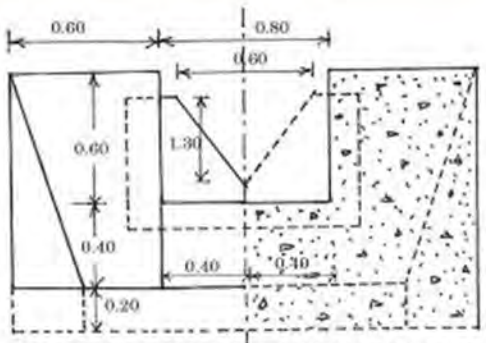


PLAN

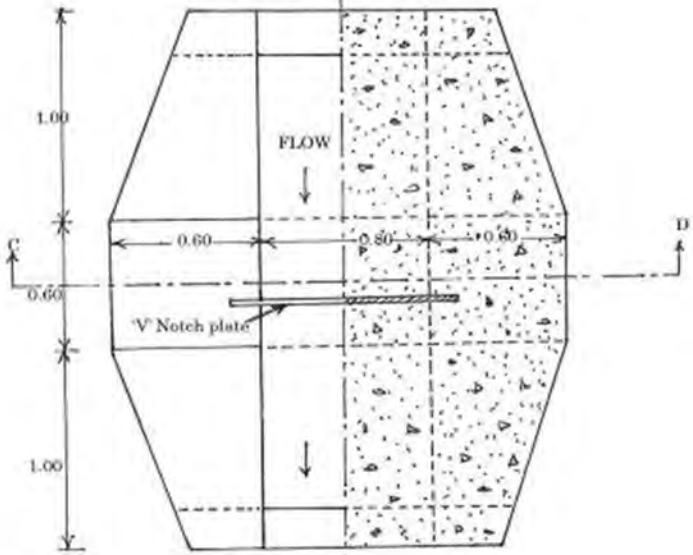


TN IAMWARM PROJECT - PHASE -III
GOMUKHI SUB BASIN
TYPICAL SKETCH OF BED BAR / MODEL SECTION FOR SUPLLY CHANNELS
SCALE:- NOT TO SCALE

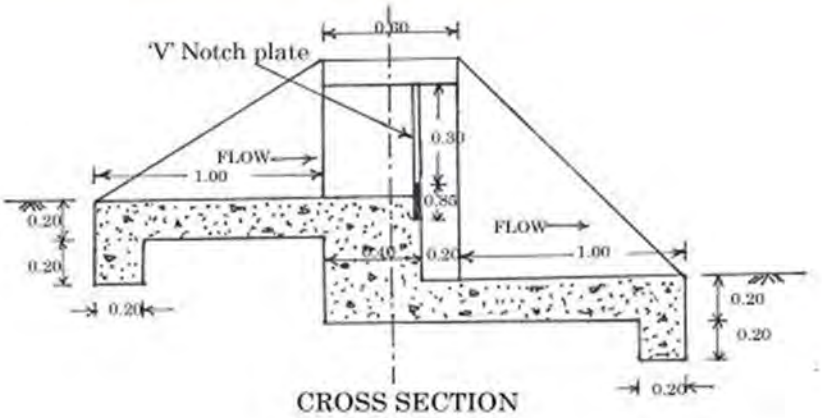
Ref :- Guidlines by thiru.R.K.Malkothra W.B Consultant



HALF FRONT ELEVATION AND HALF SECTIONAL ELEVATION AT 'CD'



HALF PLAN AT TOP AND HALF PLAN AT BOTTOM



CROSS SECTION

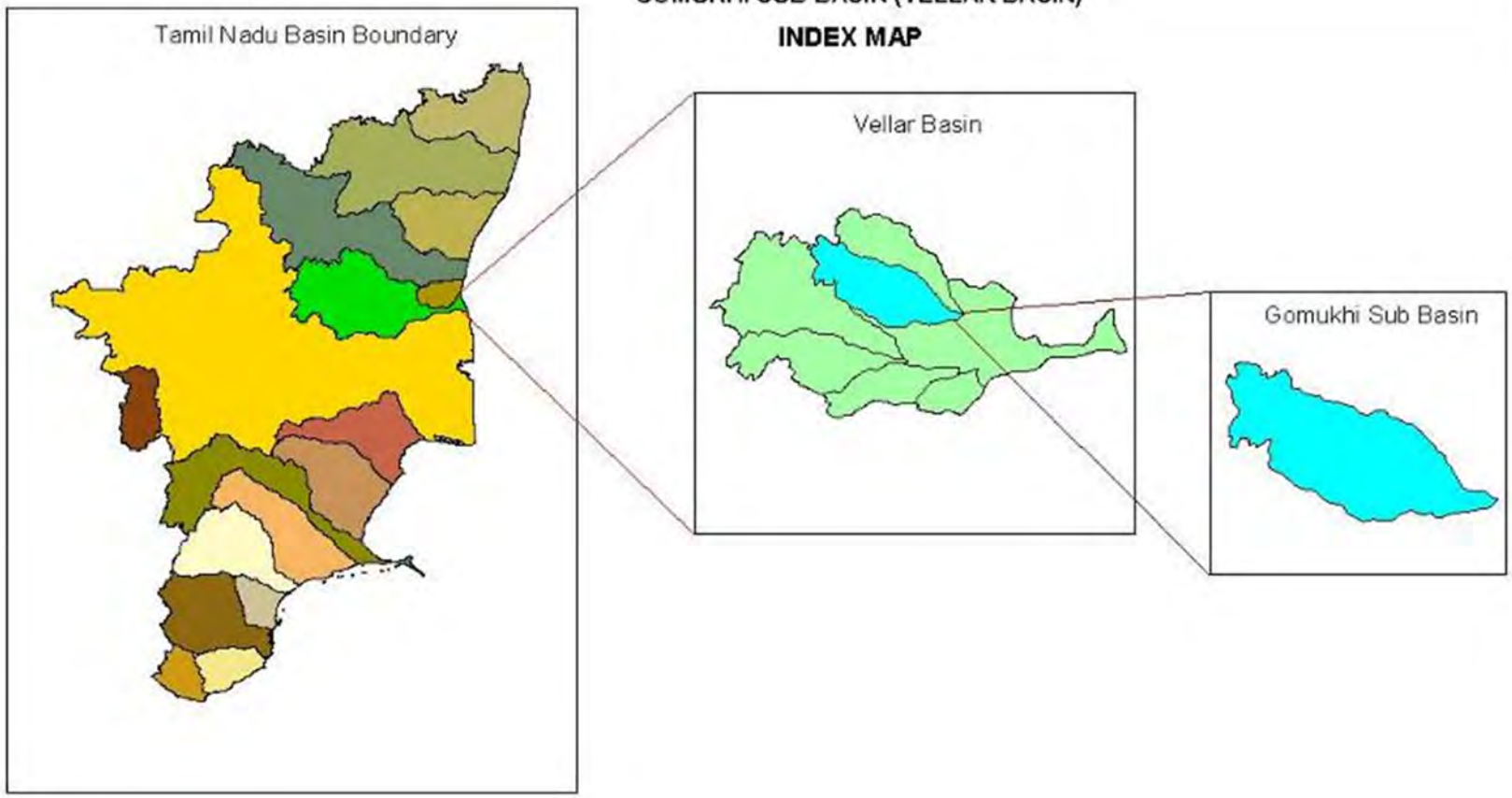
'V' -NOTCH - SALIENT DETAILS (For 1 to 4 C/s)

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 60	50 x 75
3	85	32	35 x 70	55 x 90
4	113.27	36	42 x 84	60 x 100

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

GOMUKHI SUB BASIN (VELLAR BASIN)

