



DISTRICT DISASTER MANAGEMENT PLAN FOR 2024 TIRUVALLUR DISTRICT



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DISTRICT COLLECTOR,
TIRUVALLUR DISTRICT
TAMIL NADU**



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PREFACE

Disaster Resilient Tiruvallur District: 2030

Tiruvallur District is spread over an area of 3,422 sq.km with a population of 26,68,855 (2011 census). The district has a coast line of 27.9 Kms with 70 coastal villages. The district is blessed with adequate rainfall during the North East Monsoon (1109.37mm in 2021).

In the past, Tiruvallur has been victim of floods and cyclones, associated with low pressure formation and cyclonic storms during the North East Monsson, resulting in heavy to very heavy and extremely heavy rainfall causing severe floods and cyclones. Floods in 2015, 2005 and Cylone Nivar, Vardha, Nilam, Mandous and Michaung have left a trail of destruction including loss of human lives. The coastal villages are particularly highly vulnerable to natural disasters viz., cyclones, floods, earthquakes-induced tsunami.

Settlements on the banks of Kosasthalaiyar, Araniyar and Coovum river are vulnerable to the breach of rivers. Coastal Taluks of Ponneri and Gummidipoondi with a coastline of 15.9 km are particularly prone to cyclones. Vulnerability mapping has been done to identify these areas.

Tiruvallur District is not just prone to natural hazards. The presence of ports and industry make it vulnerable to man-made hazards such as the Oil spillage of 2017 which affected the Ernavur village in Tiruvallur district.

The District Disaster Management Plan (DDMP) would lay down a roadmap to minimize the impact of these hazards and handle disasters effectively based on the principles of Sendai framework for Disaster Risk Reduction (2020-2030)

The District Disaster Management Authority was formed vide G.O.Ms.No.33 Revenue Department dated 24.01.2014. The District Disaster Management Plan (DDMP) 2015 was released in May 2015. The DDMP of Tiruvallur District has clear road map for the field operators. The Hazard Risk Vulnerability and Capacity (HRVC), identification of Roles and Responsibilities of Stake holders and Standard Operation Procedure (SoP) are helpful to the disaster managers. Several training programme were organized to train Stake holders and middle level officers under the aegis of State Disaster Management Authority (SDMA).

Because of the efficient planning and guidelines issued by the Commissioner of Revenue Administration (CRA), the District Administration has been able to avoid human loss and substantial amount of material loss. 133 low lying area were pre identified and categorized as High, Medium and Low Vulnerable Areas. Different inter departmental team were appointed in vulnerable areas and marked as zone. The Zonal Team along with community and NGO Played vital role in alleviating the sufferings of people at large.

To minimize the impact of disasters in the future, the district administration has ramped up its capacity by training 492 Male First Responders, 444 Female First Responders, 144 Animal Shelter First Responders, 136 First responders for Tree Planting and Tree Cutter, 50 Snake Catcher, 55 Swimmers, 56 Tree Climbers and 56 SDRF Trained Police.

There are 4480 First Responders were Trained at Firka Level, Division Level and District Level and 500 Volunteers were trained in Aapta Mithra Scheme in Tiruvallur District

A new chapter on Covid 19 – infection, prevention and control has been added in the DDMP. Respiratory hygiene, hand hygiene and cleaning and disinfection of surfaces frequently touched by hands are essential strategies for the prevention and transmission of COVID-19. To enforce the same, the Government of Tamil Nadu had directed the districts to constitute the crisis management committee in every district under the chairmanship of the district collector.

Accordingly, in Tiruvallur District Crisis Management Committee formed under the Chairmanship of the District Collector with representatives from the connected departments - Health and Family Welfare, Revenue and Disaster Management, Rural Development, Agriculture, Animal Husbandry and Fisheries, related agencies both Government and Private, Food Manufacturers, Distributors, NGOs and consumer related stakeholders, etc. to contain the outbreak of COVID-19.

I take this opportunity to thank the Planners of DDMP 2024, Thiru.A.Rajkumar, District Revenue Officer, Thiru.M.Venkatraman, PA(G) and Stake holders of the line departments.

I am also grateful thanks to the Additional Chief Secretary / Commissioner of Revenue Administration for his guidance.


23/9/24
Dr. T. Prabhushankar, IAS.,
District Collector, Tiruvallur.

Date: 23.09.2024.

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TIRUVALLUR DISTRICT PROFILE AT A GLANCE

Sl. NO	FACTS	DATA	
1.	Revenue Villages	663	
2.	Village Panchayats	526	
3.	Revenue Firkas	48	
4.	Revenue Taluks	9	
5.	Revenue Divisions	3	
6.	Panchayat Unions	14	
7.	Municipalities	6	
8.	Corporation	1	
9.	Town Panchayats	8	
10.	Police Stations	31	
11.	Women Police Stations	05	
12.	Fire Stations	09	
13.	Total Area	3422.43 sq.km.	
14.	Boundaries	East : Bay of Bengal West : Vellore District North : Andhra Pradesh State South: Kancheepuram District	
15.	Coastal Villages and Length	70 coastal villages and 27.9 Kms	
16.	Temperature (Celsius)	Minimum : 27.70 Maximum : 38.00	
17	Normal Rainfall in (m.m)	Season	Normal rainfall
		Winter (Jan - Feb)	33.5
		Summer (Mar - May)	65.7
		South West Monsoon	449.5
		North East Monsoon	604.1
		Total	1152.8

18	Rivers running in the District	1. Kosasthalaiyar River 2. Arani River 3. Nandi River 4. Koovam River		
19	Irrigation Tanks	1895		
20	Land Holdings	No.of operational Holdings (in Hec.)	Area Operator (in Hec.)	
		219609	130346.225	
21	Total Cultivated Area	148369 Hectare.		
22	Major Crops	Paddy, Sugarcane, Ground Nut, Pulses and Mango		
23	Drinking Water sources	Over Head Tanks		
25	Population	Male	Female	Total
		1342754	1326101	2668855
26	Main occupation of the people	Agriculture, Agricultural Labour in Rural Areas, Company works and Coolies in urban Areas.		
27	Transport	Road	K.M.	
		Mud Road	1067.591	
		Metal Road	725.377	
		Bitumen	5936.167	
		Cement Concrete Road	660.762	
		Total	8389.90	
28	Bus Transport	Fleet Strength - 303		
		Routes - 287		
		Depots - 05		
29	Rail Transport	No.of Railway Station - 37		
		Route Length (in K.M) - 120		
30	Port	Ennore Port (Kamarajar Port)		

31	Civil Supplies	No.of Fair price shops - 1139	
		No.of Ration Cards - 624290	
		<u>LPG Connection</u>	
		Zero Cyclinder - 79917	
		Single Cylinder - 220215	
		Double Cylinder - 323421	
32	Industries	SIPCOT Industrial Estate	Gummidipoondi, Thervoy Kandigai
		SIDCO Industrial Estate	Thirumazhisai Kakkalur Thirumullaivoyal Gummidipoondi Vichoor



**DISTRICT DISASTER MANAGEMENT AUTHORITY
TIRUVALLUR DISTRICT**

(Constituted as per DM Act – 2005 vide G.O.Ms.No.33 Revenue Dept. dated: 24.01.2014)

Sl. No	Name	Designation	Position	Contact No
1.	Dr.T.Prabhushankar, I.A.S.,	District Collector	Chair Person	9444132000
2.	Thiru.R.Srinivasa Perumal, I.P.S	Superintendent of Police	Member	8754435100
3.	Thiru.A.Rajkumar	District Revenue Officer	Chief Executive Officer	9445000902
4.	Dr.Meera	Joint Director Health Services	Member	7358122108
5.	Thiru.V.Jayakumar	Project Director/ Joint Director District Rural Development Agency	Member	7373704202
6.	Thiru.M.Venkatraman	Personal Assistant (General) to Collector	Member	9445008153

**FOR DISASTER RELATED ASSISTANCE/
INFORMATION'S**

TOLL FREE NOS.

1070	1077
State Emergency Operation Centre	District Emergency Operation Centre

DISTRICT DISASTER MANAGEMENT PLAN
TIRUVALLUR DISTRICT - 2024
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1. INTRODUCTION
DISTRICT DISASTER MANAGEMENT PLAN – 2024
TIRUVALLUR DISTRICT

Disaster

Disaster means a catastrophe, mishap, calamity or grave occurrence affecting any area from natural and manmade causes, or by accident or negligence, which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of environment and of such a nature and magnitude as to be beyond the capacity of the community of the affected areas.

Disaster Management:-

Disaster management is a process or strategy that is implemented when any type of catastrophic event takes place. Sometimes referred to as disaster recovery management, the process may be initiated when anything threatens to disrupt normal operations or puts the lives of human beings at risk. Government on all levels as well as many businesses create some sort of disaster plan that make it possible to overcome the catastrophe and return to normal function as quickly as possible.

Disaster threatens sustainable economic development worldwide. In the past twenty years, earthquakes, floods, tropical storms, tsunami, droughts and other calamities have killed millions of people, inflicted injury, disease and caused homelessness and misery to around one billion others in the world. These have caused damage to infrastructure worth millions of rupees.

Disaster destroys decades of human effort and investments, thereby, placing new demands on society for reconstruction and rehabilitation. Disaster management thus requires a multidisciplinary and proactive approach. The community, civil society organizations, media and the proverbial man on the street, everyone has to play a role in case such exigency occurs. The various prevention and mitigation measures outlined below are aimed at building up capabilities as also how to deal with disasters.

OBJECTIVE

The objective of a Disaster management plan is to localize a Disaster and contain its effect to the greatest extent so as to minimize its impact on life, environment and property. Response to any disaster, in the absence of a well-defined plan, would be arbitrary, leading to overemphasis of some actions and absence of other critical actions. A formal plan for managing Disaster is therefore necessary. This Disaster Management Plan has a strong preparedness focus which aims at reducing our vulnerability to disasters and at the same time, it includes a plan of action/response mechanism for dealing with earthquakes, floods, cyclones, tsunami, epidemics, industrial and chemical accidents, road accidents and fires.

This document provides basic information required for the management of disasters in Tiruvallur District by:

- Defining the Risks and Vulnerabilities of citizens of the district to different disasters;
- Identifying private and public sector stakeholders with prime and supporting responsibilities to reduce or negate these vulnerabilities

- Define actions to be taken by these parties to avoid or mitigate the impact of possible disasters in the district.
- Through Standard Operating Procedures (SOPs) of Line Departments detailing how specific disaster response actions will be accomplished.
- Developing and maintaining SOPs are the responsibility of parties with designated prime or supporting tasks assigned by this plan.
- Keeping in view all the possible aspects of the aforesaid problem in mind and to keep the Administration prepared in all possible ways to respond properly to various Disaster situations with minimum delay, possible Disaster situations have been identified and the component plans have also been identified & mentioned in detail in this document.

(A) Natural Calamities	
Floods	Cyclone
Earthquake	Tsunami
Fire	Drought
(B) Man Made Disasters	
Industrial Disaster	Radiological Disaster
Accidents (Railways, Road, Air)	Building Collapse
Bomb Blast (Terrorist Activities)	Stampede at crowded Places
Food Poisoning etc.,	

The mode, degree and extent of response to fight out any Disaster depend upon the nature, degree and extent of Disaster, but some points are common to all kinds of situations. For example, first and foremost, appropriate and adequate steps for preventing the disaster should be undertaken.

Secondly, preparedness is required to contain the damages and casualties resulting from the Disaster. Thirdly, steps for rehabilitation and restoration of community life within a reasonable time should be focused on.

Hence, some necessary and common steps are as below:

- Establishment of Central Control Rooms and capacity enhancement of Emergency Operation Centers.
- District Disaster Management Committee to meet post early warning or immediately post disaster occurrence.
- A general line of action and some special duties to various officers and departments will have to be assigned, keeping in mind a timeline for finishing specific tasks.
- Voluntary Organizations may have to be involved and their role will have to be clearly specified and coordinated.
- Media may have to be briefed to suppress all kinds of rumors.
- Information regarding resource inventory of Health Services, Transport Services, Evacuation & Rehabilitation Centers and Food etc. needs to be kept handy so that resources can be deployed where required.
- Consistent follow-up of relief operations and constant reporting of pre and post disaster work.

Broad guidelines have been given in the following pages and "**Standard Procedure**" has been formulated which is to be adhered by all concerned. Once the Disaster takes place and the authorities are informed of the same, they will take the necessary action with the help of individual Disaster management plans prepared for the respective Disaster/situations.

The main objectives of various preparedness measures are:

- Minimizing the loss of human lives.
- Minimizing the loss of livestock.
- Minimizing the loss to property and infrastructure.
- Minimizing ill effects on the health of the affected population.
- Bringing the human activities in the locality to normal soon after.

To achieve the above objectives, different tasks have to be performed by Government Departments and other agencies before, during and after the Disaster. Each Department's role and responsibilities have to be clearly identified and an action plan needs to be drawn up by each department. For close cooperation between the various Departments and Agencies, close coordination is required between the District Collector and all District Level / Division Level Officers in the District.

The responsibility to manage any type of Disaster in the district rests with the **District Disaster Management Authority** headed by the District Collector, Tiruvallur, who may, depending upon the gravity of the situation, seeks the help of **State Disaster Management Authority**. This tiered and hierarchical structure ensures that the best possible response is accorded to any disaster situation, depending upon the severity of damage. For operational expediency, the level of Disasters have been categorized and classified as under:

LEVEL OF DISASTERS

L Concept has been developed to define different levels of disasters in order to facilitate the responses and assistances to States and Districts.

L0 level Denotes normal times which will be utilized for close monitoring, documentation, prevention and preparatory activities. Training on search and rescue, rehearsals, evaluation and inventory updation for response activities will be carried out during this time.

L1 level Specifies disaster that can be managed at the District level, however, the State and Central Government will remain in readiness to provide assistance if needed.

L2 level Disaster situations are those, which require assistance and active participation of the state, mobilization of its resources for management of disasters.

L3 level Disaster situation is in case of large scale disaster where the State and District authorities have been overwhelmed and require assistance from the Central Government for reinstating the State and District machinery as well as for rescue, relief, other response and recovery measures. In most cases, the scale and intensity of the disaster as determined by the concerned technical agency like IMD are sufficient for the declaration of L3 disaster.

2. DISTRICT PROFILE



Introduction

Tiruvallur District is located in the North-Eastern portion of Tamil Nadu. The district of Tiruvallur has been carved out by bifurcating erstwhile Chengalpattu District. The District is bounded on the south by Kancheepuram District, on the west by Vellore District, on the east by Bay of Bengal and on the North by the State of Andhra Pradesh. Its mainland extends between **12°15'** degree and **13°15'** degree latitude and between **79°15'** degree **80°20'** longitude. Two Taluks, Ponneri and Gummmidipoondi have the coastal area and more prone to cyclone disaster.

Area and Population

Tiruvallur district has a total area of **3424 sq** kms with a population of **26,68,855** as per 2011 census.

District Administration

Tiruvallur District has **786 Revenue Villages** divided into **3 Revenue Divisions** viz, Tiruvallur, Tiruttani, and Ponneri. There are **9 Taluks, 14 Blocks, 6 Municipalities, 1 Corporation, and 8 Town Panchayats** in the District as follows:

1.	Revenue Villages	663
2.	Village Panchayats	526
3.	Revenue Firkas	48
4.	Revenue Taluks	9
5.	Revenue Divisions	3
6.	Panchayat Unions	14
7.	Municipalities	6
8.	Corporation	1
9.	Town Panchayats	8
10.	Police Stations	31
11.	Women Police Stations	05
12.	Fire Stations	09
13.	Total Area	3422.43 sq.km.

Climate and Soil

The climate of the district is moderate neither too hot nor too cold but humidity is considerable. Both the monsoons occur and in summer heat is considerably mitigated in the coastal areas by sea breeze.

The months between April and June are generally very hot with temperature going up to an average of 37.9° C. During the winter (December -January) the average temperature is 18.5° C. The coastal areas receive more rains than the interior ones.

The soil found in the District may broadly be classified **as alluvial, black, light brown and alkaline.**

Water Resources (river / major lakes and estuaries)

Apart from seasonal rivers like Kosasthalaiyaru, Araniyar, Nandi, Kallar, Coovam and Buckingham Canal there is no perennial river in the District. Since, these seasonal rivers are not sufficient, irrigation through tanks, tube wells and open wells are very common. Major Drinking Water Reservoirs in the district are in Poondi, Chembarambakkam, Redhills, Kannankottai Thervai Kandugai and Sholavaram. Chembarambakkam lies on Poonamalle taluk but it is operated and controlled by Kancheepuram District.



Sl. No.	Place of the Tank	Tank Height (in feet)	Tank capacity (mcft)
1.	Poondi	35	3231
2.	Redhills	21.20	3300
3.	Sholavaram	18.86	1081
4.	Kannankottai Thervoy Kandigai	36.61	500

KOSASTHALAIYAR BASIN DIVISION, TIRUVALLUR

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 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.

Under control of Kosasthalaiyar Basin Division, Thiruvallur there are river such as Kosasthalaiyar River, Nagari River, Nandhiyar River, Cooum River and Adayar River.

There are Five Major Reservoirs (i.e) Sathayamoorthy Sagar, Poondi, Puzhal, Cholavaram, Chembarambakkam and Kannankottai Thervoykandigai and 336 Irrigation Tanks are being maintained in this division.

There are certain works having been taken up for execution Periodically (i.e.,) maintenance works, MP/MLA's Scheme, DRIP Scheme, NABARD Schemes, world bank loan Assistance Scheme, Kudimaramath Scheme, Premonsoon Works, Causeways, Rehabilitation, Renovation and Restoration schemes, 8443 Deposit works, 2215 city water supply schemes and systems works etc.,

This Territorial Division looks out the following maintenance works.

- 1) Desilting Water Bodies, Supply channels, surplus course, Re-construction of sluices and weirs and strengthening of bunds etc.,
- 2) To Prevent sea water intrusion works.
- 3) To avoid floods, structural mitigation measures like formation of diversion canals/Link canals, Flood protection walls and formation of flood banks.
- 4) Project works construction of Checkdams, Riverine Reservoirs and bed dam with Regulator arrangements etc.,
- 5) Periodically maintaining works for water supply scheme.

Description of the Kosasthalaiyar Basin:

(i) Kosasthalaiyar Sub basin lies almost at the centre of Chennai sub Basin and in between Araniyar Sub Basin and Cooum Sub basin. Kosasthalaiyar River Originates from the surplus weir of Kaveripakkam Tank which is one of the Irrigation Tank fed by Palar Anicut in Ranipet District and the river flows in a North East Direction. The Kosasthalaiyar river is intercepted by Poondi Reservoir which in one of the Major Drinking water source to Chennai and three Anicuts called 1) Kesavaram Anicut in Upstream of Poondi Reservoir 2) Thamaraipakkam Anicut and 3) Vallur Anicut the down stream of Poondi Anicut. The Kosasthalaiyar river finally empties into the Bay of Bengal near Ennore Creek.

The Taluks covered in this Sub basin are 1) Nemili Taluk of Raniet District 2) Tiruttani, Tiruvellore, Uthukottai and Ponneri of Thiruvallur District.

There are 10 Checkdams across Kosasthalaiyar River. The total length of the river is 136KM with total area of Kosasthalaiyar Sub basin is 1949 sq km,

(ii) Nagari River origins in Andhrapradesh after joining Lava and Kusa tributaries at Pallipet. The total length of Nagari River 60km with total area of Nagari River sub basin 1080 km² (including Andhrapradesh)

(iii) Nandhi River orginates from Ayyaneri Tank surplus and total length of Nandhi River 40km with total area of Nandhi river sub basins 698 km².(including Andrapradesh).

There are five Checkdams across Nagari River.

Description of the Cooum River Sub-Basin:

The cooum river originates in a Village of the same name in Cooum Tank surplus in Thiruvallur District about 70 Km from Chennai. Although starting its main course at Satharai Village, the Bangaru Channel link with, which diverts from Kesavaram anicut. The total length of the river is 82.98 Km. The surplus cooum river water feeding to Korattur Anicut through Pinjivakkam, Manavalanagar and then flowing from Korattur Anicut with formation of New Bangaru Channel and its course reaches to Chembarambakkam Tank.

Also, this river goes to Chennai near Paruthipattu Anicut after meandering from Korattur Anicut then flowing from Paruthipattu Anicut to Ayanambakkam Tank by closed concrete channel and it flows to Kaduvetti Anicut from Paruthipattu Anicut and finally it reaches to Chennai Cooum Creek via Napier Bridge and lastly it joins to Bay of Bengal.

Description of the Adyar River Sub-Basin:

Adyar River is a short coastal river of about 42 Km in length and enters the city limit near Nandambakkam Bridge and runs through the city for a stretch of 12 Kms, finally out falls into Bay of Bengal. The river has 2 arms, with the Northern arm origination from Chembarambakkam minor from Guduvancheri at Thiruneermalai. The total catchment area is 331 sq.miles (808 Km²) with 288 Irrigation tanks in the catchments. The basin includes Chembarambakkam, Sriperumbudur and Pillapakkam tanks with nearly 40 % of basin contributed by Chembarambakkam tank.

The river is now utilized as a storm water collector and flood moderator for the Chennai city relieving from inundation during monsoon. It caters no irrigation throughout its run., According to its Hydrological edge Adyar river can be defined

as a non Perennial water way and more precisely it can be categorized as a seasonal river.

Nagariyar Sub Basin

The Nagariyar Sub Basin and Nandhiyar Sub Basin are two Sub Basins of Chennai Basin and also Lava River and Kusa River are the two tributaries to Nagari River. Lava River originates from Krishnapuram reservoir in Chittoor District of Andhra Pradesh and Kusa River originates from the catchment of Pullur hills in Chittoor District of Andhra Pradesh. Lava and Kusa Rivers are joining at Pallipet and it becomes Nagari River.

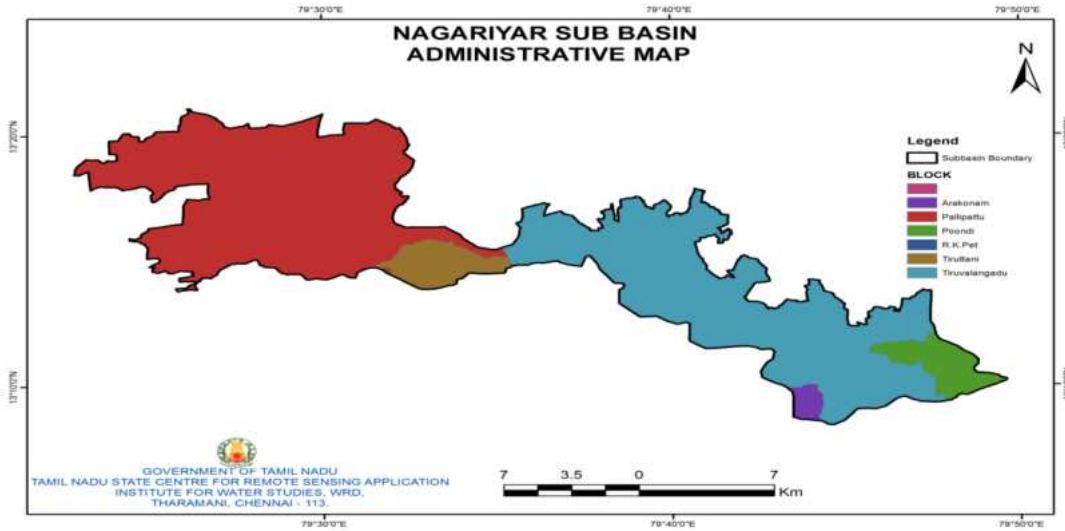
The Nagari River flows into Perumanallur, Sorakkaipet, Nediym, Punniyam villages of Pallipet Taluk of Thiruvallur District then enters into Andhra Pradesh and again the Nagari River enters into Tamil Nadu at Poonimangadu flowing through Nallattur, N.N.Kandigai, Arungulam, Lakshmapuram and Confluence with Nandhi River at ilupur Village of Thiruvallur District then feeds to Poondi Reservoir which is a Major Chennai city Augumenting water supply Reservoir. The Nagari River lies in latitude 130 '19'00" N and longitude of 790 '29'30" E covers an area of 236.79 Sq.Km. The Nagariyar Sub Basin covers Pallipet & Thiruvalangadu Blocks of Pallipet and Tiruttani Taluks in Thiruvallur District.

Check Dams

There are five Check Dams constructed as follows.

- i. Lava Check Dam across Lava River near Pallipet village of Pallipet Taluk constructed during 2014.
- ii. Sorrakkaipet Check Dam across Nagari river near Sorrakkaipet village of Pallipet Taluk constructed during 2014.
- iii. Chathrawada Check Dam across Nagari river near Chathrawada Village in Andhra Pradesh constructed during 2014.
- iv. Nallattur Check Dam across Nagari river near Nallattur village of Tiruttani Taluk constructed during 2015.

- v. Arungulam Check Dam across Nagari river in near Arungulam village of Tiruttani Taluk constructed during 2014.



Irrigation potential of the sub basin

Category	Pallipat	Tirutani	Total
Fully irrigated area(ha)	753.95	292.04	1045.99
Partially irrigated area(ha)	187.75	38.47	226.22
Gap (ha)	191.68	76.94	268.62
Total ayacut area (ha)	1133.38	407.45	1540.83

Details of Cluster Village in Nagariyar Sub Basin

Cluster I – Pallipat Taluk of Tiruvallur District

SI. No	NAME OF TANK	NAME OF VILLAGE	NAME OF BLOCK	AYACUT (ha)
1	Podhaturpet Tank	Podatturpet	Pallipet	228.37
2	Sanakuppam Tank	Sanakuppam	Pallipet	40.49
3	Pallipet Tank	Pallipet	Pallipet	276.92
4	Karimbedu Tank	Karimbedu	Pallipet	126.70
5	Athimanjeripet Tank	Athimanjeripet	Pallipet	97.54
6	Perumanallur Tank	Perumanallur	Pallipet	92.31
7	Nedungal Tank	Nedungal	Pallipet	44.33
8	Pandaravedu Tank	Pandaravedu	Pallipet	85.83
9	Madhikettan Odai Tank	Thirumalrajpet	Pallipet	140.89
		Total		1133.38

I Tiruthani taluk of Tiruvallur District

Sl.No	Name of Tank	Name Of Village	Name Of Block	Ayacut (Ha)
1	Santhana gopalapuram Tank	SNG Puram	Tiruvalankadu	41.36
2	Nemili Tank	Nemili	Tiruvalankadu	160.98
3	Nallattur Tank	Nallattur	Tiruvalankadu	64.87
4	Chivada Tank	Chivada	Tiruvalankadu	140.24
Total				407.45

The officials of all the Line Departments viz., Water Resources Department, Agriculture, Horti

culture, Animal husbandry, Fisheries, Agriculture Engineering, Agricultural Marketing and TNAU participated in the walk through survey as per the programme detailed above.

The following observations were made during the survey in consultation with the farmers and other stakeholders.

- * Strengthening of the tank bunds
- * Desilting of the tank and supply channel
- * Repair works in the sluice and weir
- * Lining of field channel
- * Fixing of boundary stone
- * The soil type is red loam, black loam, sandy loam, clayey and swampy with respect to Thiruvallur District.
- * Major agricultural crops cultivated are Paddy and Sugarcane and horticultural crop like Mango are grown in this subbasin
- * Wild boar damage is menace in paddy and sugarcane crops
- * Vegetable cultivation is a constraint due to water logging condition
- * More emphasis on livestock management

NANDHIYAR SUB BASIN

The Nandhi River is one of the Sub Basin in Chennai Basin which is located in the western part of Chennai Basin. Kosasthalaiyar sub basin lies at the centre of Chennai sub basin and in between Araniyar sub basin and Coovam sub basin are located. The Nagari River and Nandhi River are two tributaries to Kosasthalaiyar River. Nandhiyar and Nagariyar confluences into Kosasthalaiyar at Illuppur Village of Tiruvallur District and falls into Poondi reservoir

Nandhi river originates from Surplus of Ayyaneri Tank in Pallipat Taluk of Tiruvallur District. The Ayyaneri Tank receives water supply from surplus of Sholingur Tank at L.s 17.40 Kms in Poiney Anicut System in Vellore District. The Nandhi river lies in Latitude 13°09'45" N and Longitude 79°35'10" E Nandhiyar Sub Basin having catchment area of 602.57 Sq.Km.

The river flows into S.Agraharam, Cherukkanur, Koramangalam, Agoor, Thekkalur, Tiruttani, Valarapuram, Krishnapuram and joins into Kosasthalaiyar River in Illuppur Village of Tiruvallur District. The Nandhi river runs upto 32.40 Km from Ayyaneri to Illuppur joins into Poondi reservoir. The Taluks covered in Nandhiyar sub basin are Arakkonam and Walaja Taluk of Vellore District.

Anicuts

There are Two Anicuts constructed across Nandhi River in Tamil Nadu.

1. Buggai Anicut in Bugga Agraharam village in Andhra Pradesh
2. Poonimangadu Anicut near Poonimangadu village in Andhra Pradesh

Further 40 Non System Tanks lies in Nandhiyar Sub Basin in which 2 Tanks already in execution under TNIAMP RAF & 29 Tanks under Kudimaramathu Scheme 2016-17 & 2017-18, RRR Scheme and remaining 9 Tanks to be taken up for Rehabilitation and Modernisation under TN-IAMP (IAMWARM – II) Project phase- II Sub Basins

Total No of Supply Channel in Nandhiyar Sub Basin

Totally 2 System Tank and 9 Non system Tank, Existing Tank Supply channels of Length 32.00 Km in Nandhiyar Sub Basin and now proposed Sectioning the Tank Supply Channels for the length of 32.00 Kms

LIST OF BLOCKS, TALUKS AND DISTRICT COVERED IN NANDHIYAR SUB BASIN

DISTRICT	TALUK	BLOCK
Thiruvallur	Pallipet	R.K.Pet
	Tiruttani	Thiruttani & Thiruvallangadu

LIST OF DISTRICTS, BLOCKS AND TALUKS, TANKS AND AYACUT DETAILS PROPOSED IN THIS PROJECT:

Sl. No.	District	Block	Taluk	No.of Tanks	Ayacut in Ha
1	Thiruvallur	R.K.Pet	Pallipet	14	732.66
		Thiruttani	Tiruttani	9	301.41
		Total		23	1034.07

IRRIGATION POTENTIAL OF THE SUB BASIN

Category	Tiruttani	R.K.Pet
Fully irrigated area(ha)	193.71	472.31
Partially irrigated area(ha)	48.44	118.07
Gap (ha)	59.26	142.28
Total ayacut area (ha)	301.41	732.66

DETAILS OF CLUSTER VILLAGE IN NANDHIYAR SUB BASIN THIRUVALUR DISTRICT

SI. no	NAME OF TANK	NAME VILLAGE	NAME OF BLOCK	AYACUT (ha)
1	Alamelumangapuram Tank	Alamelumangapuram	Tiruttani	49.38
2	Tekkalur Chitteri	Tekkalur	Tiruttani	55.98
3	Thadur	Thadur	Tiruttani	55.07
4	Paravathur kondam	Paravathur	Tiruttani	22.99
5	Janagapuram kondam	Janagapuram	Tiruttani	129.06
6	Vakil narasa ayyar kondam	Cherukkanur	Tiruttani	24.89
7	Cherukkanur kondam	Cherukkanur	Tiruttani	20.11
8	Samanthipuram kondam	Samanthipuram	Tiruttani	34.80
9	Agoor kondam	Agoor	Tiruttani	19.13
10	Raghavanaidukuppam Tank	Raghavanaidukuppam	R.K.Pet	45.92
11	Vilakkanampudi Tank	Vilakkanampudi	R.K.Pet	116.38
12	Srikaligapuram Big & Small Tank	Srikaligapuram	R.K.Pet	63.18
13	Vellathur Tank	Vellathur	R.K.Pet	63.2
14	Adhivaragapuram Tank	Adhivaragapuram	R.K.Pet	92.74
15	Erumbi Tank	Aswareventhapuram	R.K.Pet	109.62
16	Silambu Tank	Devalambapuram	R.K.Pet	80.08
17	Mosur Tank	Mosur	R.K.Pet	45.22
18	Kattari kuppam kondam	Kattari kuppam	R.K.Pet	20.91
19	Nagakuppam kondam	Nagakuppam	R.K.Pet	14.57
20	Vayalur kondam	Vayalur	R.K.Pet	17.20
21	Chettirivaripalli kondam	Chettirivaripalli	R.K.Pet	20.28
22	Sengalam kondam	Sengalam	R.K.Pet	19.47
23	Kalyanapuram kondam	Kalyanapuram	R.K.Pet	23.89
Total				1034.07

**CLUSTER WISE / INFRASTRUCTURE WISE / VILLAGE WISE CONVERGENT
TABLE (Tiruttani block)**

Sl No	Name of the cluster/ Infrastructure/ Village	Total Ayacut (Ha)			Total Ayacut (Ha)			WRD	Agriculture	
		FI	PI	Gap	Wop	WP	Gap		Act	No./ Ha
1	2	3	4	5	6	7	8	9	10	11
	CLUSTER I									
1	Alamelumangapuram Tank	31.61	7.9	9.87	39.51	49.38		Strengthening of tank bund, Repairs to Sluice & Weir, Improvements to Supply Channel, & Fixing of tank Boundary stones and Repairs to Kondam.	SRI	10
2	Thekkalur Chitteri	35.84	8.96	11.18	44.8	55.98			SRI	7
3	Thadur Big Tank	35.43	8.86	10.78	44.29	55.07			SRI	8
4	Paravathur kondam	14.82	3.71	4.46	18.53	22.99				
5	Janagapuram kondam	12.3	3.08	3.68	15.38	19.06				
6	Vakil Narasa Ayyar kondam	16.32	4.08	4.49	20.4	24.89			SRI	5
7	Cherukkanur kondam	12.79	3.2	4.12	15.99	20.11			SRI	10
8	Samanthipuram kondam	22.37	5.59	6.84	27.96	34.8				
9	Agoor kondam	12.23	3.06	3.84	15.29	19.13			SRI	10
	Total	193.7	48.4	59.26	242.15	301.41				50

Sl No	Name of the cluster/ Infrastructure / Village	Total Ayacut (Ha)			Total Ayacut (Ha)			WRD	Agriculture	
		FI	PI	Gap	Wop	WP	Gap		Act	No./ Ha
1	2	3	4	5	6	7	8	9	10	11
	CLUSTER II									
1	Raghavanaidu kuppam Tank	29.6	7.4	8.92	37	45.92		Strengthening of tank bund, Repairs to Sluice & Weir, Improvements to Supply Channel, & Fixing of tank Boundary stones and Repairs to Kondam.	SRI	5
2	Mosur Tank	28.92	7.23	9.07	36.15	45.22			SRI	8
3	Vilakkanampudi Tank	74.74	18.68	22.96	93.42	116.38			SRI	7
4	Srikaligapuram Big & Small Tank	40.66	10.16	12.36	50.82	63.18			SRI	9
5	Vellathur Tank	41.05	10.26	11.89	51.31	63.2			SRI	10
6	Adhivaragapuram Tank	59.88	14.97	17.89	74.85	92.74			SRI	9
7	Erumbi Tank	70.22	17.56	21.84	87.78	109.62			SRI	9
8	Silambu Tank	51.29	12.82	15.97	64.11	80.08			SRI	6
9	Kattarikuppam kondam	13.36	3.34	4.21	16.7	20.91			SRI	8
10	Nagakuppam kondam	9.36	2.34	2.87	11.7	14.57			SRI	6
11	Vayalur kondam	10.93	2.73	3.54	13.66	17.2			SRI	4
12	Chettivaripalli kondam	12.93	3.23	4.12	16.16	20.28			SRI	9
13	Sengalam kondam	13.91	3.48	2.08	17.39	19.47			SRI	6
14	Kalyanapuram kondam	15.46	3.87	4.56	19.33	23.89			SRI	4
	Total	472.31	118.07	142.28	590.38	732.66				100

GUMMIDIPOONDI SUB BASIN

DESCRIPTION

Gummidipoondi sub basin covers an area of 331.11Sq.Km. Numerous small streams originate from Sathiavedu hills at about an altitude of 261m and a few streams originate from Tamilnadu and drain most of the plain areas of Gummidipoondi. These streams flow in the North, Northeast direction filling up several tanks in Pallavada, Periyaopalapuram, Thanipoondi, Sirupulalpettai and Siruvadur. Finally to the west of Elavur, the streams join with the Pulicatlake in Andhra Pradesh. It is one of the sub basin in Chennai basin which is located in the Northern part of Chennai basin and Pulicat lake.

BLOCK WISE AYACUT AREA DETAILS

Block	No of Tanks	Ayacut Area (Ha)	No of Villages Benefitted
Gummidipoondi	26	1672.03	19

Sl. No.	Name of the Cluster / Infrastructure / Village	Total Ayacut (Ha)			
		FI	PI	Gap	Total
1	2	3	4	5	6
1	Amarambedu	108.240	86.592	21.648	108.240
2	Amirthamangalam	46.140	36.912	9.228	46.140
3	Aramani	48.220	38.576	9.644	48.220
4	Budur	75.270	60.216	15.054	75.270
5	Bommanjikulam	46.350	37.080	9.270	46.350
6	Kanalur	60.300	48.240	12.060	60.300
7	Periya Bommanjikulam	62.230	49.784	12.446	62.230
8	Pondavakkam	50.590	40.472	10.118	50.590
9	Sedilpakkam	44.900	35.920	8.980	44.900
10	Edur	50.000	40.000	10.000	50.000
11	ThervoyKandigai	45.680	36.544	9.136	45.680
12	Vanamalli	62.850	50.280	12.570	62.850
13	Elavoor	298.220	238.576	59.644	298.220
14	Eguvarpalayam	100.030	80.024	20.006	100.030
15	Narasingapuram	39.200	31.360	7.840	39.200
16	PeriaNatham	69.000	55.200	13.800	69.000
17	Melapakkam	42.500	34.000	8.500	42.500
18	Poovalai	80.390	64.312	16.078	80.390
19	Thervali	48.900	39.120	9.780	48.900

ARANIYAR BASIN DIVISION, CHEPAUK, CHENNAI - 5.
ARANIYAR BASIN SUB-DIVISION, PONNERI.

Preface

Araniar River originates in the Nagarihills in Kavetiraja nagar of Chithur District of Andhrapradesh. Total length of the river is 131.60km. In which 65.20Km lies in Andhrapradesh and remaining 66.40 Km lies in TamilNadu State. The river araniar in Andhrapradesh comes under Pennar Basin. Whereas it comes in Chennai Basin inTamilNadu State.The Aranir reservoir located in Pissatoor village 4 miles west of Nagalapuram, now it called as Pichatur Dam which was constructed by the Tamil Nadu State Government in the erstwhile Taluk of Thiruvallur, Chengalpattu District. .The Total and Gross Capacity of Reservoir are 1724 Mcft and 1853 Mcft respectively. The Suruttapalli Anicut is at 11miles down of the Reservoir located nearer to Tamilnadu State but in Andhrapradesh. The fund remitted by the State Government of Tamil Nadu every year for maintenac, since the beneficiaries belongs to TamilNadu State.In Tamilnadu State Two anicuts and Five Check dams are Under maintenance of TNPWD. The Confluent point of Araniar river is Pulicat lake and leads to Bay of Bengal

The river basin spreads with total extent of 1470 Sq.km and out of which 763 Sq.km lies in Tamil Nadu. Araniyar sub basin is Located between Latitude 13°25'to13° 15' and Longitude 79° 45' to 80° 20'

Araniyar Reservoir

The Araniar reservoir is located at Pissatoor village . 4 miles west of Nagalapuram in the erst while taluk of Thiruvallur ,Chengal pattu District. The Effective capacity of the Reservoir is 1727 Mcft(gross capacity 1853Mcft) The river Bed level is 243' (74.07m) and FRL is 281'(85.65m) The river sluice and two channels are at the following levels

- (1) River sluice plus 250 (76.20m)
- (2) Left flank low level sluice plus260(79.25m)
- (3) Right flank highlevel sluice plus 264(80.47m)

Maintenance

The Tamil Nadu State Public works Maintains the Araniar river falls in Tamil Nadu State. Three Anicut , Five Check dams and one Syphon (Called Araniar Anicut) are existing across Araniar River. Thirty nine system tanks feeds under this Anicut System. About 154 Non system tanks cover in this Sub basin. The Araniar Basin Subdivision at Ponneri Maintains Three Anicuts and Five Check dam and 252 Tanks. The remaining 40tanks comes under Gummidipoondi Subbasin and 19 tanks comes under Kosasthalayar sub basin.

(A) Suruttapalli Anicut

The Suruttapalli Anicut is situated across Araniar river in Andhrapradesh. Though the Anicut is situated in Andhrapradesh the anicut feeds 15nos of system tanks with total Ayacut of 6066 Acres (2454 .87Ha) entirely in TamilNadu State. As the Anicut is situated in Andhrapradesh, the repairs to the Anicut and annual maintenance to Anicut is being carried out by Irrigation Department of Andhra Pradesh State. The Suruttapalli Anicut was constructed in 1954.

1. Araniyar Anicut

The 43.Panapakkam Check Dam was Constructed across Araniar River at L.S 76.95Km from the origin of the River. The Latitude and Longitude of proposed Check Dam site is 79°57'36"E and 13°17'32"N respectively. The Check dam lies in the moderately favourable zone in Ellapuram Block as indicated in Zonation Map

2. PANAPAKKAM CHECK DAM

The 43.Panapakkam Check Dam was Constructed across Araniar River at L.S 76.95Km from the origin of the River. The Latitude and Longitude of proposed Check Dam site is 79°57'36"E and 13°17'32"N respectively. The Check dam lies in the moderately favourable zone in Ellapuram Block as indicated in Zonation Map

Purpose of the Project&details

Every year nearly 4TMC of rain water falls as surplus in Araniar river running off in to the sea . Hence The Checkdam was constructed . The water entrapped by the Check dam in surface and subsurface) is primarily utilized for irrigation and drinking purpose and also for live stock and domestic needs and also for ground water recharge. The Anicut was Constructed in 2010-2011for Rs 329 Lakhs in G.O.MS NO 287/PW (R2) Dept dt 4-12-2009. The storage Capacity of the Check dam is 127.33Mcft

3. Kalpattu Check-Dam

The kalpattu Check Dam was Constructed across Araniar River at L.S 80.40Km from the origin of the River. The Latitude and Longitude of proposed Check Dam site is 79°58'57"E and 13°17'17"N respectively. The Check dam lies in the moderately favourable zone in Ellapuram Block as indicated in Zonation Map

Purpose of the Project&details

Every year nearly 4TMC of rain water falls as surplus in Araniar river running off in to the sea . Hence The Checkdam was constructed. The water entrapped by the Check dam in surface and subsurface) is primarily utilized for irrigation and drinking purpose and also for live stock and domestic needs and also for ground water recharge. The Anicut was Constructed in 2011-2012 for Rs 206.50 Lakhs in G.O.MS NO 19/PW(R2) Dept dt 20-1-2010

4.Chengathakulam Check Dam at L.S 90.60kM

The Chengathakulam Check Dam was Constructed across Araniar River at L.S 90.60 Km from the origin of the River. The Latitude and Longitude of proposed Check Dam site is 79°58'57"E and 13°17'17"N respectively. The Check dam lies in the moderately favourable zone is 3.80 to7.80mm per Hour in Ellapuram Block as indicated in Zonation Map

Purpose of the Project & details

Every year nearly 4TMC of rain water falls as surplus in Araniar river running off in to the sea . Hence The Checkdam was constructed. The water entrapped by the Check dam in surface and subsurface) is primarily utilized for irrigation and drinking purpose and also for live stock and domestic needs and also for ground water recharge. The Anicut was Constructed in 2012-2013 for Rs 700 Lakhs in G.O.MS NO 55/PW(R2) Dept dt 15-2--2010. The storage Capacity of the Check dam is 138Mcft.

5.Paleswaram Check Dam@L.S 93.60Km

The paleswaram Check Dam was Constructed across Araniar River at L.S 93.60 Km from the origin of the River. The Latitude and Longitude of proposed Check Dam site is 79°58'57"E and 13°17'17"N respectively. The Check dam lies in the moderately favourable zone is 3.80 to7.80mm per Hour in Gummidipoondi Block as indicated in Zonation Map

Purpose of the Project&details

Every year nearly 4TMC of rain water falls as surplus in Araniar river running off in to the sea . Hence The Checkdam was constructed. The water entrapped by the Check dam in surface and subsurface) is primarily utilized for irrigation and drinking purpose and also for live stock and domestic needs and also for ground water recharge. The Anicut was Constructed in 2009-2010 for Rs 744 Lakhs in G.O.MS NO 321/PW(R2) Dept dt 03.11.2008. The Storage capacity of the Check dam is 128.55Mcft.

6. A.N.Kuppam Anicut at L.S.98.00 Km.

The Annappa Nayakan Kuppam anicut is second Anicut Situated at 1Km North west of A.N.Kuppam village and 7thKm from Grand Northern Trunk Road @38/2 near Kilmudalambedu Village) in Ponneri Taluk of Trivallur District. It is situated at 77km from Nagirihills

The Anicurt was Constructed Across Araniar River , which originates in the Ngirihi hills in Chithur District.of Andhrapradesh. It was Constructed at a Cost of Rs 20.80 Lakhs in the year 1969 to feed 20 Tanks both in Gummidipoondi and Ponneri Taluks. The Length of the Anicut is 103.62 m or (340'0"). It is ogee type and consisting 3 Nis of Head and scouring sluice at left side only with regulation arrangements.

7.Lakshmipuram Anicut at L.S.114.80 Km.

The Lakshmipuram Anicut is situated IN Araniar river at L.S 114.80Km Just South East of Lakshmipuram Village in Ponneri Taluk of Thiruvallur District. It lies in Latitude of 13°20'40". And Longitude 30°14'30'. It was constructed in the year 2003-04.

Maximum Flood Discharge

Maximum Flood Discharge of 50290 Cusecs or 1424 Cumecs. Is taken for design of the Anicut

Capacity

According to the site Condition the M.F.L of the Check Dam has been fixed as +10.240m. The capacity of the Check Dam works out to 500Mcft

8.A-Reddy Palayam Check Dam@L.S 119.20KmKm

The A.Reddypalayam Check Dam was Constructed across Araniar River at L.S 119.20 Km from the origin of the River. The Latitude and Longitude of proposed Check Dam site is 80°15'15"E and 13°21'00"N respectively. The Check dam lies in the moderately favourable zone is 3.80 to 7.80mm per Hour in Minjur Block as indicated in Zonation Map

Agriculture

Agriculture is the main occupation of the people with 75% of the population are engaged in it. **Paddy** is the major crop cultivated in this district. Other major crops of the District are Groundnuts, Sugarcane, Cereals, Millets and Pulses. The Average Net Sown Area in this District is **108459.275 Hectares.**

SEASON-WISE FOCUS CROPS

Sl.No	Season	Main crops cultivated
1	Sornavari, Samba and Navarai	Paddy
2	Rabi	Ground nut, Gingelly and Green gram
3	Perennial	Coconut and Mango
4	Annual	Sugarcane



AGRICULTURE (In Ha):

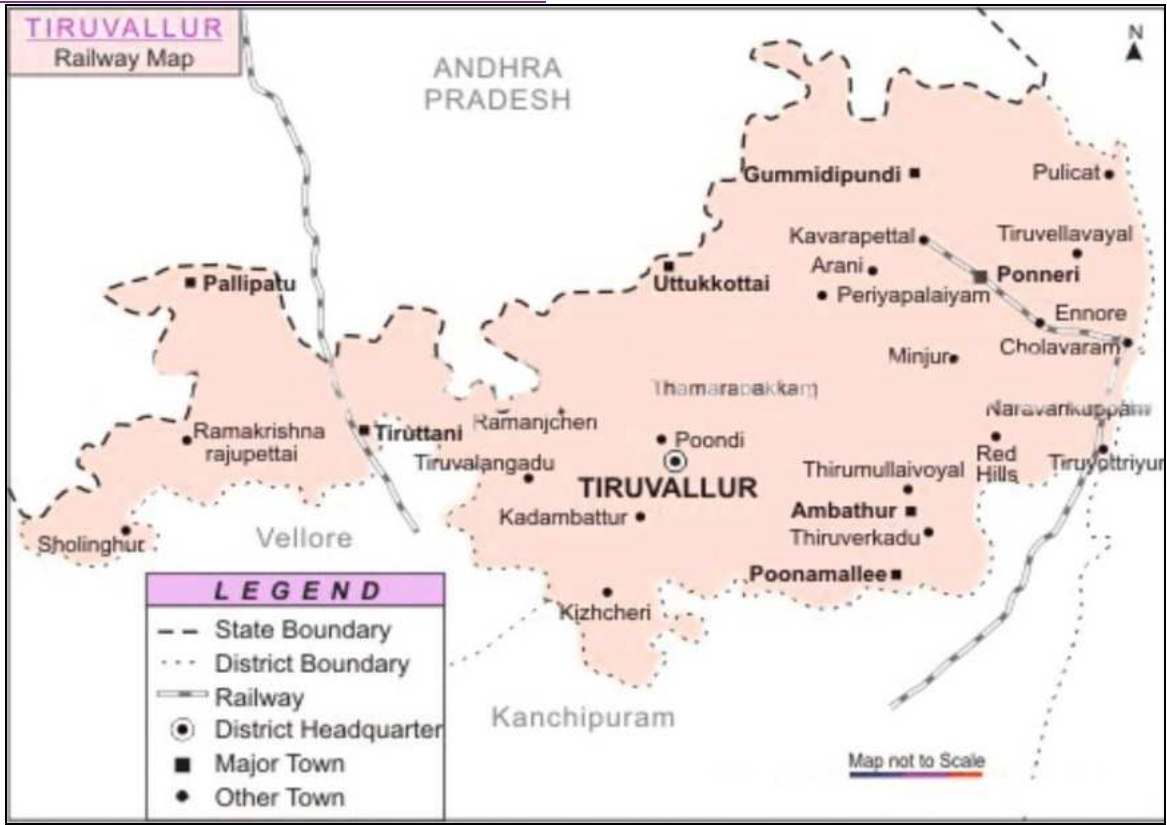
- Total cultivated Area (ha): 144766.683
- Net Area sown(ha): 89383.390
- Area Sown more than once (ha): 55383.293
- Area and Production of principal crops

	Area Lakh (Hect.)	Production in Lakh Tonnes
Rice (Paddy)	0.96608	4.299
Millets& Other cereals	0.005986	0.0181
Pulses	0.09855	0.0828
Sugarcane (interms of gur)	0.0425765	Nil
Groundnut	0.05961932	0.236
Gingelly	0.0229564	0.0126
Cotton (balesof 170 kg lint each)	Nil	Nil

TIRUVALLUR DISTRICT ROAD MAP



TIRUVALLUR DISTRICT RAILWAY MAP



Health

Details	Numbers
No. of Govt. Hospitals	10
No. of Govt. Medical College Hospitals	1
Taluk Hospitals	9
Non Taluk hospitals	2
Police Hospital - Avadi	1
Prison Hospitals - Puzhal	1
TB Office - Poonamallee	1
Total	25
Sanctioned Bed Strength	752

Economy

Tiruvallur district is one of the fastest developing districts in Tamil Nadu in terms of Industrial Development. The district has many leading industries like Kamarajar Port, North Chennai Thermal Power Station, National Thermal Power Corporation, L&T Ship Build, NIOT, ITC, IOCL, HPCL, BPCL, Hindustan Motors and CPCL, Ennore. It also boasts of the Ennore Thermal Power Station and the Avadi Tank Factory.

Government Industrial Estates

- Electrical Industrial Estate, Kakalur.
- SIDCO Industrial Estate, Kakalur
- Petrochemical Industrial Estate, Vichoor
- SIDCO Industrial Estate, R.K. Pet
- SIDCO Industrial Estate, Gummidipoondi
- SIDCO Industrial Estate, Thirumazhisai

Private Industrial Estates

- M.M.Industrial Estate, Alapakkam
- Moccaram Industries, Velappan Chavadi
- Ekambara Naicker Industrial Estate, Alapakkam

This district has 16,940 Small Scale Industries, notable among them being food, wood, textile, chemical, engineering, non-metallic and leather industries.

RAINFALL AND RAINUANGE STATION DETAILS

1) COMPARISON OF SEASON WISE RAINFALL FROM 2011 TO 2022

COMPARISON OF SEASON WISE RAINFALL FROM (2011 TO 2022)											
Season	Average Normal Rainfall	2011	Rainfall Difference in MM	2012	Rainfall Difference in MM	2013	Rainfall Difference in MM	2014	Rainfall Difference in MM	2015	Rainfall Difference in MM
Winter (January to February)	33.5	51.2	17.73 (Excess)	8.7	24.8 (Deficit)	48.7	15.16 (Excess)	1.17	32.33 (Deficit)	0.41	33.09 (Deficit)
Summer (March to May)	65.7	65.2	0.55 (Deficit)	24.7	40.98 (Deficit)	53.2	12.49 (Deficit)	26.5	39.18 (Deficit)	103	37.67 (Excess)
South West Monsoon (June to September)	450	580	130.56 (Excess)	430	19.79 (Deficit)	607	157.56 (Excess)	480	30.07 (Excess)	465	15.8 (Excess)
North East Monsoon (October to December)	604	644	39.4 (Excess)	570	73.67 (Deficit)	348	256.21 (Deficit)	433	171.07 (Deficit)	1417	812.71 (Excess)
Total	1153	1340	187.1 (Excess)	1033	119.8 (Deficit)	1057	96 (Deficit)	940	212.51 (Deficit)	1986	833.09 (Excess)

Season	2016	Rainfall Difference in MM	2017	Rainfall Difference in MM	2018	Rainfall Difference in MM	2019	Rainfall Difference in MM
Winter (January to February)	1.07	32.43 (Deficit)	6.89	26.61 (Deficit)	8.96	24.54 (Deficit)	0.57	32.93 (Deficit)
Summer (March to May)	153.31	87.61 (Excess)	18.8	46.9 (Deficit)	19.92	45.78 (Deficit)	15.08	50.62 (Deficit)
South West Monsoon (June to September)	420.75	28.75 (Deficit)	554.95	105.45 (Excess)	384.86	64.64 (Deficit)	672.41	222.91 (Excess)
North East Monsoon (October to December)	255.11	349 (Deficit)	685.16	81.06 (Excess)	346.12	257.98 (Deficit)	598.64	5.46 (Deficit)
Total	830.24	322.56 (Deficit)	1265.8	113 (Excess)	759.86	392.94 (Deficit)	1286.7	133.9 (Excess)

Season	2020	Rainfall Difference in MM	2021	Rainfall Difference in MM	2022	Rainfall Difference in MM
Winter (January to February)	34.97	1.47 (Excess)	133.74	100.24 (Excess)	66.76	33.26(Excess)
Summer (March to May)	61.53	4.17 (Deficit)	69.4	3.7 Excess)	92.12	26.42(Excess)
South West Monsoon (June to September)	604.86	155.36 (Excess)	612.09	162.59 (Excess)	527.65	78.15(Excess)
North East Monsoon (October to December)	739.6	135.07 (Excess)	1109.37	505.27 (Excess)	748.51	12.01(Excess)
Total	1440.96	287.73 (Excess)	1924.60	771.8 (Excess)	1435.04	259.84(Excess)

2) RAINUAGE DETAILS

Sl. No	Rainuage Station	Location	Incharge	Taluk
1	PONNERI	RDO OFFICE	RDO	PONNERI
2	UTHUKOTTAI	TALUK OFFICE	TAHSILDAR	UTHUKOTTAI
3	PALLIPATTU	PWD OFFICE	JE (KOSASTHALAIYAR)	PALLIPATTU
4	GUMMIDIPOONDI	TALUK OFFICE	TAHSILDAR	GUMMIDIPOONDI
5	TIRUTTANI	TALUK OFFICE	TAHSILDAR	TIRUTTANI
6	TIRUVALLUR	TALUK OFFICE	TAHSILDAR	TIRUVALLUR
7	POONAMALLEE	TALUK OFFICE	TAHSILDAR	POONAMALLEE
8	JAMIN KORATTUR	PWD PUTHUCHATHIRAM ERI	- AE (KOSASTHALAIYAR)	POONAMALLEE
9	POONDI	PWD OFFICE	AE (KOSASTHALAIYAR)	TIRUVALLUR
10	AVADI	TALUK OFFICE	TAHSILDAR	AVADI
11	CHOLAVARAM	NEAR CHOLARAVARM ERI	AE (KOSASTHALAIYAR)	PONNERI
12	THAMARAIPAKKAM	NEAR THAMARAIPAKKAM ANAICUT	AE (KOSASTHALAIYAR)	TIRUVALLUR
13	R.K.PET	BDO OFFICE	BDO	R.K.Pet
14	THIRUVALANGADU	BDO OFFICE	BDO	TIRUTTANI
15	RED HILLS	PWD OFFICE	OVERSEAR (KOSASTHALAIYAR)	MADHAVARAM

TIRUVALLUR DISTRICT POPULATION (2011 Cesus)

Sl. No	Name Of taluk	Male	Female	Total
1	Tiruvallur	202507	200787	403294
2	Uthukottai	75475	77156	152631
3	Poonamallee	333307	326615	659922
4	Avadi	175658	170338	345996
5	Ponneri	195181	194681	389862
6	Gummidipoondi	95799	94742	190541
7	Tiruttani	105239	105185	210424
8	Pallipet	106744	104945	211689
9	R.K.Pet	52844	51652	104496
Total		1342754	1326101	2668855

3. HAZARD, RISK AND VULNERABILITY ASSESSMENT

Disaster Risks in Tiruvallur District

Disaster risk is widely recognized as the consequence of the interaction between a hazard and the characteristics that make people and places vulnerable and exposed. Disaster risks are further compounded by increasing vulnerabilities.

Tiruvallur District has a coast line of **27.9 Kms** with **70 coastal** villages which are highly vulnerable to natural disasters viz., cyclones, floods, earthquakes-induced tsunami. Further, North East Monsoon Season brings copious rainfall to this District. This season is associated with low pressure formation and cyclonic storms resulting in heavy to very heavy and extremely heavy rainfall causing severe flooding resulting in devastation.

Tiruvallur District is prone to both natural and man-made hazards in different intensities. The various natural and manmade disaster happened in Tiruvallur District has been summarised as detailed below:

S. No	Hazard	Details of Hazard	Historical Data			
	(1)	(2)	(3)			
			Month & Year of occurrence	Frequency / return Period	Category / Intensity	Damages
			(a)	(b)	(c)	(d)
1	Flood	Coastal Area	01.11.2015	-		Life Loss -72 Cattle Loss-798 Hut Damage - 46344 Houses Inundated - 561248 Agri -33030.350ha Horti - 2523.647 Ha Boat Damages-725 Road Length -1878.61km Bridges/Culverts - 62 Tank Breaches - 127 Electric Pole - 277 Transform-71
			1.12.2005	-	15.09kms	Agri Damaes 20634.82.6 Hec and Horti 1542.52.0 Hec
4	Storm Cyclone	Michaung	03.12.2023		120 km/h (75 mph)	Life Loss -3 Hut Damage - 4545 Cattle Loss - 8247 Agri Damages (Hec) 20857.9136 Horti Damages (Hec) - 1102.94 Tree Fall - 862 Boat, Motor equip.damaged- 3582 Bridges/Culverts -1222 Electric Pole - 1363 Transform - 82
		MANDOUS	08.12.2022	-	100 km/h (65 mph)	Hut Damage - 434 Cattle Loss - 23
		NIVAR	25.11.2020		120-130kms	Life Loss -1 Hut Damage - 1186 Cattle Loss - 7354
		Vardha	12.12.2016		120/130kms	Life Loss - 8 Cattle Loss-19279 Hut Damage -68107 Agri 33257.62 Horti -3960.56 Boat -7945 Kattumaram -728 Net - 4828 Road Lenth -650km Fallen tree -10688 Nos EB Pole and Transfrom-116/23815 EHT Tower - 2 Health Restore -16
		Nilam	31.10.2012			Life Loss -3 Cattle Loss-38 Hut Damage -653
		Thane Cyclone	29.12.2011		85kms 330feet	Life Loss -1 Cattle Loss-7 Hut Damage - 2144
5	Earthquake	-	-	-	-	-
6	Tsunami	25 feet	26.12.2004	-	10-20 feet	Life Loss 29

FLOOD

1) FLOOD NEM - 2015

In November 2015, Tiruvallur District received entire North East Monsoon Rainfall in just 10 days (604.1mm). Also heavy Rainfall in Upper reaches of Chittoor District, Andhra Pradesh resulted in heavy Surface Runoff and adversely impacted causing Heavy Loss and Damage.

Heavy rainfall resulted in damage to huts, houses and large scale marooning. Major roads, bridges, cause ways including Tiruvallur - Tiruttani Road, Tiruvallur - Uthukottai Road, Tiruvallur - Redhills Road, Chennai - Tiruvallur High Road, Tiruvottriyur - Ponneri TPP Road, Kanagamma Chathram bridge, Puduchathram -Narayanapuram cause way, Thirukandalam Check Dam, etc. have been completely damaged and the entire district 617.6 kms of highways, 815 kms of rural roads, 69.5 kms of Municipal roads have been damaged. Heavy flow of river and over flow of tanks resulted in damage to agriculture crops.

- As per the instruction of Hon'ble Chief Minister for Tamil Nadu, Revenue, Local bodies, Highways, PWD, TANGEDCO, Civil Supplies, Health Department, Police Department and Fire and Rescue Department etc. were geared up
- 50 special teams were involved in rescue, relief and restoration activities.
- Army, Navy, Coast Guard, NDRF, SDRF, Police, Fire and Rescue and personnel from various Government Departments were deployed in rescue and relief operations.
- Rescue and Relief Team immediately acted and rescued people in low line areas, established rescue centers and supplied food, drinking water and other facilities to people.

- Adequate number of JCBs, Proclainers, Power plop, Heavy Duty Pumps, Sandbags, Standby Transformers, Electric Holes, Conductor wire, Medicines, Food materials etc., were kept ready to meet out any emergency.

Villages affected due to over flow and breaching of rivers

Name of the River	Distance	Run off Villages
Kosasthalaiyar	87.5 Km	Venkadapuram, Kumarajepettai, Nediya, Lakshmapuram, Ramancheri, Poondi, Meiyur, Vilapakkam, Sembedu, Ramancheri, Veliyur, Thamaraiyapakkam, Tirukandalam, Karanodai, Vannipakkam, Minjur, Edaiyanchavadai, Ennore.
Araniyar	66.4 Km	Uthukottai, Panapakkam, Arani, Pudhuvoyal, Eliyampedu, Chinnakavanam, Perumedu, Aladu, Tathamaji, Kadapakkam
Coovum	56 Km	Perampakkam, Sathiraikandikagai, Egattur, Aranvoyal, Korattur, Kannapalayam, Paruthipattu, Thiruverkadu, Maduravoyal, Nerkundram

PHOTOS ON NORTH EAST MONSOON - 2015 FLOOD AFFECTED AREAS



Flood inundation in Railway track at Avadi



Periyapalayam – Tiruninravur – Jamin Korattur connecting bridge at Pudhuchatram in Tiruvallur district, (State Highway – 50A) damaged due to heavy rains.



Damaged bridge on the Avadi-Poonamallee High Road

DAMAGES CAUSED DUE TO UNPRECEDENTED FLOODS
DURING THE YEAR 2015

Human Loss	72
Cattle Loss	798
Huts (Fully)	3,447
Huts (Partly)	33,131
Pucca Houses (Partly)	9,766
Houses Inundated	5,61,248
Agricultural Crop	33030.350 Ha.
Horticulture Crop	2523.647 Ha.
Fishing Boats	725
Road Length	1878.61 Km
Bridges/ Culverts/ Causeways	62
Tank Breaches	127
Electric Poles	277
Transfer	71

2) FLOOD - 2005

During the North East Monsoon-2005, Tiruvallur District has experienced unprecedented torrential rain and caused floods. Due to flooding there was a major damage to the Minor Irrigation Tanks, Banks of Rivers and Channels. Further a few number of Tank bunds had been breached.

All such damages were controlled to a maximum extent by carrying out temporary restoration works, such as strengthening the weaker section of tank bund then and there, closing the breaches by close and constant vigil over the irrigation sources and continuous patrolling of water sources by the PWD-WRO Officials with the guidance of District Administration.

For example the Tiruttani Tank was breached on 01.12.2005 and breach closing was attended immediately and completed in a couple of days and kept ready for further storage of rain water.

The urban area in and around Chennai city have been badly affected and inundated with flood water (i.e.) mainly korattur, Ambathur Industrial area, Maduravoyal area, etc., To drain out the inundated area, immediate rescue operations were made using earth moving machineries to remove the obstructions by way of encroachment in the water ways, for the free flow of flood water and there by reduced the human cry in those areas.

Especially, complete removal of encroached obstructions in Coovam River was tackled by PWD-WRO on war foot basis in Maduravoyal area as per the clear direction of District Administration (After getting vacation of stay order by the Hon'ble High Court on the eviction of Major encroachment of Dr.M.G.R. Deemed University)

Agriculture crop damages during October and November - 2005 Flood:

Maximum area affected due to flood was reported in Ponneri Taluk followed by Gummidipoondi, Uthukottai and Tiruvallur Taluk of Tiruvallur District.

All the field functionaries of the Agriculture Department were alerted and instructed to assess the crop damage in their respective areas. A Zonal Officer in the cadre of Deputy Director of Agriculture was appointed to supervise the flood damage enumeration work. The crop damage was assessed by field functionaries with the supervision of Assistant Director of Agriculture at Taluk Level.

A contingent crop plan has been drawn and communicated to the field functionaries to mitigate the flood situation. The objective of the crop contingent plan is to minimize reduction in overall Agriculture production caused due to adverse climatic condition.

As the torrential rainfall was received in two spells, first crop under continuous submergence for many days were assessed, and then actual area crop damage was assessed. In the meantime, the District Collector had convened meetings with the concerned department officials and also constituted district and village level committees to oversee the relief works.

The flood enumeration work was entrusted to Village Administrative Officer of Revenue Department and Assistant Agricultural Officer of Agriculture Department supervised by higher officials of both the departments. The final area of crop damage due to flood during 2005 is given hereunder.

Sl. No.	Name of the Crop	Area affected in Hec.
1.	Agriculture Crops	20634.82.6
2.	Horticulture Crops	1542.52.0
Total		22177.34.6

CYCLONE

In meteorology, a cyclone is an area of closed, circular fluid motion rotating in the same direction as the Earth. This is usually characterized by inward spiraling winds that rotate counter clockwise and clockwise of the Earth. Most large-scale cyclonic circulations are centered on areas of low atmospheric pressure. The largest low-pressure systems are cold-core polar cyclones and extra tropical cyclones which lie on the synoptic scale. Coastal Taluks viz., Ponneri and Gummidipoondi with coast line of 15.9 Kms are particularly prone. Cyclones originate out at sea and become hazardous when they come ashore. They also drive the sea level up to cause coastal flooding. At a community level, the TNSDMA has provided Cyclone Shelters and Multi-Purpose Evacuation Shelters. Further, Public Buildings, Choultries, Community Halls and buildings owned by various private educational institutions have also be identified for use as cyclone shelters, for evacuation and temporary occupation.

1) NIVAR CYCLONE - 2020

On receipt of “Nivar Cyclonic Alert” from the Indian Metrological Department, Co-ordination meeting was conducted involving District Disaster Management Agency and all Heads of Line Department on 23.11.2020 and adequate instructions were issued to all concerned to make round the clock vigil to undertake. Very high alert was issued to the public living in coastal areas and also the habitants put up on both side of the bank of Pulicat Lake by beat of tom-tom, Mega Phone alert and also door to door alert with the help of gross root level officials of Village Administrative Officer, Village Assistants, Fisheries, Fire and Health Department.

On 24.11.2020 i.e. prior day of the landfall, the District Administration took a bold decision and evacuated the people who were living in the coastal zone and also on the banks of the Pulicat Lake. It was identified that 45 Fishermen Kuppam areas and some of the coastal villages as vulnerable. The Team headed by the District Collector, Superintendent of Police, & RDO Ponneri and their officials made frequent visit to the habitations of above 45 fishermen area on the midnight of 24.11.2020 and evacuated more than 105 people from the danger zone to the safer place. They were accommodated in the shelters at Cyclone Rescue Centre, Kulathumedu and also the team visited Vadakarai, Athipattu, Nallur, Kallur, Vallur, Anumpampattu, Perumbedu and Vannipakkam. During the evacuation more than 10 Buses were put in use for evacuation. The evacuees 3100 were accommodated in 49 shelters in Ponneri, Thiruvallur, Tiruttani, Poonamallee, Uthukottai and Gummidipoondi Taluks.

Essential supplies such as Food, milk, bread, water were adequately provided. Proper medical care was also given to the evacuee in the medical camps set up in each temporary shelters. This timely action taken by the District Administration averted major casualties.

Due to Nivar Cyclone-2020, there are 1186 Huts were damaged, 7354 Cattles were loss and 1 Human Loss were affected. The 96 Rescue Shelter were arranged and 5094 peoples were accommodated in Relief Sheleters and 12162 Foods packets were given to accommodated Peoples

In all the Rescue Shelters the Breakfast, lunch and dinner has been provided adequately and timely and Adequate drinking water, toilet and Lighting were arranged and Specially, milk has been served to Children below 5 years residing in the Camps. Special Medical Camps were conducted in all the Rescue Shelters.

2) VARDHAH CYCLONE 2016

During the “Vardah” - 2016 a very severe cyclonic storm developed over Bay of Bengal during first week of December 2016 crossed the coast with wind velocity of 120-130 KMPH near Chennai on 12.12.2016 between Chennai Port and Pazhaverkadu of Tiruvallur District causing extensive damages to infrastructure, property, agriculture and horticultural crops in Tiruvallur District. There was a death toll of 8 persons in the District due to the impact of the severe cyclonic storm. Further, 79 livestock and 19,279 poultries added to the casualties. 10668 live trees were uprooted and fell on the road thereby paralyzing normal life, disrupting electricity and mobile network connectivity.



Totally 15,349 electric poles and 116 transformers, 68,107 thatched huts and houses were damaged.

- 46 Rescue Shelters were opened to feed 10096 people. Food, drinking water and other basic amenities were provided to the inmates of the relief camps. Milk was provided to the Children below 5 years in the relief camps.
- Toilet facilities and Lighting arrangements were also made at the relief camps.
- Special Medical Camps were conducted in all the Rescue Shelters.
- 350 Gen-sets and 426 water supply Lorries were put in place to provide potable water to the public across the District. Besides, 150 Gen-sets from other Districts were arranged to provide drinking water.
- In all 500 workers drawn from Municipalities, Town Panchayats and Village Panchayats in Tiruvallur District with 38 power saw, 40 Lorries and 46 JCB were pressed into service to remove the debris

and branches of trees to restore the traffic and bounce back to normalcy.

- 2000 officials in the cadre of Executive Engineers, Assistant Executive Engineer, Wiremen and Helpers with 144 JCB and 272 lorries were involved to restore electricity in the affected areas.
- 46 temporary Medical camps were organized to prevent spreading of water-borne diseases like diarrhoea etc., Chlorination of water was done all over the District meticulously.

