GOVERNMENT OF TAMILNADU

AGRICULTURAL ENGINEERING DEPARTMENT

DETAILED PROJECT REPORT

MANIMUKTHA NADHI SUB BASIN

TAMIL NADU IRRIGATED AGRICULTURE MODERNIZATION PROJECT

TNIAMP - PHASE III



Ayacut Area : 2844.21Ha

Project Cost : Rs. 4.50 Lakh

EXECUTIVE ENGINEER (AE)
AGRIULTURAL ENGINEERING DEPARTMENT
VILUPPURAM.

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TNIAMP- PHASE III
MANIMUKTHA NADHI SUB BASIN

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1. INTRODUCTION

1.1. GENERAL:

Tamil Nadu is one of the driest and most water-stressed states of India with average annual rainfall of 925 mm, which is well below the national average of 1,200 mm. Per capita availability of water in the state is around 750 m^3 a year compared with the national average of 2,100 m^3. The state is heavily dependent on irrigated agriculture, and over the years, it has built an impressive inventory of irrigation and water infrastructure. In Tamil Nadu, there are 89 major reservoirs, 39,000 tanks (traditional water harvesting structures), and 3 million wells. Irrigated agriculture is the largest consumer of water in Tamil Nadu, accounting for 75 percent of total water usage. About 3 million ha of land (54 percent of total crop land) is under irrigation with different sources of water: 30 percent of the total irrigated area is under canal irrigation, 21 percent is under tank irrigation, and 49 percent is irrigated by wells.

About 35.2 percent of the state's population is dependent on agriculture for their employment, and more than two thirds of the people live in rural areas and are engaged predominately in agriculture activities. The majority of farmers are small and marginal with average family land holdings of 0.83 ha. The main crops are rice, maize, pulses, groundnut, sugarcane, vegetables, and banana. Rice dominates agriculture production systems, accounting for 34 percent of total cropped area and 60 percent of irrigated area. Due to seasonality and scarcity of water supply, cultivation is mostly limited to only a single crop per year.

Performance of agriculture sector is below its potential due to multiple factors, including increasing water shortages, stagnant crop yields, low level of diversification, weak market development, high rates of postharvest losses, and increasing climate change threats. Tamil Nadu has been tackling these challenges through a multipronged approach of promoting policy reforms, institutional changes, and investment programs.

1.2. BACKGROUND OF TNIAMP:

For modernization of irrigation systems and introducing institutional and policy reforms, World Bank aided Tamil Nadu Irrigated Agriculture Modernization and Water-Bodies Restoration and Management Project (TN IAMWARM) was implemented from 2007, which concluded in 2015. Phase I of TN IAMWARM project has made significant development impacts in the state by modernizing irrigation infrastructure; improving water use efficiency; enhancing yields and productivity of agriculture, livestock, and fisheries; diversifying into high-value crops; and also, introducing major institutional reforms through participatory irrigation management (PIM) and water users' associations (WUAs).

TN IAMWARM Project has made major contributions in improving the state's water resource planning and implementation capacities. These achievements and lessons learned during the implementation of Phase I of TNIAMWARM Project has provided a solid basis for further enhancing the performance of irrigated agriculture in the state, through Integrated Water Resources Management & convergence of various Departments.

1.3. TN Irrigated Agricultural Modernization Project TNIAMP

As the follow on project for the successfully completed IAMWARM Project, the Hon'ble Chief Minister had ordered to take up the IAMWARM Project III, named as Tamil Nadu Irrigated Agriculture Modernization Project (TNIAMP) in the remaining 10 sub basins of the State covering 10 districts covering an extent of 0.4522098 lakh hectare over a period of 7 years starting from 2020. The Project will be implemented by Water Resources Department and 7 line departments under the coordination of Water Resources Department.

The proposed project will bring the policy and institutional developments achieved under the TN IAMWARM project to a new level and further enhance water and agriculture productivity, bringing crop diversification to a new level, and improving farmers' links to markets and value addition. The project will also rehabilitate and modernize high-priority tank irrigation systems in more than 50 percent of the sub-basins of the state, which were not part of the TN IAMWARM Project.

1.3.1. Objective of TNIAMP

The proposed project will underscore the importance of introducing innovative aspects into the design of the new project built on lessons learned from TN-IAMWARM-1 Project and also reflect the evolving needs of the state in the area of agriculture modernization

The development objectives of the proposed TN-IAMP-III project in the selected 10 sub-basin areas in Tamil Nadu are as follows:

- Enhancement of productivity and climate resilience of irrigated agriculture
- Improvement in water management
- To support value-addition for farmers and agro entrepreneurs in agriculture, horticulture, livestock and fisheries sectors.

1.3.2. Components of TNIAMP

The TN-IAMWARM-III project to be taken up in 10 sub-basins includes innovative aspects that build on lessons learned from TN-IAMWARM-1 and various projects regionally and globally to address the modernization needs of irrigated agriculture including horticulture, livestock and fisheries in Tamil Nadu.

- ***Component A:***Irrigation and Water Management
- ***Component B:***Agriculture Productivity Enhancement, Diversification, Marketing and Value Addition
- ***Component C:***Project Management Support

1.3.3 Anticipated outcomes of TNIAMP

- Efficient and judicious management of water resources.
- Improved crop productivity
- Increasing cropping and irrigation intensities
- Increase in groundwater recharge and reduction in groundwater abstraction
- Increasing vegetal cover
- Reduction in the current water deficit
- Increased dairy and inland fisheries production.
- Reduction in soil erosion rates
- Improvement in employment opportunities, social capital and access to amenities
- Socio-Economic empowerment of women farmers and vulnerable groups
- Impetus to local growth and development of the selected sub-basin areas

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1.4. Description of the Vellar Basin

There are 17 major River basins in Tamil Nadu. Vellar basin is one among them. Vellar river basin located in Salem, Villupuram, Perambalur, Ariyalur and Cuddalore districts of Tamil Nadu. 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, Namakkal , Perambalur

and Ariyalur District and Cuddalore District finally falls into the Bay of Bengal. TheVellar basin is situated between the coordinates of N latitude 110 13'-12000' and E Longitude 780 13' - 790 47'. The Vellar basin is bounded by Pennaiyar and Paravanar basins at north, Cauvery basin in the west & south the Bay of Bengal in the east. This basin has been divided into 7 sub-basins namely as follows;

- 1. Upper Vellar
- 2. Swethanadhi
- 3. Chinnar
- 4. Anaivariodai
- 5. Gomukhi nadhi.
- 6. Manimukthanadhi
- 7. Lower vellar.

- **1.5. Description of the ManimukthaSub Basin**

- The basin originates in Kalryan hills with drainage Area of 749.54 Km having I two drainages namely Mani river and Muktha river originating in the Northern part of the eastern slope of the Kalrayn Hills in Sankarapuram Taluk at an altitude of about40 km and the Muktha River flows for 32 km. These two rivers confluence ManimukthaNadhi sub basin having18 Anicuts, 49 PWD tanks, and one ManimukthaNadhi reservoir having the total Ayacut of 5027 Hectares. Average rainfall is 950mm in this sub basin.

➢ **Table 1.6.LIST of Blocks, Taluks and District covered in Manimuktha Sub Basin:**

District	Taluk	Block
Kallakurichi	Kallakurichi	Kallakurichi
		Thiyagaurgam
		Sankarapuram
		Chinnasalem
	Sankarapuram	Kallakurichi
		Thiyagaurgam
		Sankarapuram
		Chinnasalem
		Rishivanthiyam
	Chinnasalem	Kallakurichi
		Chinnasalem

➢ 1.6.1 LIST OF BLOCKS AND TALUKS, TANKS AND AYACUT DETAILS

S. No	Unique ID	Name of Tank	Block	Taluk	District	Registred ayacut
I	**Kallakurichi block**					
1	TN VE-06 T 0054	Peruvangur Tank	Kallakurichi	Kallakurichi	Kallakurichi	57.95
2	TN VE-06 T 0041	Thandalai Tank	Kallakurichi	Sankarapuram	Kallakurichi	127.89
3	TN VE-06 T 0031	Thirukkanangur Tank	Kallakurichi	Sankarapuram	Kallakurichi	120.24
4	TN VE-06 T 0037	Ka.Alambalam Tank	Kallakurichi	Sankarapuram	Kallakurichi	93.78
5	TNVE-06-T0035	Alathur Tank	Kallakurichi	Sankarapuram	Kallakurichi	327.00
					Total	**716.86**
II	**Thiyagadurgam block**					
1	TN VE-06 T 0083	Chittalur Tank	Thiagadurugam	Kallakurichi	Kallakurichi	155.79
2	TN VE-06 T 0048	Kalayanallur Small Tank	Thiagadurugam	Sankarapuram	Kallakurichi	27.97
3	TN VE-06 T 0040	Kalayanallur Tank	Thiagadurugam	Sankarapuram	Kallakurichi	27.97
4	TN VE-06 T 0102	Kudiyanallur Tank	Thiagadurugam	Kallakurichi	Kallakurichi	55.71
5	TN VE-06 T 0156	Koothakkudi Tank	Thiagadurugam	Kallakurichi	Kallakurichi	87.18
6	TN VE-06 T 0126	Ninnaiyur Tank	Thiagadurugam	Kallakurichi	Kallakurichi	49.08
7	TN VE-06 T 0038	Pallagacheri Tank	Thiagadurugam	Sankarapuram	Kallakurichi	130.91
8	TN VE-06 T 0057	Prithivimangalam	Thiagadurugam	Kallakurichi	Kallakurichi	152.06