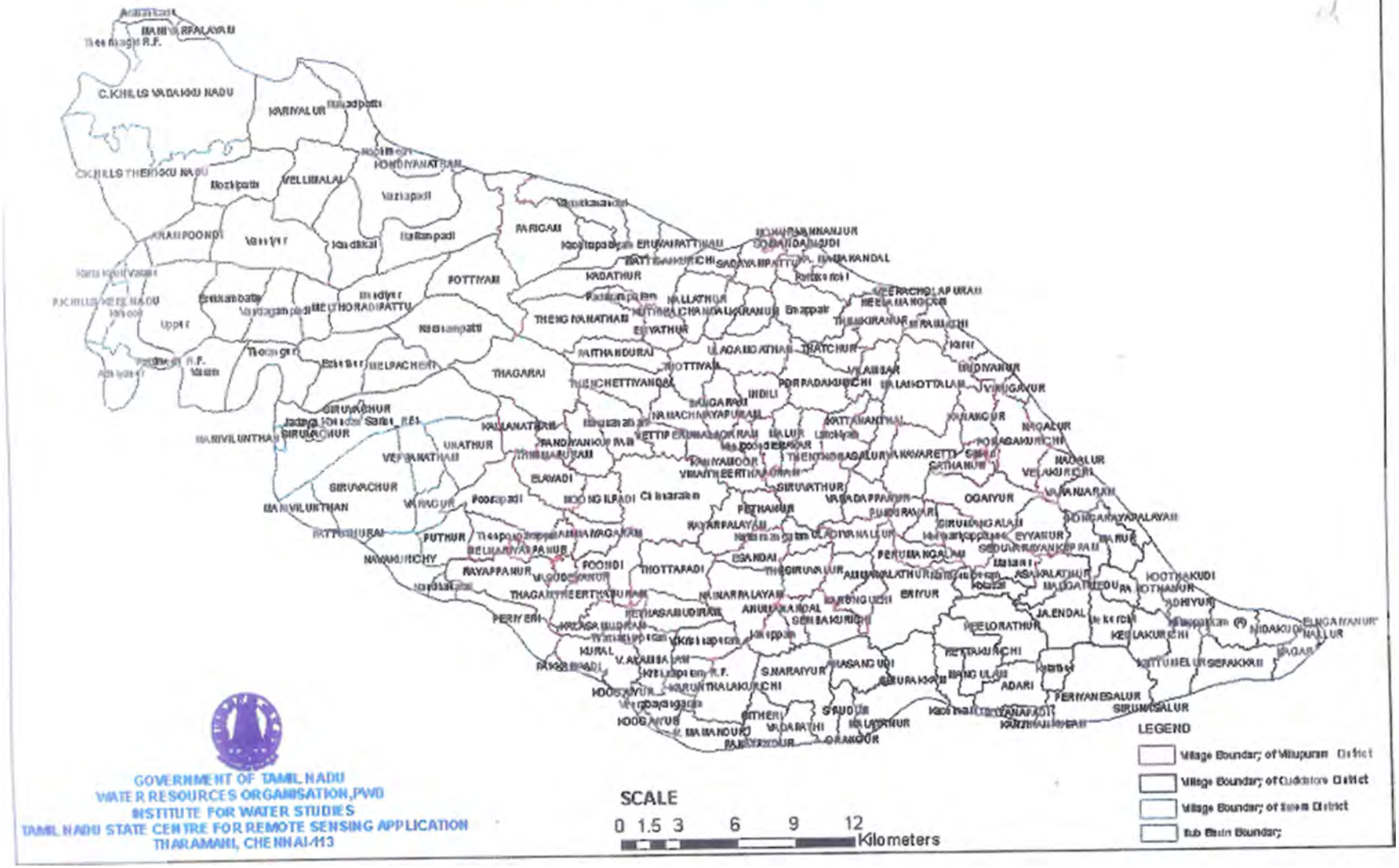
INDEX MAP



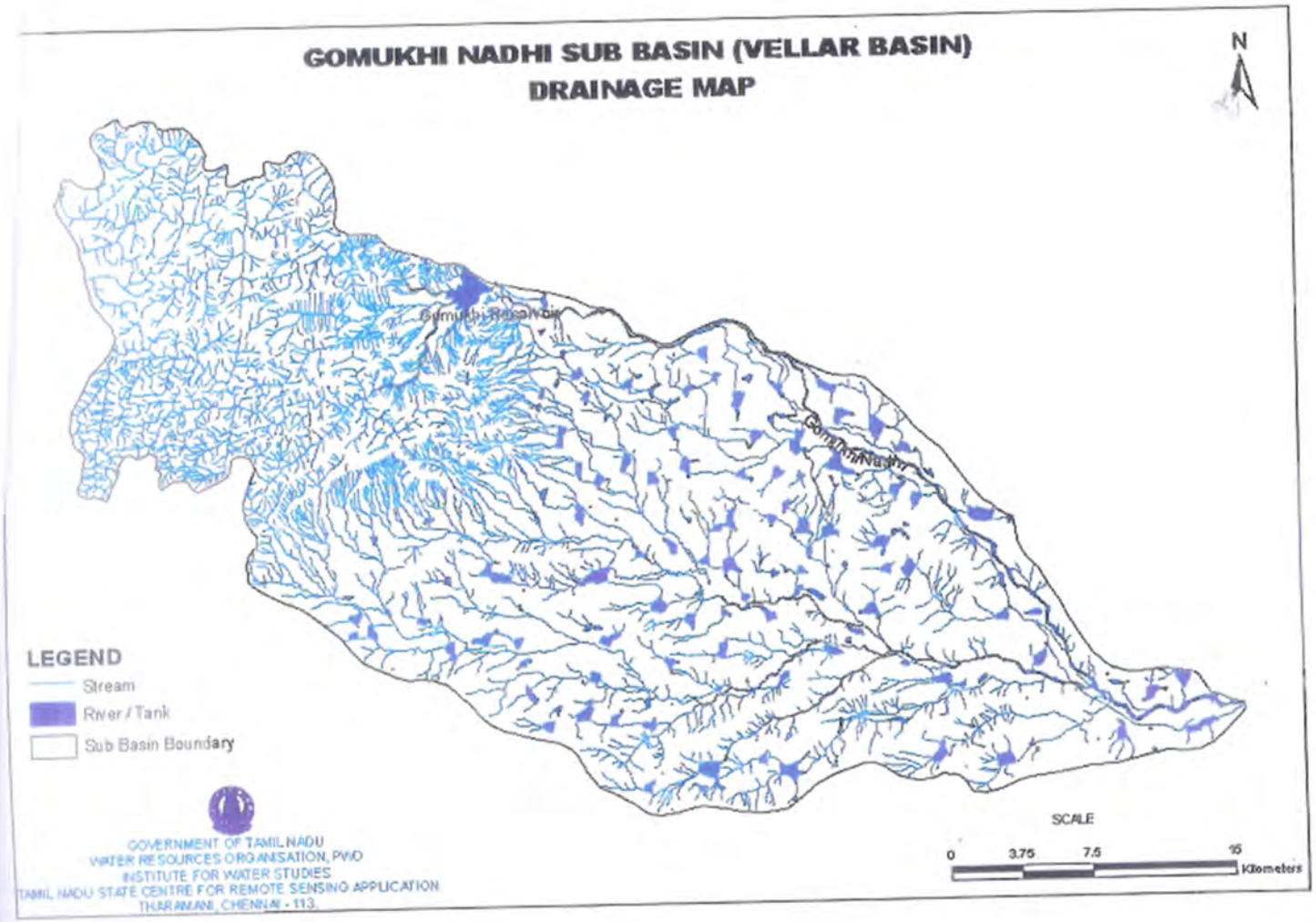
GOVERNMENT OF TAMIL NADU
WATER RESOURCES ORGANISATION,PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI - 113


GOMUKINADHI SUB BASIN (VELLAR BASIN)
ADMINISTRATIVE MAP
N
Peddanaickanpalayam
Kallakurichi
Kalrayan Hills
Peddanaickanpalayam
Peddanaickanpalayam
Kallakurichi
Thalaivasal
Chinnasalem
Thiyagadurgam
Nallur
Mangalur
Virudhachalam
LEGEND
Block Boundary
Sub Basin Boundary
GOVERNMENT OF TAMIL NADU
WATER RESOURCES ORGANISATION,PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI - 113.
SCALE
0 3 6 12
Kilometers