LOSS / DAMAGES CAUSED DUE TO CYCLONE 'VARDAH' 2016

Sl. No	CATEGORY	TOTAL
1	Human Loss	8
2	Cattle / Poultry Loss	19,279
3	Huts (Fully)	2,031
4	Huts (Partly)	58,323
5	Pucca Houses (Partly)	7,753
6	Agricultural Crop	32257.62 Ha
7	Horticulture Crop	3960.56 Ha
8	FRB Boats (Fully / Partly)	4,767
9	Fishing Wooden Catamaran	728
10	Fishing Out Board Motors (Partly)	3,178
11	Fishing Nets (Fully)	4,828
12	Roads & Berms Length	650 Km
13	Removal of Wind Fallen Trees	10,688
14	Electric Poles	23815
15	Transformers	116
16	EHT Towers	02
17	Health-Restoration of Buildings	16

RELIEF, RESCUE AND RESTORATION WORK

In order to monitor the relief, rescue and restoration work, 6 ministers were deputed to lead 6 teams comprising of 6 senior IAS officers. The teams included officials from various departments like revenue, police, fire and rescue, rural development, highways, electricity board and health. The steps taken by the teams to combat the cyclone fury were instrumental in minimizing the misery of public at large.



IMPACT- LOSS AND DAMAGES

Despite taking adequate precautionary measures, the Vardah cyclone caused extensive damages to property, agriculture and horticultural crop in Tiruvallur District. Many electric poles and trees were uprooted. Road traffic was paralyzed. Electricity and mobile connections were disrupted.

3) NILAM CYCLONE- 2012

Cyclonic Storm Nilam, at landfall on October 31, 2012, near peak intensity. It made landfall near Mahabalipuram on October 31 as a strong Cyclonic Storm with peak winds of 85 km/h (50 mph).

In Chennai's Marina Beach, strong winds pushed piles of sand ashore and seawater reached nearly a 100 m (330 ft) inland. Schools and colleges in the city remained closed for more than three days.

The damages caused in Tiruvallur District by Nilam Cyclone which made landfall near Mahabalipuram on 31.10.2012. There are 3 Human Lives, 38 Cattle Loss, 653 Huts were damaged. There are 6 Relief Shelters were arranged and 1268 peoples were evacuated from 373 families.

In 6 Rescue Shelters the Breakfast, lunch and dinner has been provided adequately and timely and Adequate drinking water, toilet and Lighting were arranged and Specially, milk has been served to Children below 5 years residing in the Camps. Special Medical Camps were conducted in all the Rescue Shelters.

4) THANE CYCLONE- 2011

Cyclone Thane developed the Bay of Bengal close to the Indian coast on December 29, while near its peak intensity. The damages caused in Tiruvallur District by Thane Cyclone which crossed over the Bay of Bengal close to the Indian coast.

There are 1 Human Lives, 7 Cattle Loss, 2144 Huts were damaged. There are 8 Relief Shelters were arranged 1165 families were evacuated and stayed safely.

In 8 Rescue Shelters the Breakfast, lunch and dinner has been provided adequately and timely and Adequate drinking water, toilet and Lighting were arranged and Specially, milk has been served to Children below 5 years residing in the Camps. Special Medical Camps were conducted in all the Rescue Shelters.

5) TSUNAMI - 2004

Tsunamis are ocean waves produced by earthquakes or underwater landslides. Tsunamis are often incorrectly referred to as tidal waves, but tsunami is actually a series of waves that can travel at speeds averaging 450 (and up to 600) miles per hour in the open ocean. However, waves that are 10 to 20 feet high can be very destructive and will cause deaths or injuries.

Tsunamis are most often generated by earthquake-induced movement of the ocean floor. Landslides, volcanic eruptions, and even meteorites can also generate a tsunami. Areas at greatest risk are less than 25 feet above sea level and within one mile of the shoreline. So far as Tiruvallur District is concerned there were 3 coastal taluks and as per analysis of Mean Sea level of Tiruvallur there are 77 villages of 3 coastal taluks. Most deaths caused by tsunami are because of drowning. Associated risks include flooding, contamination of drinking water, fires from ruptured tanks or gas lines, and the loss of vital community infrastructure. Tsunami which struck the coast line of Tiruvallur District in the year 2004 took away the lives of 29 persons also caused extensive damages to property which made the livelihood of the coastal community a questionable one.

Details of Affected Area and Corresponding Population Affected

All arrangements have been made in the 78 relief centres to provide food packets to the persons housed in the centres from dawn to dusk. Food materials were arranged locally and 87,003 food packets were prepared and distributed to the 87,003 affected persons who have been lodged in the relief centres during Tsunami – 2004.

Due to Tsunami-2004, 29 Human life was lost occurred in this District and the Relief amount was Disbursement of Chief Minister Public Relief Fund to the Legalheir of families in Ponneri Taluk -12, Ambathur Taluk -16, and Uthukottai Taluk - 1.

NORTH EAST MONSOON -2021

Due to Low pressure depression formed on 10.11.2021 and 11.11.2021, Heavy Rainfall has been recorded in the villages of Somanchery, Piralayambakkam, Manopuram, Uppalam, A-Reddypalayam, Andarmadam, Perumbedu Kuppam, Pazaverkadu Village, Ponneri Taluk, District. Due to discharge of 17000-20000 in cusees water from the Pitchatur dam, the three points in river bunds breached in Arani River, Ponneri Taluk and villages such as A.Reddypalayam, Vanjivakkam, Pralayambakkam, Somanjeri, Kumaranjeri, Thathamaji, Thirukandalam, Kosavanpettai, Periyalapayam and Uthukottai were inundated with flood water. The Villagers were safely rescued to relief shelter. In the above Operation, 22 NDRF personnel from 4th Battalian, 30 SDRF trained Policemen and 8 from Fire Services were deployed. Additionally, 5 bowrider boats, 15 buses and 5 Tractor were used in the above said Operation. District Administration has taken quick measures to rescue and about 430 families consisting of 1410 people were rescued and they were safely accommodated in shelters. As a result of Heavy rainfall, 16 trees fallen in road and subsequently removed by the department of Fire and Rescue Force, Ponneri.

Due to discharge of Heavy rain water in Kosasthalaiyar river, 36 people (10 males 16 females and 10 Children) of Kottikuppam village have been rescued and accommodated safely in Community hall, Manjankaranai Village. In the above operation, 10 Police officials from Fire Services and 10 Swimmers from Marina Beach, were deployed and 3 Inflatable Rubber Boat (OBM) was used during the rescue operation.

Hence, In respect of Tiruvallur District, , 22 NDRF officials, 30 SDRF officials and about 30 officials from Fire and Rescue dept along with 8 boats were involved in the Rescue operation and totally 2497 people were safely rescued and safely accommodated in 44 shelters.



மாண்புமிகு தமிழ்நாடு முதலமைச்சர் திரு.மு.க. ஸ்டாலின் அவர்கள் இன்று (20.10.2021) வடகிழக்கு பருவமழையைப்பொட்டி, திருவள்ளூர் மாவட்டம், புழல் ஏரியின் நீர் இருப்பு மற்றும் உறுதி தன்மை குறித்து பார்வையிட்டு ஆய்வு மேற்கொண்டு, பொதுப்பணித் துறை அலுவலர்களிடம் விவரங்களை கேட்டறிந்தார். இந்த நிகழ்வில், மாண்புமிகு நகராட்சி நிர்வாகத் துறை அமைச்சர் திரு.கே.என். நேரு, சட்டமன்ற உறுப்பினர்கள் திரு. எஸ். சுதர்சனம், திரு. குரை சந்திரசேகர், திரு.கே.பி. சங்கர், பொதுப்பணித் துறை கூடுதல் தலைமைச் செயலாளர், திருவள்ளூர் மாவட்ட வருவாய் அலுவலர், நிர்வாகத்துறை முதன்மை தலைமைப் பொறியாளர் மற்றும் அரசு உயர் அலுவலர்கள் உடனிருந்தனர்.

ஆவடி மாநகராட்சி



மீராம் நகர் பகுதியில் மழை வெள்ளப்பாதிப்புகளை மாண்புமிகு தமிழக முதலமைச்சர் அவர்கள் 28.11.2021 அன்று ஆய்வு மேற்கொண்டார்.

ஆவடி மாநகராட்சி



மீராம் நகர் பகுதியில் மழை வெள்ளப்பாதிப்புகளை மாண்புமிகு தமிழக முதலமைச்சர் அவர்கள் 28.11.2021 அன்று ஆய்வு மேற்கொண்டார்.



திருவள்ளூர் மாவட்டம், ஊத்துக்கோட்டை வட்டம், கோட்டைக்குப்பம் கிராமத்தில் இன்று (10.11.2021) கொசஸ்தலையாற்றின் வெள்ளப் பெருக்கின் காரணமாக முழுவதும் தண்ணீரால் சூழ்ந்துகொண்ட கோட்டைமேடு பகுதியில் வசிக்கும் 19 குடும்பத்தைச் சார்ந்த 36 நபர்களை திருவள்ளூர் வருவாய் கோட்டாட்சியர் திரு.ரமேஷ் அவர்கள் முன்னிலையில் தீயணைப்பு மற்றும் மீட்புப்பணித்துறையினர் மீட்டு, பாதுகாப்பு முகாம்களில் தங்க வைத்தனர். உடன் ஊத்துக்கோட்டை வட்டாட்சியர் திரு.ராமன், வருவாய் மற்றும் காவல்துறையைச் சார்ந்த பணியாளர்கள் மற்றும் அரசு அலுவலர்கள் உள்ளனர்.

NORTH EAST MONSOON – 2022

DAMAGES AND RELIEF GIVEN DETAILS FROM 01.10.2022 TO 31.12.2022

HUT DAMAGE

Fully	Partly	Pucca Partly	Total No of Houses	Total amount	No.of Relief Amount Disbursed	No.of Yet to be disbursed
36	696	1	733	3033800	733	0

CATTLE LOSS

Cow	Buffalo	Bullock	Calf	Sheep /Goat	Poultry	Total No of Cattle loss	Total Amount	No.of Relief Amount Disbursed	No.of Yet to be disbursed
27	3	2	12	6	0	49	1130000	49	0

HUMAN LOSS & HUMAN INJURED

Male		Female		Transgender		Total		Total Amount	No.of Relief Amount Disbursed	No.of Yet to be disbursed
Death	Injured	Death	Injured	Death	Injured	Death	Injured			
1	0	0	1	0	0	1	1	404300	404300	0

AVADI CITY MUNICIPAL CORPORATION
NORTH EAST MONSOON 2022



**BAILING OUT WATER USING DIESEL ENGINE
AT ST.THOMAS STREET, ZONE -1 (WARD
NO:18)**



**BAILING OUT WATER USING DIESEL ENGINE AT
JOTHI NAGAR, ZONE -3 (WARD NO:33)**



**BAILING OUT WATER USING DIESEL
ENGINE AT SCHOOL STREET, ZONE - 1
(WARD NO:19)**



**BAILING OUT WATER USING DIESEL ENGINE AT
TONAKELA CAMP ROAD, ZONE -3 (WARD
NO:42)**

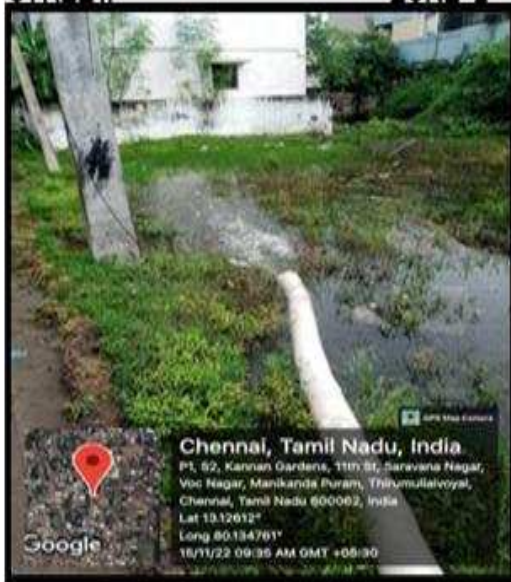
NORTH EAST MONSOON 2022



**BAILING OUT WATER USING DIESEL ENGINE
AT THIRUMULAIVYOL SALAI CROSS
STREET, ZONE -2**



**BAILING OUT WATER USING DIESEL ENGINE AT
NANDAVANAMETTUR VOC CROSS STREET,
ZONE -4 (WARD NO:36)**

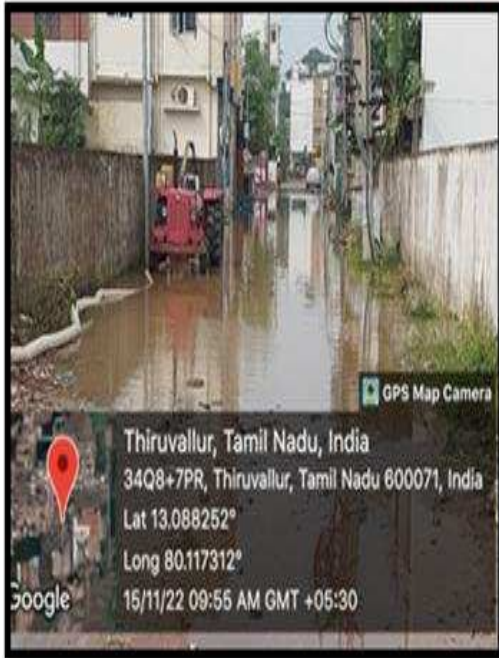


**BAILING OUT WATER USING DIESEL
ENGINE AT BHARATHI NAGAR 8TH
STREET, ZONE -2
(WARD NO:27)**



**BAILING OUT WATER USING DIESEL ENGINE AT
ANANDHA NAGAR NSK STREET,
ZONE -3 (WARD NO:46)**

NORTH EAST MONSOON 2022



**BAILING OUT WATER USING DIESEL ENGINE
AT REVA NAGAR, ZONE -3 (WARD NO:48)**



**BAILING OUT WATER USING DIESEL ENGINE AT
BHARATHI STREET, ZONE - 2(WARD NO:6)**



**BAILING OUT WATER USING DIESEL
ENGINE AT KOVILPADHAGAI SWAMI
STREET, ZONE - 1
(WARD NO:5)**



**BAILING OUT WATER USING DIESEL ENGINE AT
MOONDRU NAGAR, ZONE -3 (WARD NO:31)**

NORTH EAST MONSOON 2022



BAILING OUT WATER USING DIESEL ENGINE AT MOONDRU NAGAR, ZONE -3 (WARD NO:31)



BAILING OUT WATER USING DIESEL ENGINE AT SARASWATHI NAGAR, ZONE -3 (WARD NO:42)



BAILING OUT WATER USING DIESEL ENGINE AT VOC NAGAR, ZONE -2 (WARD NO:27)



BAILING OUT WATER USING DIESEL ENGINE AT GOPALAPURAM 9TH STREET, ZONE -4 (WARD NO:20)

NORTH EAST MONSOON 2022



BAILING OUT WATER USING DIESEL ENGINE
JOTHI NAGAR 3RD MAIN ROAD,
ZONE -3 (WARD NO:33)



BAILING OUT WATER USING DIESEL ENGINE
JOTHI NAGAR, ZONE -3 (WARD NO:33)



BAILING OUT WATER USING DIESEL
ENGINE SWAMI STREET, ZONE -1 (WARD
NO:5)



BAILING OUT WATER USING DIESEL ENGINE
THULASI STREET, ZONE -4 (WARD NO:38)

NORTH EAST MONSOON 2022



BAILING OUT WATER USING DIESEL ENGINE
SARASWATHI NAGAR 7TH STREET,
ZONE -2 (WARD NO:29)



DESILTING USING JCB NEHRU NAGAR CHURCH
STREET, ZONE -1 (WARD NO:18)



DESILTING USING JCB AT REVA NAGAR,
ZONE - 3 (WARD NO:48)



DESILTING USING JCB AT CHANDRA CITY
VASANTHAM NAGAR, ZONE -3 (WARD NO:43)

NORTH EAST MONSOON 2022



DESILTING USING JCB AT VASANTHAM NAGAR, ZONE -3 (WARD NO:43)



DESILTING USING JCB AT THULASI STREET, ZONE -4 (WARD NO:38)



DESILTING USING JCB AT CHRIST COLONY, ZONE -2 (WARD NO:6)



DESILTING USING JCB AT OM SAKTHI KANOPUS, ZONE -3 (WARD NO:33)

Minjur Town Panchayat
Ward No.01, Kalaignar Nagar – Stagnated Rain Water
Removing



Minjur Town Panchayat
Ward No.01, Kalaignar Nagar – Stagnated Rain Water Removing



NORTH EAST MONSOON - 2023

MICHAUNG CYCLONE-2023

CYCLONE EVENT

The MICHAUNG cyclone formed as a deep depression on 01.12.2023 in Bay of Bengal. As reported by Indian Metrological Department (IMD), Red Alert was issued to Tiruvallur District on 04.12.2023. The district faced intense cyclonic rainfall from 02.12.2023 to 04.12.2023 affecting 6 major taluks in the district. The average rainfall recorded during the cyclonic period was 388.91 mm. The highest rainfall recorded at Poonamallee Taluk of 355 mm per day.

Due to the Cyclone, Electricity, Telecommunication infrastructures and Road service were severely affected. Major roads were blocked due to the uprooted trees, culverts damage, bridges overflowed and causeway were cut-off. Wind speed along with incessant rainfall resulted in catastrophic damages to houses. Damage to Agriculture, Industrial units, Fisheries and Livestock has also been considerable. In addition to that, many villages were marooned due to breaches in Araniyar and Kosasthalaiyar rivers. 17 major breaches happened in Araniyar River, almost 47 villages and 56400 people got affected. 6 major breaches happened in Kosasthalaiyar River, 12 villages and 14800 people got affected. A total of 635 villages affected and nearly 6 lakh houses were severely inundated for more than 48 hours.

PREPAREDNESS TO RESPONSE AND IMMEDIATE RELIEF OPERATIONS

Upon receiving the early warning from IMD, district machinery geared up and evacuated people lying along the banks of Reservoirs and Rivers. 172 relief shelters were operational which accommodated 16732 people in Multipurpose Evacuation Shelter / Cyclone Shelter and Other safe shelters like schools and public buildings. All fishing activities were suspended prior to the landfall. The District Administration organized major awareness campaigns to inform people about the basic cyclone DO's and Dont's. 4 NDRF teams, One SDRF team and Fire Service units were deployed in prior for rescue operations. Instructions were issued to all the line departments to provide immediate lifesaving assistances to the affected people after the cyclone.

District Emergency Operational Centre was activated 24/7 with deployment of Senior Government officials at the district level. Temporary relief materials like blankets, mats were prepositioned at District / Divisional levels. To ensure food security in the aftermath of cyclone, food grains were prepositioned at the fair price shops.

RELIEF AND RESCUE OPERATIONS

4 teams from NDRF rescued 673 people in the places of Subbareddypalayam, Redhills, Vichoor, Pulicut, in and around the Ponneri taluk. TNSDRF carried their rescue operations in Avadi taluk, rescuing 458 people in water inundated areas. Fire and Rescue units rescued 1708 stranded people across the district. Within a day, major roads were cleared and power supplied restored within 3 days in all major pockets. Telecommunication services restored within 2 to 3 days.

MICHAUNG CYCLONE PREPAREDNESS



02.12.2023 **Vitchoor**
Cyclone Alert given in vulnerable areas



02.12.2023 **Pazhaverkadu**
Fisherman Boat safely parked at seashore



02.12.2023 **Collectorate**
Inter Departmental Zonal Teams alerted regarding cyclone



02.12.2023 **Andarmadam**
Cyclone Relief Shelter facilities inspection



03.12.2023 **Ponneri**
Pre-positioning of NDRF Team



02.12.2023 **Redhills**
Pre-positioning of Machineries



02.12.2023 **Sholavaram**
Stock of Food Materials



02.12.2023 **Poonamallee**
Stock of Essenstials

IMPACT OF MICHAUNG - 'RIVERINE'

CONNECTIVITY BRIDGES CUT OFF - MAROONED



04.12.2023

Pazhaverkadu, Ponneri Tk



04.12.2023

A.Reddypalayam, Ponneri Tk



04.12.2023

Pazhaverkadu, Ponneri Tk



04.12.2023

Polachiamman koil, Ponneri Tk

IMPACT OF MICHAUNG – ‘RIVERINE’
STRUCTURAL DAMAGES TO BRIDGES – 5, CAUSEWAYS & CULVERT - 256



04.12.2023 Manavur, Tiruttani Tk



04.12.2023 Kondancheri, Tiruvallur Tk



04.12.2023 Othappai, Uthukottai Tk



04.12.2023 Nambakkam, Uthukottai Tk

**IMPACT OF MICHAUNG - 'CYCLONE WINDS'
TREES FALLEN - 862**



04.12.2023 Ponneri Tk



04.12.2023 Poonamallee Tk



04.12.2023 Gummidipoondi Tk



04.12.2023 Tiruvallur Tk

IMPACT OF MICHAUNG - 'CYCLONE WINDS'
EB POLES - 1363, EB TRANSFORMERS - 113, EB LINES DAMAGED - 151.43 KM



IMPACT OF MICHAUNG – 'RAINFALL'

DAMAGES TO STREETS, ROADS & HIGHWAYS – 2065.4 KM



04.12.2023

SH 56, Ponneri Tk



04.12.2023

Ellappanaidupet, Uthukottai Tk



04.12.2023

Temple Ghat, Tiruttani Tk



04.12.2023

Vishnuvakkam, Tiruvallur Tk

**IMPACT OF MICHAUNG – ‘RAINFALL’
HUT DAMAGES**



IMPACT OF MICHAUNG – ‘RAINFALL’
HUMAN & CATTLE LOSS

HUMAN LOSS	HUMAN INJURED	BUFFALO / COW	SHEEP / GOAT	BULLOCK	CALF	POULTRY
3	8	100	62	5	37	7830



04.12.2023

Koduveli, Avadi Tk



04.12.2023

Sirulapakkam, Ponneri Tk



04.12.2023

Govardhanagiri, Avadi Tk



04.12.2023

Thirumalrajpet, Pallipet Tk

IMPACT OF MICHAUNG – ‘RAINFALL’
AGRI CROP DAMAGES – 23485 Ha, HORTI CROP DAMAGES – 1447.08 Ha



IMPACT OF MICHAUNG - 'RAINFALL'
AVADI CORPORATION INUNDATED STREETS - 347



04.12.2023

Avadi Tk



04.12.2023

Avadi Tk



04.12.2023

Avadi Tk



04.12.2023

Avadi Tk

IMPACT OF MICHAUNG – ‘RAINFALL’
URBAN INUNDATED STREETS (MUNICIPALITIES & TOWN PANCHAYATS) - 1013



**IMPACT OF MICHAUNG – ‘RAINFALL’
RURAL AFFECTED PANCHAYATS – 118**



05.12.2023

Ayapakkam, Avadi Tk



05.12.2023

Yamuna Nagar, Poonamallee Tk



05.12.2023

Vanjivakkam, Ponneri Tk



05.12.2023

Obulapuram, Gummidipoondi Tk

IMPACT OF MICHAUNG - 'RAINFALL' DAMAGES TO INDUSTRIAL UNITS - 317



IMPACT OF MICHAUNG - 'COASTAL'
BOAT DAMAGES - FISHING NETS - ENGINES -



RESCUE OPERATIONS

NDRF : 4 TEAMS DEPLOYED : 673 PEOPLE RESCUED



04.12.2023 Subbareddypalayam, Ponneri Tk



04.12.2023 Pazhaverkadu, Ponneri Tk



04.12.2023 Vitchoor, Tiruvallur Tk



04.12.2023 Pulicat, Ponneri Tk

RELIEF SHELTERS & CENTRALISED KITCHENS



04.12.2023 Tirupalaivanam, Ponneri Tk



05.12.2023 Minjur Block office



06.12.2023 Ayyapakkam, Avadi Tk



07.12.2023 Subbareddypalayam, Ponneri Tk

RELIEF SHELTERS



04.12.2023

Morai, Avadi Tk



05.12.2023

A.Reddypalayam Ponneri Tk



06.12.2023

Tirupalaivanam, AVADI Tk



07.12.2023

Ellapanaidupettai, Ponneri Tk

WATER SUPPLY THROUGH TANKERS IN AREAS WITH EB DISRUPTION



04.12.2023 Siddi Raja Kandigai, Avadi TK



05.12.2023 Athur Ponneri TK



06.12.2023 Vannipakkam, Ponneri TK



07.12.2023 Vallur, Ponneri TK

CLEARING OF UPROOTED TREES



04.12.2023 Medhipalayam, Gummidipoondi Tk



05.12.2023 Pethikuppam Ponneri Tk



06.12.2023 Karikalvakkam, Ponneri Tk



07.12.2023 Kondanjeri, Ponneri Tk

RESTORATION ACTIVITIES

DEWATERING OF INUNDATED AREAS



05.12.2023 Ayapakkam, Avadi Tk



05.12.2023 Yamuna Nagar, Poonamallee Tk



Latitude: 13.039499
Longitude: 80.128703
Elevation: 39.4427 m
05.12.2023 Vanjivakkam, Ponneri Tk



05.12.2023 Poonamallee, Poonamallee Tk

FLOOD RELIEF KITS
CENTRALIZED RELIEF MATERIAL MANAGEMENT



FLOOD RELIEF KITS DISTRIBUTION



HEALTH ACTIVITIES
MEDICAL CAMPS - 1113, NO. OF PEOPLE SCREENED - 68,344



08.12.2023 Ponneri Tk



05.12.2023 Uthukottai Tk



07.12.2023 Poonamallee Tk



06.12.2023 Avadi Tk

Section Office, Arani



Section Office, Kavaraipettai



FIRE & RESCUE DEPARTMENT, AMBATHUR



FLOOD MITIGATION WORKS-2024

KOSASTHALAIYAR BASIN DIVISION

Construction of Double Vent Inlet in the right bank of Kosasthalaiyar River @ **LS 124000m in Vitchoor Village** Ponneri Taluk of Thiruvallur District. **Estimate amount of Rs.0.35 crore.**

During Execution



Construction of Double Vent Inlet in the right bank of Kosasthalaiyar River @ **LS Ls 115300m** in Jayarampuram Village Ponneri Taluk of Thiruvallur District. **Estimate amount of Rs.0.35 Crore.**

During Execution



Construction of Single Vent Inlet in the Left bank of Kosasthalaiyar River @ **Ls 116200 m** in Kuthiraipallam Village in Ponneri Taluk of Thiruvallur District. **Estimate amount of Rs.0.20 Crore.**

During Execution



Construction of Regulator arrangements and improvements to **surplus course in Sekkadu Tank** in Sekkadu Village in Avadi Taluk of Thiruvallur District. **Estimate amount of Rs.5.00 Crore**

During Execution (Cut & Cover)



Construction of Regulator arrangements and improvements to **surplus course in Sekkadu Tank** in Sekkadu Village in Avadi Taluk of Thiruvallur District. **Estimate amount of Rs.5.00 Crore**

During Execution (Regulator work)



Construction of Flood protection wall and Inlet in **Redhills Tank Surplus course** in Naravarikuppum village in Ponneri Taluk of Thiruvallur District. **Estimate amount of Rs.10.00 Crore.**

During Execution



Rehabilitation and Reformation of Cholavaram Tank bund from **Ls 1350m to 2900m** including the distressed bund portion from **LS 2600 m TO 2800m**, Reconstruction of Parapet wall in U/s and D/s side of Cholavaram Tank in Ponneri Taluk of Thiruvallur District.

Estimate amount of Rs.40.00 Crore

During Execution



Rehabilitation and Reformation of Cholavaram Tank bund from **Ls 1350m to 2900m** including the distressed bund portion from **LS 2600 m TO 2800m**, Reconstruction of Parapet wall in U/s and D/s side of Cholavaram Tank in Ponneri Taluk of Thiruvallur District.

Estimate amount of Rs.40.00 Crore

During Execution



ARANIYAR BASIN DIVISION, CHEPAUK ARANIYAR BASIN DIVISION, PONNERI

Name of Work: Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 69.135 km to 103.600 km in Thiruvallur District.

WORK PROGRESS LS 69.00KM



Breach portion in Left Side Flood Bank at LS 69.00Km during flood



During Execution



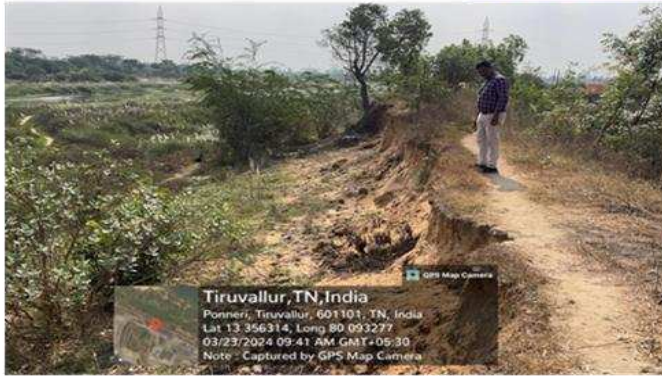
Proposed Flood protection wall @LS 69.00Km during execution



Flood protection wall @LS 69.00Km during execution

Name of Work: Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 69.135 km to 103.600 km in Thiruvallur District.

WORK PROGRESS LS 98.00KM



Slip failure at LS 98.00km



Earthwork Excavation



SDO, Ponneri inspection



PCC Levelling course

Name of Work: Strengthening and formation of Left Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 119.700 km to 123.900 km in Ponneri Taluk of Thiruvallur District.

LS 120.150 km to 120.470 km - WORK PROGRESS



Breach portion in Right Side Flood Bank at Somanjeri during flood



RCC Retaining Wall base slab



RCC Wall 1st Lift



RCC Retaining Wall

Name of Work: Strengthening and formation of Left Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 119.700 km to 123.900 km in Ponneri Taluk of Thiruvallur District.

LS 120.150 km to 120.470 km - WORK PROGRESS



Breach portion in Right Side Flood Bank at Somanjeri during flood



RCC Retaining Wall base slab



RCC Retaining wall reinforcement



RCC Retaining Wall 5th lift

Name of Work: Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 124.150 km to 126.100 km in Ponneri Taluk of Thiruvallur District

LS 124.150 km to 125.000 km - WORK PROGRESS



RCC Retaining Wall alignment



Earthwork excavation for Foundation



Steel Reinforcement tying for retaining wall



RCC Retaining wall

Chinnakavanam, Tamil Nadu, India
 85PP+C3, Chinnakavanam, Tamil Nadu 601206, India
 Lat 13.335°
 Long 80.185237°
 08/06/24 12:03 PM GMT +05:30



**THATTAMANJI
Before Execution**

**THATTAMANJI
Flood Protection wall Work
During Execution**



Name of Work: Rehabilitation of Inlet & Outlet Regulators from LS 112.800km to 124.800km and Strengthening the Overwashed portion of Flood bank from LS 117.500 km to 119.700 km & 126.700 km to 126.970 km in Araniyar River of Ponneri Taluk in Thiruvallur District.

THATTAMANJI INLET- D/S LEFT SIDE GUIDE WALL WORK PROGRESS



Breach portion in Left Side Flood Bank at Thattamanji during flood



Cutoff wall



Left Abutment, Wing and return wall



Thattamanji Inlet

Name of Work: Rehabilitation of Inlet & Outlet Regulators from LS 112.800km to 124.800km and Strengthening the Overwashed portion of Flood bank from LS 117.500 km to 119.700 km & 126.700 km to 126.970 km in Araniyar River of Ponneri Taluk in Thiruvallur District.

THATTAMANJI INLET- D/S LEFT SIDE GUIDE WALL WORK PROGRESS



Left side Guide wall 1st lift



2nd lift centering



2nd lift Concrete



D/s Left side Guide wall

Name of Work: Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Kosasthalaiyar River from L.S. 119.100 Km to L.S.127.600 Km in Ponneri Taluk of Thiruvallur District.

FLOOD PROTECTION WALL - WORK PROGRESS



Slipped portion in Left Side Flood Bank at Nalur during flood



Flood protection Wall construction in Left Side Flood Bank



Flood protection Wall construction in Left Side Flood Bank



Flood protection Wall construction in Left Side Flood Bank

Name of Work: Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Kosasthalaiyar River from L.S. 119.100 Km to L.S.127.600 Km in Ponneri Taluk of Thiruvallur District.

RECONSTRUCTION OF INLET - WORK PROGRESS



Damaged Inlet



Reconstructed Inlet



Corewall construction - Earthwork



Corewall construction - Concreting

AD TOWN PANCHYAT

Construction of culver at near Bharathidasan street in Gummidipoondi Town Panchayat, Thiruvallur District.

Estimate amount of Rs.58.50 lakhs.

During Execution



Construction of New Storm Water Drain With RCC Cover Slab and RCC Slab culvert (37 Nos) in Minjur Town Panchayat, Thiruvallur District.

Estimate amount of Rs.285.00 lakhs.

During Execution



Construction of New Storm Water Drain and raising the road @ Masilamani Nagar in Thirumazhisai Town Panchayat, Thiruvallur District, Thiruvallur District.

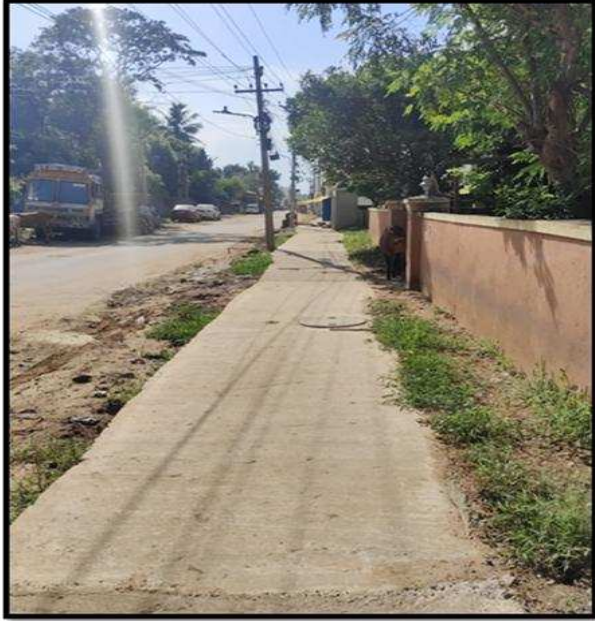
Estimate amount of Rs.20.00 lakhs.

During Execution



AVADI CITY MUNICIPAL CORPORATION

Scheme Name : State Disaster Mitigation Fund Year :2023-24



Construction of SWD and Culvert at IAF Main Road in Ward no 15

Scheme Name : State Disaster Mitigation Fund Year :2023-24



Construction of SWD and Culvert at Kalaingar Nagar 5th Street in Ward no 12

Scheme Name : State Disaster Mitigation Fund Year :2023-24



Construction of Storm water drain at MGR Nagar towards Kavarapalayam to Villinjiyambakkam lake in Ward no 22

Scheme Name : State Disaster Mitigation Fund Year :2023-24



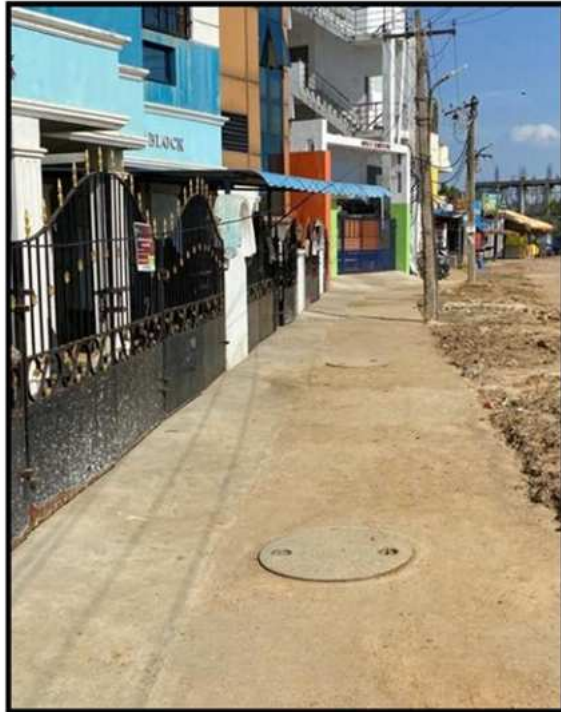
Construction of RCC Channel from Govindhathangal Lake to Villinjiyabakkam Lake in Ward no: 22

Scheme Name : State Disaster Mitigation Fund Year :2023-24



Construction of Storm Water Drain at Sivasakthi Nagar A Sector 40 feet Road in Ward no 32

Scheme Name : State Disaster Mitigation Fund Year :2023-24



Construction of RCC Storm Water Drain at Siva Sakthi Nagar 60 feet Road in Ward no 32

PONNERI MUNICIPALITY

Construction of Storm Water Drain at Thiruvottiyur High Road from New Threadi street to Taluk office Road in Ponneri Municipality. **Estimate Amount of Rs.1.44 crore.**

During Execution



Construction of Storm Water Drain at Ponneri Railway station Road in Ponneri Municipality. **Estimate Amount of Rs.0.92 Crore.**

Completed



POONAMALLEE MUNICIPALITY

Construction of Storm Water Drain at Ward No.18 & 21 in
Poonamallee Municipal Areas
Estimate Amount of Rs.3.65 crore.

Completed



Construction of Storm Water Drain in Ward No.11,12,14 & 15
In Poonamallee Municipal Areas **Estimate Amount of Rs.3.85 Crore.**

During Execution



THIRUNINDRAVUR MUNICIPALITY

In Thirunindravur Municipality 1 to 27 ward's Drain were desilted

During Execution



In Thirunindravur Municipality 1 to 27 ward's Drain were desilted

During Execution



THIRUVERKADU MUNICIPALITY

State Disaster Mitigation Fund - Construction of Storm Water Drain at Elumalai Nagar 1st Street, Elumalai Nagar 2nd Street and Sivan Koil Road.

Estimate Amount of Rs.1.07 crore.

Completed



State Disaster Mitigation Fund - Construction of Storm Water Drain at Co-Operative Nagar, Mahatma Gandhi Road, Park Road, Annammal Salai and Annammal Salai 1st Cross Street.

Estimate Amount of Rs.2.08 crore.

Completed



ECOLOGICAL RESTORATION OF THE ENNORE CREEK AND BUCKINGHAM CANAL

OBJECTIVES

“Desilting Of Ash And Concrete Debris From The Ennore Creek And The Buckingham Canal To Restore The Ecology And To Improve The Environment.



PLACE OF WORK

Ennore Creek And Buckingham Canal Stretch Existing From Kathivakkam Area To Kattupalli Area (11 Kms Length) of Tiruvottriyur and Ponneri Taluk Of Tiruvallur District.

- Ennore creek, its bar mouth area and backwater spreads have created a natural system to manage the surge happens during high tide and low tide periods.
- River Kosasthalaiyar is also merge with the back water in the Ennore creek area.
- Buckingham canal provided by british people is running parallel to the sea coast. The canal merges with the creek on its southern bank and creek merges with the canal from its northern bank.

IMPORTANCE OF THE CREEK AND THE BACK WATER SYSTEM

- 1) The creek plays a major role in maintaining ecological system.
- 2) Due to the mixing of sea water with the back water in the creek area there will be reduction of salinity level and this brings large quantum of aquatic creatures like shrimp and crabs for breeding.
- 3) The local fishermen are using this nature's gift for their livelihood.

NATURE OF DAMAGES HAPPENED TO THE ECOLOGICAL SYSTEM SILTATION DUE TO ASH SLURRY EFFLUENTS

- 1) The existence of major power generating industries which are continuously discharges ash slurry as their effluents due to the use of coal for power generation.
- 2) These ash slurry stored in the ash dykes during the heavy flood reaches the canal and creek. Thereby causing siltation.

MAN-MADE OBSTRUCTIONS

- 1) Construction Causeway Bridge with large sized cement Hume pipes across Buckingham canal in the ETPS site for transportation purposes.
- 2) Large heap of constructions debris left in the creek during the construction of bridge and coal conveyor over bridge. This had disconnected the flow of water from creek to the canal and its northern bank.
- 3) Another cause way bridge provided across the canal in front of NCTPS stage II project.
- 4) Land development works taken up by the Kamaraj port limited in wetlands area adjacent to back water of Ennore creek which affect destruction of Mangroove plants.

PLAN OF ACTION

- 1) Inspection and identification of the locations of the siltation and obstructions to be removed
- 2) Identification of works to be executed on shortterm and longterm basis.
- 3) List out the industries found responsible directly and indirectly responsible for the siltation and obstructions.

- 4) Fixing roles and responsibilities with time frame of the work of removal of silt and obstructions and to ensure adequate resources arranged by the concerned for the execution of the work.
- 5) Providing departmental assistance in survey and fixing boundaries wherever required, technical and supervisory advice for desilting.
- 6) Review, inspection and monitoring of the work till completion as per plan.

IMPLEMENTATION OF THE WORK

- 1) Preliminary discussions were held on 5.10.2016 at NTECL company Vallur.
- 2) List of damages, obstructions due to leakage in the ash slurry carrying pipes, defects in the design of the ash dykes which permits the flow of ash slurry into the creek and canal were explained to the concerned industries.
- 3) Joint inspections were carried out with the industries concerned and stake holder departments to ensure the siltation and obstructions.
- 4) Roles and Responsibilities with time frame fixed to the industries and departments to implement the work and to ensure the restoration of ecology.

DETAILS OF WORKS IMPLEMENTED

- The temporary causeway bridge provided across the canal in the ETPS plant was removed.
- The temporary causeway bridge provided across the canal in front of the NCTPS stage-II plant was removed.
- The debris and earthen deposits filled for providing work space in the creek during the construction of Ennore bridge and Chettinad coal conveyor over bridge was removed.
- ETPS have desilted b-canal to a length of 2 km from Kathivakkam and upto southern bank of Ennore creek.

- NCTPS have desilted b-canal to a length of 2.6 km from the northern bank of the Ennore creek upto NCTPS stage-II area.
- Kamaraj port limited have desilted B-Canal to a length of 3 km from NCTPS stage-II upto kpl limit area.
- L&T ship building company desilted the b-canal to a length of 2 km in the Kattupalli area.
- NTECL have removed the obstructions made by the filled in debris and ensured flow of water from the creek to the B-Canal in its southern bank.
- NCTPS have removed the debris from the second pillar of the Chettinadu coal conveyer bridge upto the Buckingham canal in its northern bank.
- NTECL have provided a 900 meter length earthen canal in the western side of the Athipattu pudu nagar railway track to ensure flow of water coming from the northern side of the village into the creek.
- NTECL have replaced two no's of piped culverts obstructed flow of water during 2015 flood with new concrete box typed culverts as per the designed provided by the PWD.
- India cements cleared the obstructions in the canal existing western side of the railway track.
- NTECL have provided Kucha earthen drains to convey the flood water expected from Vallur.
- Indian Oil Corporation and IPPL Company have removed the bushes and obstructions from the service road area of the northern side of the 100 ft road.

- HPCL Company have provided a permanent bridge replacing the previous piped culvert bridge to ensure flow of flood into the creek.

PERIOD OF WORKS IMPLEMENTATION

The works were commenced from 1.10.2016 and were completed before 5-12-2016.

EXPENDITURE INCURRED FOR THE RESTORATION AND BUCKINGHAM CANAL

A total sum of Rs. 2.25 crores was incurred as expenditure by the Industries concerned for the work of

- A Desilting Buckingham Canal, to a length of 9.6 km
- For the removal of obstructions at the sites of ETPS, NCTPS Stage-II and below the Chettinadu Coal Conveyor Bridge.
- In providing permanent concrete bridge in the road leading to the HPCL.
- In providing box type culverts in two locations, In the road leading to the NTCEL in its North-west.
- In providing kutcha drain to a length of 900 meter by NTECL and other similar works.

ACHIEVEMENTS

- 1) Major obstructions were removed.
- 2) Bush clearance, widening and desilting and deepening works done in the B-canal as ensured the increase of accommodation capacity of the canal and Creek for the free flow of flood.
- 3) Since the mixing of saline water and fresh water restored, the ecology of the system has also been restored.
- 4) The Deprived fishermen and Irula Tribe community have also restarted their fishing activity in the Creek and Canal area and their livelihood thereby ensured.

LIST OF MAJOR INDUSTRIES INVOLVED IN THE DESILTING PROCESS

- 1) ENNORE THERMAL POWER STATION (ETPS)
- 2) NORTH CHENNAI THERMAL POWER STATION (NCTPS)
- 3) NTECL
- 4) CHETTINAD COAL INDUSTRIES.
- 5) INDIA CEMENTS
- 6) HPCL
- 7) BPCL
- 8) KAMARAJ PORT LIMITED
- 9) ZUARI CEMENTS
- 10) RELIANCE INDUSTRIES
- 11) INDIAN OIL CORPORATION LIMITED.
- 12) IPPL
- 13) SAVE ENNORE CREEK - NGO AGENCY

LIST OF GOVERNMENT DEPARTMENTS INVOLVED

- 1) REVENUE DEPARTMENT
- 2) PWD DEPARTMENT
- 3) SURVEY AND SETTLEMENT DEPARTMENT
- 4) RURAL DEVELOPMENT DEPARTMENT
- 5) TAMILNADU ENERGY DEPARTMENT
- 6) HIGHWAYS DEPARTMENT
- 7) POLLUTION CONTROL BOARD

CONCLUSION

- 1) The Major objective of the prevention of flooding due to the siltation and obstructions in the major water bodies and channels have been achieved due to the cooperation and coordination between the agencies and departments concerned.

- 2) Another major objective of restoration of ecological system in the Ennore creek and its back water area have been effectively achieved.
- 3) These activities had ensured a smooth flow of the flooding during the monsoon and also restored the livelihood of the local.

OIL SPILLAGE - 2017

On 28th January - 2017 two ships namely MV BW Maple and MV MT Dawn Kancheepuram collided off the coast of Ernavur Village, Thiruvottiyur Taluk resulting into Bunker Oil Spill into the sea. The Tiruvallur District Administration was actively involved in the oil spill removal process. Coast guard is the designated agency to tackle oil spill.



The oil spill removal continued for about 10 days and the exercise was over on 08.02.2017. A total of 208 tonnes of oil mixed with sludge and 99000 litres of oil mixed with water had been removed by the end of the exercise. Most of the sludge was removed manually by 5790 workers. Even though super suckers and swimmers were pressed into service; they were of

not much use because of the heaviness of the sludge. They were not designed to tackle such oil spills.

DETAILS OF REMOVAL OF OIL SPILLAGE IN THE SHORES OF ERNAVUR IN TIRUVALLUR DISTRICT												
SI. No	Name of the Department	Date										Total
		30.01.17	31.01.17	01.02.17	02.02.17	03.02.17	04.02.17	05.02.17	06.02.17	07.02.17	08.02.17	
Tamil Nadu Government - District Disaster Management and Mitigation Department, Tiruvallur District												
1	Rural Development	0	0	211	165	218	247	188	0	0	0	1029
2	Fire & Rescue	0	30	110	150	225	127	200	136	0	0	978
3	Highways	0	0	176	74	61	55	43	53	70	0	532
4	Chennai Corporation	0	35	80	60	60	60	60	0	0	0	355
5	Fishermen	0	0	125	0	100	0	0	0	0	0	225
6	Sams Engineering College	0	0	34	169	0	0	0	0	0	35	238
7	Revenue(First Responders)	0	0	0	19	3	101	97	13	0	0	233
8	HPCL, Athipattu	0	15	0	0	35	40	0	55	40	0	185
9	Volunteers	0	0	44	38	0	0	0	0	0	0	82
10	IOC, Manali	0	0	19	15	0	0	0	0	0	19	53
11	Tree Foundation	0	0	0	25	0	0	0	0	0	0	25
12	TNPCB	20	0	0	0	0	0	0	0	0	0	20
13	Universal Carborandum	0	0	0	0	0	20	0	0	0	0	20
14	L&T	0	15	0	0	0	0	0	0	0	0	15
15	Police Commando	0	0	0	0	0	0	12	0	0	0	12
16	Chennai Metro Water	0	0	9	0	0	0	0	0	0	0	9
Total		20	95	808	715	702	650	600	257	110	54	4011
1	Chennai Port Trust	0	50	114	15	24	158	19	0	0	37	417
2	Indian Coast Guard	30	30	70	24	47	113	30	22	0	0	366
3	Maritime Foundation	0	0	0	0	36	168	30	22	35	168	459
4	Naval Coastguard Security	0	0	0	0	0	26	98	0	0	0	124
5	Kamarajar Port Trust	0	100	8	6	0	0	0	0	0	0	114
6	BPCL, Tondiarpet	0	0	0	0	0	90	0	23	32	22	167
7	Indian Navy	0	0	0	0	37	0	40	0	0	0	77
8	International Coastal Team	0	30	0	0	0	0	0	0	0	0	30
9	Adani Port Trust	0	0	25	0	0	0	0	0	0	0	25
Total		30	210	217	45	144	555	217	67	67	227	1779
Gross Total		50	305	1025	760	846	1205	817	324	177	281	5790

DROUGHT - 2017

Tiruvallur District has experienced deficient rainfall in both the main **South West** as well as the **North East Monsoon** seasons. According to IMD data, Tiruvallur District as a whole period received an average rainfall of 255.11 mm during October 1 to December 31, 2016 which is 58% below the “normal” long period average rainfall of 604.10 mm. Further, a study of the rainfall recorded in the past 19 years during the North East Monsoon period reveals that the lowest rainfall of 255.11 mm has been recorded during the North East Monsoon 2016.

- Team of Ministers and District Monitoring Officer assessed the drought situation in the district
- Nodal Officer in the cadre of Deputy Collector appointed to each taluk for conducting Ground Truthing Exercise and to enumerate the actual extent and No. of farmers affected due to drought.
- Input Subsidy was provided to the farmers whose crops were affected due to drought
- Drinking Water Supply works were taken up to provide potable water.
- 15 fodder depots in 12 Taluks were opened to provide Dry/ Green Fodder to the Livestock. Adequate stock of antibiotics medicine, Multivitamin Injections, Oral dehydration powder and IV fluids & Mineral Mixture to combat any stress during drought were kept ready.

The main reason for Drought situation in Tiruvallur District during this year - 2017 is deficient rainfall in both the main **South West** as well as the **North East Monsoon** seasons for the first time in a decade.

The details of average Annual rainfall, pre-monsoon rainfall and rainfall during northeast monsoon in Tiruvallur District are as tabulated below.

Sl. No.	Details	Normal	Actual	% of Shortfall
		(mm)		
1	South West Monsoon 2016 (June to September)	449.50	420.77	6.39
2	North East Monsoon 2016 (1 st October to 31 st December)	604.10	255.11	57.76
3	District Annual Average Rainfall	1152.80	830.27	27.98

DROUGHT RELIEF - 2017

	Rs in Crores
Allocation	8.255
Expenditure	7.793
Balance	0.462

KUDIMARAMATH WORK DETAILS -2019-20

INTRODUCTION:

Realizing the importance of storage of rain water to overcome floods and droughts, the Tamil Nadu government set the stage to rejuvenate defunct small water bodies by reviving the age-old practice of Kudimaramathu (or self-maintenance of tanks by community). The Kudimaramathu Scheme is based on the centuries-old concept of participatory watermanagement at its core, and was launched with the aim of rejuvenating the state's crumbling water bodies.

REHABILITATION OF IRRIGATION TANKS UNDER KUDIMARAMATH SCHEME

Objectives of the Project

- To make involvement of beneficiaries for rehabilitation of Irrigation tanks maintained by PWD.
- 10% contribution from Ayacutdars of the tank is being collected for the Rehabilitation of the tank.
- Balance 90% funding is being done by the Government of Tamil Nadu.
- The work is being executed by the ayacutdars through their Water Users Association.
- Preparation of estimates, Technical guidance for executing the works, preparation of bills for making payment to WUA are being done by PWD.

The Kudimaramath works involve the following:-

- Increasing water storage capacity by desilting the tank.
- Strengthening the tank bund to the standards.
- Desilting the supply channels to the tank and surplus course from the tank.
- Repairs / Reconstruction of Tank sluices.
- Repairs / Reconstruction of Tank weir.
- Repairs / Reconstruction of Tank Inlets.
- Providing screw gearing arrangements to the tank sluices.
- Removing the encroachments in the tank if any.

Due to involvement of stake holders like ayacutdars of the tank, the work is being carried out effectively and optimum benefits have been achieved.

Sl. No	Name of Tank
1	Neidavoyal Periya eri Tank
2	Voyalur Mamanikkal Tank
3	Thangal perumbulam Tank
4	Kalpakkam Tank
5	Velur Palla eri Tank
6	Perumbedu Tank
7	Avoor large Tank
8	Avurivakkam Tank
9	Arasur large Tank
10	Asanabudur Tank
11	Kudinelvoyal Tank
12	Panayanjeri Tank
13	Serpedu Tank
14	82, Panapakkam large Tank
15	Karani Tank
16	Karadiputhur Tank
17	Gunipalayam East Large Tank
18	Thimmaboopalapuram East Tank
19	Kalpattu Tank
20	82, Panapakkam chitheri
21	Sennankaranai Tank
22	Kakkavakkam Hissa Tank
23	Perandur Tank
24	43, Panapakkam Tank
25	Parathambedu Tank
26	Manellur Budheri Tank
27	Kilmudalambedu Tank
28	Panbakkam Large Tank
29	Egumadurai Tank
30	Arur Kannambakkam Tank

HEAT WAVES

**AVOID
GOING OUT IN THE
SUN**

TAKE THE FOLLOWING PRECAUTIONS

- Listen to Radio; watch TV; read Newspaper for local weather news.
- Drink sufficient water - even if not thirsty.
- Use ORS (Oral Rehydration Solution), homemade drinks like lassi, torani (rice water) lemon water, buttermilk, etc. to keep yourself hydrated.
- Wear lightweight, light-coloured, loose, cotton clothes.
- Cover your head: Use a cloth, hat or umbrella.
- Keep animals in shade and give them plenty of water to drink.
- Do not leave children or pets in parked vehicles - as they may get affected by Heat Wave.

A Heat Wave is a period of abnormal high temperatures, more than the normal maximum temperature that occurs during the (Hot weather) summer season. Heat Waves typically occur between March and June. The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.

District Emergency Operation Centre Toll Free No.1077 is activated to receive complaints on Heat Waves and Drinking Water Supply.

- Heat Wave alerts from IMD are being maintained closely and necessary instructions have been issued to all concerned Department Officers to take necessary preparedness measures for management of Heave Wave.
- Drinking Water facilities have been arranged in public places (Thanneer Panthal) by District Administration
- Advisories on Heat Wave have been issued to the general public by way of banner, press release phamplets.
- District Administration has taken steps to broadcast the Awareness films on Heat Wave which are received from Tamil Nadu State Disaster Management Agency through Cable TV and Cinema Theaters in the

District and display in public places through the Video Van from Department of information and public relations.

EARTHQUAKE

- The District is located in Zone II of seismic vulnerability as captured in the Vulnerability Atlas. While earthquakes cannot be predicted, a detailed mapping of seismic fault systems and seismic source regions, quantification of probability of experiencing various strengths of ground motion at a site in terms of return period for an intensity will be carried out
- Appropriate regulations put in place to decrease the vulnerability of built environment.
- Different types of ground do shake with different severity in an earthquake. Softer soils and those with high water content generally shake more than rocky sites.
- Capital intensive infrastructure, hazardous facilities and materials, and other important buildings should not be located in the vicinity of a known fault. Since, early warning is not possible in case of earthquakes, the best choice is to ensure that seismicity is monitored and integrated with the GIS.

CHEMICAL DISASTERS

- Growth of chemical process industry in Tiruvallur District has received a dramatic accelerated momentum in last one decade.
- Sophisticated technology complex processes and a wide range of chemicals and chemical products have emerged to provide better standards and improved way of living to millions of people.

- Industries involved in the production or transportation of inflammable, hazardous and toxic materials hold the responsibility for preparing an off-site plan and communicating the same to District Collector.
- Simulation exercises are also undertaken in the adjoining communities.

EPIDEMICS

The Public Health Department is the nodal agency responsible for monitoring and control of epidemics. Local bodies also have a responsibility for taking appropriate steps in this context. Therefore, success of mitigation strategy for control of epidemics is depending on the type of coordination that exists between the Health Department and local authorities.

Mitigation efforts for control of epidemics would include

1. Surveillance and warning
 2. Preventive and Primitive measures
 3. Strengthening institutional infrastructure... Like...
- Promoting and strengthening community hospitals with adequate network of Para-professionals will improve the capacity of the Health Department for surveillance and control of epidemics.
 - Establishing testing laboratories at appropriate locations in different divisions within the State will reduce the time taken for diagnosis and subsequent warning.
 - Establishing procedures and methods of coordination between Health Departments and local authorities.

FIRE

Fire may be caused due to earthquakes, explosions, electrical malfunctioning and various other causes. Tiruvallur District has been listed in 'very high risk' category in view of the population density, residential built-up areas and Industrial areas in the District.

CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR (CBRN)

- Tiruvallur District has a number of Industries which are vulnerable to natural as well as man-made disasters
- Major Accident Hazard Units (MAH) in Tiruvallur District falling under this category because of the manufacture / storage of highly inflammable petroleum / petro-chemical products in large quantities.
- There are underground pipelines carrying petroleum products across the District apart from tankers and Railways carrying chemicals which are potentially hazardous.
- The three major types of hazards possible with chemical emergencies are fires, explosions, and toxic releases that could affect the population and the environment.

CHEMICAL / INDUSTRIAL DISASTER

1) Definition:

Chemical Disasters are occurrence of emission, fire or explosion involving one or more hazardous chemicals in the course of industrial activity (handling), storage or transportation or due to natural events leading to serious effects inside or outside the installation likely to cause loss of life and property including adverse effects on the environment.

2) Characteristics - Hazardous Chemicals

Flammable and / or explosive, Toxic, Highly reactive, corrosive, Radioactive.

3) Main Causes of Accidents

1. Poor design / workmanship, low grade materials - systems, components
2. Low grade sensors and emergency response systems
3. Non-compliance of Safety Regulations/ Transportation Regulations.
4. Human Error / Mal-handling
5. Inadequate training, maintenance and supervision strategies
6. Inadequacies in the industrial disaster risk management
7. Ignoring mandated procedures / safety precautions / safety audits
8. Lack of a reliable reporting system
9. Failure of effective hazard identification.
10. Contamination of stock, or over-stocking, or improper waste management.
11. Low levels of education vs complicated technology
12. Natural Hazards -second order effect
13. Climate change - Hotter weather - redesign of components, tolerances and sub-systems.

4) Chemical Disaster Management Action Plan

1. Reporting mechanisms at the district level, including an information networking system with appropriate linkages with transport, police, medical, other emergency services.
2. Dovetailing regulations governing HAZCHEM safety with the DM Act, 2005.
3. Strengthening of institutional framework for CDM and its integration with the activities of the NDMA, State authority/SDMA, district administration/DDMA and other stakeholders.
4. Renewed focus on model safety codes/ standards for prevention of accidents

5. Identifying infrastructure needs for formulating the mitigation plans
6. Implementing a financial strategy - integration of industry and State/Disaster CDM plans
7. Strengthening of SDRF, Fire services, MFRs, paramedics and other emergency responders
8. Revamping of home guards and civil defence for CDM Medical emergency plan.
9. Medical emergency plan

EMERGENCY ACTION PLANS

Two types of Emergency Action Plans at any MAH unit:

1) ON-SITE EMERGENCY:

All hazardous process industries with the approval of the Director of Industrial Safety and Health, draw up an On-site Emergency Plan and detailed disaster control measures for their factory and make known to the workers employed therein and to the general public living in the vicinity of the factory the safety measures required to be taken in the event of an accident taking place. This is the statutory provision laid down in the Factories Act, 1948 for preparation of On-site Emergency Plan to control disaster in the factories. Any accidents may cause emergency and it may lead to disaster, which may cause heavy damage to plant, property, and harm to person and create adverse effects on production.

The success of the on-site emergency plan is very much dependent on planned and unplanned mock drills. Mock drills help employees to be familiar with their roles and ensure accuracy of the on-site emergency plan.

Following is the procedure for conducting a Mock drill:

- Inform all the employees about mock drill procedures.
- Fix the date and time of mock drill.
- Mock drill will be monitored by observer/s not involved in the exercise.
- Emergency alarm will be raised.

- After hearing the alarm, Emergency Procedure will be followed. All clear signals will be given after emergency is over.
- Observer/s will note down the activities with respect to the time.
- Lacunae observed in the system will be studied carefully.
- Records of drills will be maintained.
- After each drill, the plan will be thoroughly reviewed to consider of the omissions or shortcomings for improvement.

2) OFF-SITE EMERGENCY:

An offsite emergency arising out due to chemical is one, which has the potential to cause serious damage or loss of life beyond the plant boundary. In addition, accidents during transportation of hazardous chemicals by road, rail, pipeline, etc. can also cause offsite emergencies. Emergency services such as police, fire, medical etc. need to be prepared to handle such situations effectively. The snowballing of a small incident into a major chemical disaster and the subsequent effects on the life and property can be mitigated if there is a readily implement able emergency preparedness plan available with the concerned district authorities. In order to be in a state of preparedness to respond to the accidents and minimize their adverse impacts on the offsite population, Rule 14 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (Amended in 2000), under EPA, 1986, requires an offsite emergency plan to be prepared by the District Collector for every district or industrial area, as applicable.

The main objectives of the Off Site Emergency Plan are:

1. To Provide resources and methods for effective control of emergencies arising out the leakage ,explosion and fire due to hazardous materials ;
2. To prevent emergency turning into disaster;
3. Synchronized action from all the coordinating agencies with least possible delay.
4. To minimize damage to the property, people and the environment
5. Effective rescue operation and treatment of the casualties;

6. To train the people and the concerned to act efficiently and with confidence in an emergency;
7. To bring back normal situation in the least possible time;
8. To provide authoritative information to the news media and government agencies;
9. No panic among the general public .No exploitation or exaggeration of the situation by any agency.

In brief the two main objectives of off-site emergency plan are:

To provide the local/ district authorities, police, fire brigade, doctors, surrounding industries and public the basic information of risk and to apprise them of the consequences. To make them to know of the protection/ prevention methods, control plans and to seek their help to communicate with the police in case of major emergencies. This information from every industry enables the district authorities to educate the public who can go wrong, the measures taken and to train them of their individual roles in case of emergency and

To assist the district authorities in preparing the offsite emergency (contingent) plan for the district on particular area and to organize from time to time and initiate corrective action based on the lessons learnt.

PROTOCOLS

- Alerting community – progressive alert categorizations
- Staging Areas (for external response equipment; evacuating population)
- Evacuation Drill
- Appropriate Transport
- Places to evacuate to (Relief Camps?)
- Type of Safety gear (where applicable)
- Security – community areas
- Returning - how safe is safe?
- Contaminated food/water - alternate arrangements
- Processing of hazardous waste

AWARENESS & PREPAREDNESS FOR EMERGENCIES AT LOCAL LEVEL (APELL) TEN STEP APELL PROCESS:

1. Identify the emergency and the best response to it
2. Identify participants, their roles, resources and concerns
3. Evaluate the hazards and risks that may result in emergency situations in the community
4. Participants review own emergency response plans for adequacy
5. Identify required response tasks not covered by existing plans and match them to resources available from identified participants
6. Make changes necessary to improve existing plans, integrate them into an overall community plan and gain agreement
7. Commit integrated community plan to writing and obtain approval from local governments
8. Educate participating groups about integrated plan; ensure all emergency responders trained
9. Educate community on what to do in case of that particular hazard (e.g. ammonia/chlorine leak)
10. Educate the general community about the integrated plan.

DISASTER SCENARIOS IN THE PLANT:

There are Four disaster scenarios in the above four Plants:

1. Jet Fire: Caused by uncontrolled emission of LPG on Vapor phase catching fire without accompanying explosion.
2. Pool Fire: Caused by ignition of LPG in liquid phase generally a localized event without much effect on adjoining areas except due to radiation.
3. BLEVE : Boiling Liquid Expanding Vapor Explosion, Caused by overheating of LPG pressure vessel where superheated liquid is released in to

the atmosphere due to sudden failure of pressure vessel resulting in simultaneous explosion of both vapor and superheated liquid phase.

4. Vapor cloud formation and explosion: Caused by unconfined release of vapor to the atmosphere. The vapor cloud forms an explosive mixture which on ignition releases a shockwave that can travel great distances causing considerable damage.
5. Any Flammable Liquid or Gas produces **Class B Fire**. Class B fire should be extinguished using foam, powder or carbon dioxide since water might spread the fire rather than extinguishing it.

EFFECT OF RADIATION INTENSITY AND OVERPRESSURES:

Based on the data of radiation intensity and effective peak overpressure it is identified that maximum hazard distance for all the above four accident scenarios of Major Accident Hazard units is within 3 Kms from the accident site.

The Radiation Intensity from the above hazard is sufficient to cause pains and burns to Humans, Live stocks, poultry and damage to crops.

PAST HISTORY OF DISASTER/INCIDENTS:

No such disaster/accidents occurred in Thiruvallur, Poonamalle, Avadi, Maduravoyal, Tiruttani, Pallipet Taluks in the past 10 years.

NON-NATURAL DISASTERS DURING PRODUCTION, STORAGE AND TRANSPORTATION OF CHEMICALS:

1. Fire and Explosion
2. Release of Toxic Gases
3. Radiation
4. Oil Spill
5. Chemical and Heat Burns to Humans and Live Stock
6. Damage to Private and Public Property

The MAH factories in Ponneri Taluk are **petroleum related industries** Producing and/or Storing Flammable Liquid or Gas which are **Non-toxic and Non-radiant** in nature

PREVENTION METHOD

Proper Maintenance of Tanks, Avoiding crashing and upside down of tankers, providing and maintaining cathodic protection for pipes and prohibiting heat source near the tanks and pipelines can help preventing Jet fire and Pool Fire and Cooling of storage tanks can help preventing Boiling liquid expanding vapor explosion and vapor cloud formation and explosion.

OIL SPILL:

During transportation through pipelines or tankers, the escape of oil into water body is termed as oil spill. For Example

1. Ennore oil spill that occurred outside kamarajar port in Ennore, Chennai.
2. Oil pipeline leak which contaminated the groundwater in North Chennai's Tondiarpet Neighbourhood

PREVENTION METHOD:

Proper Maintenance of Storage Tanks, Avoiding crashing and upside down of tankers, providing and maintaining cathodic protection for pipes.

HEAT BURNS TO HUMANS AND LIVE STOCK

Based on the data of Heat radiation intensity and effective peak overpressure, it is identified that maximum hazard distance during explosion of storage vessels containing petroleum related Flammable Liquid or Gas is within 3 Kms from the accident site and is sufficient to cause pains and burns to Humans, Live stocks, and damage to crops.

DAMAGE TO PRIVATE AND PUBLIC PROPERTY:

Due to Flammable Liquid or Gas storage vessel explosions, the property near the accident site will be destructed

DISASTER INCIDENTS IN PONNERI AND UTHOOKOTAI TALUKS :

No such disaster/accidents occurred in the past 10 years

EVENTS

1) Company Profile :-

MAH FACTORIES

Four Major Accident Hazard Factories are located in the Jurisdiction of Joint Director of Industrial Safety and Health, Thiruvallur and their details and Hazard Identification are given below.

Name of the Factory	Major Activity	Hazard
Dongwoo Surface Tech India (P) Ltd., S.No.1045/24, 1046/3,4,5, 1047/3,4, Plot No.121, Samathuvapuram, Ulundai, Tiruvallur Taluk	Heat Treatment of Automobile components.	LPG equipped in 2 Mounted Bullets of 20 Tons Capacity each
Daewon India Autoparts Pvt. Ltd., S.No.477 & 489, D.No.99, Papparampakkam Village, Tiruvallur Taluk	Manufacturing of Automobile components.	LPG equipped in 2 Mounted Bullets of 10 Tons Capacity each
Lotte Foods India Pvt. Ltd., D.No.26, Nemam Village, Poonamallee Taluk.	Manufacturing of Chocolates.	LPG equipped in Mounted Bullet of 18Tons Capacity
Tube Products of India (A Unit of Tube Investment of India Ltd) Ponpadi village, Thiruttani Taluk.	Manufacturing and Heat treating Steel Tubes.	LPG equipped in 2 Mounted Bullets of 15 Tons Capacity each

One Major accident Hazard factory are located in the jurisdiction of Joint Director of Industrial Safety and Health, Gummidipoondi and their details and Hazard identification are given below.

Name of the Factory	Major Activity	Hazard
SRF Limited, Gummidipoondi TECHINICAL TEXTILE BUSINESS (Tiruvallur) is located at Plot No.K1 SIPCOT Industrial complex, Gummidipoondi- 601201	1. Polyester Industrial Yarn- 32000 TPA (Tonnes/Annum) 2. Nylon & Polyester Industrial Fabric-15000 TPA 3. Tyre Cord Dipped Fabric- 15000 TPA 4. Coated Fabric- 225 Lakhs SQM/Annum	Flammable

Seven Major accident Hazard factory are located in the jurisdiction of Joint Director of Industrial Safety and Health, Thiruvottiyur and their details and Hazard identification are given below.

S. No	Name and Address of the Factory	Major Activity	Hazard
1.	M/s. Indian Oil Petronas Pvt. Limited, No. 143, Athipattu Village, NCTPS Main Rd, Chennai -600 120.	Manufacturing of LPG/Propane/Butane	Flammable
2.	I. O. C. Ltd., Indane Bottling Plant, 143, Athipet Village, Ch-120.	LPG Bottling	Flammable
3.	HPCL, Athipet, Pudunagar, Ponneri Taluk, Thiruvallur District.	Storage of petrol and diesel	Flammable
4.	Bharatpetroleum corporation Ltd No.354/1, 1556-B Athipattu vollur, Village ponneri Taluk, Thiruvallur District.	Storage of petroleum products.	Flammable
5.	Reliance Industries No.1183 to 1194 Ashok Leyland Technical Centre Road, Vallur village Ponneri Taluk, Thiruvallur District.	Storage of petroleum products	Flammable
6.	Indian oil LNG (P) Ltd, S.No. 7/3B Kattupalli Village, Ponneri Taluk, Thiruvallur District	Storage and Regasification of LNG	Flammable
7.	Ennore Tank Terminals Pvt. Ltd Inside Kamarajar Port, Vallur Post, Ponneri Taluk, Thiruvallur - 600120	Storage of petroleum products.	Flammable

ENUMERATE EFFECTS OF FIRE AND EXPLOSION INSIDE AND OUTSIDE LEAK OR EXPLOSION OF LIQUEFIED PETROLEUM GAS (LPG) AND EFFECTS

LPG is highly inflammable, dangerous and has distinct odour. The composition of LPG is around 85% propane by volume with saturation pressure between 26.7°C to 50°C will be at 6.8 kg/cm² to 11 kg/cm².