9	TN VE-06 T 0122	Sithathur Tank	Thiagadurugam	Kallakurichi	Kallakurichi	48.60
10	TN VE-06 T 0079	Thyiyagai Tank	Thiagadurugam	Kallakurichi	Kallakurichi	54.05
11	TN VE-06 T 0051	Udayamampattu Tank	Thiagadurugam	Kallakurichi	Kallakurichi	46.10
12	TN VE-06 T 0124	Udayanatchi Tank	Thiagadurugam	Kallakurichi	Kallakurichi	59.91
13	TN VE-06 T 0046	VadaThorasalur Tank	Thiagadurugam	Kallakurichi	Kallakurichi	50.93
					Total	**946.26**
III	**Sankarapuram block**					
1	TN VE-06 T 0020	Chellampattu Tank	Sankarapuram	Sankarapuram	Kallakurichi	53.69
2	TN VE-06 T 0014	Kosapadi Tank	Sankarapuram	Sankarapuram	Kallakurichi	59.73
3	TN VE-06 T 0022	Manjaputtur Tank	Sankarapuram	Sankarapuram	Kallakurichi	91.50
4	TN VE-06 T 0001	Pandalam Tank	Sankarapuram	Sankarapuram	Kallakurichi	153.44
5	TN VE-06 T 0018	Poikunam Tank	Sankarapuram	Sankarapuram	Kallakurichi	41.31
6	TN VE-06 T 0003	Pootai Tank	Sankarapuram	Sankarapuram	Kallakurichi	112.96
7	TN VE-06 T 0011	Sembarampattu Tank	Sankarapuram	Sankarapuram	Kallakurichi	44.07
8	TN VE-06 T 0007	Urangani Tank	Sankarapuram	Sankarapuram	Kallakurichi	89.07
9	TN VE-06 T 0019	Vadachettiyandal	Sankarapuram	Sankarapuram	Kallakurichi	48.18
					Total	**693.95**
IV	**Rishivanthiyam block**					

1	TN VE-06 T 0025	Kallaerikuppam Tank	Rishivanthiyam	Sankarapuram	Kallakurichi	13.65
2	TN VE-06 T 0026	PalayaSiruvangurPeriyaEri	Rishivanthiyam	Sankarapuram	Kallakurichi	54.00
3	TN VE-06 T 0027	Palayakorakachandal Tank	Rishivanthiyam	Sankarapuram	Kallakurichi	4.89
4	TN VE-06 T 0030	Pallipattu Tank	Rishivanthiyam	Sankarapuram	Kallakurichi	21.67
5	TN VE-06 T 0032	Velanmandal Tank	Rishivanthiyam	Sankarapuram	Kallakurichi	24.00
	Total					**118.21**
V	**Chinnasalem block**					
1	TN VE-06 T 0042	Kacharayapalayam Tank	Chinnaselam	Kallakurichi	Kallakurichi	89.88
2	TN VE-06 T 0034	Vadakanandal Kalleri Tank	Chinnasalem	Kallakurichi	Kallakurichi	108.80
					Total	**198.68**
	GROSS TOTAL					**2683.96**

➢ ABSTRACT

District	Taluk	Block	No of Tanks	Tank ayacut in Ha	No of Anicuts	Anicutaya cut in Ha	Total ayacut in Ha
Kallakurichi	Kallakurichi	Kallakurichi	1	67.95	-	-	57.95
		Thiyagaurgam	10	759.41	1	0	759.41
		Sankarapuram		-	1	48.50	48.50
		Chinnasalem	2	198.68	-	-	198.68
	Sankarapuram	Kallakurichi	4	658.91	-	-	658.91
		Thiyagaurgam	3	186.85	1	60.77	
		Sankarapuram	9	693.95	4	39.64	
		Chinnasalem					
		Rishivanthiyam	5	118.21	-	-	118.21
	Chinnasalem	Kallakurichi		-	3	11.34	11.34
		Chinnasalem					
		Total	34	2683.96	10	160.25	2844.21

Now revised in the DPR 34 Tanks (Non-system Tanks) 31 Supply channel and 10 Anicuts.

Tank Ayacut (34 Tanks) : 2683.96 ha
AnicutAyacut (10 Anicuts) : 160.25 ha
Total Ayacuts 2844.21 Ha

CHAPTER -2 HYDROLOGY OF SUB BASIN

Details of WRD Tanks proposed under Phase III of TNIAMP

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Name of Sub Basin : Manimuktha Nadhi **Block: Kallakurichi**

Sl. No.	Name of Tank	Unicode	Villages	Blocks	Taluks	District	Ayacut in Ha			
							Fully Irrigated	Partially Irrigated	Gap	Total
1	Peruvangur Tank	TN VE-06 T 0054	Peruvangur	Kallakurichi	Kallakurichi	Kallakurichi	22.89	22.60	12.46	57.95
2	Thandalai Tank	TN VE-06 T 0041	Thandalai	Kallakurichi	Sankarapuram	Kallakurichi	51.16	49.28	27.45	127.89
3	Thirukkanangur Tank	TN VE-06 T 0031	Thirukkanangur	Kallakurichi	Sankarapuram	Kallakurichi	47.50	46.89	25.85	120.24
4	Ka.Alambalam Tank	TN VE-06 T 0037	Ka.Alambalam	Kallakurichi	Sankarapuram	Kallakurichi	38.45	27.52	27.81	93.78
5	Alathur Tank	TNVE-06-T0035	Alathur	Kallakurichi	Sankarapuram	Kallakurichi	261.60	34.20	31.20	327.00
						TOTAL	**421.60**	**180.49**	**124.77**	**726.86**

Details of WRD Anicuts proposed under Phase III of TNIAMP

Name of Sub Basin : Manimuktha Nadhi **Block : Kallakurichi.**

Sl. No.	Name of Anicut	Villages	Blocks	Taluks	District	Ayacut in Ha			
						Fully Irrigated	Partially Irrigated	Gap	Total
1	Karadichithur Anicut	Karadichithur	Kallakurichi	Chinnasalem	Kallakurichi	0.00	0.00	0.00	0.00
2	Kumarapalaiyam Anicut	Kumarapalaiyam	Kallakurichi	Chinnasalem	Kallakurichi	4.54	4.31	2.49	11.34
3	Thavadipattu Anicut	Thavadipattu	Kallakurichi	Chinnasalem	Kallakurichi	0.00	0.00	0.00	0.00
	TOTAL					**4.54**	**4.31**	**2.49**	**11.34**

Details of WRD Supply Channel proposed under Phase III of TNIAMP

Name of Sub Basin : Manimuktha **Block : Kallakurichi.**

Sl. No.	Name of Supply Channel	Length of Supply Channel in Km	Village	Block	Taluk	District
1	Peruvangur Tank Supply Channel.	2.10	Peruvangur	Kallakurichi	Kallakurichi	Kallakurichi
2	Thandalai Tank Supply Channel.	2.50	Thandalai	Kallakurichi	Sankarapuram	Kallakurichi
3	Thirukkanangur Tank Supply Channel.	1.60	Thirukkanangur	Kallakurichi	Kallakurichi	Kallakurichi
4	Ka.AlambalamTank Supply Channel.	1.05	Ka.Alambalam	Kallakurichi	Sankarapuram	Kallakurichi
5	Alathur Tank Supply Channel.	9.60	Alathur	Kallakurichi	Kallakurichi	Kallakurichi
	Total	**16.85**				

Details of WRD Tanks proposed under Phase III of TNIAMP

Name of Sub Basin : Manimuktha Nadhi **Block: Thiyagadurugam**

Sl. No.	Name of Tank	Unicode	Villages	Blocks	Taluks	District	Ayacut in Ha			
							Fully Irrigated	Partially Irrigated	Gap	Tota
1	Chittalur Tank	TN VE-06 T 0083	Chittalur	Thiagadurugam	Kallakurichi	Kallakurichi	64.65	59.98	31.16	155.7
2	Kalayanallur Small Tank	TN VE-06 T 0048	Kalayanallur	Thiagadurugam	Sankarapuram	Kallakurichi	11.05	11.33	5.59	27.97
3	Kalayanallur Tank	TN VE-06 T 0040	Kalayanallur	Thiagadurugam	Sankarapuram	Kallakurichi	11.40	10.42	6.15	27.97
4	Kudiyanallur Tank	TN VE-06 T 0102	Kudiyanallur	Thiagadurugam	Kallakurichi	Kallakurichi	23.38	21.19	11.14	55.71
5	Koothakkudi Tank	TN VE-06 T 0156	Koothakkudi	Thiagadurugam	Kallakurichi	Kallakurichi	34.87	35.75	16.56	87.18
6	Ninnaiyur Tank	TN VE-06 T 0126	Ninnaiyur	Thiagadurugam	Kallakurichi	Kallakurichi	19.87	19.39	9.82	49.08
7	Pallagacheri Tank	TN VE-06 T 0038	Pallagacheri	Thiagadurugam	Sankarapuram	Kallakurichi	51.87	50.87	28.17	130.9

8	Prithivimangalam	TN VE-06 T 0057	Prithivimangalam	Thiagadurugam	Kallakurichi	Kallakurichi	61.58	57.03	33.45	152.06
9	Sithathur Tank	TN VE-06 T 0122	Sithathur	Thiagadurugam	Kallakurichi	Kallakurichi	19.93	18.95	9.72	48.60
10	Thyiyagai Tank	TN VE-06 T 0079	Thyiyagai	Thiagadurugam	Kallakurichi	Kallakurichi	21.89	21.08	11.08	54.05
11	Udayamampattu Tank	TN VE-06 T 0051	Udayampattu	Thiagadurugam	Kallakurichi	Kallakurichi	18.44	18.90	8.76	46.10
12	Udayanatchi Tank	TN VE-06 T 0124	Udayanatchi	Thiagadurugam	Kallakurichi	Kallakurichi	23.84	24.09	11.98	59.91
13	Vada Thorasalur Tank	TN VE-06 T 0046	Vada Thorasalur	Thiagadurugam	Kallakurichi	Kallakurichi	20.37	19.36	11.20	50.93
						TOTAL	**383.14**	**368.34**	**194.78**	**946.26**

Details of WRD Anicuts proposed under Phase III of TNIAMP

	Name of Sub Basin : Manimuktha Nadhi Block : Thiyagathurugam								
Sl. No.	Name of Anicut	Villages	Blocks	Taluks	District	Ayacut in Ha			
						Fully Irrigated	Partially Irrigated	Gap	Total
1	Pallakatcheri Anicut	Pallakatcheri	Thiayagathurugam	Sankarapuram	Kallakurichi	24.91	24.01	11.85	60.77
2	Kootthakudi Anicut	Puthu Uchimedu	Thiayagathurugam	Kallakurichi	Kallakurichi	0.00	0.00	0.00	0.00
					TOTAL	**24.91**	**24.01**	**11.85**	**60.77**