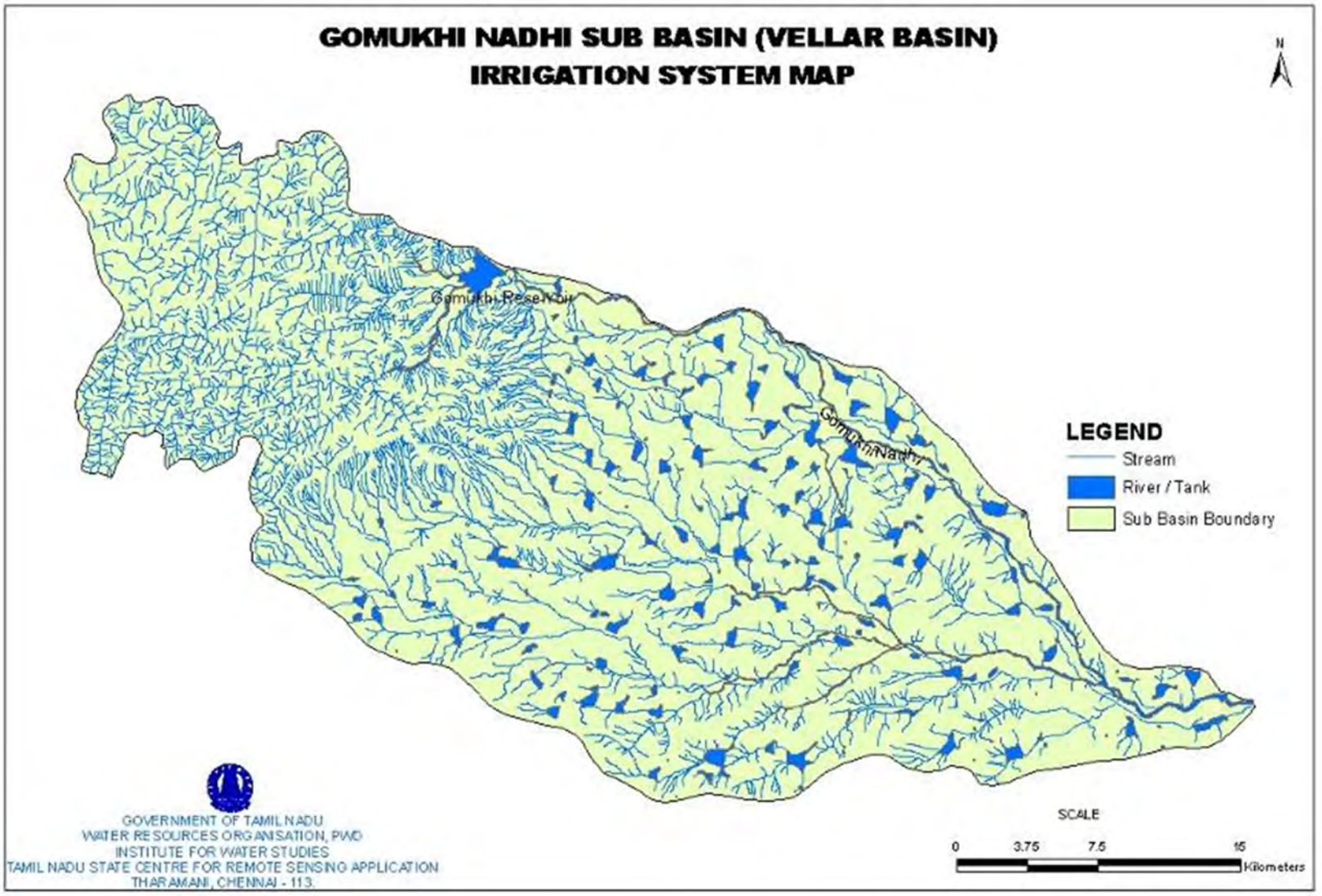
GOMUKINADHI SUB BASIN (VELLAR BASIN)
VILLAGE MAP



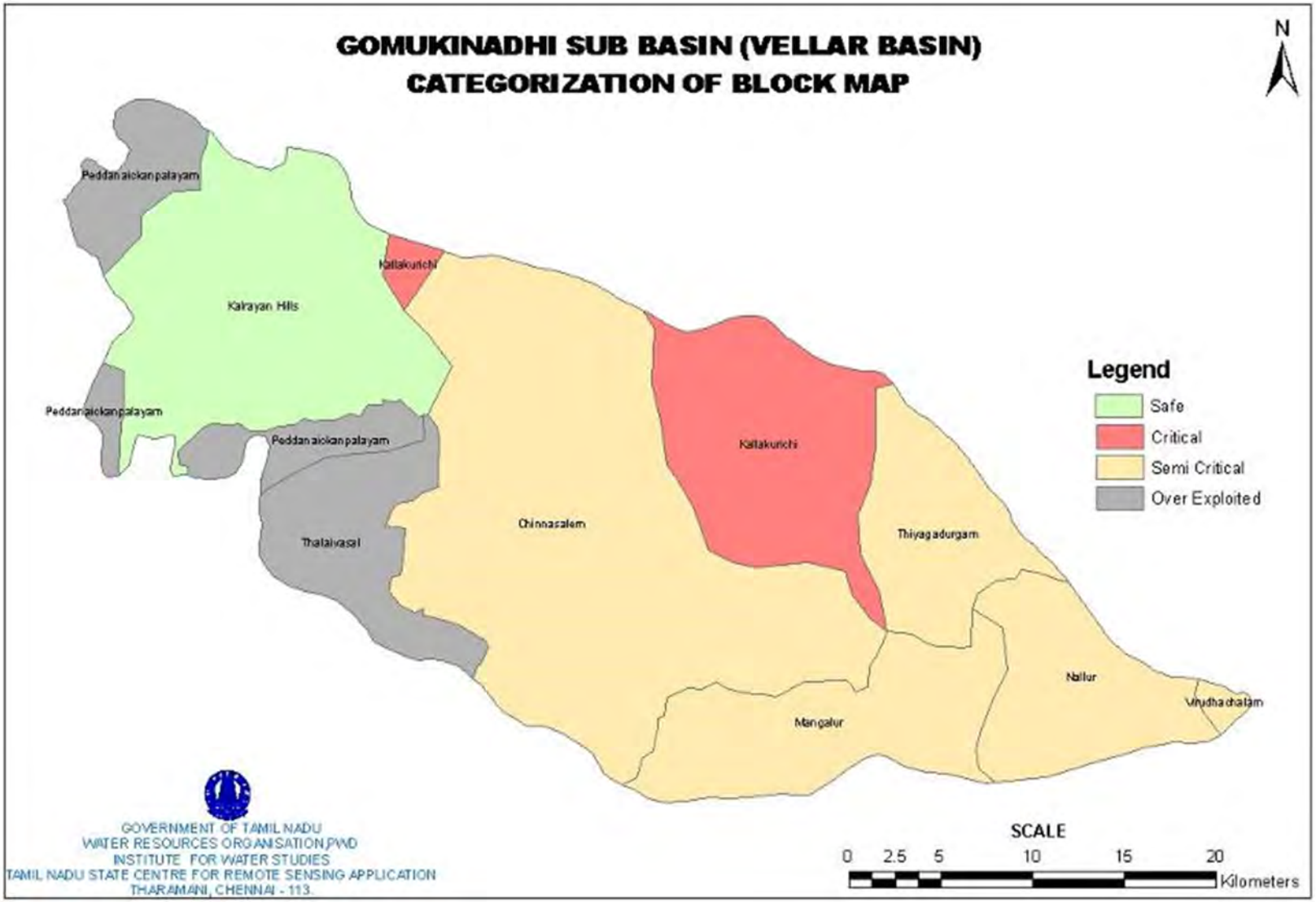
GOVERNMENT OF TAMIL NADU
WATER RESOURCES ORGANISATION,PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI-113