Storage Bullet Capacity	: 40 MT x 02 No's
Maximum storage in %	: 80 %
Location	: 500 m from the process area
Latent heat of vaporization	: 425 kJ/kg
Vapour density	: 1.88 kg/m ³
Specific Heat	: 2.45 kJ/kg/K
Heat of Combustion	: 50930 kJ/kg

Risk Analysis was conducted for the LPG storage of 40 MT by MCACA (Maximum Credible Accident and Consequence Analysis) using radiation fraction, heat of combustion view factor and transmittivity. Scenarios considered include 100% and 50% open pipeline Jet fire and the pool fire for the LPG Bullet, from the mathematical calculation, the damage distance contour maps for the severe thermal radiation of 37.5 kW/m² and medium thermal radiation of 12.5 kW/m² are derived for Jet and Pool Fire.

It has been found that from the study of MCACA (maximum credible accident and consequence analysis), No effect to the outside of organization during jet or pool fire.

A) Jet fire: - (Pipeline)

Heat Radiation (kW/m ²)	Status	Damage Circle Radius (m)	Damage effects to equipment's
37.5	100% open 50% open	3.60 m 2.56 m	Damage to process equipment's
12.5	100% open 50% open	6.04 m 4.33 m	Minimum energy to ignite combustibles like wood with a flame

B) Pool fire: - Bullet Storage Tank

Heat Radiation (kW/m ²)	Status	Damage Circle Radius (m)	Damage effects to equipment's
37.5	Bullet Storage Tank fire	31.7 m	Damage to process equipment's
12.5	Bullet Storage Tank fire	53.7 m	Minimum energy to ignite combustibles like woods with a flame

EMERGENCY PROCEDURE TO HANDLE

- Shut off the fuel supply valve during LPG Leak.
- Start the Sprinklers to cool the LPG bullet.
- Start fire hydrant system at minimum pressure to cool the pipelines.
- Don't switch ON or OFF any electrical equipment, keep it **“As it is”** condition
- Move away from the direction of the flow of gas.
- Terminate the welding, gas cutting or hot work operation in surrounding area
- Measure LPG Leak content with LPG Portable Gas Detector
- Keep pouring water till the LPG concentration is less than Lower Explosive Limit
- Use Self Contained Breathing Apparatus while isolation the LPG Leak and entering contaminated area.
- Trapped person try to remain in fully closed room and breathe uncontaminated air inside the room. Do not panic. Breathe normally. Wait till the gas dissipates outside.
- In case of victims due to heavy inhalation of gas, carry to fresh air, keep calm, institute oxygen.
- In case failure breathing, institute artificial respiration and call for doctor's aid immediately. Continue artificial respiration till doctor arrives.

FIRE FIGHTING FACILITY

- 10,000 M³ of Water Reservoir
- 02 No's of Electrical Hydrant Pumps with discharge of 273 m³/hr
- 01 No's of Electrical Sprinkler Pump with discharge of 273 m³/hr

- 02 No's of DG Hydrant and Sprinkler Pumps with discharge of 273 m³/hr
- 03 No's of Jockey Pumps to maintain Hydrant and sprinklers pressure of 7 kg/cm²
- 117 No's of Fire Hydrant Points and 04 No's of Cobra Monitor
- Fire Alarm System is provided throughout the plant
- Manual Call Point is provided at the corridor and easy accessible areas
- Fire Hose reels provided inside the workplace
- 350 No's of Fire Extinguishers provided
- 02 No's of Self-Contained Breathing Apparatus available
- Employees and Contract Labors Trained on Fire Fighting& First Aid
- Emergency Escape Route displayed at the entrance
- Full time medical officer and Medial Attendant is available round the clock
- Ambulance and driver available round the clock

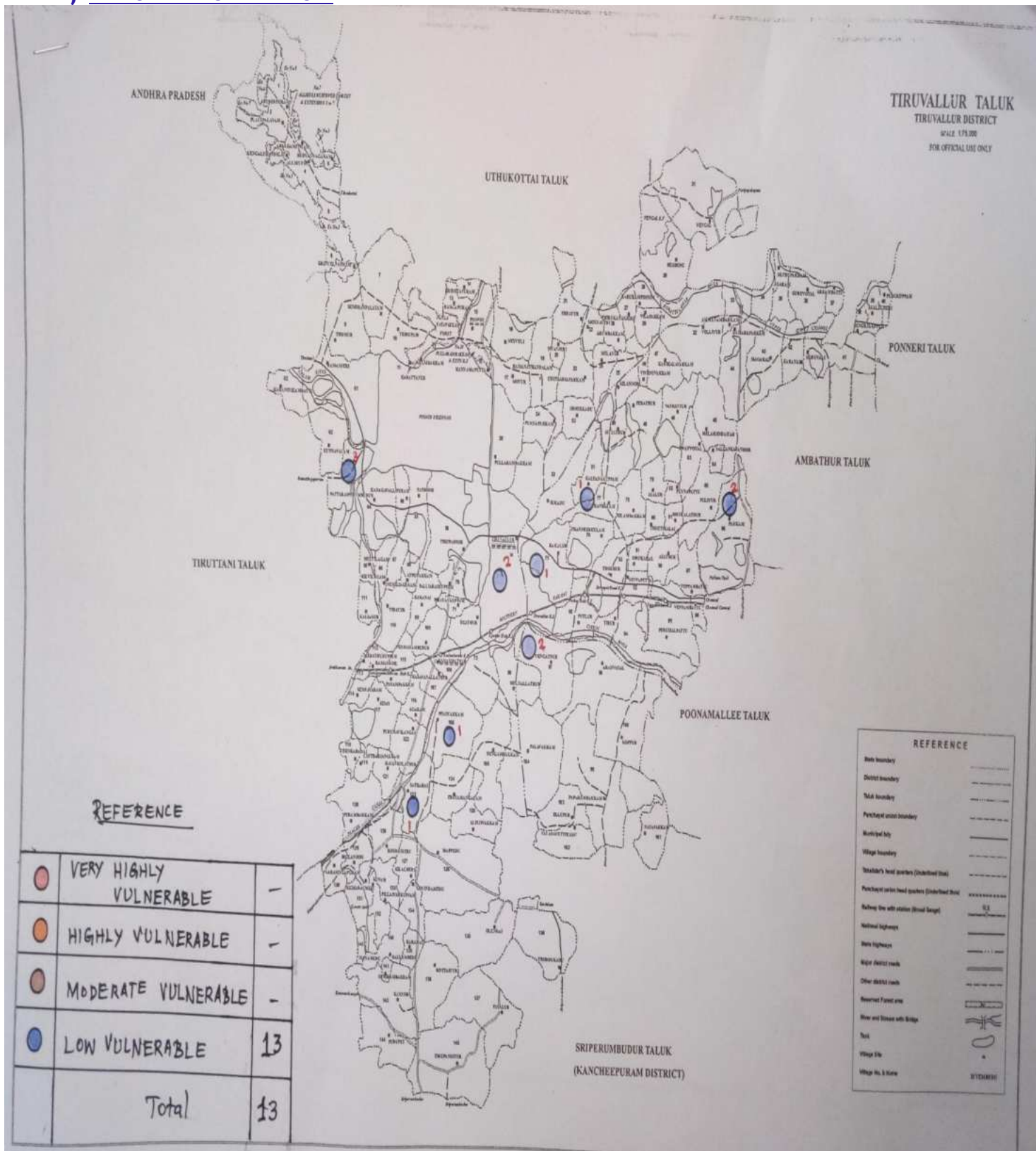
DISTRICT PLAN FOR VULNERABILITY ASSESSMENT

- The impact of a hazard becomes a disaster only when an interface with vulnerability occurs, in terms of vulnerable structures, people or the environment.
- As a pilot project Hazard, Vulnerability and Risk Assessment study have been conducted in Tiruvallur District under the 13th Finance Commission Grants of Government of India.
- This study report will enable the district to develop a sound Disaster Management Plan that will be based on an assessment that has factored in all the ground realities.

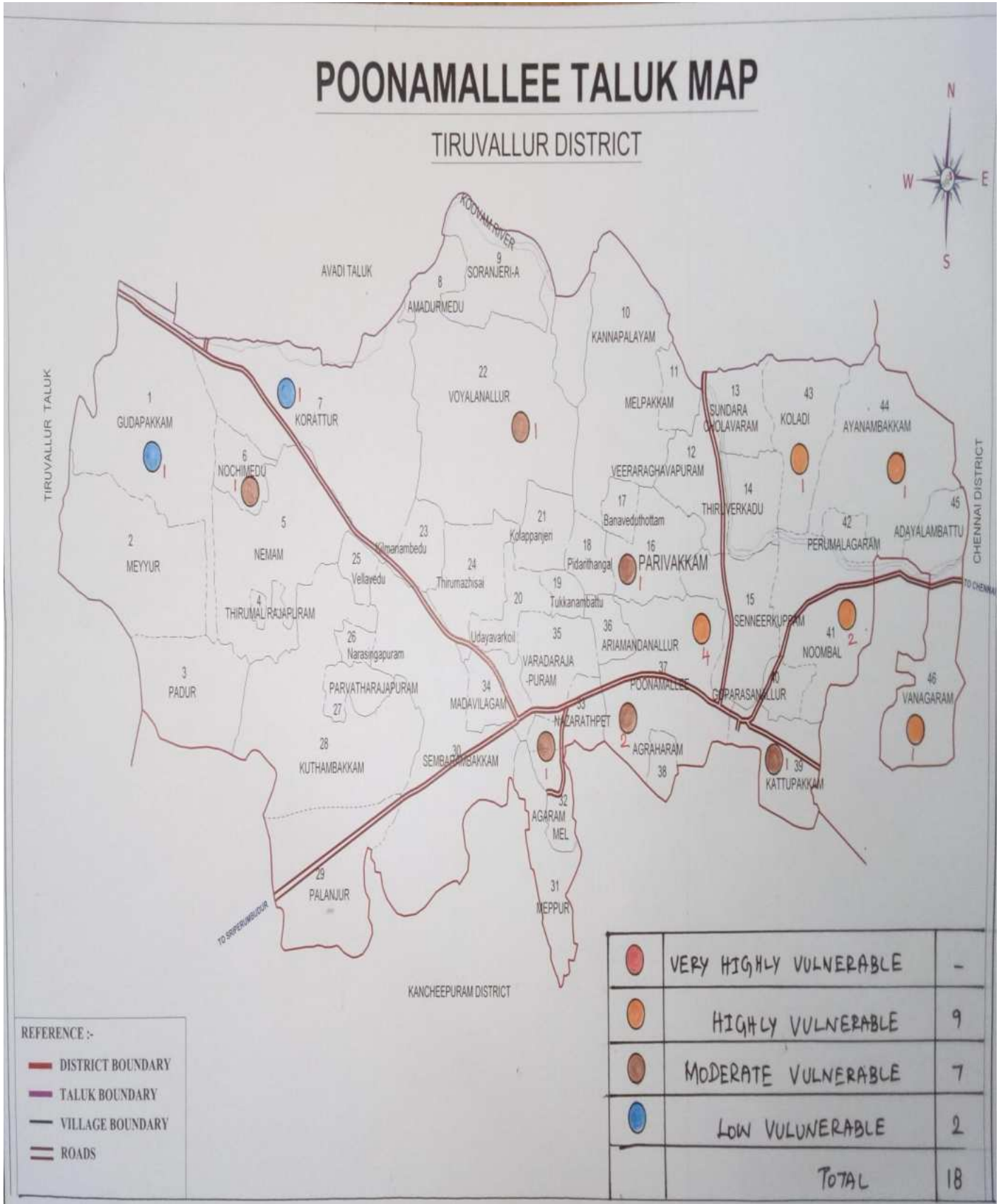
TIRUVALLUR DISTRICT VULNERABILITY MAP DETAILS

TIRUVALLUR DIVISION

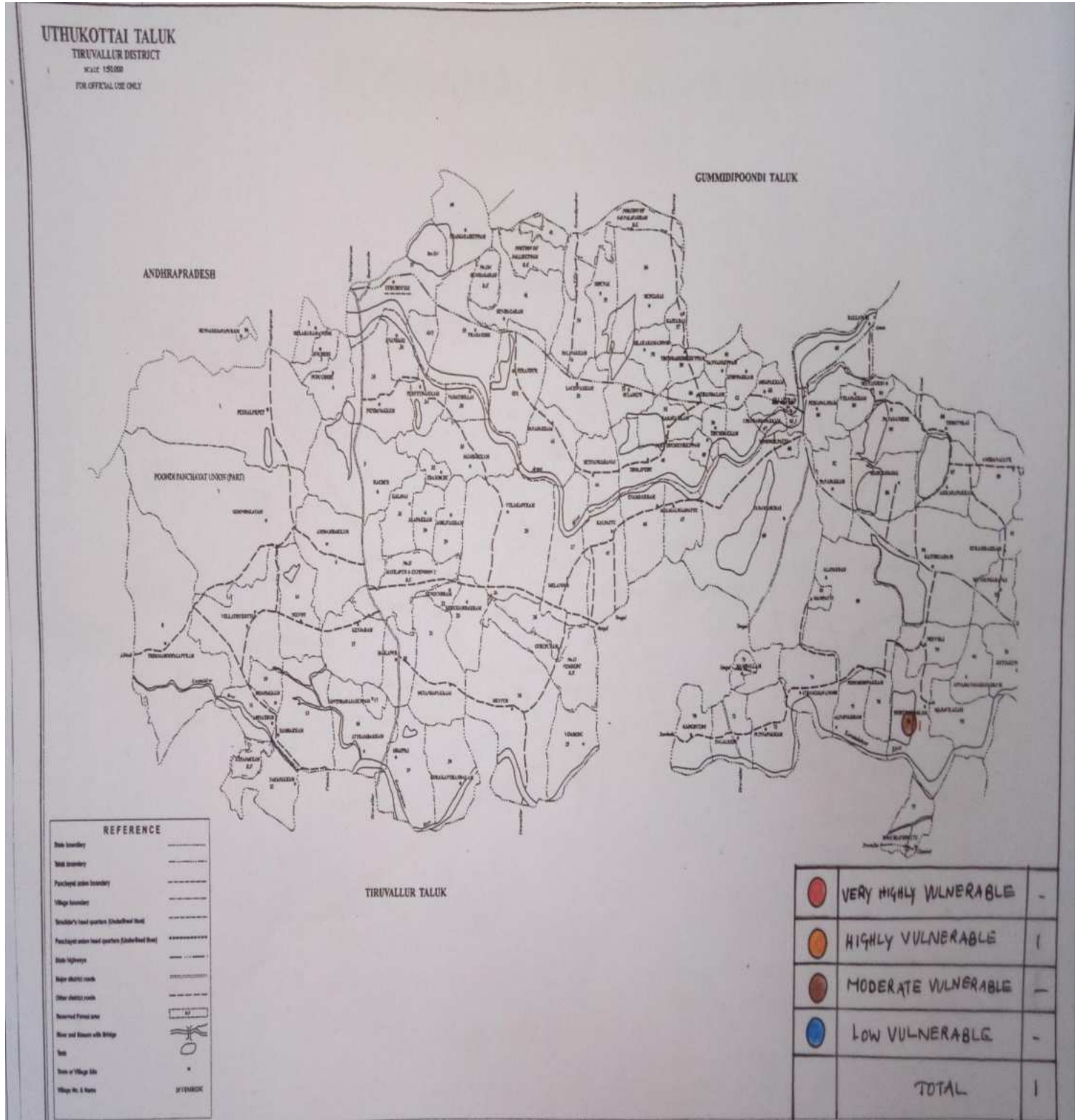
1) TIRUVALLUR TALUK



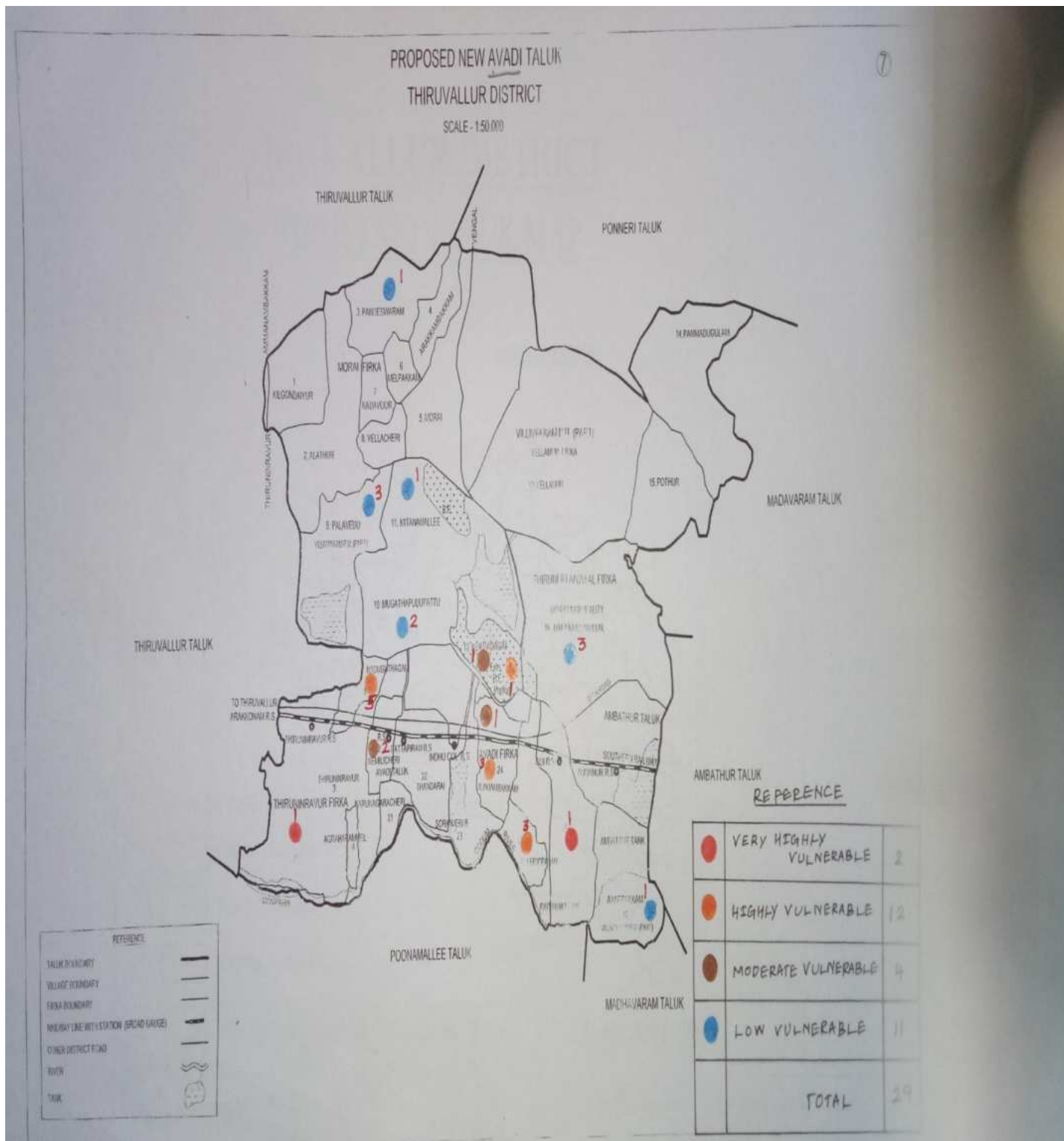
2) POONAMALLEE TALUK



3) UTHUKOTTAI TALUK

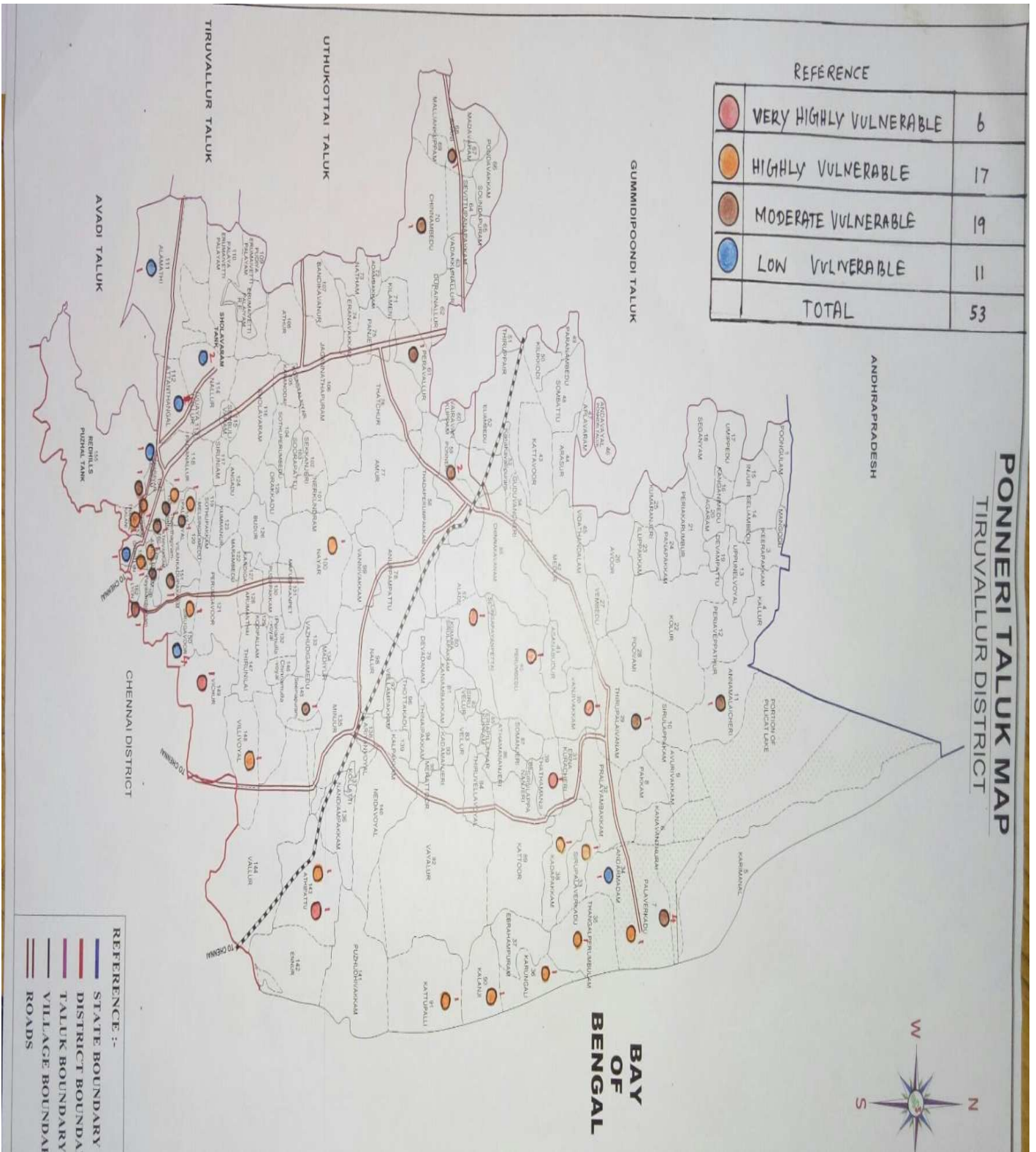


4) AVADI TALUK

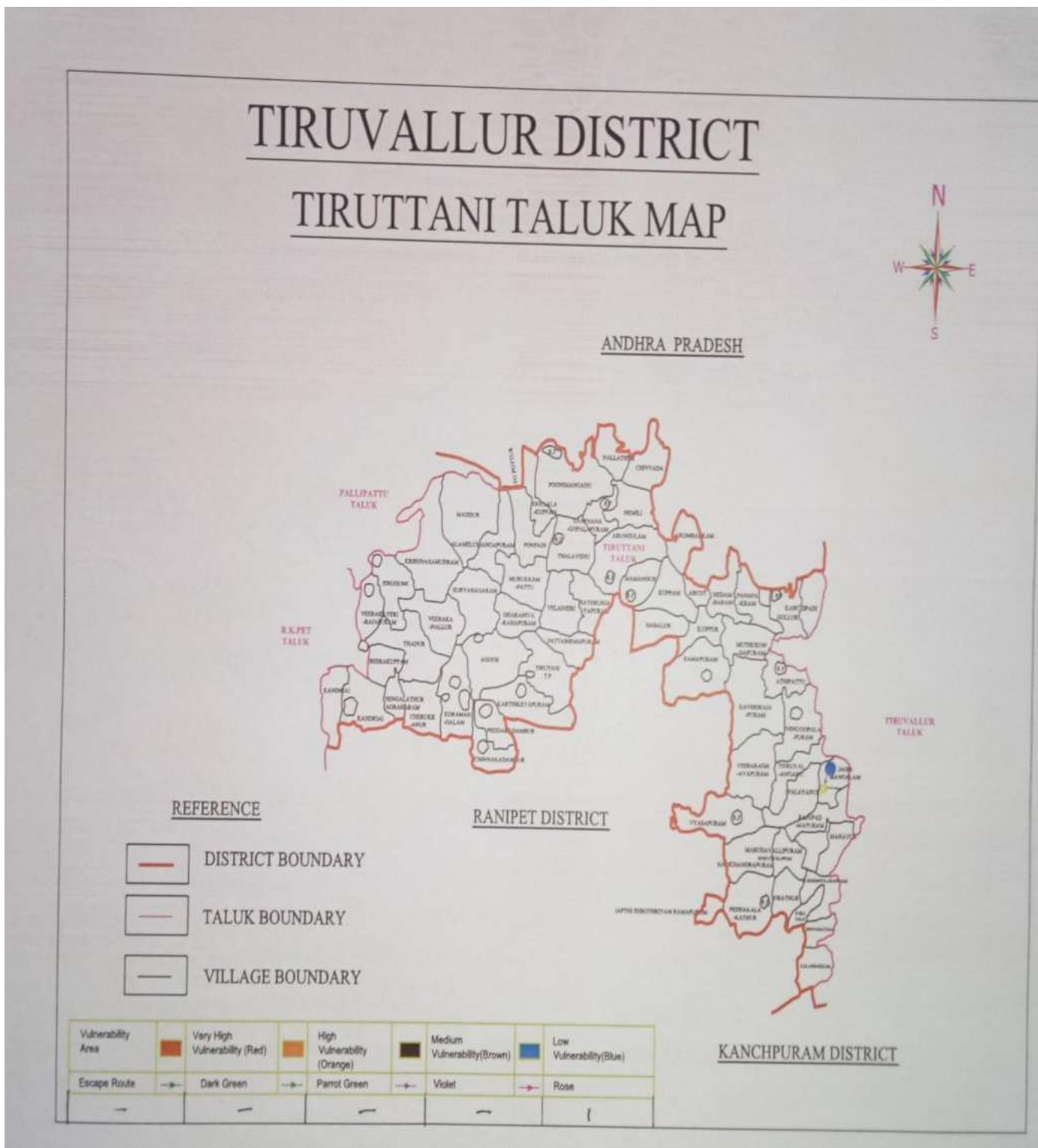


PONNERI DIVISION

1) PONNERI TALUK

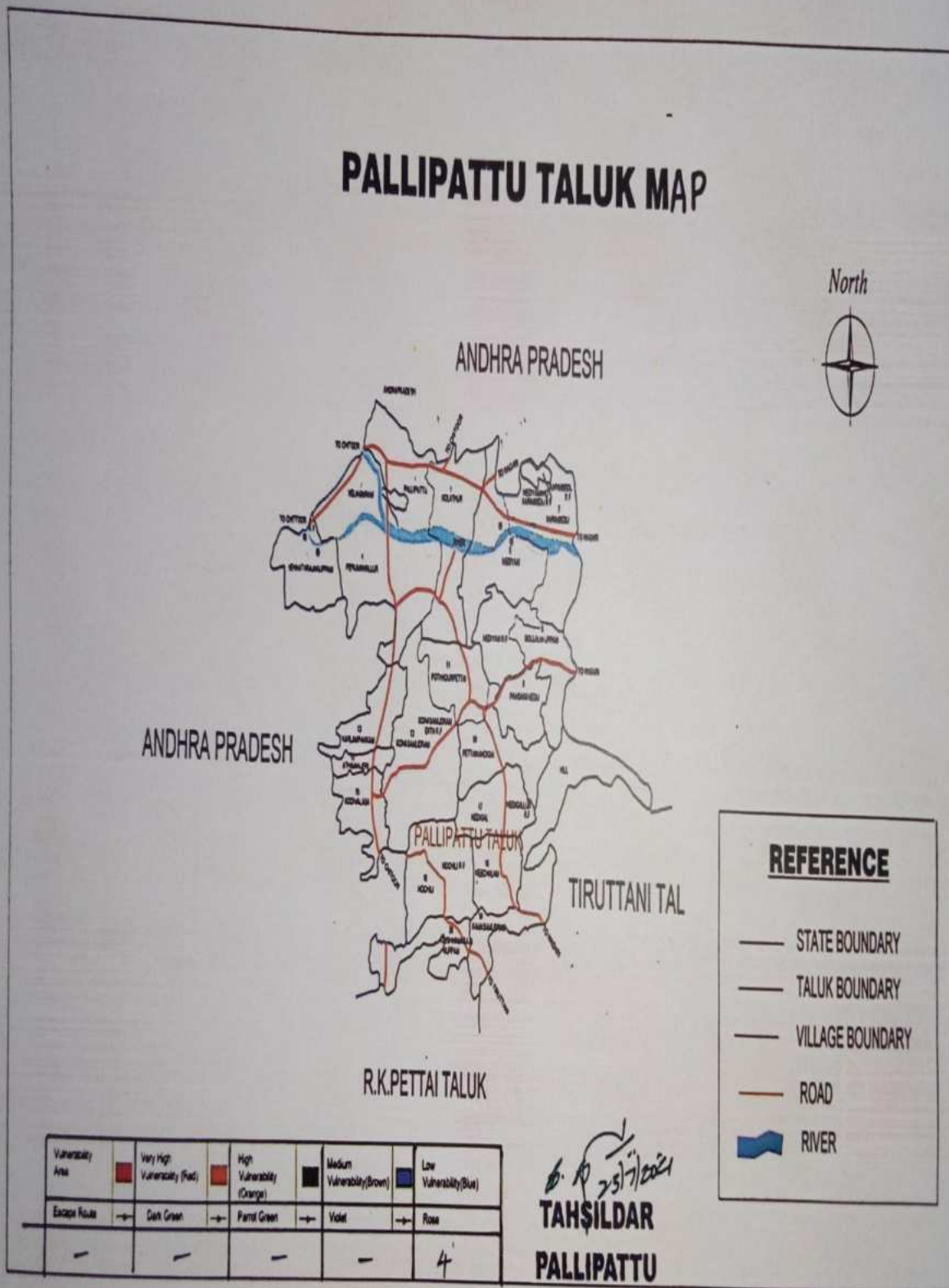


TIRUTTANI DIVISION
1) TIRUTTANI TALUK



2) PALLIPET TALUK

Scanned by CamScanner



In Tiruvallur District 133 vulnerable areas were identified based on previous experience during 2015 deluge.

VULNERABLE LOCATIONS IN TIRUVALLUR DISTRICT

Sl. No	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Name of the Taluk
1	A. Reddypalayam.	Very High Vulnerable	Athamanacheri	Kattur	Ponneri
2	Aladu (Manopuram).	Very High Vulnerable	Ponneri-II	Ponneri	
3	Thathamaji.	Very High Vulnerable	Thathamaji	Kattur	
4	Vichoor	Very High Vulnerable	Vichoor	Gnayar	
5	Perumbedukuppam	Very High Vulnerable	Perumbedu	Tirupalaivanam	
6	Vanjivakkam	Very High Vulnerable	Vanjivakkam	Tirupalaivanam	
7	Tirunindravoor	Very High Vulnerable	Vanjivakkam	Tirunindravur	Avadi
8	Paruthipattu	Very High Vulnerable	Paruthipattu	Avadi	



Location : VERY HIGH VULNERABLE AREA - A.REDDYPALAYAM

Latitude : 13°20'22.98"N

Longitude : 80°15'57.91"E



Location : VERY HIGH VULNERABLE AREA - ALADU (MANOPURAM)

Latitude : 13°19'27.91"N

Longitude : 80°13'10.77"E

Sl. No	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Name of the Taluk
1.	Athipattu Pudhu Nagar,	High Vulnerable	Athipattu	Minjur	Ponneri
2.	Vellivoyal	High Vulnerable	Vellivoyal	Minjur	
3.	Gnayar (Pasavanpalayam)	High Vulnerable	Gnayar	Gnayar	
4.	Sirupazhaverkadu Colony	High Vulnerable	Sirupazhaverkadu	Kattur	
5.	Kadapakkam Colony	High Vulnerable	Kattur	Kattur	
6.	Karungali	High Vulnerable	Karungali	Kattur	
7.	Kalanji	High Vulnerable	Kalanji	kattur	
8.	Kattupalli	High Vulnerable	Kattupalli	Kattur	
9.	Thangalperumbulam	High Vulnerable	Thangal Perumbulam	Thirupalaivanam	
10.	Pazhaverkadu	High Vulnerable	Pazhaverkadu	Thirupalaivanam	
11.	Thandal Kazhani (Samiyar Madam)	High Vulnerable	Thandal Kazhani	Redhills	
12.	Theerthakaraiyampattu	High Vulnerable	Theerthakaraiyampattu	Redhills	
13.	Palavoyal	High Vulnerable	Palavoyal	Redhills	
14.	Alinjivakkam	High Vulnerable	Azhinjivakkam	Redhills	
15.	Vadakarai	High Vulnerable	Vadakarai	Redhills	
16.	Grantline	High Vulnerable	Grantline	Redhills	

Sl. No	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Name of the Taluk
17.	Sirugavur	High Vulnerable	Sirugavur	Redhills	
18.	Thirukandalam.	High Vulnerable	Kannigaipair	Thirukandalam	Uttukottai
19.	Bhavani Nagar, Nadukutthagai	High Vulnerable	Thirunindravur	Nadukutthagai	Avadi
	Moovendhar Nagar, Nadukuthagai	High Vulnerable	Thirunindravur	Nadukutthagai	
20.	Ramadasapuram Nadukuthagai	High Vulnerable	Thirunindravur	Nadukutthagai	
21.	North Prakash Nagar, Nadukuthagai	High Vulnerable	Thirunindravur	Nadukutthagai	
	Diliban Nagar Nadukuthagai,	High Vulnerable	Thirunindravur	Nadukutthagai	
22.	Amirthanagar Nadukuthagai	High Vulnerable	Thirunindravur	Nadukutthagai	
23.	Thendral Nagar Nadukuthagai	High Vulnerable	Thirunindravur	Nadukutthagai	
24.	Rajeevgandhi Nagar, Kovilpathagai	High Vulnerable	Avadi	Kovilpadhagai	
25.	Pudhunagar, Paleripattu	High Vulnerable	Avadi	Paleripattu	
26.	Ananda Nagar, Paleripattu	High Vulnerable	Avadi	Paleripattu	
27.	Periyarnagar, Paleripattu	High Vulnerable	Avadi	Paleripattu	
28.	Vettaikarapalaya m, Vilinjiyampakkam	High Vulnerable	Avadi	Vilinjiyambakkam	
29.	Nanthavanamettu r, Vilinjiyambakkam	High Vulnerable	Avadi	Vilinjiyambakkan	

Sl. No	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Name of the Taluk
30.	Kavaraipalayam, Vilinjiyambakkam	High Vulnerable	Avadi	Vilinjiyambakkam	
31.	Amma Nagar, Poonamallee	High Vulnerable	Poonamallee	Poonamallee	Poonamallee
32.	Ambedhkar Nagar, Poonamallee	High Vulnerable	Poonamallee	Poonamallee	
33.	Santhiya Nagar, Poonamallee	High Vulnerable	Poonamallee	Poonamallee	
34.	Panaiyathamman Nagar, Poonamallee	High Vulnerable	Poonamallee	Poonamallee	
35.	Ayanambakkam,	High Vulnerable	Vanagaram	Ayanambakkam	
36.	Koladi	High Vulnerable	Vanagaram	Koladi	
37.	Vanagaram,	High Vulnerable	Vanagaram	Vanagaram,	
38.	Noombal,	High Vulnerable	Vanagaram	Noombal,	
39.	Kanniyamman Nagar	High Vulnerable	Vanagaram	Vanagaram	



Location : HIGH VULNERABLE AREA – AATHIPATTU PUDHU NAGAR, PONNERI
Latitude : **13°15'1.69"N**
Longitude : **80°18'7.28"E**



Location : HIGH VULNERABLE AREA - VELLIVOYAL
Latitude : **13°12'29.71"N**
Longitude : **80°15'13.79"E**



Location : HIGH VULNERABLE AREA – GNAYARU (PASAVANPALAYAM) PULICAT
Latitude : **13°15'36.13"N**
Longitude : **80°12'53.29"E**



Location : HIGH VULNERABLE AREA – KALANJI, PONNERI
Latitude : **13°19'47.84"N**
Longitude : **80°20'16.88"E**

VULNERABLE LOCATIONS

Sl. No	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Name of the Taluk
1.	Ponneri - I	Medium Vulnerable	Ponneri-I	Ponneri	Ponneri
2.	Ponneri - II	Medium Vulnerable	Ponneri-II	Ponneri	
3.	Chinnambedu	Medium Vulnerable	Chinnambedu	Arani	
4.	Peravallur	Medium Vulnerable	Peravallur	Arani	
5.	Arani	Medium Vulnerable	Arani	Arani	
6.	Seempuram	Medium Vulnerable	Seempuram	Gnayar	
7.	Annamalaichery	Medium Vulnerable	Annamalaichery	Kolur	
8.	Senjiyamman Nagar, Pazhaverkadu	Medium Vulnerable	Pazhaverkadu	Thirupalaivanam	
9.	Kulathumedu, Pazhaverkadu	Medium Vulnerable	Pazhaverkadu	Thirupalaivanam	
10.	Rajarathinam Nagar, Pazhaverkadu	Medium Vulnerable	Pazhaverkadu	Thirupalaivanam	
11.	Kallukadaimedu, Pazhaverkadu	Medium Vulnerable	Pazhaverkadu	Thirupalaivanam	
12.	MGR Nagar, Thirupalaivanam	Medium Vulnerable	Pazhaverkadu	Thirupalaivanam	
13.	Theerthakaraiyampattu	Medium Vulnerable	Pazhaverkadu	Redhills	
14.	Palavoyal	Medium Vulnerable	Pazhaverkadu	Redhills	
15.	Athivakkam	Medium Vulnerable	Pazhaverkadu	Redhills	
16.	Alinjivakkam,	Medium Vulnerable	Pazhaverkadu	Redhills	
17.	Vadakarai,	Medium Vulnerable	Pazhaverkadu	Redhills	
18.	Pulliline	Medium Vulnerable	Pazhaverkadu	Redhills	
19.	Vilangadupakkam	Medium Vulnerable	Pazhaverkadu	Redhills	

Sl. No	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Name of the Taluk
20.	Nazarathpettai	Medium Vulnerable	Nazarathpettai	Thirumazhisai	Poonamallee
21.	Parivakkam	Medium Vulnerable	Parivakkam	Vayalanallur	
22.	Vayalanallur	Medium Vulnerable	Vayalanallur	Vayalanallur	
23.	Nochimedu	Medium Vulnerable	Nochimedu	Nemam	
24.	Bababee Dharka, Poonamallee	Medium Vulnerable	Poonamallee	Poonamallee	
25.	Ammankoil Street, Poonamallee	Medium Vulnerable	Poonamallee	Poonamallee	
26.	MGR Nagar, Kattupakkam	Medium Vulnerable	Poonamallee	Poonamallee	
	K.K.Nagar Kattupakkam	Medium Vulnerable	Poonamallee	Poonamallee	
	Amman Nagar Kattupakkam	Medium Vulnerable	Poonamallee	Poonamallee	
27.	Avadi TNHB	Medium Vulnerable	Avadi	Avadi Town	Avadi
28.	Nagathamman Nagar, Nemilichery	Medium Vulnerable	Nemilichery	Thirunindravur	
29.	Rajeevgandhi Nagar, Nemilichery	Medium Vulnerable	Nemilichery	Thirunindravur	
30.	Brindhavan Nagar, Kovilpathagai	Medium Vulnerable	Kovilpadhagai	Avadi	
31.	Sunnambukulam	Medium Vulnerable	Sunnambukulam	Elavoor	Gummidipoondi
32.	Gummidipoondi EB Office	Medium Vulnerable	Gummidipoondi	Gummidipoondi	
33.	Enathimelpakkam	Medium Vulnerable	Gummidipoondi	Gummidipoondi	
34.	Chinnasozhiyambakkam	Medium Vulnerable	Gummidipoondi	Gummidipoondi	
35.	Periyasozhiyambakkam	Medium Vulnerable	Gummidipoondi	Gummidipoondi	
36.	Edur	Medium Vulnerable	Edur	Edur	
37.	Ezhukannupalam	Medium Vulnerable	Edur	Elavur	

Sl. No	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Name of the Taluk
38.	Vallambudukuppam	Medium Vulnerable	Vallambudukuppam	Elavur	Gummi dipoondi
39.	Arambakkam	Medium Vulnerable	Arambakkam	Elavur	
40.	Chinnaobulapuram	Medium Vulnerable	Chinnaobulapuram	Elavur	
41.	Karani	Medium Vulnerable	Karani	Poovalambedu	
42.	Mangalam	Medium Vulnerable	Mangalam	Poovalambedu	
43.	Mukkarambakkam	Medium Vulnerable	Mukkarambakkam	Poovalambedu	
44.	Serpedu	Medium Vulnerable	Serpedu	Poovalambedu	

VULNERABLE LOCATIONS

Sl. No.	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Taluk
1	Vazhaikutti, Thirumullaivoyal-1	Low Vulnerable	Thirumullaivoyal-1	Thirumullaivoyal	Avadi
2	Annai Therasa Nagar, Thirumullaivoyal - 1	Low Vulnerable	Thirumullaivoyal	Thirumullaivoyal	
3	Ettiyamman Nagar, Thirumullaivoyal - 1	Low Vulnerable	Thirumullaivoyal	Thirumullaivoyal	
4	MGR Nagar, Thirumullaivoyal - 1	Low Vulnerable	Thirumullaivoyal	Thirumullaivoyal	
5	Thendral Nagar, Thirumullaivoyal - 1	Low Vulnerable	Thirumullaivoyal	Thirumullaivoyal	
6	Ambedhkar Nagar, Thirumullaivoyal - 1	Low Vulnerable	Thirumullaivoyal	Thirumullaivoyal	
7	Moorthy Nagar, Thirumullaivoyal - 1	Low Vulnerable	Thirumullaivoyal	Thirumullaivoyal	
8	Saraswathi Nagar, Thirumullaivoyal - 1	Low Vulnerable	Thirumullaivoyal	Thirumullaivoyal	
9	Indira Nagar, Thirumullaivoyal - II	Low Vulnerable	Thirumullaivoyal-II	Thirumullaivoyal	
10	Thamarai Nagar, Thirumullaivoyal - II	Low Vulnerable	Thirumullaivoyal-II	Thirumullaivoyal	
11	Sabari Ayyappan Nagar Thirumullaivoyal - II	Low Vulnerable	Thirumullaivoyal-II	Thirumullaivoyal	
12	Sivasakthi Nagar, Thirumullaivoyal - II	Low Vulnerable	Thirumullaivoyal-II	Thirumullaivoyal	
13	Ellaiyamman Nagar, Muthapudhupet	Low Vulnerable	Muthapudhupet	Thirumullaivoyal	
14	Muthapudhupet ICF Colony	Low Vulnerable	Muthapudhupet	Thirumullaivoyal	
15	Mittanamallee	Low Vulnerable	Mittanamallee	Thirumullaivoyal	

Sl. No.	Name of the Vulnerable Areas	Status of Vulnerability	Revenue Village	Name of the Fika	Taluk
16	Pandeswaram	Low Vulnerable	Pandeswaram	Morai	
17	Jasmin Nagar, Palavedu	Low Vulnerable	Palavedu	Thirumullaivoyal	
18	Muthamizh Nagar, Palavedu	Low Vulnerable	Palavedu	Thirumullaivoyal	
19	Sasthiri Nagar, Palavedu	Low Vulnerable	Palavedu	Thirumullaivoyal	
20	Ayapakkam	Low Vulnerable	Ayapakkam	Thirumullaivoyal	
21	Ammankoil Street, Korattur A	Low Vulnerable	Korattur A	Nemam	Poonamallee
22	Collector Nagar, Gudappakkam	Low Vulnerable	Gudappakkam	Nemam	
23	Ambal Nagar,	Low Vulnerable	Nallur	Cholavaram	Ponneri
24	Nallur,	Low Vulnerable	Nallur	Cholavaram	
25	Alamathi	Low Vulnerable	Attanhangal	Cholavaram	
26	Gandhi Nagar, Attanhangal	Low Vulnerable	Attanhangal	Cholavaram	
27	Andarmadam,	Low Vulnerable	Andarmadam,	Thirupalaivanam	
28	M.G. Nagar Sendrambakkam	Low Vulnerable	Sendrambakkam	Redhills	
29	Krishnasamy Chetty Nagar Sendrambakkam	Low Vulnerable	Sendrambakkam	Redhills	
30	Telegu Sendrambakkam Colony	Low Vulnerable	Sendrambakkam	Redhills	
31	Sendrambakkam Colony	Low Vulnerable	Sendrambakkam	Redhills	
32	Naravarikuppam	Low Vulnerable	Naravarikuppam	Redhills	
33	Grantline	Low Vulnerable	Grantline	Redhills	Pallipet
34	Sanakuppam	Low Vulnerable	Venkatarayakuppam	Pallipet	
35	Sangeethakuppam	Low Vulnerable	Venkatarayakuppam	Pallipet	
36	Samanthavada	Low Vulnerable	Samanthavada	Pallipet	
37	Nedium	Low Vulnerable	Nedium	Pallipet	Tiruvallur
38	Jageermangalam	Low Vulnerable	Jageermangalam	Thiruvalangadu	
39	Kakkalur	Low Vulnerable	Kakkalur	Tiruvallur	
40	Thandalam	Low Vulnerable	Thandalam	Tiruvallur	
41	Amsa Nagar	Low Vulnerable	Thandalam	Tiruvallur	
42	Gandhi Gramam	Low Vulnerable	Pandur	Pandur	
43	Ellappanaidupettai	Low Vulnerable	Ellappanaidupettai	Pandur	
44	Narayanapuram	Low Vulnerable	Narayanapuram	Pandur	
45	MGR Nagar	Low Vulnerable	Vengathur	Vengathur	
46	Manavalanagar	Low Vulnerable	Manavalanagar	Vengathur	
47	Vengathur	Low Vulnerable	Vengathur	Vengathur	
48	Pinjivakkam	Low Vulnerable	Pinjivakkam	Vengathur	
49	Sattharai	Low Vulnerable	Sattharai	Kadambathur	
50	Pakkam	Low Vulnerable	Pakkam	Thiruvur	
51	Nathambedu	Low Vulnerable	Nathambedu	Thiruvur	

4. SYSTEM APPROACH FOR SUSTAINABLE DISASTER RISK MANAGEMENT

PRIORITY 1- Understanding Disaster Risk

- Disaster Risk Management needs to be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.
- All informations regarding risk should be recorded and to be analysed in detail

Priority - 2 Strengthening Disaster risk governance to manage disaster risk

- Disaster risk governance at the national, regional and global levels are vital to the management of disaster risk reduction in all sectors.
- Ensuring the coherence of national and local frameworks of laws, regulations and public policies that, by defining roles and responsibilities, guide, encourage and sensitize the public and private sectors to take action and address disaster risk.

Priority 3 - Investing in Disaster risk reduction for resilience

- Public and private investment in disaster risk prevention Reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment.
- These can be drivers of innovation, growth and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses Ensure effective recovery and rehabilitation.

Priority 4 - Enhancing Disaster preparedness for effective response, and to (Build Back Better) in recover rehabilitation and reconstruction

- Experience indicates that disaster preparedness needs to be strengthened for more effective response and ensure capacities are in place for effective recovery.
- Disasters have also demonstrated that the recovery, rehabilitation and reconstruction phase, which needs to be prepared ahead of the disaster, are an opportunity to «Build Back Better» through integrating disaster risk reduction measures.
- Women and persons with disabilities should publicly lead and promote gender equitable and universally accessible approaches during the response and reconstruction phases.

Guiding Principles

- Primary responsibility of States to prevent and reduce disaster risk, including through cooperation.
- Shared responsibility between central Government and national authorities sectors and stakeholders as appropriate to national circumstances.
- Protection of persons and their assets while promoting and protecting all human rights including the right to development.
- Engagement from all of society
- Empowerment of local authorities and communities resources, incentives and decision making responsibilities as appropriate
- Decision-making to be inclusive and risk-informed while using a multi-hazard approach.

- Coherence of disaster risk reduction and sustainable development policies, plans, practices and mechanisms, across different sectors.
- Accounting of local and specific characteristics of disaster risks when determining measures to reduce risk.
- Addressing underlying risk factors cost-effectively through investment versus relying primarily on postdisaster response and recovery.
- Full engagement of all State institutions of an executive and legislative nature at national and local levels.
- (Build Back Better) for preventing the creation of, and reducing existing, disaster risk.
- The quality of global partnership and international cooperation to be effective, meaningful and strong.
- Support from developed countries and partners to developing countries to be tailored according to needs and priorities as identified by them.

Based on the above Sendai Framework Project, in Tiruvallur District we may implement the following regulations to achieve the Disaster Management Goals

- Strengthening of Early Warning System
- Conducting frequent mock drills and check the quickness of the authorities response to warn the people living in low lying areas and along the sea shores.
- After getting Disaster warning message we should immediately Evacuate people from low lying areas.
- Ensuring that construction site is raised sufficiently to avoid inundation during monsoons.

- Not permitting unrestricted new development in the hazard prone areas
- Anchoring and flood proofing structures to be built in known flood prone areas
- Built-in safe guards for new water and sewage systems and utility lines from flooding
- Enforcing risk zone, base flood elevation, and flood way requirements
- Prohibition on development in wetlands

To meet these requirements, local Governments will have to adopt specific flood plan Management into zoning and subdivision regulations, housing and building codes, and resource protection regulations.

PRIORITIES FOR ACTION

Tamil Nadu Irrigated Agriculture Modernization Project

THE SUB BASIN WISE CROPPING PATTERN OF NANDHIYAR, NAGARIYAR AND GUMMIDIPOONDI NANDHIYAR SUB BASIN

I. Improved Production Technology Crop Demonstrations through Agriculture Intensification: Productivity Enhancement in Paddy (IPT Demos: Ha)

Paddy is the main staple crop grown in the Nandiyar sub- basins where in there is still scope for improving the productivity as the yield gap varies from 1.2 - 1.6 MT / Ha both in first and second seasons (Samba and Navarai). The DoA will analyse the constraints in the sub-basin by conducting IPT Paddy Crop Demonstrations with all improved management practices, like planting of single seedling etc. and inputs like improved variety of crop, IPM, INM etc. are practiced in FFS model, and also

suggesting suitable interventions viz., Introduction of three crop sequence of Green Manure – SRI Paddy – Rice Fallow Pulses.

(i). Growing green manure crops especially for their organic matter and ability to improve the soil can dramatically build up poor and exhausted soils and maintain the fertility of better ones. It boosts lands' organic matter (O.M.) level. It keeps nutrients from leaching down beyond reach of crops, provides food for microbial soil life, helps legumes fix nitrogen in their root nodules and helps the soil produce good structure and maintain the air-pore spaces essential to good crop health. Green manure is less expensive than animal manure and is practically free of antibiotics and growth hormones. Green manure can also help create vital soil in areas with little or no top soil due to water runoff. [It deters weeds](#), even without the use of harmful herbicides. Earthworms and beneficial bacteria grow well with green manure.

Poor and exhausted soils get rich in nutrients through green manures. Green manure also helps with soil erosion due to weather like wind and rain.

(ii) System of Rice Intensification ensures saving of seed and water as they require in less, greater root growth due to young seedlings and wider spacing, more tillers ultimately more grains and yield. There is reduction of cost due to labour saving through the usage of power weeder, fertilizer saving through usage of Leaf Colour Chart and lesser pest and disease incidence.

(iii) Rice Fallow Pulses are sown as follow up crop after the harvest of Paddy. These rice fallow areas offer a huge potential niche for short season pulses and oilseed crops. It enhances the soil fertility status for the next crops due to nitrogen fixation.

(iv) Cono weeder:

- Conoweeder is used in 15, 25, 35 and 45 days of SRI paddy crop.
- The weeds are incorporated into the field by this way it is utilized as nutrients in the same field itself.
- Old roots are removed and new roots has been proliferated by using the conoweeder. Since number of tillers will be increased. It leads to increase in yield (300-400 kg/acre). Hence farmers got more income compared to conventional cultivation
- It reduces labour shortage.
- In this project conoweeding operation will be done by using the self help groups and Womens Interest group. By this way womens will be benefited.

II) Pulses**Promotion of Pulses Production :**

There is always huge scope for improving the productivity levels of major pulse crops and the poor seed replacement rate, timely availability of quality seeds, zero mineral nutrition, improper pest management practices, poor post-harvest practices etc., are the major constraints for increasing the productivity. The DoA would intervene the farmers with participatory approach and adoption of improved production technologies viz.

- a.** Usage of high yielding certified seeds of varieties.
- b.** Pre soaking of seed- 1 kg of seed in 1 lit. of water for 4 hrs. for increasing germination percentage.
- c.** Promotion of line sowing for maintaining optimum plant population.
- d.** Balanced Fertilization(Kg/ha) : N : P: K : S MN Mixture

- e. Productivity enhancements by mass scale spraying of 2% DAP on 25th and 40th day after sowing.

Agricultural Implements:

Cono weeding operation in SRI Paddy Cultivation:

- Cono weeder is used two times at the stage of 15th and 25th days of planting SRI .
- The weeds are incorporated into the field by this way it is utilized as nutrients in the same field itself.
- Old roots are removed and new roots have been proliferated by using the cono weeder. Since number of tillers will be increased. It leads to increase in yield (300-400 kg/acre). Hence farmers got more income compared to conventional cultivation
- It reduces labour shortage.
- In this project Conoweeding operation will be done by using the self help groups , Amma farm women groups and Farmers Interest group and farmers themselves. By this way womens will be benefited.
- The cono weeding may be done either by manual or mechanical according to the soil status and growth of the crop.
- Back ended subsidy will be given to the beneficiaries by ensuring the operation with proper Geo tagging of the intervention.

III. Other Crop based Components:

Farmers Field School

- Farm Schools would be operationalized at Block level in sub basins
- These FFS would be set up in the field of outstanding or achiever farmers.

- “Trainee farmers” would also have the responsibility of providing extension support to other farmers in the respective village or neighboring villages.

Geo-tagging

Activities to be undertaken by the Agriculture department like crop demonstrations, farm school, trainings will be geo-tagged using a specialized app developed by TNIAMP.

Institutional Strengthening – IEC & Capacity Building Activities

The Capacity building and Change management training are given to the Agricultural Labourers, Farmers and Extensional Personnel viz., Assistant Director of Agriculture, Agricultural Officers, Deputy Agricultural Officers, Assistant Seed Officers and Assistant Agricultural Officers which are imparted by the reputed Capacity building and Change management Training organizations.

Sl. No	IEC & Capacity Building – Change Management Trainings	Nos.	Unit Cost L.Rs.	Budget (Rs. In lakh)
1	Trainings for SRI skills to 50 No. of Agriculture labours for 2 days	1	0.185	0.185
2	Farmers training-50 Nos. for 1 day	1	0.210	0.210
3	Extensional Personnel training-30 Nos. for 2 days	1	0.275	0.275
Total		3		0.67

EC/CB activities [Field support, Sustainability, Documentation Charges etc.):

In the sub-basins, the total Crop based demonstrations to be conducted are 957 Ha, As these crop demonstrations are conducted on FFS mode, the Village meetings, Seminars, Village Melas, other Publicity & Propaganda activities, POL, Printing of Leaflets / Pamphlets, Posters, Banners, Relevant Materials for the functions and fields, Documentation Charges etc.,

are to be imparted in the proposed Crop based demonstrations to be conducted with the allotted amount .

NAGARIYAR SUB-BASIN – CROPPING PATTERN (HA):

Name of the sub Basin : **Nagariyar** Fully Irrigated : **1045.99** Ha
 Nodal District : **Tiruvallur** Partially Irrigated : **226.22** Ha
 Registered Ayacut Area : **1540.83** Ha. Gap : **268.62** Ha
 Total Ayacut Area : **1540.83** Ha

S. No.	Crop	Without Project(Ha)				With Project(Ha)				Increase
		FI	PI	RF/G	TOTAL	FI	PI	RF/G	TOTAL	
I	Perennial crop									
1	Coconut	36.66	0	0	36.66	36.66	0	0	36.66	0
2	Mango	292.76	78.70	0	377.46	377.46	0	0	377.46	6.00
	Total	329.42	78.70	0	408.12	411.12	0	0	411.12	3.00
II	Annual Crop									
1	Sugarcane	113.66	22.61	0	133.27	133.27	0	0	133.27	3.00
2	Banana	10.00	0	0	10.00	10.00	0	0	10.00	0
3	Fodder Agathi	0	0	0	0	2	0	0	2	2
	Total	123.66	22.61	0	146.27	148.27	0	0	148.27	0
II	1st crop									
1. a	Paddy	470.22	14.685	0	484.91	0	0	0	0	-484.91
b	Paddy SRI	51.95	0	0	51.95	450.00	0	0	450.00	398.05
2	Ragi	0.60	28.7	0	29.30	30.00	0	0	30.00	0.70
3	Cumbu	4.00	6.84	0	10.84	10.00	0	0	10.00	-0.84
4	Red Gram	0	34.30	0	34.30	35.00	0	0	35.00	0.70
5	Black Gram	0	15.70	0	15.70	20.00	0	0	20.00	4.30
6	Groundnut	17.32	12.68	0	30.00	30.00	0	0	30.00	0.00
7	Gingelly	0	0	0	0	5.00	0	0	5.00	5.00
8	Brinjal	6.70	0	0	6.70	16.70	0	0	16.70	10.00
9	Bhendi	6.90	0	0	6.90	16.90	0	0	16.90	10.00
10	Chillies	26.56	12.00	0	38.56	88.56	0	0	88.56	50.00
11	Gourds	0.82	0	0	0.82	0.82	0	0	0.82	0
12	Greens	7.84	0	0	7.84	7.84	0	0	7.84	0
13	Flowers	0	0	0	0	2.00	0	0	2.00	2.00
14	Non Agrl. Purposes	0	0	268.62	268.62	0	0	268.62	268.62	0
15	Fallow	0	0	0	0	0	0	0	0	0
	Total	592.91	124.91	268.62	986.44	712.82	0	268.62	981.44	-5.00
	G. Total (I+II+III)	1045.99	226.22	268.62	1540.83	1272.21	0	268.62	1540.83	0

IV	2 nd crop									
1.	Paddy	371.03	0	0	371.03	0	0	0	0	-371.03
a	Paddy SRI	50.30	0	0	50.30	425.00	0	0	425.00	374.70
2	Ragi	5.00	0	0	5.00	10.00	0	0	10.00	5.00
3	Maize	2.00	0	0	2.00	20.00	0	0	20.00	18.00
4	Minor Millets	1.00	0	0	1.00	10.00	0	0	10.00	9.00
5	Black Gram	15	0	0	15.00	90.00	0	0	90.00	75.00
6	Green Gram	0	0	0	0	0	0	0	0	0
7	Groundnut	12	0	0	12.00	45.00	0	0	45.00	33.00
8	Brinjal	0	0	0	0	16.50	0	0	16.50	16.50
9	Bhendi	0	0	0	0	14.00	0	0	14.00	14.00
10	Chillies	0	0	0	0	96.50	0	0	96.50	96.50
11	Fodder Cholam	0	0	0	0	63.00	0	0	63.00	22.00
12	Fodder Cowpea	0	0	0	0	19.00	0	0	19.00	19.00
	Total	456.33	0.00	0	456.33	725.00	0	0	725.00	268.67
V	3rd crop									
1.	Paddy	168.69	0	0	168.69	0	0	0	0	-168.69
a	Paddy SRI	28.00	0	0	28.00	195.00	0	0	195.00	167.00
2	Black Gram	5.00	0	0	5.00	25.00	0	0	25.00	20.00
	Total	201.69	0	0	201.69	220.00	0	0	220.00	18.31
	Grand Total	1704.01	226.22	268.62	2198.85	2217.21	0.00	268.62	2485.83	286.98
	Cropping Intensity				142.7%				161.3%	

Objectives/Interventions:

- Agricultural intensification by Improved production technology crop demonstrations
- Crop diversification with Millets, Pulses and Minor Millets
- Climate resilient activity in all the intervention crops
- Reduce the inorganic fertilizers and pesticides as it affects the Soil health and Environment
- Information Education, Communication and Capacity Building activities

Field Activities:

I. Improved Production Technology Crop Demonstrations through Agriculture Intensification Productivity Enhancement in Paddy (IPT Demos: 143 Ha)

Paddy is the main staple crop grown in all the sub-basins wherein there is still scope for improving the productivity as the yield gap varies from 1.2 - 1.6 MT / Ha both in first and second seasons (Samba and Navarai). The DoA will analyse the constraints in the sub-basin by conducting IPT Paddy Crop Demonstrations with all improved management practices, like planting of single seedling etc. and inputs like improved variety of crop, IPM, INM etc. are practiced in FFS mode, and also suggesting suitable interventions viz., Introduction of three crops sequence of Green Manure – SRI Paddy – Rice Fallow Pulses.

(i). Growing green manure crops especially for their organic matter and ability to improve the soil can dramatically build up poor and exhausted soils and maintain the fertility of better ones. It Boost Land's Organic Matter (O.M.) level. It keeps nutrients from leaching down beyond reach of crops, provides food for microbial soil life, helps legumes fix nitrogen in their root nodules and helps the soil produce good structure and maintain the air-pore spaces essential to good crop health.

Green manure is less expensive than animal manure and is practically free of antibiotics and growth hormones. Green manure can also help create vital soil in areas with little or no top soil due to water runoff. [It deters weeds](#), even without the use of harmful herbicides. Earthworms and beneficial bacteria grow well with green manure. Poor and exhausted soils get rich in nutrients through green manures. Green manure also helps with soil erosion due to weather like wind and rain.

(ii) System of Rice Intensification ensures saving of seed and water as they require in less, greater root growth due to young seedlings and wider spacing, more tillers ultimately more grains and yield. There is reduction of cost due to labour saving through the usage of power weeder, fertilizer saving through usage of Leaf Colour Chart and lesser pest and disease incidence.

(iii) Rice Fallow Pulses are sown as follow up crop after the harvest of Paddy. These rice fallow areas offer a huge potential niche for short seasonal pulses and oilseed crops. It enhances the soil fertility status for the next crops due to nitrogen fixation.

II. Improved Production Technology Crop Demos.through Crop Diversification:

High water utility crops will be diverted to less water utility crops like viz. Maize, Ragi, Pulses, Minor Millets, Oil seed crops, Fodder crops and Horticulture crops..

1 . Maize:

The area of the maize has been increased from **2 Ha. to 20 Ha.** in the proposed cropping pattern. Hence, there is an increase of 18 Ha. in Maize crop.

2. Ragi

The area of the ragi has been increased from 34 Ha. to 40 Ha. Hence, there is an increase of 6 Ha. in ragi crop.

3. Pulses:

Under the Pulses there is an increase of 70 Ha. from an existing area of 170 Ha. In all the 2 seasons. Hence an additional area of 100 Ha were proposed in the cropping pattern.

4. Minor Millets:

The area of the Minor Millets has been increased from 1 Ha. to 10 Ha. in the proposed cropping pattern. Hence there is an increase of 9 Ha. in Minor Millets crop.

5. Oil seed crops (Groundnut):

The Groundnut area has been increased from 42 Ha. to 75 Ha. in the proposed cropping pattern. Hence, there is an additional area of 33 Ha. Under Groundnut crop.

1. Promotion of Hybrid Maize production (IPT Demos: 2 Ha.):

In the river basins, Maize crop is grown mostly with varieties. Now, it is proposed to shift from variety to hybrids in the Maize crop so as to increase the yield potential by conducting IPT Maize Crop Demos and suggest suitable interventions viz..

- a.** Usage of high quality, high yielding hybrid seeds.
- b.** Crop Diversification of Paddy area during second season especially to Maize to increase water productivity by minimizing water requirement.
- c.** Spraying with Maize Growth promoter (TNAU promoter) - Maize Maxim
- d.** Adopting the latest innovative technologies

2. Stabilizing the area under Ragi and Minor Millets:

(IPT Demos: a. Ragi 4 Ha. and b.Minor Millets 1 Ha.)

Traditionally, small millets are the constituents of dry land farming system. Whole grains offer special benefits in promoting healthy blood sugar, increases insulin sensitivity and lowers triglycerides. Millet consumption reduces the risk of breast cancer, they may help in reducing wheezing in asthmatic patients, helps in weight management, prevents premature deaths. Millets are healthy food irrespective of the age group. Hence, it is proposed to stabilize the depleting area under Minor Millets. The DoA would analyse the constraints in each sub-basin by conducting Improved Production Technology Minor Millets Crop Demonstrations and suggest suitable interventions viz..

- a.** Usage of High quality, high yielding variety seeds.

- b. Diversification of Paddy area during second season especially to Minor Millets to increase water productivity by minimizing water requirement.
- c. Large scale Demonstrations in Minor Millets
- d. Adopting the latest innovative technologies.

3.Promotion of Pulses production (IPT Demos: 23 Ha.):

There is always huge scope for improving the productivity levels of major pulse crops and the poor seed replacement rate, timely availability of quality seeds, zero mineral nutrition, improper pest management practices, poor post-harvest practices etc., are the major constraints for increasing the productivity. The DoA would intervene the farmers with participatory approach and adoption of improved production technologies viz.

- a. Usage of high yielding certified seeds of varieties.
- b. Pre soaking of seed- 1 kg of seed in 1 lit. of water for 4 hrs. for increasing germination %
- c. Promotion of line sowing for maintaining optimum plant population.
- d. Balanced Fertilization(Kg/ha) : N : P :K : S MN Mixture
1. 25:50:25: 10 5
- e. Productivity enhancement by mass scale spraying of 2% DAP on 25th and 40th day after sowing.
- f. Promotion of intercropping in Groundnut, Cotton, Maize and also promoting bund cropping.
- g. Adoption of IWM-including the use of Drought Mitigation Substances and IPM techniques.

4. Revival of Oilseeds cultivation (IPT Demos: 5 Ha.):

Oilseeds are the next target group to be given special focus in the river sub basins of Tamil Nadu. As they are mostly grown in rainfed situation, the yield levels are far below than the national average and still vast potential untapped to improve the productivity of oilseeds. Like pulses, the country being the net importer of oilseeds, and because of increased demand for

edible oil consumption by the households in the State, the demand - supply gap is much wider. So, special attention should be envisaged to narrow down this gap. The following interventions are proposed in Oilseeds viz.

- a. Usage of high yielding certified seeds of varieties.
- b. Promoting Rice fallow Oilseeds wherever possible.
- c. Promoting Castor as Bund/Border crop.
- d. Promotion of line sowing for maintaining optimum plant population.
- e. Promotion of intercropping with pulses.
- f. Application of Gypsum in Groundnut and Manganese Sulphate in Gingelly.
- g. Adoption of IWM-including the use of Drought Mitigation Substances and IPM techniques.

1. Farmers Field School

- Farm Schools would be operationalized at Block level in sub basins
- These FFS would be set up in the field of outstanding or achiever farmers.
- “Trainee farmers” would also have the responsibility of providing extension support to other farmers in the respective villages or neighboring villages.

2. Seed Village Programme for Pulses, Groundnut & Green manure seeds:

- The farmers may be encouraged to produce the seeds required for their villages on their own especially for the crops viz., Pulses, Oilseeds and Green manure seeds by provision of assistance to the farmers.
- Groups are formed for the production of required seeds for the Farmers in the Village itself.

- The Group Members are given Seed Village Concept and Farm management Training (Rs.4,400 / group) and also for the Group upliftment, provided revolving fund (Rs.50,000 / Group) with Bank tie-up.

3. Shield Awards::

Lump sum provision is made in the HQ TN-IAMP cell for awarding Shield Awards to the Best Farmers, who obtain highest yield in the crop yield competition for the crops viz. SRI, Maize, Minor Millets, Pulses, Oilseeds etc., and Best Field Officers with High quality services, who made Exemplary Extension Work within the sub-basins/ among the sub-basins.

4. Agricultural Implements:

Agricultural implements like power-weeder, Hand Operated Sprayer / Power Operated Sprayer are to be distributed to the Farmers for improving efficiency and bringing timeliness in agricultural operations.

5. Institutional Strengthening – IEC & Capacity Building – Change Management Trainings:

The Capacity building and Change management training are given to the Agricultural Labourers, Farmers and Extensional Personnel viz., Assistant Director of Agriculture, Agricultural Officers, Deputy Agricultural Officers, Assistant Seed Officers and Assistant Agricultural Officers which are imparted by the reputed Capacity building and Change management Training organizations.

6.IEC/CB activities [Field support, Sustainability, Documentation Charges etc.):

In the sub-basins, the total Crop based demonstrations to be conducted are 178 Ha, As these crop demonstrations are conducted on FFS mode, the Village meetings, Seminars, Village Melas, other Publicity & Propaganda activities, POL, Printing of Leaflets / Pamphlets, Posters, Banners, Relevant Materials for the functions and fields, Documentation Charges etc., are to be imparted in the proposed Crop based demonstrations to be conducted with the allotted amount of Rs.1.757 Lakh.