Details of WRD Supply Channel proposed under Phase III of TNIAMP

Name of Sub Basin : Manimuktha **Block : Thiyagathurugam**

Sl. No.	Name of Supply Channel	Length of Supply Channel in Km	Village	Block	Taluk	District
1	Chittalur Tank Supply Channel.	6.30	Chittalur	Thiayadurgam	Kallakurichi	Kallakurichi
2	Kalayanallur Small Tank Supply Channel.	6.00	Kalayanallur	Thiayadurgam	Kallakurichi	Kallakurichi
3	Kalayanallur Tank Supply Channel.	1.50	Kalayanallur	Thiayadurgam	Kallakurichi	Kallakurichi
4	Kudiyanallur Tank Supply Channel.	1.00	Kudiyanallur	Thiayadurgam	Kallakurichi	Kallakurichi
5	Kuthakkudi Tank Supply Channel.	2.60	Kuthakkudi	Thiayadurgam	Kallakurichi	Kallakurichi
6	Pallagacheri Tank Supply Channel.	6.20	Pallagacheri	Thiayadurgam	Sankarapuram	Kallakurichi
7	Prithivimangalam Tank Supply Channel.	1.20	Prithivimangalam	Thiayadurgam	Kallakurichi	Kallakurichi
8	Sithathur Tank Supply Channel.	2.00	Sithathur	Thiayadurgam	Kallakurichi	Kallakurichi
9	Thyiyagai Tank Supply Channel.	1.60	Thyiyagai	Thiayadurgam	Kallakurichi	Kallakurichi
10	Udayampattu Tank Supply Channel.	0.75	Udayampattu	Thiayadurgam	Kallakurichi	Kallakurichi
11	Udayanatchi Tank Supply Channel.	1.20	Udayanatchi	Thiayadurgam	Kallakurichi	Kallakurichi
	Total	**30.35**				

Details of WRD Tanks proposed under Phase III of TNIAMP

Name of Sub Basin : Manimuktha Nadhi **Block: Sankarapuram**

Sl. No.	Name of Tank	Unicode	Villages	Blocks	Taluks	District	Ayacut in Ha			
							Fully Irrigated	Partially Irrigated	Gap	Total
1	Chellampattu Tank	TN VE-06 T 0020	Chellampattu	Sankarapuram	Sankarapuram	Kallakurichi	22.02	21.20	10.47	53.69
2	Kosapadi Tank	TN VE-06 T 0014	Kosapadi	Sankarapuram	Sankarapuram	Kallakurichi	23.29	23.60	12.84	59.73
3	Manjaputtur Tank	TN VE-06 T 0022	Manjaputtur	Sankarapuram	Sankarapuram	Kallakurichi	36.14	37.06	18.30	91.50
4	Pandalam Tank	TN VE-06 T 0001	Pandalam	Sankarapuram	Sankarapuram	Kallakurichi	63.68	60.61	29.15	153.44
5	Poikunam Tank	TN VE-06 T 0018	Poikunam	Sankarapuram	Sankarapuram	Kallakurichi	16.65	16.40	8.26	41.31
6	Pootai Tank	TN VE-06 T 0003	Pootai	Sankarapuram	Sankarapuram	Kallakurichi	45.18	43.18	24.60	112.96
7	Sembarampattu Tank	TN VE-06 T 0011	Sembarampattu	Sankarapuram	Sankarapuram	Kallakurichi	17.63	18.07	8.37	44.07
8	Urangani Tank	TN VE-06 T 0007	Urangani	Sankarapuram	Sankarapuram	Kallakurichi	35.36	36.79	16.92	89.07
9	Vadachettiyandal	TN VE-06 T 0019	Vadachettiyandal	Sankarapuram	Sankarapuram	Kallakurichi	19.20	18.38	10.60	48.18
						TOTAL	**279.15**	**275.29**	**139.51**	**693.95**

Details of WRD Anicuts proposed under Phase III of TNIAMP

Name of Sub Basin : Manimuktha Nadhi **Block: Sankarapuram**

Sl.No.	Name of Anicut	Villages	Blocks	Taluks	District	Ayacut in Ha			
						Fully Irrigated	Partially Irrigated	Gap	Total
1	Poottai Anicut	Pootai	Sankarapuram	Sankarapuram	Kallakurichi	10.10	11.62	5.77	27.49
2	Pandalam Anicut	Pandalam	Sankarapuram	Sankarapuram	Kallakurichi	0.00	0.00	0.00	0.00
3	Chellampattu Anicut	Chellampattu	Sankarapuram	Sankarapuram	Kallakurichi	0.00	0.00	0.00	0.00
4	Panaiyankaal Anicut	Rayapuram	Sankarapuram	Kallakurichi	Kallakurichi	20.67	17.64	10.19	48.50
5	Seshasamuthiram Anicut	Seshasamuthiram	Sankarapuram	Sankarapuram	Kallakurichi	4.38	4.12	3.65	12.15
					TOTAL	**35.15**	**33.38**	**19.61**	**88.14**

Details of WRD Supply Channel proposed under Phase III of TNIAMP

	Name of Sub Basin : Manimuktha			**Block: Sankarapuram**		
Sl. No.	**Name of Supply Channel**	**Length of Supply Channel in Km**	**Village**	**Block**	**Taluk**	**District**
1	Chellampattu Tank Supply Channel.	1.80	Chellampattu	Sankarapuram	Sankarapuram	Kallakurichi
2	Kosapadi Tank Supply Channel.	4.50	Kosapadi	Sankarapuram	Sankarapuram	Kallakurichi
3	Manjaputtur Tank Supply Channel.	3.50	Manjaputtur	Sankarapuram	Sankarapuram	Kallakurichi
4	Pandalam Tank Supply Channel.	2.82	Pandalam	Sankarapuram	Sankarapuram	Kallakurichi
5	Poikunam Tank Supply Channel.	3.00	Poikunam	Sankarapuram	Sankarapuram	Kallakurichi
6	Poottai Tank Supply Channel.	1.20	Poottai	Sankarapuram	Sankarapuram	Kallakurichi
7	Sembarampattu Tank Supply Channel.	1.50	Sembarampattu	Sankarapuram	Sankarapuram	Kallakurichi
8	Urangani Tank Supply Channel.	3.00	Urangani	Sankarapuram	Sankarapuram	Kallakurichi
9	Vadachettiyandal Supply Channel.	1.85	Vadachettiyandai	Sankarapuram	Sankarapuram	Kallakurichi
	Total	**23.17**				

Details of WRD Tanks proposed under Phase III of TNIAMP

Name of Sub Basin : Manimuktha Nadhi **Block: Rishivanthiyam**

Sl. No.	Name of Tank	Unicode	Villages	Blocks	Taluks	District	Ayacut in Ha			
							Fully Irrigated	Partially Irrigated	Gap	Total
1	Kallaerikuppam Tank	TN VE-06 T 0025	Kallaerikuppa	Rishivanthiyam	Sankarapuram	Kallakurichi	5.70	4.95	3.00	13.65
2	Palaya SiruvangurPeriya Eri	TN VE-06 T 0026	Palayam	Rishivanthiyam	Sankarapuram	Kallakurichi	21.55	20.84	11.61	54.00
3	Palaya korakachandal Tank	TN VE-06 T 0027	Palaya korakachanda	Rishivanthiyam	Sankarapuram	Kallakurichi	1.95	1.99	0.95	4.89
4	Pallipattu Tank	TN VE-06 T 0030	Pallipattu	Rishivanthiyam	Sankarapuram	Kallakurichi	8.67	8.77	4.23	21.67
5	Velanmandal Tank	TN VE-06 T 0032	Velanmandal	Rishivanthiyam	Sankarapuram	Kallakurichi	9.60	9.12	5.28	24.00
						TOTAL	**47.47**	**45.67**	**25.07**	**118.21**

Details of WRD Supply Channel proposed under Phase III of TNIAMP						
	Name of Sub Basin : Manimuktha			**Block: Rishivanthiyam**		
Sl. No.	**Name of Supply Channel**	**Length of Supply Channel in Km**	**Village**	**Block**	**Taluk**	**District**
1	Kallaerikuppam Tank Supply Channel.	3.00	Kallaerikuppam	Rishivanthiyam	Sankarapuram	Kallakurichi
2	Palaya SiruvangurPeriya Eri Supply Channel.	0.60	Palaya Siruvangur	Rishivanthiyam	Sankarapuram	Kallakurichi
3	Palayakorakachanda Tank Supply Channel.	0.60	Palayakorakachanda	Rishivanthiyam	Sankarapuram	Kallakurichi
4	Pallipattu Tank Supply Channel.	2.50	Pallipattu	Rishivanthiyam	Sankarapuram	Kallakurichi
5	Velanmandal Tank Supply Channel.	2.50	Velanmandal	Rishivanthiyam	Sankarapuram	Kallakurichi
	Total	**9.20**				

Details of WRD Tanks proposed under Phase III of TNIAMP										
	Name of Sub Basin : Manimuktha Nadhi						**Block: Chinnasalem**			
Sl. No.	**Name of Tank**	**Unicode**	**Villages**	**Blocks**	**Taluks**	**District**	**Ayacut in Ha**			
							Fully Irrigated	**Partially Irrigated**	**Gap**	**Total**
1	Kacharayapalayam Tank	TN VE-06 T 0042	Kacharayapalayam	Chinnasalem	Kallakurichi	Kallakurichi	35.95	36.40	17.53	89.88
2	Vadakanandal Kalleri Tank	TN VE-06 T 0034	Vadakanandal	Chinnasalem	Kallakurichi	Kallakurichi	43.36	43.76	21.68	108.80
						TOTAL	**79.31**	**80.16**	**39.21**	**198.68**

	Details of WRD Supply Channel proposed under Phase III of TNIAMP Name of Sub Basin : Manimuktha Block: Chinnasalem					
Sl. No.	**Name of Supply Channel**	**Length of Supply Channel in Km**	**Village**	**Block**	**Taluk**	**District**
1	Kacharayapalayam Tank Supply Channel.	3.20	Kacharayapalayam	Chinnasalem	Sankarapuram	Kallakurichi
2	Vadakandal Tank Supply Channel.	1.00	Vadakandal	Chinnasalem	Chinnasalem	Kallakurichi
	Total	**4.20**				