GOMUKHI NADHI SUB BASIN (VELLAR BASIN)
DRAINAGE MAP
N
Gomukhi Reservoir
Gomukhi Nadhi
LEGEND
Stream
River / Tank
Sub Basin Boundary
GOVERNMENT OF TAMILNADU
WATER RESOURCES ORGANISATION, PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI - 113.
SCALE
0
3.75
7.5
15
Kilometers

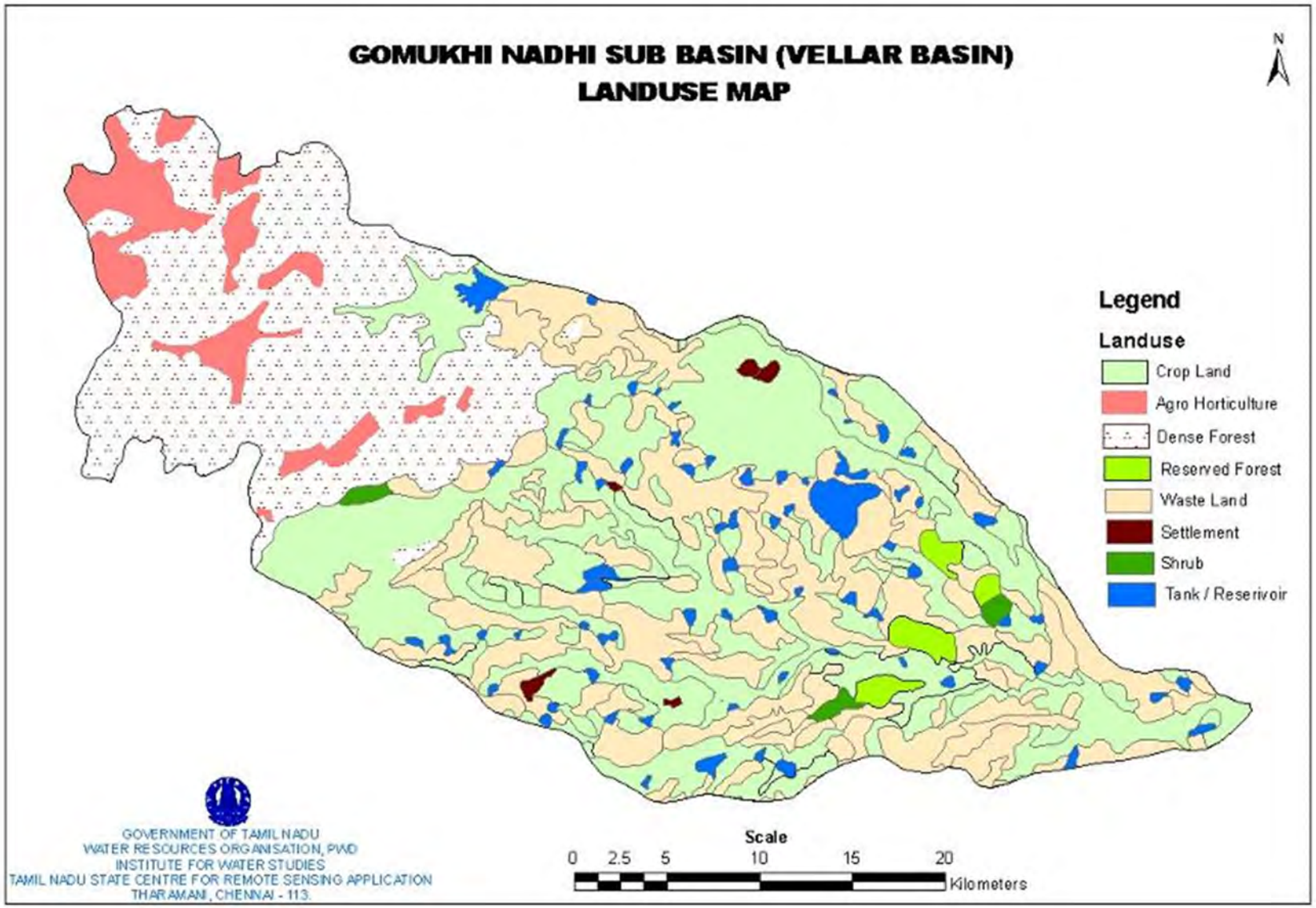
GOMUKHI NADHI SUB BASIN (VELLAR BASIN)
IRRIGATION SYSTEM MAP



GOVERNMENT OF TAMIL NADU
WATER RESOURCES ORGANISATION, PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI - 113.

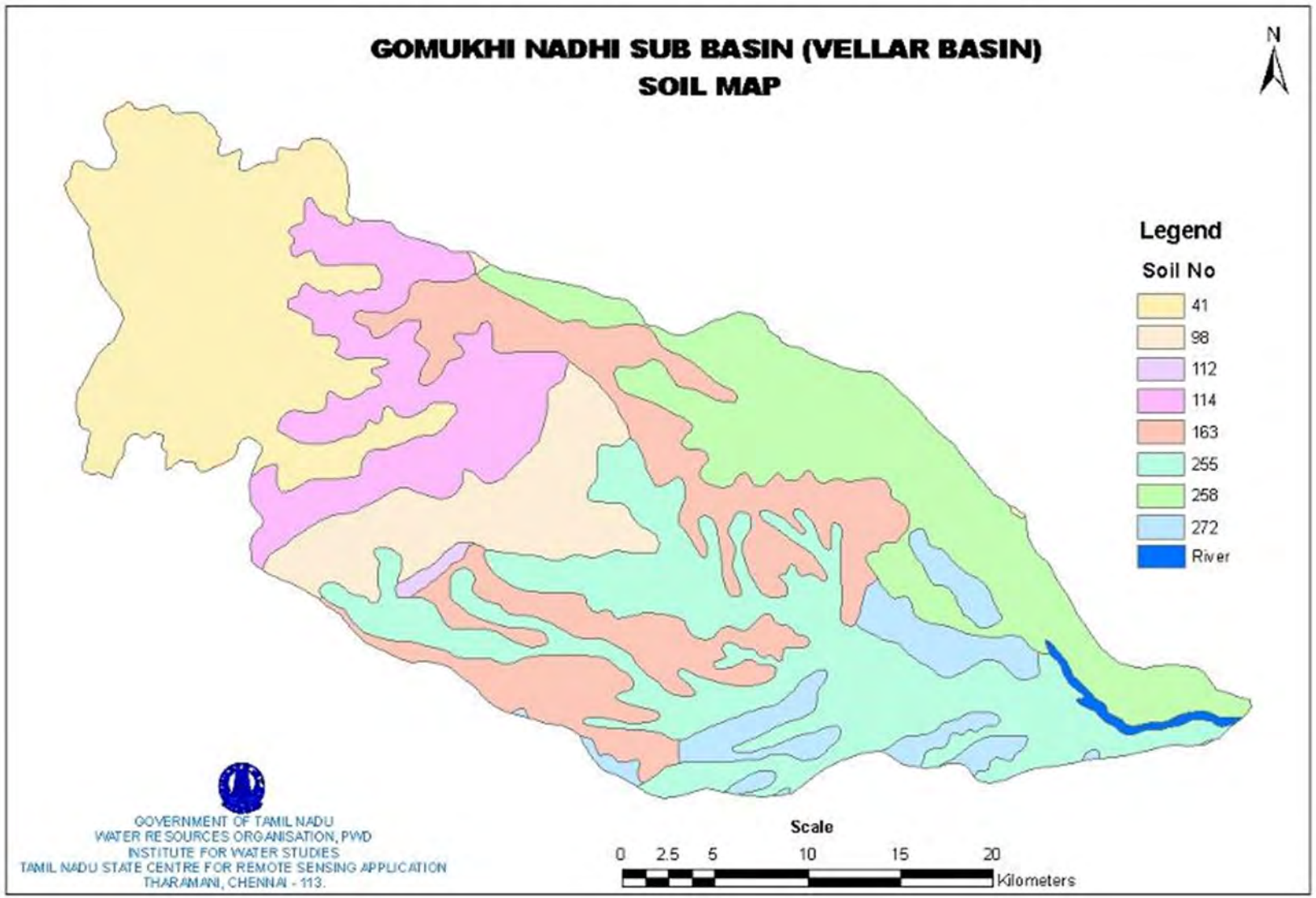

GOMUKINADHI SUB BASIN (VELLAR BASIN)
CATEGORIZATION OF BLOCK MAP
N
Peddanaickanpalayam
Kallakurichi
Kalrayan Hills
Peddanaickanpalayam
Peddanaickanpalayam
Kallakurichi
Thalaivasal
Chinnasalem
Thiyagadurgam
Nallur
Vridhachalam
Mangalur
Legend
Safe
Critical
Semi Critical
Over Exploited
SCALE
0 2.5 5 10 15 20
Kilometers
GOVERNMENT OF TAMIL NADU
WATER RESOURCES ORGANISATION,PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI - 113.