Objectives/Interventions:

- Agricultural intensification by Improved production technology crop demonstrations
- Crop diversification with Millets, Pulses and Minor millets
- Climate resilient activity in all the intervention crops
- Reduce the inorganic fertilizers and pesticides as it affects the Soil health and Environment
- Information Education, Communication and Capacity Building activities

GUMMIDIPOONDI SUB-BASIN

Cropping Pattern

Name of the sub Basin : Gummidipoondi
 Nodal District : Tiruvallur
 Registered Ayacut Area : 1672.03 ha
 No. of WUAs : 26

Fully Irrigated : 1076.62 Ha
 Partially Irrigate : 289.73 Ha
 Gap : 305.68Ha
 Total Ayacut Area : 1672.03 Ha

Sl. No.	Crop	With Project (Ha)			
		FI	PI	RF/G	TOTAL
I	Perennial crop				
1	Mango	40.00	0.00	0.00	40.00
	Total	40.00	0.00	0.00	40.00
II	Annual Crop				
1	Sugarcane	0.00	0.00	0.00	0.00
2	Moringa	120.00	0.00	0.00	120.00
3	Tapoca	50.00	0.00	0.00	50.00
	Total	170.00	0.00	0.00	170.00
III	1st crop				
1. a	Paddy	22.00	0.00	0.00	22.00
b	Paddy SRI	805.00	0.00	0.00	805.00
2	Green Gram	20.00	0.00	0.00	20.00
3	Groundnut	450.03	0.00	0.00	450.03
4	Brinjal	15.00	0.00	0.00	15.00
5	Bhendi	50.00	0.00	0.00	50.00
6	Chillies	30.00	0.00	0.00	30.00
7	Bittergourds	15.00	0.00	0.00	15.00
8	Sanke gourds	15.00	0.00	0.00	15.00
9	Banana sucker	1.00	0.00	0.00	1.00
10	Greens	15.00	0.00	0.00	15.00
11	Flowers	21.00	0.00	0.00	21.00
12	Non Agrl. Purposes	0.00	0.00	0.00	0.00
13	Fallow	0.00	0.00	0.00	0.00
14	Fodder Sorghum	1.50	0.00	0.00	1.50
15	Fodder Cowpea	1.50	0.00	0.00	1.50
	Total	1462.03	0.00	0.00	1462.03
	G. Total (I+II+III)	1672.03	0.00	0.00	1672.03
IV	2nd crop				
1. a	Paddy	90.00	0.00	0.00	90.00
b	Paddy SRI	450.00	0.00	0.00	450.00
5	Brinjal	10.00	0.00	0.00	10.00
6	Bhendi	55.00	0.00	0.00	55.00
7	Chillies	5.00	0.00	0.00	5.00
	Total	610.00	0.00	0.00	610.00
	Grand Total	2282.03	0.00	0.00	2282.03
	Cropping Intensity				136%

IMPROVED PRODUCTION TECHNOLOGY CROP DEMONSTRATIONS THROUGH AGRICULTURE INTENSIFICATION: PRODUCTIVITY ENHANCEMENT IN PADDY (IPT DEMOS: SRI-180 HA)

Paddy is the main staple crop grown in the Nandhiyaru sub- basins where in there is still scope for improving the productivity as the yield gap varies from 1.2 - 1.6 MT / Ha both in first and second seasons (Samba and Navarai). The DoA will analyze the constraints in the sub-basin by conducting IPT Paddy Crop Demonstrations with all improved management practices, like planting of single seedling etc. and inputs like improved variety of crop, IPM, INM etc. are practiced in FFS model, and also suggesting suitable interventions viz., Introduction of three crop sequence of Green Manure – SRI Paddy – Rice Fallow Pulses.

(i). Growing green manure crops especially for their organic matter and ability to improve the soil can dramatically build up poor and exhausted soils and maintain the fertility of better ones. It boosts lands' organic matter (O.M.) level. It keeps nutrients from leaching down beyond reach of crops, provides food for microbial soil life, helps legumes fix nitrogen in their root nodules and helps the soil produce good structure and maintain the air-pore spaces essential to good crop health. Green manure is less expensive than animal manure and is practically free of antibiotics and growth hormones. Green manure can also help create vital soil in areas with little or no top soil due to water runoff. [It deters weeds](#), even without the use of harmful herbicides. Earthworms and beneficial bacteria grow well with green manure. Poor and exhausted soils get rich in nutrients through green manures. Green manure also helps with soil erosion due to weather like wind and rain.

ii) SYSTEM OF RICE INTENSIFICATION ensures saving of seed and water as they require in less, greater root growth due to young seedlings and wider spacing, more tillers ultimately more grains and yield. There is reduction of cost due to labour saving through the usage of power weeder, fertilizer saving through usage of Leaf Colour Chart and lesser pest and disease incidence.

(iii) RICE FALLOW PULSES are sown as relay crop after the harvest of Paddy. These rice fallow areas offer a huge potential niche for short season pulses and oilseed crops. It enhances the soil fertility status for the next crops due to nitrogen fixation.

II. AGRICULTURAL IMPLEMENTS:

CONO WEEDING OPERATION IN SRI PADDY CULTIVATION:

- Conoweeder is used two times at the stage of 15th and 25th days of planting SRI
- The weeds are incorporated into the field by this way it is utilized as nutrients in the same field itself.
- Old roots are removed and new roots have been proliferated by using the Conoweeder. Since number of tillers will be increased. It leads to increase in yield (300-400 kg/acre). Hence farmers got more income compared to conventional cultivation
- It reduces labor shortage.
- In this project Cono weeding operation will be done by using the self help groups , Amma farm women groups and Farmers Interest group and farmers themselves. By this way women will be benefited.
- The Cono weeding may be done either by manual or mechanical according to the soil status and growth of the crop.
- Back ended subsidy will be given to the beneficiaries by ensuring the operation with proper Geo tagging of the intervention.

III. OTHER CROP BASED COMPONENTS:

1. FARMERS FIELD SCHOOL

- Farm Schools would be operationalized at Block level in sub basins
- These FFS would be set up in the field of outstanding or achiever farmers.
- “Trainee farmers” would also have the responsibility of providing extension support to other farmers in the respective village or neighboring villages.

2. SEED VILLAGE PROGRAMME FOR GROUNDNUT:

- The farmers may be encouraged to produce the seeds required for their villages on their own especially for the crops Oilseeds by provision of assistance to the farmers.
- Groups are formed for the production of required seeds for the Farmers in the Village itself.
- The Group Members are given Seed Village Concept and Farm management Training (Rs.4400 / group) and also for the Group upliftment, provided revolving fund (Rs.50000 / Group) with Bank tie-up.

3. INSTITUTIONAL STRENGTHENING - IEC & CAPACITY BUILDING ACTIVITIES

The Capacity building and Change management training are given to the Agricultural Laborers, Farmers and Extensional Personnel viz., Assistant Director of Agriculture, Agricultural Officers, Deputy Agricultural Officers, Assistant Seed Officers and Assistant Agricultural Officers which are impacted by the reputed Capacity building and Change management Training organizations.

IEC/CB ACTIVITIES [FIELD SUPPORT, SUSTAINABILITY, DOCUMENTATION CHARGES ETC.,]:

In the sub-basins, the total Crop based demonstrations to be conducted are 230 Ha, As these crop demonstrations are conducted on FFS mode, the Village meetings, Seminars, Village Melas, other Publicity & Propaganda activities, POL, Printing of Leaflets / Pamphlets, Posters, Banners, Relevant Materials for the functions and fields, Documentation Charges etc., are to be imparted in the proposed Crop based demonstrations to be conducted with the allotted amount.

MICRO IRRIGATION

Micro Irrigation under PMKSY Scheme

Introduction:

The significance and necessity of Micro Irrigation system was well recognized among the farming community during the last five years in Thiruvallur District of Tamil Nadu. Effective utilization of every drop of water through adoption of appropriate technology is imperative for improving crop productivity to augment Agriculture Production and to achieve sustainable improvements in the living standards of all categories of farmers. Increasing water scarcity and limited availability of labor fetches the realization of significance in using Micro Irrigation system among farmers for efficient utilization of every drop of water in crop production. Technological innovations are to be exploited to achieve the twin objectives of Higher crop Productivity with Quality Produce and optimal use of water and fertilizer in Agriculture to boost the economic status of the farmers. Micro Irrigation, an advanced method of Water Management, with its proven advantages can play a vital role in achieving the above goal. This requires an integrated approach through generation of awareness at the grass root level, by customizing quality Micro Irrigation systems to suit variable land holdings and crop/cropping systems and by supporting the farmers with efficient after sales agronomic and technical support.

Objectives:

- Efficient and Sustainable use of Water
- Higher fertilizer use efficiency
- Saving Expenses towards labor
- Increased crop productivity and quality produce

To empower the farmers with improved technological packages including precision farming, fustigation and crop management practices.

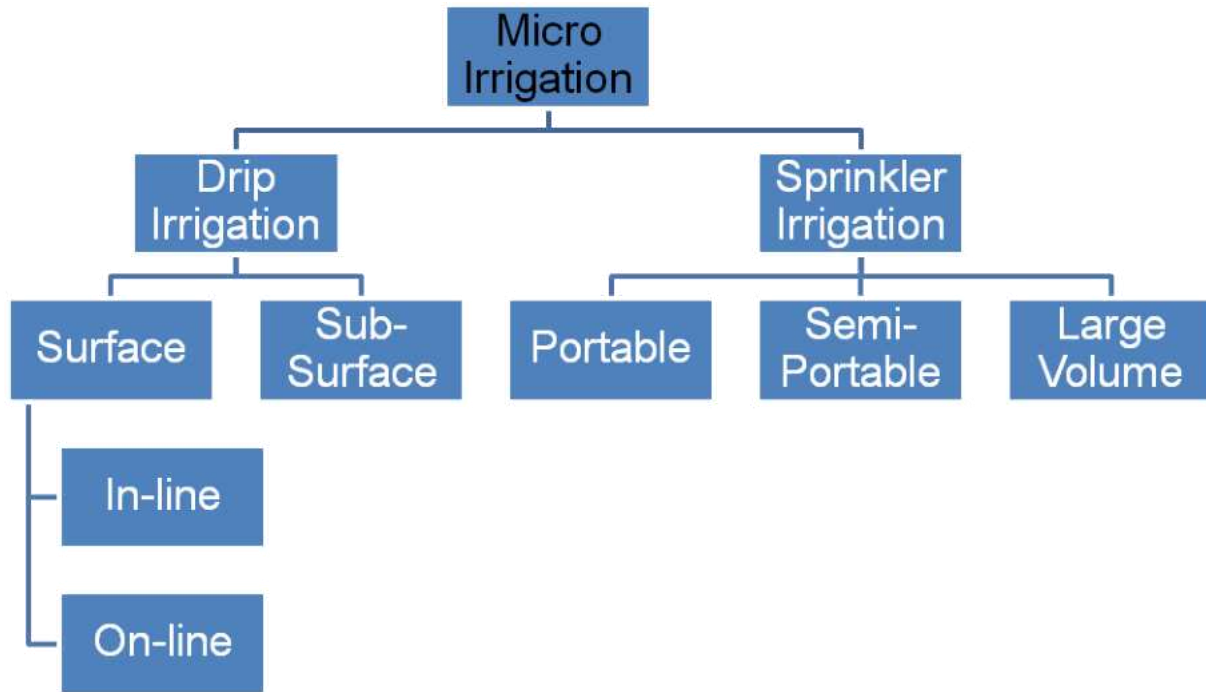
Advantages of Drip Irrigation:

- Low Application Rate
- Uniformity of Water Application
- Efficient Fertilizer and Chemical Application
- Better Control of Root Zone Environment
- Crop Yield Enhancement
- Quality Improvement of Produce
- Improved Disease Control
- Discourages Weed Growth
- Effective Saving of Irrigation Water
- Lesser use of Power
- Reduced Labour Costs
- Suitable for Difficult Land Terrain
- Ideal for Marginal Lands
- Maintains Soil Health

Types of Micro Irrigation System:

- Drip Irrigation System
- Sprinkler Irrigation System

Classification of Micro Irrigation Technology:



Drip Irrigation :

Precise and regulated application of irrigation water and plant nutrients at low pressure over a period of time at frequent intervals through drippers / emitters with close network of pipes are known as drip irrigation system. Drip Irrigation involves technology for irrigation plants at the Root Zones through emitters fitted on a network of pipes (main, sub-main and laterals). The emitting device could be drippers, Micro Sprinkler, Mini Sprinkler, Micro jests, Misters, Fan jest, Micro sprayers, Foggers etc., which are designed to discharge water at prescribed rates. The use of different emitters will depend upon specific requirements, which may vary from crop to crop.

Water Conservation:

The most recognized benefit of drip irrigation is that it saves water. With the drip of an emitter, precise amounts of water are delivered directly to the plant's root zone. Drip irrigation gives contractors much more control over where the water is distributed and where it is not distributed, allowing you to use only the exact amount of water needed for each plant.

Because water is delivered slowly and directly to the root zone, water or soil runoff is significantly reduced. This is especially critical when irrigating on uneven ground or slopes, where the potential for runoff is greater.

Steps taken by District Administration to implement the programme in a mission mode:

To create awareness among the farmers block officials are meeting with the farmers in groups in each Revenue village and conduct Campaigns and Meetings. District level Training programme has also been conducted to create awareness regarding Micro Irrigation in which the farmers from 14 Blocks have been participated. Also special efforts are taken to cover more number of SC/ST farmers under this programme. Periodical press releases are also published in the dailies by the District Administration to cover more number of farmers under this programme.

By the efforts taken under the Chairmanship of District Collector in the period from 2017 to till date **9450.75 hectare** area is covered under Agriculture Crops with an out lay of Rs. **3410.2 lakhs** released to the beneficiaries under Micro Irrigation Scheme (PMKSY).

The benefitted farmers by this scheme are utilizing the water economically by this new technology. Farmers are very thankful to Central and State Government for providing 100% subsidy to small and marginal farmers and 75% subsidy to the other farmers.

Other interventions of PMKSY – "Per Drop More crop" is implemented as a supplementary component of creation of Micro-water storage activities and efficient water usage in rainfed areas which is proposed to be subsumed as Supplementary Water Management Activities (SWMA). Thus, to ensure focused and outcome based interventions, it has been decided to propagate Micro Irrigation technology among the farming community by filling in the gaps for creation of water source for micro Irrigation at farm or near farm gate level through the following activities during the year 2021-22.

- Sinking of Shallow tube wells /Shallow/medium Bore Wells in Safe Firkas.
- Installation of Diesel Pump sets / Electric motor.
- Laying of conveyance pipes.
- Construction of Ground level storage structures.

By the efforts taken under the Chairmanship of District Collector in the period from 2019 to till date Rs. **29.01 lakhs** released to the beneficiaries under Supplementary Water Management Activities (SWMA) under various components.

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Unseasonal Rainfall Damage- in Minjur Block



தினகரன்
19 MAR 2023

பக்கம் - 12 TVL

மழையால் சேதமடைந்த நெற்பயிர்கள்



▶ திருத்தணிபை அடுத்த பூண்டிங்காடு பகுதியில் நேற்று பெய்த கனமழையால், 50க்கும் மேற்பட்ட ஏக்கர் நிலங்களில் அழுவடைந்து தயாராக இருந்த நெற்பயிர்கள் சேதமடைந்துள்ளன. இதனால் தமிழ்நாடு அரசு நிவாரணம் வழங்க வேண்டும் என்று விவசாயிகள் கோரிக்கை விடுத்துள்ளனர்.



Samsung Triple Camera

Shot with my Galaxy F41

HORTICULTURE DEPARTMENT

DEPARTMENT OF HORTICULTURE AND PLANTATION CROPS

Micro Irrigation

Micro Irrigation under PMKSY Scheme & TNIAMP Scheme

Introduction:

The significance and necessity of Micro Irrigation system was well recognized among the farming community in Thiruvallur District of Tamil Nadu. Effective utilization of every drop of water through adoption of appropriate technology is imperative for improving crop productivity to augment Agriculture Production and to achieve sustainable improvements in the living standards of all categories of farmers. Increasing water scarcity and limited availability of labour fetches the realization of significance in using Micro Irrigation system among farmers for efficient utilization of every drop of water in crop production.

Technological innovations are to be exploited to achieve the twin objectives of Higher crop Productivity with Quality Produce and optimal use of water and fertilizer to boost the economic status of the farmers. Micro Irrigation, an advanced method of Water Management, with its proven advantages can play a vital role in achieving the above goal. This requires an integrated approach through generation of awareness at the grass root level, by customizing quality Micro Irrigation systems to suit variable land holdings and crop/cropping systems and by supporting the farmers with efficient after sales agronomic and technical support.

Objectives:

- Efficient and Sustainable use of Water
- Higher fertilizer use efficiency
- Saving Expenses towards labour
- Increased crop productivity and quality produce
- To empower the farmers with improved technological packages including precision farming, fertigation and crop management practices.

Types of Micro Irrigation System:

- Drip Irrigation System
- Sprinkler Irrigation System

Drip Irrigation :

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Periodical press releases are also published in the dailies by the District Administration to cover more number of farmers under this programme.

By the efforts taken under the Chairmanship of District Collector in the period till date 5408 ha area is covered under Horticulture Crops with an out lay of Rupees 2495 lakhs Subsidy released to the beneficiaries under Micro Irrigation Scheme (PMKSY). The benefitted farmers by this scheme are utilizing the water economically by this new technology. Farmers are very thankful to central and state government for providing 100% subsidy to small and marginal farmers and 75% subsidy to the other farmers.

Sl. No.	Salient/ Basic details	Particulars	
1	Name of the Farmer	Nagoor naidu	
2	ID No.	H-TVLR-poondi-2174815416-2023-24	
3	Village	Thimmaboopalapuram	
4	Mandal/Taluka	Uthukottai	
5	District	Thiruvallur	
6	Category	General(OBC)	
7	Crop Name	Mango intercrop with vegetables	
8	Area in Ha.	1.03Ha	
9	Type of Micro Irrigation System	Drip irrigation	
10	Subsidy Amount Received	139070.52	
11	Year	2023-24	
12	Contact No.	8098017307	
	Impact	With Conventional Irrigation	With Micro Irrigation
1	Yield (per ha.)	1tonnes	4tonnes
2	Total Expenditure (per ha.)	Rs.70000	Rs.30000
3	Sale price (per Quintal)	Rs.15000	Rs.17000
4	Total value of the crop (per ha.)	Rs.100000	Rs.200000
5	Net Income (per ha)	Rs.80000	Rs.140000
6	Additional income with Micro Irrigation (per ha)	Rs.60000	

Name of Farmer: Nagoor Naidu
MI ID : H-TVLR-poondi-2174815416-2023-24
Block: Poondi
Village : Thimmaboobalapuram



Sl. No.	Salient/ Basic details	Particulars	
1	Name of the Farmer	Logan	
2	ID No.	H-TVLR-mnjr-2957373431-2023-24	
3	Village	Annamalaicheri	
4	Mandal/Taluka	Ponneri	
5	District	Thiruvallur	
6	Category	General (OBC)	
7	Crop Name	Watermelon	
8	Area in Ha.	0.45 Ha	
9	Type of Micro Irrigation System	Drip irrigation	
10	Subsidy Amount Received	49593.60	
11	Year	2023-24	
12	Contact No.	9080034037	
	Impact	With Conventional Irrigation	With Micro Irrigation
1	Yield (per ha.)	4 tonnes	5.5 tonnes
2	Total Expenditure (per ha.)	Rs.70000	Rs.30000
3	Sale price (per Quintal)	Rs.15000	Rs.17000
4	Total value of the crop (per ha.)	Rs.300000	Rs.340000
5	Net Income (per ha)	Rs.150000	Rs.220000
6	Additional income with Micro Irrigation (per ha)	Rs.80000	

Name of Farmer: Logan
MI ID : H-TVLR-mnjr-2957373431-2023-24
Block: Minjur
Village : Annamalaicherry



Sl. No.	Salient/ Basic details	Particulars	
1	Name of the Farmer	Sajid Ahmed Sathak	
2	ID No.	H-TVLR-abr-829071561-2023-24	
3	Village	Pammadukulam	
4	Mandal/Taluka	Ambattur	
5	District	Thiruvallur	
6	Category	General	
7	Crop Name	Bhendi	
8	Area in Ha.	0.8	
9	Type of Micro Irrigation System	Drip irrigation	
10	Subsidy Amount Received	Rs. 105529.76	
11	Year	2023-24	
12	Contact No.	9500073035	
	Impact	With Conventional Irrigation	With Micro Irrigation
1	Yield (per ha.)	35 Tonnes	42 Tonnes
2	Total Expenditure (per ha.)	Rs. 120000	Rs. 105000
3	Sale price (per Quintal)	Rs.3500	Rs.3700
4	Total value of the crop (per ha.)	Rs. 203000	Rs. 213000
5	Net Income (per ha)	Rs. 83000	Rs. 108000
6	Additional income with Micro Irrigation (per ha)	Rs. 25000	

Name of Farmer: Sajid Ahmed Sathak
MI ID : H-TVLR-abr-829071561-2023-24
Block: Ambattur
Village : Pammadhukulam



Sl. No.	Salient/ Basic details	Particulars	
1	Name of the Farmer	Murugesan	
2	ID No.	H-TVLR-tvgadu-2180829841-2023-24	
3	Village	kanchipadi	
4	Mandal/Taluka	Tiruvalangadu	
5	District	Thiruvallur	
6	Category	General (OBC)	
7	Crop Name	bhendi	
8	Area in Ha.	1.200	
9	Type of Micro Irrigation System	Drip	
10	Subsidy Amount Received	142127.74	
11	Year	2023-24	
12	Contact No.	8778722981	
	Impact	With Conventional Irrigation	With Micro Irrigation
1	Yield (per ha.)	40 tonnes	50 tonnes
2	Total Expenditure (per ha.)	Rs.268000	Rs.234500
3	Sale price (per Quintal)	Rs.600	Rs.1200
4	Total value of the crop (per ha.)	Rs.240000	Rs.600000
5	Net Income (per ha)	Rs.28000	Rs.365500
6	Additional income with Micro Irrigation (per ha)	Rs.337500	

Name of Farmer: Murugesan
MI ID : H-TVLR-tvgadu-2180829841-2023-24
Block: Tiruvalangadu
Village : Kanchipadi



Horticulture-Crop damages due to Michaung Cyclone
Crop wise abstract

S. No	Crop	Area (Ha)			No.of farmers			Amount estimated as per G.O.579 (Rs.in lakhs) Rs.17000 per ha-Irrigated		
		SF/MF	Others	Total	SF/MF	Others	Total	SF/MF	Others	Total
1	Banana	216.02	0	216.02	454	0	454	36.79785	0	36.79785
2	Papaya	2.52	0	2.52	5	0	5	0.4284	0	0.4284
3	Watermelon	2.8	0	2.8	5	0	5	0.476	0	0.476
4	Bhendi	63.44	0	63.44	239	0	239	10.8595	0	10.8595
5	Brinjal	123.41	0	123.41	430	0	430	21.14	0	21.14
6	Colocasia	1.45	0	1.45	10	0	10	0.2675	0	0.2675
7	Greens	29.46	0	29.46	98	0	98	5.0488	0	5.0488
8	Snake gourd	14.82	0	14.82	35	0	35	2.5194	0	2.5194
9	Ridge gourd	15.02	0	15.02	32	0	32	2.5534	0	2.5534
10	Bottle gourd	1.79	0	1.79	7	0	7	0.3073	0	0.3073
11	Bitter gourd	14.81	0	14.81	41	0	41	2.5356	0	2.5356
12	Ash gourd	0.11	0	0.11	1	0	1	0.02	0	0.02
13	Coccinea	1.4	0	1.4	1	0	1	0.238	0	0.238
14	Pumpkin	0.3	0	0.3	1	0	1	0.051	0	0.051
15	Moringa	23.4	0	23.4	104	0	104	4.0011	0	4.0011
16	Agathi	3.17	0	3.17	18	0	18	0.5389	0	0.5389
17	Cowpea	15.12	0	15.12	45	0	45	2.5866	0	2.5866
18	Clusterbeans	27.45	0	27.45	97	0	97	4.6947	0	4.6947
19	Lablab	8.42	0	8.42	34	0	34	1.4344	0	1.4344
20	Tapioca	21.45	0	21.45	35	0	35	3.6525	0	3.6525
21	Radish	0.27	0	0.27	2	0	2	0.0459	0	0.0459
22	Sweet potato	10.01	0	10.01	21	0	21	1.7145	0	1.7145
23	Chillies	121.96	0	121.96	444	0	444	21.17885	0	21.17885
24	Turmeric	6.37	0	6.37	28	0	28	1.1	0	1.1

25	Chrysanthemum	3.38	0	3.38	14	0	14	0.5806	0	0.5806
26	Crossandra	4.99	0	4.99	19	0	19	0.882	0	0.882
27	Tuberose	10.04	0	10.04	55	0	55	1.7128	0	1.7128
28	Marigold	0.64	0	0.64	3	0	3	0.1088	0	0.1088
29	Tulasi	19.16	0	19.16	59	0	59	3.2662	0	3.2662
	Total	763.18	0	763.18	2337	0	2337	130.7406	0	130.7406

S. No	Crop	Area (Ha)			No. of farmers			Amount estimated as per G.O.579 (Rs.in lakhs) Rs.22500 per ha-Perennial		
		SF/MF	Others	Total	SF/MF	Others	Total	SF/MF	Others	Total
1	Mango	208.54	9.55	218.09	300	6	306	46.99375	2.14875	49.1425
2	Guava	10.44	0	10.44	13	0	13	2.349	0	2.349
3	Jasmine	100.67	0	100.67	460	0	460	23.4445	0	23.4445
4	Mullai	0.57	0	0.57	5	0	5	0.1445	0	0.1445
5	Rose	8.99	0	8.99	26	0	26	2.02275	0	2.02275
6	Kakkada	0.2	0	0.2	1	0	1	0.045	0	0.045
7	Coconut	0.6	0	0.6	1	0	1	0.135	0	0.135
	Total	330.01	9.55	339.56	806	6	812	75.1345	2.14875	77.28325

S. No	Irrigation type	Area (Ha)			No. of farmers			Amount estimated as per G.O.579 (Rs.in lakhs) Rs.17000 per ha-Irrigated Rs.22500 per ha-Perennial		
		SF/MF	Others	Total	SF/MF	Others	Total	SF/MF	Others	Total
1	Irrigated	763.18	0	763.18	2337	0	2337	130.7406	0	130.7406
2	Perennial	330.01	9.55	339.56	806	6	812	75.1345	2.14875	77.28325
	Total	1093.19	9.55	1102.74	3143	6	3149	205.8751	2.14875	208.02385

Michaung Cyclone Block wise crop damage

S.No	Name of the block	Total SDRF Assistance required as per G.O.Ms.No.579		
		Area (in Ha)	No.of farmers	Amount (Rs.in lakhs)
1	Pallipet	52.89	174	9.0486
2	R.K.Pet	16.75	95	3.0344
3	Tirutanni	2.05	17	0.44525
4	Thiruvalangadu	22.45	116	3.8625
5	Poondi	78.28	262	13.81395
6	Kadambathur	50.6	157	9.3555
7	Ekkadu	60.25	242	10.5776
8	Ellapuram	141.42	457	27.33825
9	Gummidipoondi	435.31	892	87.8266
10	Minjur	20.47	41	3.64325
11	Sholavaram	132.31	390	23.4713
12	Puzhal	43.61	70	7.43675
13	Ambathur	31.2	174	5.5812
14	Poonamallae	15.15	62	2.5887
	Total	1102.74	3149	208.02385

Michaung Cyclone Crop damage photos Kadambattur block





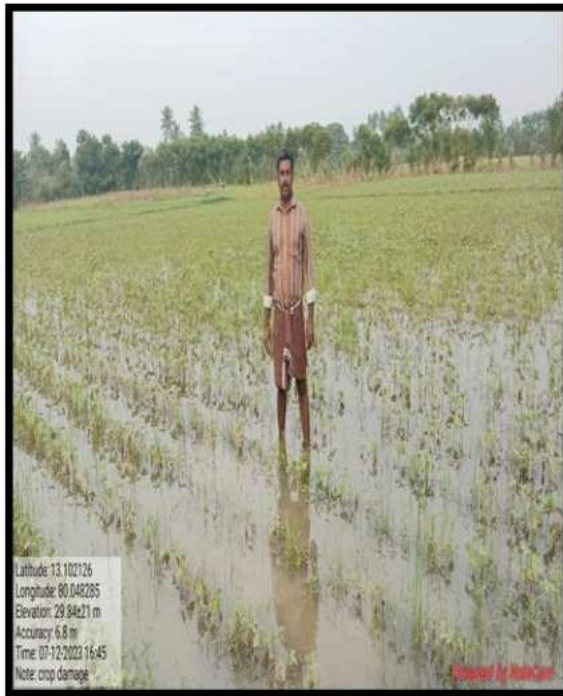
Ekkadu block



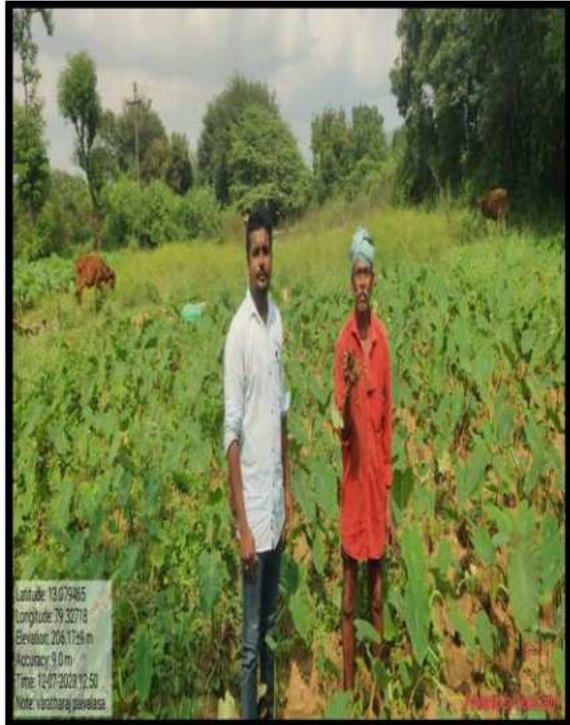
Thiruvallangadu block



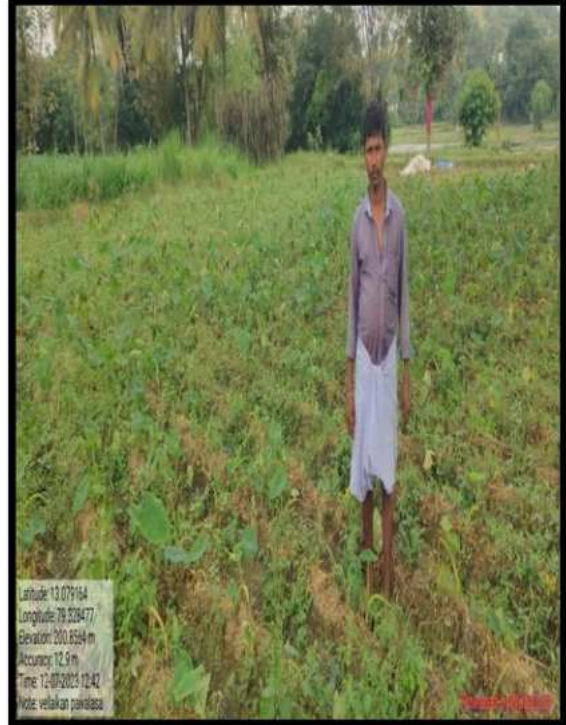
Poonamallee block



R K Pet block



Pallipet block



Ellapuram block



Tiruttani block



Sholavaram block



Ambattur block



Poondi block



Gummudipoondi block

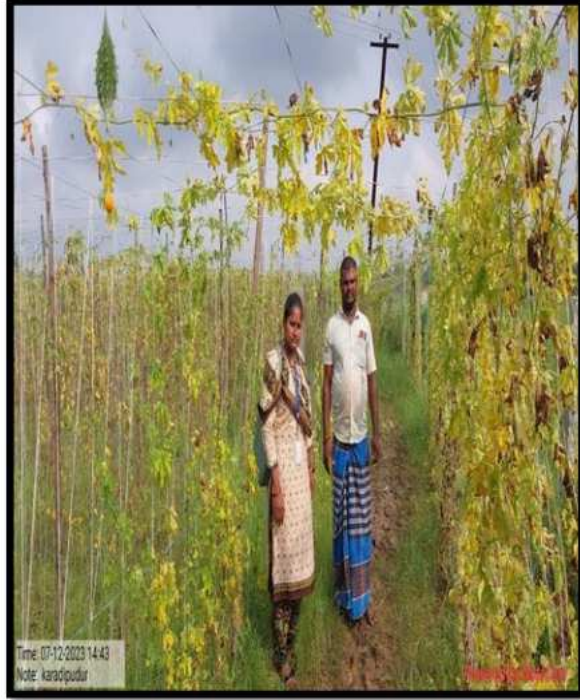




Latitude: 13.529143
Longitude: 79.999364
Altitude: -14.6238 m
Accuracy: 7.9 m
Time: 08-12-2023 14:11
Note: eymaduru

Powered by NoteCam

Minjur block



Time: 07-12-2023 14:43
Note: karadipudu

Powered by NoteCam

Puzhal block



Latitude: 13.291015
Longitude: 80.202403
Elevation: 187.311100 m
Accuracy: 11.8 m
Time: 12-07-2023 14:45
Note: crop Damage Anupampattu 29/09/2023

Powered by NoteCam



FLOOD AND DROUGHT MITIGATION EFFORTS .

KOSASTHALAIYAR BASIN DIVISION

Tamil Nadu Irrigated Agriculture Modernization Project (TNIAMP)

Description of Nagariyar Sub Basin

The Nagariyar Sub Basin and Nandhiyar Sub Basin are two Sub Basins of Chennai Basin and also Lava river and Kusa river are the two tributaries to Nagari river. Lava River originates from Krishnapuram reservoir in Chittoor District of Andhra Pradesh and Kusa river originates from the catchment of Putlur hills in Chittoor District of Andhra Pradesh. Lava and Kusa river are joining at Pallipet and it becomes Nagari River. The Nagari River flows into Perumanallur, Sorakkaipet, Nediym, Punniyam villages of Pallipet Taluk of Thirucallur District then enters into Andhra Pradesh and again the Nagari River enters into Tamil Nadu at Poonimangadu flowing through Nallattur, N.N.Kandigai, Arungulam, Lakshmapuram and Confluence with Nandhi River at ilupur Village of Thiruvallur District then feeds to Poondi Reservoir which is a Major Chennai city Augmenting water supply Reservoir. The Nagari River lies in latitude 13°19'00" N and longitude of 70°29'30"E covers an area of 236.79 Sq.Km. The Nagariyar Sub Basin covers Pallipet & Thiruvalangadu Blocks of Pallipet and Tiruttani Taluks in Thiruvallur District.

Anicuts

There are Two Anicuts are constructed across Nagari River in Andhra Pradesh.

- i. Buggai Anicut in Bugga Agraharam village in Andhra Pradesh
- ii. Poonimangadu Anicut near Poonimangadu village in Andhra Pradesh

Irrigation potential of the sub basin

Category	Pallipat	Tiruttani	Total
Fully irrigated area(ha)	753.95	292.04	1045.99
Partially irrigated area(ha)	187.75	38.47	226.22
Gap (ha)	191.68	76.94	268.62
Total ayacut area (ha)	1133.38	407.45	1540.83

Details of Cluster Village in Nagariyar Sub Basin**a. Cluster I – Pallipat Taluk of Tiruvallur District**

SI. No	NAME OF TANK	NAME OF VILLAGE	NAME OF BLOCK	AYACUT (ha)
1	Podhaturpet Tank	Podatturpet	Pallipat	228.37
2	Sanakuppam Tank	Sanakuppam	Pallipat	40.49
3	Pallipet Tank	Pallipat	Pallipat	276.92
4	Karimbedu Tank	Karimbedu	Pallipat	126.70
5	Athimanjeripet Tank	Athimanjeripet	Pallipat	97.54
6	Perumanallur Tank	Perumanallur	Pallipat	92.31
7	Nedungal Tank	Nedungal	Pallipat	44.33
8	Pandaravedu Tank	Pandaravedu	Pallipat	85.83
9	Madhikettan Odai Tank	Thirumalrajpet	Pallipat	140.89
Total				1133.38

b. Cluster II - Tiruttani Taluk of Tiruvallur District.

SI. No	Name of Tank	Name Of Village	Name Of Block	Ayacut (Ha)
1	Santhana gopalapuram Tank	SNG Puram	Tiruvalankadu	41.36
2	Nemili Tank	Nemili	Tiruvalankadu	160.98
3	Nallattur Tank	Nallattur	Tiruvalankadu	64.87
4	Chivada Tank	Chivada	Tiruvalankadu	140.24
Total				407.45

The officials of all the line departments' viz., Water Resources Department, Agriculture, Horticulture, Animal husbandry, Fisheries, Agriculture Engineering, Agricultural Marketing and TNAU participated in the walk through survey as per the programme detailed above. The following observations were made during the survey in consultation with the farmers and other stakeholders.

- * Strengthening of the tank bunds
- * Desilting of the tank and supply channel
- * Repair works in the sluice and weir
- * Lining of field channel
- * Fixing of boundary stone
- * The soil type is red loam, black loam, sandy loam, clayey and swampy with respect to Thiruvallur District
- * Major agricultural crops cultivated are Paddy and Sugarcane and horticultural crops like Mangoes are grown in this subbasin
- * Wild boar damage is menace in paddy and sugarcane crops
- * Vegetable cultivation is a constraint due to water logging conditions
- * More emphasis on livestock management

Description of Nandhiyar Sub Basin

The Nandhiyar Sub basin is one of the Subbasin in Chennai Basin, which is located in the western part of Chennai Basin. The sub basin is located between latitudes 13°03'28" N to 13°15'59" N and longitude 79°17'30"E to 79°43'25"E covering an area of 710 Km². The "Nandhiyar Subbasin" covered in the part of 2 districts, Thiruvallur and Vellore District of TamilNadu. The Basin Partly covered 4 taluks viz Pallipattu, Walajapet, Thirutani and Arakkonam. This sub Basin Consists of 2 Rivers, Nandhi River and Nagari River. The Nandhi river and Nagari river are 2 tributaries to Kosasthalaiyar river. The River flows into S.Agraharam, Paravathur, Cherukkanur, Koramangalam, Agoor, Thekkalur, Thirutani, Valarpuram, Krishnapuram and confluence into Kosasthalaiyar river at illupur village of Thiruvallur District. The Nandhi river runs upto 32.40 km from Ayyaneri to illupur village. Nandhi river

Originates from surplus of Ayyaneri tank in Pallipet taluk of Thiruvallur district.

The ayyaneri tank receives water supply from surplus of sholingur tank at L.S 25.80 km in poiney Anicut system in Vellore district. The Nandhiyar sub basin has ayacut area about 8379.49 ha.

Details of Tanks in Nandhiyar Sub Basin

a. Tanks

i) System Tanks

In Nandhiyar Sub Basin, 28 system tanks lies in which 26 tanks already executed under IAMWARM, TNIAMP RAF and Kudimaramathu scheme 2016-17 and 2017-2018 and remaining 2 tanks to be taken up for Rehabilitation and Modernisation under TNIAMP phase-II.

ii) Non System Tanks

In Nandhiyar Sub Basin, 64 Non-system tanks lies in which 46 tanks already executed under IAMWARM, TNIAMP RAF and Kudimaramathu scheme 2016-2017 and 2017-2018, Restoration of Traditional water bodies scheme and remaining 18 tanks to be taken up for Rehabilitation and Modernisation under TNIAMP phase-II.

b. Anicut/Kondams

In Nandhiyar Sub Basin there are 29 kondams lies in which 15 Kondams were already executed in various scheme and remaining 14 kondams to be taken up TNIAMP- Phase-II. The 14 kondams to be executed under this scheme are as follows.

c. Supply Channel in Nandhiyar Sub Basin

In Nandhiyar Sub Basin, there 2 system tanks supply channel and 18 Non- System tank supply channels are to be executed. In Nandhiyar Sub Basin, existing tanks supply channels of length 197.07 km and Nandhiyar Sub Basin existing kondam supply channels of length 49.72 km.

List of Works under the Head of account 4711 KO
Premonsoon Works for the year 2024-2025
VERY HIGHLY VULNERABLE AREA

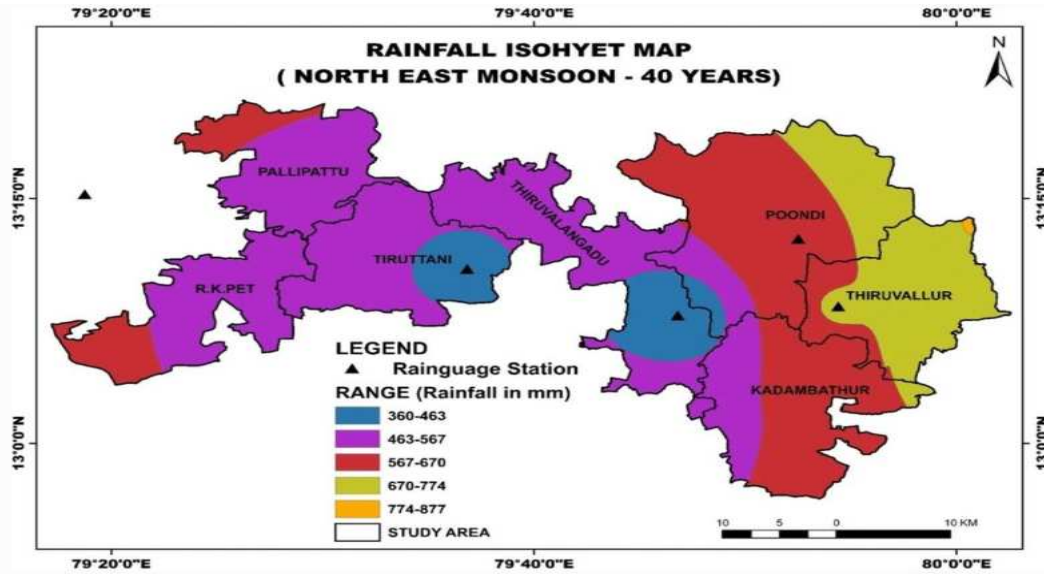
Sl. No.	Name of Work	Estimate Amount (Rs.in Lakhs)	Stage of Work
1)	Removal of Weeds, vegetation's, Hygienic Juliflora Jungle in Water Spread Area of Redhills Tank in Infalling Point of feeder Channel in Avadi Taluk of in Thiruvallur District.	20.00	Work to be started
2)	Removal of Weeds, vegetation's, Hygienic Juliflora Jungle in Water Spread Area of Redhills Tank in Venkateshwara nagar of Thirumullaivoyal village in Avadi Taluk of in Thiruvallur District.	20.00	Work to be started
3)	Removal of hyacinth, floating materials, debris and other obstructions from Upstream side of Vellapanchavadi bridge to downstream side of Paruthipattu road bridge in Coom River in Thiruvallur District	25.00	Work to be started
4)	Removal of Weeds, vegetation's, Hygienic Juliflora Jungle in Thandurai tank & Kovilpadhagai tank surplus course in Avadi Taluk of Thiruvallur District.	20.00	Work to be started
5)	Removal of Weeds, vegetation's, Hygienic Juliflora Jungle in infalling point of lower supply channel in ponneri taluk of Thiruvallur District.	20.00	Work to be started
6)	Removal of Debris, Weeds, Vegetation, Floating materials and other obstructions for free flow of water in infalling point of New Bangaru supply channel in the chembarambakkam tank in poonamalle taluk of thiruvallur district.	15.00	Work to be started
7)	Removal, weeds and vegetation debris floating materials and desilting of Thaneerkulam Tank surplus channel and Perumbakkam surplus channel in Thiruvallur Taluk of Thiruvallur District	10.00	Work to be started
8)	Removal, weeds and vegetation debris floating materials and desilting of Thirunindravour Tank sluice, channel LS 0m to 5000m in Avadi Taluk of Thiruvallur District.	10.00	Work to be started
9)	Flood stock marterials in Irrigation Section.I and II, Poondi Section in Thiruvallur Taluk and Thiruvalangadu Section in Thiruthani Taluk of Thiruvallur District.	8.00	Work to be started
10)	Flood stock marterials in Kannankottai Thervoykandigai sub division at thiruvallur (Kannankottai Thervoykandigai Reservoir Site) Thiruvallur Taluk of Thiruvallur District.	2.00	Work to be started
11)	Removal, weeds and vegetation debris floating materials and desilting of Thirunindravour surplus channel from 0m to 2000m in Avadi Taluk of Thiruvallur District.	10.00	Work to be started

Sl. No.	Name of Work	Estimate Amount (Rs.in Lakhs)	Stage of Work
12)	Removal, weeds and vegetation debris floating materials and desilting of Pakkam Tank supply channel LS 0m to 5000m in Thiruvallur Taluk of Thiruvallur District.	10.00	Work to be started
13)	Removal, weeds and vegetation debris floating materials and desilting for free flow of water in Periyathai vaikkal LS 1000m to 3500m in Thiruvallur Taluk of Thiruvallur District.	20.00	Work to be started
14)	Removal, weeds and vegetation debris floating materials and desilting the Pakkam tank surplus channel LS 0m to 2000m in Thiruvallur Taluk of Thiruvallur District.	10.00	Work to be started
15)	Removal, weeds and vegetation debris floating materials and desilting the Kakkalur tank surplus channel in Thiruvallur Taluk of Thiruvallur District.	10.00	Work to be started
16)	Removal of Debris, weeds, floating materials, other obstructions and vegetation for free flow of water in Nandhi River and flood stock materials in Irrigation Sections of R.K.Pettai, Pallipet and Thirutani in R.K.Pettai to Thirutani taluk of Thiruvallur District.	20.00	Work to be started
	Total	230.00	

CAUSES OF FLOOD

The main cause for flooding is due to an aftermath of meteorological events such as an

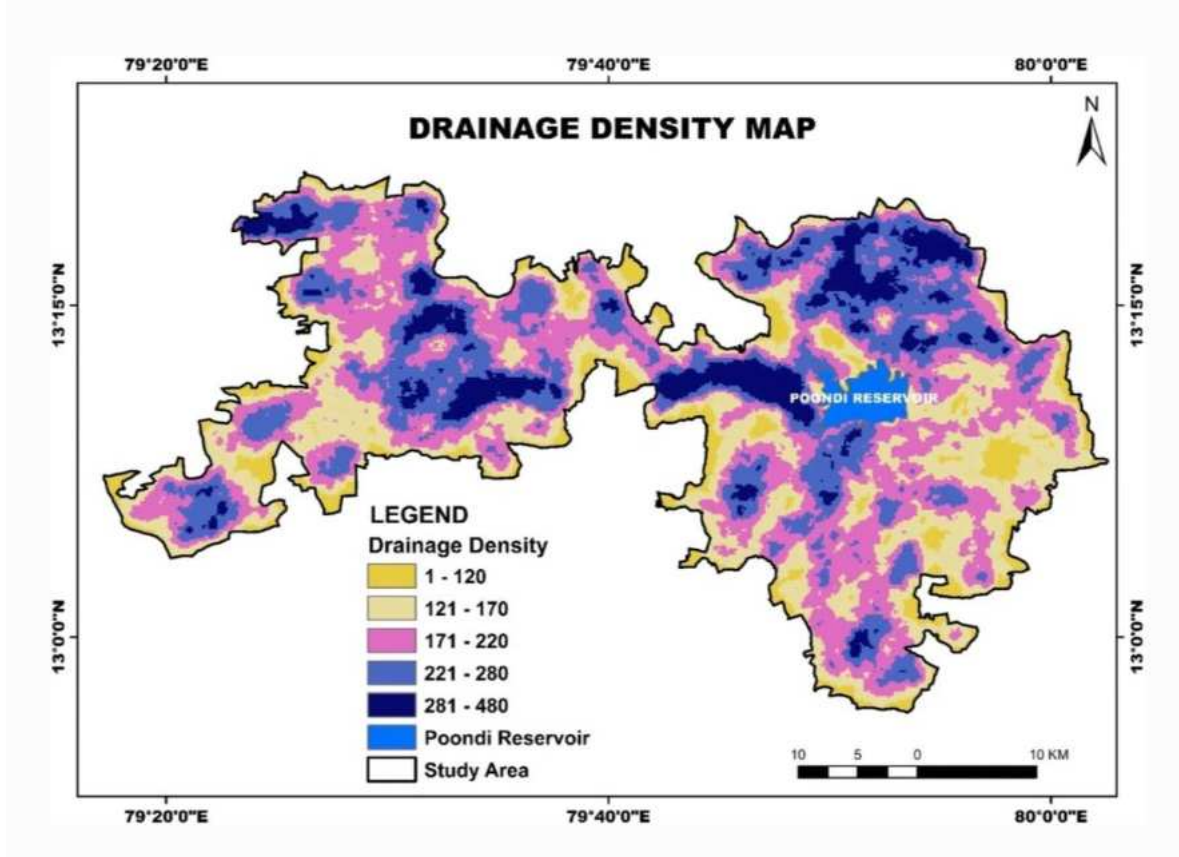
- intense and **prolonged rainfall**,
- increase in water level in coastal ,construction of flood plains
- Estuarine waters due to storm surges and seiches as the area close to Bay of Bengal.
- The other reason is breaching of Couvam, Kosasthalaiyar and Araniyar rivers and a spate of Poondi Reservoir.



Rainfall

- Rainfall data were collected from rain-gauge stations namely **Ponneri, Thiruvallur, Tiruttani, Thiruvallangadu** which influence to interpolate the spatial distribution of rainfall.
- The rural blocks of Thiruvallur District lie in the tropical monsoon zone. As the monsoons bring heavy rainfall, it improves not only the recharging of groundwater and the storage of surface water, also brings flood as the flow of water gets strucked due to various obstacles.
- Hence, the monsoon period is hydrologically significant for water and related analysis
- will help us a **comprehensive flood management**

DRAINAGE, TANKS AND RESERVOIR



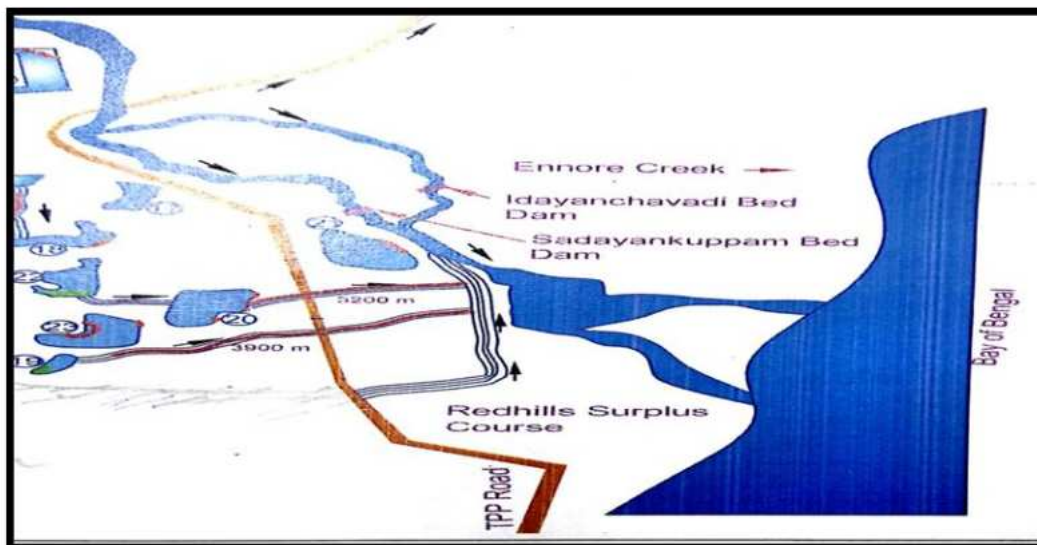
- Drainage is an important ecosystem controlling the hazards as its densities denote the nature of the soil and its geotechnical properties
- Kosasthalaiyar and Araniyar rivers are the two main rivers flow through the study area.
- Kosasthalaiyar river originates from **Kaveripakkam tank surplus course**.
- **Nandiyar** and **Nagariyar** are the tributaries of Kosasthalaiyar river which are seasonal and non-perennial.
- The flood in the rivers are sporadic and it lasts generally for about 10 days in a year.
- The total length of the main river from its origin is about 136 km in which Poondi reservoir is located on the eastern river course.
- It is the major source of storage, irrigation and supplying drinking water to the nearest city.

RIVER BASIN

- Thiruvallur District lies on the western and northern parts of Chennai city which is spread over the river basins of **Araniyar and Kosathalaiyar** with its tributaries namely Nandhiyar, Nagariyar and isolated independent water sheds like Otteri Nalla, Captain Cotton canal, Kodungaiyur, Redhills etc. draining into Kosathalaiyar through Bankingham canal.
- The rivers in Thiruvallur District are **seasonal** having floods during the period of heavy rainfall in Northeast Monsoon since the areas close to the coast in the above isolated water sheds like **Manali, Redhills** adjoining north Chennai and the urban areas adjoining the rivers are highly prone to inundation during floods due to flat terrain with very low elevations.
- In order to reduce the flood risk the following interventions are being implemented and contemplated.

KOSASTHALAIYAR RIVER BASIN

KOSASTHALAIYAR –NAPALAYAM TO MANALI



PROBLEM

Kosasthalaiyar river runs from Kesavaram Anicut to Ennore Creek to a distance 136Km. From Napalayam to Ennore Creek about 5.50Km. Flood bank for the river is available for 3.50Km from Napalayam. Beyond 3.50km,(i.e.,) 2.0 km the entire flood water spreads and finally enters to Sea at Ennore creek. Since this is low lying area, there is a possibility of inundation in Manali pudunager Village with population of 15000 people and Napalayam Village with population of 3000 people when the flow reaches 1,20,000 cusecs from poondi reservoir. **Accommodation in the relief centre is the only solution.**

SOLUTION AND ACTION TAKEN

Sl. No.	PERMANENT SOLUTION	DEPART MENT	ACTION TAKEN
1	<ul style="list-style-type: none"> ▪ Formation and strengthening of Left Flood bank of Kosasthalaiyar River ▪ Formation and strengthening of Right flood bank of Kosasthalaiyar 	PWD Kosasthalaiyar	<ul style="list-style-type: none"> ▪ Formation and strengthening of Right flood bank of Kosasthalaiyar River in Sadiyankuppam Village for a length of 2.5 km was completed, balance length of about 1km for which 19.50 lakh is allotted and the work is completed on 30.10.2018

RELIEF SHELTER

People affected by flood in Manali pudunager Village and Napalayam Village will be accommodated in the following relief shelters.

1. Panchayat Union Elementary School (West Side), Edayanchavadi
2. Panchayat Union Primary School, Old Nappalayam
3. Jaya gopal Garodia Govt higher Secondary School ,Manali New Down
4. Panchayat Union Middle School, ,Manali New Down 600 103.

- **Poondi reservoir, Redhills and Cholavaram** tank in Kosasthalaiyar basin are being rehabilitated for an estimated cost of **Rs. 10.46** crores under Dam Rehabilitation Improvement Project with World Bank assistance which will also minimize flood risk in Tiruvallur District, besides formulating emergency action plan for their flood regulation.
- It is proposed to desilt to a depth of **1.5 meters** in about **50%** of the water spread area of the three water supply reservoirs in Thiruvallur District viz. Poondi, Redhills and Cholavaram as a revenue model which will minimise flooding problems in the peri-urban areas of North Chennai and also **improve the Chennai** water supply position during the **drought periods**.

SATHYAMOORTHY SAGAR RESERVOIR, POONDI



PUZHAL TANK, REDHILLS



CHOLAVARAM TANK, CHOLAVARAM



Strengthening the Kosasthalaiyar bund

The Chief Engineer and the Superintendent Engineer of WRD, Chepauk, Chennai-5 have inspected the areas of Sadayankuppam and Idayanjavadi and proposed to connect Idayanjavadi and Sadayankuppam to form the **bund with 3m height to have a bed dam with storage of around 1 TMC of water.**

THE PROPOSED for Restoration and reformation of River Bund and regradation of river bed in Kosasthalaiyar River right bank from L.S. 125.60km to 126.60 km in Vellivoyal Village, Ponneri taluk of Thiruvallur District and L.S.128.00km to L.S.132.00Km in Edayanchavadi and Sadayankuppam Villages at Manali New Town and in Kosasthalaiyar River Left Bank from L.S.128.00km to L.S.130.00Km at Edayanchavadi Village in Thiruvotriyur Taluk in Chennai District.

Estimate Amount of Rs.15.00 Crores.

Kosasthalaiyar River originates from the Kaveripakkam Tank which is one of the irrigation tank fed by Palar Anicut in Vellore District and the river flows in North east direction for a distance of 136 Km and finally infalls into Bay of Bengal at Ennore creek. The river is intercepted by Poondi Reservoir which is one of the Major Drinking Water source to Chennai and three Anicuts called Kesavaram Anicut, Thamaraipakkam Anicut and Vallur Anicuts. There are four check dams constructed across Kosasthalaiyar River Thirukandalam, Irulipattu, Pudhukuppam and Vannipakkam in the Upstream and downstream of Karanodai Bridge.

For the recent floods, the Surplus water from Poondi reservoir and heavy flood water, from local catchments was flowing in the river and over washed the bank at various places and inundated in the surrounding areas like Vellivoyal, Kanniyamman Koil area, Mahalakshmi Nagar, Vadiudaiamman nagar, R.L. Nagar, Jenifer colony were affected by flood. The left side from Napalayam Bridge to Edayanchavadi village and Right side bund from Napalayam Bridge to Sadayankuppam village was damaged due to heavy floods and in some places it was eroded and the height of the bund was very low. The existing bund is not enough to hold the flood water more than 25,000 Cusecs.

The Hon'ble Chief Minister of Tamil Nadu along with Commissioner, Greater Chennai Corporation and higher officials of Water Resources Department were inspected the site during Flood times on 20.11.2021 and 06.12.2021 and instructed to take up the Permanent restoration works immediately to avoid inundations in future.

Based on the instruction of The Hon'ble Chief Minister of Tamil Nadu, necessary estimate has been prepared to increase the height of the bund and necessary strengthening the bund works will be taken up after getting necessary approval from the Government. . The above project work of Land Acquisition and widening river tentative cost is Rupees Seventy crores (Rs.15.00 Crores). **Now the Work is Completed.**

AFTER EXECUTION



COOUM RIVER BASIN

Cooum River in Thiruvallur district spreads through Perampakkam, Sathiraikandikagai, Egattur, Aranvoyal, Korattur, Kannapalayam, Paruthipattu, Thiruverkadu, Maduravoyal, and Nerkundram.

SPECIAL INITIATIVE FOR STORAGE OF EXCESS FLOOD WATER

Construction of Cut and cover channel from LS.550m to 910m and open channel from LS 910m to 3090m of Parutipattu tank surplus course in Avadi Taluk of Thiruvallur District. Estimate

Amount of Rs.21.90 Crores

Integrated Cooum River Eco-Restoration Plan

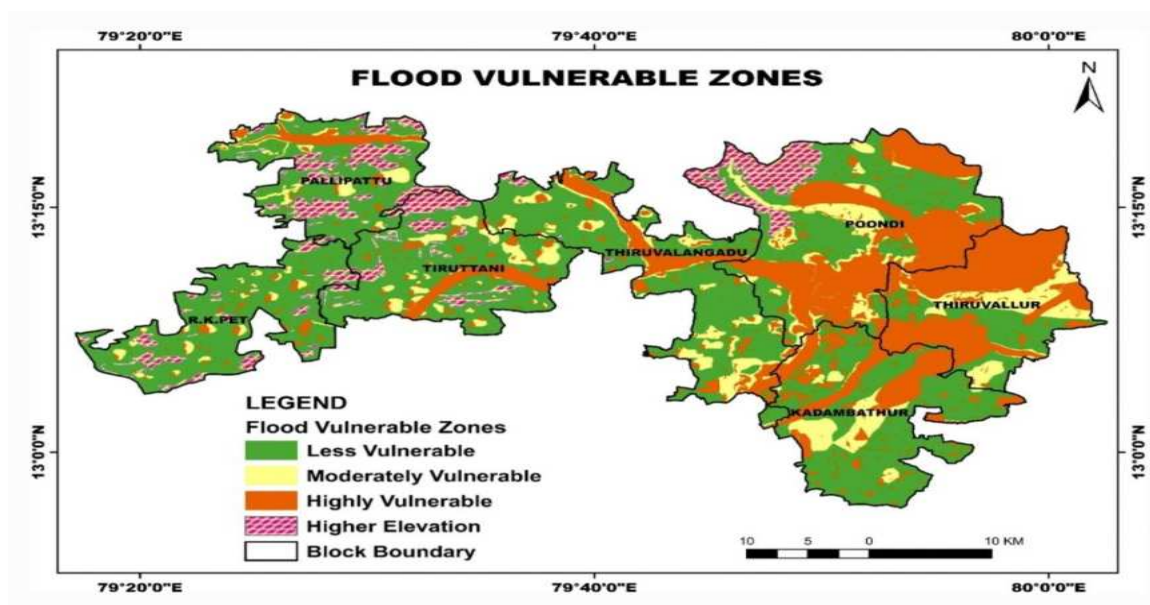
- The Eco-restoration activities (60 subprojects) for a 27.33 km stretch of the river between Paruthipattu and the river mouth are under progress.
- The stretch of Cooum River in the urban and peri-urban areas of Chennai is being rehabilitated and restored by implementing **Cooum River Eco-Restoration Project** in which the following works are under progress through the line departments namely PWD, GCC, CMA, DRD, CMWSSB and TNSCB under the coordination of CRRT:-
- Desilting, demarcation and fixing boundary stones and bio-metric survey and improvements to the river like forming inner canal, providing rip rap cover for the inner canal with Geo textile fabric base, providing coconut blanket on the river banks to prevent erosion.
- Solid waste removal, fencing, boom deployment for collecting and removing floating and suspended debris, developing parks, cycle tracks and walkways
- Solid waste removal, fencing and developing parks.
- Laying interceptors, installing modular sewage treatment plants and UGSS
- Resettlement and Rehabilitation Plan

- Mangrove development, flora plantation, community education programmes and monitoring of project implementation.
- By implementing the above scheme flood risk mitigation, environmental enhancement and ground water potential improvement are assured.
- The restoration works were started in 2016 and the Government has accorded Administrative Sanction of Rs. **604.77** crores for the short-term phase of the project. **The Work is 100 % completed.**

AFTER EXECUTION



Evaluation of possible flood vulnerable zone



GIS plays a more key role in analysing the flood vulnerability. This kind of natural hazard cannot be avoided but can be managed successfully through proper **flood management plan**.

- The principal objective of this study was to analyse all possible resource maps to delineate the probable **flood vulnerable zones**.
- The present paper identifies the flood vulnerable zones by analysing the satellite imageries of the respective period and **GIS** enables the integration and management of multi thematic data.

Thematic layers on drainage slope, soil, geology, geomorphology, land use and land cover, lineament and zones of possible tectonic subsidence were prepared, and these layers were analysed by overlay analysis with 40 years northeast monsoon rainfall for generating possible flood vulnerable zonation map.

- A periodic and systematic inspection, rehabilitation and maintenance programme is done to ensure that the design capabilities are maintained and also restoration/strengthening of vulnerable spots.
- Sea walls/coastal protection works in the form of groynes etc. are constructed to prevent flooding erosion in coastal areas by sea water.

VERY HIGH VULNERABLE ZONES

HIGHLY VULNERABLE WITHIN 5KM RADIUS

1 PONNERI

- 1 A. Reddypalayam.
- 2 Aladu (Manopuram).
- 3 Thathamaji.
- 4 Vichoor
- 5 Perumbedukuppam
- 6 Vanjivakkam

2. AVADI

- 7 Tirunindravoor
- 8 Paruthipattu

HIGH VULNERABLE ZONES

PONNERI

- Aathipattu, PudhuNagar, VellivoyalGnayar (Pasavanpalayam)
- Sirupazhaverkadu Colony, Kadapakkam Colony
- Karungali, Kalanji, Kattupalli
Thangalperumbulam, Pazhaverkadu
- Thandal Kazhani (Samiyar Madam)
- Theerthakaraiyampattu,
- Palavoyal,
- Alinjivakkam
- Vadakarai
- Grantline
- Sirugavur

UTTUKOTTAI

- Thirukandalam.

AVADI

- Bhavani Nagar moovendhar Nagar, Thendral Nagar, Ramadasapuram
North Prakash Nagar, Nadukuthagai Diliban Nagar Nadukuthagai,
- Rajeevgandhi Nagar, Kovilpathagai
- Pudhunagar, Ananda Nagar, Periyarnagar, Paleripattu
- Vettaikarapalayam, Nanthavanamettur, Kavaraipalayam,
Vilinjiyambakkam

POONAMALLEE

- Amma Nagar, Ambedhkar Nagar, Santhiya Nagar, Poonamallee
- Panaiyathamman Nagar, Poonamallee
- Ayanambakkam, Koladi, Vanagaram,
Noombal, Kanniyamman Nagar

Augmenting Storage Capacities Of Water Bodies

The Irrigated Agriculture modernisation and water bodies restoration management TN – IAMWARM programme is provided following Benefits such as

- Strengthening of tank bunds,
- De-silting of the tank as well as supply channel
- Repair works in Sluices and Weirs.
- Lining of field channel.
- Demarcation of water spread area.

Thus extent of **desiltation** will help us in flood mitigation and also ensure drought reduction. The desilting programme will be continued and extended to cover all the remaining water bodies.

De-siltation of Tanks

- Tanks (Surface water bodies) are the main source for irrigation and drinking water in the study area.
- Siltation of the tank not only reduces the storage capacity, but also increases flood risk.
- On one hand, when the tank reaches its limit, the authorities are forced to open the tank,
- on the other hand, dam failure may happen if the structure is weak.
- On the whole, this may cause the situation even worse if the area is already flooded or during heavy rain or cyclone or unstable air.
- Hence, de-siltation and strengthening of tanks are recommended to achieve their full capacity of storage and robust water storage system. Steps have to be taken to minimize soil erosion in the catchments area to avoid siltation.

KUDIMARAMATHU:-

The Kudimaramathu scheme in which PWD tanks are strengthened & desilted, includes people's participation and creates a sense of ownership in the community serves also **Flood Control, Drought Mitigation and Ground Water recharge, benefit agriculture activities and improved on-farm water management**

- Go.(MS) No.98/ PW(W1) Dept/Dt. 22.04.2020 for an Amount of Rs.1453.74 lakhs in Thiruvallur District.
- There are 34 Nos of Tanks have been taken up in Thiruvallur District, Where as 19 tanks are Completed. Balance 15 tanks are work is in Progress.
- By Implementation of this scheme 6,44,735 m³ of earth desilted in the tank, 79.30 Km of supply channel and 11.20 km surplus course are desilted. There are 38 Nos Sluice Reconstruction and 30 Nos of sluice Repairs. There are 26 Nos of Weir Repair and 7 Nos of Weir Reconstruction. They have been benefited to Agricultural activities.

**KUDIMARAMATHUWORKS-2020-2021
(Kaivandur Tank Weir)**



Perathur Tank Bund & Sluice



Restoration of Punnakkam Tank

**RESTORATION OF PUNNAKAM TANK UNDER KUDIMARAMATH SCHEME 2020- 21
AFTER EXECUTION**



Plivakkam Tank Supply Channel



Selai Tank Weir Repair Work



Thirur Hissa Tank Bund strengthening Work



Valasavettikadu supply channel work



REMOVAL OF ENCROACHMENTS:-

Due to anthropogenic activities there will be obstruction in water ways and even block the water ways .This is due to illegal construction of public buildings and illegal encroachments by people of different strata.

Hence **removable** of the encroachments play an important role and the **relocation** in maintaining the integrity of the water ways and minimise the risks due to floods. The District will launch a special drive to remove the **encroachments on a priority basis** in all water bodies and water ways. After securing clearance from the judiciary, a massive drive has been launched to remove the encroachments in **Araniyar, Kosathalaiyar** and other river banks. The district administration will be according high priority for removal of the encroachments in the water ways and water bodies.

To Encroachment of Kanagamachattiram



To Encroachment of Amirthapuram



NON - STRUCTURAL MEASURES

1. By analysing, the sufficient parameters in the GIS platform, the flood vulnerability map are generated, and the block boundaries were overlaid. The percentage of **highly vulnerable area** in **Thiruvallur, Poondi and Kadambathur** blocks Long term flood mitigation and management plan shall be developed in these blocks by quantifying the runoff and stagnant floodwater.
2. The **centralized database system** for the region shall be established by collecting all relevant data from various agencies, departments, institutions etc. This common database may enable the researchers to conduct a micro level study through which site-specific mitigation plan could be arrived within the span of time.

STRUCTURAL MEASURES

ARTIFICIAL RECHARGE & RAINWATER HARVESTING STRUCTURE –

- Thiruvallur district lies within the **tropical monsoon zone**.
- The District receives an average annual rainfall of 1139.6 mm
- During north east monsoon (October to December), it receives **589.3** mm and by south west monsoon (June to September) **451.6** mm. Predominantly, the precipitation process occurs only in the form of cyclonic storms, forms in the Bay of Bengal during the north east monsoon.

COMPLETED WORKS

Construction of check dam across Kosasthalaiyar river in Pattaraiperumbudur village to channelize water to Veeraraghavaperumal Temple Tank in Thiruvallur Taluk and District. Estimate Amount of Rs.25.00 Crores

After Completion



Construction of Check dam across Nagari river near Illuppur Village in Thiruthani Taluk of Thiruvallur District. Estimate Amount of Rs.17.86 Crores-Work Completed

After Completion



Construction of a Check Dam across the Cooum River near Soranjeri Village in Poonamallee Taluk of Thiruvallur District.

Estimate Amount of Rs.5.62 Crores-

After Completion



Construction of Check Dam Across Cooum river Near Athigathur Village in Thiruvallur Taluk of Thiruvallur District.

Amount of Rs. 17.74 Crores

After Completion



Providing flood Regulator arrangements in Ayyapakkam Tank Weir in Avadi Taluk of Thiruvallur District. Estimate Amount of Rs.98.00 Lakhs

AFTER EXECUTION



Providing flood Regulator arrangements in Ayanambakkam Tank Weir in Poonamallee Taluk of Thiruvallur District. Estimate Amount of Rs.95.00 Lakhs

AFTER EXECUTION

Providing flood Regulator arrangements in Paruthipattuu Tank Weir in Avadi Taluk of Thiruvallur District. Estimate Amount of Rs.98.00 Lakhs

AFTER EXECUTION

ONGOING WORKS

Reconstruction of damaged IHH sluices and construction of Gauge well at upstream side of Sathyamoorthy Sagar Reservoir in Poondi Village of Thiruvallur Taluk and Thiruvallur District.

Estimate Amount of Rs.10.05 Crores (Work is in Progress)

Left Side of Sluice Work



Right Side of Sluice Work



Construction of Regulator across Sholingur Branch Channel near Parabayarapuram Village in R.K.Pet Taluk of Thiruvallur District

Estimate Amount of Rs.8.46 Crores (Work is in Progress)

During Execution



Rehabilitation and Creation of New link to Vedyangadu tank in Vedyangadu Village in R.K.Pet Taluk of Thiruvallur District. Estimate Amount of Rs.2.94 Crores (Work is in Progress)

During Execution



Renovation of Spillway Shutters in Sathyamoorthy Sagar dam at Poondi Village in Thiruvallur Taluk and District". Estimate Amount of Rs.9.85 Crores (Work is in Progress)



FLOOD MITIGATION WORKS PHASE-III

Construction of Double Vent Inlet in the right bank of Kosasthalaiyar River

@ LS 124000m in Vitchoor Village Ponneri Taluk of Thiruvallur District.

Estimate Amount of Rs.0.35 Crores (Work is in Progress)



Construction of Double Vent Inlet in the right bank of Kosasthalaiyar River

@ LS Ls 115300m in Jayarampuram Village Ponneri Taluk of Thiruvallur

District. Estimate Amount of Rs.0.35 Crores (Work is in Progress)



**Construction of Single Vent Inlet in the Left bank of Kosasthalaiyar River @
Ls 116200 m in Kuthiraipallam Village in Ponneri Taluk of Thiruvallur
District. Estimate Amount of Rs.0.35 Crores (Work is in Progress)**



**Construction of Regulator arrangements and improvements to surplus
course in Sekkadu Tank in Sekkadu Village in Avadi Taluk of Thiruvallur
District. Estimate Amount of Rs.5.00 Crores (Work is in Progress)**



Construction of Flood protection wall and Inlet in Redhills Tank Surplus course in Naravarikuppam village in Ponneri Taluk of Thiruvallur District.