Details of WRD Tanks proposed under Phase III of TNIAMP

	Name of Sub Basin : Manimuktha Nadhi									
Sl. No.	Name of Tank	Unicode	Villages	Blocks	Taluks	District	Ayacut in Ha			
							Fully Irrigated	Partially Irrigated	Gap	Total
1	Chellampattu Tank	TN VE-06 T 0020	Chellampattu	Sankarapuram	Sankarapuram	Kallakurichi	22.02	21.20	10.47	53.69
2	Chittalur Tank	TN VE-06 T 0083	Chittalur	Thiagadurugam	Kallakurichi	Kallakurichi	64.65	59.98	31.16	155.79
3	Kacharayapalayam Tank	TN VE-06 T 0042	Kacharayapalayam	Chinnaselam	Kallakurichi	Kallakurichi	35.95	36.40	17.53	89.88
4	Kalayanallur Small Tank	TN VE-06 T 0048	Kalayanallur	Thiagadurugam	Sankarapuram	Kallakurichi	11.05	11.33	5.59	27.97
5	Kalayanallur Tank	TN VE-06 T 0040	Kalayanallur	Thiagadurugam	Sankarapuram	Kallakurichi	11.40	10.42	6.15	27.97
6	Kallaerikuppam Tank	TN VE-06 T 0025	Kallaerikuppa	Rishivanthiyam	Sankarapuram	Kallakurichi	5.70	4.95	3.00	13.65
7	Kosapadi Tank	TN VE-06 T 0014	Kosapadi	Sankarapuram	Sankarapuram	Kallakurichi	23.29	23.60	12.84	59.73
8	Kudiyanallur Tank	TN VE-06 T 0102	Kudiyanallur	Thiagadurugam	Kallakurichi	Kallakurichi	23.38	21.19	11.14	55.71
9	Koothakkudi Tank	TN VE-06 T 0156	Koothakkudi	Thiagadurugam	Kallakurichi	Kallakurichi	34.87	35.75	16.56	87.18

10	Manjaputtur Tank	TN VE-06 T 0022	Manjaputtur	Sankara puram	Sankarapuram	Kallakurichi	36.14	37.06	18.30	91.50
11	Ninnaiyur Tank	TN VE-06 T 0126	Ninnaiyur	Thiagad urugam	Kallakurichi	Kallakurichi	19.87	19.39	9.82	49.08
12	Palaya SiruvangurPeriya Eri	TN VE-06 T 0026	Palayam	Rishivan thiyam	Sankarapuram	Kallakurichi	21.55	20.84	11.61	54.00
13	Palaya korakachandal Tank	TN VE-06 T 0027	Palaya korakachand a	Rishivan thiyam	Sankarapuram	Kallakurichi	1.95	1.99	0.95	4.89
14	Pallagacheri Tank	TN VE-06 T 0038	Pallagacheri	Thiagad urugam	Sankarapuram	Kallakurichi	51.87	50.87	28.17	130.91
15	Pallipattu Tank	TN VE-06 T 0030	Pallipattu	Rishivan thiyam	Sankarapuram	Kallakurichi	8.67	8.77	4.23	21.67
16	Pandalam Tank	TN VE-06 T 0001	Pandalam	Sankara puram	Sankarapuram	Kallakurichi	63.68	60.61	29.15	153.44
17	Peruvangur Tank	TN VE-06 T 0054	Peruvangur	Kallakuri chi	Kallakurichi	Kallakurichi	22.89	22.60	12.46	57.95
18	Poikunam Tank	TN VE-06 T 0018	Poikunam	Sankara puram	Sankarapuram	Kallakurichi	16.65	16.40	8.26	41.31
19	Pootai Tank	TN VE-06 T 0003	Pootai	Sankara puram	Sankarapuram	Kallakurichi	45.18	43.18	24.60	112.96
20	Prithivimangalam	TN VE-06 T 0057	Prithivimang alam	Thiagad urugam	Kallakurichi	Kallakurichi	61.58	57.03	33.45	152.06
21	Sembarampattu Tank	TN VE-06 T 0011	Sembaramp attu	Sankara puram	Sankarapuram	Kallakurichi	17.63	18.07	8.37	44.07
22	Sithathur Tank	TN VE-06 T 0122	Sithathur	Thiagad urugam	Kallakurichi	Kallakurichi	19.93	18.95	9.72	48.60

23	Thandalai Tank	TN VE-06 T 0041	Thandalai	Kallakurichi	Sankarapuram	Kallakurichi	51.16	49.28	27.45	127.89
24	Thirukkanangur Tank	TN VE-06 T 0031	Thirukkanangur	Kallakurichi	Sankarapuram	Kallakurichi	47.50	46.89	25.85	120.24
25	Thyiyagai Tank	TN VE-06 T 0079	Thyiyagai	Thiagadurugam	Kallakurichi	Kallakurichi	21.89	21.08	11.08	54.05
26	Udayamampattu Tank	TN VE-06 T 0051	Udayampattu	Thiagadurugam	Kallakurichi	Kallakurichi	18.44	18.90	8.76	46.10
27	Udayanatchi Tank	TN VE-06 T 0124	Udayanatchi	Thiagadurugam	Kallakurichi	Kallakurichi	23.84	24.09	11.98	59.91
28	Urangani Tank	TN VE-06 T 0007	Urangani	Sankarapuram	Sankarapuram	Kallakurichi	35.36	36.79	16.92	89.07
29	Vada Thorasalur Tank	TN VE-06 T 0046	Vada Thorasalur	Thiagadurugam	Kallakurichi	Kallakurichi	20.37	19.36	11.20	50.93
30	Vadachettiyandal	TN VE-06 T 0019	Vadachettiyandal	Sankarapuram	Sankarapuram	Kallakurichi	19.20	18.38	10.60	48.18
31	Vadakanandal Kalleri Tank	TN VE-06 T 0034	Vadakanandal	Chinnasalem	Kallakurichi	Kallakurichi	43.36	43.76	21.68	108.80

32	Velanmandal Tank	TN VE-06 T 0032	Velanmandal	Rishivanthiyam	Sankarapuram	Kallakurichi	9.60	9.12	5.28	24.00
33	Ka.Alambalam Tank	TN VE-06 T 0037	Ka.Alambalam	Kallakurichi	Sankarapuram	Kallakurichi	38.45	27.52	17.81	93.78
34	Alathur Tank	TN VE-06 T 0037	Alathur	Kallakurichi	Sankarapuram	Kallakurichi	261.06	34.20	31.20	327.00
						TOTAL	**1210.67**	**949.95**	**513.34**	**2683.96**

Details of WRD Anicuts proposed under Phase III of TNIAMP

	Name of Sub Basin : Manimuktha Nadhi								
Sl. No.	Name of Anicut	Villages	Blocks	Taluks	District	Ayacut in Ha			
						Fully Irrigated	Partially Irrigated	Gap	Total
1	Poottai Anicut	Pootai	Sankarapuram	Sankarapuram	Kallakurichi	10.10	11.62	5.77	27.49
2	Pandalam Anicut	Pandalam	Sankarapuram	Sankarapuram	Kallakurichi	0.00	0.00	0.00	0.00
3	Chellampattu Anicut	Chellampattu	Sankarapuram	Sankarapuram	Kallakurichi	0.00	0.00	0.00	0.00
4	Karadichithur Anicut	Karadichithur	Kallakurichi	Chinnasalem	Kallakurichi	0.00	0.00	0.00	0.00
5	Kumarapalaiyam Anicut	Kumarapalaiyam	Kallakurichi	Chinnasalem	Kallakurichi	4.54	4.31	2.49	11.34
6	Thavadipattu Anicut	Thavadipattu	Kallakurichi	Chinnasalem	Kallakurichi	0.00	0.00	0.00	0.00
7	Pallakatcheri Anicut	Karadichithur	Thiagathurugam	Sankarapuram	Kallakurichi	24.91	24.01	11.85	60.77
8	Panaiyankaal Anicut	Rayapuram	Sankarapuram	Kallakurichi	Kallakurichi	20.67	17.64	10.19	48.50
9	Kootthakudi Anicut	Puthu Uchimedu	Thiagathurugam	Kallakurichi	Kallakurichi	0.00	0.00	0.00	0.00
10	Seshasamuthiram Anicut	Seshasamuthiram Anicut	Sankarapuram	Sankarapuram	Kallakurichi	35.15	33.38	19.61	88.14
					TOTAL	**95.37**	**90.96**	**49.91**	**236.24**

Details of WRD Supply Channel proposed under Phase III of TNIAMP						
	Name of Sub Basin : Manimuktha					
Sl. No.	**Name of Supply Channel**	**Length of Supply Channel in Km**	**Village**	**Block**	**Taluk**	**District**
1	Chellampattu Tank Supply Channel.	1.80	Chellampattu	Sankarapuram	Sankarapuram	Kallakurichi
2	Chittalur Tank Supply Channel.	6.30	Chittalur	Thiayadurgam	Kallakurichi	Kallakurichi
3	Kacharayapalayam Tank Supply Channel.	3.20	Kacharayapalayam	Chinnasalem	Sankarapuram	Kallakurichi
4	Kalayanallur Small Tank Supply Channel.	6.00	Kalayanallur	Thiayadurgam	Kallakurichi	Kallakurichi
5	Kalayanallur Tank Supply Channel.	1.50	Kalayanallur	Thiayadurgam	Kallakurichi	Kallakurichi
6	Kallaerikuppam Tank Supply Channel.	3.00	Kallaerikuppam	Rishivanthiyam	Sankarapuram	Kallakurichi
7	Kosapadi Tank Supply Channel.	4.50	Kosapadi	Sankarapuram	Sankarapuram	Kallakurichi
8	Kudiyanallur Tank Supply Channel.	1.00	Kudiyanallur	Kallakurichi	Kallakurichi	Kallakurichi
9	Kuthakkudi Tank Supply Channel.	2.60	Kuthakkudi	Kallakurichi	Kallakurichi	Kallakurichi
10	Manjaputtur Tank Supply Channel.	3.50	Manjaputtur	Sankarapuram	Sankarapuram	Kallakurichi
11	Palaya SiruvangurPeriya Eri Supply Channel.	0.60	Palaya Siruvangur	Rishivanthiyam	Sankarapuram	Kallakurichi
12	Palayakorakachanda Tank Supply Channel.	0.60	Palayakorakachanda	Rishivanthiyam	Sankarapuram	Kallakurichi
13	Pallagacheri Tank Supply Channel.	6.20	Pallagacheri	Thiayadurgam	Sankarapuram	Kallakurichi