GOMUKHI NADHI SUB BASIN (VELLAR BASIN)
LANDUSE MAP



GOVERNMENT OF TAMIL NADU
WATER RESOURCES ORGANISATION, PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI - 113.

GOMUKHI NADHI SUB BASIN (VELLAR BASIN)
SOIL MAP



GOVERNMENT OF TAMIL NADU
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INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
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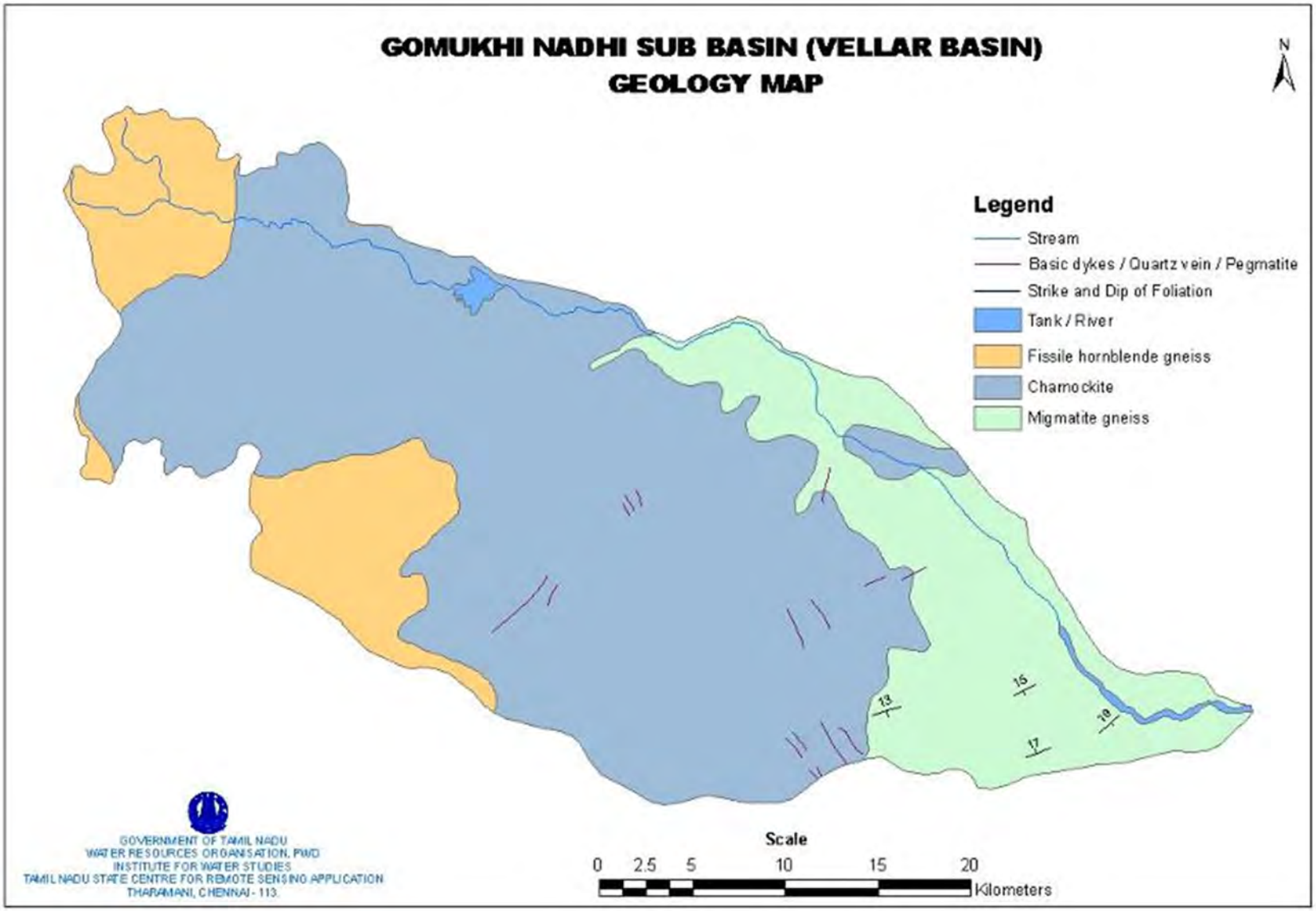
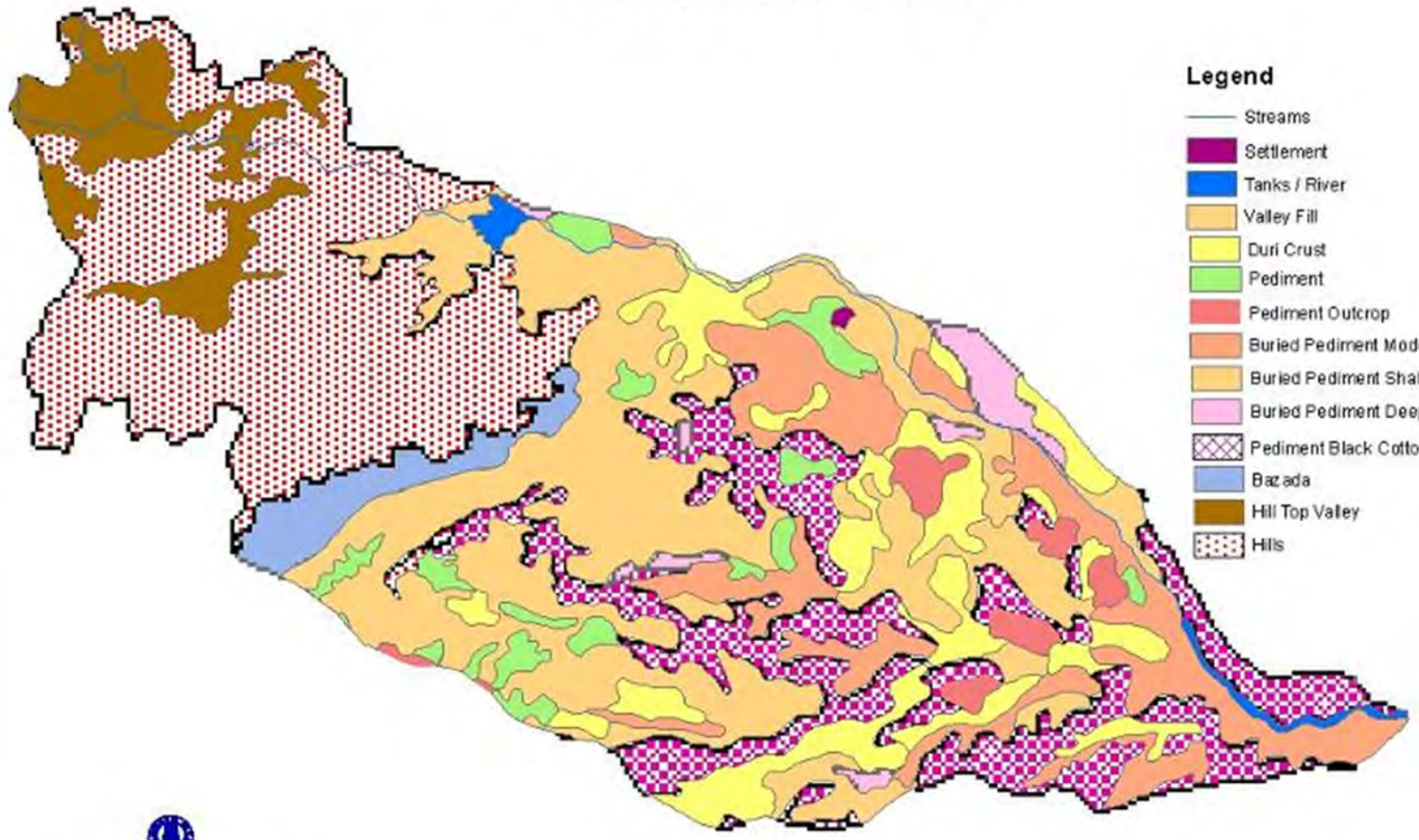
GOMUKHI NADHI SUB BASIN (VELLAR BASIN)
GEOLOGY MAP



GOVERNMENT OF TAMIL NADU
WATER RESOURCES ORGANISATION, PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI - 113.