Estimate Amount of Rs.10.00 Crores



Rehabilitation and Reformation of Cholavaram Tank bund from Ls 1350m to 2900m including the distressed bund portion from LS 2600 m TO 2800m, Reconstruction of Parapet wall in U/s and D/s side of Cholavaram Tank in Ponneri Taluk of Thiruvallur District. Estimate Amount of Rs.40.00 Crores



**FLOOD DAMAGES IN MICHAUNG CYCLONE – 2023 IN Thiruvallur
District**

Sl.No	Name of Work	Estimate Amount (in lakhs)
1	Emergency work for flood water from Thirunindravur Tank to Coovam river in Ls 3616 U/s of bund of Avadi Taluk in Thiruvallur District.	2.00
2	Emergency work for flood water from Thirunindravur Tank to Coovam river D/s of bund fixing 1m dia ppipes in Ls 3616m of Avadi Taluk in Thiruvallur District.	2.00
3	Emergency work for flood water from Thirunindravur Tank to Coovam river D/s of crossing Highway road in Avadi Taluk in Thiruvallur District.	2.00
4	Emergency work for draining flood water from Thirunindravur Tank to Coovam river retaining wall cutting work in Ls700m in Avadi Taluk of Thiruvallur District.	2.00
5	Emergency work for draining flood water from Thirunindravur Tank to Coovam river cutting bund work at Covem river in Avadi Taluk of Thiruvallur District.	2.00
6	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 0m to Ls 60m of Avadi Taluk in Thiruvallur District.	4.00
7	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 60m to Ls 90m of Avadi Taluk in Thiruvallur District.	2.00
8	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 100m to Ls 150m of Avadi Taluk in Thiruvallur District.	2.00
9	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 160m to Ls 190m of Avadi Taluk in Thiruvallur District.	2.00
10	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 220m to Ls 250m of Avadi Taluk in Thiruvallur District.	2.00
11	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 250m to Ls 300m of Avadi Taluk in Thiruvallur District.	2.00
12	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 300m to Ls 350m of Avadi Taluk in Thiruvallur District.	2.00
13	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 350m to Ls 400m of Avadi Taluk in Thiruvallur District.	2.00
14	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 400m to Ls 450m of Avadi Taluk in Thiruvallur District.	2.00
15	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 450m to Ls 500m of Avadi Taluk in Thiruvallur District.	2.00
16	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 510m to Ls 540m of Avadi Taluk in Thiruvallur District.	2.00
17	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 540m to Ls 600m of Avadi Taluk in Thiruvallur District.	4.00
18	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 600m to Ls 660m of Avadi Taluk in Thiruvallur District.	5.00
19	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 660m to Ls 730m of Avadi Taluk in Thiruvallur District.	5.00
20	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 730m to Ls 760m of Avadi Taluk in Thiruvallur District.	3.50

Sl.No	Name of Work	Estimate Amount (in lakhs)
21	Emergency work for flood water from Thirunindravur Tank to Coovam river Channel desilting work Ls 760m to Ls 800m of Avadi Taluk in Thiruvallur District.	3.50
22	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 0 m to 100 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	4.50
23	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 100 m to 200 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	4.50
24	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 250m to 300 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	1.90
25	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 300 m to 350 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	1.90
26	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 350 m to 400 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.20
27	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 400 m to 450 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	1.80
28	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 450 m to 500 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
29	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 500 m to 550 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
30	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 550 m to 600 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.80
31	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 600 m to 650 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.80
32	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 650 m to 700 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.30
33	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 700 m to 780 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
34	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 800 m to 870 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
35	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 900 m to 960 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
36	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1000 m to 1050 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
37	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1050 m to 1100 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
38	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1100 m to 1150 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
39	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1150 m to 1200 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
40	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1200 m to 1250 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.10
41	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1250 m to 1300 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	1.90

Sl.No	Name of Work	Estimate Amount (in lakhs)
42	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1300 m to 1350 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	1.90
43	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1350 m to 1400 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
44	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1400 m to 1450 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
45	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1450 m to 1500 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
46	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1500 m to 1570 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
47	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1600 m to 1650 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
48	Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 1650 m to 1700 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District.	2.00
49	Emergency work for Closing bund breach in Thirunindravur Tank bund in Periyar Nagar from Ls 1700m to 1750m in Avadi Taluk in Thiruvallur District.	2.50
50	Emergency work for Closing bund breach in Thirunindravur Tank bund in Periyar Nagar from Ls 1810m to 1860m in Avadi Taluk in Thiruvallur District.	2.50
51	Emergency work for Closing bund breach in Thirunindravur Tank bund in Periyar Nagar from Ls 1900m to 1950m in Avadi Taluk in Thiruvallur District.	2.20
52	Emergency work for Closing bund breach in Thirunindravur Tank bund in Periyar Nagar from Ls 1975m to 2000m in Avadi Taluk in Thiruvallur District.	2.00
53	Emergency work for draining flood water in Sluice no 1 & 2 of Kakkalur Tank in Thiruvallur Taluk of Thiruvallur District.	3.00
54	Emergency work for Restoration of flood damages in Kakkalur Tank Bund at 75m to 130m in Thiruvallur Taluk of Thiruvallur District	2.00
55	Emergency work for Restoration of flood damages in Kakkalur Tank Bund at 140m to 180m in Thiruvallur Taluk of Thiruvallur District	2.00
56	Emergency work for Restoration of flood damages in Kakkalur Tank Bund at 200m to 250m in Thiruvallur Taluk of Thiruvallur District	2.00
57	Emergency work for Restoration of flood damages in Kakkalur Tank Bund at 350m to 400m in Thiruvallur Taluk of Thiruvallur District	2.00
58	Emergency work for flood damages in Kakalur Tank Surplus Channel desilting work Ls 0 m to 150 m in Kakalur Village of Thiruvallur Taluk in Thiruvallur District.	2.80
59	Emergency work for flood damages in Kakalur Tank Surplus Channel desilting work Ls 150 m to 250 m in Kakalur Village of Thiruvallur Taluk in Thiruvallur District.	2.80
60	Emergency work for flood damages in Kakalur Tank Surplus Channel desilting work Ls 250 m to 350 m in Kakalur Village of Thiruvallur Taluk in Thiruvallur District.	2.00
61	Emergency work for flood damages in Kakalur Tank Surplus Channel desilting work Ls 350 m to 450 m in Kakalur Village of Thiruvallur Taluk in Thiruvallur District.	2.40
62	Emergency work for draining flood water in Kakkalur Surplus Channel Ls from 450m to 500m in Kakkalur village of Thiruvallur Taluk in Thiruvallur District.	2.00
63	Emergency work for draining flood water in Kakkalur Surplus Channel Ls from 500m to 550m in Kakkalur village of Thiruvallur Taluk in Thiruvallur District.	3.00
64	Emergency work for draining flood water in Kakkalur Surplus Channel Ls from 550m to 600m in Kakkalur village of Thiruvallur Taluk in Thiruvallur District.	3.00
65	Emergency work for Restoration of flood damages in Karikkalavakkam tank Bund at 60 m to 110m in Thiruvallur Taluk of Thiruvallur District	2.80
66	Emergency work for Restoration of flood damages in Karikkalavakkam tank	2.50

Sl.No	Name of Work	Estimate Amount (in lakhs)
	Bund at 120 m to 170 m in Thiruvallur Taluk of Thiruvallur District	
67	Emergency work for Restoration of flood damages in Tamaraipakkam tank Bund at 350m to 450 m in Thiruvallur Taluk of Thiruvallur District	2.20
68	Emergency work for Restoration of flood damages in Tamaraipakkam tank Bund at 500m to 550 m in Thiruvallur Taluk of Thiruvallur District	2.50
69	Emergency work for Restoration of flood damages in Veeraragavapuram tank Bund at 820m to 870 m in Thiruvallur Taluk of Thiruvallur District	2.30
70	Emergency work for Restoration of flood damages in Sluice No.3 & 4 in Vathattur tank in Thiruvallur Taluk of Thiruvallur District	3.80
71	Emergency work for restoration of flood damages in Nungabakkam Big Tank Bund Reach 1 in Thiruvallur Taluk of Thiruvallur District.	2.00
72	Emergency work for restoration of flood damages in Earyamangalam Tank Bund in Thiruvallur Taluk of Thiruvallur District	2.20
73	Emergency work for restoration of flood damages near sluices no 2 in Polivakkam Big Tank in Thiruvallur Taluk of Thiruvallur District	2.00
74	Emergency work for restoration of flood damages in Pudhumavilangai Tank Bund Reach 1 in Thiruvallur Taluk of Thiruvallur District.	1.90
75	Emergency work for restoration of flood damages near Weir in Koppur Tank in Thiruvallur Taluk of Thiruvallur District.	2.20
76	Emergency work for restoration of flood damages near sluice no 1 in Koppur Tank in Thiruvallur Taluk of Thiruvallur District	2.00
77	Emergency work for restoration of flood damages near sluice no 4 in Govindamadu Tank in Thiruvallur Taluk of Thiruvallur District	1.90
78	Emergency work for draining out flood water in Cooum River R/F Bund Reach - 1 &2 of Pinjivakkam Village in Thiruvallur Taluk of Thiruvallur District	3.80
79	Emergency work for restoration of flood damages near Weir in Senji Tank in Thiruvallur Taluk of Thiruvallur District.	2.20
80	Emergency work for restoration of flood damages near sluices in Voyalur Tank in Thiruvallur Taluk of Thiruvallur District	2.00
81	Emergency work for restoration of flood damages in Narasamangalam Big Tank Bund in Thiruvallur Taluk of Thiruvallur District.	2.00
82	Emergency work for restoration of flood damages in Veppamchittu Tank Bund in Thiruvallur Taluk of Thiruvallur District.	1.80
83	Emergency work for restoration of flood damages in Papparambakkam Tank Bund in Thiruvallur Taluk of Thiruvallur District.	2.00
84	Emergency work for restoration of flood damages in Thirumanikuppam Tank Bund in Thiruvallur Taluk of Thiruvallur District.	2.00
85	Emergency work for restoration of flood damages in Thodukadu Tank Bund in Thiruvallur Taluk of Thiruvallur District.	2.20
86	Emergency work for restoration of flood damages in Mudugur Tank Bund in Thiruvallur Taluk of Thiruvallur District.	2.00
87	Emergency work for draining out flood water in Kesavanallathur tank supply channel reach - 1 in Thiruvallur Taluk of Thiruvallur District	2.00
88	Emergency work for restoration of flood damages near sluices no 2 in Mappadu Big Tank in Thiruvallur Taluk of Thiruvallur District	2.50
89	Emergency work for restoration of flood damages near sluices no 2 in Kottaiyur Murugan Thangal Tank in Thiruvallur Taluk of Thiruvallur District	2.50
90	Emergency work for restoration of flood damages in Papprambakkam Tank Vettu Madai & Tank Bund in Thiruvallur Taluk of Thiruvallur District	2.50
91	Emergency work for restoration of flood damages near sluices no 2 in Vengathur Tank in Thiruvallur Taluk of Thiruvallur District	2.60
92	Emergency work for restoration of flood damages near sluices in Melnallathur Tank in Thiruvallur Taluk of Thiruvallur District	2.70
93	Emergency work for restoration of flood damages near sluices in Keelnalathur Tank in Thiruvallur Taluk of Thiruvallur District	2.00
94	Emergency work for restoration of flood damages in Panambakkam Tank Bund in Thiruvallur Taluk of Thiruvallur District	1.90
95	Emergency work for restoration of flood damages near sluices No 1 & 2 in Cooum Big Tank in Thiruvallur Taluk of Thiruvallur District	2.20
96	Emergency work for restoration of flood damages in Cooum Big Tank Bund in Thiruvallur Taluk of Thiruvallur District	2.00
97	Emergency work for restoration of flood damages near Weir in Nungabakkam	1.90

Sl.No	Name of Work	Estimate Amount (in lakhs)
	Kadapari Tank in Thiruvallur Taluk of Thiruvallur District.	
98	Emergency work for restoration of flood damages near sluices in Pudhumavilangai Tank in Thiruvallur Taluk of Thiruvallur District	2.20
99	Emergency work for Desilting Cooum river mouth to feed water to Agaram & Kesavanallathur Tank in Thiruvallur Taluk of Thiruvallur District	2.00
100	Emergency work for restoration of flood damages near Weir in Vellarithangal Tank in Thiruvallur Taluk of Thiruvallur District.	1.90
101	Emergency work for draining out flood water in Ramankovil tank supply channel from Kosasthalaiyar river in Thiruvallur Taluk of Thiruvallur District	2.00
102	Emergency work for restoration of flood damages in Mappadu Puthieri Tank Bund in Thiruvallur Taluk of Thiruvallur District	2.60
103	Emergency work for draining out flood water in Gudapakkam tank supply channel in Thiruvallur Taluk of Thiruvallur District	2.00
104	Emergency work for restoration of flood damages near sluices No 1 in Kottaiyur Big Tank in Thiruvallur Taluk of Thiruvallur District	2.50
105	Emergency work for restoration of flood damages in Athigathur Tank Bund in Thiruvallur Taluk of Thiruvallur District	2.70
106	Emergency work for restoration of flood damages in Kadambathur Supply Channel Bund in Thiruvallur Taluk of Thiruvallur District	2.00
107	Emergency work for Diversion of Flood water and Strengthening of Channel Bund at Kaivandur Check Dam in Kaivandur Village of Thiruvallur Taluk of Thiruvallur District	2.80
108	Temporary Restoration of Poondi Ponnappattu Tank flood damaged weir in Poondi Village in Thiruvallur Taluk of Thiruvallur District .	2.00
109	Temporary Restoration of Flood damaged Poondi Reservoir Service Road Reach I at Poondi Village in Thiruvallur Taluk of Thiruvallur District .	2.00
110	Temporary Restoration of Flood damaged Poondi Reservoir Service Road Reach II & III at Poondi Village in Thiruvallur Taluk of Thiruvallur District .	3.70
111	Emergency work for Draining Out Flood Water in channel From Fourvent railway bridge to LS 1800m in Venmanambudur Village at Thiruvallur Taluk of Thiruvallur District.	2.00
112	Emergency work for Draining Out Flood Water in Supply channel From LS 2300m to LS 4800m in Venmanambudur Village at Thiruvallur Taluk of Thiruvallur District.	2.20
113	Temporary Restoration Flood Damaged Right Flank U/S Slope near dam site in Poondi Village of Thiruvallur Taluk of Thiruvallur District	2.00
114	Temporary Restoration of Poondi Ponnappattu Tank flood damaged Bund Potion in Poondi Village in Thiruvallur Taluk of Thiruvallur District .	1.70
115	Temporary Restoration of Nambakkam Tank flood damaged Sluice in Nambakkam Village in Uthukottai Taluk of Thiruvallur District .	2.00
116	Temporary Restoration of Nambakkam Tank flood damaged Bund Potion in Nambakkam Village in Uthukottai Taluk of Thiruvallur District .	1.70
117	Temporary Restoration of Neiveli Tank flood damaged Bund Potion in Neiveli Village in Thiruvallur Taluk of Thiruvallur District .	1.70
118	Temporary Restoration of Neiveli Tank flood damaged Sluice in Neiveli Village in Thiruvallur Taluk of Thiruvallur District .	2.00
119	Temporary Restoration of Chithambakkam Tank flood damaged Bund Potion in Chithambakkam Village in Thiruvallur Taluk of Thiruvallur District .	1.80
120	Temporary Restoration of Pullrambakkam Tank flood damaged Sluice in Pullrambakkam Village in Thiruvallur Taluk of Thiruvallur District .	2.00
121	Temporary Restoration of Flood damaged D/S left flank of Poondi Reservoir from Ls 150m to 180m in Poondi Village of Thiruvallur Taluk and District.	2.00
122	Temporary Restoration of Flood damaged D/S left flank of Poondi Reservoir from Ls 180m to 210m in Poondi Village of Thiruvallur Taluk and District.	2.50
123	Temporary Restoration of Flood Damaged Eraiyur Tank 2nd Sluice in Eraiyur Village at Thiruvallur Taluk of Thiruvallur District.	2.00
124	Temporary Restoration of Flood Monitoring Shed at Poondi Reservoir Right Flank in Poondi Village of Thiruvallur Taluk and Thiruvallur District.	2.00
125	Emergency work for draning out flood water in Baby Canal From LS 0 M to 1000m in Sadhurangapettai Village in Thiruvallur Taluk of Thiruvallur District	2.00
126	Emergency work for Restoration of Flood damage near sluice No.2 , in Mannavur Tank of Mannavur village in Tiruttani taluk of Thiruvallur District.	2.00
127	Emergency work for Draining Flood water in Mannavur Tank Supply	2.10

Sl.No	Name of Work	Estimate Amount (in lakhs)
	Channel from LS 3000m to LS 3500m in Mannavur village in Tiruttani taluk of Thiruvallur District.	
128	Emergency work for Draining Flood water in Ramapuram Big Tank Vettu mada Channel from Ls 0m to Ls 300m in Ramapuram village in Tiruttani taluk of Thiruvallur District.	2.00
129	Emergency work for Restoration of Flood damage in Pazhayanur Bund nearest to sluice from @Ls 0m to LS 1000m in Pazhayanur village in Tiruttani taluk of Thiruvallur District.	1.80
130	Emergency work for Restoration of Flood damage near sluice No.1 , in Pazhayanur Tank of Pazhayanur village in Tiruttani taluk of Thiruvallur District.	1.80
131	Emergency work for Restoration of Flood damage in Orathur Tank Bund of Orathur village @Ls 1500m in Tiruttani taluk of Thiruvallur District.	1.90
132	Emergency work for Draining Flood water in Jagirmangalam Assaneri Supply Channel from Ls 0m to Ls 530m in Jagirmangalam village in Tiruttani taluk of Thiruvallur District.	2.00
133	Emergency work for Restoration of Flood damage near sluice No.1 , in Jagirmangalam Big Tank of Jagirmangalam village in Tiruttani taluk of Thiruvallur District.	1.90
134	Emergency work for Restoration of Flood damage in Jagirmangalam Assaneri Tank Bund from Ls 0m to Ls 300m in Jagirmangalam village in Tiruttani taluk of Thiruvallur District.	1.90
135	Emergency work for Restoration of Flood damage near sluice No.2 , in Pakasalai Tank of Pakasalai village in Tiruttani taluk of Thiruvallur District.	2.00
136	Emergency work for Restoration of Flood damage near sluice No.2 , in Thiruvalangadu Netteri Tank of Thiruvalangadu village in Tiruttani taluk of Thiruvallur District.	2.10
137	Emergency work for Restoration of Flood damage near sluice No.2 , in Ganesapuram Tank of Ganesapuram village in Tiruttani taluk of Thiruvallur District.	2.00
138	Emergency work for Restoration of Flood damage near sluice No.1 , in Chinnamandali Tank of Chinnamandali village in Tiruttani taluk of Thiruvallur District.	2.10
139	Emergency work for Restoration of Flood damage near Weir in Chinnamandali Tank of Chinnamandali village in Tiruttani taluk of Thiruvallur District.	2.00
140	Emergency work for Restoration of Flood damage near sluice No.2& 3 , in Northawada Tank of Northawada village in Tiruttani taluk of Thiruvallur District.	2.00
141	Emergency work for Restoration of Flood damage near Weir in Arumbakkam kadapari and thallucheri cheruvu Tank of Vyasapuram village in Tiruttani taluk of Thiruvallur District.	3.90
142	Emergency work for Restoration of Flood damage in Arumbakkam kadapari and thallucheri cheruvu Bund nearest to Weir from Ls 0m to Ls 900m in Vyasapuram village in Tiruttani taluk of Thiruvallur District.	2.00
143	Emergency work for Draining Flood water in Panapakkam weir Surplus Channel from Ls 1500m to Ls 1600m in Panapakkam village in Tiruttani taluk of Thiruvallur District.	1.90
144	Emergency work for Restoration of Flood damage in Gudalvadi Pattari Bund nearest to sluice from Ls 0m to Ls 700 mof Gudalvadi village in Tiruttani taluk of Thiruvallur District.	1.80
145	Emergency work for Restoration of Flood damage near Weir in Thozhudhavur Tank of Thozhudhavur village in Tiruttani taluk of Thiruvallur District.	1.90
146	Emergency work for Restoration of Flood damage near Weir in Athipattu Tank of Athipattu village in Tiruttani taluk of Thiruvallur District.	1.90
147	Emergency work for Temporary Restoration of Flood Affected portion in kamatchi Kasam to Panapakkam Supply channel near Nehru nagar from Ls 0m to Ls 700m in Panapakkam village in Tiruttani taluk of Thiruvallur District.	1.80
148	Emergency work for Draining Flood water in Ramapuram Chitteri Tank Supply Channel at LS 500m in Ramapuram village in Tiruttani taluk of	2.00

Sl.No	Name of Work	Estimate Amount (in lakhs)
	Thiruvallur District.	
149	Emergency work for Restoration of Flood damage near Weir no 1 in Periyakalakattur Peiya Eri of Periyakalakattur village in Tiruttani taluk of Thiruvallur District.	2.20
150	Emergency work for Restoration of Flood damage near sluice No.1 , in Kalambakkam Tank of Kalambakkam village in Tiruttani taluk of Thiruvallur District.	1.90
151	Emergency work for Restoration of Flood damage in Harichandrapuram Bund at Ls 700m in Harichandrapuram village in Tiruttani taluk of Thiruvallur District.	2.00
152	Emergency work for Restoration of Flood damage near Weir in Orathur Tank of Orathur village in Tiruttani taluk of Thiruvallur District.	2.00
153	Emergency work for Restoration of Flood damage near Weir no 2 in Periyakalakattur Peiya Eri of Periyakalakattur village in Tiruttani taluk of Thiruvallur District.	2.00
154	Emergency work for Restoration of Flood damage near Weir in Periyakalakattur Chitteri of Periyakalakattur village in Tiruttani taluk of Thiruvallur District.	1.80
155	Emergency work for Restoration of Flood damage near sluice No.2 , in J.S.Ramapuram Tank of J.S.Ramapuram village in Tiruttani taluk of Thiruvallur District.	2.00
156	Emergency work for Restoration of Flood damage in Vilanthangal Bund nearest to sluice at Ls 400m in Chinnamapettai village in Tiruttani taluk of Thiruvallur District.	2.00
157	Emergency work for Restoration of Flood damage in Illupur Checkdam U/S Left flank bund at Ls 600m in Illupur village in Tiruttani taluk of Thiruvallur District.	2.00
158	Emergency work for Restoration of Flood damage in Illupur Checkdam D/S Right flank bund at Ls 400m inlet in Illupur village in Tiruttani taluk of Thiruvallur District.	2.00
159	Temporary flood damaged Regulator approach slab and hand rails in Vent No.1 & 2 in Redhills tank of Ponneri taluk of Thiruvallur District.	2.80
160	Flood damaged in wave shutters in weir No.1 &2 in Redhills tank of Ponneri taluk of Thiruvallur District.	2.00
161	Flood damaged in downstream side of Weir.II apron portion in Redhills tank of Ponneri taluk of Thiruvallur District.	1.80
162	Regulator electrical wire, labour and switch box assessories in Redhills tank of Ponneri taluk of Thiruvallur District.	2.00
163	Emergency work for restoration of Redhills tank Upstream side of Parapet wall @ LS 0 m in Ponneri taluk of Thiruvallur District.	1.90
164	Emergency work for restoration of Redhills tank downstream side of Parapet wall @ LS 4m in Ponneri taluk of Thiruvallur District.	2.00
165	Temporary flood damaged in bund breached and over washed in Vadagarai Village near Rice mill in Ponneri taluk of Thiruvallur District.	5.50
166	Temporary flood damaged in upper supply channel in Singlikuppam Village of Uthukottai taluk of Tiruvallur District	2.10
167	Temporary flood damaged clearing the weeds and vegetation and in shutter and pier portion of Poochikkal outluet in Poochiathipedu village in Uthukottai of Thiruvallur District.	2.00
168	Temporary flood damaged cut open the flood bank at weir portion in upper supply channel Poochiathipedu village in Uthukottai of Thiruvallur District.	2.10
169	Temporary flood damaged over wahsed upper supply channel in Erumaivettipalayam Village of Ponneri Taluk of Thiruvallur District.	2.20
170	Flood damaged revetment portionof Downstream sie of Anicut in Left & Right bank of Kosasthalaiyar river in Ammanambakkam village in Thiruvallur taluk and District.	3.50
171	Temporary flood damaged overwashed portion in Alamathi tank in near sluice portion in Alamathi village of Ponneri taluk of Thiruvallur District.	3.50
172	Temporary flood damaged overwashed portion in Alamathi tank in near sluice portion @ LS 500m to 700m in Alamathi village of Ponneri taluk of Thiruvallur District.	3.50
173	Emergency work for restoration of alamathi tank bund by using sand bags at ls 250m to 350m in alamathi village in ponneri taluk of tiruvallur District.	1.90

Sl.No	Name of Work	Estimate Amount (in lakhs)
174	Emergency work for restoration of alamathi tank bund by using sand bags at ls 380m to 570m in alamathi village in ponneri taluk of tiruvallur District.	1.90
175	Emergency work for restoration of alamathi tank bund by using sand bags at ls 600m to 740m in alamathi village in ponneri taluk of tiruvallur District.	1.90
176	Emergency work for restoration of alamathi tank bund by using sand bags at ls 800m to 880m in alamathi village in ponneri taluk of tiruvallur District.	1.90
177	Emergency work for restoration of alamathi tank bund by using sand bags at ls 910m to 1020m in alamathi village in ponneri taluk of tiruvallur District.	1.80
178	Emergency work for restoration of vellanoor big tank bund by using sand bags at sluice1 & 2 in vellanoor village in avadi taluk of tiruvallur District.	3.70
179	Emergency work for restoration of vellanoor big tank bund by using sand bags at ls 350m to 420m in vellanoor village in avadi taluk of tiruvallur District.	2.20
180	Emergency restoration of breached portion in Kosasthalaiyar river at LS 124700 in Ponneri Taluk of Thiruvallur District.	2.20
181	Emergency restoration of breached portion in Kosasthalaiyar river D/s of Karanodai Bridge left bank at Ls 106450 in Ponneri Taluk of Thiruvallur District.	3.20
182	Emergency restoration of breached portion in Kosasthalaiyar river D/s of Karanodai Bridge left bank at Ls 106700 in Ponneri Taluk of Thiruvallur District.	2.20
183	Emergency restoration of breached portion in Kosasthalaiyar river D/s of Karanodai Bridge Right bank at Ls 106360 in Ponneri Taluk of Thiruvallur District.	2.60
184	Emergency restoration of breached portion in Kosasthalaiyar river D/s of Jayaramapuram Right bank at Ls 114300 in Ponneri Taluk of Thiruvallur District.	2.50
185	Emergency restoration of breached portion in Kosasthalaiyar river in Left bank at Ls 127600 in Ponneri Taluk of Thiruvallur District	2.20
186	Emergency restoration of breached portion in Kosasthalaiyar river in Left bank near Thulasi Nagar in Ponneri Taluk of Thiruvallur District	2.80
187	Emergency Restoration of Damaged bund portion of Amoor Tank in Ponneri Taluk of Thiruvallur District.	1.80
188	Emergency Restoration of Damaged bund portion of Perungavoor Tank in Ponneri Taluk of Thiruvallur District.	1.80
189	Emergency Restoration of Damaged bund portion of Thirunillai Tank in Ponneri Taluk of Thiruvallur District.	1.80
190	Emergency Restoration of Removal of obstructions in the surplus channel in Agaram Raval tank in Ponneri Taluk of Thiruvallur District.	1.90
191	Emergency Restoration of Damaged bund portion of Periyamullaivoyal Tank in Ponneri Taluk of Thiruvallur District.	1.90
192	Emergency Restoration of Removal of obstructions and clearing the supply channel in the Boodur tank in Ponneri Taluk of Thiruvallur District.	1.80
193	Emergency Restoration of Removal of obstructions and clearing the surplus channel in the Padiyanallur tank in Ponneri Taluk of Thiruvallur District.	1.90
194	Emergency Restoration of Damaged bund portion of Padiyanallur Tank in Ponneri Taluk of Thiruvallur District.	2.00
195	Emergency Restoration of Removal of obstructions and clearing the supply channel of Melasinglimedu Tank of Palavoyal village in Ponneri Taluk of Thiruvallur District.	1.90
196	Emergency Restoration of Removal of obstructions and clearing the supply channel of Sothupakkam Tank in Ponneri Taluk of Thiruvallur District.	2.00
197	Emergency Restoration of Damaged bund portion of Siruvakkam Tank in Ponneri Taluk of Thiruvallur District.	1.80
198	Emergency restoration of breached portion in Kosasthalaiyar river U/s of Left bank near Vinayaga Chamber in Ponneri Taluk of Thiruvallur District	2.00
199	Emergency Restoration of Damaged bund portion in U/s side at Ls 2400 of Cholavaram Tank in Ponneri Taluk of Thiruvallur District.	1.80
200	Emergency Restoration of Damaged bund portion in U/s side at Ls 2550 of Cholavaram Tank in Ponneri Taluk of Thiruvallur District.	1.80
201	Emergency Restoration of Damaged bund portion in U/s side at Ls 2750 of Cholavaram Tank in Ponneri Taluk of Thiruvallur District.	1.80
202	Emergency Repairs to Restroation of Chellathur tank supply channel at LS	2.00

Sl.No	Name of Work	Estimate Amount (in lakhs)
	1500m near Ragavanaidukuppam kondam in R.K.Pet Taluk of Thiruvallur District.	
203	Emergency Repair to Restoration of Veeramangalam Tank Supply Channel at LS 4800 m to 4900 m near Rajavur Village in R.K.Pet Taluk of Thiruvallur District.	2.10
204	Emergency Repair to Restoration of Chellathur Tank Supply Channel at LS 3800 m to 3900m near Narayanapuram Village in R.K.Pet Taluk of Thiruvallur District.	1.90
205	Emergency Repairs to Restoration of Mahankaligapuram Tank Sluice No.2 in Mahankaligapuram village in R.K.Pet Taluk of Thiruvallur District.	1.80
206	Emergency Repairs to Restoration of Perianagapudi Tank Supply Channel at LS 800m to 850m near Perinagapudi Village in R.K.Pet Taluk of Thiruvallur District.	1.80
207	Emergency Repairs to Restoration of Srikaligapuram Big Tank Weir in Srikaligapuram Village in R.K.Pet Taluk of Thiruvallur District.	1.90
208	Emergency Repairs to Restoration of Chellathur tank supply channel at right flank of Ragavanaidukuppam kondam LS 1550m to 1650m in R.K.Pet Taluk of Thiruvallur District.	1.80
209	Emergency Repairs to Restoration of Chellathur Tank Supply Channel at LS 3930 m to 4950 m downstreamside of Road Bridge near Narayanapuram village in R.K.Pet Taluk of Thiruvallur District.	1.80
210	Emergency Repairs to Restoration of Veeramangalam Tank supply Channel at LS 3300 m to 3950m near Veeramangalam village in R.K.Pet Taluk of Thiruvallur District.	1.80
211	Emergency Repairs to Restoration of Mylarwada Tank Surplus Course at LS 50 m to 100 m in Mylarwada Village in R.K.Pet Taluk of Tiruvallur District.	2.00
212	Emergency Repairs to Restoration of Vellathur Tank Sluice in Vellathur Village in R.K.Pet Taluk of Thiruvallur District.	1.80
213	Emergency Repairs to Restoration of Padmanabapuram Tank supply channel at LS 950 m to 1050 m in Padmanabapuram Village in R.K.Pet Taluk of Thiruvallur District.	2.00
214	Emergency Repairs to Restoration of Vellathur Tank Supply Channel at LS 650 m to 750 m in R.K.Pet Taluk of Thiruvallur District.	2.20
215	Emergency Repairs to Restoration of Ayyaneri Tank Surplus Course at LS 150 m to 200 m near Ammaneri Village in R.K.Pet Taluk of Thiruvallur District.	1.90
216	Emergency Repairs to Restoration of Balapuram Tank Bund at LS 250 m to 300 m in Balapuram Village in R.K.Pet Taluk of Thiruvallur District.	1.90
217	Emergency Repair to Restoration of Right & left side of Sholingur branch Channel at LS 2400m to 2450m near Kalyanapuram kondam in R.K.Pet Taluk of Thiruvallur District.	2.30
218	Emergency Repair to Restoration of Sholingur branch Channel at LS 2100 m to 2150 m near Sanurmallavarm village in R.K.Pet Taluk of Thiruvallur District.	1.60
219	Emergency Repair to Restoration of Veeramangalam tank bund at LS 50m to 100 m in Veeramangalam village in R.K.Pet Taluk of Thiruvallur District.	1.80
220	Emergency Repair to Restoration of Sholingur branch Channel at LS 1700m to 1760m near Nagakuppam village in R.K.Pet Taluk of Thiruvallur District.	1.90
221	Emergency Repair to Restoration of Vilakanampudi Tank Supply Channel at LS 800 m to 900m near Vilakanampudi Village in R.K.Pet Taluk of Thiruvallur District.	1.80
222	Emergency Repairs to Restoration of Rajanagaram Tank Sluice No.1 and 2 in Rajanagaram village in R.K.Pet Taluk of Thiruvallur District.	1.50
223	Emergency Repairs to Veliagaram Tank Supply Channel in Pallipet Taluk of Thiruvallur District.	2.10
224	Emergency Repair to Cherukkanur Chitteri Supply Channel near Cherukkanur Village in Tiruttani Taluk of Thiruvallur District.	2.00
225	Emergency Repairs to Melapudi Kasam Channel in Sorakkaipet village in Pallipet Taluk of Thiruvallur District.	2.00
226	Emergency Repairs to Restoration of S.Agraharam Tank Bund at LS 50 m in S.Agraharam village in Tiruttani Taluk of Thiruvallur District.	2.00
227	Emergency Repairs to Restoration of S.Agraharam Tank Supply Channel at LS 1500 m to 2000m in S.Agraharam village in Tiruttani Taluk of Thiruvallur District.	2.20

Sl.No	Name of Work	Estimate Amount (in lakhs)
228	Emergency Repairs to Restroation of Periakadambur Tank Sluice No.1 in Periakadambur Village in Tiruttani Taluk of Thiruvallur District.	2.10
229	Emergency Repairs to Restroation of Ponpadi Tank Weir near Embankments in Ponpadi Village in Tiruttani Taluk of Thiruvallur District.	2.00
230	Emergency Repairs to Restroation of Kunnathur Tank Sluice No.1 U/S in Kunnathur village in Tiruttani Taluk of Tiruvallur District.	2.00
231	Emergency Repairs to Restroation of Agoor Chitteri Tank Supply Channel at LS 0 m to 450 m in Agoor village in Tiruttani Taluk of Tiruvallur District.	2.00
232	Emergency Repairs to Restroation of Nemili Tank Surplus Course at LS 0 m to 200 m in Nemili Village in Tiruttani Taluk of Tiruvallur District.	2.00
233	Emergency Repairs to Restroation of Nemili Supply Channel at LS 100m to 600 m near Nemili Government Higher Scondary School in Nemili Village in Tiruttani Taluk of Tiruvallur District.	2.00
234	Emergency Repairs to Restroation of breached portion in Right side bank of Kusa River at LS 6100 m near Sanakuppam Village in Pallipet Taluk of Tiruvallur District.	2.20
235	Emergency Repairs to Restroation of breached portion in Right side bank of Kusa River at LS 6050 m near Sanakuppam Village in Pallipet Taluk of Tiruvallur District.	2.20
236	Emergency Repairs to Restroation of breached portion offtake point Sanakuppam Tank Supply Channel at LS 6150 m in Kusa River near Sanakuppam Village in Pallipet Taluk of Tiruvallur District.	2.10
237	Emergency Repairs to Restroation of breached portion offtake point Sanakuppam Tank Supply Channel at LS 6180 m in Kusa River near Sanakuppam Village in Pallipet Taluk of Tiruvallur District.	2.00
238	Emergency Repairs to Restroation of downstream side of offtake point of Sanakuppam Tank Supply Channel at LS 6240 m in Kusa River near Sanakuppam Village in Pallipet Taluk of Tiruvallur District.	2.00
239	Emergency Repairs to Restroation of downstream side of offtake point of Sanakuppam Tank Supply Channel at LS 6300 m in Kusa River near Sanakuppam Village in Pallipet Taluk of Tiruvallur District.	2.00
240	Emergency Repairs to Sanakuppam Tank Supply Channel in Sanakuppam Village in Pallipet Taluk of Tiruvallur District.	2.10
241	Emergency Repairs to Perumanallur Tank Supply Channel in Perumanallur Village in Pallipet Taluk of Tiruvallur District.	2.00
242	Emergency Repairs to Karimbedu Kasam Supply Channel in Karimbedu Village in Pallipet Taluk of Tiruvallur District.	1.80
243	Emergency Repairs to Restoration of Cherukkanur Big Tank Bund at LS 300 m in Cherukkanur Village in Tiruttani Taluk of Tiruvallur District.	2.00
244	Emergency Repairs to Podatturpet Tank Supply Channel near Konasamudhram village in Pallipet Taluk of Thiruvallur District.	1.80
245	Emergency Repairs to Keelapudi Kasam Channel near Melapudi village in Pallipet Taluk of Thiruvallur District.	1.80
246	Emergency Repairs to Restroation of Keelapudi Kasam Channel at LS 760 m to 900 m near Melapudi village in Pallipet Taluk of Thiruvallur District.	1.90
247	Emergency Repairs to Pandravedu Tank Supply Channel near Podatturpet Village in Pallipet Taluk of Thiruvallur District.	1.90
248	Emergency Repairs to Right Side Bank of Pallipet Tank Supply Channel near Pallipet Village in Pallipet Taluk of Thiruvallur District.	2.00
249	Emergency Repairs to Kolathur Tank Supply Channel near Kolathur Village in Pallipet Taluk of Thiruvallur District.	1.90
250	Emergency Repairs to Restroation of Athimanjeri Tank Bund at LS 1380 m in Athimanjeri Village in Pallipet Taluk of Thiruvallur District.	2.00
251	Emergency Repairs to Kilapudi Kasam Kalvoi near Sorrakkaipet Village in Pallipet Taluk of Thiruvallur District.	1.80
252	Emergency Repairs to Right Side Bank of Nagari River near Melapudi Village in Pallipet Taluk of Thiruvallur District.	2.10
253	Emergency Repairs to Restroation of Agoor Chitteri Weir near Embankments in Agoor Village in Tiruttani Taluk of Thiruvallur District.	2.00
254	Emergency Repairs to Restroation of Chinnakadambur Tank Sluice No.3 in Chinnakadambur Village in Tiruttani Taluk of Thiruvallur District.	2.00
255	Emergency Repairs to Restroation of Chinnakadambur Tank Supply Channel at LS 0 m to 500 m in Chinnakadambur Village in Tiruttani Taluk of	1.90

Sl.No	Name of Work	Estimate Amount (in lakhs)
	Thiruvallur District.	
256	Emergency Repairs to Restroation of Mambakkam Tank Bund near Sluice in Mambakkam Village in Tiruttani Taluk of Thiruvallur District.	2.00
257	Emergency Repairs to Restroation of Suriyanagaram Tank Sluice No.1 in Suriyanagaram Village in Tiruttani Taluk of Thiruvallur District.	2.10
258	Emergency Repairs to Restroation of Lakshmauram Tank Suppply Channel at LS 500m to 900 m near Thasiraddy kandigai Village in Tiruttani Taluk of Thiruvallur District.	1.80
259	Emergency Repairs to Restoration of Poonimangadu Tank Suppply Channel at LS 1500m to 2000m near Poonimangadu Village in Tiruttani Taluk of Thiruvallur District.	1.80
260	Emergency Repairs to Restoration of Arumpakkam Supply channel at LS 500m to 900 m near Arumbakkam Village in Tirutani Taluk of Thiruvallur District.	2.00
261	Emergency Repairs to Nedungal Tank Surplus Course near Keechalam Village in Palipet Taluk of Thiruvallur District.	2.00
262	Emergency Repairs to Restoration of Flood Affected portion in Nemli Kasam Channel at LS in Tiruvalangadu Block Tiruttani Taluk of Thiruvallur District.	2.00
263	Emergency Repairs to Restroation of Perumanallur Tank Bund at LS 290 m in Perumanallur Village in Palipet Taluk of Thiruvallur District.	1.90
264	Emergency Repairs to Restoration of Mambakkam Supply channel at LS 400m to 1000 m near Mambakkam Village in Tirutani Taluk of Thiruvallur District.	2.00
265	Emergency Repairs to Restoration of Koramangalam Big Tank Supply channel at LS 1500m near Koramangalam Village in Tirutani Taluk of Thiruvallur District.	2.00
266	Emergency Repairs to Restoration of Veeraganallur Tank Surplus Course at LS 800m to 1300 m near Veeraganallur Village in Tirutani Taluk of Thiruvallur District.	2.30
267	Emergency Repairs to Restoration of Sirugumi Tank Supply Channel at LS 600m to 1600 m near Sirugumi Village in Tirutani Taluk of Thiruvallur District.	2.00
268	Emergency Repairs to Restoration of Nallattur Tank Supply channel at LS 1000m to 2000 m near Nallattur Village in Tirutani Taluk of Thiruvallur District.	2.10
269	Emergency Repairs to Restoration of Murukkampattur Tank Supply channel at LS 500m to 1200 m near Arumbakkam Village in Tirutani Taluk of Thiruvallur District.	2.20
270	Emergency work for restoration of Banavedu Tank bund by using sand bags at LS 50 to 58 m in Poonamallee Taluk of Thiruvallur District.	2.00
271	Emergency work for restoration of Banavedu Tank bund by using sand bags at LS 170 m to 175m in Poonamallee Taluk of Thiruvallur District.	2.00
272	Emergency work for restoration of Banavedu Tank bund by using sand bags at LS 209 m to 217m in Poonamallee Taluk of Thiruvallur District.	2.00
273	Emergency work for restoration of Banavedu Tank bund by using sand bags at LS 435 m to 441m in Poonamallee Taluk of Thiruvallur District.	2.00
274	Emergency work for restoration of Banavedu Tank bund by using sand bags at LS 452 m to 457m in Poonamallee Taluk of Thiruvallur District.	2.20
275	Emergency work for restoration of Parivakkam Tank bund by using sand bags at LS 185 m to 193m in in Parivakkam village in Poonamallee Taluk of Thiruvallur District.	2.00
276	Emergency work for restoration of Parivakkam Tank bund by using sand bags at LS 232 m to 240m in in Parivakkam village in Poonamallee Taluk of Thiruvallur District.	2.00
277	Emergency work for restoration of Parivakkam Tank bund by using sand bags at LS 268 m to 277m in in Parivakkam village in Poonamallee Taluk of Thiruvallur District.	2.00
278	Emergency work for restoration of Parivakkam Tank bund by using sand bags at LS 560 m to 567m in in Parivakkam village in Poonamallee Taluk of Thiruvallur District.	2.20
279	Emergency work for restoration of Parivakkam Tank bund by using sand bags at LS 725 m to 731m in in Parivakkam village in Poonamallee Taluk of Thiruvallur District.	2.00
280	Emergency work for restoration of Mangammal Tank bund by using sand	2.00

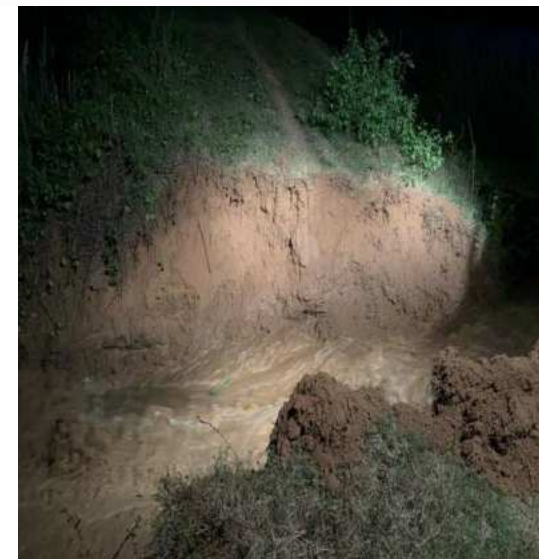
Sl.No	Name of Work	Estimate Amount (in lakhs)
	bags at LS 420 m to 432m in Kannapalayam village in Poonamallee Taluk of Thiruvallur District.	
281	Emergency work for restoration of Mangammal Tank bund by using sand bags at LS 448 m to 453m in Kannapalayam village in Poonamallee Taluk of Thiruvallur District.	1.90
282	Emergency work for restoration of Mangammal Tank bund by using sand bags at LS 221 m to 235m in Kannapalayam village in Poonamallee Taluk of Thiruvallur District.	2.00
283	Emergency work for restoration of Sekkadu Tank bund by using sand bags at LS 1372 m to 1383m in Avadi Taluk of Thiruvallur District.	2.00
284	Emergency repair of embankment in Sekkadu Tank bund at LS 1370 m to 1385m in Avadi Taluk of Thiruvallur District.	2.00
285	Emergency work for restoration of Sekkadu Tank bund by using sand bags at LS 1265 m to 1268m in Avadi Taluk of Thiruvallur District.	1.90
286	Emergency repair of embankment in Banavedu Tank near left portion of weir embankment in Poonamallee Taluk of Thiruvallur District.	2.00
287	Emergency repair of embankment in Banavedu Tank near Right portion of weir embankment in Poonamallee Taluk of Thiruvallur District.	2.10
288	Emergency repair of embankment in Banavedu Tank bund at LS 190m to 202m in Poonamallee Taluk of Thiruvallur District.	1.90
289	Emergency repair of embankment in Banavedu Tank bund at LS 384m to 391m in Poonamallee Taluk of Thiruvallur District.	2.00
290	Emergency repair of embankment in Sekkadu Tank bund at LS 1120 m to 1128m in Avadi Taluk of Thiruvallur District.	1.90
291	Emergency work for restoration of Vilinjambakkam Tank bund by using sand bags at LS 255 m to 260m in Avadi Taluk of Thiruvallur District.	2.00
292	Emergency work for restoration of Vilinjambakkam Tank bund by using sand bags at LS 182 m to 187m in Avadi Taluk of Thiruvallur District.	1.90
293	Emergency work for restoration of Vilinjambakkam Tank bund by using sand bags at LS 524 m to 529m in Avadi Taluk of Thiruvallur District.	2.20
294	Emergency work for restoration of Vilinjambakkam Tank bund by using sand bags at LS 682 m to 686m in Avadi Taluk of Thiruvallur District.	2.00
295	Emergency work for restoration of Vilinjambakkam Tank bund by using sand bags at LS 855 m to 859m in Avadi Taluk of Thiruvallur District.	2.00
296	Emergency work for restoration of Vilinjambakkam Tank bund by using sand bags at LS 1124 m to 1129m in Avadi Taluk of Thiruvallur District.	2.00
297	Emergency work for restoration of Vilinjambakkam Tank bund by using sand bags at LS 1180 m to 1185m in Avadi Taluk of Thiruvallur District.	2.00
298	Emergency work for restoration of Vilinjambakkam Tank bund by using sand bags at LS 1232 m to 1236m in Avadi Taluk of Thiruvallur District.	1.90
299	Emergency work for draining out flood Water in Thandurai Tank Surplus Course at LS 250 m to 320m in Avadi Taluk of Thiruvallur District.	2.00
300	Emergency work for draining out flood Water in Thandurai Tank Surplus Course at LS 380 m to 490m in Avadi Taluk of Thiruvallur District.	1.90
301	Emergency work for draining out flood Water in Thandurai Tank Surplus Course at LS 520 m to 670m in Avadi Taluk of Thiruvallur District.	2.00
302	Emergency work for restoration of Thandurai Tank Sluice Channel by clearing the floating materials and debris in LS 20 m to 250m in Avadi Taluk of Thiruvallur District.	2.00
303	Emergency work for restoration of Thandurai Tank Sluice Channel by clearing the floating materials and debris in LS 330 m to 470m in Avadi Taluk of Thiruvallur District.	1.90
304	Emergency work for restoration of Thandurai Tank bund by using sand bags LS 54 m to 59m in Avadi Taluk of Thiruvallur District.	2.00
305	Emergency work for restoration of Thandurai Tank bund by using sand bags at LS 172 m to 176m in Avadi Taluk of Thiruvallur District.	1.80
306	Emergency work for restoration of Thandurai Tank bund by using sand bags at LS 460 m to 465m in Avadi Taluk of Thiruvallur District.	2.00
307	Emergency work for restoration of Thandurai Tank bund by using sand bags LS 835 m to 838m in Avadi Taluk of Thiruvallur District.	2.00
308	Emergency work for restoration of Nadukuthagai Tank bund by using sand bags at LS 225 m to 228m in Avadi Taluk of Thiruvallur District.	2.00
309	Emergency work for restoration of Nadukuthagai Tank bund by using sand	2.00

Sl.No	Name of Work	Estimate Amount (in lakhs)
	bags at LS362 m to 368m in Avadi Taluk of Thiruvallur District.	
310	Emergency work for restoration of Nadukuthagai Tank bund by using sand bags LS 481 m to 485m in Avadi Taluk of Thiruvallur District.	1.90
311	Emergency work for restoration of Nadukuthagai Tank bund by using sand bags at LS 574 m to 579m in Avadi Taluk of Thiruvallur District.	2.20
312	Emergency work for restoration of Nadukuthagai Tank bund by using sand bags at LS 926 m to 930m in Avadi Taluk of Thiruvallur District.	2.00
313	Emergency work for restoration of Nadukuthagai Tank bund by using sand bags at LS 1252 m to 1256m in Avadi Taluk of Thiruvallur District.	1.80
314	Temporary Restoration of Eroded Rt. Side Bund Portion of Thervaikandigai Reservoir off Take Canal at L.S 945 M to 1045 m at Senjiagaram Village in Uthukkottai Taluk of Thiruvallur District.	2.00
315	Temporary Restoration of Eroded Rt. Side Bund Portion of Thervaikandigai Reservoir off Take Canal at L.S 1560 M to 1680 m at Senjiagaram Village in Uthukkottai Taluk of Thiruvallur District.	1.90
316	Temporary Restoration of Eroded Rt. Side Bund Portion of Thervaikandigai Reservoir off Take Canal at L.S 4930 M to 4980 m at Senjiagaram Village in Uthukkottai Taluk of Thiruvallur District.	1.80
317	Temporary Restoration of Eroded Lt. Side Bund Portion of Thervaikandigai Reservoir off Take Canal at L.S 5360 M to 5460 m at Karadiputhur Village in Gummidipoondi Taluk of Thiruvallur District.	2.00
318	Temporary Restoration of Eroded Lt. Side Bund Portion of Thervaikandigai Reservoir off Take Canal at Inlet L.S 7300 m at Karadiputhur Village in Gummidipoondi Taluk of Thiruvallur District.	1.80
319	Temporary Restoration of Eroded Lt. Side Bund Portion of Thervaikandigai Reservoir off Take Canal at Super Passage L.S 4930 m at Karadiputhur Village in Gummidipoondi Taluk of Thiruvallur District.	1.90
320	Temporary Restoration of Eroded bund portion of Thervaikandigai Reservoir at L.S 5580m to 5610m at Thervaikandigai Village in Gummidipoondi Taluk of Thiruvallur District.	2.00
321	Temporary Restoration of Eroded bund portion of Thervaikandigai Reservoir at L.S 3030m to 3080m at Thervaikandigai Village in Gummidipoondi Taluk of Thiruvallur District.	2.00
322	Temporary Restoration of Eroded Rt. bund portion of Thervaikandigai Reservoir Surplus Corse at L.S 2600m to 2650m at Thervaikandigai Village in Gummidipoondi Taluk of Thiruvallur District.	2.00
323	Temporary Restoration of Eroded Rt. bund portion of Thervaikandigai Reservoir Surplus Corse at L.S 2050m to 2100m at Kannankottai Village in Gummidipoondi Taluk of Thiruvallur District.	2.00
324	Temporary Restoration of Eroded bund portions of Thervaikandigai Reservoir near wier at Kannankottai Village in Gummidipoondi Taluk of Thiruvallur District.	2.00
325	Temporary Restoration of Damaged Road portions of Palavakkam-Sathyavedu Road at L.S 5500m to 5800m of Thervaikandigai Reservoir at Thervaikandigai Village in Gummidipoondi Taluk of Thiruvallur District.	1.80
326	Temporary Restoration of Damaged Road portions of Palavakkam-Sathyavedu Road at L.S 4600m to 4700m of Thervaikandigai Reservoir at Thervaikandigai Village in Gummidipoondi Taluk of Thiruvallur District.	2.00
	Total	700.00

Emergency work for flood water from Thirunindravur Tank to Coovam river D/s of bund fixing 1m dia pipes in Ls 3616m of Avadi Taluk in Thiruvallur District. Estimate Amount of Rs.2.00 Lakhs



Emergency work for draining flood water from Thirunindravur Tank to Coovam river cutting bund work at Coovum river in Avadi Taluk of Thiruvallur District. Estimate Amount of Rs.2.00 Lakhs



**Emergency work for flood water from Thirunindravur Tank to Coovam river
Channel de-silting work Ls 350m to Ls400m of Avadi Taluk in Thiruvallur
District. Estimate Amount of Rs.2.00 Lakhs**



**Emergency work for flood water from Thirunindravur Tank to Coovam river
Channel de-silting work Ls 400m to Ls450m of Avadi Taluk in Thiruvallur
District. Estimate Amount of Rs.2.00 Lakhs**



**Emergency work for flood water from Thirunindravur Tank to Coovam river
Channel de-silting work Ls 450m to Ls500m of AvadiTaluk in Thiruvallur
District. Estimate Amount of Rs.2.00 Lakhs**



**Emergency work for flood damages in Thirunindravur Tank Surplus
Channel desilting work Ls 100 m to 200 m in Thirunindravur Village of
AvadiTaluk in Thiruvallur District. Estimate Amount of Rs.4.50 Lakhs**



Emergency work for flood damages in Thirunindravur Tank Surplus Channel desilting work Ls 300 m to 350 m in Thirunindravur Village of Avadi Taluk in Thiruvallur District. Estimate Amount of Rs.1.90 Lakhs



**Emergency work for Restoration of flood damages in Karikkalavakkam tank Bund at 60 m to 110m in Thiruvallur Taluk of Thiruvallur District
Estimate Amount of Rs.2.80 Lakhs**



Emergency work for restoration of flood damages in Narasamangalam Big Tank Bund in Thiruvallur Taluk of Thiruvallur District. Estimate Amount of Rs.2.00 Lakhs



Emergency work for restoration of flood damages in Thodukadu Tank Bund in Thiruvallur Taluk of Thiruvallur District. Estimate Amount of Rs.2.00 Lakhs



Emergency work for restoration of flood damages near sluices no 2 in Mappadu Big Tank in Thiruvallur Taluk of Thiruvallur District. Estimate Amount of Rs.2.00 Lakhs



Emergency work for Restoration of Flood damage near sluice No.1 , in Kalambakkam Tank of Kalambakkam village in Tiruttani taluk of Thiruvallur District. Estimate Amount of Rs.1.90 Lakhs



Emergency work for restoration of Redhills tank downstream side of Parapet wall @ LS 4m in Ponneri taluk of Thiruvallur District. Estimate Amount of Rs.2.00 Lakhs



Emergency work for restoration of alamathi tank bund by using sand bags at ls 910m to 1020m in Alamathi village in ponneri taluk of tiruvallur District. Estimate Amount of Rs.2.00 Lakhs



ARANIYAR BASIN DIVISION

***New Irrigation Project of WRD (Araniyar):**

a) Eliambedu Check-dam is proposed to Construct across Araniyar River Up Stream of Lakshmipuram Anicut in Eliambedu Village, Ponneri Taluk of Thiruvallur District for impeding the flow of surface water in the River course and water is retained for a longer duration in the previous soil or sand bed and also 2 Nos of Check-dams (Mambakkam and Enambakkam Villages) to be proposed across the Araniyar River. And also 5 Nos. of Check-dams (ie., 43. Panapakkam Check-dam, Kalpattu Check-dam, Sengathakulam Check-dam, Paleswaram Check-dam, and A.Reddypalayam Check-dam) and 3 Nos. of Anicuts (Araniyar Anicut, A.N. Kuppam Anicut and Lakshmipuram Anicut) are already constructed across the Araniyar River. The broad objectives of Check-dams are :

1. Ground water recharge.
2. It controls the water velocity and reduces soil erosion.
3. The stored water improves soil moisture of the adjoining area and improve land fertility allows percolation to recharge the aquifers.
4. To provide drinking water facilities in the villages along both the sides of the River after monsoon period.
5. Check dams provide relatively good removal of coarse and medium size sediment form run off..

b) Flood mitigation strategies for Araniyar River in Tiruvallur District.

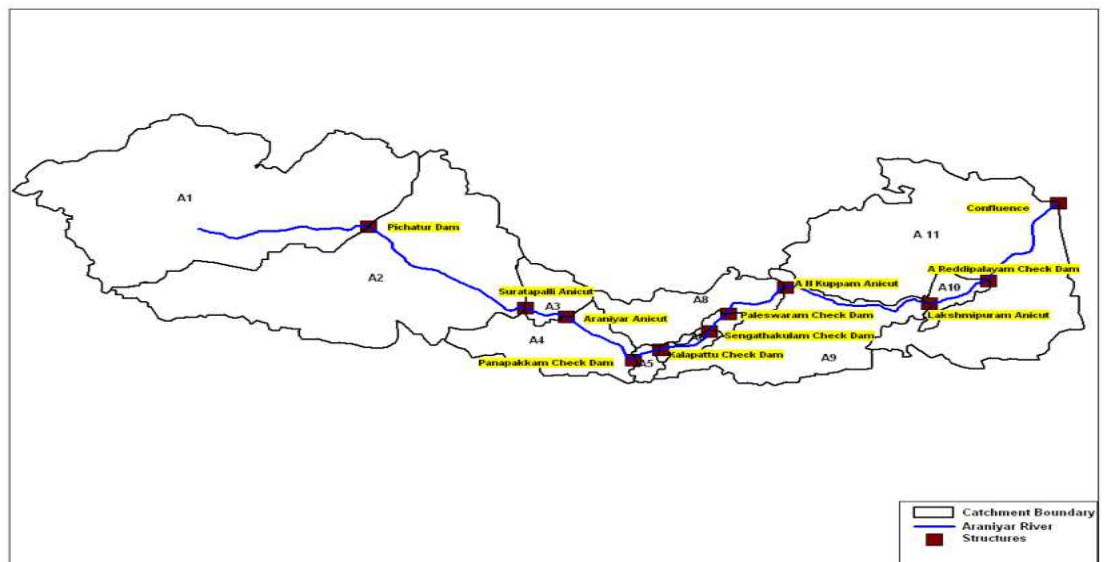
From the field visits and preliminary analysis of data, the following are some of the present observations:

- ✓ Two field visits were completed to understand the site conditions.
- ✓ The hydrological model of the basin is developed using HEC-HMS software. The basin is digitized in a GIS environment and transferred into the HMS software using HEC-GeoHMS specialized tools.
- ✓ The hydraulic model of the basin is developed using HEC-RAS software. The basin is digitized in a GIS environment and transferred into the RAS software using HEC-GeoRAS specialized tools.

- ✓ From the analysis, Flood prone zones could be demarcated and possible mitigation methods could be suggested.
- ✓ The Survey data have to be supplied by the PWD regarding the cross-section of the river course at intervals of 300m along flow direction.
- ✓ Some more Rainfall data has to be collected from the IMD for the most extreme flood events based on the rainfall analysis.
- ✓ The flow of data or discharge of data have to be acquired from the anicuts to help in calibration and validation of the model (to be supplied by PWD).
- ✓ The study is well on course and frequent reporting will be done to the satisfaction of PWD Engineers and Tiruvallur Collectorate.

DELINEATION OF SUB CATCHMENT

The check dams and anicuts were constructed across the Araniyar River to store the surface water during the monsoon and rainy periods. One dam, four anicuts and five check dams were constructed across the Araniyar River. Out of them one dam and one anicut are located within the Andhra Pradesh State and remaining structures situated within Tamil Nadu State. Based on the structures provided across the River Araniyar, the sub basin is further divided into 11 catchments. The catchment delineation is carried using DEM, which already prepared, with the help of GIS. The location of each structure along with its catchment is prepared in map format and presented in Figure 26. The area of each catchment is calculated and presented in Table



**Figure 26. Catchment Map of each structure in Araniyar Sub Basin
Geographical Area of each Catchment**

S. No.	ID	Catchment Name	Area (km ²)
1	A1	Pichatur	486.17
2	A2	Suruttapalli	431.52
3	A3	Araniyar	36.83
4	A4	Panapakkam	99.33
5	A5	Kalapattu	10.35
6	A6	Sengathakulam	9.69
7	A7	Paleswaram	10.15
8	A8	A N Kuppam	82.94
9	A9	Lakshmipuram	163.00
10	A10	A.Reddypalayam	21.77
11	A 11	Confluence	442.14

- Based on the magnitude of Synthetic Unit Hydrograph four catchments of Araniyar Sub Basin, A1, A2, A9 and A11, results higher peak runoff as well as larger base periods.
- The remaining seven catchments, namely, A3, A4, A5, A6, A7, A8 and A10 produce comparatively lower peak runoff with lesser time to base period.
- From the Flood Hydrograph, the first two catchments A1 and A2 are having higher magnitude of peak runoff 1034.91 m³/s, 1006.92 m³/s respectively. The A11 catchment is having magnitude of 784.89 m³/s. The fourth catchment A9 is having peak runoff of 296.3 m³/s.
- The maximum flood discharge is higher (more than 800 m³/s) for Pichatur, Surattapalli and Araniyar Checkdam in the upstream reaches and at A.Reddypallyam and Confluence Point at the downstream reaches.

- In the middle reaches of Araniyar River receives moderate to lower flood discharge. Hence, the flood mitigation works must concentrated at both upstream and downstream reaches at the Araniyar River.
- The lower gradient of bed results in longer backwater profile at upstream of A.Reddypalayam, Sengathakulam, Lakshmipuram and Paleswaram structures. Hence, the flood protection works must be provided for the reaches having more backwater length, such as Sengathakulam, Araniyar, Paleswaram, Lakshmipuram and A.Reddipalyam reaches.
- Provide flood banks (either earthen or masonry) at the upstream of Araniyar Check-dam and Panapakkam Checkdam for the length more than the back water profile developed.
- The backwater profile and maximum and minimum stage in river shows continues stagnation of water in between AN Kuppam and A.Reddypalayam reach. Since, comparatively denser habitats existing on either side of these reaches Flood Walls are more suitable.
- The minimum height of flood protection works must be 4m between Lakshmipuram Anicut and A.Reddypalayam Checkdam.
- A cut off channel must be developed between Andarmadam and Bay of Bengal either constructing a new channel or by connecting the existing flow path at the downstream of Andarmadam area.

Araniyar Basin Division:

Irrigated Agriculture modernisation and water bodies restoration management TN – IAMWARM.

In Tiruvallur District, Gummidipoondi Taluk, Periyapuliyur Village, Periyapuliyur Peddamanjaneri Tank is one of the non system Tank in Gummidipoondi Sub basin .

During heavy rain on 02.12.2015 Periyapuliyur Peddamanjaneri tank Sluice have breached and washed away. Hence, temporary restoration work was completed by using Sand bags and earth work along with Poles, walls and bullies. Now, the tank was restored and in tact.

IAMWARM II, PHASE – I

In Tiruvallur District, the following 1 Tank has been taken up for Restoration Under IAMWARM II, Phase - I, Scheme in Araniyar Sub Basin in Tiruvallur District.

The Government has accorded Administrative Approval for implementation of “IAMWARM II, Retro Active Funding Scheme ” and sanctioned sum of Rs. 448.47 Crores vide G.O. Ms. No 113 Public Works (WR-1) Dept Dated 23.05.2017

In Tiruvallur District, the following 1 Tank has been taken up for Restoration Under IAMWARM II, Retro Active Funding Scheme, in Araniyar and Nandhiyar Sub Basins in Thiruvallur District.

The IAMWARM II, Phase - I and Retro Active Funding Scheme Work is completed.

Name of Tank	Village	Taluk	Ayacut in Ha	Capacity in Mcft		Amount in lakhs
				Before Project	After Project	
IAMWARM II, PHASE – I, PACKAGE No.I						
Periya Puliyur	Peddamanjaneri	Gummudi poondi	47.19	11.81	13.42	26.00
SubTotal(A)						26.00

Two packages are proposed under TN - IAMWARM – II totally 26 Tanks and 3 Anicuts are covered in this scheme (Gummidipoondi Sub basin in Tiruvallur District) and operational area in the sub basin in Gummidipoondi Block covering 1491.20 Ha. with total financial assistance 820.60 Lakh.

In this project provisions are made for Repairs/ Reconstruction of damaged Sluices, and Weir, Strengthening of weak portion of bund, de-silting of supply channels, Lining of Field Channels and Demarcation of Tanks works are to be carried- out. The 2 Packages Tank details are given below:

Sl. No.	Name of Tanks	Ayacut	Estimate Amount in Lakh.
	Package No. 1.		
1	Aramanai Tank	48.220	24.11
2	Karadiputhur Tank	92.680	48.34
3	Thervoy Kandigai Chitteri	45.680	22.84
4	Peddamanjaneri Tank	47.190	23.60
5	Chinna Manjaneri	46.140	23.07
6	Poovalambedu Tank	101.75	50.88
7	Amarambedu Parikkeri	40.66	20.33
8	Amirthamangalam Tank	46.14	23.07
9	Budur Anicut Thangal	75.27	37.64
10	Vanamallee Tank	62.85	31.43
11	Chinna Bommanjikulam Tank	46.35	23.18
12	Periya Bommanjikulam Tank	62.23	31.12
13	Sedilpakkam Tank	44.90	22.45
14	Panchalai Maduvu Anicut		30.00
15	Sethilpakkam Anicut		20.00
	Package No. 2		
1	Parathambedu Tank	40.00	20.00
2	Soorapundi Tank	47.80	23.90
3	Melpakkam Petta Cheruvu	42.50	21.25
4	Narasingapuram Tank	39.20	19.60
5	Periya Natham Thattan Tank	69.00	34.50
6	Periya Obulapuram Large Tank	61.00	30.50
7	Manalur Pudu Eri	40.50	20.25
8	Sanaputhur Tank	40.50	20.25
9	Pondavakkam Pudu Tank	50.59	25.30
10	Pondavakkam Large Tank	96.00	48.00
11	Edur Tank	50.00	25.00
12	Elavoor Katteri	74.05	37.03
13	Elavoor Hissa Kattu Thangal	80.00	40.00
14	Sanaputhur Maduvu Anicut		25.00

Objective of the Project:

- Agriculture intensification by improved production technologies and crop demonstrations.
- Crop diversification by allowing more area under millet, pulses and minor millets and growing climate resilient crops.
- Safeguarding the soil health by reducing the use of inorganic chemical fertilizers and pesticides and maintaining Agriculture eco system.
- Providing the beneficiaries with right informations and communications and building their capacity towards sustained Agricultural production.

Benefits of the Project:

1. Strengthening of tank bunds.
2. De-silting of the tank as well as supply channel.
3. Repair works in Sluices and Weirs.
4. Lining of field channel.
5. Demarcation of water spread area.

Minor Works:

Removal of weeds, prickly-pear and scrub jungles in the tanks and supply channels and canals.

Maintenance of bunds and clearing out the deposits in supply channels, canals and from tanks sluices;

Filling up gullies or other inequalities caused by rain, by the treading of cattle, etc., upon the tanks, supply channels and canals and Repairs to sluices, shutters, surplus weirs, cross masonry structures, replacement of shutters, etc.,

During 2015 North East Monsoon this tank receives unprecedented rainfall and subsequent heavy runoff from the saturated state condition of catchment area resulted with flash flood flow into the tank water spread leading to hydrologically unstable condition. Under these circumstances, the weaker bund portion was damaged and gullies were formed.

FLOOD MITIGATION MEASURES

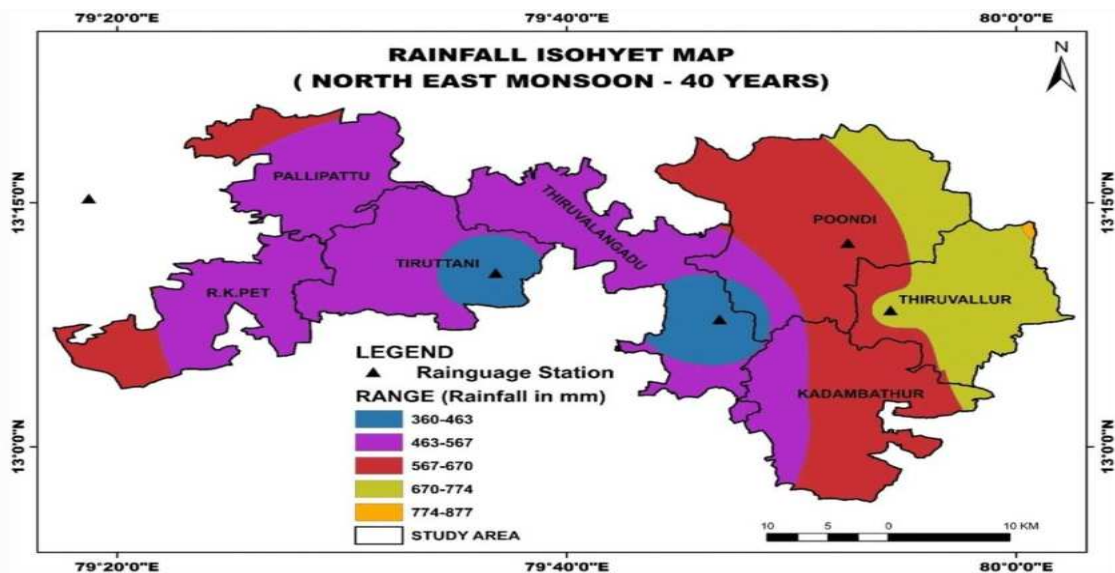
Flood is the interface dynamics between geo-terrain system parameters; viz., **lithology, geological structures, geomorphology, soil, drainage conditions, slope, land use and land cover** etc., and flood. Hence the flood

vulnerability mapping requires the understanding and mapping of all terrain parameters. With this in mind, an attempt has been made to delineate flood vulnerable zones in the rural blocks of **Thiruvallur District**

CAUSES OF FLOOD

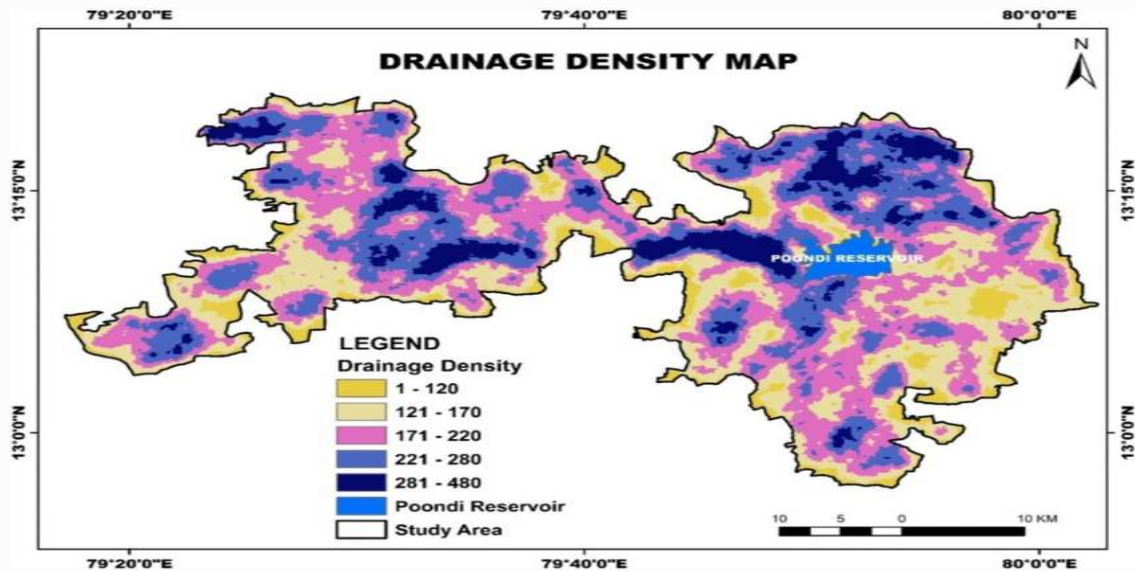
The main cause for flooding is due to an aftermath of meteorological events such as an

- intense and **prolonged rainfall**,
- increase in water level in coastal ,construction of flood plains
- Estuarine waters due to storm surges and seiches as the area close to Bay of Bengal.
- The other reason is breaching of Couvam, Kosasthalaiyar and Araniyar rivers and a spate of Poondi Reservoir.