14	Pallipattu Tank Supply Channel.	2.50	Pallipattu	Rishivanthiyam	Sankarapuram	Kallakurichi

15	Pandalam Tank Supply Channel.	2.82	Pandalam	Sankarapuram	Sankarapuram	Kallakurichi
16	Peruvangur Tank Supply Channel.	2.10	Peruvangur	Kallakurichi	Kallakurichi	Kallakurichi
17	Poikunam Tank Supply Channel.	3.00	Poikunam	Sankarapuram	Sankarapuram	Kallakurichi
18	Poottai Tank Supply Channel.	1.20	Poottai	Sankarapuram	Sankarapuram	Kallakurichi
19	Prithivimangalam Tank Supply Channel.	1.20	Prithivimangalam	Thiayadurgam	Kallakurichi	Kallakurichi
20	Sembarampattu Tank Supply Channel.	1.50	Sembarampattu	Sankarapuram	Sankarapuram	Kallakurichi
21	Sithathur Tank Supply Channel.	2.00	Sithathur	Kallakurichi	Kallakurichi	Kallakurichi
22	Thandalai Tank Supply Channel.	2.50	Thandalai	Kallakurichi	Sankarapuram	Kallakurichi
23	Thirukkanangur Tank Supply Channel.	1.60	Thirukkanangur	Kallakurichi	Kallakurichi	Kallakurichi
24	Thyiyagai Tank Supply Channel.	1.60	Thyiyagai	Kallakurichi	Kallakurichi	Kallakurichi
25	Udayampattu Tank Supply Channel.	0.75	Udayampattu	Kallakurichi	Kallakurichi	Kallakurichi
26	Udayanatchi Tank Supply Channel.	1.20	Udayanatchi	Thiayadurgam	Kallakurichi	Kallakurichi
27	Urangani Tank Supply Channel.	3.00	Urangani	Sankarapuram	Sankarapuram	Kallakurichi
28	Vadachettiyandal Supply Channel.	1.85	Vadachettiyandai	Sankarapuram	Sankarapuram	Kallakurichi
29	Vadakandal Tank Supply Channel.	1.00	Vadakandal	Chinnasalem	Chinnasalem	Kallakurichi
30	Velannandal Tank Supply Channel.	2.50	Velanmandal	Rishivanthiyam	Sankarapuram	Kallakurichi

31	Ka Alambalam Tank Supply Channel	1.05	Ka Alambalam	Kallakurichi	Sankarapuram	Kallakurichi
32	Alathur Tank Supply Channel	9.6	Alathur	Kallakurichi	Kallakurichi	Kallakurichi
	Total	**83.77**				

3. PROPOSALS AND COST ESTIMATE

3.1. TNIAMP Objectives:

The broader objective of TNIAMP Project is to achieve sustainable economic growth as well as poverty alleviation through maximizing productivity of water. Under Component B ie., Agriculture Productivity Enhancement, Diversification, Improved Livelihoods, Marketing, and Value Addition which aim to increase the productivity and diversification of agriculture production systems, promote alternative livelihood income sources, Farm Ponds are proposed by Agricultural Engineering Department, as its contribution for climate resilience and water productivity

3.2. Concept of Farm Pond

Farm Ponds are constructed by Agricultural Engineering Department (AED) to harvest rain water in the individual land holding of a farmer, having sufficient catchment area, so as to provide supplement irrigation at critical stages of crop growth, mainly, as a “life saving irrigation’ to save the crop without wilting. Since, the Farm Pond constructed in the Farmer’s land, the conveyance loss is minimized due to localized irrigation and thus improving the water use efficiency. Under suitable conditions, whenever the water can be stored for more than 4 months, fish culture could be encouraged to the farmers so as to provide an opportunity to have an additional income.

The size of the Farm Pond may be 21.5 m x 21.5 m x 3.0 m or 28.0 m x 28.0 m x 1.50 m with a capacity to hold approximately 1100 cubic meters. The size depends on the catchment area and quantity of runoff water and the depth depends on the available soil depth, in principle. But most important factor is the willingness of the farmer to part the portion of his land for the construction of Farm Pond. If soil conditions permit, the depth can be increased to accommodate more water storage. Constructing a farm pond depends on soil condition, topography, drainage capacity, infiltration, rainfall of the area in which the farm land is situated.

Besides, Aqua culture is proposed to be promoted through Fisheries Department in selected Farm Ponds as an additional source of income, wherever the impounded water is available for four months and above.

3.3. SELECTION CRITERIA:

The site selection should have high potential for the construction of Farm Ponds with clay/alluvium soil which holds water for a longer time and has less seepage and percolation losses. As far as possible, Farm Ponds should be selected as clusters in the sub basin area, not as isolated ones, so as to evaluate the impact of this intervention.

1. The beneficiary for the construction of Farm Pond is selected based on the land owning farmers with preference to Small Farmers, who are willing to provide an area of approximately between 700 to 1000 sq meters for the construction of Farm Pond.
2. For wide publicity, awareness meetings, announcements, notices should be given in the village clusters of the sub basin area
3. Farmer should be willing to construct the Farm Pond as per the technical specification mentioned in the design.
4. Farmers should be willing to expend approximately, Rs. 25,000/ per Farm Pond towards the cost of transporting the excess earth, elsewhere.
5. The topography of the land should be such that there is sufficient catchment area for the Farm Pond to harvest rain water.
6. Farm Pond will be constructed at the lowest portion of the farmer's land, so as to harvest the maximum runoff water from the farm and there shall be a sufficient catchment area.
7. The soil should be non porous such that, there is not much seepage and percolation losses and thus rain water can be stored for longer days for making use of it during critical stages of the crop period.
8. Inlet and Outlet or inlet cum outlet arrangements may be provided to regulate the inflow and to dispose the excess water safely.
9. A uniform berm width of 1 m must be maintained all around the pond. Vegetative measures should be taken up along the berm width to prevent erosion and sliding of earth. The berm width area can also be utilized to raise homestead garden for additional income.
10. Larger size with shallow depth increase evaporation losses and wastage of cultivable land area. Greater depth reduces evaporation but it increases the seepage losses due to the hydrostatic pressure which is however beneficial for ground water recharge.
11. The farmers opting for Farm Pond may also be motivated for adopting Drip/Sprinkler Irrigation systems to economize water usage.

The Executive Engineer(AE) of the District / Nodal Officer of the sub basin will finalize the list of Beneficiaries at the District Level / sub basin level.

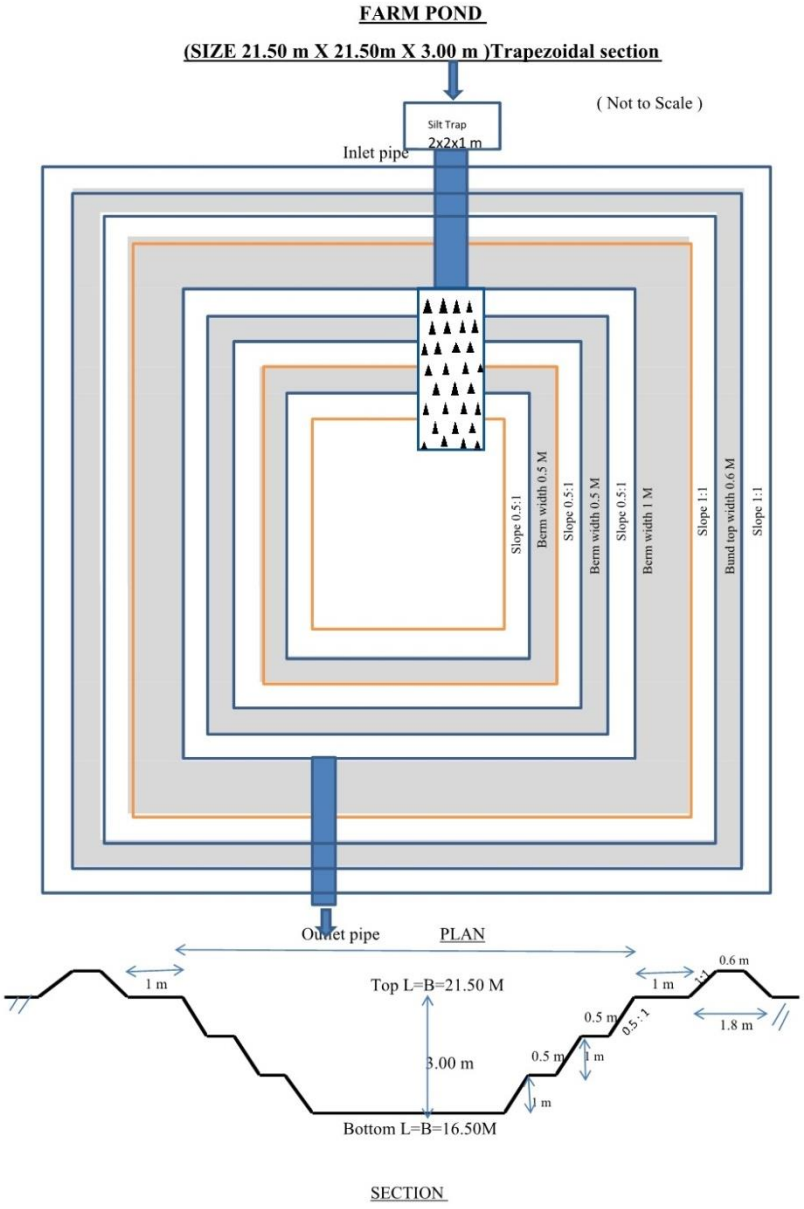
3.4. DESIGN, LAYOUT AND UNIT COST:

The two model estimates of Farm Pond of sizes

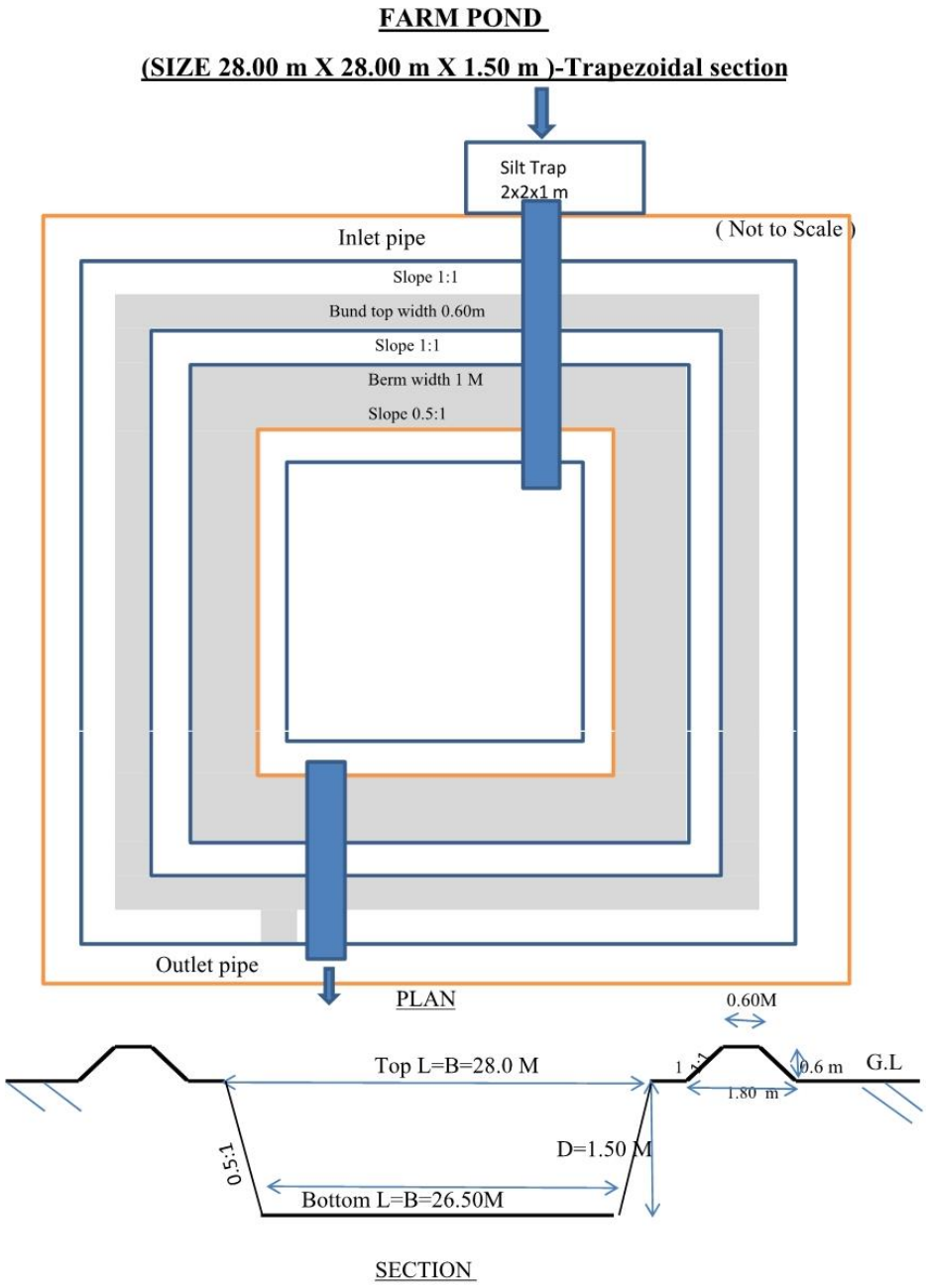
(a) 21.50 m x 21.50 m with 3.00 m depth with 2 step berm at every 1m interval, for soils having sufficient depth and

(b) 28.00 m x 28.00 m with 1.50 m depth with single berm, for soils having limited depth, both for an unit cost of Rs.75,000/- per Farm Pond as Project cost, to be adopted from Phase III onwards, with a capacity to hold about 1100 cubic meters.

Layout of Farm Pond of size 21.50m x 21.50m x 3.00m



Layout of Farm Pond of size 28.00m x 28.00m x 1.50m



The total cost for the above mentioned two models of Farm Ponds, works out to Rs.1,00,000/- per Farm Pond, i.e., Rs.75,000/- per Farm Pond for works(project cost) and Rs. 25,000 per Farm Pond as Farmer's contribution for disposal / transportation of excess earth, for all category of farmers.

3.5. Physical and Financial Proposals in Manimukthanadhi sub basin

Based on the joint walk through survey along with all line Departments, Awareness meetings in the village clusters in the sub basin area, Wide publicity given by issue of notices/pamphlets, Announcements in Farmer's grievance day meetings in District collectorate, Communication in Grama Saba meetings, DPR has been finalized.

During implementation of the intervention, the Environmental and Social Safeguards aspects will be followed. Grievance Redress Mechanism will be adhered.

3.6 . DISTRICTWISE, BLOCKWISE PROPOSAL DETAILS

Sl. no	District	Block	No of Farm ponds proposed	Financial (Rs. in Lakh)
1	Kallakurichi	Kallakurichi		
2		Chinnasalem		
3		Sankarapuram	2	1.5
4		Rishivandiyam	2	1.5
5		Thiyagadurugam	2	1.5
		TOTAL	6	4.5

4. CLUSTERWISE CONVERGENT TABLE

4.1. Cluster Classification for Multi Department Convergence

Five cluster villages are identified and listed below

Sl. No.	No. of Cluster	Name of Cluster	Block	Taluk	District
1.	CLUSTER I	Kallakurichi	Kallakurichi	Kallakurichi	Kallakurichi
2.	CLUSTER II	Thiyagadurugam	Thiyagadurugam	Kallakurichi	Kallakurichi
3.	CLUSTER III	Sankarapuram	Sankarapuram	Sankarapuram	Kallakurichi
4.	CLUSTER IV	Rishivandiyam	Rishivandiyam	Sankarapuram	Kallakurichi
5.	CLUSTER V	Chinna Salem	Chinna Salem	Chinna Salem	Kallakurichi

TNIAMP (PHASE II) - Lower Pennaiyar Basin

5.1. CLUSTER WISE / INFRASTRUCTURE WISE / VILLAGE WISE CONVERGENT TABLE

Region Tank No.	Unique ID	Name of the cluster/ Infrastructure/ Village	Total Ayacut (Ha)			Total Area (Ha)		WRO	Agriculture		TNAU		Horticulture		Agri Marketing		AED		Fisheries		Animal Husbandry	
			FI	PI	Gap	Wop	WP		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
		CLUSTER - I Kallakurichi		**716.86**																		
	TN VE-06 T 0054	Peruvangur Tank	22.89	22.60	12.46	45.49	57.95															
	TN VE-06 T 0041	Thandalai Tank	51.16	49.28	27.45	**100.44**	**127.89**											-				
	TN VE-06 T 0031	Thirukkanangur Tank	47.50	46.89	25.85	94.39	120.24															
	TN VE-06 T 0037	Ka.Alambalam Tank	38.45	27.52	27.81	65.97	93.78										-	-				
	TN VE-06-T0035	Alathur Tank	261.60	34.20	31.20	**295.8**	**327.00**											-				
	TOTAL		**421.60**	**180.49**	**124.77**	602.09	**726.86**															
		CLUSTER- II Thiyagadurugam															FP	2				
	TN VE-06 T 0083	Chittalur Tank	64.65	59.98	31.16	124.63	155.79															
	TN VE-06 T 0048	Kalayanallur Small Tank	11.05	11.33	5.59	**22.38**	**27.97**															
	TN VE-06 T 0040	Kalayanallur Tank	11.40	10.42	6.15	21.82	27.97															
	TN VE-06 T 0102	Kudiyanallur Tank	23.38	21.19	11.14	44.57	55.71															
	TN VE-06 T 0156	Koothakkudi Tank	34.87	35.75	16.56	70.62	87.18															
	TN VE-06 T 0126	Ninnaiyur Tank	19.87	19.39	9.82	39.26	49.08															
	TN VE-06 T 0038	Pallagacheri Tank	51.87	50.87	28.17	**102.74**	**130.91**															
	TN VE-06 T 0057	Prithivimangalam	61.58	57.03	33.45	118.61	152.06															
	TN VE-06 T 0122	Sithathur Tank	19.93	18.95	9.72	38.88	48.60															
	TN VE-06 T 0079	Thyiyagai Tank	21.89	21.08	11.08	42.97	54.05															
	TN VE-06 T 0051	Udayamampattu Tank	18.44	18.90	8.76	37.34	46.10															
	TN VE-06 T 0124	Udayanatchi Tank	23.84	24.09	11.98	47.93	59.91															
	TN VE-06 T 0046	VadaThorasalur Tank	20.37	19.36	11.20	39.73	50.93															
		Total	**383.14**	**368.34**	**194.78**	**751.48**	**946.26**															