GOMUKHI NADHI SUB BASIN (VELLAR BASIN)
GEOMORPHOLOGY MAP



GOVERNMENT OF TAMIL NADU
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INSTITUTE FOR WATER STUDIES
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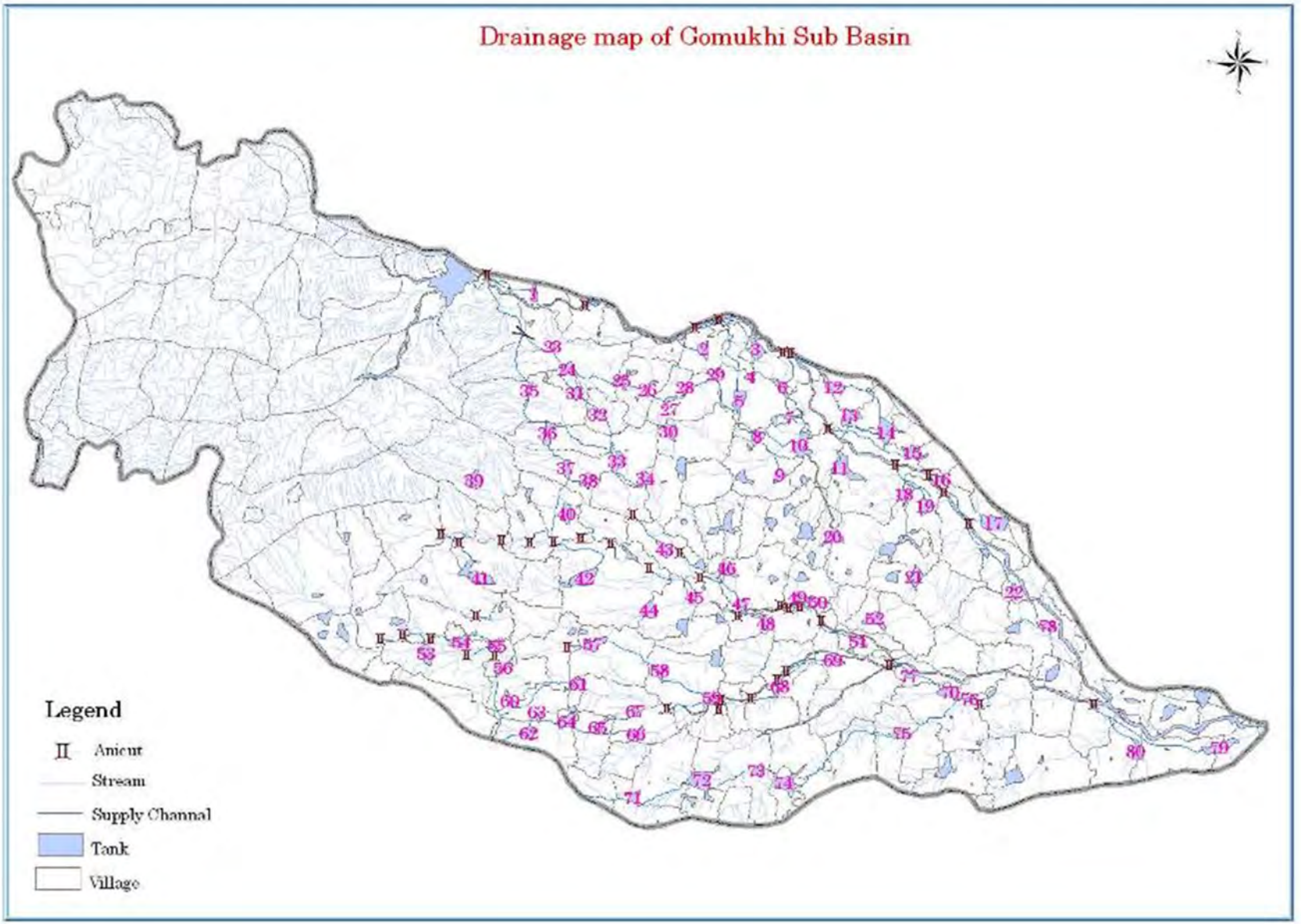
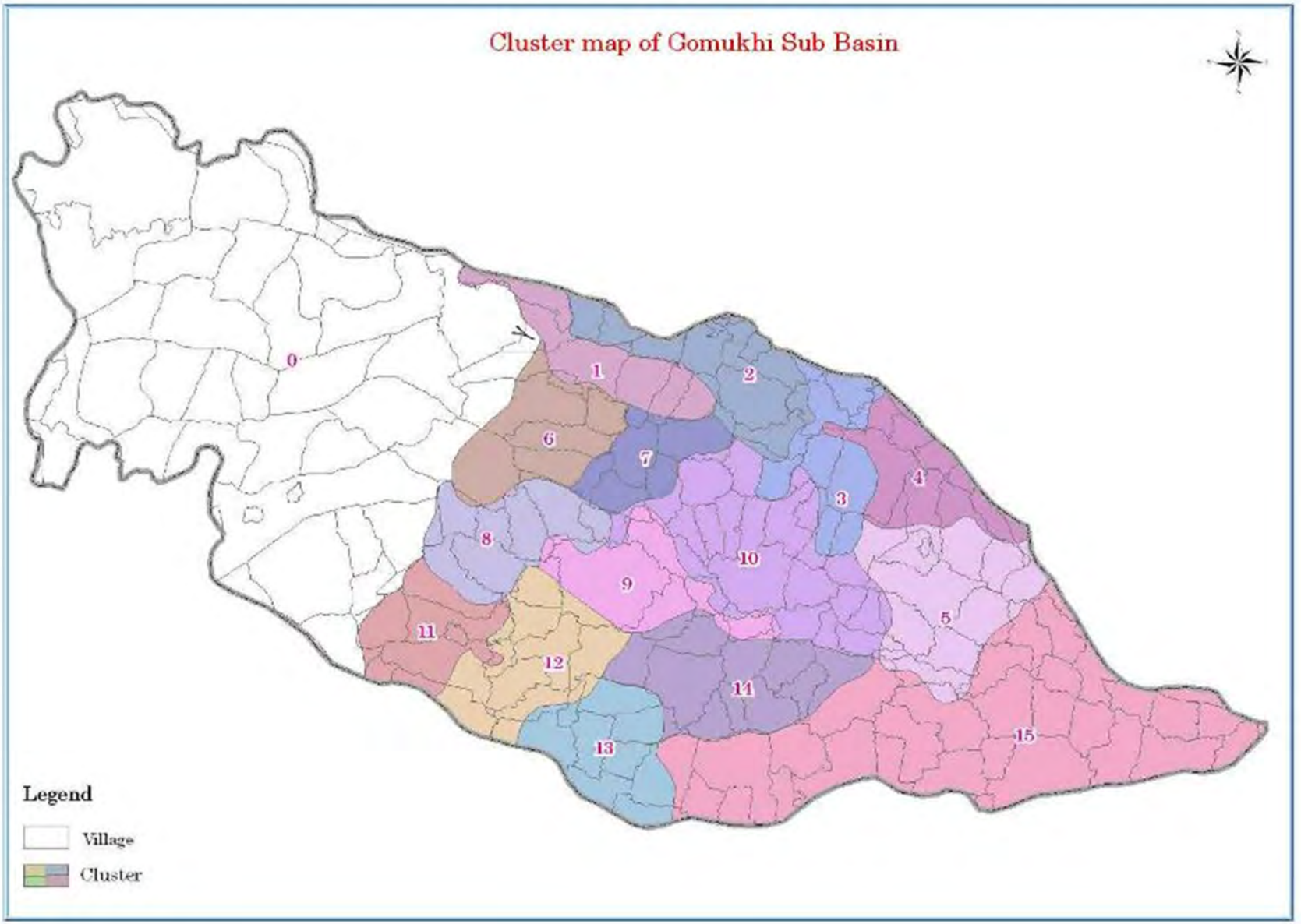
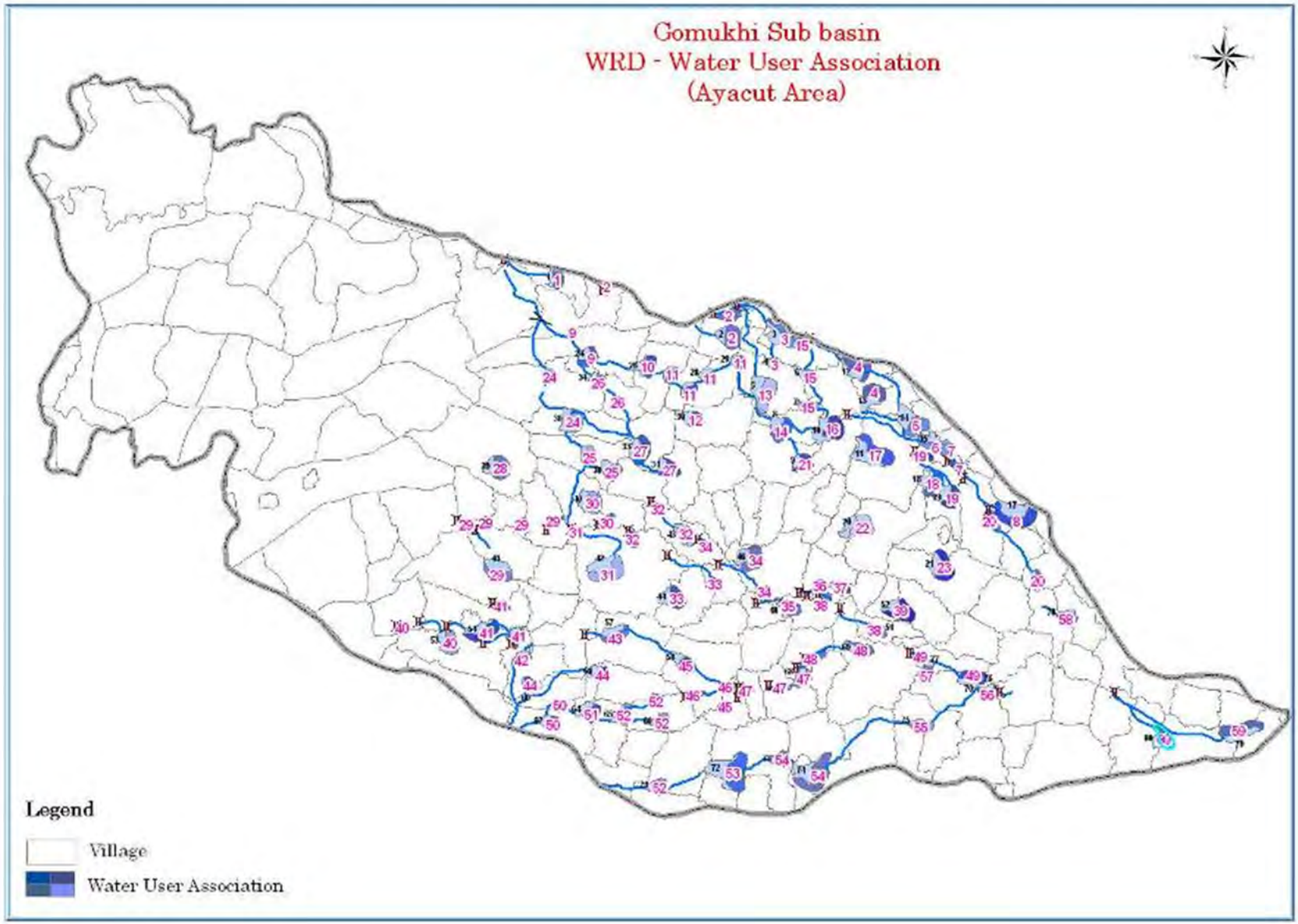
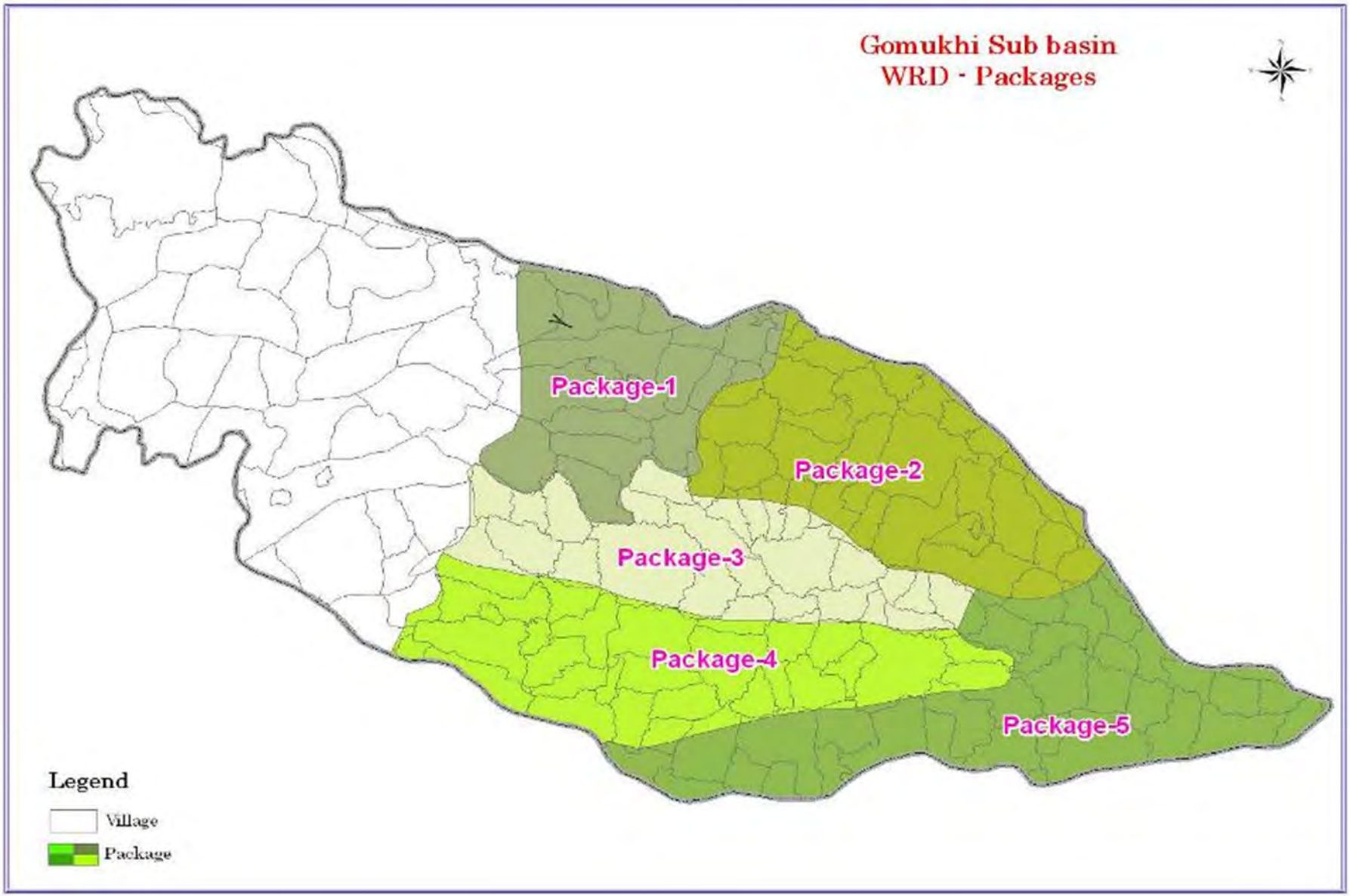
THARAMANI, CHENNAI - 113.