- Rainfall data were collected from rain-gauge stations namely **Ponneri, Thiruvallur, Tiruttani, Thiruvallangadu** which influence to interpolate the spatial distribution of rainfall.
- The rural blocks of Thiruvallur District lie in the tropical monsoon zone. As the monsoons bring heavy rainfall, it improves not only the recharging of groundwater and the storage of surface water, also brings flood as the flow of water gets strucked due to various obstacles.
- Hence, the monsoon period is hydrologically significant for water and related analysis will help us a **comprehensive flood management**

DRAINAGE, TANKS AND RESERVOIR

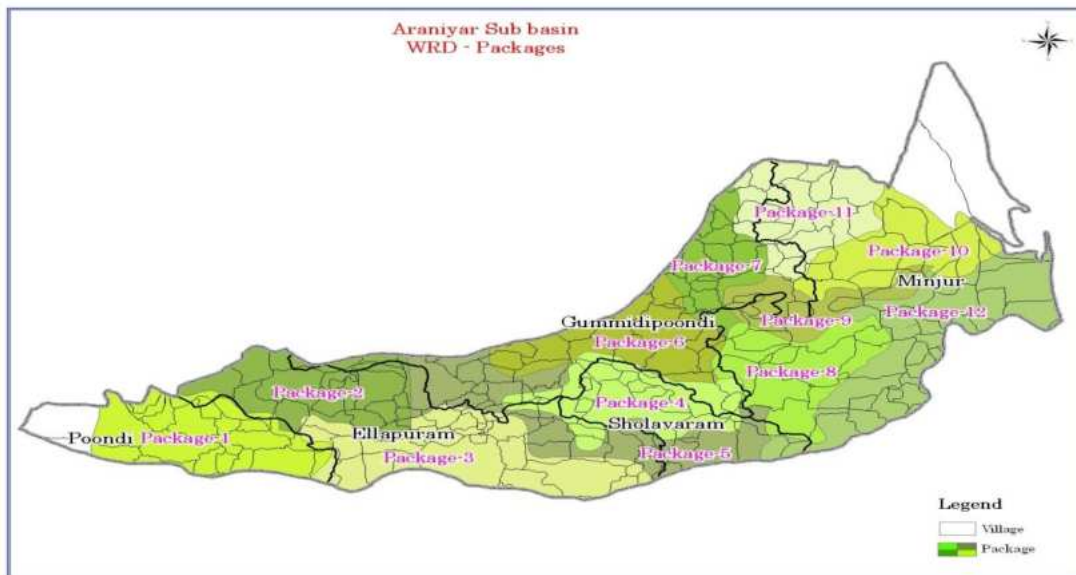


- Drainage is an important ecosystem controlling the hazards as its densities denote the nature of the soil and its geotechnical properties
- Kosasthalaiyar and Araniyar rivers are the two main rivers flow through the study area.
- Kosasthalaiyar river originates from **Panapakkam forest of Andhra Pradesh State**,
- It enters the study area through the eastern slope of the hills in Pallipattu block at an altitude of about 531 m.
- **Nandiyar** and **Nagariyar** are the tributaries of Kosasthalaiyar river which are seasonal and non-perennial.
- The flood in the rivers are sporadic and it lasts generally for about 10 days in a year.
- The total length of the main river from its origin is about 155 km in which Poondi reservoir is located on the eastern river course.
- It is the major source of storage, irrigation and supplying drinking water to the nearest city.

RIVER BASIN

- Thiruvallur District lies on the western and northern parts of Chennai city which is spread over the river basins of **Araniyar and Kosathalaiyar** with its tributaries namely Nandhiyar, Nagariyar and isolated independent water sheds like Otteri Nalla, Captain Cotton canal, Kodungaiyur, Redhills etc. draining into Kosathalaiyar through Bankingham canal.
- The rivers in Thiruvallur District are **seasonal** having floods during the period of heavy rainfall in Northeast Monsoon since the areas close to the coast in the above isolated water sheds like **Manali, Redhills** adjoining north Chennai and the urban areas adjoining the rivers are highly prone to inundation during floods due to flat terrain with very low elevations.
- In order to reduce the flood risk the following interventions are being implemented and contemplated.

ARANIYAR BASIN DIVISION:-



A **Comprehensive Flood Protection Plan** for Tiruvallur District have been developed for mitigating the flood impact by the Public Works Department in Araniyar River Basin.

From the field visits and preliminary analysis of data, the following are some of the present observations:

- The hydrological model of the basin is developed using HEC-HMS software. The basin is digitized in a GIS environment and transferred into the HMS software using **HEC-GeoHMS** specialized tools.
- The hydraulic model of the basin is developed using HEC-RAS software. The basin is digitized in a GIS environment and transferred into the RAS software using **HEC-GeoRAS** specialized tools.
- From the analysis, Flood prone zones could be demarcated and possible mitigation methods could be suggested.
- The Survey data has to be supplied by the PWD regarding the cross-section of the river course at intervals of **300m** along flow direction.
- Some more Rainfall data has to be collected from the IMD for the most extreme flood events based on the rainfall analysis.
- The flow data or discharge data has to be acquired from the anicuts to help in calibration and validation of the model (to be supplied by PWD).
- The study is well on course and frequent reporting will be done to the satisfaction of PWD Engineers and Thiruvallur collectorate.
- Based on the magnitude of Synthetic Unit Hydrograph four catchments of Araniyar Sub Basin, A1, A2, A9 and A11, results higher peak runoff as well as larger base periods.
- The remaining **seven catchments**, namely, A3, A4, A5, A6, A7, A8 and A10 produce comparatively lower peak runoff with lesser time to base period.
- From the **Flood Hydrograph**, the first two catchments A1 and A2 are having higher magnitude of peak runoff 1034.91 m³/s, 1006.92 m³/s respectively. The A11 catchment is having magnitude of 784.89 m³/s. The fourth catchment A9 is having peak runoff of 296.3 m³/s.
- The maximum flood discharge is higher (more than 800 m³/s) for Pichatur, Surattapalli and Arniyar Checkdam in the upstream reaches and at A.Reddipallyam and Confluence Point at the downstream reaches.

- In the middle reaches of Arniyar River receives moderate to lower flood discharge. Hence, the flood mitigation works must concentrated at both upstream and downstream reaches the Araniyar River.
- The lower gradient of bed results in longer backwater profile at upstream of **A.Reddipalayam, Sengathakulam, Lakshmipuram and Paleswaram** structures. Hence, the flood protection works must be provided for the reaches having more backwater length, such as Sengathakulam, Araniyar, Paleswaram, Lakshmipuram and A.Reddipalyam reaches.
- Provide flood banks (either earthen or masonry) at the upstream of Araniyar Checkdam and Panapakkam Checkdam for the length more than the back water profile developed.
- The backwater profile and maximum and minimum stage in river shows continuous stagnation of water in between AN Kuppam and A.Reddipalayam reach. Since, comparatively denser habitats existing on either side of these reaches Flood Walls are more suitable.
- The minimum height of flood protection works must be 4m between Lakshmipuram Anicut and A.Reddipalayam Checkdam.
- A cut off channel must be developed between Andarmadam to Bay of Bengal either constructing a new channel or by connecting the existing flow path at the downstream of Andarmadam area.

PROPOSED LIST PREMONSOON WORKS FOR THE YEAR 2024-2025

VERY HIGHLY VULNERABLE AREA.

S.No	Name of Work	Estimate Amount in Crore (as per 2024-25)
1.	Cut opening the Mouth of easy drain out the flood water from Araniyar River to Bay of Bengal via Pulicat Lake in Ponneri Taluk of Thiruvallur District (North side)	0.24
2.	Cut opening the Mouth of easy drain out the flood water from Araniyar River to Bay of Bengal via Pulicat Lake in Ponneri Taluk of Thiruvallur District (South side)	0.33

3.	Strengthening the Right Flood Bank of Araniyar river @ LS 127.50km near Andarmadam village in Ponneri Taluk of Thiruvallur District	0.34
4.	Strengthening the Left Flood Bank of Araniyar river @ LS 128.80km near Thangalperumpulam village in Ponneri Taluk of Thiruvallur District	0.34
5.	Strengthening the Right Flood Bank of Left Arm of Araniyar river @ LS 129.50km near Pollachiamankulam village in Ponneri Taluk of Thiruvallur District	0.29
6.	Strengthening the Right Flood Bank of Right Arm of Araniyar river @ LS 129.90km near Pollachiamankulam village in Ponneri Taluk of Thiruvallur District	0.33
	TOTAL AMOUNT	1.87 Crores

ONGOING WORKS

I. Flood Mitigation Works - 2023-2024 - PHASE-III

Sl.No	Name of Work	Estimate Amount (in Cr.)
1.	Rehabilitation of Inlet & Outlet Regulators from LS 112.800km to 124.800km and Strengthening the Overwashed portion of Flood bank from LS 117.500 km to 119.700 km & 126.700 km to 126.970 km in Araniyar River of Ponneri Taluk in Thiruvallur District.	22.50
2.	Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 69.135 km to 103.600 km in Thiruvallur District	23.65
3.	Strengthening and formation of Left Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 119.700 km to 123.900 km in Ponneri Taluk of Thiruvallur District	19.00

4.	Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 124.150 km to 126.100 km in Ponneri Taluk of Thiruvallur District	16.55
5.	Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Kosasthalaiyar River from L.S. 119.100 Km to L.S.127.600 Km in Ponneri Taluk of Thiruvallur District.	9.10
	Total	90.80

(i) Rehabilitation of Inlet & Outlet Regulators from LS 112.800km to 124.800km and Strengthening the Overwashed portion of Flood bank from LS 117.500 km to 119.700 km & 126.700 km to 126.970 km in Araniyar River of Ponneri Taluk in Thiruvallur District.

Estimate amount of Rs.22.50 Crore.

The Araniyar River originates in the Nagari hills in Kavetiraja nagar of Chithur District of Andhrapradesh. Total length of the river is 131.60km. In which 65.20Km lies in Andhrapradesh and remaining 66.40 Km lies in TamilNadu State. The Araniyar river originated from Nagari Hills in an altitude of 600m from Mean Sea Level, located in Karvet nagar In Oddavadi Kondaneer and kuppam Chinganagunta (alias) Sitaramapuram In Chithoor District of Andhra Pradesh. It is not a Perennial River and the Flood in the river are sporadic and last generally for about 10 days in a year. The river from Its origin flow for a distance of 65.20Kms before it in fall in to Pulicat Lake.

Constructions of In-Lets with shutters and regulating arrangements were designed to discharge an anticipated maximum flood of 550 cusec. But during the floods in November and December 2015, 2020 and 2021 there was un presented flows waters over flew over the banks which resulted in breaches of flood bank on the Downstream side of the In-Let.

Components of the work

- Rehabilitation of Inlet & Outlet Regulators – 4 Nos.
- Strengthening the Araniyar River Flood Banks
- Construction of Flood Protection wall and revetment with cement concrete blocks for the damages occurred due to Breaches in Araniyar River flood banks.

As per the G.O.(Ms).No:16/Water Resources(I.Spl.2) dept/dt:10.02.2024 for an amount of Rs.350.00 Crores. In this **Rs.22.50crore** has been allotted to carry out this work. **20% Work completed.** Further **work is in Progress.**

Thattamanji Inlet



Before Execution



During Execution

(ii) Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 69.135 km to 103.600 km in Thiruvallur District .

Estimate amount of Rs.23.65 Crore.

The Araniyar River originates in the Nagari hills in Kavetiraja nagar of Chithur District of Andhrapradesh. Total length of the river is 131.60km. In which 65.20Km lies in Andhrapradesh and remaining 66.40 Km lies in TamilNadu State. The Araniyar river originated from Nagari Hills in an altitude of 600m from Mean Sea Level, located in Karvet nagar In Oddavadi Kondaneer and kuppam Chinganagunta (alias) Sitaramapuram In Chithoor District of Andhra Pradesh. It is not a Perennial River and the Flood in the river are sporadic and

last generally for about 10 days in a year. The river from Its origin flow for a distance of 65.20Kms before it in fall in to Pulicat Lake.

During the North east monsoon and Michaung Cyclone, heavy runoff water from local catchments was flowing in the river and damaging the banks at various villages along the Araniyar River like Uthukottai, Melmalighaipattu, Kavanur, Periyapalayam, Peruvoyal, Arani, Puthuvoyal and thus the inundation occurs in nearby villages. Hence it is necessary to construct a flood protection wall in the slipfailure / Breached portions in Flood banks of Araniyar River.

Components of the work

- Construction of Flood protection wall with CC block arrangements.
- Construction of Core wall.
- Flood Bank Strengthening.

As per the G.O.(Ms).No:16/Water Resources(I.Spl.2) dept/dt:10.02.2024 for an amount of Rs.350.00 Crores. In this **Rs.23.65 crore** has been allotted to carry out this work. Now, **50% Work completed**. Further work is in progress.

Flood Protection Wall at Tharatchi



Before Execution



During Execution

Flood Protection Wall at Pondavakkam



Before Execution



During Execution

Flood Protection Wall at A.N.Kuppam



Before Execution



During Execution

(iii) Strengthening and formation of Left Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 119.700 km to 123.900 km in Ponneri Taluk of Thiruvallur District. Estimate Rs.19.00 Crore

The Araniyar River originates in the Nagari hills in Kavetiraja nagar of Chithur District of Andhrapradesh. Total length of the river is 131.60km. In which 65.20Km lies in Andhrapradesh and remaining 66.40 Km lies in TamilNadu State. The Araniyar river originated from Nagari Hills in an altitude of 600m from Mean Sea Level, located in Karvet nagar In Oddavadi Kondaneer and kuppam Chinganagunta (alias) Sitaramapuram In Chithoor District of Andhra Pradesh. It is not a Perennial River and the Flood in the river are sporadic and

last generally for about 10 days in a year. The river from Its origin flow for a distance of 65.20Kms before it in fall in to Pulicat Lake.

During the North east monsoon and Michaung Cyclone, heavy runoff water from local catchments was flowing in the river and damaging the banks at various villages along the Araniyar River like Somanjeri, A.Reddypalayam, Perumbedu, Thattamanji, Ernaguracheri, Vanjivakkam and thus the inundation occurs in nearby villages. Hence it is necessary to construct a RCC wall in the Breached portions of Flood banks in Araniyar River.

Components of the work

- Construction of RCC Retaining Wall.
- Flood Bank Strengthening.

As per the G.O.(Ms).No:16/Water Resources(I.Spl.2) dept/dt:10.02.2024 for an amount of Rs.350.00 Crores. In this **Rs.19.00 crore** has been allotted to carry out this work. Now, **20% Work completed**. Further work is in progress.

RCC Retaining Wall at Somanjeri



Before Execution



During Execution

(iv) Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 124.150 km to 126.100 km in Ponneri Taluk of Thiruvallur District.

Estimate Amount Rs.16.55 Crore.

The Araniyar River originates in the Nagari hills in Kavetiraja nagar of Chithur District of Andhrapradesh. Total length of the river is 131.60km. In which 65.20Km lies in Andhrapradesh and remaining 66.40 Km lies in TamilNadu State. The Araniyar river originated from Nagari Hills in an altitude of

600m from Mean Sea Level, located in Karvet nagar In Oddavadi Kondaneer and kuppam Chinganagunta (alias) Sitaramapuram In Chithoor District of Andhra Pradesh. It is not a Perennial River and the Flood in the river are sporadic and last generally for about 10 days in a year. The river from Its origin flow for a distance of 65.20Kms before it in fall in to Pulicat Lake.

During the North east monsoon and Michaung Cyclone, heavy runoff water from local catchments was flowing in the river and damaging the banks at various villages along the Araniyar River like Somanjeri, A.Reddypalayam, Perumbedu, Thattamanji, Ernaguracheri, Vanjivakkam and thus the inundation occurs in nearby villages. Hence it is necessary to construct a RCC wall in the Breached portions of Flood banks in Araniyar River.

Components of the work

- Construction of RCC Retaining Wall.
- Flood Bank Strengthening.

As per the G.O.(Ms).No:16/Water Resources(I.Spl.2) dept/dt:10.02.2024 for an amount of Rs.350.00 Crores. In this **Rs.16.55 crore** has been allotted to carry out this work. Now, **50% Work completed**. Further work is in progress.

RCC Retaining Wall at Thattamanji



Before Execution



During Execution

(v) Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Kosasthalaiyar River from L.S. 119.100 Km to L.S.127.600 Km in Ponneri Taluk of Thiruvallur District. Estimate Amount of Rs.9.10 Crore

Kosathalaiyar river originates in the state of Andhra Pradesh and confluences in Bay of Bengal at Ennore in the state of TamilNadu. Kosathalaiyar river originates from Kaveripakkam tank located in Kaveripakkam town. One arm of Kesavaram anicut called Kosathalaiyar river carries the surplus to the Poondi reservoir over an open weir.

The total length of the river is 155KM inclusive of tributaries and total area of Sub basin is 32.40 During the North east monsoon and Michaung Cyclone, heavy runoff water from local catchments was flowing in the river and damaging the banks at various villages along the Kosasthalaiyar River like Vannipakkam, Nalur, Periya Maduvur, Chinna Maduvur, Seemavaram, Chinna Seemaavaram, Subbeddypalayam, Goundanpalayam, Vellivoyalchavadi, Kondakarai, Nappalayam and thus the inundation occurs in nearby villages. Hence it is necessary to construct a Flood Protection wall in the Slipfailure portions of Flood banks in Kosasthalaiyar River.

Components of the work

- Construction of Flood Protection wall with CC block arrangements.
- Construction of Core wall.
- Reconstruction of Nalur Inlet.
- Construction of RCC Retaining Wall.
- Flood Bank Strengthening.

As per the G.O.(Ms).No:16/Water Resources(I.Spl.2) dept/dt:10.02.2024 for an amount of Rs.350.00 Crores. In this **Rs.9.10 crore** has been allotted to carry out this work. Now, **65% Work completed**. Further work is in progress

Flood Protection Wall at Nalur



Before Execution



During Execution

Reconstruction of Inlet at Nalur



Before Execution



During Execution

TNIAMP works

Sl.No	Name of Work	Estimate Amount (in Cr.)
i)	Rehabilitation and Modernisation of 22 tanks and 4 anicuts and its supply channels in Gummidipoondi block and taluk of Thiruvallur district under Gummidipoondi sub basin.	7.47

i) Rehabilitation and Modernisation of 22 tanks and 4 anicuts and its supply channels in Gummidipoondi block and taluk of Thiruvallur district under Gummidipoondi sub basin.

Estimate Amount Rs. 7.47 Crore

The Government of Tamil Nadu had accorded Administrative Sanction for the Estimate Amount of Rs. 747.00 Lakh vide G.O(Ms) No.142 Public works (WR1) Department, Dated. 07.10.2021 under World Bank funded TNIAMP (TN IAMWARM-II) project Phase III for the Rehabilitation and Modernisation of 22 Tanks and 4 Anicuts and its supply channels in Gummidipoondi Block and Taluk of Thiruvallur District under Gummidipoondi Sub Basin.

The estimate for the Rehabilition and Modernisation of tanks for Package No. 01/ TN IAMP/ WRD/ GMD/ Works/ Phase III is prepared for an amount of Rs.747.00 Lakh with the following tank components.

- Strengthening of Tank bund
- Reconstruction / Repairs to Sluice - 10 Nos.
- Special Repairs to Weir -11 Nos.
- Improvements to Supply Channel

- Rehabilitation of Anicut / Kondam
- Improvements to Anicut Supply Channel

Rehabilitation of Panjalai Anicut



Before Execution



After Execution

Rehabilitation of Ralakalvai Anicut



Before Execution



After Execution

Rehabilitation of Eguvarpalayam Odaperi Weir



Before Execution



After Execution

IV. RRR works

Sl.No	Name of Work	Estimate Amount (in Cr.)
1.	Repair, Renovation and Restoration of Velapakkam Tank in Ellapuram Block in Uthukottai Taluk of Tiruvallur District.	0.510
2.	Repair, Renovation and Restoration of Velagapuram Big Tank in Velagapuram Village in Uthukottai Taluk of Tiruvallur District.	0.465

Rehabilitation of the tanks in the state become necessary since the tanks loss their storage capacities due to silting of beds over a period of decades together. Most of the tanks require de-silting to restore the loss of their capacities so as to give supply to the entire registered Ayacut by bridging the gap. Velagapuram Big Tank, Velapakkam tank are non-system tanks located in Thiruvallur district. In this estimate, the following provisions are made.

1. Jungle Clearence
2. De-silting the Tank Bed, Standardization of the Tank Bund.
3. Reconstruction of Sluices.
4. Demarcation of Boundaries

Velapakkam Tank**During Execution****During Execution****Velagapuram Tank**



During Execution



During Execution

V. Other works

Sl.No	Name of Work	Estimate Amount (in Cr.)
i)	Construction of Out-let Regulator (Emergency Escape) in Katturangal Maduvu near Left side of Kattur Weir in Ponneri Taluk of Thiruvallur District.	4.7349
ii)	Relocation and Reconstruction of weir in Voyalur Periya Thamarai tank in Ponneri Taluk of Thiruvallur District.	2.63

i) Construction of Out-let Regulator (Emergency Escape) in Katturangal Maduvu near Left side of Kattur Weir in Ponneri Taluk of Thiruvallur District.

Estimate Amount Rs. 4.7349 Crore

The Katturangal Maduvu Out-Let (Emergency Escape) is Proposed to construct in Katturangal Maduvu at left side of Katturangal Maduvu Weir near Kattur village reaches before falling into Maduvu, in the year 2021 with main objective to drain out the catchment water from Velur, Kumarasirulapakkam, Athamanjeri, A-Reddypalayam, Periamanopuram and Chinnamaopuram Villages surplus water. But during every flood, the flood banks on the U/S and D/S side of the Proposed Out-Let prone to breaching since the flood discharging capacity

of Katturangal Maduvu weir is inadequate to handle the peak flows during the extreme weather events.

This Out-Let (Emergency Escape) was designed to discharge an anticipated maximum flood of 46.440 Cu.m/sec (or) 1640 cusec. But during the floods in November and December 2015, 2020 and 2021 there was un presented flows waters over flew over the banks which resulted in breaches of flood bank on the Downstream side of the Out-Let and also inundation of 10 Villages in Every North-East Monsoon.

Construction of Out-let Regulator



Before Execution



During Execution

ii) Relocation and Reconstruction of weir in Voyalur Periya Thamarai tank in Ponneri Taluk of Thiruvallur District.

Estimate Amount Rs. 2.63 Crore

The Voyalur large tank or Periya Thamarai Eri is situated about two furlongs east of Voyalur village,,in Ponneri taluk in Thiruvallur District. This tank is non system tank which is being maintained by Water Resources Department. Voyalur Periya Thamarai Eri Irrigated an Ayacut of 153.40 Ha. For the development, the TIDCO has proposed one approach road connecting Ooranambedu village road to Minjur-Kattur state highway road.This proposed approach road passed adjacent to the downstream side of existing Voyalur Periya Thamarai WRD tank weir. Hence to avoid inundation at the proposed elevated bridge area and considering the submerge of fore shore area, it is here by recommended to relocate and reconstruction of Weir to 350 m upstream of the existing weir as the same length of 70 m.

Voyalur Periya Tamarai Tank Weir



Before Execution



During Execution

1) PROPOSED WORKS

Formation of New Reservoir:

S.No	Name of Works
1	Formation of Reservoir at Tail End of Gummidipoondi Sub Basin in Elavur village at Gummipoondi taluk of Thiruvallur district.
	<ul style="list-style-type: none"> ● Gummidipoondi sub basin covers an area of 331.11Sq.Km. ● Sub Surface and Groundwater recharge and drinking water supply for neighboring villages. ● Improve the Flood Control Management Scheme to manage frequent floods ● Additional Ayacut Potential of 1251 Ha ● Improving the ecosystem ● Improving the quality of life in the nearby community Villages protected from flooding such as Elavur, Bommajikulam, Sedhilpakkam, Madarapakkam, Pondavakkam, Mannellur, Poovalambedu, Eguvarpalayam, Periyaopalapuram, Sanaputhur, Vanamallee and Sirupulalpettai, etc.

List of works for erosion protection in Tanks:

S.No	Name of Works
1	Restoration and Renovation of Voyalur combined catchment WRD tanks affected due to CPRR section-1 road alignment in Minjur Block of Ponneri taluk in Thiruvallur district

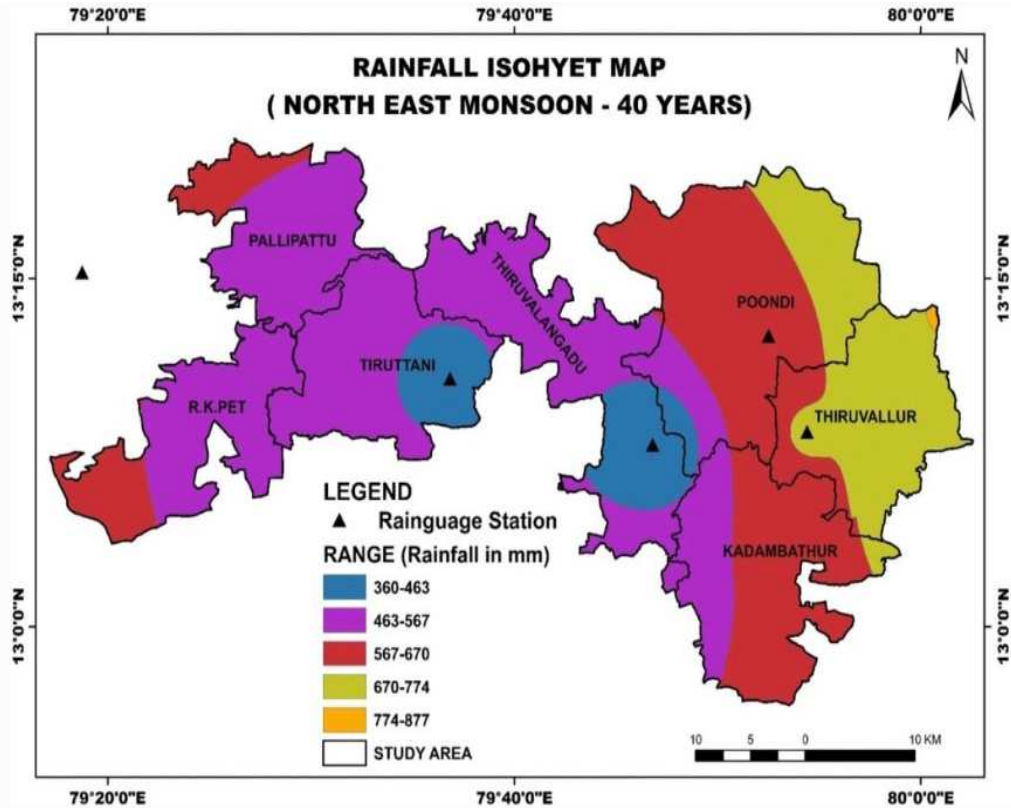
FLOOD MITIGATION MEASURES

Flood is the interface dynamics between geo-terrain system parameters; viz., **lithology, geological structures, geomorphology, soil, drainage conditions, slope, land use and land cover** etc., and flood. Hence the flood vulnerability mapping requires the understanding and mapping of all terrain parameters. With this in mind, an attempt has been made to delineate flood vulnerable zones in the rural blocks of **Thiruvallur District**.

CAUSES OF FLOOD

The main cause for flooding is due to an aftermath of meteorological events such as an

- intense and **prolonged rainfall,**
- increase in water level in coastal , construction of flood plains
- **Encroachments or Pattas inside the Araniyar river at tail end reaches**
- Estuarine waters due to storm surges and seiches as the area close to Bay of Bengal.
- The other reason is breaching of Couvam, Kosasthalaiyar and Araniyar rivers and a spate of Poondi Reservoir.

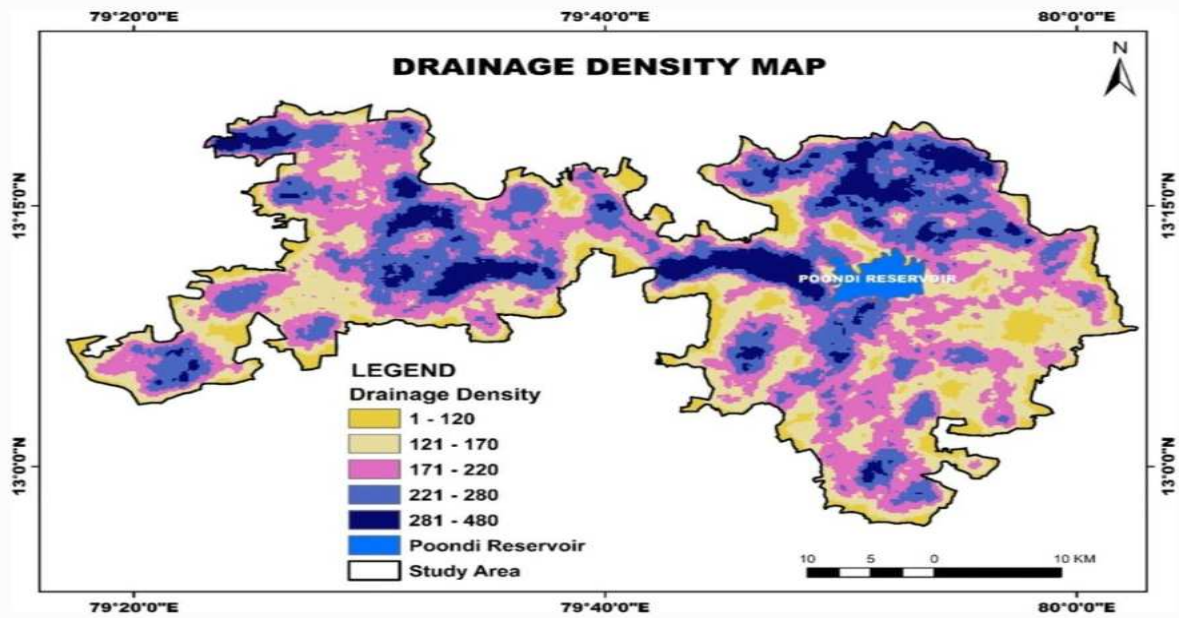


Rainfall

- Rainfall data were collected from rain-gauge stations namely **Ponneri, Thiruvallur, Tiruttani, Thiruvallangadu** which influence to interpolate the spatial distribution of rainfall.
- The rural blocks of Thiruvallur District lie in the tropical monsoon zone. As the monsoons bring heavy rainfall, it improves not only the recharging of groundwater and the storage of surface water, also brings flood as the flow of water gets strucked due to various obstacles.
- Hence, the monsoon period is hydrologically significant for water and related analysis will help us a **comprehensive flood management**

DRAINAGE, TANKS AND

RESERVOIR

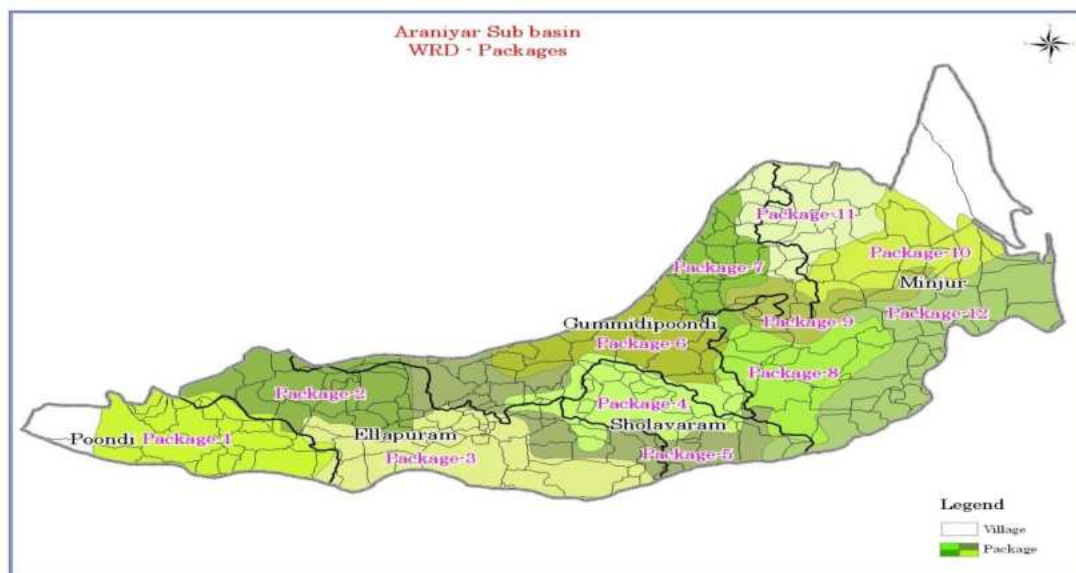


- Drainage is an important ecosystem controlling the hazards as its densities denote the nature of the soil and its geotechnical properties
- Kosasthalaiyar and Araniyar rivers are the two main rivers flow through the study area.
- Kosasthalaiyar river originates from **Panapakkam forest of Andhra Pradesh State**,
- It enters the study area through the eastern slope of the hills in Pallipattu block at an altitude of about 531 m.
- **Nandiyar** and **Nagariyar** are the tributaries of Kosasthalaiyar river which are seasonal and non-perennial.
- The flood in the rivers are sporadic and it lasts generally for about 10 days in a year.
- The total length of the main river from its origin is about 155 km in which Poondi reservoir is located on the eastern river course.
- It is the major source of storage, irrigation and supplying drinking water to the nearest city.

RIVER BASIN

- Thiruvallur District lies on the western and northern parts of Chennai city which is spread over the river basins of **Araniyar and Kosathalaiyar** with its tributaries namely Nandhiyar, Nagariyar and isolated independent water sheds like Otteri Nalla, Captain Cotton canal, Kodungaiyur, Redhills etc. draining into Kosathalaiyar through Bankingham canal.
- The rivers in Thiruvallur District are **seasonal** having floods during the period of heavy rainfall in Northeast Monsoon since the areas close to the coast in the above isolated water sheds like **Manali, Redhills** adjoining north Chennai and the urban areas adjoining the rivers are highly prone to inundation during floods due to flat terrain with very low elevations.
- In order to reduce the flood risk the following interventions are being implemented and contemplated.

ARANIYAR BASIN DIVISION:-



A **Comprehensive Flood Protection Plan** for Tiruvallur District have been developed for mitigating the flood impact by the Public Works Department in Araniyar River Basin.

From the field visits and preliminary analysis of data, the following are some of the present observations:

- The hydrological model of the basin is developed using HEC-HMS software. The basin is digitized in a GIS environment and transferred into the HMS software using **HEC-GeoHMS** specialized tools.
- The hydraulic model of the basin is developed using HEC-RAS software. The basin is digitized in a GIS environment and transferred into the RAS software using **HEC-GeoRAS** specialized tools.
- From the analysis, Flood prone zones could be demarcated and possible mitigation methods could be suggested.
- The Survey data has to be supplied by the PWD regarding the cross-section of the river course at intervals of **300m** along flow direction.
- Some more Rainfall data has to be collected from the IMD for the most extreme flood events based on the rainfall analysis.
- The flow data or discharge data has to be acquired from the anicuts to help in calibration and validation of the model (to be supplied by PWD).
- The study is well on course and frequent reporting will be done to the satisfaction of PWD Engineers and Thiruvallur collectorate.
- Based on the magnitude of Synthetic Unit Hydrograph four catchments of Araniyar Sub Basin, A1, A2, A9 and A11, results higher peak runoff as well as larger base periods.
- The remaining **seven catchments**, namely, A3, A4, A5, A6, A7, A8 and A10 produce comparatively lower peak runoff with lesser time to base period.
- From the **Flood Hydrograph**, the first two catchments A1 and A2 are having higher magnitude of peak runoff 1034.91 m³/s, 1006.92 m³/s respectively. The A11 catchment is having magnitude of 784.89 m³/s. The fourth catchment A9 is having peak runoff of 296.3 m³/s.

- The maximum flood discharge is higher (more than 800 m³/s) for Pichatur, Surattapalli and Arniyar Checkdam in the upstream reaches and at A.Reddipallyam and Confluence Point at the downstream reaches.
- In the middle reaches of Arniyar River receives moderate to lower flood discharge. Hence, the flood mitigation works must concentrated at both upstream and downstream reaches the Araniyar River.
- The lower gradient of bed results in longer backwater profile at upstream of **A.Reddipalayam, Sengathakulam, Lakshmipuram and Paleswaram** structures. Hence, the flood protection works must be provided for the reaches having more backwater length, such as Sengathakulam, Araniyar, Paleswaram, Lakshmipuram and A.Reddipalyam reaches.
- Provide flood banks (either earthen or masonry) at the upstream of Araniyar Checkdam and Panapakkam Checkdam for the length more than the back water profile developed.
- The backwater profile and maximum and minimum stage in river shows continuous stagnation of water in between AN Kuppam and A.Reddipalayam reach. Since, comparatively denser habitats existing on either side of these reaches Flood Walls are more suitable.
- The minimum height of flood protection works must be 4m between Lakshmipuram Anicut and A.Reddipalayam Checkdam.
- A cut off channel must be developed between Andarmadam to Bay of Bengal either constructing a new channel or by connecting the existing flow path at the downstream of Andarmadam area.
- It is proposed to desilt to a depth of **1.5 meters** in about **50%** of the water spread area of the three water supply reservoirs in Thiruvallur District viz. Poondi, Redhills and Cholavaram as a revenue model which will minimise

flooding problems in the peri-urban areas of North Chennai and also **improve the Chennai** water supply position during the **drought periods**.

COOUM RIVER BASIN

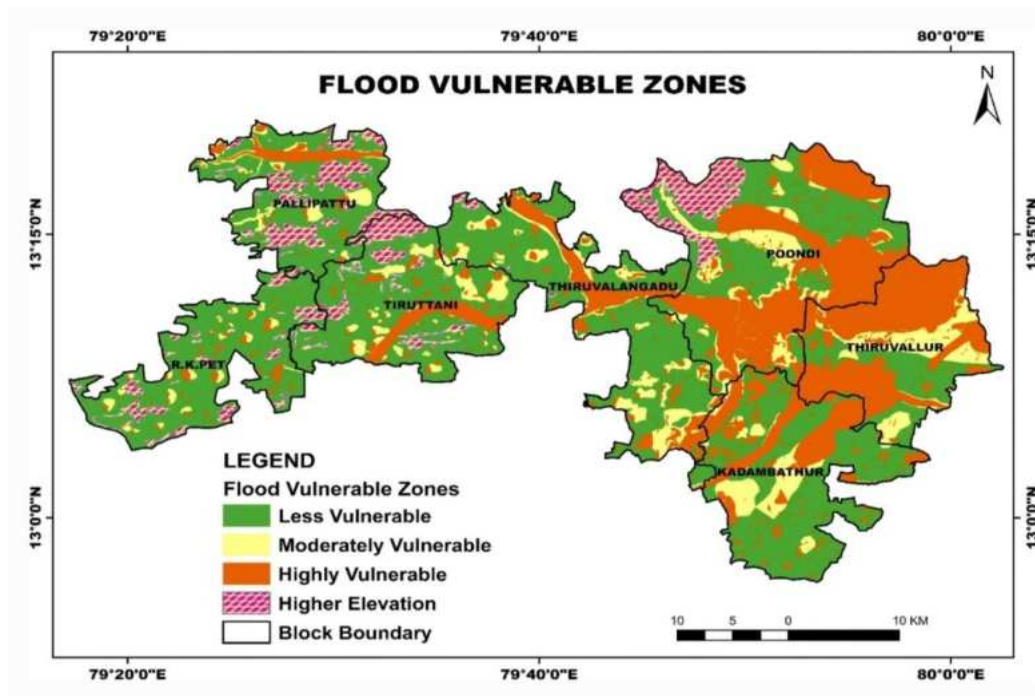
Cooum River in Thiruvallur district spreads through Perampakkam, Sathiraikandikagai, Egattur, Aranvoyal, Korattur, Kannapalayam, Paruthipattu, Thiruverkadu, Maduravoyal, and Nerkundram

Integrated Cooum River Eco-Restoration Plan

- The Eco-restoration activities (60 subprojects) for a 27.33 km stretch of the river between Paruthipattu and the river mouth are under progress.
- The stretch of Cooum River in the urban and peri-urban areas of Chennai is being rehabilitated and restored by implementing **Cooum River Eco-Restoration Project** in which the following works are under progress through the line departments namely PWD, GCC, CMA, DRD, CMWSSB and TNSCB under the coordination of CRRT:-
- Desilting, demarcation and fixing boundary stones and bio-metric survey and improvements to the river like forming inner canal, providing rip rap cover for the inner canal with Geo textile fabric base, providing coconut blanket on the river banks to prevent erosion.
- Solid waste removal, fencing, boom deployment for collecting and removing floating and suspended debris, developing parks, cycle tracks and walkways
- Solid waste removal, fencing and developing parks
- Laying interceptors, installing modular sewage treatment plants and UGSS
- Resettlement and Rehabilitation Plan

- Mangrove development, flora plantation, community education programmes and monitoring of project implementation.
- By implementing the above scheme flood risk mitigation, environmental enhancement and ground water potential improvement are assured.
- The restoration works were started in 2016 and the Government has accorded Administrative Sanction of Rs. **604.77** crores for the short-term phase of the project. The Work was completed upto Thiruverkadu.

Evaluation of possible flood vulnerable zone



GIS plays a more key role in analysing the flood vulnerability.

This kind of natural hazard cannot be avoided but can be managed successfully through proper **flood management plan**.

- The principal objective of this study was to analyse all possible resource maps to delineate the probable **flood vulnerable zones**.
- The present paper identifies the flood vulnerable zones by analysing the satellite imageries of the respective period and **GIS** enables the integration and management of multi thematic data.

Thematic layers on drainage slope, soil, geology, geomorphology, land use and land cover, lineament and zones of possible tectonic subsidence were prepared, and these layers were analysed by overlay analysis with 40 years northeast monsoon rainfall for generating possible flood vulnerable zonation map.

- A periodic and systematic inspection, rehabilitation and maintenance programme is done to ensure that the design capabilities are maintained and also restoration/strengthening of vulnerable spots.
- Sea walls/coastal protection works in the form of groynes etc. are constructed to prevent flooding erosion in coastal areas by sea water.

VERY HIGH VULNERABLE ZONES

HIGHLY VULNERABLE WITHIN 5KM RADIUS

1 PONNERI

- 1 A. Reddypalayam.
- 2 Aladu (Manopuram).
- 3 Thathamanni.
- 4 Vichoor
- 5 Perumbedukuppam
- 6 Vanjivakkam

2. AVADI

- 7 Tirunindravoor
- 8 Paruthipattu

HIGH VULNERABLE ZONES

PONNERI

- Aathipattu, PudhuNagar, VellivoyalGnayar (Pasavanpalayam)
- Sirupazhaverkadu Colony, Kadapakkam Colony
- Karungali, Kalanji, Kattupalli
Thangalperumbulam, Pazhaverkadu
- Thandal Kazhani (Samiyar Madam)
- Theerthakaraiyampattu,
- Palavoyal,
- Alinjivakkam
- Vadakarai
- Grantline
- Sirugavur

UTTUKOTTAI

- Thirukandalam.

AVADI

- Bhavani Nagar moovendhar Nagar, Thendral Nagar,

Ramadasapuram North Prakash Nagar, Nadukuthagai Diliban Nagar Nadukuthagai,

- Rajeevgandhi Nagar, Kovilpathagai
- Pudhunagar, Ananda Nagar, Periyarnagar, Paleripattu
- Vettaikarapalayam, Nanthavanamettur, Kavaraipalayam, Vilinjiyambakkam

POONAMALLEE

- Amma Nagar, Ambedhkar Nagar, Santhiya Nagar, Poonamallee
- Panaiyathamman Nagar, Poonamallee
- Ayanambakkam, Koladi, Vanagaram, Noombal, Kanniyamman Nagar

REMOVAL OF ENCROACHMENTS:-

Due to anthropogenic activities there will be obstruction in water ways and even block the water ways. This is due to illegal construction of public buildings and illegal encroachments by people of different strata. Hence **removable** of the encroachments play an important role and the **relocation** in maintaining the integrity of the water ways and minimise the risks due to floods. The District will launch a special drive to remove the **encroachments on a priority basis** in all water bodies and water ways. After securing clearance from the judiciary, a massive drive has been launched to remove the encroachments in **Araniyar, Kosathalaiyar** and other river banks. The district administration will be according high priority for removal of the encroachments in the water ways and water bodies.

NON - STRUCTURAL MEASURES

- By analysing, the sufficient parameters in the GIS platform, the flood vulnerability map are generated, and the block boundaries were overlaid. The percentage of **highly vulnerable area** in **Thiruvallur, Poondi and Kadambathur** blocks Long term flood mitigation and management plan shall be developed in these blocks by quantifying the runoff and stagnant floodwater.
- The **centralized database system** for the region shall be established by collecting all relevant data from various agencies, departments,

institutions etc. This common database may enable the researchers to conduct a micro level study through which site-specific mitigation plan could be arrived within the span of time.

STRUCTURAL MEASURES

ARTIFICIAL RECHARGE & RAINWATER HARVESTING STRUCTURE –

- Thiruvallur district lies within the **tropical monsoon zone**.
- The District receives an average annual rainfall of 1139.6 mm
- During north east monsoon (October to December), it receives **589.3** mm and by south west monsoon (June to September) **451.6** mm. Predominantly, the precipitation process occurs only in the form of cyclonic storms, forms in the Bay of Bengal during the north east monsoon.

MEDICAL PREPAREDNESS

- Flood associated with contamination of water, which may lead to mosquito breeding sites and electric shocks, sanitation problems diseases such as a diarrhoea, vector borne diseases malaria, dengue etc. In our district Medical preparedness for floods constitutes the following components.
- **Medical kits** will be prepared for the management of flood casualties.
- **Medical awareness** Our district has created medical awareness such DENGUE AWARENESS PROGRAMME CONDUCTED FREQUENTLY , **Hygienic practices** such as hand washing with soap and use of the toilet for defecation, use of boiled water or adding chlorine to water and safe food cooking by disease-free persons will be promoted.
- Creation of **Trained Medical First Responders and medical team** is also done for first aid and resuscitation measures for drowning cases.
- A list of trained medical and paramedical staff must also make available.
- **Patient Evacuation Plan**: Emergency medical equipment and drugs for resuscitation will be available. Trained Paramedical staff for resuscitation, triage and to maintain vital parameters like pulse, blood pressure, respiration and intravenous drip during evacuation.

- **Ambulances** will be deployed to aid in the evacuation of flood casualties collected at high points. The ambulances has Standard Operating Procedures (**SOPs**) for treatment
- **Mock drill also been conducted** about drowning in **ponneri taluk**.
- **Oxygen cylinders, life saving drugs continuous positive air pressure (CPAP) ventilators, dressing materials, blood and IV fluid** for transfusion will be stocked.
- The action will be immediately initiated for crisis expansion of required number of **beds**.
- **Portable X-ray machines**, mobile operation theatres, resuscitation equipment and life-saving drugs, etc. Resuscitation, triage and medical evacuation of victims

REAL TIME FLOOD FORECASTING AND SPATIAL DECISION SUPPORT SYSTEM FOR ARANIYAR AND KOSASTHALAIYAR RIVERS BASINS

- In order to address the recurrent floods in TIRUVALLUR DISTRICT it will be undertaking a study and implement a “Real Time Flood Forecasting and Spatial Decision Support System the river basin areas of, Kosasthalaiyar Rivers and araniyar to forecast flooding
- And help prepare various stakeholders and Government agencies involved in risk reduction as well as prepare the community.
- The entire basins of araniyar Kosasthalaiyar will be studied for their hydrology along with street flooding patterns in urban local bodies such as **Poonamalle, Avadi, Ambattur, Thiruvallur** Municipalities.
- **Real-time Telemetry / GPRS** network of stations such as Automatic Weather / Automatic Rain Gauge stations, Online lake inflow and outflow meters, River flow level meters will be installed in the entire basin areas of Cooum (489.32 Sq.km) Kosasthalaiyar (1949.32 Sq.km)
- The project envisages over Automatic weather station (AWS) / Automatic Rain Gauge (ARG) as per the National Disaster Management guidelines

Flood Response

Effective response systems at all levels-District, Taluk, block, local and community.

- **Evacuation Plan:** Evacuation of **human population and livestock** is the only prescribed means to save them from the fury of floods. Evacuation of flood affected communities can be one of the most difficult response operations, especially, when it involves large population.
- **Precautionary measure** based on warning indicators, prior to impact, in order to protect flood-threatened persons from the full effects of the disasters.
- Evacuation may also be necessary after the area has been flooded in order to move persons from a flood-affected area to safer and better surroundings.
- **Relief resources** available with the local government, public and corporate institutions for possible accessing during the emergency.

Emergency Search and Rescue

- **People-centered preventive approach** in the affected area is done always the first responder after a
- Advanced **expertise level** and **brain storming session** conducted frequently to improve flood management technically
- **Mock drill** conducted periodically to replicate real situations
- Search and Rescue Teams Community level teams will be developed in each district with basic training in search and rescue.
- **Helpline centres** are to be made available in each block unit to speedy recovery

APPLICATION

- Google based application **RESCUE ME APP** process might be undertaken, which is used to rescue the person through GIS mapping technology. In case the person struck during flood the mobile expert team will communicate to the rescue team latter the rescue team will identify missing people through GPS location based service , and addressing the needs of education, health care, water supply and sanitation, food etc. of the affected community.
- It may further used for cyclone and other disaster assist the government in identifying the most vulnerable people who may need special assistance following floods.

ONLINE UPDATION OF ESSENTIAL COMMODITIES STOCK

In future there may online updation of essential commodities of stock and mapping of cold storage units such as maintenance of MILK unit during disaster these stock may transported to vulnerable area precautiously spot and frequent updation will help us to manage available resourses and route it to exact needy

TIEUP WITH CSR

- Voluntary corporate may tie up with District administration to help the needy in exact time recently certain corporate has responded overwhelming humanitarian financial and material support

SPECIALISED TEAMS FOR RESPONSE

- **NDRF** : Specialised multi skilled teams to meet the challenges arising out of various disasters, NDRF proposes to set up specialised teams to tackle **chemical, biochemical, nuclear, and mountaineering disasters and building** collapses, future **MOU** may made with foreign company to train NDRF. **Training to volunteers** The district administration has started to set up for training more and more volunteers and spreading awareness on the different aspects of disaster management.

EMERGENCY LOGISTICS

- **Equipment Motor launches**, country boats, inflatable rubber boats, life jackets, life buoys and other equipments are made ready before the monsoon immediately after floods to carry out search and rescue of trapped people.
- **Relief Camps** The setting up of relief camps for the people whose houses have been damaged by floods and the provision of basic amenities in such camps involves logistics of **mobilising relief supplies, tents, water supply and sanitation systems, transport and communication systems**, and medical supplies.

AFTERMATH OF A FLOOD,

- **Public health response** is one of the prime responsibilities of medical authorities.
- They will ensure safe water supply and clean food availability along with maintenance of hygiene and sanitation by proper **bio-waste disposal**.
- Water testing and food inspection will be done periodically to prevent outbreak of any epidemic.
- An effective medical team and first responders will be available for urgent medical response.
- **Mortuary Facilities and disposal of Dead Bodies** DISTRICT have sufficient mortuaries to preserve the dead bodies. After proper identification, dead bodies will be immediately disposed through district authorities, to prevent outbreak of an epidemic and environmental pollution.

CYCLONE MITIGATION MEASURES:-

Tiruvallur is one of the districts which comes under Indian Classification of Cyclonic Disturbances in the North Indian Ocean (The Bay of Bengal and Arabian Sea).

PRECAUTIONARY MEASURES TO CYCLONE:

Awareness to Public regarding what to Do and Don'ts

Awareness to Public regarding what to Do and Don'ts during Cyclone and Awareness among local communities on knowledge of escape routes and relief shelters will be given. Education Department distributed Books/uniforms/other learning aids for school children as soon as possible in the relief camps itself, as was done in 2015. This had resulted in maintaining learning outcomes/exam results.

Do's:

- People should Keep radio/television on and listen to latest weather warnings and advisories. Pass the information to others
- People should Pass only the official information you have got from the Radio/TV to others.
- Strong winds can break windows/doors, so People should keep them secured.

- Get away from low-lying beaches or other locations which may be swept by high tides or storm waves. Leave sufficiently early before your way to the high ground gets flooded. Do not delay and run the risk of being marooned
- If house is out of danger from high tides and flooding from the river and it is well built, it is then probably the best place.
- Be alert for high water in areas where streams of rivers may flood due to heavy rains.
- Get extra food, especially things which can be eaten without cooking or with very little preparation. Store extra drinking water in suitably covered vessel.
- People should remain in shelters until informed by those in charge that you may return home
- People should keep away from disaster areas unless you are required to assist.

Don'ts:

1. People should not go outside until officially advised safe.
2. Avoid being misled by rumours

PREPAREDNESS, RELIEF AND REHABILITATION
CYCLONE SHELTERS

1. At a community level, the District Administration has provided Cyclone Shelters and Multi-Purpose Evacuation Shelters. Further, Public Buildings, Choultries, Community Halls and buildings owned by various private educational institutions have also be identified for use as cyclone shelters, for evacuation and temporary occupation.
2. Sufficient Rescue Shelters are opened to feed people. Food, drinking water and other basic amenities to be provided to the inmates of the relief camps. Milk is provided to the Children below 5 years in the relief camps.
3. Toilet facilities and Lighting arrangements are also made at the relief camps.

SPECIAL MEDICAL CAMPS - Special Medical Camps to be conducted in all the Rescue Shelters. Temporary Medical camps will be organized to prevent spreading of water-borne diseases like diarrhoea etc.,

WATER SUPPLY

Gen-sets and water supply Lorries are put in place to provide potable water to the public across the District. Chlorination of water will be done all over the District meticulously.

TRANSPORTION

In all 500 workers drawn from Municipalities, Town Panchayats and Village Panchayats in Tiruvallur District with power saw, Lorries and JCB will be pressed into service to remove the debris and branches of trees to restore the traffic and bounce back to normalcy.

ELECTRICITY

2000 officials in the cadre of Executive Engineers, Assistant Executive Engineer, Wiremen and Helpers with JCB and lorries will be involved to restore electricity in the affected areas. Power supplies were turned off during cyclonic storms.

DIESEL GENERATORS

Enough Number of Diesel Generators Should be made available at village level. Sufficient diesel/oil stock with power/oil/telecom companies with proper storage facilities at safe locations.

FIRST RESPONDERS

Volunteers with skills of swimming and climbing are enrolled as first responders in each vulnerable area. A total of 1499 first responders team were formed. Mobile teams of snake catchers were also formed.

Alternate livelihood opportunities for fishing and farming community during such disasters, periodical revision and updation of District Disaster Management Plan (DDMP), strengthening of the SDRF, Fire and Rescue Services and other agencies engaged in response and rescue, creation of a pool of multi-skilled trained volunteers at district and village level, are some of the other important recommendations.

FISHERMEN SAFETY

A census for fishing communities' year on year or at least once in a few years to track the number of fishermen and boats venturing into the sea will be done. All fishermen therefore have to be educated about the importance of registering with the government. That has to be a mechanism in place whereby fishermen can intimate authorities before venturing into the sea.

DISTRESS ALERT TRANSMITTER

The Tamilnadu government has introduced a scheme of supplying distress alert transmitter, a satellite-based distress transmission device with 90% subsidy assistance for mechanised fishing boats and the same will be implemented the scheme in our district successfully. These distress alert transmitters will be made mandatory.

EARLY WARNING SYSTEMS

Early Warning Systems and information dissemination systems like Tamil Nadu System for Multi-Hazard Impact Assessment, Alert and Emergency Response Planning and Tracking (TNSMART).

In Tiruvallur District under the **Early Warning System**, it has been proposed to provide Disaster Warning Announcement System to remote locations for all habitations of Coastal area classified as **DWAS-Remote site**. The DWAS-R unit has the capability to send out Siren Warning tone audible over 1 km radius and clearly audible warning voice message over a minimum of 700 m radius. One **DWAS- Disaster Warning Announcement System** (DWAS-D) unit has been proposed to set up in District Head Quarters controlled by "Central Unit (DWAS-C) at State Emergency Operation Centre.

TO AVOID HUT DAMAGES

Hazard Risk Vulnerability Assessment

- Hazard Risk Vulnerability Assessment (HRVA) needs to be done on priority basis for all districts. As a matter of practice, the kit of relief articles to be distributed during disasters to affected households, should be prepared in advance.
- **Institutional mechanism** and **Standard Operating Procedures** need to be formulated for seeking assistance from neighbouring districts and states.

- Provision for underground cabling in coastal areas to prevent disruption of power supply.
- The districts should have the District Disaster Management Plan (DDMP) with periodic revision. Business Continuity **Planning for B2B and B2G** can be encouraged for essential sectors. Universal accessible designs need to be implemented in all Multi-Purpose Cyclone Shelters.

DROUGHT MITIGATION:-

Thiruvallur is dependent on north east monsoon majorly and exposed to the least risks of drought due to agroclimatic changes, in Vagaries of monsoon as well as sea water incursion, anthropogenic interventions such as depletion of ground water resources. Northeast Monsoon is associated with cyclones and low pressure in the East Coast and benefits the State along the east coast with its short duration high-intensity rains. Though such least risk of drought condition our district has planned and created resilient infrastructure.

MUMMARI – A UNIQUE INITIATIVE ACROSS TIRUVALLUR

“Crystal clear, everlasting water body, surrounded with plains, mountains and cool dense forest forms a protective Kingdom”.

- In a bid to follow the great saints the seasonal rain could be sustained and this will bring about the prevention of traditional water bodies from seasonal drought.
- Hence only the terminology “Mummari” has been evolved. Under this scheme the traditional water bodies in Tiruvallur District has been chalked out by the District Collector
- By calling upon interested people from all **communities** such as Villagers, Individual persons, Voluntary Organisation - NGOs, companies, factories with CSR and CER to take up the rejuvenation of the water bodies.

- The outcome is that, total orders were issued for 125 tanks out of which 79 tanks were completed and 46 tanks are Ongoing. 472500 Cu.m, of silt removed. This year a quantity of 16.69 Mcft. of Water is stored
- **Through this initiative we shall save each and every drop of rain water for us and our future generation and eradication of drought.**

GREEN BELT DEVELOPMENT TREE PLANTATION DISTRICT INITIATIVE

ADAR VANAM

- **ADARVANAM (SOLAI) - ANCIENT TRADITION OF NATURAL CONSERVATION Sacred Groves** responds to climate change.
- A Sacred Groves is a small patch of land with a few particular type of trees.
- Local community keeps the area untouched and they protect it as a holy place where usually we get rainfall.
- Impact of Adarvanam- The vegetation of Adarvanam prevents soil erosion **increase the soil fertility, increases water storing capacity and attracts rainfall.**
- Helps to build dense, native forests.
- The approach is supposed to ensure that plant growth is 10 times faster and the resulting plantation is 30 times denser than usual.
- **This dense cool, shady forest creates a micro environment and provides a local conducive environment for rainfall-brings at least three rainfall per month.**

MICRO IRRIGATION UNDER PMKSY - MORE CROPS PER DROP

- Water being the vital input, Our district has well recognized the importance of Micro Irrigation Scheme
- The benefit extending **100%** subsidy to Small/Marginal farmers and **75%** subsidy to other farmers In order to encourage more small farmers to install drip and sprinkler irrigation systems.
- Drip irrigation is a type of micro-irrigation system that has the potential to save water and nutrients by allowing water to drip slowly to the roots of plants Increase the area under **MI technologies** to enhance water use efficiency Increase the productivity of crops
- Promote MI technologies in water intensive/consuming crops like Sugarcane, banana, etc and give adequate focus to extend coverage of field crops under MI technologies.
- Through this we can **DOUBLE THE FARMERS INCOME 2022** by precision water management.

IRRIGATED AGRICULTURAL MODERNISATION PROJECT

- Tamil Nadu Irrigated Agricultural Modernisation Project is a massive effort which will serve Flood & Drought Mitigation together with its major component of rehabilitation of water bodies.
- The project also promotes water conservation/ management through Micro Irrigation, Agriculture, Horticulture and Animal Husbandry Fisheries components.
- The IAMWARM Project II -The scheme was implementation in **Tiruttani, Pallipet & Ponneri Taluks** in Thiruvallur District. 21 Tanks & its Supply channels have been taken up for execution to restore the Original position
- This will help us to mitigate drought as well as to serve the flood control purposes.

MGNREGS

- It serves drought proofing as well as for flood prevention.
- The Farm ponds and Percolation Ponds taken up under MGNREGS help to conserve water and aid in water harvesting.
- The construction, **repair of canals, diversion drains, feeder channels**, etc. help to stabilise irrigation under tanks systems.
- The **afforestation** (including plantation / necessary) provides drought proofing and **moderates heat waves**. The MGNREGS will be judiciously utilised to reduce the adverse impacts of droughts.

PROTECTION OF COASTAL ECOSYSTEM

In coastal ecosystems, which include coral reefs, mangroves and seagrass beds, are threatened by a number of factors including unsustainable development and fishing practices. Therefore, there is an urgent need to conserve, protect and restore coastal and marine ecosystems, to secure back the multiple ecosystem services rendered by them. The Government proposes to continue schemes for Protection and Conservation of important coastal vulnerable zones like **pulicat, Thirupalaivanam, pakkam, andalmadam, thathamaji** and protection of Bird sanctuary in **Pazhaverkaadu** Sanctuary during 2018-2030 and the coming years.

5. INSTITUTIONAL MECHANISM

5.1. DISTRICT DISASTER MANAGEMENT AUTHORITY

Sl. No.	Name	Designation	Position
1.	Dr.Prabhushankar, I.A.S.,	District Collector	Chair Person
2.	Thiru.R.Srinivasa Perumal, I.P.S	Superintendent of Police	Member
3.	Thiru.A.Rajkumar	District Revenue Officer	Chief Executive Officer
4.	Dr.Meera	Joint Director Health Services	Member
5.	Thiru.V.Jayakumar	Project Director/ Joint Director District Rural Development Agency	Member
6.	Thiru.M.Venkatraman	Personal Assistant (General) to Collector	Member

5.2) DISASTER MANAGEMENT TEAMS- DIVISIONAL DISASTER MANAGEMENT ADMINISTRATION

The Revenue Divisional Officers are responsible for the relief operation in their divisions and they are designated as Divisional Zonal officers. To assist the divisional level officer, each taluk is placed under the supervision of one Deputy Collector rank officer and will be called as Additional Zonal officer. These additional zonal officers operate from the Taluk Headquarters.

During the period of North East Monsoon, the Revenue Divisional Officers shall set up a control room in their offices to monitor the situation. These control rooms shall function round the clock by rotation of staff. A register must be maintained for recording the messages-received regarding flood/cyclone. The messages have to be communicated then and there to the subordinate officers/concerned departments for necessary actions.

5.3. DISTRICT EMERGENCY OPERATION CENTRE (DEOC)

- The District Emergency Operation Centre in Tiruvallur District is functioning and the **Toll Free No.1077** has been fully operationalized. Complaints received on this Toll Free No. are immediately passed on to the concerned authorities for taking immediate action.
- **Infrastructure facilities viz.,** Telephone Connection with STD facility, Fax and Computers with Internet access have been provided to the District Emergency Operations Centre. District Emergency Operations Centre with Landline Numbers **(044-27664177,044-27666746)** and **Whats App No. 9444317862** for receiving complaints are working for District Emergency Operation Centre and manned by the Desk Personnel as and when necessary it will be increased.
- That apart, additional staffs are from Police, Fire, PWD, TNEB, Animal Husbandry and Health Department are being posted 24 x 7 during North East Monsoon – 2022.
- Additional District Emergency Operation centre is functioning with Landline Number **(044-27974073)** and **Whats App No. 9444317863** for receiving complaints are working at Revenue Divisional Office , Ponneri.
- The warning messages received from the Office of the Commissioner of Revenue Administration are immediately disseminated to the officials concerned with instructions to initiate immediate action.

5.4. SITE OPERATION CENTER

Identified at Taluk Level in the nearby hazard prone areas and manned by Taluk Level Officials.

5.5. MODALITIES

Conduct of Co-ordination meeting with the line Department Officials at District, Divisional and Taluk Level for preparedness and implementation viability conduct of Mock Drill and Training.

5.6) DISASTER MANAGEMENT TEAMS- DIVISIONAL DISASTER MANAGEMENT ADMINISTRATION

The Revenue Divisional Officers are responsible for the relief operation in their divisions and they are designated as Divisional Zonal officers. To assist the divisional level officer, each taluk is placed under the supervision of one Deputy Collector rank officer and will be called as Additional Zonal officer. These Additional Zonal Officers operate from the Taluk Headquarters.

During the period of North East Monsoon, the Revenue Divisional Officers shall set up a control room in their offices to monitor the situation. These control rooms shall function round the clock by rotation of staff. A register in the following format must be maintained for recording the messages-received regarding flood/cyclone. The messages have to be communicated then and there to the subordinate officers/concerned departments for necessary actions.

5.7.FORMAT OF REGISTER

Sl. No	Date and Time	Text of the message	From whom received	To whom sent	Action Taken
1	2	3	4	5	6

The Revenue Divisional Officers shall interact with the Additional Zonal Officer in charge of the Taluk and take decisions with reference to relief measures to be carried out. However, the overall responsibility in implementing relief measures lies with the divisional officers only.

5.8. TALUK DISASTER MANAGEMENT ADMINISTRATIONS:

- During the period of October / November / and December one Deputy Collector rank officer is made in charge of each Taluk. The Taluk Tahsildar has ultimate responsibility for their Taluk.
- The details of Taluk Tahsildar, Special Tahsildars and Panchayat Union Commissioners specifying the area of operation are given in Mitigation plan. During the monsoon period a control room has to be set up in the taluk with the direct line telephone available in the Taluk Office and round the clock turn-duty should be arranged to receive the messages of distress from the public as well as the messages received from higher authorities.
- A register of messages similar to the format of Divisional control room should be maintained in all taluk offices. The Taluk Tahsildars along with the Zonal Deputy Tahsildars and Firka Revenue Inspectors should familiarize themselves with the disaster prone areas.
- They should have the list of schools and other public buildings which can be used as shelter homes. The Taluk Tahsildars, Zonal Deputy Tahsildars and Revenue Inspectors should inspect the proposed shelter homes and satisfy themselves that the buildings are not leaky and fit to be used as shelter home.
- They should also appraise the owners of Thirumana Mandapams or any private buildings that the buildings may have to be used as shelter homes at short notice. The Taluk Tahsildars should see that the VHF sets available with the police and the zonal officers are used in transmitting urgent messages. No separate orders will be issued with regards to appointment of

various Zonal officers and they shall resume their duties as and when there is an emergency.

5.9. FIRKA DISASTER MANAGEMENT ADMINISTRATION:

- At the time of disaster, to assist the taluk Tahsildar in carrying out the anti-disaster operation, each Firka is placed under the supervision of a special Tahsildar or Panchayat Union Commissioner.
- The special Tahsildars or Panchayat Union commissioners should interact with the taluk Tahsildars often and should familiarize themselves with the areas and with the assistance of local Panchayat president should be able to play pivot role in taking out relief measures.
- They should mobilise their staff and should be in the forefront in mitigating the sufferings of the people. The Additional Zonal Officers stationed at the Taluk Office should conduct meetings periodically with taluk Tahsildars/Firka level relief officers (such as special Tahsildars/ Panchayat union commissioners) zonal deputy Tahsildars and Firka revenue inspectors and review the situation.
- For each of the Revenue Firka one Tahsildar Rank Officer/ Zonal Deputy Tahsildar is put incharge to look after the disaster management and relief operations. Thus there is one coordinating officer posted at Taluk level, one at Firka level apart from the Taluk Tahsildar and Firka Revenue Inspectors for overall coordination of the relief work.

5.10. Municipal and Town Panchayat Disaster Management Administration

In respect of municipal areas, the municipal commissioner concerned as the relief officer and with the assistance of large contingent of man power available with them, they should be able to take immediate steps to handle the Disaster. They should be in constant touch with the Collector and should appraise all the steps taken by them and they should follow the instructions narrated below and arrange for the relief measures in the area. The Executive Officers (Town Panchayat) in the town are the relief officers as indicated above. They are responsible for the relief operation in their areas. The public health section under their control should be kept alert against any epidemic and that they should ensure that the drinking water supply is free from contamination.

5.11. INCIDENT RESPONSE SYSTEM:

The Incident Response System provides a systematic, proactive approach guiding the concerned departments and agencies at all levels of Government, the private sector and Non-Government, the private sector and Non-Governmental organizations to work seamlessly in disaster situations.

For effective, efficient and comprehensive management of disasters in the State of Tamil Nadu, IRS is critical. The aim is not only to minimize loss of life and property but also strengthen and standardize the disaster response mechanism in the District. The Incident Response System team is formed with the following line officials in Tiruvallur District.