TNIAMP (PHASE II) - Lower Pennaiyar Basin

5.1. CLUSTER WISE / INFRASTRUCTURE WISE / VILLAGE WISE CONVERGENT TABLE

Region Tank No.	Unique ID	Name of the cluster/ Infrastructure/ Village	Total Ayacut (Ha)			Total Area (Ha)		WRO	Agriculture		TNAU		Horticulture		Agri marketing		AED		Fisheries		AH	
			FI	PI	Gap	Wop	WP		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
		CLUSTER -III															FP	**2**				
		Sankarapuram																				
2901	TN VE-06 T 0020	Chellampattu Tank	22.02	21.20	10.47	43.22	53.69															
2931	TN VE-06 T 0014	Kosapadi Tank	23.29	23.60	12.84	46.89	59.73															
2953	TN VE-06 T 0022	Manjaputtur Tank	36.14	37.06	18.30	73.20	91.50															
	TN VE-06 T 0001	Pandalam Tank	63.68	60.61	29.15	**124.29**	**153.44**															
	TN VE-06 T 0018	Poikunam Tank	16.65	16.40	8.26	33.05	41.31															
2882	TN VE-06 T 0003	Pootai Tank	45.18	43.18	24.60	88.36	112.96															
2868	TN VE-06 T 0011	Sembarampattu Tank	17.63	18.07	8.37	35.70	44.07															
	TN VE-06 T 0007	Urangani Tank	35.36	36.79	16.92	72.15	89.07															
	TN VE-06 T 0019	Vadachettiyandal	19.20	18.38	10.60	**37.58**	**48.18**															
		Total	**279.15**	**275.29**	**139.51**	**554.44**	**693.95**															
		CLUSTER IV															FP	2				
		Rishivanthiyam																				
2904	TN VE-06 T 0025	Kallaerikuppam Tank	5.70	4.95	3.00	10.65	13.65															
2870	TN VE-06 T 0026	PalayaSiruvangurPeriyaEri	21.55	20.84	11.61	42.39	54.00															
	TN VE-06 T 0027	Palayakorakachandal Tank	1.95	1.99	0.95	**3.94**	**4.89**															
	TN VE-06 T 0030	Pallipattu Tank	8.67	8.77	4.23	17.44	21.67															
2858	TN VE-06 T 0032	Velanmandal Tank	9.60	9.12	5.28	18.72	24.00															
		Total	**47.47**	**45.67**	**25.07**	93.14	118.21															

Region Tank No.	Unique ID	Name of the cluster/ Infrastructure/ Village	Total Ayacut (Ha)			Total Area (Ha)		WRO	Agriculture		TNAU		Horticulture		Agri marketing		AED		Fisheries		Animal Husbandry	
			FI	PI	Gap	Wop	WP		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
		CLUSTER V																				
		Chinnaselam																				
	TN VE-06 T 0042	Kacharayapalayam Tank	35.95	36.40	17.53	72.35	89.88															
	TN VE-06 T 0034	Vadakanandal Kalleri Tank	43.36	43.76	21.68	87.12	108.80															
		Total	79.31	**80.16**	39.21	159.47	198.68															

5.2. CONVERGENT TABLE – ABSTRACT (FOR EACH CLUSTER)

Sl No	Name of the cluster/ Infrastructure/ Village	Total Ayacut (Ha)			Total Area (Ha)		WRD	Agriculture		TNAU		Horticulture		Agri marketing		AED		Fisheries		Animal Husbandry	
		FI	PI	Gap	Wop	WP		Act	No./ Ha	Act	No./ Ha	Act	No./ Ha	Act	No./ Ha	Act	No.	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
1	**CLUSTER I**	421.6	180.49	124.77	602.09	726.86										FARM POND	**-**				
2	**CLUSTER II**	383.14	368.34	194.78	751.48	946.26											**2**				
3	**CLUSTER III**	279.15	275.29	139.51	554.44	693.95											**2**				
4	**CLUSTER IV**	47.47	45.67	25.07	93.14	118.21											**2**				
5	**CLUSTER V**	79.31	80.16	39.21	159.37	198.68															
TOTAL		**1210.67**	**949.95**	**523.34**	**2160.52**	**2683.96**											**6**				

6.1 STAKE HOLDER CONSULTATION AND FEEDBACK

6.1.1. Common Activities of Line Departments:

TNIAMP of IAMWARM Project Phase –III is proposed to be implemented for 6 years from 2020-21 onwards. The main implementing agencies are Water Resources Department (WRD), Agricultural Engineering Department (AED), Agriculture, Horticulture, Tamil Nadu Agricultural University (TNAU), Agricultural Marketing, Animal Husbandry and Fisheries with Management support and co-ordination provided by the Multi-Disciplinary Project Unit (MDPU).

6.1.2. Joint Walk through Survey

Agricultural Engineering Department is assigned with a task of construction of Farm Pond in the ayacut area of 34 tanks of Manimuktha nadhi sub basin. Initially the potential for forming Farm Ponds in the sub-basin was examined and final plan was made by interacting with stake holders through meetings and Joint walk through surveys. Sub-Basin committee convened by the Executive Engineer, WRD was attended by the line Departments and block wise dates for Joint Walk through survey finalized to meet the stakeholders and finalise the Sub-Basin plan.

During Joint walk through survey, farmers requested for water harvesting structures or Ground water Recharge structures in their patta lands. As a technical solution, it has been proposed to construct Farm Ponds to enhance ground water recharge and augment irrigation facilities. The rain water harvested in the Farm Ponds is utilised for supplemental irrigation as well to promote aquaculture through Fisheries Department which would bring additional income to the farmers.

6.2 Environmental and Social Management Plan (ESMP)

AED farm pond construction will not arise any environmental safeguard since the volume of work is minimum and constructed in the farmer's own land based on their willingness. In addition, Farmer's land adjoining roads and electric poles will be made environmentally safe by taking necessary precautionary measures.

6.3 ESMF Application in Livelihood Support Interventions

Wherever the Farm Pond is expected to hold water for 3-4 months.AED will intimate Fisheries department for inclusion of Fish fingerlings. This in turn helps farmer to get additional income through Farm Ponds.

6.4 Beneficiary Targeting and Inclusion

6.5. Direct Project Beneficiary Details

Gender		Farmer Classification			Category	
Male	Female	Small	Marginal	Others	General	SC/ST
6	0	6	0	0	6	0

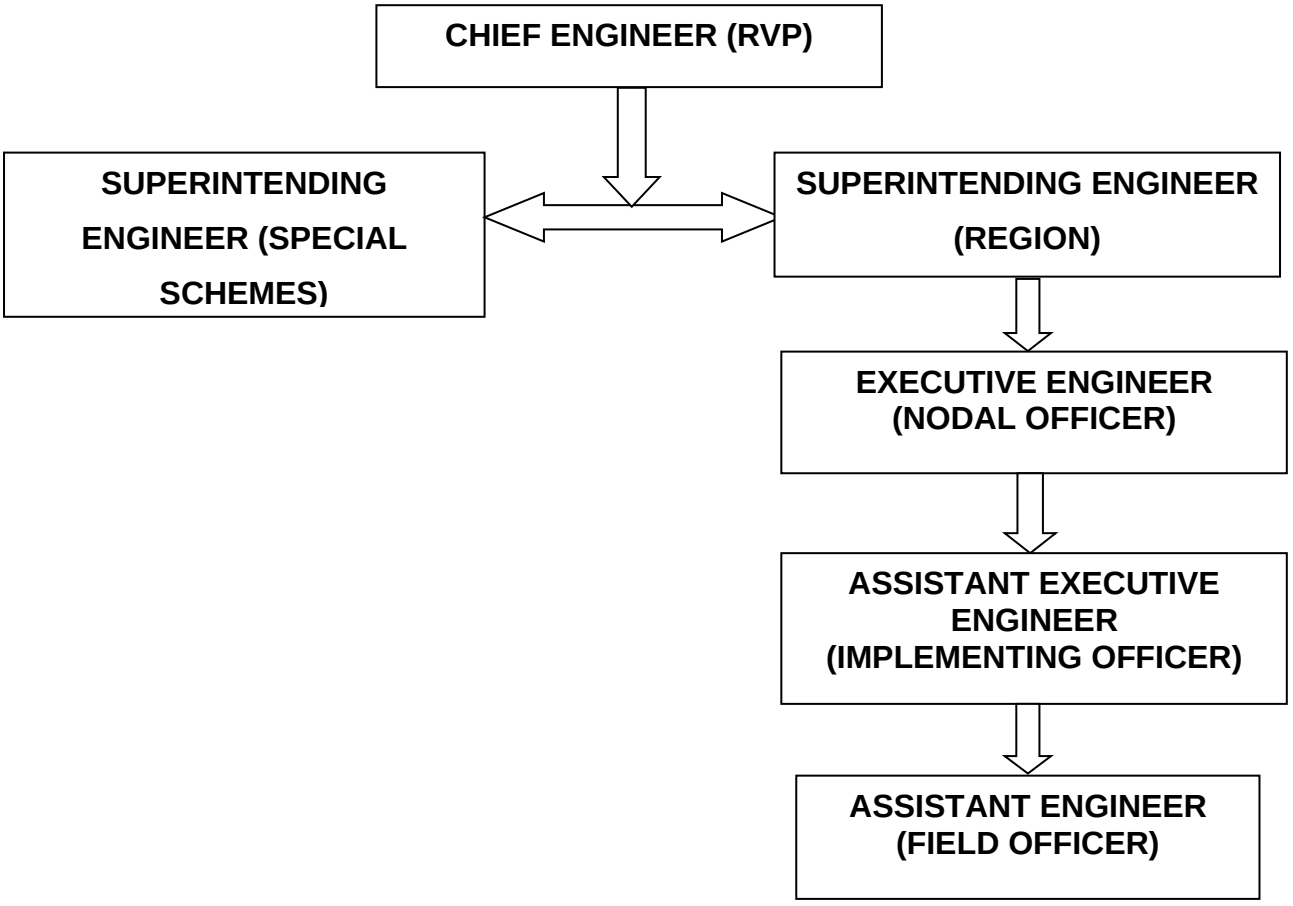
6.6 Grievance Redress Mechanism (GRM)

A project level GRM will be in place for addressing social, environmental and project related grievances. The GRM is monitored through sub basin wise multi level structures and processes.

6.6.1 Prompt and Effective Redress of Grievances

Grievances will be necessarily acknowledged, with an interim reply within 7 days of receipt and redressed within 1 month of receipt in the Organization. The same time limit should apply even if co-ordination with subsidiary offices or another Department / Organization is involved. No grievance will be rejected without having been independently examined.