Drainage map of Gomukhi Sub Basin
Legend
Anicut
Stream
Supply Channal
Tank
Village


Cluster map of Gomukhi Sub Basin
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Legend
Village
Cluster


Gomukhi Sub basin
WRD - Water User Association
(Ayacut Area)
Legend
Village
Water User Association


Gomukhi Sub basin
WRD - Packages
Package-1
Package-2
Package-3
Package-4
Package-5
Legend
Village
Package

Stakeholders meeting held at Kallakurichi on 30.09.08

Stakeholders meeting held at Kallakurichi on 30.09.08

Stakeholders meeting held at Kallakurichi on 30.09.08

Stakeholders meeting held at Kallakurichi on 30.09.08

Sub Committee meeting conducted by Executive Engineer on 21.1.09

Sub Committee meeting conducted by Asst. Executive Engineer on 30.12.08

Walk Through Survey Kadathur Dividing Dam - 15.10.08

Walk Through Survey Kadathur Dividing Dam - 15.10.08

Walk Through Survey Somandarukudi Anaicut- 16.10.08

Walk Through Survey Thenkeeranur Village - 16.10.08

Walk Through Survey Thachur Village - 16.10.08

Walk Through Survey Neelamangalam Village - 16.10.08

Walk Through Survey Mudiyanur Village - 29.10.08

Walk Through Survey Kanangur Tank - 21.10.08

Walk Through Survey Nagalur Village - 29.10.08

Walk Through Survey Thengiyanatham Village - 4.11.08

Walk Through Survey Thenchettyendal Village - 4.11.08

Walk Through Survey Eliyathur Village - 4.11.08

Walk Through Survey Elavadi Village - 10.12.08

Walk Through Survey Perumangalam Village - 13.12.08

Walk Through Survey Thenponparappy Anicut - 15.12.08

Walk Through Survey Vasudevanur Anicut - 15.12.08

Walk Through Survey Poondi Anicut - 16.12.08

Walk Through Survey Thottapadi Village - 16.12.08

Walk Through Survey Anumanandal Anicut - 18.12.08

Walk Through Survey Karunkuli Village - 18.12.08

Walk Through Survey Eriyur Village - 18.12.08

Walk Through Survey Sembakurichi Anicut - 18.12.08

Walk Through Survey S. Naraiyur Village - 19.01.09

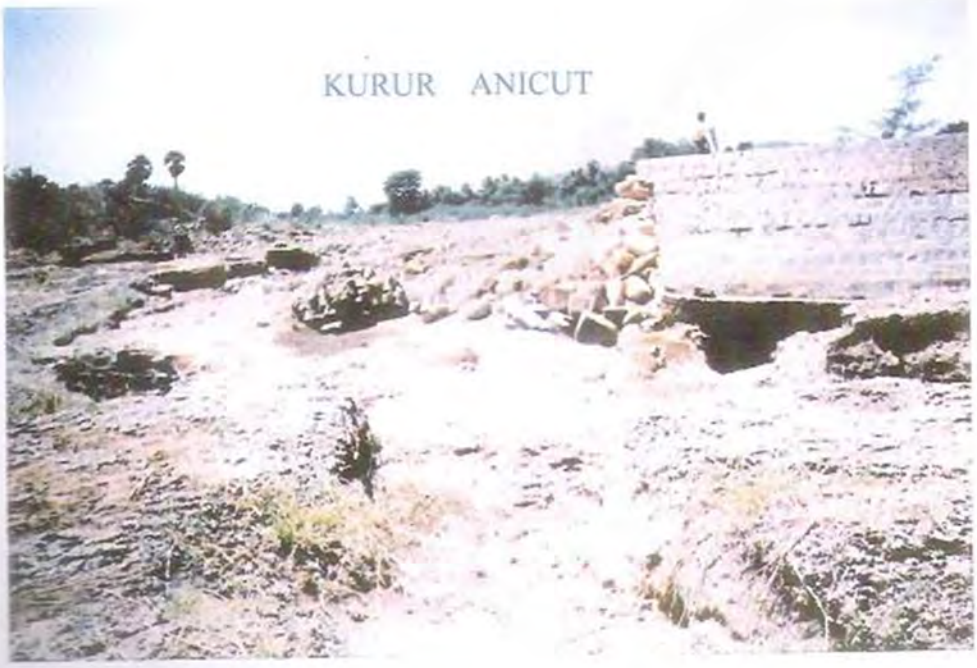
Walk Through Survey Arasankudi Village - 19.1.09

Walk Through Survey Rettakurichi Village - 19.1.09

Damaged Structures

KALLAKURICHI ANICUT

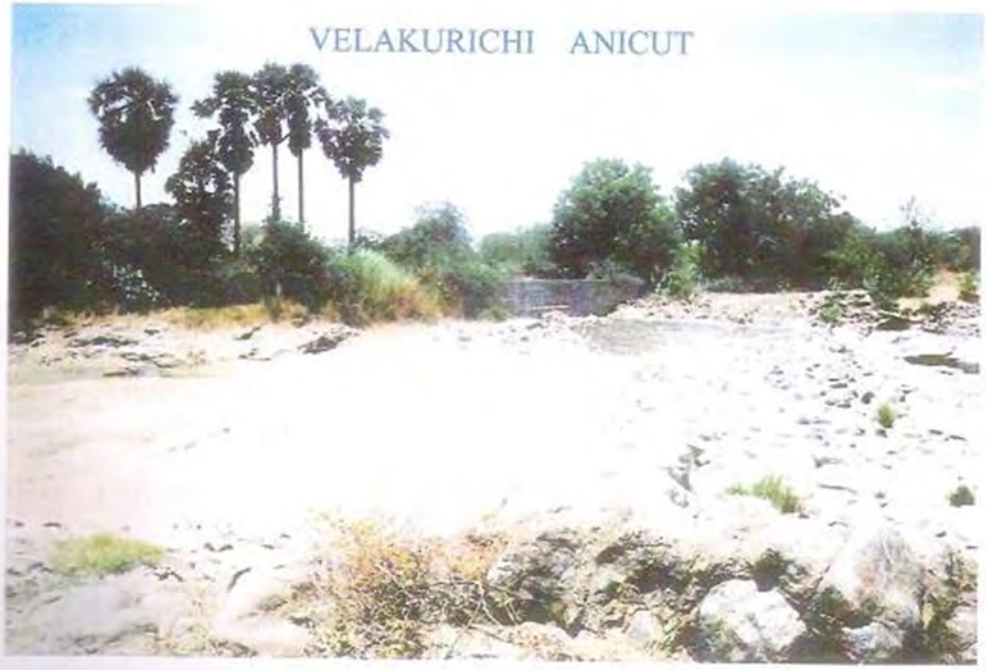
KURUR ANICUT



Damaged Structures

VIRUGAVUR ANICUT

VELAKURICHI ANICUT



POONDI ANICUT
IN THIRUMANIMUKTHA RIVER

SIRUMANGALAM ANICUT
IN MAYURA NADHI

Damaged Structures

THOTTAPADI TANK
IN THIRUMANIMUKTHA RIVER

PUKKIRAVARI TANK
IN MAYURA NADHI