SL. NO.	DEPARTMENT	DESIGNATION/ POST
1	Revenue Department	Personal Assistant (General) to Collector, Tiruvallur
2	Police	Deputy Superintendent of Police, Tiruvallur
3	Health	Deputy Director of Public Health, Tiruvallur
4	PWD	Asst.Exe.Engineer Tank and Restoration Spl.Sub-Division, Arakkonam
5	Fire & Rescue Services	District Fire Officer
6	Public Relation Office	Public Relation Officer
7	Development	Assistant Director (Panchayat)

5.12. INTER DEPARTMENTAL ZONAL TEAMS:

- Inter Departmental Zonal Teams are formed for Monitoring 133 Vulnerable Locations. **42 Inter Departmental Zonal Teams and 22 Backup Teams, totally 64 Zonal Committees** are formed to inspect Vulnerable Locations in Tiruvallur District.
- The Officials from Revenue, Rural Development, Agriculture, Horticulture, Food Safety, Fisheries, Agriculture Engineering, Co-operative, TWAD, Adi Dravider and Tribal Welfare Officer and District Backward Classes and Minority Welfare Officer have been appointed as Inter Team Zonal Officer.

INTER DEPARTMENTAL ZONAL TEAM IN TIRUVALLUR DISTRICT
INTER DEPARTMENTAL ZONAL TEAM NO : 1

VERY HIGH VULNERABLE AREA		TIRUNINDRAVUR		
TALUK		AVADI		
TEAM LEADER		Thiru.P.Nagarajan Assistant Director of Survey, Tiruvallur-9444680521		
ASSISTANT TEAM LEADER		Thiru.Kumar Municipal Engineer, Thirunindravur (i/c) - 9884250568		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr. Sathish	AE, Thirumullivoyal	9445850351
2)	PWD	Mr.Hari	JE, ST.MOUNT	6383000345
3)	HIGHWAYS	Mrs.Jhanavi S Fernando	ADE, Tiruvallur	94436 24247
4)	AGRICULTURE	Mrs.Sameera	AO	9994455254
5)	ANIMAL HUSBANDRY	Dr.V.Prasad	Veterinary Asst Surgeon, Thirunindravur	90948 68119
6)	FISHERIES	Mr.Kamel Ahamed	Inspector of Fisheries, Poondi	9442658390
7)	CO-OPERATIVES	Mr.Illaayaraja	Co-Operative Sub Registrar ,Field Officer, Poondi	7338749107
8)	TSO	Mrs.Thenmozhi	Taluk Supply Officer	9551629301
9)	SALESMAN	Mrs.Anitha	Salesman	8637695263
10)	LOCAL BODY	Mr.Srinivasan	Supervisor, Municipality	9003161151
11)	POLICE	Mr.Tiruvalluvar	Inspector T-11 Thirunindravur Police Station	044-26390293 9840799212
12)	FIRE	Mr.Veeraraghavan	Station Officer Tirur Fire Station	044-27620244 9445086168
13)	HEALTH	Dr.Geetha	BMO, Poonamallee	9962349306
MALE FIRST RESPONDER		FEMALE FIRST RESPONDERS		
1.	GOKUL	9444108282	KALPANA	7092071449
2.	ROBERT	9841807073	ANANDHI	9176054794
3.	SHANKAR	9841127547	JAGALAKSHMI	9884252660
4.	RAJENDIRAN	8610403409	JANSIRANI	9962485701
5.	HARIBABU	9941131570	VIMALA	9710752528
6.	SRINIVASAN	9841462200	LATHA	9952233279
7.	ANBU CHEZHIAN	9444794644		
8.	SATHISH	9884485777		
9.	VASANTH	9790072800		
SNAKE CATCHER		SWIMMER		
1.	KANNIYAPPAN	7358258676	G.SEKAR	8124359840
2.	EZHILARASAN	9566159150	KARTHIK	9841768608
TREE CLIMBER		DISASTER RESPONSE GUARDS		
1.	LEO PRABHU	9600032322	M.KARTHICK	9600026652
2.	PRITHVIRAJ	9841840268	K.ELANGOVAN	9551027456
TREE PLANTING AND CUTTING				
1.	EGAMBARAM	9710013870		
2.	ELAYAN	9884231051		
3.	MURUGANANTHAM	8939377768		

INTER DEPARTMENTAL ZONAL TEAM NO : 2

VERY HIGH VULNERABLE AREA		PARUTHIPATTU		
TALUK		AVADI		
TEAM LEADER		Thiru.V.Ganesh Special Deputy Collector (SSS) Tiruvallur-9442650055		
ASSISTANT TEAM LEADER		Thiru.Ravichandiran Municipal Engineer, Avadi Corporation-7397382210		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr. Panneer Selvam	AEE/O&M/East Ponneri	9445850916
2)	PWD	Mr.Hari	JE, ST.MOUNT	6383000345
3)	HIGHWAYS	Mr.Balachandran	ADE, Gummidipoondi	9444757762
4)	AGRICULTURE	Mrs.Gowryshankari	AO, Avadi	9843479921
5)	ANIMAL HUSBANDRY	Dr.Anitha	Vetinary Assistant, Kattur	9444581428
6)	FISHERIES			
7)	CO-OPERATIVES	Mr.Illaayaraja	Co-Operative Sub Registrar ,Field Officer, Poondi	7338749107
8)	TSO	Mrs.Thenmozhi	Taluk Supply Officer	9551629301
9)	Salesman	Mohan	Salesman	7010528609
10)	RURAL DEVELOPMENT	Mr. Sivakumar	Zonal BDO, Minjur	9944141990
11)	POLICE	Mrs. Nalini SI	E2 Avadi Police station	9498100086
12)	FIRE	Mr.D.Sampath	Station Officer, Fire & Rescue Department, Ponneri	9445086164 8248287814
13)	HEALTH	Dr. Mahendra Varman	BMO, Minjur	9840378020
MALE FIRST RESPONDER			FEMALE FIRST RESPONDERS	
1.	Latha	9092172310	MalaSree	7530021789
2.	Mohamed Yazeer	8300671500	Janani	7200467550
3.	Veeramani	9952534540		
5.	Karthikeyan	9841744005		
6.	Jeyakumar	8190825329		
7.	Vigeswaran	8190080027		
8.	Praveen	9003186159		
9.	Jayamani Padiyan	9092777287		
10.	Jayamani Maran	8682027345		
10.	Aravindh	7358615062		
11	Jeyakumar	8190825329		
SNAKE CATCHER			SWIMMER	
1.	Regan		Mohamed Yazeer	8300671500
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Jacob	9677005191		
2	Aravind Kumar	8838867359		
TREE PLANTING AND CUTTING				
1.	Jacob	9677005191		
2.	Latha	9092172310		

INTER DEPARTMENTAL ZONAL TEAM NO : 3

VERY HIGH VULNERABLE AREA		1. A.REDDYPALAYAM 2. THATHAMANJI		
HIGH VULNERABLE AREA		3. SIRUPAZHAVERKADU COLONY,4.KADAPAKKAM COLONY		
TALUK		PONNERI		
TEAM LEADER		Thiru.R.Rangarajan Assistant Commissioner (Excise) Tiruvallur-9629087791		
ASSISTANT TEAM LEADER		Thiru.Natarajan BDO (BP) Minjur -9444009945/7402606138		
S No	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr. Panneer Selvam	AEE/O&M/East Ponneri	9445850916
2)	PWD	Mr. Kannan	AE, Minjur	9962064062
3)	HIGHWAYS	Mr.Balachandran	ADE, Gummidipoondi	9444757762
4)	AGRICULTURE	Mr.Prabakaran	AO, Ponneri	9543216035
5)	ANIMAL HUSBANDRY	Dr.Anitha	VAS,Kattur	9444581428
6)	FISHERIES	Mr. Gangatharan	Inspector of Fisheries, Pazhaverkadu	9384824246
7)	CO-OPERATIVES	A.Venkataramanan	Co-Operative Sub Registrar Officer, Field Officer, Puzhal	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	SALESMAN	E.Diwakar Thagesh	Salesman(A.Reddy Palayam) Salesman(Thanthamanji)	9840698509 8838517291
10)	RURAL DEVELOPMENT	Mr. Sivakumar	Zonal BDO, Minjur	7402902418
11)	POLICE	Mr. Babu SI	E2 Thirupalaivanam Police station	9498148151
12)	FIRE	Mr.D.Sampath	Station Officer, Fire & Rescue Department, Ponneri	8248287814
13)	HEALTH	Dr.G.S.Rajesh	BMO, Minjur	9840083909
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
A.REDDYPALAYAM		A.REDDYPALAYAM		
1.	JEEVA	8751278959	ELLAMMAL	8754744107
2.	NAGARAJ	9751522987	REVATHI	9159077437
3.	NANDHAKUMAR	9791984997	SARASWATHI	7708952184
4.	RAGHAVAN	9047332556	REVATHI	7708529603
5.	NANDHAN	9629694856	DEVI BABU	7708430383
6.	ANANDAN	9655748805	LATHA MOORTHY	9962403632
7.	ILAYARAJA	9566752880	SANTHANALAKSHMI KANNABIRAN	8940707942
THATHAMANJI		THATHAMANJI		
1.	SAMI	9487477079	MARIYAMMAL	9946372641
2.	GOTHANDAM	9965492149	SELVI	9884112306
3.	GURUSAMY	9578015641	VENGATRAMAN	9962392789
4.	T.S.BALAKRISHNAN	9445174096	GIRIJA	6381496613
5.	T.V.KRISHNAN	9445174699	SARASWATHI	9789059070
6.	T.J.PANNEER	9889234142		
KADAPAKKAM		KADAPAKKAM		
1.	VENKATESAN	9655950340	SELVI	9791563507
2.	ARUNKUMAR	9500577983	RAJALAKSHMI	9884279388
3.	SARATHKUMAR	8838505004	MANIMEGALAI	9962193701
4.	M.EGAMBARAM	8489021116	REVATHI	7339433583
5.	SELVARAJ	8939126198		
6.	SUBRAMANI	9597493920		
SNAKE CATCHER		SWIMMER		
1.	Thiru.Ganesan	9655024434	Thennarasau	9841168372
			Gurusami	9166537688
TREE CLIMBER		DISASTERRESPONSE GUARDS		
1.	Raja	9884279388	GOUSE BASHA	9943328111
2.	Sami	9092667012	Chitra	7449004152
3.	Munusamy(Thathamanji)			
TREE PLANTING AND CUTTING				
1.	GURUSAMY	9166537688		
2.	ELLAPPAN	9789631164		
3.	DEVARAJ	7871766261		
4.	RADHAKRISHAN	9500194764		

INTER DEPARTMENTAL ZONAL TEAM NO : 4

VERY HIGH VULNERABLE AREA		2.ALADU (MANOPURAM)		
MEDIUM VULNERABLE AREA		1. PONNERI -I 2. PONNERI -II		
TALUK		PONNERI		
TEAM LEADER		Tmt.Dhanalakshmi District Backward Classes and Minorities Welfare Officer, Tiruvallur - 8056064156		
ASSISTANT TEAM LEADER		Thiru.S.Arul Zonal Deputy BDO, Minjur-7402902415		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Sivashankar	AEE/O&M/West Ponneri	9445850921
2)	PWD	Mr.Chozharaja	AE/WRD, MINJUR	7010099244
3)	HIGHWAYS	Mr.T.Premkumar	Assistant Engineer, Highways, Ponneri.	9790089178
4)	AGRICULTURE	Mr.Venkatesan	AO, Ponneri	8144132494
5)	ANIMAL HUSBANDRY	Dr.V.Arthi	VAS,Karimbedu	9952552518
6)	FISHERIES	Mr. Udhandaraman	Inspector of Fisheries, Ponneri	9585222107
7)	CO-OPERATIVES	A.Venkataramanan	Co-Operative Sub Registrar Officer, Field Officer, Puzhal	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	SALESMAN	K.Renuka, K.Santhoshkumar, E.M.Babu	Salesman (Aladu) Salesman (Ponneri I) Salesman (Ponneri II)	9444643363 9629532946 9444834522
10)	RURAL DEVELOPMENT	Mrs.Sivakami	Zonal Deputy BDO, Minjur	9445811693
11)	POLICE	Mr. Pal raj	INSPECTOR E1. Ponneri	044-27972253 9444269288
12)	FIRE	Mr.D.Sampath	Station Officer, Fire & Rescue Department, Ponneri	9445086164 8248287814
13)	HEALTH	Dr.G.S.Rajesh	BMO, Minjur	9840083909
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	AKASH	8608256399	KAMALA	9962815153
2.	GAJENDIRAN	9655919866	DIVYA BHARATHI	8940131336
3.	RAMESH	7904918307	KAVITHA	9786784394
4.	KULASEKAR	9894883610	KAMALA	9962815153
5.	BALAJI	9751112053	VIJAYALAKSHMI	9176066517
6.	JOHNRAJ	9788962711	MALLIKA	8610538446
7.	NAGENDRAN	8610636420	KOMATHI	9944791740
8.	SAKTHI DASAN	8022971884	DEVI	9789645640
9.	VISWANATHAN	7397701037	DEEPA	8838031883
10.	KANNAN	9500569383	NANDHINI	8189906268
11.	NANDHAN	9944008417		
12.	PREM	9444608579		
SNAKE CATCHER			SWIMMER	
1.	MANI	7418498712	ARUMUGAM	9047442779
			Nithya	9077366155
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Chandrasekar	9944721741	YUGENDAR	9994169118
			KARTHI	9176599780
TREE PLANTING AND CUTTING				
1.	MUNIVEL	7868090769		
2.	CHANRASEKAR	9751240112		

INTER DEPARTMENTAL ZONAL TEAM NO : 5

HIGH VULNERABLE AREA		ATHIPATTU PUDU NAGAR		
TALUK		PONNERI		
TEAM LEADER		Thiru.C.Srinivasan District Differently abled Welfare Officer, Tiruvallur -9499933496		
ASSISTANT TEAM LEADER		Tmt.Premi Divisional Exercise Officer, Ponneri -9840804356		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.S.Panner Selvam	AEE/O&M/Gummidipoondi	9445850932
2)	PWD	Mr.SrinivasaPrakash	AE solavaram	9486693837
3)	HIGHWAYS	Mr.Mathiyalagan	ADE	9444254404
4)	AGRICULTURE	Mr.Sivakumar	Assistant Seed Officer, Ellapuram	9790976276
5)	ANIMAL HUSBANDRY	Dr.Manikandan	VAS,Sholavaram	9840189404
6)	FISHERIES	Mrs. Vijayalakshmi	Inspector of Fisheries, Arambakkar	8220637519
7)	CO-OPERATIVES	A.Venkataramanan	Co-Operative Sub Registrar Officer, Field Officer, Puzhal	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	SALESMAN	Karthic, C.Sundaram	Salesman (Vichoor) Salesman (Athipattu Pudhu Nagar)	8072206868 9444866118
10)	RURAL DEVELOPMENT	Mrs.Kameshwari	BDO, Sholavaram	9952976175 7402902433
11)	POLICE	Mr.Balamurugan	Manali New Town SI	044- 25941299 9841136219
12)	FIRE	Mr.RAMMOORTHY	Station Officer Transport Manali	9445086064
13)	HEALTH	Dr.A.Jayadeepa	BMO, Sholavaram	9841722227
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
Athipattu Puthu Nagar				
1	Subramani	9841333688	Amutha	9500256441
2	Praba kumar	6379371825	Jamuna	7401758515
3	Jebaraj	8778469337	Mala	9677037694
4	T.V Ravi	9710208654	Vijaya	8015414442
5	Ponnurangan	9962785588	Seethalakshmi	9952007348
6	Narayanaswamy	8608503170	Selvakumari	7449004825
7	Murugantham	9941987197	Amritha	9176998932
8	Ambalavanan	9710204008		
9	Srinivasan	7639822617		
10	Somu	6380161509		
SNAKE CATCHER				
1.	Sankar	7448375477	Venkatesan	9790774874
			Deva	8056122460
TREE CLIMBER		DISASTER RESPONSE GUARDS		
1.	Masilamani	9094649410	MURUGAN	9786909627
			RAJENDRAN	9994581299
TREE PLANTING AND CUTTING				
1.	RAVI	9790817372		
2.	VENKATSEN	7845944312		
3.	VENKATRAMAN	8825941189		
4.	SHAMUGAM	9677287764		

INTER DEPARTMENTAL ZONAL TEAM NO : 6

VERY HIGH VULNERABLE AREA		1) VICHOOR		
HIGH VULNERABLE AREA		2) VELLIVOYAL		
TALUK		PONNERI		
TEAM LEADER		Tmt.A.Kowsalya Regional Manager (TNCSC) Tiruvallur -9444662984		
ASSISTANT TEAM LEADER		Tmt.Shanthini BDO (BP) Sholavaram -7402606144/9444932154		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Murali	AEE/O&M/Gummidipoondi	9445850932
2)	PWD	Mr.SrinivasaPrakash	AE solavaram	9486693837
3)	HIGHWAYS	Mr.Mathiyalagan	ADE	9444254404
4)	AGRICULTURE	Mr.Sivakumar	Assistant Seed Officer, Ellapuram	9790976276
5)	ANIMAL HUSBANDRY	Dr.Girdharan	VAS,Sholavaram	9443035274
6)	FISHERIES	Mrs. Vijayalakshmi	Inspector of Fisheries, Arambakkar	8220637519
7)	CO-OPERATIVES	A.Venkataramanan	Co-Operative Sub Registrar Officer, Field Officer, Puzhal	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	SALESMAN	Karthic, C.Sundaram	Salesman (Vichoor) Salesman (Athipattu Pudhu Nagar)	8072206868 9444866118
10)	RURAL DEVELOPMENT	Mr.Rubendran Rao	BDO, Sholavaram	7402902433
11)	POLICE	Mr.Balamurugan	Manali New Town SI	044- 25941299 9841136219
12)	FIRE	Mr.Sambath	Station Officer Transport Manali	9445086064
13)	HEALTH	Dr.A.Jayadeepa	BMO, Sholavaram	9841722227
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
VELLIVOYAL & VICHOOR				
1.	BHARATH	7358631012	DIVYA	8939709370
2.	SUDHAKAR	9600158103	NIROSHA	9962860637
3	DURAIRAJ	9382711707	USHA	9751209303
4.	VADIVEL	7200058896	MOHANA	9042225279
5.	BABU	6380007168	MARRIYAMMAL	9884902217
6.	PERIYASAMY	9791090379	JEYALAKSHMI	8148325253
7.	CHANDIRAMOHAN	9940097517	SARASWATHI	9791146947
8.	LINGESWARAN	9940077756	ALAMELU	9710247917
9.	KALIYAPPAN	9941887130	SHANKARI	8012246429
10.	JEYARAJ	9952059582	Revathy	9843956504
11.	Rangamoorthy	7299841846	JAMUNA	7401758515
12.	SOMU	6380161509	SEETHALAKSHMI	9952007348
13	RAVICHANDRAN	9941887130	JOTHI	9940761134
14	MURUGANANTHAM	9941987197		
SNAKE CATCHER				
1.	Sankar	7448375477	Venkatesan	9790774874
			Deva	8056122460
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Masilamani	9094649410	MURUGAN	9786909627
			RAJENDRAN	9994581299
TREE PLANTING AND CUTTING				
1.	RAVI	9790817372		
2.	VENKATSEN	7845944312		
3.	VENKATRAMAN	8825941189		
4.	SHAMUGAM	9677287764		

INTER DEPARTMENTAL ZONAL TEAM NO : 7

VERY HIGH VULNERABLE AREA		1. Perumbedu Kuppam 2. Vanjivakkam		
TALUK		PONNERI		
TEAM LEADER		Tmt.K.Indhira District Manager (TAHDCO) Tiruvallur -9445029475		
ASSISTANT TEAM LEADER		Thiru.M.Parthipan Zonal Deputy BDO Minjur- 7402902414		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Perumal	AEE/O&M/Panjjetty	9445850937
2)	PWD	Mr.Saravanan	AE, Irrigation, Minjur	9445326617
3)	HIGHWAYS	Mr.Balachandran	ADE, Ponneri	9444757762
4)	AGRICULTURE	Mr.Selvakumar	AO, Minjur	8870654887 9840437559
5)	ANIMAL HUSBANDRY	Tmt.Renuka Devi	LI Grade II	9444895486
6)	FISHERIES	Mr.Anbazzhagan	Inspector of Fisheries, Thirupalaivanam	8667434985 9384824482
7)	CO-OPERATIVES	Mr.Vijayaragavan	Co-Operative Sub Registrar Officer, Field officer, Puzhal	8072685734
8)	TSO	Sambath	Taluk Supply Officer	9600711923
9)	SALESMAN	J.Muhamadhu Rafhi, J.Iyappan	Salesman(Perumbedu kuppam) Salesman (Vanjivakkam)	9597569669 962967696
10)	RURAL DEVELOPMENT	Mr.Arul	Zonal Deputy BDO, Minjur	9994950354
11)	POLICE	Mr.Rajendran	SI E1. Ponneri	044-27972253 8838858563
12)	FIRE	Mr.D.Sampath	Station Officer, Fire & Rescue Department, Ponneri	9445086164 8248287814
13)	HEALTH	Dr.Mahendravarman	BMO, Minjur	9840378020
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	ASHOK PRIYADARSHAN	8675557866	MAARIESHWARI	9159773092
2.	BHUVANESHKUMAR	7010500464	DEEPA	9952302787
3.	DEENADAYALAN	7200954941	LAKSHMI	8608388896
4.	ARUNKUMAR	7358744063	TAMILSELVI	9042192385
5.	SRINATH	9384320090	KUTTIAMMAL	9962932711
6.	HARIKRISHNAN	9384283017	MARIAMMAL	9894332799
7.	MANIMUDI	7358827698	SARITHA	9047332763
8.	MOHAN	9944013978		
9.	LIVY	8610862773		
10.	MANIKANDAN	9384319495		
11.	P.S.JOTHI	8270072350		
12.	SARAVANAN	9597438612		
13.	GOPALAKRISHNAN	9787184466		
14.	APPUNU	9994329439		
15.	GUNASEKAR	9677614528		
16.	ANGAMUTHU	9840454520		
SNAKE CATCHER			SWIMMER	
1.	Sankar	6382794246	Arumugam	9597484822
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Selvam	9940166695	DHASARATHAN	9840100427
			PARASURAMAN	9894555020
TREE PLANTING AND CUTTING				
1.	SRIDHAR	8825451199		
2.	SABAPATHY	9790805565		
3.	KUMAR	8056313045		
4.	MUNUSAMY	9787907885		

INTER DEPARTMENTAL ZONAL TEAM NO:8

HIGH VULNERABLE AREA		PUDU NAGAR PALERIPATTU		
TALUK		AVADI		
TEAM LEADER		Thiru.Praveen AD Agriculture , Ellapuram- 7010146347		
ASSISTANT TEAM LEADER		Thiru.M.Inbaraj Special Tahsildar/ D.E.O.Tiruvallur-9962075330		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Krishnamoorthy	AE, Pattabiram	9445850084
2)	PWD	Mr.Sathish	JE, Adayar	9443130220
3)	HIGHWAYS	Mrs.Jhanavi S Fernando	ADE, Tiruttani	9443282613
4)	AGRICULTURE	Mrs.Samera	AO	9994444254
5)	ANIMAL HUSBANDRY	Dr.M.Logavani	Veterinary Asst Surgeon	8778074127
6)	FISHERIES	Mr. Kamal Ahamad	Inspector of Fisheries, Poondi	9442658390
7)	CO-OPERATIVES	Mr. Ilayaraja	Co-Operative Sub Registrar ,Field Officer, Poondi	7338749107
8)	TSO	Mrs.Thenmozhi	Taluk Supply Officer	9551629301
9)	Salesman	Mohan Chandramohan	Paleripattu Puthu Nagar	7010528609 9940401722
10)				
11)	LOCAL BODY	Mr.Srinivasan	Supervisor, Avadi Municipality	9003161151
12)	POLICE	Mr.Jeganathan	Inspector, T9 Pattabiram Police station	9790884783
13)	FIRE	Mr.Nagaraj	Fire Officer TNHB, Avadi	044-26555202 9445086159
11)	HEALTH	Dr.Panimalar	BMO, Poonamallee	9659334722
MALE FIRST RESPONDER				
1.	VILLIAMS	9841678108	SUMATHY	9094097739
2.	SIVA	8939371981	BHAVANI	9003096598
3.	BHARATHIRAJ	9884373159	KODISHVARI	9940456950
4.	ANANTHAN	9941806334	SUMATHY	9962014374
5.	MURUGAN	9789570864	BANU	9941641850
6.	GOPAL	9894027313	SELVAKANI	9566155928
7.	ARUN	6380510600	SANGEETHA	9551227215
8.	JAYAVEL	7092352849	LAKSHMI	7299761803
9.			PUSHPAVATHI	9677255442
10.			BHARATHI	9710776402
11.				
12.				
SNAKE CATCHER			SWIMMER	
1.	GANESAN	9841152447	RANGANATHAN	8056856390
2.	RAM PRASATH	9840771713	KANNAN	9940371597
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	RUKMANGANATHAN	8939297828	G.RAJENDRAN	9677229293
2.	SENTHILKUMAR	9710033454	R.RAJESH KUMAR	9940446551
TREE PLANTING AND CUTTING				
1.	ATHIYAPPAN	9283187671		
2.	KASINATHAN	9094455564		
3.	ELUMALAI	7871070859		
4.	ARUN	9789035470		

INTER DEPARTMENTAL ZONAL TEAM NO:9

HIGH VULNERABLE AREA		ANANDA NAGAR/ PERIYAR NAGAR / PALERIPATTU / VETTAIKARAPALAYAM/ NANTHAVANAMETTUR/ KAVARAIPALAYAM/ VILINJIYAMBAKKAM		
TALUK		AVADI		
TEAM LEADER		Tmt.P.Selvarani DADWO, Tiruvallur - 9094273218		
ASSISTANT TEAM LEADER		Tmt.Uma Shankari Special Tahsildar, Natham Settlement, Avadi -9841132122		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Murugan	AE, Avadi	9445850353 9445448941
2)	PWD	Mr.Mahendra Kumar	AE	7010622932 9443227382
3)	HIGHWAYS	Mr.R.Jayamoorthy	AE	9884114269 7200133283
4)	AGRICULTURE	Mrs.T.Leenapriya	AO	7708029083 9578709246
5)	ANIMAL HUSBANDRY	Dr.Logavani	Veterinary Asst Surgeon, Avadi	9444010551 8778074127
6)	FISHERIES	Mrs.Vijayalakshmi	Inspector of Fisheries	8220637519 8489911333
7)	CO-OPERATIVES	Mr.Chandrasekaran	Co-Operative Sub Registrar Officer, Field officer, Kadambathur	9677436464 9677436464
8)	TSO	Mrs.Asia Parveen	Taluk Supply Officer	9047651640
9)	Salesman	Chandramohan Puthuran	Ananthanagar Periyarnagar	9940401722 9500771154
10)	LOCAL BODY	Mr.Sathyaseelan	J.E Supervisor, Avadi Municipality	9789901184 9003161151
11)	POLICE	Mr.Vimalanathan	Inspector, Avadi Police station	9498138255
12)	FIRE	Mr.Veeraragavan	Station Officer Transport Manali	9445086159 044-26555202 9952190030
13)	HEALTH	Dr.Panimalar	BMO, Poonamallee	9659334722
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	VENOTHKUMAR	8939247409	MALARKODI	9884303142
2.	DENESH KUMAR	7904164605	MEENACHI	9790791850
3.	JEYAKUMAR	9790986022	VIJAYA	8939101725
4.	HARIHARAN	9962001199	KALA	9941392303
5.	DEENASH	7904164605	LAKSHMI	9176293117
6.	SARAVANAN	9941143337	LATHA	9047590590
7.	VELUKUMAR	9043166955	POONGULALI	9940574557
8.	KARTHICK	9003126566	ESWARI	9884375411
9.	RISHWAN	8939472905	SUMATHI	9094097739
10.	SURESH	9941143336	BANU	9941641850
11.	MUNUSAMY	9790101207		
SNAKE CATCHER			SWIMMER	
1.	S Baskar	9884894219		
2.	RAM PRASATH	9840771713	KANNAN	9940371597
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	RUKMANGANATHAN	8939297828	DHANRAJ	9444127041
2.	SENTHILKUMAR	9710033454	VENKATESAN	9791111664
3.	RUKMANGATHAN	8939297828	SAKTHI GNANASUBRAMANIAM	9884165209
4.	SENTHILKUMAR	9710033454	JOSEPH DOMINIC	9940116266
TREE PLANTING AND CUTTING				
1.	ATHIYAPPAN	9283187671	Adhisha Gomathi	9566001952
2.	KASINATHAN	9094455564		
3.	ELUMALAI	7871070859		
4.	ARUN	9789035470		

INTER DEPARTMENTAL ZONAL TEAM NO:10

HIGH VULNERABLE AREA		BHAVANI NAGAR NADUKUTHAGAI, MOOVENTHAR NAGAR NADUKUTHAGAI AMIRTHANAGAR, NADUKUTHAGAI, THENDRAL NAGAR, NADUKUTHAGAI, RAMADASAPURAM		
TALUK		AVADI		
TEAM LEADER		Tmt.Nishanthini District Child Protection Officer, Tiruvallur - 9080860237		
ASSISTANT TEAM LEADER		Thiru.Udhayam Special Tahsildar, Natham Settlement, Avadi -9786108237		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Krishnamoorthy	AE, Nemilicherry	9445850084 9445850083
2)	PWD	Mr.Sathishkumar	AE Adayar Irrigation Section	9443130220
3)	HIGHWAYS	Mr.Praveenkumar	AE	9788672724
4)	AGRICULTURE	Mrs.Gowri	AO	9843479921
5)	ANIMAL HUSBANDRY	Dr.Prasath	Veterinary Asst Surgeon,Thiruninravur	9094868119
6)	FISHERIES	Mr.Kamel Ahamed	Inspector of Fisheries, Poondi	9442658390
7)	CO-OPERATIVES	Mr.Chandrasekaran	Co-Operative Sub Registrar Officer, Field officer, Kadambathur	9677436464
8)	TSO	Mrs.Thenmozhi	Taluk Supply Officer	9551629301
9)	SALESMAN	E. Ramamoorthy	Salesman (Nadukuthagai)	8639946776
10)	LOCAL BODY	Mrs.Rehena Begam	Zonal Deputy BDO, Poonamallee	7402902598 / 9884966669
11)	POLICE	Mr.Tiruvalluvar	Inspector T-11 Thiruninravur Police Station	044-26390293 9840799212
12)	FIRE	Mr.Veeraraghavan	Station Officer Tirur Fire Station	044-27620244 9445086168
13)	HEALTH	Dr.Geetha	BMO, Poonamallee	9962349306
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	SHANMUGAM	7904543840	SUMATHI	9498648084
2.	MANIVEL	9677098336	UDAYA	9789995307
3.	VENKATRAMAN	9444239275	SHARMILA	9789995307
4.	SURESH	9884736800	VALLI	9566144096
5.	BALAJI	9444997882	PREMA	9094894119
6.	K.MURUGAN	9551512978	SANTHAKUMARI	9940388415
7.	K.KANNIYAPPAN	8682097199	SAGUNTHALA	9094864011
8.	L.KANNIYAPPAN	7358258676	DHEEPA	9500043700
9.	D.RAJESH	9600027975	RAHAVAN	9176329085
10.	RADHAKRISHNAN	8754504365	LAKSHMI	7299910622
11.	CHANDRAN	8778858027		
12.	VIJAYAKUMAR	9841269983		
SNAKE CATCHER			SWIMMER	
1.	EZHILARASAN	9566159150	SEKAR	8124359840
2.	JAGANATHAN	9841371304	KARTHICK	9841768608
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	LEOPRABHU	9600032322	MALATHI	9884165209
2.	DHANARAJSEKAR	8056276433	CHRISTOPHER	9382335912
TREE PLANTING AND CUTTING				
1.	MARIYAPPAN	7871389356		
2.	ELAYAN	9884231051		
3.	MURUGANANTHAM	8939377768		
4.	RAMU	6381762230		

INTER DEPARTMENTAL ZONAL TEAM NO:11

HIGH VULNERABLE AREA		DILIPAN NAGAR NORTH PRAKASH NAGAR IN NADUKUTHAGAI		
TALUK		AVADI		
TEAM LEADER		Tmt.Shrisankari AD Agriculture , Tiruvallur - 7010643373		
ASSISTANT TEAM LEADER		Tmt. Devi Special Tahsildar (SSS) Avadi - 9787641463		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Krishnamoorthy	AE, Nemilicherry	9445850084 9445850083
2)	PWD	Mr.Sathishkumar	AE Adayar Irrigation Section	9443130220
3)	HIGHWAYS	Mr.Praveenkumar	AE	9788672724
4)	AGRICULTURE	Mrs.Sameera	AO	9994455254
5)	ANIMAL HUSBANDRY	Dr.Prasath	Veterinary Asst Surgeon, Thiruninravur	9094868119
6)	FISHERIES	Mr.Kamel Ahamed	Inspector of Fisheries, Poondi	9442658390
7)	CO-OPERATIVES	Mr.V.Lakshmanasamy	Co-Operative Sub Registrar ,Field Officer, Poondi	8248670004
8)	TSO	Mrs.Thenmozhi	Taluk Supply Officer	9551629301
9)	Salesman	A.Saravanan	Salesman (Prakashnagar I)	9789446728
10)	LOCAL BODY	Mr.Srinivasan	Supervisor, Avadi Municipality	9003161151
11)	POLICE	Mr.Jaganathan	Inspector Pattabiram T9 Police station	9790884783
12)	FIRE	Mr.Veeraraghavan	Station Officer Tirur Fire Station	044-27620244 9445086168
13)	HEALTH	Dr.Geetha	BMO, Poonamallee	9962349306
MALE FIRST RESPONDER			FEMALE FIRST RESPONDERS	
1.	VARATHAN	7401716064	KALAIMANI	9710783874
2.	MANOKARAN	9789991599	SAKTHI	9941055910
3.	SATHEESH	8072226291	PADMA	8608111983
4.	DANRAJ	7871540700	GANGAIAMMAN	9080998251
5.	AJITHKUMAR	9677061896	KANIMOZHI	9884336972
6.	SURESH	9884650846	NAGAJOTHY	9677045073
7.	ARUN	9840545634	SUMATHY	9444973959
8.	BALAJI	7401487965	SARASWATHIDEVI	9884650846
9.	KRISHNAN	9444065992	SUBASHNI	9841793983
10.	SASIKUMAR	9791186928	USH RAJENDIRAN	8056250664
SNAKE CATCHER			SWIMMER	
1.	EZHILARASAN	9566159150	KARTHIK	9841768608
2.	KANNIYAPPAN	7358258676	G.SEKAR	8124359840
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	PRITHVIRAJ	9841840268	GEETHA	9790117123
	LEO PRABHU	9600032322	SELVA PERUMAL	9444445879
TREE PLANTING AND CUTTING				
1.	SATHYA	8637633123		
2.	EGAMBARAM	9710013870		
3.	GANAPATHY	9962281620		
4.	MARIYAPPAN	7871389356		

INTER DEPARTMENTAL ZONAL TEAM NO:12

HIGH VULNERABLE AREA		RAJIVGANDHI NAGAR KOILPATHAGAI BRINTHAVAN NAGAR KOILPATHAGAI, PANDESWARAM - LOW LYING AREA		
TALUK		AVADI		
TEAM LEADER		Tmt.K.Amudhakumari Assistant Director of Agriculture (I/c), Ambathur -9087740427		
ASSISTANT TEAM LEADER		Thiru.Vijayakumar Special Tahsildar, Special Tahsildar, Chitthur and Thatchur Scheme Unit-1-9884375998		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Manohar I/C	AE,	9445850350
2)	PWD	Mr.Sathishkumar	AE	9443130220
3)	HIGHWAYS	Mr Fernando	ADE, Tiruvallur	9443282613
4)	AGRICULTURE	Mr.Dillikumar	Dy.AO	9840437559
5)	ANIMAL HUSBANDRY	Dr.Logavani	Veterinary Asst Surgeon, Avadi	8778074127
6)	FISHERIES		Inspector of Fisheries, Poondi	
7)	CO-OPERATIVES		Co-Operative Sub Registrar Officer, Field officer, Kadambathur	
8)	TSO	Mr Asiya Parveen	Taluk Supply Officer	9047651640
9)	Salesman	Chandramohan Prakash	Kovilpathagai Pandeewaram	9940401722 9941512580
10)	LOCAL BODY	Mr Albert	Sanitary Inspector	
11)	POLICE	Mr.Gopinath	Inspector T7 Tank Factory Station	8610607907 9840617047
12)	FIRE		Station Officer HVF Fire Station	044-26843622
13)	HEALTH	Dr.Yazhini	Avadi Corporation Health Office	7358124287
MALE FIRST RESPONDER			FEMALE FIRST RESPONDERS	
1.	RAJESH	9791176469	SUMATHI	9791041926
2.	ARUL	9940436071	JAYASUTHA	9840820512
3.	PARTHIBAN	9940533504	USHA	8056131463
4.	GOPALAKRISHNAN	9962927999	KARTHIKA	9884514828
5.	DHARMAPRAKASH	9790001983	REKA	9677151650
6.	SHANMUGAM	7904543840	SUMATHI	9498648084
7.	MANIVEL	9677098336	UDAYA	9789995307
8.	VENKATRAMAN	9444239275	SHARMILA	9789995307
9.	SURESH	9884736800	VALLI	9566144096
10.	BALAJI	9444997882	PREMA	9094894119
11.	LASSER	9840963400		
12.	STALIN	9791101240		
SNAKE CATCHER			SWIMMER	
1.	RAJENDRAN	9791571765	MARTIN	9789912394
2.	VELU	9444316997	PEDHURU	9841872588
TREE CLIMBER			DISASTER RESONSE GUARDS	
1.	KUMAR	7397287125	K.Manikam	9994030504
2.	VARATHAN	9710092363	Dr.Swamynathan	9444796479
TREE PLANTING AND CUTTING				
1.	RAJESH	9840983290		
2.	Elumalai	6369963904		
3.	Prabu	7358586911		
4.	Babu	9840486725		

INTER DEPARTMENTAL ZONAL TEAM NO:13

HIGH VULNERABLE AREA		AMMA NAGAR/ AMBEDHKAR NAGAR, POONAMALLEE NAZARETHPETTAI		
TALUK		POONAMALLE		
NODAL TEAM LEADER		Tmt.Renuka District Manager / Deputy Collector, TASMAL, Tiruvallur (East) (i/c)- 8903830115		
BACKUP TEAM LEADER		Thiru.J.Shankar, Special Tahsildar CPRR Unit-IV -9994284378 /9444543543		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mrs.Sangeetha	AE, Parivakkam	9445850267
2)	PWD	Mr.Sathishkumar Mr.Hariharan	AE PWD Assistant	9443130220 9443689443
3)	HIGHWAYS	Mr.Karthick	AE	9600114925
4)	AGRICULTURE	Lalitha	AAO	9677159822
5)	ANIMAL HUSBANDRY	Dr.Nagapusanam	Veterinary Asst Surgeon, Thiumazhsai	9444010551
6)	FISHERIES	Mr.K.Ahmed	Inspector of Fisheries	8220637519
7)	CO-OPERATIVES	Mrs.Ambigeshwari	Co-Operative Sub Registrar Officer, Field officer, Poonamallee	7338749110
8)	TSO	Mr.Selvaraj	Taluk Supply Officer	9092437737
9)	Salesman	Karpagam	Salesman	9629082399
10)	LOCAL BODY	Mr.K.Sundararajan	Deputy BDO (General) Poonamallee	7402902593
11)	POLICE	Thiru.Iyyappan	Inspector Vellavedu Police Station	9487389582
12)	FIRE	Mr.Panchavarnam	Station Officer Poonamallee	9445086165
13)	HEALTH	Dr.Vadivel	BMO, Poonamallee	7373737553
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
1.	Prathap	9940259529	Santha	9710865343
2.	Jothivel	7401049727	Devi	9940536103
3.	Michael	8072488533	Savithiri	9840794121
4.	Santhosh	9841255706	Anthoniyammal	8072004769
5.	Ajiyaji	9841148259	Selvi	8870677091
6.	Govindaraj	9791144023	Shakila	9710738299
7.	Sivakumar	9941551075	Manjula	9884944628
8.	Ravi	9789806182	Malar	9790886893
9.	Balaji	9710189075	Lakshmi	9941687040
10.	Mathan Raj	9551555945	Parvathi	7200456457
SNAKE CATCHER		SWIMMER		
1.	Mahendiran	9342385103	Mahesh	8682028595
2.	Neelakandan	9092391766	Aathikesavan	9380492980
TREE CLIMBER				
1.	Ranjith	9840102753		
2.	Sarath	9344338959		
TREE PLANTING AND CUTTING		DISASER RESPONSE GUARDS		
1.	Muniyan	9940252478	R.Ulagnathan	9943328111
2.	Dass	9176887517	P.Balaji	9444521838
3.	Nagaraj	9790799385		
4.	Premkumar	9841888328		

INTER DEPARTMENTAL ZONAL TEAM NO:14

HIGH VULNERABLE AREA		57.SANTHIA NAGAR PANAIYATTHAMMAN NAGAR, POONAMALLEE		
TALUK		POONAMALLEE		
TEAM LEADER		Tmt.S.K.Lalitha, Project Officer-ICDS Tiruvallur - 8939620271		
BACKUP TEAM LEADER		Tmt.Malini Tahsildar (LA), CPRR Project, Thatchur - 8939758026/9688336430		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Venkatesan	AEE, Poonamallee	9445850264
2)	PWD	Mr.Sathishkumar Mr.Hariharan	AE PWD Assistant	9443130220 9443689443
3)	HIGHWAYS	Mr.Murali	AE HIGHWAYS	9500499222
4)	AGRICULTURE	Mr.Balaji	AAO	9940514161
5)	ANIMAL HUSBANDRY	Dr. Nagapusanam	Veterinary Surgeon, Poonamalle	9840956676
6)	FISHERIES	Mrs.Vijayalakshmi	Inspector of Fisheries	8220637519
7)	CO-OPERATIVES	Mrs.Ambigeshwari	Co-Operative Sub Registrar Officer, Field officer, Poonamallee	7338749110
8)	TSO	Mr.Selvaraj	Taluk Supply Officer	9092437737
9)	Salesman	Mr.Sathyraj	Condonment	9840361662
10)	LOCAL BODY	Mr.Sakthivel	Deputy BDO (Panchayat) Poonamallee	7402902595
11)	POLICE	Thiru.Lawrence	Inspector, Poonamallee	7358556007
12)	FIRE	Mr. Joseph	Fire Station Poonamallee	044-27620244 9841126930
13)	HEALTH	Dr.Pradeepa	Chief Doctor, Poonamallee	9791494414
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	Saravanan	8682836565	Balammal	9941398129
2.	Sagayam	9790791858	Shanthi	7904040969
3.	Kamalakaran	9500111878	Kalaiselvi	9840295534
4.	Nagaraj	9677188554	Kavitha	8428325972
5.	Dharani	9626687090	Kavitha.C	9094916873
6.	Nagaraj	9176763374	Kokila	6382332452
7.	Krishnan	9444609820	Rubi	9841946782
8.	Palayam	9940269814	Manimegalai	8682033866
9.	Shaabi	9841350345	Salimabegam	7358126774
10.	Sullaiman	9444741390	Leema rose	9941397040
SNAKE CATCHER			SWIMMER	
1.	Hari	9884735416	Gopal	9840080058
2.	Chinnathambi	9677002405	Srinivasan	9710224838
TREE CLIMBER				
1.	Das	9176887517		
2.	Palani	9962152699		
TREE PLANTING AND CUTTING			DISASER RESPONSE GUARDS	
1.	Mani	8838411515	M.Umachandran	9444584376
2.	Ponmudi	9500593810	S.Venkatammal	9600686584
3.	Palani	9710152040		
4.	Narayanan	9884272210		

INTER DEPARTMENTAL ZONAL TEAM NO:15

HIGH VULNERABLE AREA		NOOMBAL / VANAGARAM (KANNIYAMMAN NAGAR) AYANAMBAKKAM / KOLADI		
TALUK		POONAMALLEE		
TEAM LEADER		Thiru.Anbusezhiyan, Deputy Director DIC, Tiruvallur -9600148450		
ASSISTANT TEAM LEADER		Thiru.Surendiran Municipal Engineer, Thiruverkadu Municipality -7397382203		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Venkatesan	AEE, Poonamallee	9445850264
2)	PWD	Mr.Sathishkumar Mr.Hariharan	AE PWD Assistant	9443130220 9443689443
3)	HIGHWAYS	Mr.Murali	AE HIGHWAYS	9500499222
4)	AGRICULTURE	Mrs.Vijayalakshmi	AAO	8144739856
5)	ANIMAL HUSBANDRY	Dr. Nagapusanam	Veterinary Surgeon, Poonamalle	9840956676
6)	FISHERIES	Mrs.Vijayalakshmi	Inspector of Fisheries	8220637519
7)	CO-OPERATIVES	Mrs.Ambigeshwari	Co-Operative Sub Registrar Officer, Field officer, Poonamallee	7338749110
8)	TSO	Mr.Selvaraj	Taluk Supply Officer	9092437737
9)	Salesman	Annadurai Baby	Vanagaram Noombal	9626393652 9994036958
10)	LOCAL BODY	Mr.Rajendran	BDO, Villivakkam	7402606131
11)	POLICE	Thiru.Vijaya Krishna Raj	Inspector Thiruverkadu Police Station	9025311105
12)	FIRE	Mr.Selvam	Station Officer Madhuravoyal	9445086525
13)	HEALTH	Dr.Vadivel	BMO, Poonamallee	7373737553
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
1.	Perumal	9710045409	Jayanthi	9092058340
2.	Suresh	9941492669	Kalpana	9789909558
3.	Raja	9677148404	Visalatchi	9962476940
4.	Sudhakar KPS	9841811812	Sudha	9841702714
5.	Thirumal	9092058104	Ghanthi,	8940330402
6.	Ranganathan	9551747472	Jaya lakshmi	8015668351
7.	Muralikrishna	9444842783	Vasanthi	7550209297
8.	Vinayagam	9791012632	Kalpana	9789909558
9.	Ponnurangam	9444082237	Selvi	9382134887
			Pramila	9710861764
SNAKE CATCHER		SWIMMER		
1.	Pon Dilli	9444578035	Ramachandran	9841320488
2.	Murugan	9789922884	Magesh	9677227907
TREE CLIMBER		DISASER RESPONSE GUARDS		
1.	Murali Krishnan	9444842783	R.Saritha	8189910750
2.	Anbu	9791618065	P.Vijayalaxmi	9444505185
TREE PLANTING AND CUTTING				
1.	Ponnurangam	9444082237		
2.	Mohandoss	9840434944		
3.	Mohan Doss	7010002016		
4.	Murugan	9840208069		

INTER DEPARTMENTAL ZONAL TEAM NO:16

HIGH VULNERABLE AREA		THANDAL KAZHANI (SAMIYAR MADAM), VADAKARAI, GRANTLINE		
TALUK		PONNERI		
TEAM LEADER		Thiru. Ravichandran DEE, Pollution Control Board, Tiruvallur -8056042173		
ASSISTANT TEAM LEADER		Tmt.Sulochana, Gandhi, Zonal Deputy BDO, Puzal -7402902403		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Murali	AE, AndalKuppam	9445850918
2)	PWD	Mr.Gowri Shankar	AE, Redhills	9442141334
3)	HIGHWAYS	Mr.Balachandar, Ramu	AE	9444757762 9444294521
4)	ANIMAL HUSBANDRY	Dr.Sivangyanam	VAS,Ambattur	9443039380
5)	FISHERIES	Mr.Ajay Anand	Inspector of Fisheries	9159491809
6)	CO-OPERATIVES	Mr.A.Vijayaragavan	Co-Operative Sub Registrar	9384824246
7)	LOCAL BODY	Shanthini	Zonal Deputy BDO	7402902403
8)	POLICE	Mr.Kalidas	Inspector of Police Ponneri Police Station	9445465520
9)	FIRE	Mr. Seenivasan	Station Officer,Redhills	9585054369
10)	HEALTH	Dr.Madhumathi	BMO, Puzhal	9444328734
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	SUNDHAR	9940256529	JEYASHANTHI	9884874469
2.	NARESH	9884704433	SANTHI	9566043214
3.	ANAND	7010113328	VIDHYA	9444703805
4.	LOKESH BABU	7418477087	SAMUNDEESWARI	9840313168
5.	R.RAVEEN	9383335444	PARVATHAM	7845880998
6.	KAMALANATHAN	9840626801	MALARVIZHI	8056109183
7.	KARTHICK	9840970101	LALITHA	8838952375
8.	SRIDHAR	9941499296	MADHAVI	7299624802
9.	SASIKUMAR	9840184144	SASIKALA	8056259456
10.	VISHNU	8056052112	DHANALAKSHMI	9092395196
11.	LAKSHMIPATHY	8056168236		
12.	GUNASEELAN	9962960530		
SNAKE CATCHER		SWIMMER		
1.	THIRU.SASIKUMAR	9600887625	Sasi	9500298228
TREE CLIMBER		DISASTERRESPONSE GUARDS		
1.	MANI	9047927173	BABU	9444403992
2.	VIJAY	9884544900	ARUNAGIRI	9840933695
TREE PLANTING AND CUTTING				
1.	SIVARANJAN	8754449341		
2.	PREAMKUMAR	7358532213		
3.	HARIKRISHAN	9884887844		
4.	PURUSHOTHAMAN	9500962838		

INTER DEPARTMENTAL ZONAL TEAM NO:17

HIGH VULNERABLE AREA		THEERTHAKARAIYAM PATTU, PALAVOYAL, ALINJIVAKKAM, SIRUGAVUR, ATHIVAKKAM, ALINJIVAKKAM, PULLILINE, NARAVARIKUPPAM - (LOW LYING AREA)		
TALUK		PONNERI		
TEAM LEADER		Thiru.Dilli Kumar Assistant Director of Agriculture, Minjur (i/c) -9840437559		
ASSISTANT TEAM LEADER		Thiru.Arasu Zonal Deputy BDO, Puzhal - 7402902404		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Panneerselvam	AE,SS, Ponneri	9445850916
2)	PWD	Mr.Gowrishankar	AE, Redhills	9442141334
3)	HIGHWAYS	Mr.Dillibabu	AE	
4)	AGRICULTURE	Mr.C.Prabakaran	AO	9543216035
5)	ANIMAL HUSBANDRY	Dr.Suresh	VAS	9444849504
6)	FISHERIES	Mr.Udhandaraman	Inspector of Fisheries	9585222107
7)	CO-OPERATIVES	Mr.A.Venkatramanan	Co-Operative Sub Registrar	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	RATION SHOP	P.Haridoss	Salesman (Azhinjivakkam)	9789388378
10)	LOCAL BODY	Tmt. Sridevi,	Zonal Deputy BDO	7402902404
11)	POLICE	Mr.Paulraj	Sub Inspector Ponneri Police Station	9444269288
12)	FIRE	Mr.Seenivasan	Station Officer Redhills	9445086166
13)	HEALTH	Dr.G.S.Rajesh	BMO, Minjur	9840083909
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	ARUNKUMAR	9087222333	VELVIZHI	9382783089
2.	KARTHICK	8610515201	SRIDEVI	9043175205
3.	GOVINDHARAJ	9790757785	DEVI	9941505777
4.	NAGALINGAM	8144417779	SAMUNDEESWARI	9884295376
5.	KARTHICK	9940445565	PUNITHA	9884209231
6.	DHARANI	9445399532	LAKSHMI	9940316768
7.	SATHISH	9080881033	GEETHA	7871487413
8.	ANAND	9500170138	PAVITHRA	7010170964
9.	DHINAKARAN	8939402308	RITA	9884215180
10.	RAJESH	9941444970	NIVETHITHA	9500170138
11.	KARTHICK	7904286110		
SNAKE CATCHER			SWIMMER	
1.	Dhanasekar	8680829084	Munusamy	9940193475
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	Mohan	9962235582	ELAKIYA	8939469823
			SOUNDARYA	7338906601
TREE PLANTING AND CUTTING				
1.	SATHEESH	9840599907		
2.	THIRUMOORTHY	9940332912		
3.	KARTHICK	7904286110		
4.	BASKAR	9962826234		

INTER DEPARTMENTAL ZONAL TEAM NO:18

HIGH VULNERABLE AREA		GNAYIRU (PASUVANPALAYAM) / PULICUT, SEEMAVARAM		
TALUK		PONNERI		
TEAM LEADER		Thiru.Pradeepkumar Assistant Director of Horticulture, Gummidipoondi -9994140032		
ASSISTANT TEAM LEADER`		Tmt.Kameshwari Zonal Deputy BDO, Sholavaram - 7402902435		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.S.Sridhar	AE	9445850926
2)	PWD	Mr.Jayaguru	AE, Ponneri	9486693837
3)	HIGHWAYS	Mr.R.Bharathidasan	AE	9444924853
4)	AGRICULTURE	Mr.Ganesan	AO	9940260402
5)	ANIMAL HUSBANDRY	Dr.K.J.Chithra	VAS	9841612127
6)	FISHERIES	Mr.Premkumar	Inspector of Fisheries	9500614870
7)	CO-OPERATIVES	Mr.A.Venkatramanan	Co-Operative Sub Registrar	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	RATION SHOP	V.Devaki	Salesman (Gnayiru) Salesman (Seemavaram)	9003482405 9840371098
10)	LOCAL BODY	Thiru. Rugendra Rao,	Zonal Deputy BDO, Solavaram	9080859155
11)	POLICE	Mr.Paulraj	Sub Inspector Ponneri Police Station	9444269288
12)	FIRE	Mr.Seenivasan	Station Officer Redhills	9445086166
13)	HEALTH	Dr.G.S.Rajesh	BMO, Minjur	9840083909
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	KANNAN GNAYIRU	9176096284	ROOPAVATHY	9962341729
2.	PRABHAKARAN	9962681415	ARPUTHAM	7305452400
3.	VELU-	7339076927	USHA	9566594825
4.	SUDHAKAR	9840718059	RUBY	8939765612
5.	ALLI	9962353516	PALANI	9884168334
6.	PALANI	9789846983	BHUVANESWARI	9841469050
7.	MANI	8122967533	RATHINAM	9551928533
8.	UDHAYA	9840127840	NAGARATHINAM	9551928533
9.	SAGADEVAN	6381103039	BHUVANA	9841469040
10.	MANI	7358753454	BHAKIYALAKSHMI	7401251514
11.	YOKESHKUMAR	9840393196	RUBINI	9344514552
12.	MUNUSAMI	9940193475		
13.	UDAYAKUMAR	9840127840		
14.	NEELAKANDAN	9940089937		
SNAKE CATCHER			SWIMMER	
1.	Babu- Gnayiru	9176212090	Jayaraj- Gnayiru	7358432211
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	Suresh babu	8925002856	GOMATHI	9087290968
2.	SETU	7358691054	THAMAYANTHI	9087761049
TREE PLANTING AND CUTTING				
1.	CHANDRU	7550168106		
2.	AYYAPPAN	9360630544		
3.	KOTHADAM	8939452466		

INTER DEPARTMENTAL ZONAL TEAM NO:19

HIGH VULNERABLE AREA		KARUNGALI, KALANJI, KATTUPALLI		
TALUK		PONNERI		
TEAM LEADER		Dr.M.Jagadeesh Chandrabose Designated Food Safety Officer, Tiruvallur- 9443151996		
ASSISTANT TEAM LEADER		Thiru.Loganathan Zonal Deputy BDO, Minjur - 8098023373		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Vijayakumar	AE	9445850922
2)	PWD	Mr.Kannan	AE	9962064062
3)	HIGHWAYS	Mr.M.Dillybabu	AE	9445392547
4)	AGRICULTURE	Mr.Padmanaban	AO	8248001685
5)	ANIMAL HUSBANDRY	Dr.V.Manikandan	VAS,Vallur	8838207449
6)	FISHERIES	Mr.Ajay Anand	Inspector of Fisheries	9159491809
7)	CO-OPERATIVES	Mr.Sivakumar	Co-Operative Sub Registrar,Field Officer, Ellapuram	6382154695
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	RATION SHOP	K.Vishwanathan, Rajini	Salesman (Kattupalli), Salesman(Koraikuppam)	9003172566 8973866743
10)	LOCAL BODY	Thiru.Sivakumar	Zonal Deputy BDO, Minjur	9402902418
11)	POLICE	Mr.Paulraj	Sub Inspector Ponneri Police Station	9444269288
12)	FIRE	Mr.Vijayakumar	Station Officer Transport Manali	9840522622
13)	HEALTH	Dr.G.S.Rajesh	BMO, Minjur	9840083909
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	ARUN	9840701987	SARULATHA	8344539477
2.	THENNARASU	6374267051	VEDALAKSHMI	9095088928
3.	SAMBASIVAM	8190048253	SAKILA	9445380812
4.	KAMARAJ	6380589838	RENUKA	7092683680
5.	ASHWIN	8778972027	VINITHA	9344485837
6.	RAJA	7401559520	VANITHA	8870805982
7.	KANNAN	9962509480	AKILA	8124530064
8.	MUTHU	8939158537	DEVI	8220770600
9.	VIGNESH	9176113570	MAHALAKSHMI	8939252126
10.	UDHAYAKUMAR	7299574146	SUSI	8015363688
11.	THENNARASU	9841168372		
12.	SARANRAJ	8939368812		
SNAKE CATCHER			SWIMMER	
1.	Chinrasu	7358656135	Ramesh	9940046323
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	Rajini	9994541944	GAJALAKSHMI	8940725860
			SANDHIYA	8754606988
TREE PLANTING AND CUTTING				
1.	RAMESH	7639401017		
2.	THENARASU	9841168372		
3.	KAMARAJ	8883017447		
4.	EGAMBARAM	8940844045		

INTER DEPARTMENTAL ZONAL TEAM NO:20

HIGH VULNERABLE AREA		1.THANGALPERUMBULAM 2.PAZHAVERKADU 3. KALLUKADAIMEDU		
TALUK		PONNERI		
TEAM LEADER		Thiru.P.S. Livingston, DEE, Pollution Control Board, Gummidipoondi - 8056042185/ 8778033105		
ASSISTANT TEAM LEADER		Thiru.K.B.Ramesh Special Tahsildar, CPRR Unit-1 -9965434003		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Prem Suguvesan	AE, Gummidipoondi Town	9445850926
2)	PWD	Mr.Prithivibalasundaran	AE, Ponneri	9894738485
3)	HIGHWAYS		ADE, Ponneri	9443054309
4)	AGRICULTURE	Mr.Senthilkumar	ASO	9444131147
5)	ANIMAL HUSBANDRY	Tmt.S.Manimegalai	LI Grade II	9047454881
6)	FISHERIES	Mr.Bharadhiraja	Inspector of Fisheries	7868932347
7)	CO-OPERATIVES	Mr.Vijayaragavan	Co-Operative Sub Registrar Officer, Field officer, Puzhal	8072685734
8)	TSO	Sambath	Taluk Supply Officer	9600711923
9)	RATION SHOP	K.Ravi, J.Iyappan	Salesman(Pazhaverkadu I) Salesman (Tirupalaivanam)	7639343813 9629676961
10)	LOCAL BODY	Tmt. Sivagami,	Zonal Deputy BDO, Minjur	6379351076
11)	POLICE	Mr.Babu	Sub Inspector Ponneri Police Station	9498148151
12)	FIRE	Mr.Sampath	Station Officer Ponneri Fire Station	8248287814 9994347905
13)	HEALTH	Dr.Mahendravarman	BMO, Minjur	9840378020
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	R. UDHAYAKUMAR	6384847984	E. MEGALA	8148335152
2.	K. DINESH	9092426054	H. GIRIJA	8682951868
3.	R. RAVINDHAR	7871358116	K. SUMATHI	7603955089
4.	B. KARTHIK	9095936920	K. DHANALAKSHMI	9585236414
5.	ANBHU RAJ	9578424978	S. PRIYADHARSHINI	9384366161
6.	ABINESH	9384897052	J. REKHA	8110828862
7.	HARI	9655795044	T.VIJIYA	7708300336
8.	A. DINESH	6369432505	M.lalitha	6384969459
9.	DESING	7305616411	Thilagavathi	9025779805
10.	M. SUGUMAR	6380070054	T.Grija	9344561282
11.	R. UDHAYAKUMAR	6384847984	Velangani	8838720673
12.	K. DINESH	9092426054	E. Sathiya	9677399259
SNAKE CATCHER			SWIMMER	
1.	Chinnararu	7358656135	Viji	9791407106
			Sivaraj	8124874709
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	RAMESH RAMESH	9788281050	PRIYA	9659453580
2.	MUNIVEL	8508109817	MYTHILI	9514328327
TREE PLANTING AND CUTTING				
1.	MAILAN	7094332731		
2.	SIGAMANI	7339067375		
3.	MURUGAN	9662496519		

INTER DEPARTMENTAL ZONAL TEAM NO:21

HIGH VULNERABLE AREA		1. SENJIAMMANNAGAR 2. KULATHUMEDU 3. RAJARATHINAMNAGAR 4. M.G.R NAGAR, 5. TIRUPALAIVANAM, 6. ANDARMADAM		
TALUK		PONNERI		
TEAM LEADER		Thiru.Ramesh AD Horticulture, Sholavaram - 9443153676		
ASSISTANT TEAM LEADER		Thiru.Sureshkumar Zonal Deputy BDO, Minjur -7402902416		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Prem Suguvesan	AE, Gummudipoondi Town	9445850926
2)	PWD	Mr.Prithvibalasundaram	AE, Ponneri	9894738485
3)	HIGHWAYS	Mr.Balachandran	ADE, Ponneri	9444757762
4)	AGRICULTURE	Mr.Senthilkumar	ASO	9444131147
5)	ANIMAL HUSBANDRY	Tmt.S.Manimegalai	LI Grade II	9047454881
6)	FISHERIES	Mr.Bharadhiraja	Inspector of Fisheries	7868932347
7)	CO-OPERATIVES	Mr.Vijayaragavan	Co-Operative Sub Registrar Officer, Field officer, Puzhal	8072685734
8)	TSO	Sambath	Taluk Supply Officer	9600711923
9)	RATION SHOP	K.Ravi, J.Iyappan	Salesman(Pazhaverkadu I) Salesman (Tirupalaivanam)	7639343813 9629676961
10)	LOCAL BODY	Tmt. Sivagami,	Zonal Deputy BDO, Minjur	6379351076
11)	POLICE	Mr.Babu	Sub Inspector Ponneri Police Station	9498148151
12)	FIRE	Mr.Sampath	Station Officer Ponneri Fire Station	8248287814 9994347905
13)	HEALTH	Dr.Mahendravarman	BMO, Minjur	9840378020
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	J. REYASS	9095009862	DURGADEVI	8526124710
2.	D. THENARASAN	8122972398	KAROLIN	8012319229
3.	M.Sakthivel	9159667805	MADHAVI	9940011248
4.	P. SANJAI GANDHI	8056830410	KALAIARASI	8428332839
5.	M. SANJAI	9342672819	STELLA	8608351192
6.	Chandhira Mohan	9786852484	M. KALANTHARI	7708698136
7.	A. DHARMADURAI	7094642984	B. LALLI	9943606829
8.	A. SULAIMAN	8760451377	Sathana	7373173491
9.	M. SATHYANATH	9042730090	J. AMALA	9585640939
10.	V.Vijaikumar	7871769656	R. PREMA	9585409390
11.	D. CHINNARASU	8610609688	S. FATHIMA	7418446966
12.	G. PANDIYAN	6383605977	C. ELAKKIYA	6383402366
SNAKE CATCHER			SWIMMER	
1.	Chinnapaiyan	7358656135	Viji	9791407106
			Sivaraj	8124874709
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	RAMESH RAMESH	9788281050	PRIYA	9659453580
2.	MUNIVEL	8508109817	MYTHILI	9514328327
TREE PLANTING AND CUTTING				
1.	MAILAN	7094332731		
2.	SIGAMANI	7339067375		
3.	MURUGAN	9662496519		

INTER DEPARTMENTAL ZONAL TEAM NO:22

HIGH VULNERABLE AREA		KOTTAIKUPPAM VILLAGE		
TALUK		UTHUKOTTAI		
TEAM LEADER		Thiru.E.Manikandan Special Tahsildar (SSS) Uthukottai - 9600227977		
ASSISTANT TEAM LEADER		Thiru.D.Ramakrishnan BDO (BP) Ellapuram -7402606193/8807540738		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Thiru.Sargunam	AD, uthukottai	9445855172
2)	PWD	Tmt.Usha	AE/Tiruvallur	6382082209
3)	HIGHWAYS	Mrs.Dhasnaves Penandow	ADE, Tiruvallur	9443282613
4)	AGRICULTURE	Sivakumr	AO, Uthukottai	9551105034
5)	ANIMAL HUSBANDRY	Dr.Sampathkumar	Veterinary Asst Surgeon	9659909981
6)	FISHERIES	Mrs.Vijayalakshmi	Sub - Inspector of Fisheries, Poondi	7868932347
7)	CO-OPERATIVES	Mrs.Arthi	Secretary	6374835698
8)	TSO	Tmt.Kavitha	Taluk Supply Officer	6380184770
9)	RATION SHOP	Mahalakshmi	Salesman (Kottaikuppam) Salesman (Thirukandalam)	9894288358 9789785348
10)	LOCAL BODY	Thiru.Mohankumar	Zonal Deputy BDO, Ellapuram	9787339757
11)	POLICE	Thriu.Elumalai	Inspector Uthukottai Police Station	9704709091
12)	FIRE	Thiru.K.Ramalingam	Station Officer Thervoikandigai Fire Station	9789894477
13)	HEALTH	Dr.Sangeetha	BMO, Ellapuram	9176436727
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	SATHISH	8012251598	SAROJA	6379618148 9941670108
2.	RANJITH	9944598730	THULASI	9789091355
3.	SRIIVASAN	9841705632	ESWARI	9150326134
4.	VENGATESAN	9941713344	MALLIGA	9176682881
5.	JAMBU	9941438260	POORNIMA	9176903012
6.	DAMODARAN	9597447411	CHITHRA	8939244526
7.	KARUNAKARAN	9884565405	KANCHANA	7708776340
8.	VISHNU	9941432860	CHITHRA	9500587286
9.	PALAYAM	9047915587	VARALAKSHMI	9962153369
10.	PERUMAL	9626605492	KAVITHA	7395899915
11.	MOORTHY	6380994124		
SNAKE CATCHER			SWIMMER	
1.	SEKAR	9940342443	MADHAN	9944444047
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	MAGESH	7339676785	M.Radha	8524907400
2.			S.Babu	9711109131
TREE PLANTING AND CUTTING				
1.	Muthu	8189834371		
2.	Manigandan	9629495813		
3.	Iyappan	6379694764		
4.	Sekar	9384221764		

INTER DEPARTMENTAL ZONAL TEAM NO:23

MEDIUM VULNERABLE AREA		NAGATHAMMAN NAGAR, 17. RAJIV GANDHI NAGAR, NEMILICHERY, AVADI TNHB		
TALUK		AVADI		
TEAM LEADER		Thiru.Natarajan Special Tahsildar (LA), unit-2, SIPCOT Manallur Gummidipoondi- 9894067331		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Krishnamoorthy	AE, Nemilicherry	9445850083
2)	PWD	Mr.Sathishkumar	AE Adayar Irrigation Section	9443130220
3)	HIGHWAYS	Mrs.Jhanavi S Fernando	ADE, Tiruvallur	94436 24247
4)	AGRICULTURE	Mrs.Gowri	AO	9843479921
5)	ANIMAL HUSBANDRY	Dr.V.Prasad	Veterinary Asst Surgeon, Thirunindravur	90948 68119
6)	FISHERIES	Mr.Kamel Ahamed	Inspector of Fisheries, Poondi	9442658390
7)	CO-OPERATIVES	Mr.Chandrasekaran	Co-Operative Sub Registrar Officer, Field officer, Kadambathur	9677436464
8)	TSO	Mrs.Thenmozhi	Taluk Supply Officer	9551629301
9)	RATION SHOP	A.Sekar	Salesman(Nemilichery & Nagathamman nagar)	9176387783
10)	LOCAL BODY	Mrs.Rehena Begam	Zonal Deputy BDO, Poonamallee	7402902598 / 9884966669
11)	POLICE	Mr.Jaganathan	Inspector Pattabiram T9 Police station	9790884783
12)	FIRE	Mr.Veeraraghavan	Station Officer Tirur Fire Station	044-27620244 9445086168
13)	HEALTH	Dr.Geetha	BMO, Poonamallee	9962349306
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	ATHITHYAN	8189943296	MEENAKSHI	7871752917
2.	ABAVANAN	9094333475	DHANAM	9941457530
3.	J. RAMU	7358655474	TAMILSELVI	9941436961
4.	G. SEKAR	9940138945	A. ABAVANAN	9094333475
5.	PEDURU	9840661414	A.ADHITHIYAN	8189943292
6.	VIJAYAKUMAR	9094934327	THILAGAVATHI	9444718232
7.	JANARTHANAN	9283441145	LATHA	9841126194
8.	MURUGAN	9003343242	RAJESWARI	9840905882
9.	AMBIKADEVI	9444200931	JEEVA	9941308602
10.	DHANUPILLAI	9283356790	PREMKUMARI	8939845364
11.	THOMAS	9176080987		
SNAKE CATCHER			SWIMMER	
1.	SURESH SATHIYADAS	9382163073	PEDHURU	9841872588
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	VARATHAN	9710092363	M.Vijayapandi	6374966529
TREE PLANTING AND CUTTING			G.Suryaprakash	8190927535

1.	GANAPATHY	9962281620		
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INTER DEPARTMENTAL ZONAL TEAM NO:24

MEDIUM VULNERABLE AREA		ELAVUR FIRKA, SUNNAMBUKULAM VILLAGE , VALLAMBEDUKUPPAM		
TALUK		GUMMIDIPOONDI		
TEAM LEADER		Thiru.K.Senthilkumar Special Tahsildar (ADW) Tiruvallur-9600727627		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Kannan	AEE	9445850933
2)	PWD	Mr.Kannan	AE kavrapettai	9962064062
3)	HIGHWAYS	Mr.Ranganathan	Road Inspector	9003085200
4)	AGRICULTURE	Mr.Arul Murugan	AAO	9003059633
5)	Horticulture	Mr.Vignesh	AHO	7373223340
6)	ANIMAL HUSBANDRY	Dr.Krishnakumar	Veterinary Asst Surgeon, Elavur	9514417943
7)	FISHERIES	Mr.BharathiRaja	Inspector of Fisheries	7868932347
8)	CO-OPERATIVES	Mr.Vijaya Ragavan	Sub Inspector	8072685734
9)	TSO	Mr.Balaji	Taluk Supply Officer	8438988810
10)	RATION SHOP	Uthrakumar Jalal	Salesman (Elavur) Salesman(Sunnambukualam)	9940401149 7418785225
11)	LOCAL BODY	Mr.Mani Magudam	Zonal Deputy BDO	9790729937
12)	POLICE	Thiru.Arumugam	Sub Inspector Arampakkam Police Station	9498110104
13)	FIRE	Thiru.Sampath	Station Officer Gummidipoondi Fire Station	9994347905
14)	HEALTH	Mr.Nesa murali	Health Inspector	8248133195
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	Mr.Muthupandi	9566550596	Mrs.Bhavani	9677949776
2.	Mr. Gopi	9894661392	Mrs.Pameshwari	9941617679
3.	Mr. Prasanthravi	8754954133	Mrs.Sandhiya	9597159169
4.	Mr.Velu	9994304616	Mrs. Pushpa	8870805920
5.	Mr.Sureshkumar	8680057415	Mrs.Sangeetha	9003843500
6.	Arunkumar	7010123612	Mrs.Parimala	8056494140
7.	Mr.ELUMALAI	9894280902	Mrs.M. Latha	7639298909
8.	Mr.Devadoss	9629358903	Mrs. Sneka	7358917098
9.	Mr.VINOTH	8675094595		
10.	Mr.Ajith	9788191680		
11.	Mr. Silambarasan	9655259986		
12.	Mr.Murali	7373527387		
SNAKE CATCHER			SWIMMER	
1.	Mr.Ellaiyan	8754224946	Mr.Sureshkumar	8680057415
2.	Mr.Babu	8754224946	Mr.Devadoss	9629358903
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Mr.Venkatesan	9894440327	Mr.SoundraPandiyam	9994806787
2.	Mr.Guru	9751525641	Mr.Nagaraj	9047859898
TREE PLANTING AND CUTTING				
1.	Mr.Venkatesan	9894440327		
2.	Mr.Ramamoorthi	8667654024		
3.	Mr.Marimuthu	9566565761		
4.	Mr.Thangaraj	9597145680		
5.	Mr.Arumugam	7010911127		
6.	Mr.Devadoss	9629358903		