6.6.2 GRM- Hierarchy



6.6.3 Process of Grievance Redress Mechanism (GRM)

1. The Grievance Redress Committee(GRC) will receive all grievances/complaints and enter them in the Grievance Register
2. The GRC will consider and redress grievances/complaints through public and transparent process.
3. The GRC will communicate its decisions/redress in writing to the complainants within 4 weeks depending on the nature of complaints.
4. The GRC decisions are not the final and the grieved and complainants have the right to seek judicial redress if they are not happy with the decisions of GRC. But it should not paraphrase the constitution fundamental rights.
5. Display boards will be provided in the Farm pond site along with details viz., Name of Sub Basin Nodal officer Name, Office address, contact number,

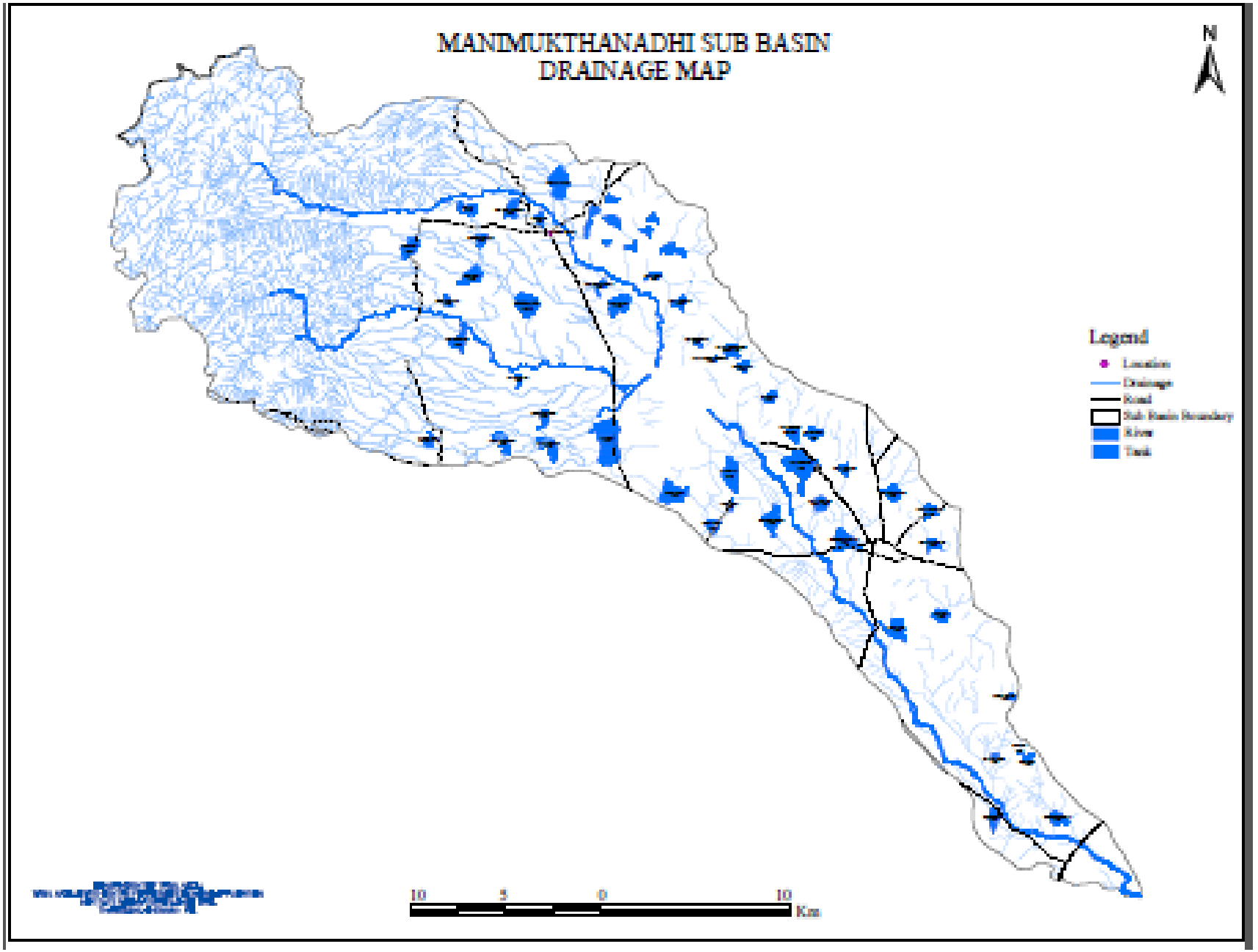
6.6.4 Complaints/Grievances Register will contain (a) Serial Number; (b) Case Number; (c) Name of the Grieved/Complainant; (d) Name of Father/Husband; (e) Gender (f) Age; (g) Full Address; (h) Brief details of grievance/complaint; (i) List of documents, if any, attached; (j) Details of previous grievance/complaint, if any; (k) Date of receipt of grievance/complaint and (l) Date of acknowledgement of grievance/complaint

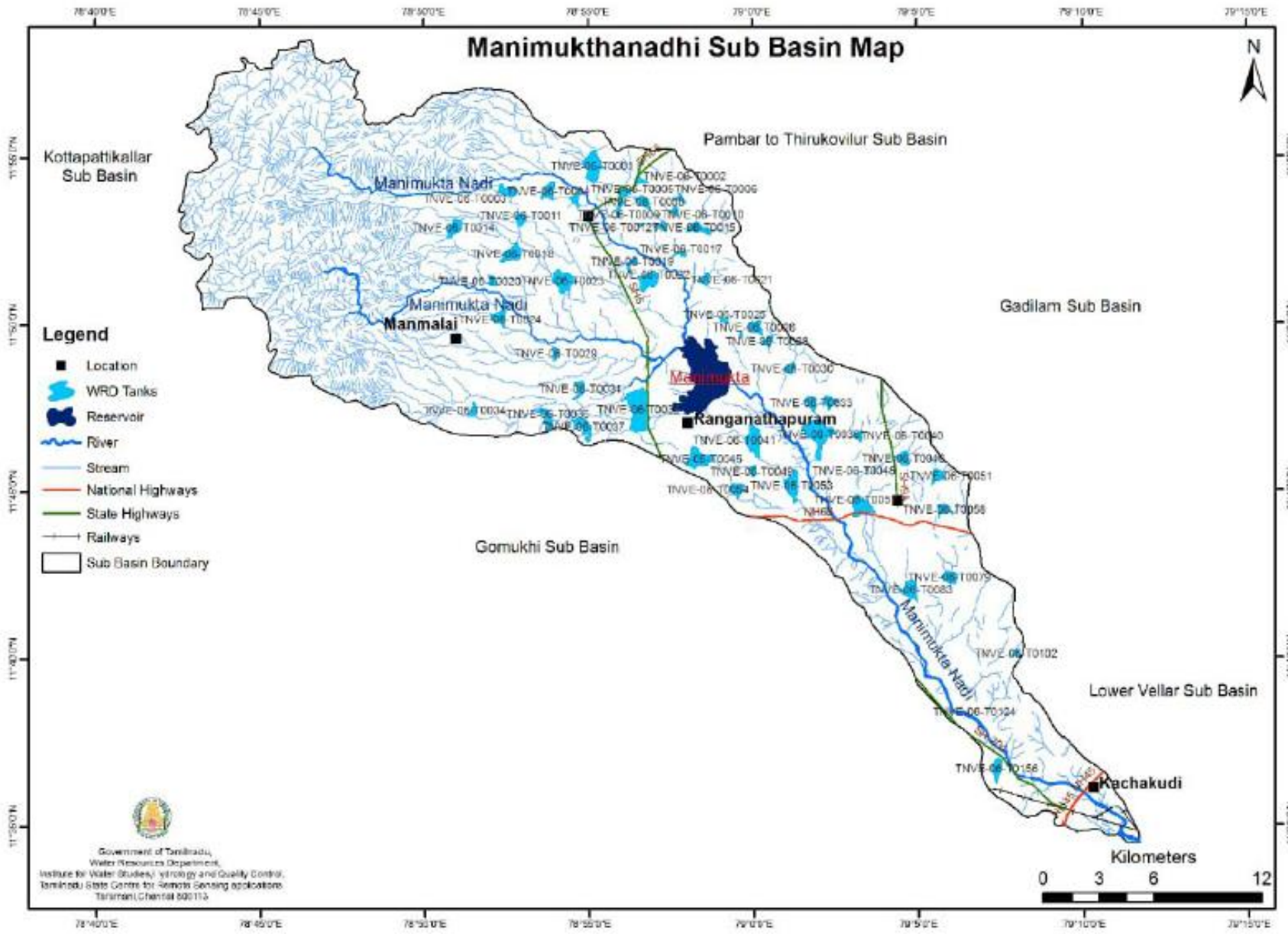
When closing the complaint, agreement should be made with the complainant on remedy, and both parties sign to their approval of the case being closed and outcome accepted. Copies are kept in both hard copy and electronic.

6.6.5 Grievance Redress Mechanism (GRM) – Contact Details

Sl. No	Name	Designation	Contact Number	E-mail id
1	M.A. HARSHA	Superintending Engineer , Villupuram Region	9443014641 04146 259951	aedsevpm@tn.nic.in, aedsevpm@gmail.com,
2	S.PALANIVELU	Executive Engineer(AE), Villupuram	9245138050 04146259888	aedeevpm@tn.nic.in
3	S. GANESAN	Assistant Executive Engineer(AE), Kallakurichi	8220534258	aeeaedkki1999@gmail.com
4	P. BASKARAN	Asst. Engineer (AE), Kallakurichi	9443879469	
5	K. MARIAPAKKIAM	Junior Engineer (AE), Kallakurichi	9486176527	
6	K. KEERTHIKA	Asst. Engineer (AE), Kallakurichi	9047035767	

7	R. SIVASANKARAN	Junior Engineer (AE), Kallakurichi	6381910366	
8	T. KANNAN	Asst Engineer(AE) Kallakurichi	7603813174	
9	D.VARADHARAJAN	Asst Engineer(AE) Kallakurichi	6374304221	


MANIMUKTHANADHI SUB BASIN
DRAINAGE MAP
N
Legend
Location
Drainage
Road
Sub Basin Boundary
River
Tank
10
5
0
10
Km


Manimukthanadhi Sub Basin Map
N
Kottapattikallar Sub Basin
Pambar to Thirukovilur Sub Basin
Gadilam Sub Basin
Gomukhi Sub Basin
Lower Vellar Sub Basin
Manimukta Nadi
Manmukta Nadi
Manmalai
Ranganathapuram
Kachakudi
Legend
Location
WRD Tanks
Reservoir
River
Stream
National Highways
State Highways
Railways
Sub Basin Boundary
Government of Tamilnadu,
Water Resources Department,
Institute for Water Studies, Hydrology and Quality Control,
Tamilnadu State Centre for Remote Sensing applications
Taramani,Chennai 600113
Kilometers
0 3 6 12