INTER DEPARTMENTAL ZONAL TEAM NO:25

MEDIUM VULNERABLE AREA		GUMMIDIPOONDI FIRKA, GUMMIDIPOONDI EB OFFICE ENATHIMELPAKKAM, CHINNACHOZHAYAMBakkam PERIYACHOZHAYAMBakkam		
TALUK		GUMMIDIPOONDI		
TEAM LEADER		Thiru.J.Kumar Special Tahsildar, TIDCO, Kattur and Ebrahampuram Village- 9344867476		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Sureshkumar	AE, Gummudipoondi Town	9445850935
2)	PWD	Mr.Kannan	AE kavrapettai	9962064062
3)	HIGHWAYS	Mr.Ranganathan	Road Inspector	9003085200
4)	AGRICULTURE	Mr.Ananda Raj	AAO	7845797452
5)	Horticulture	Mrs.Uma mageshwari	AHO	6385387346
6)	ANIMAL HUSBANDRY	Dr.Divya	Veterinary Asst Surgeon, Gummidiipoondi	7358830292
7)	FISHERIES	Mr.BharathiRaja	Inspector of Fisheries	7868932347
8)	CO-OPERATIVES	Mr.Vijaya Ragavan	Sub Inspector	8072685734
9)	TSO	Mr.Balaji	Taluk Supply Officer	8438988810
10)	RATION SHOP	Mr.Sadasivam	Salesman(Chinnachozhiyambak kam)	9940732874
		Salsa	Salesman(Enathimelpakkam)	9080519987
11)	LOCAL BODY	Mr.Senthilkumar	Zonal Deputy BDO	9840248481
12)	POLICE	Mr.Vadivel Murugan	Inspector Gummidiipoondi PoliceStation	9443466366
13)	FIRE	Thiru.Sampath	Station Officer Gummidiipoondi Fire Station	9994347905
14)	HEALTH	Mr.Muralikrishnan	Health Inspector	9677379805
MALE FIRST RESPONDER		Mobile No.	FEMALE FIRST RESPONDER	
1.	Mr.Veeran	9994124647	Mrs.Bhuvana	9787215706
2.	Mr.Sukumar	9500240464	Mrs.Thenmozhi	8220685224
3.	Mr.Rajesh	7502094665	Mrs.Senthikumari	9940760446
4.	Mr.Kaniyarasan	9976190616	Mrs.Suganya	8220464751
5.	Mr.Aravind	9597763075	Mrs.Kalaiselvi	9095881544
6.	Mr.Gnanam	9500756718	Mrs.Sadaiyammal	8344377060
7.	Mr.Muniyandi	8754118329	Mrs.Amudha	9952629068
8.	Mr.Manokar	9894542799	Mrs.Sarala	9952232993
9.	Mr.DHEENA HAYALAN	9994541966		
10.	Mr.Mari	9952629068		
11.	Mr.Diwakar	9047455004		
SNAKE CATCHER			SWIMMER	
1.	Mr.Ellaiyan	8754224946	Sampath	9095088917
2.	Mr.Babu	8754224946	Subabala	8072164712
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Mr.Venkatesan	9894440327	Balasuraman	9790170829
2.	Mr.Guru	9751525641	Mr.SoundraPandiyam	9994806787
TREE PLANTING AND CUTTING				
1.	Mr.Satheesh	9944527193		
2.	Mr.Arumugam	7010911127		
3.	Mr.Prakash	9080787670		
4.	Mr.Vinoth	6369101425		
5.	Mr.Venkatesan	9894440327		
6.	Mr.Guru	9751525641		

INTER DEPARTMENTAL ZONAL TEAM NO:26

MEDIUM VULNERABLE AREA		ELAVUR FIRKA, EDUR VILLAGE ,EZHUKANNUPALAM CHINNAOBULAPURAM		
TALUK		GUMMIDIPOONDI		
TEAM LEADER		Thiru.Hari Prasath Asst. Engineer Agriculture Ponneri-9843019455		
SL. NO	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Kannan	AEE	9445850933
2)	PWD	Mr.Kannan	AE kavarepettai	9962064062
3)	HIGHWAYS	Mr.Ranganathan	Road Inspector	9003085200
4)	AGRICULTURE	Mr.Arul Murugan	AAO	9003059633
5)	Horticulture	Mr.Vignesh	AHO	7373223340
6)	ANIMAL HUSBANDRY	Dr.Krishnakumar	Veterinary Asst Surgeon, Elavur	9514417943
7)	FISHERIES	Mr.BharathiRaja	Inspector of Fisheries	7868932347
8)	CO-OPERATIVES	Mr.Vijaya Ragavan	Sub Inspector	8072685734
9)	TSO	Mr.Balaji	Taluk Supply Officer	8438988810
10)	RATION SHOP	Palani Saravananan	Salesman(Edur) Salesman(Chinnaobulapuram)	9944056626 9790292960
11)	LOCAL BODY	Mrs.Hemalatha	Zonal Deputy BDO	7402902451
12)	POLICE	Thiru.Arumugam	Sub Inspector Arampakkam Police Station	9498110104
13)	FIRE	Thiru.Sampath	Station Officer Gummidipoondi Fire Station	9994347905
14)	HEALTH	Mr.Nesa murali	Health Inspector	8248133195
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
1.	Mr.Arul	9444943696	Mrs.Sivakami	7094100496
2.	Mr.Srinivasan	9942441824	Mrs.Santhiya	9600949852
3.	Mr.Sathasivam	9791671855	Mrs.Divya	9976351012
4.	Mr.Uthirakumar	9940401149	Mrs.Kanchana	9500301417
5.	Mr.Marimuthu	9566565761	Mrs.DEEPA	9944869592
6.	Mr.Kallamuthu	9791298975	Sudha	9444447996
7.	Mr.MANI	8870780503	Dhivya	9344119545
8.	Mr.NILAVAN	8124760442	Manjula	9659489667
9.	Mr.Kumaran	8248116917		
10.	Mr.Prakash	9444447927		
SNAKE CATCHER		SWIMMER		
1.	Mr.Ellaiyan	8754224946	Mr.Sathasivam	9791671855
2.	Mr.Babu	8754224946	Mr.Arul	9444943696
TREE CLIMBER		DISASTER RESPONSE GUARDS		
1.	Mr.Sekar	8270438599	Mr.SoundraPandiyam	9994806787
2.	Mr.Venkatesan	9894440327	Mr.Nagaraj	9047859898
TREE PLANTING AND CUTTING				
1.	Mr.Sekar	8270438599		
2.	Mr.Venkatesan	9894440327		
3.	Mr.D.Sankar	9629765623		
4.	Mr.Satheesh	9944527193		
5.	Mr.Moorthi	9150389826		
6.	Mr.Devaraj	9940486965		

INTER DEPARTMENTAL ZONAL TEAM NO:27

MEDIUM VULNERABLE AREA		ELAVUR FIRKA, ARAMBAKKAM - II VILLAGE		
TALUK		GUMMIDIPOONDI		
TEAM LEADER		Thiru.Selvakumar, Special Tahsildar (LA), unit-9, SIPCOT Manallur Gummidipoondi8667382784		
SL. NO	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Kannan	AEE	9445850933
2)	PWD	Mr.Kannan	AE kavarepettai	9962064062
3)	HIGHWAYS	Mr.Vel	Road Inspector	9514805615
4)	AGRICULTURE	Mr.Arul Murugan	AAO	9003059633
5)	Horticulture	Mr.Vignesh	AHO	7373223340
6)	ANIMAL HUSBANDRY	Dr.Krishnakumar	Veterinary Asst Surgeon, Elavur	9514417943
7)	FISHERIES	Mr.BharathiRaja	Inspector of Fisheries	7868932347
8)	CO-OPERATIVES	Mr.Vijaya Ragavan	Sub Inspector	8072685734
9)	TSO	Mr.Balaji	Taluk Supply Officer	8438988810
10)	RATION SHOP	Mr.Sivanand Mrs.Navanee	Salesman(Arambakkam I) Salesman(Arambakkam II)	8667730769 9944872452
11)	LOCAL BODY	Mr.Mani Magudam	Zonal Deputy BDO	9790729937
12)	POLICE	Thiru.Arumugam	Sub Inspector Arapakkam Police Station	9498110104
13)	FIRE	Mr.Muthu	Fire Station Officer ThervoyKandigai	8838656337
14)	HEALTH	Mr.Nesa murali	Health Inspector	8248133195
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	Mr. Kumaran	9952231793	Mrs.SELVI	9750153996
2.	Mr. Ramarajan	8438184043	Mrs.ANITHA	9943316132
3.	Mr.Pannerselvam	9677565712	Mrs.JOTHILAKSHMI	8072968254
4.	Mr. Lakshmikanthan	9789504747	Mrs.VANITHA	9629148397
5.	Mr. Angaiyyan	9750153996	Mrs.Geetha	8675552099
6.	Mrs. Rajini	8072454602	Mrs.Chitra	7358614857
7.	Mr.Silamparasan	6385563064	Mrs,Jayanthi	8098683291
8.	Mr.Elango	6383405507	Mrs.Selvi	9677806427
9.	Mr.Ramesh	9787568036		
10.	Mr.Karthick	8072532027		
SNAKE CATCHER			SWIMMER	
1.	Mr.Ellaiyan	8754224946	Mr.Murali	9514302432
2.	Mr.Babu	8754224946	Mr.Kumaresan	7339392279
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Mr.Guru	9751525641	Mr.SoundraPandiyar	9994806787
2.	Mr.Sekar	8270438599	Mr.Nagaraj	9047859898
TREE PLANTING AND CUTTING				
1.	Mr.Guru	9751525641		
2.	Mr.Shankar	9500835756		
3.	Mr.Sekar	8270438599		
4.	Mr.Venkatesan	9894440327		
5.	Mr.D.Sankar	9629765623		
6.	Mr.Satheesh	9944527193		

INTER DEPARTMENTAL ZONAL TEAM NO:28

MEDIUM VULNERABLE AREA				
POOVALAMBEDU FIRKA, KARANI VILLAGE, MANGALAM VILLAGE, MUKKARAMBAKKAM VILLAGE, SERPEDU VILLAGE				
TALUK				
GUMMIDIPOONDI				
TEAM LEADER				
Mr.Arulvalavan Arokkiyadoss Tah (SSS) Gummidipoondi - 9003195775				
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.S.Sugumar	AE, Poovalambedu	9445850941
2)	PWD	Mrs.Bhuvaneshwari	AE, Aarani	9840121865
3)	HIGHWAYS	Mr.Sundar	Road Inspector	7358356955
4)	AGRICULTURE	Mr.Madhavan	AAO	6383487883
5)	Horticulture	Mrs.Arthi	AHO	8610615807
6)	ANIMAL HUSBANDRY	Dr.Saravanan	Veterinary Asst Surgeon, Poovalampedu	8760022170
7)	FISHERIES	Mr.BharathiRaja	Inspector of Fisheries	7868932347
8)	CO-OPERATIVES	Mr.Vijaya Ragavan	Sub Inspector	8072685734
9)	TSO	Mr.Balaji	Taluk Supply Officer	8438988810
10)	RATION SHOP	Arulraj	Salesman(Poovalambedu)	8973359154
		sangeetha	Salesman(Karani)	6380721658
		Appu	Salesman(Mangalam)	9626308163
		Deva	Salesman(Mukkarampakkam)	6374123509
11)	LOCAL BODY	Mr.Sivakumar	Zonal Dy.BDO	7402902448
12)	POLICE	Mr.Munirathinam	Sub-Inspector Arani Police Station	9791524332
13)	FIRE	Mr.Muthu	Fire Station Officer ThervoyKandigai	8838656337
14)	HEALTH	Mr.Vajira Velu	Health Inspector	9943336531
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	Mr.Anandan	9952901472	Mrs.Selvi	9500118188
2.	MR.Subhakaran	9994124864	Mrs.Durga	6379434885
3.	MR.Ramesh	9894759776	Mrs.PuspaLatha	9965247926
4.	MR.Punitharaj	9788693368	Mrs.RANI	8939719084
5.	MR.GOKUL	9790816223	Davamani	9940921765
6.	MR.MARI	9994566439		
7.	MR.VELMURUGAN	9566938345		
8.	Mr.Muthu	9500609687		
9.	Mr.Saravanan	9566565959		
10.	Mr.Subrmani	7708211256		
11.	Mr.Thulasi Raman	9585713223		
SNAKE CATCHER			SWIMMER	
1.	Mr.Sakthivel	9025886402	Mr.Andrus	9943113060
2.	Mr.Gopi	9360419173	Mr.Anandan	9952901472
3.	Mr.Murugesan	9629127384		
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	Mr.Jeyachandran	9944063582	Mr.Parthiban	9698133026
2.	MR.SHRI RAMALU	8754263194	Mr.Sankarbabu	9444366011
			Mr.Thiyagu	9578682637
TREE PLANTING AND CUTTING				
1.	Mr.Jeyachandran	9944063582		
2.	Mr.Udhaya	7708748891		
3.	Mr.Sakthivel	9025886402		
4.	MR.SHRI RAMALU	8754263194		
5.	Mr.Raj	9965671524		
6.	Mr.Ramachandran	9688149673		

INTER DEPARTMENTAL ZONAL TEAM NO:29

MEDIUM VULNERABLE AREA		CHINNAMEDU, PERAVALLUR, ARANI		
TALUK		PONNERI		
TEAM LEADER		Tmt.Nandhini Horticulture Officer, Sholavaram-6380445880		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.C.Madhanagopal	AE	9445850940
2)	PWD	Mr.Saravanan	AE, Arani	9445326617
3)	HIGHWAYS	Mr.Mathiyalagan	ADE	9894734256
4)	AGRICULTURE	Mr.S.Sivalingam	AAO	8248595345
5)	ANIMAL HUSBANDRY	Dr.Meignanasundaram	VAS	8637476811
6)	FISHERIES	Mr.Udhandaraman	Inspector of Fisheries	9585222107
7)	CO-OPERATIVES	A.Venkataramanan	Co-Operative Sub Registrar Officer, Field Officer, Puzhal	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	RATION SHOP	Anandhan Suguna Parthiban	Salesman(Chinnamedu) Salesman(Arani I) Salesman(Peravalur)	9159239038 9789566243 7010313357
10)	LOCAL BODY	Mr.Venkatesan	Zonal Dy.BDO, Cholavaram	9840393207
11)	POLICE	Mr.Paulraj	Sub Inspector Ponneri Police Station	9444269288
12)	FIRE	Mr.T.Jayachandaran	Station Officer Gummidipoondi Sipcot	9445086161 8668193631
13)	HEALTH	Dr.G.S.Rajesh	BMO, Minjur	9840083909
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	SHUNDHARAM	9444887712	ROJA	9655748509
2.	HARIKRISHNAN	9688618641	KOWSALYA	9698135113
3.	ARAVINDAN	8122160703	SONIYA	8524831266
4.	KALAI	8524831266	MUNIYAMMA	8098301195
5.	KARTHICK	9940635374	HEMAVATHI	9626421487
6.	KISHORE	9884880607	NALINI	8973605490
7.	SUBRAMANI	9344746236	DEVI	9655559109
8.	GOVINDHARAJALU	9788962574	JEYANTHI	9444323199
9.	DEVENDIRAN	9578730146	INDIRANI	9944506144
10.	RAJAKILI	7868861618	KALYANI	9894977964
11.	PANDIYAN	9444134370		
12.	DHAMAN	9942988912		
SNAKE CATCHER			SWIMMER	
1.	Sivakumar	9789426170	Nagaraj Arani	9751425911
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	Nagaraj Pondavakkam	9025329105	BHAVANI	9047980068
			PUSHPA	9047993625
TREE PLANTING AND CUTTING				
1.	PANBU	9444134370		
2.	SUBRAMANI	7400956789		
3.	JABARAJ	9894977964		
4.	JEYACHANDRAN	9952702488		

INTER DEPARTMENTAL ZONAL TEAM NO:30

MEDIUM VULNERABLE AREA		ANNAMALAICHERY, VILANGADUPAKKAM		
TALUK		PONNERI		
TEAM LEADER		Thiru.Mohanaragam Special Tahsildar (SSS) Ponneri- 9790936078		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.J.Vishwanathan	AE,Earlipat	9445850942
2)	PWD	Mr.Jayaguru	AE, Ponneri	8122635421
3)	HIGHWAYS		ADE, Gummidipoondi	9444757762
4)	AGRICULTURE	Mrs.V.Iswarya	AAO	8778009132
5)	ANIMAL HUSBANDRY	Dr.Senapathi	VAS, Ambattur	7824015359
6)	FISHERIES	Mr.Udhandaraman	Inspector of Fisheries	9585222107
7)	CO-OPERATIVES	A.Venkataramanan	Co-Operative Sub Registrar Officer, Field Officer, Puzhal	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	RATION SHOP	V.Arul	Salesman(Annamalaichery)	9445882645
10)	LOCAL BODY	Mr.Mohan Kumar	Zonal Dy.BDO, Minjur	7402902414, 9787339757
11)	POLICE	Mr.Paulraj	Sub Inspector Ponneri Police Station	9444269288
12)	FIRE	Mr.S.Selvaraj	Station Officer Gummudipoondi	9445086160 9840508122 9841644101
13)	HEALTH	Dr.G.S.Rajesh	BMO, Minjur	9840083909
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	RAMU	9942327719	SHYMALA	9942986858
2.	DEVENDERN	7094010074	SARASWATHI	9524440091
3.	KUPPURAJ	9942986858	MALLIGA	6379942011
4.	ARUN KUMAR	6381979145	NEELA	8270474434
5.	RAJESH	9094185586	LAKSHMI	7639193352
6.	NAMADEVAN	9003090751	RASIYA	9840980214
7.	ARPUDHARAJ	9500179358	ANANDHI	8939105517
8.	THIRUMUGAM	6383443171	JERSY	8925383016
9.	SARAVANAN	9940368445	SHANTHAKUMARI	8939661223
10	MAGIMAIDOSS	7550057191	JANSI	7358650589
SNAKE CATCHER			SWIMMER	
1.	Viji, KALLUR	8015089864	Ramu	9942327719
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	Arunkumar	9788743066	VIJAYABHASKAR	9840644936
			VINOTH KUMAR	9443275705
TREE PLANTING AND CUTTING				
1.	RAMU	9942327719		
2.	NAMADEVAN	9003090751		
3.	KUPPAN	6382797686		
4.	GOPI	9047597163		

INTER DEPARTMENTAL ZONAL TEAM NO:31

MEDIUM VULNERABLE AREA		PARIVAKKAM / VOYALANALLUR / NOCHIMEDU		
TALUK		POONAMALLEE		
TEAM LEADER		Thiru.N.Sharathkumar Horticulture Officer, Poondi -8608228276		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Murali	AE, Poonamallee	9445850265
2)	PWD	Mr.Sathishkumar Mr.Hariharan	AE PWD Assistant	9443130220 9443689443
3)	HIGHWAYS	Mr.Karthick	AE	9600114925
4)	AGRICULTURE	Vijayalakshmi	AAO	8144739856
5)	ANIMAL HUSBANDRY	Dr.Shanthi	Veterinary Assistant Surgeon	9443753521
6)	FISHERIES	Mrs.Vijayalakshmi	Inspector of Fisheries	8220637519
7)	CO-OPERATIVES	Mrs.Ambigeshwari	Co-Operative Sub Registrar Officer, Field officer, Poonamallee	7338749110
8)	TSO	Mr.Selvaraj	Taluk Supply Officer	9092437737
9)	RATION SHOP	Tmt.Halima	Salesman(Vayalanallur)	6374035534
10)	LOCAL BODY	Mr.J.Shakthivel	Deputy BDO	7402902595
11)	POLICE	Mr.Ayyappan	Inspector Vellavedu Police Station	9487389582
12)	FIRE	Mr.Panchavarnam	Station Officer Poonamallee	9445086165
13)	HEALTH	Kalpana	Sorancheri Health Centre	9444135835 7200012633
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	Govindaraj	9962838363	Punithavathy	9940302488
2.	Vishva	9383999777	Jayanthi	9087049987
3.	Pradeep	9940685685	Muthulakshmi	8608605795
4.	Deva Prakash	9841141842	Sasi	9962958674
5.	Rangarajan	8610870404	Devi	8678933175
6.	Loganathan	9780359838	Ranjitha	8681948771
7.	Baskar	9710011489	Meena	8124880217
8.	Ajithkumar	9514005530	Sulochana	9094860345
9.	Devaprasanna	7401791842	Susila	9176595819
10.	Ramachandren	9791656809		
SNAKE CATCHER			SWIMMER	
1.	Hari	8939753156	Gopal	9962466760
2.	Subramani	8807410174	Devapragasam	7401791842
TREE CLIMBER				
1.	Muniyan	9940252478		
2.	Prabhakaran	9840710070		
TREE PLANTING AND CUTTING			DISASER RESPONSE GUARDS	
1.	Palani	9940532875	Mr K S Raji	9884112344
2.	Jegan	7092674004	Mr L Venkateswaran	9994343361
3.	Shankar	8939336344		
4.	Thiruvengadam	9962756646		

INTER DEPARTMENTAL ZONAL TEAM NO:32

MEDIUM VULNERABLE AREA		BABABEE DHARKA / AMMANKOIL STREET, POONAMALLEE MGR NAGAR / K.K.NAGAR / AMMAN NAGAR, KATTUPAKKAM		
TALUK		POONAMALLEE		
TEAM LEADER		Thiru.Sivakumar Manager TASMALC Thirumazhisai Unit-9445760015		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Venkatesan	AEE, Poonamallee	9445850264
2)	PWD	Mr.Sathishkumar Mr.Hariharan	AE PWD Assistant	9443130220 9443689443
3)	HIGHWAYS	Mr.Karthick	AE	9600114925
4)	AGRICULTURE	Tmt.Vijayalakshmi	AAO	9543193392
5)	ANIMAL HUSBANDRY	Tmt.Pamathi	Veterinary Asst Surgeon, Thiumazhisai	9884901925
6)	FISHERIES	Mrs.Vijayalakshmi	Inspector of Fisheries	8220637519
7)	CO-OPERATIVES	Mrs.Ambigeshwari	Co-Operative Sub Registrar Officer, Field officer, Poonamallee	7338749110
8)	TSO	Mr.Selvaraj	Taluk Supply Officer	9092437737
9)	RATION SHOP	Anbuross, Perumal	Salesman(Ammankoil street) Salesman(Kattupakkam)	9940213151 9677008710
10)	LOCAL BODY	Mr.Iyyappan	Supervisor, Poonamallee Municipality	9445850266
11)	POLICE	Thiru.Lawrence	Inspector, Poonamallee	7358556007
12)	FIRE	Mr. Joseph	Fire Station Poonamallee	044-27620244 9841126930
13)	HEALTH	Dr.Pratheepa	BMO, Poonamallee	9791494414
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	Katharbai	9626685677	Banu	6383797309
2.	Raja	8124905050	Ramalan Fathima	9094929237
3.	Ravi	9710455075	Kamatchi	7401640247
4.	Saravanan	9092271812	Valli	9940287514
5.	K.G.T. Gowthaman	9381774777	Kumari	9940287514
6.	Sudhakar	8148737308	Eswari	7810960707
7.	Kannan	7010818218	Mohana	9884888156
8.	Mathanraj	9551555945	Vengaiammal	9790851761
9.	Balaji	9710189075	Vijaya	9840493361
10.	Kalaimani	8682824785	Ramani	9840325279
SNAKE CATCHER			SWIMMER	
1.	Chinnathambi	9677002405	Purusothaman	9962794777
2.	Arumugam	9940252478	Arunagiri	7418195059
TREE CLIMBER			DISASER RESPONSE GUARDS	
1.	Arumugam	9940252478	Mr P Mani	9585431988
2.	Kandhan	9884009580	Mr P U Udhya Shankar	9994666325
TREE PLANTING AND CUTTING				
1.	Ponnurangam	9444082237		
2.	Mohandoss	9840434944		
3.	Dinesh	7010002016		
4.	Murugan	9840208069		

INTER DEPARTMENTAL ZONAL TEAM NO:33

LOW VULNERABLE AREA		SARASWATHI NAGAR / INDIRA NAGAR / THAMARAI NAGAR / SABARI AYYAPPAN NAGAR SIVASAKTHI NAGAR, THIRUMULLAIVOYAL VILLAGE -1		
TALUK		AVADI		
TEAM LEADER		Tmt.Senthamarai Selvi Special Tahsildar (LA), unit-8, SIPCOT Manallur Gummidipoondi-9791640321		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Baskar	AE	9445850361
2)	PWD	Mrs. Gowri Shankari	AE, St.Thomas Mount	9003653636
3)	HIGHWAYS	Mr Praveen	AE	9788672724
4)	AGRICULTURE	Tmt.Lalitha	AO, Avadi	9677159822
5)	ANIMAL HUSBANDRY	Dr Rajasekar	Veterinary Asst Surgeon	9940516147
6)	FISHERIES		Inspector of Fisheries, Poondi	
7)	CO-OPERATIVES		Co-Operative Sub Registrar Officer, Field officer, Kadambathur	
8)	TSO	Mrs.Thenmozhi	Taluk Supply Officer	9551629301
9)	Salesman	Mr Gandhi Mrs. Santhakumari	Senthil Nagar Cholan Nagar	9940371124 9941611672
10)	LOCAL BODY	Mr. Janarthanam	Sanitary Inspector	9444248578
11)	POLICE	Mr. Jarge Millar	Inspector Thirumullaivoyal Police station	9840957058
12)	FIRE	Mr Muthukrishnan	Fire Officer T.N.H.B., Avadi	044-26555202 9445086159
13)	HEALTH	Dr.Yazhini	Avadi Corporation Health Office	7358124287
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	SRIDHAR	9884838840	MALAR	9500091752
2.	KALAISELVAN	9150350867	FANCY	9677051827
3.	ANANTHARAV	9500045825	MOHANA	9514083140
4.	RAJKUMAR	9600301992	DHANA LAKSHMI	9884263577
5.	NAGARAJAN	9566131035	MOGITHA	9500114813
6.	KATHIRVELAN	9381771911	AZHAGAMMAL	9710614798
7.	SHANKAR	9884807094	UMA RANI	9952021617
8.	VENKATESAN	9840652013	MALARKODI	9500091752
9.	RAMESH	9841526922	PATTAMMAL	9551324374
10.	MANI	9941274272	MALAR	9087131153
SNAKE CATCHER			SWIMMER	
1.	RAJENDRAN	9791571765	SURENDAR	9092965048
TREE CLIMBER		TREE CLIMBER	DISASTER RESPONSE GUARDS	
1.	RAJ	9566124415	Mr R Aravidhan	6379146909
TREE PLANTING AND CUTTING		TREE PLANTING AND CUTTING	Mr R S Rajkumar	9840895105
1.	KARTHICK	9080223994		

INTER DEPARTMENTAL ZONAL TEAM NO:34

LOW VULNERABLE AREA		ELLAIAMMAN NAGAR, ICF COLONY - MUTHAPUDUPET, MITNAMALLEE, JASMIN NAGAR, MUTHAMIZH NAGAR, SASTHRI NAGAR-PALAVEDU		
TALUK		AVADI		
TEAM LEADER		Tmt.Bhavani Horticulture Officer, Ambathur-8124351180		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mrs. Leelavathi	AE	9445448943
2)	PWD	Mr.Sathish Kumar	AE, St.Thomas Mount	9443130220
3)	HIGHWAYS	Mr.Ramu	AE	9444294521
4)	AGRICULTURE	Mrs. Kalavathi	Dy.AO	9445250154
5)	ANIMAL HUSBANDRY	Dr.Sandhiya	Veterinary Surgeon	9884370745
6)	FISHERIES		AAO	
7)	CO-OPERATIVES	Mrs.Jayashree	Co-Operative Sub Registrar Officer, Field officer, Kadambathur	9791058981
8)	AC Avadi	Kalaivanan	Checking Inspector	8883699902
9)	RATION SHOP	Suresh, Iruthayaraj, Ezhumalai	Salsman(Palavedu), Salesman(ICF Colony), Salesman(Mitnamallee)	8187883085, 9843050098 9786580613
10)	LOCAL BODY	Malliga	Zonal Deputy BDO,Villivakkam	7402902393
11)	POLICE	Mr.Krishnan	Inspector Muthalputhupettai Police station	9488306507
12)	FIRE	Mr Muthukrishnan	Fire Officer T.N.H.B., Avadi	044-26555202 9445086159
13)	HEALTH	Dr.Yazhini	Avadi Corporation Health Officer	7358124287
MALE FIRST RESPONDER		FEMALE FIRST RESPONDERS		
1.	SURENDAR	9092965048	LAKSHMI	9962033571
2.	PRABHU	7358586911	SUDHA	9094480129
3.	TAMILARASU	9710259199	SHANTHI	8122549671
4.	ELUMALAI	6369963904	MOHANA	9445380142
5.	RAJENDRAN	8610598891	KAMAKCHI	7299670427
SNAKE CATCHER		SWIMMER		
1.	MURTHY	9551915602	SASIKUMAR	9710012077
			PRABU	7358586911
TREE CLIMBER		DISASTER RESPONSE GUARDS		
1.	SURENDAR	9092965048	Mr S Kannan	9655737323
TREE PLANTING AND CUTTING		Mr M Siva		
1.	RAVI	8939793147		7401340832

INTER DEPARTMENTAL ZONAL TEAM NO:35

LOW VULNERABLE AREA		AYYAPAKKAM, VAZHAIKUTTI, ANNAI THERASA NAGAR, THIRUMULLAIVOYAL - 1 ETTIYAMMAN NAGAR, THIRUMULLAIVOYAL - 1 MGR NAGAR, THIRUMULLAIVOYAL - 1 THENDRAL NAGAR, THIRUMULLAIVOYAL - 1 AMBEDHKAR NAGAR, THIRUMULLAIVOYAL - 1 MOORTHY NAGAR, THIRUMULLAIVOYAL - 1		
TALUK		AVADI		
TEAM LEADER		Tmt.Sangilirathi Special Tahsildar TANSI Polishing Unit Ambathur-8189936000		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Baskar	AE	9445850361
2)	PWD	Mr.Gowri shankar	AE, St.Thomas Mount	9003653636
3)	HIGHWAYS	Mr Praveen	AE	9788672724
4)	AGRICULTURE	Tmt.Lalitha	AO, Avadi	9677159822
5)	ANIMAL HUSBANDRY	Dr Rajasekar	Veterinary Asst Surgeon	9940516147
6)	FISHERIES		Inspector of Fisheries, Poondi	
7)	CO-OPERATIVES		Co-Operative Sub Registrar Officer, Field officer, Kadambathur	
8)	TSO	Mrs.Thenmozhi	Taluk Supply Officer	9551629301
9)	Salesman	Anandha Valli Chibanatham	Ayyapakkam Ayyapakkam Etiyamman Nagar	8122941085 9841970677 9361778297
10)	LOCAL BODY	Mr. Janarthanam	Sanitary Inspector	9444248578
11)	POLICE	Mr. Jarge Millar	Inspector Thirumullaivoyal Police station	9840957058
12)	FIRE	Mr.Ramadoss (Incharge)	Fire Officer T.N.H.B., Avadi	044-26555202 9445392974
13)	HEALTH	Dr.Rajendran	Avadi Corporation Health Officer	7358124287
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	NICHOLAS	9940430299	GOWRI	9840064573
2.	BALAKRISHNAN	9094476539	KALAVATHI	9176424550
3.	NAGARAJ	9566012877	PADMAVATHI	9566012877
4.	MURUGAN	9176083153	UMA	9551367047
5.	KARTHICK	8807510440	JOTHI	9500151497
6.	SRIDHAR	9884838840	MALAR	9500091752
7.	KALAISELVAN	9150350867	FANCY	9677051827
8.	ANANTHARAV	9500045825	MOHANA	9514083140
9.	RAJKUMAR	9600301992	DHANA LAKSHMI	9884263577
10.	NAGARAJAN	9566131035	MOGITHA	9500114813
SNAKE CATCHER			SWIMMER	
1.	RAJENDRAN	9791571765	SURENDAR	9092965048
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	RAJ	9566124415	Mr V Sudhar	8220855273
TREE PLANTING AND CUTTING			Mr K Dhanajeyan	9843645976
1.	KARTHICK	9080223994		

INTER DEPARTMENTAL ZONAL TEAM NO:36

LOW VULNERABLE AREA		AMMANKOIL STREET, KORATTUR A/COLLECTOR NAGAR, GUDAPAKKAM		
TALUK		POONAMALLEE		
TEAM LEADER		Thiru.Arunkumar Special Tahsildar TIDCO Tamil Nadu Knowledge City-9750840950		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Velumani	AE	9445850266
2)	PWD	Mr.Sathishkumar Mr.Hariharan	AE PWD Assistant	9443130220 9443689443
3)	HIGHWAYS	Mr.Karthick	AE	9600114925
4)	AGRICULTURE	Tmt. Sameera,	AO	9994455254
5)	ANIMAL HUSBANDRY	Dr.Muhammed Mubarak	Veterinary Asst Surgeon, Pudhuchatiram	9171596266
6)	FISHERIES	Mr.Kamil Ahamed	Inspector of Fisheries, Poondi	9442658390
7)	CO-OPERATIVES	Mr.Shanmugam	Co-Operative Sub Registrar Officer, Field officer, Tiruvallur	9444661977
8)	TSO	Mr.Selvaraj	Taluk Supply Officer	9092437737
9)	RATION SHOP	Malarvizhi,	Salesman(Gudapakkam & Korattur)	8667097122
10)	LOCAL BODY	Tmt. Poongodhai	Zonal Deputy BDO,Poonamallee	7402902599, 9789364344
11)	POLICE	Mr.Ayyappan	Inspector Vellavedu Police Station	9487389582
12)	FIRE	Mrs.Panchavarnam	Station Officer, Fire Station, Poonamallee	044-27620244 7200012633
13)	HEALTH	Dr.Pradeepa	BMO, Poonamallee	9791494414
MALE FIRST RESPONDER			FEMALE FIRST RESPONDERS	
1.	Haribabu	9884777536	Sulochana	9094860345
2.	Prabhakaran	9840977638	Revathi	7299185399
3.	Murugesan	9710698981	Devi	8056146480
4.	Rajini	9087507073	Kavitha	7092692365
5.	Jegan	7092674004	Kumari	9790961419
6.	Kathirvelan	9381771911	Alagu Rukmani	8939289860
7.	Nagaraj	6369354097	Sudha	8939187024
8.	Sudhakar	8680058583	Sathya	9884389248
9.	Sivakumar	9785764606	Meena	8124880217
10.	Dilliraja	8939187024	Vimala	8189855992
SNAKE CATCHER			SWIMMER	
1.	Chithirai	9042153060	Balaji	7904300329
2.	Manivannan	9080361809	Suresh	6380544375
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Selvakumar	7299970095	Mr R Aravidhan	6379146909
2.	Chithirai	9042153060	Mr.Balu	7358859901
TREE PLANTING AND CUTTING				
1.	Raghupathy	91766086184	Bavilan	8428267529
2.	Shankar	8939336344	Lakshmi Baskar	9677190027

INTER DEPARTMENTAL ZONAL TEAM NO:37

VULNERABLE AREA		KAKKALUR / THANDALAM / AMSA NAGAR / GANDHI GRAMAMAM / MGR NAGAR / MANAVALANAGAR / VENGATHUR / PINJIVAKKAM, PAKKAM-A PAKKAM-B, NATHAMBEDU		
TALUK		TIRUVALLUR		
TEAM LEADER		Tmt.Vimala Special Tahsildar, Cable TV Network Chennai-9976858921		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr..Dhatchanamoorthy	AE, West Tiruvallur town	9445855240
2)	PWD	Mrs.Usha	AE, Ekkadu	6382082209
3)	HIGHWAYS	Mr.Thasnavis fernando	ADE, Tiruvallur	9443282613
4)	AGRICULTURE	Mrs.Subasri	AO	8524824483
5)	ANIMAL HUSBANDRY	Dr.T.Senthilkumar	Veterinary Asst Surgeon, Tirur at Putlur	8778341218
6)	FISHERIES	Mrs.Vijayalakshmi	Inspector of Fisheries, Pazhaverkadu	8220637519
7)	CO-OPERATIVES	Mr.K.K.Shanmugam	Co-Operative Sub Registrar, Superintendent, PDS Tiruvallur.	9444661977
8)	TSO	Mr.Sagariya daneail	Taluk Supply Officer	9445000177
9)	RATION SHOP	Thiyagarajan, Thanigaivel, Sheeba, Srinivasan, Arul	Salesman(Kakkalur) Salesman(Thandalam & M.G.R.Nagar), Salesman(Vengathur & Manavalanagar) Salesman(Pakkam) Salesman (Nathambedu)	6381419292 9688142101 7395836770 9498455675 8144251125
10)	LOCAL BODY	Mr.Balamurugan	Zonal Dy.BDO,Tiruvallur	7402902532
11)	POLICE	Mrs.Vettriselvan	Inspector Tiruvallur Taluk Police Station	8838800422
12)	FIRE	Mr. Gnanavel	Spl Station Officer Tiruvallur Fire Station	6381363635
13)	HEALTH	Dr.Subash Chandrabose	BMO, Ikkadu	7358130235
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	Bhavani	9597473709	Dhanalakshmi	9360766311
2.	Boopathi	9345986062	Suguna	9677061039
3.	Moganbabu	9361783771	Menaka	9092914107
4.	Ramalingam	9047719627	Manjula	6380546362
5.	Mathan	8248482894	Kantha	9150884035
6.	Rajkumar	9944339307	Pachayammal	8681007967
7.	Rajivganthi	9789536354	Stella Mary	8344819440
8.	Asirvatham	9042821123	Subha	7305839373
9.	Karthick	8637691463	Maniyammal	8148365753
10.	Ramalingam	9047719627	Dhatchayani	8682988246
11.	Rajkumar	9940696357		
12.	Sathish	9840188678		
13.	Udhayam	9384556564		
14.	Suresh	9894491573		
SNAKE CATCHER			SWIMMER	
1.	Murugan	9787908479	Sathish	9551188678
2.	Bhupathi	9095855945	Udhaya	9384556564
TREE CLIMBER			DISASTER RESPONSE GUARDS	
1.	Makesh	9941242780		
2.	Rajesh	9884511691		
TREE PLANTING AND CUTTING				
1.	Rajkumar	9940696357		
2.	Babu	7010782418		
3.	Ramesh	9444650999		
4.	Anbalayan	9943466693		

INTER DEPARTMENTAL ZONAL TEAM NO:38

LOW VULNERABLE AREA		ELLAPPANAIDUPETTAI / NARAYANAPURAM / SATHIRAI VILLAGE		
TALUK		TIRUVALLUR		
TEAM LEADER		Tmt.Poornima Assistant Director of Horticulture , Ellapuram-9790171116		
SL. NO	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Nazeembabu	AE,North Tiruvallur	9445855239
2)	PWD	Mr.Akilan	AE, Poondi	9677822259
3)	HIGHWAYS	Mr.Samundeswaran	Divisional Accountant, Tiruvallur	9791188029
4)	AGRICULTURE	Mr,Ramesh	Dept AO	9841074338
5)	ANIMAL HUSBANDRY	Dr.S.Sivasankar	Veterinary Asst Surgeon, Pattaraiperumbudhur	8056164961
6)	FISHERIES	Mr.Anbazhagan	SI -Thirupalaivanam	9384824479
7)	CO-OPERATIVES	Mr.Shanmugam	Co-Operative Sub Registrar, Superintendent, PDS Tiruvallur.	7338749106
8)	TSO	Mrs.Rameshwari	Taluk Supply Officer	9445000177
9)	RATION SHOP	Dhanaseka r Saritha	Salesman(Sathirai) Salesman (Ellappanaidupetta	9600635859 7010733561
10)	LOCAL BODY	Mr.Melki rajasing	Zonal Dy.BDO,Kadampathur	7402902560
11)	POLICE	Mr.Vetrivelan	Inspector Tiruvallur Taluk Police Station	9443396949 8838800422
12)	FIRE	Mr.S.wilsonrajkumar	Asst District Officer Tiruvallur	9445086158
13)	HEALTH	Dr.Dilliboy	BMO, Kadambathur	9710983475
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
1.	Nagaraj	6383437671	Asha	7010782418
2.	Naveenkumar	9025575816	Anjali	9514204842
3.	Ramanan	6385457718	Lakshmi	9629373540
4.	Deena	9360246610	Kanchana	9789501279
5.	Gunasekar	8072052821	Veerammal	8110977400
6.	Loganathan	9943291379	Malliga	7094291945
7.	Varatharajan	9894881787	Aruputhamary	9524171145
8.	Kumar	9789851029		
9.	Ashok	9514121970		
10.	Joseph	9791317396		
11.	Madhanraj	9942921271		
12.	Vinoth	7339427814		
13.	Raman	9047350322		
14.	Iyappan	8778308140		
15.	Sathish	9025474165		
SNAKE CATCHER		SWIMMER		
1.	Sundaraj	7200657228	Vinoth	7339427814
2.	Balasubramani	9003669516	Venkatesan	9597283170
TREE CLIMBER		DISASTER RESPONSE GUARDS		
1.	Nagaraj	6369995741	Mr M Rajendran	9790959525
2.	Manikandan	9025305792		
TREE PLANTING AND CUTTING				
1.	Krishnan	8778308140		
2.	Senthamizhselvan	7010782418		

INTER DEPARTMENTAL ZONAL TEAM NO:39

LOW VULNERABLE AREA		JAGEERMANGALAM VILLAGE		
TALUK		TIRUTTANI		
TEAM LEADER		Tmt.Vennila Special Tahsildar (SSS) Tiruttani-9843855270		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Seetharaman	JE	9445850097
2)	PWD	Mrs.Kadhambari	AEE	9500046864
3)	HIGHWAYS	Mr.Pushparaj	AE	9952644649
4)	AGRICULTURE	Mr.Manigandan	A.S.O	9840333466
5)	ANIMAL HUSBANDRY	Dr.Srilakshmi	Veterinary Asst SurgeonThiruvallangadu	7760650386
6)	CO-OPERATIVES	Mr.Palani	Secretary	9715566381
7)	TSO	Tmt.Thenmozhi	Taluk Supply Officer	82483 30077
8)	RATION SHOP	Thiru.Prince	Salesman (Jageermangalam)	9361665668
9)	LOCAL BODY	Mrs.Meenatchi	Zonal Deputy BDO	8220106519
10)	POLICE	Dr.Annadurai	Inspector, Thiruvallangadu	9445380320
11)	FIRE	Mr.Ramesh Krishnan	Station Fire Officer Tiruttani Station	9655551922
12)	HEALTH	Mr.Pragalnathan	BMO, Thiruvallangadu	9500919391
13)	Revenue	Mrs.Durga	SIS, Survey	7502493394
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
1.	Rathakrishnan	9159908199	Kavitha	8940961055
2.	Vasu(a) Srinivasan	9894887961	Amutha	8111090973
3.	Subash	9659309521	Shymala	9843827542
4.	Ravi	9087585319	Rajalakshmi	9677710818
5.	Gopi	9994787019	Mathavi	6383704253
6.	Marimuthu	9791243017	Durga	9884216185
7.	Balu	9176014565	Selvi	9751394189
8.	Nagaraj	6381279964	Puspa	7358858625
9.	Janatha	9659242070	Bhuvaneshwari	8525997828
10.	Sriramalu	8111084395	Kalyani	9047293504
SNAKE CATCHER		SWIMMER		
1.	Rajendran	9360170341	Ravichandran	9345172170
2.	Krishnan	9597460087	Chinnarasu	9080547235
TREE CLIMBER				
1.	Padayappa	6383212716		
2.	Bharathi	9025392052		
TREE PLANTING AND CUTTING				
1.	Kothandam	9994060579		
2.	Arun	8110901779		
3.	Bharathi	9025392052		

INTER DEPARTMENTAL ZONAL TEAM NO:40

LOW VULNERABLE AREA		NEDIYAM/SAMANTHAVADA		
TALUK		PALLIPET		
TEAM LEADER		Thiru.Mathiyalagan Special Tahsildar ADW, Tiruttani -9444900349		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Saravanan	AE	9445855218
2)	PWD	Mr. Sundram	AE, Pallipattu	9944172371
3)	HIGHWAYS	Mr.Anbarasu	ADE, Tiruttani	7010105959
4)	AGRICULTURE	Mr.Nanthakumar	DAO	9965592620
5)	ANIMAL HUSBANDRY	Dr.Tamizhan	Veterinary Asst Surgeon, Nediyam	7639916366
6)	FISHERIES			
7)	CO-OPERATIVES	Mr.Rajkutty	Co-Operative Sub Registrar	9655969143
8)	TSO	Janki	Taluk Supply Officer	8838926766
9)	RATION SHOP	Subhash Manivannan	Salesman(Samantthavada) Salesman(Nediyam)	9080456707, 9381085911
10)	LOCAL BODY	Mr.Arul	Zonal Dy.BDO,Pallipet	8072859636
11)	POLICE	Mr.Dhramalingam	Inspector R.K.Pet Police Station	9843892474
12)	FIRE	Mr.E.Muthu	Station Officer Pallipattu Fire Station	9445086162
13)	HEALTH	Dr.S.Dhanajayan	BMO, Pallipet	9500673217
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
1.	Thirumaleshan srinivasalu	6383632431	Killiyammal	9843313130
2.	Jaishanker	9597883459	Ramanjula	9626796158
3.	Sivan	9787181546	Madhavi	8489037133
4.	Ramulu	9751148750	Komala	9047587574
5.	Janarthan	8110968106	Kanniyamma	8489978163
			Cittiyamma	8489978163
			Sujatha	9655513712
SNAKE CATCHER		SWIMMER		
1.	siva erular Krishnan	9787181546	Subramani	7639127119
TREE CLIMBER		DISASTER RESPONSE GUARDS		
1.	Ramu	9159188649		
2.	Sekar	6384518704		
TREE PLANTING AND CUTTING				
1.	Dilli	7826868838		

INTER DEPARTMENTAL ZONAL TEAM NO:41

LOW VULNERABLE AREA		SANAKUPPAM / SANGEETHAKUPPAM		
TALUK		PALLIPET		
TEAM LEADER		Thiru.Saravanan Special Tahsildar (SSS) Pallipet-9944917844		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.Ravi	AE	9445855223
2)	PWD	Mr. Sundram	AE, Pallipattu	9944172371
3)	HIGHWAYS	Mr.Anbarasu	ADE, Tiruttani	7010105959
4)	HORTICULTURAL	Mr.Jeeva	AHO	6381637715
5)	ANIMAL HUSBANDRY	Dr.Bharani kumar	Veterinary Asst Surgeon, Nediya	8667094969
6)	FISHERIES	Mr.Dinesh	Inspector of Fisheries, Poondi	8489911333
7)	CO-OPERATIVES	Mr.Rajkuty	Co-Operative Sub Registrar	9655969143
8)	TSO	Janki	Taluk Supply Officer	8838926766
9)	RATION SHOP	Venkatesan	Salesman(I.V.pattadai)	8072722551
10)	LOCAL BODY	Mr.Arul	Zonal Dy.BDO,Pallipet	8072859636
11)	POLICE	Mr.Dharmalingam	Inspector R.K.Pet Police Station	9843892474
12)	FIRE	Mr.Muthu	Station Officer Pallipattu Fire Station	9445086162
13)	HEALTH	Dr.S.Dhanajayan	BMO, Pallipet	9500673217
MALE FIRST RESPONDER		FEMALE FIRST RESPONDER		
1.	Praveenkumar	9444655068	Anusuya	6379956332
2.	Subramani	9445350052	Krishaveni	9047573859
3.	Suresh	8098042135	Nagarathinam	9585911723
4.	Agni	8489553892	Venda	9176486331
5.	Sankar	8098325804	Soundari	9444655068
SNAKE CATCHER		SWIMMER		
1.	Anil	9655957666	Ayilu	9063505932
TREE CLIMBER		DISASTER RESPONSE GUARDS		
1.	Tirumalesh	9626580635		
TREE PLANTING AND CUTTING				
1.	Murali	8098054680		
2.	Karthick	7639368712		

INTER DEPARTMENTAL ZONAL TEAM NO:42

LOW VULNERABLE AREA		ALAMATHY / NALLUR (AMBAL NAGAR), ATTANTHANGAL (GANDHI NAGAR), M.G.NAGAR SENDRAMBAKKAM, KRISHNASAMY CHETTY NAGAR SENDRAMBAKKAM, TELUGU SENDRAMBAKKAM COLONY, SENDRAMBAKKAM COLONY		
TALUK		PONNERI		
TEAM LEADER		Tmt.Chithra Special Tahsildar (ADW) Ponneri -9942935052		
SL. NO.	DEPARTMENT	TEAM MEMBERS	DESIGNATION	CONTACT
1)	TNEB	Mr.M.Saravanan	AE	9445850943
2)	PWD	Mr. Gowrisankar	AE, Redhills	9442141334
3)	HIGHWAYS	Mr.Bharathidasan	AE	6374517565
4)	AGRICULTURE	Mr.Murali	DAO	8220651732
5)	ANIMAL HUSBANDRY	Dr.M.Shobana	VAS, Pazaiya Nellore	9445147470
6)	FISHERIES	Mr.Ajay Anand	Inspector of Fisheries	9159491809
7)	CO-OPERATIVES	A.Venkataramanan	Co-Operative Sub Registrar Officer, Field Officer, Puzhal	9842520659
8)	TSO	Selvakumar	Taluk Supply Officer	8667382784
9)	9)	RATION SHOP	Rathika Subramani Ramesh	Salesman(Sholavaram) Salesman(Alamathi-1) Salesman(PT Moorthi nagar Padiyanallur)
10)	LOCAL BODY	Mr.Suresh Kumar	Zonal Dy.BDO,Cholavaram	7402902433, 9840880069
11)	POLICE	Mr.Paulraj	Sub Inspector Ponneri Police Station	9444269288
12)	FIRE	Mr.V.Narayana Swamy	Station Officer Redhills	9445086166
13)	HEALTH	Dr.G.S.Rajesh	BMO, Minjur	9840083909
MALE FIRST RESPONDER			FEMALE FIRST RESPONDER	
1.	RAJA	6369787964	REVATHI	9444494934
2.	SEKAR	9789919680	GOMATHI	9791104800
3.	CHAKRAVARTHI	9884175961	SUSILA	8667892919
4.	Babu	9176361200	SHANTHI	9176584799
5.	SRINIVASAN	9171999744		
SNAKE CATCHER			SWIMMER	
1.	PRABHU	8939769656	Nagenthiran	9655035726
			ANANDHAN	9677002453
TREE CLIMBER			DISASTERRESPONSE GUARDS	
1.	Chakkarai	9688289877	Mr K Shanmugam	8056312295
			Mr M Rajendran	9790959525
TREE PLANTING AND CUTTING				
1.	RAVI	9566161646		
2.	RAJSEKAR	9514834812		
3.	PURUSHOTHAMAN	9500962838		

5.13. STATE DISASTER RESPONSE FORCE

- State Disaster Response Force has been constituted with **50 Police personnel** and have been trained in Disaster Management and Rescue Operation in consultation with NDRF.

5.14. DISASTER RESPONSE GUARDS

- The **Disaster Response Guards (DRG)** is formed at District Level with the Volunteers from Non-Governmental Organization strengthen Evacuation as well as search and rescue operations during disaster situations arises in the each District. Accordingly, District Revenue Officer, Tiruvallur has been appointed as “**NODAL OFFICER**” in respect of Tiruvallur District to monitor the activities of the Disaster Response Guards at District Level.
- The Disaster Response Guard has been formed for Very High Vulnerable Location of Ponneri and Avadi consisting of 55 members from Indian Red Cross Society and Sathya Sai Voluntary Organization with Inter Departmental Zonal Teams to strengthen Evacuation as well as search and rescue operations during disaster situation with loss of time.



5.15. VILLAGE LEVEL COMMITTEE

- Village Level Committee has been formed to have better community involvement in Disaster Management with the Formation of village wise **RESCUE, RELIEF AND RESTORATION for 792 Villages** with 11 members in each team totalling to 33 members for three teams respectively.
- The Officials from Revenue, Rural Development, Police, Agriculture, Horticulture, Fisheries, TNEB, Health, PWD, Animal Husbandry, Fire, First Responder and Volunteers have been appointed as Village Level Committee Members.

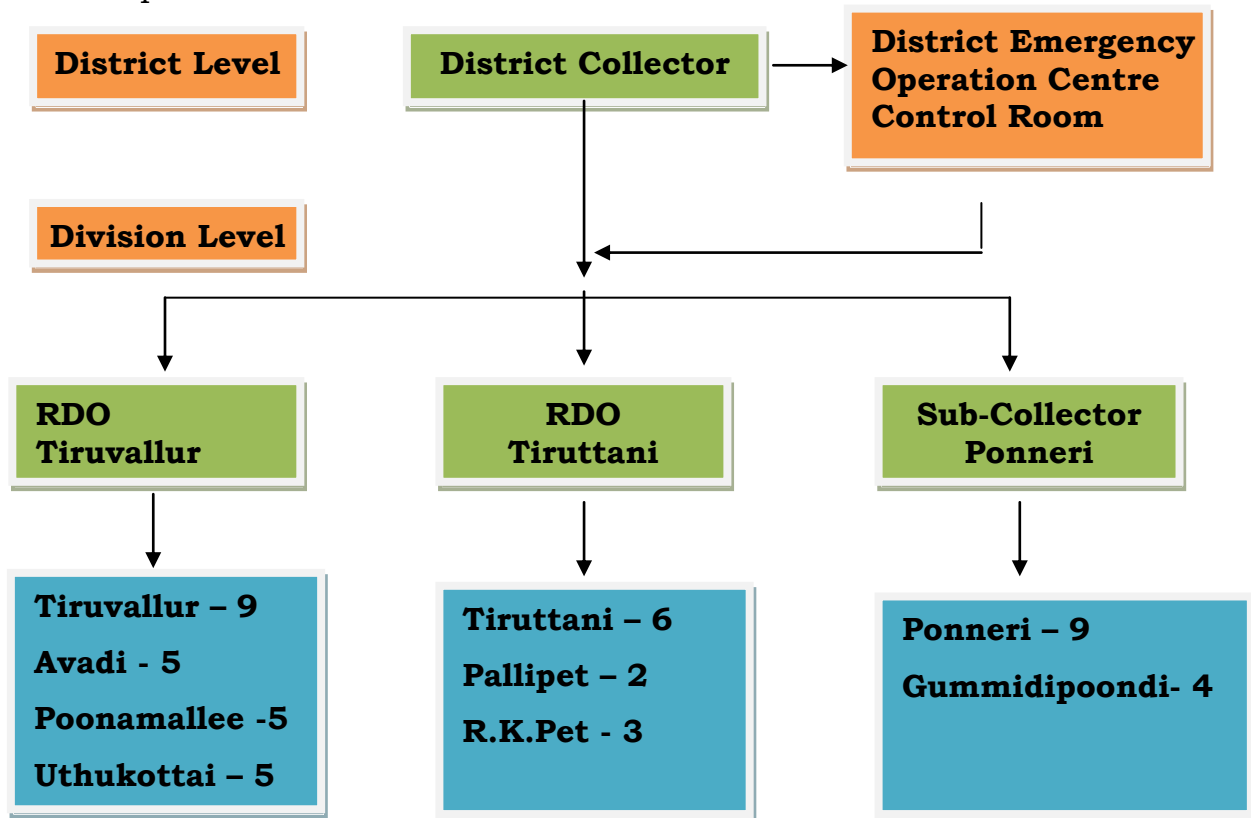
6. DISASTER PREPAREDNESS

Disaster preparedness means the measures taken to prepare for and reduce the effects of Disasters. Disaster preparedness is achieved partially through readiness measures that expedite emergency response, rehabilitation and recovery resulting in rapid, timely and targeted assistance.

In Tiruvallur District, Disaster preparedness is implemented in the following network plan.

GENERAL PREPAREDNESS – PLANNING AND CO-ORDINATION

Tiruvallur District, Disaster preparedness is implemented in the following network plan



Also Inter Departmental Zonal Teams are formed for the preparedness of the Disaster Management and the following preparedness should be taken to reduce the impact of monsoon in Tiruvallur District.

- The width of the drainage / river course is reduced due to encroachment near the towns and villages can be cleared for rivers to follow the normal course to flow easily without eroding the embankments on way for the

river to flow.

- It is observed that the course of the Coovum river width it's reduced due to encroachment of buildings and vegetations. Generally in such conditions the flow hydrological flow of the river will be affected and it may not be able to carry flood water and will not allow the storm water discharge into the river.
- Hence storm water congestion is arising in such zone for protecting and saving the people in such deprived flood zones storm water canals shall be formed to drain the water into the Coovum River. Similar diversion mechanism shall be applied to other areas which are facing such hazards, vulnerability, and risky conditions
- Bed Slopes and solid wastes are also dumped and the beds slopes flattened due to siltation hence all such dumping and flattening should be stopped immediately the river embankments and slopes of the rivers.
- Thorny Bushes, shrubs and other vegetations in the river bed and banks of the river need to be cleared periodically before the commencement of monsoon.
- It is also recommended for the removal and prevention of further encroachment in the river, drains, tanks drainage courses and lakes
- For Emergency, canal courses can also be formed for releasing the surplus water from Red Hills Lake, Madhavaram tank, Korattur, and Ambattur tanks.

- Surplus flood water from the tanks and lakes shall be taken by constructing new canals to discharge it to the river / drainages to mitigate flooding.
- Flood water diversion during heavy floods can be planned to discharge it to another or in the same basin.
- Major reservoir like Poondi and other lakes can be desilted to increase the volume of water to bring it back to its original storage capacity.
- Large and medium tanks used for storing water for irrigation can be taken for immediate removal of silts it will help to increase storability of tanks, recharge of aquifers and mitigating flood water for useful purpose Further the tank bunds can also be raised and strengthened to protect water bodies for irrigation.
- Afforestation and soil conservation measures are strongly recommended for immediate implementation in the catchment areas and the flood plains of the rivers Coovum, Araniyar, and Kosasthalaiyar.
- Disposal of Sullage, Solid waste and sewage water into the Rivers have already spoiled the environment of the river system, flow pattern, velocity, discharge, quantum of water and also the quality of ground water all along the river courses in major towns and villages located in Thiruvallur District.

IDENTIFICATION OF VULNERABLE LOCATION

In Tiruvallur District identification of vulnerable areas due to North East Monsoon activities were done based on inundation level during 2015 flood experience as detailed below.

- Very High Vulnerable areas - 8 locations
- High Vulnerable areas - 39 Locations
- Moderate Vulnerable areas - 44 locations
- Low Vulnerable areas - 42 locations

PREPARATION OF VULNERABLE MAPS

- Vulnerable maps have been prepared for 133 Vulnerable locations Firka wise in Rural areas and Ward wise in Urban Areas in respect of Tiruvallur District.
- The Evacuation plan for the low lying areas including identification of places, means of Transportation, evacuation routes indicated in Digitalization of Vulnerable Maps and handed over to all the Inter **Departmental Zonal Team Nodal Officer, Sub-Collector, RDO's and all Tahsildars.**

MEDICAL PREPAREDNESS

- **42 MEDICAL TEAMS have been formed for 14 Blocks** in Tiruvallur District and will be utilized by Prepositioning the Medical Officers & Paramedical Staff for providing Medical treatment and to alert tertiary hospitals to undertaken emergency service if required.
- The availability of essential Medicine and Epidemic Stock position for maintaining hygiene and sanitation in a flood situation in the flood prone areas have been ensured. Ambulance services with Government Agencies and Private sector are readily available at **32 Places.**

ANIMAL CARE

For animals in disaster, 55 vulnerable locations have been identified, 64 - Shelters have been arranged and 144 First Responders were trained by Animal Husbandry Department to take care of animals during Disaster.

Sl. No	Name of the Block	Very High			High			Medium			Low			Total		
		Vulnerable location	Shelter	First Responders	Vulnerable location	Shelter	First Responders	Vulnerable location	Shelter	First Responders	Vulnerable location	Shelter	First Responders	Vulnerable location	Shelter	First Responders
1	Minjur	5	7	18	6	16	18	0	0	0	0	0	0	11	23	36
2	Sholavaram	1	1	3	2	2	5	0	0	0	0	0	0	3	3	8
3	Gummidipoondi	0	0	0	0	0	0	12	13	26	0	0	0	12	13	26
4	Villivakkam	0	0	0	0	0	0	8	7	29	0	0	0	8	7	29
5	Puzhal	8	7	10	0	0	0	0	0	0	0	0	0	8	7	10
6	Poonamallee	4	2	17	0	0	0	0	0	0	0	0	0	4	2	17
7	Avadi	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8
8	Pallipattu	0	0	0	0	0	0	0	0	0	4	4	8	4	4	8
9	Thiruvallangadu	0	0	0	0	0	0	0	0	0	1	1	2	1	1	2
	Total	22	21	56	8	18	23	20	20	55	5	5	10	55	64	144

NORTH EAST MONSOON- PREPAREDNESS HUMAN RESOURCE

Sl.No.	Details of First Responders	Total No.of First Responders
01	Male First Responders	492
02	Female First Responders	444
03	First Responders for Animal Shelters	144
04	First Responders for Tree Planting and Tree Cutters	136
	Total	1216

Training Persons details

Snake Catcher	50
Swimmers	55
Tree Climber	56
SDRF Trained Police ;	50
Total	211





Sl. No.	Inventories and Machineries details	No.of
1.	No. of Sand Bags	52280
2.	Casuarina Poles (Savukku)	5310
3.	Generators	135
4.	Torch Light	210
5.	Pocklain / JCB	48/106
6.	Dewatering Motors	188
7.	Power Saw	96
8.	Boats	7
9.	Motor Boats	79
10.	EB Pole	250
11.	Transformer	60



COMMITTEE FOR FLOOD MITIGATION WORK

The following committee were formed to Monitor Flood Mitigation Work.

Sl. No.	Details of the Committee	No. of Members and Teams	Page No.
1.	Early Warning Committee	9 members (1 Team)	1
2.	Evacuation Committee	31 Members (3 Teams)	2 - 4
3.	Relief Shelter and Management Committee	27 Members (9 Teams)	5 - 6
4.	Search and Rescue Committee	12 Members (6 Teams)	7

EARLY WARNING COMMITTEE

**Head of the Team : Personal Assistant (General)
to Collector, Tiruvallur.
9445008153**

Sl. No	Name of the Taluk	Incharge officer (Head Quarters Deputy Tahsildar / Zonal Deputy Tahsildars)
1.	Gummidipoondi	Headquarter Deputy Tahsildar, Gummidipoondi
2.	Ponneri	Headquarter Deputy Tahsildar, Ponneri
3.	Tiruvallur	Headquarter Deputy Tahsildar, Tiruvallur
4.	Poonamalle	Headquarter Deputy Tahsildar, Poonamallee
5.	Avadi	Headquarter Deputy Tahsildar, Avadi
6.	Uthukottai	Headquarter Deputy Tahsildar, Uthukottai
7.	Tiruttani	Headquarter Deputy Tahsildar, Tiruttani
8.	Pallipet	Headquarter Deputy Tahsildar, Pallipet
9.	R.K.Pet	Headquarter Deputy Tahsildar, R.K.Pet

Functions of the Committee

Early Warning Committee Team has been formed with 8 Members in the cadre Deputy Tahsildars with Head of the Team Personal Assistant (General) to Collector, Tiruvallur.

The above team should have a vigil on areas of their jurisdiction and bring to the notice of the Team Leader immediately regarding abnormal occurrence, if any for taking appropriate action for remedial measures through the Departments concerned to alleviate the hardship faced by victim.

EVACUATION COMMITTEE

TEAM - 1

**HEAD OF THE TEAM: Regional Transport Officer, Poonamallee
Thiru . Tr.SHIDHAR RTO Mobile No: 93848 08116**

AREA OF OPERATION: AVADI & POONAMALLEE TALUK

Sl. No.	Designation
1	Motor Vehicle Inspector, Poonamallee
2	Motor Vehicle Inspector, Avadi (i/c)
3	Station Fire Officer, Avadi
4	Station Fire Officer, Poonamallee
5	PC 3248, Tiruvallur Town, Tiruvallur Sub Division
6	PC 2614, Tiruvallur Taluk, Tiruvallur Sub Division
7	GrI 1279, Kadambathur PS, Tiruvallur Sub Division
8	PC 1935, Vengal PS, Uthukottai Sub Division
9	PC 3272, Vengal PS, Uthukottai Sub Division

TEAM - 2**HEAD OF THE TEAM: Regional Transport Officer, Tiruvallur.****Thiru . Mohan RTO Mobile No: 95000 09977****AREA OF OPERATION: TIRUTHANI, PALLIPET, TIRUVALLUR &
UTHUKOTTAI TALUKS**

Sl. No	Designation
1	Motor Vehicle Inspector, Tiruvallur
2	Fireman 11593 Pallipattu
3	Fireman 9540 Pallipattu
4	DM.8174, Tiruthani
5	Station Officer, Thervoy Kandigai
6	Station Fire Officer, Tirur
7	HC 459 Uthukottai PS, Uthukottai Sub Division
8	PC 3294 Tirutani PS, Tiruttani Sub Division
9	PC 1977 Pothaturpet PS, Tiruttani Sub Division
10	PC 3208, Pallipet PS , Tiruttani Sub Division
11	Firemen 10607, Thiruvallur
12	Firemen 9078, Tiruttani

TEAM - 3**HEAD OF THE TEAM: Regional Transport Officer, Redhills****Name: Tr. Ilamurugan No : 9443004333****AREA OF OPERATION: PONNERI AND GUMMIDIPOONDI**

Sl. No	Designation
1	Motor Vehicle Inspector, Gummidipoondi
2	Station Fire Officer, Gummidipoondi
3	Station Fire Officer , Ponneri
4	PC 3220 Ponneri PS, Ponneri Sub Division
5	PC 2949 Ponneri PS, Ponneri Sub Division
6	PC 3222 Gummidipoondi PS, Gummidipoondi Sub Division
7	PC 3229 Gummidipoondi PS, Gummidipoondi Sub Division
8	Station Officer(Transport), Gumidipoondi
9.	Firemen 9010, Gummidipoondi
10.	Firemen 11307, Ponneri

Functions of the Committee

Evacuation Committee Team have been formed with 47 members in 4 Teams under the Head of Regional Transport Officer, Poonamallee, Tiruvallur, Ambathur and Redhills.

THE DUTIES & RESPONSIBILITIES OF HEAD OF THE TEAM

1)	On receipt of the orders the head of the team should convene a meeting with team members and report to this office.
2)	The Head of the respective teams should educate and enlighten the team members regarding the various types of Vulnerability in their respective areas.
3)	The Head of the teams should receive the area maps. So, that they can inform to the team members about the safe places selected for evacuation from the affected places and also the routes through which nearest shelter can be reached.
4)	The Head of the teams are instructed to ensure the availability of adequate No.of vehicles needed for transportation in the event of flash floods.
5)	The Head of the teams should be well aware of the oil companies available in the areas and to ensure adequate quantity of fuels for transportation is available.
6)	The Head of the teams are instructed to send the minutes of the meeting conducted with the team members to this office immediately.

RELIEF SHELTER AND MANAGEMENT COMMITTEE

Assistant Director (Panchayat), Tiruvallur
(Mobile No, 7402606111)

Joint Registrar of Co-operative Societies, Tiruvallur
(Mobile No. 9442552001)

Designated Officer, TN Food Safety & Drug Administration
Dept., (Food Safety wing) -9443151996

TEA M No.	Name of the Taluk	Head of the Team with Mobile No.	Team Members with Designation	
1.	Tiruvallur	Tahsildar, Tiruvallur 9445000494	1.	Thiru.Sagariya Daniel Taluk Supply Officer, Tiruvallur.
			2.	Thiru.G.Vijayakumar Deputy Block Development Officer (G) Tiruvallur Block
			3.	Thiru.Ganesh Revenue Inspector, Tiruvallur
2	Poonamallee	Tahsildar, Poonamallee 9445000496	1.	Thiru.M.Arulkumar Taluk Supply Officer, Poonamallee
			2.	Thiru.J.Shakthivel Deputy Block Development Officer (Pt) Poonamallee Block
			3.	Tmt.Saranya Revenue Inspector, Poonamallee
3.	Avadi	Tahsildar, Avadi 9445461799	1.	Thiru.Abraham Revenue Inspector, Thirunindravur
			2.	Tmt.T.A.Asiya Parvin Taluk Supply Officer, Avadi
			3.	Tmt.Mohana Revenue Inspector, Avadi
4.	Uthukottai	Tahsildar, Uthukottai 9445000495	1.	Tmt.Gnanasoundari Taluk Supply Officer, Uthukottai
			2.	Thiru.N.Subadoss Deputy Block Development Officer (G) Sholavaram Block
			3.	Thiru.Saravanan Revenue Inspector, Kannigaipair
5.	Tiruttani	Tahsildar, Tiruttani 9445000492	1.	Tmt.Malarvizhi Taluk Supply Officer, Tiruttani
			2.	Thiru.N.Giriraj Deputy BDO (G) Tiruttani Block
			3.	Thiru.Kamal Revenue Inspector, Tiruttani

6.	Pallipet	Tahsildar, Pallipet 9445000493	1.	Tmt.Janagi Taluk Supply Officer, Pallipet
			2.	Thiru.K.Selvam Deputy Block Development Officer (G) Pallipet Block
			3.	Thiru.Ganesh Revenue Inspector, Pallipet
7	Gumidipondi	Gumidipondi 9445000491	1.	Thiru.Balaji Taluk Supply Officer, Gummidipoondi
			2.	Thiru.J.Ravi Deputy Block Development Officer (PT) Gummidipoondi Block
			3.	Tmt.S.Ponni Revenue Inspector, Gummidipoondi.
8	Ponneri	Tahsildar, Ponneri. 9445000490	1.	Thiru.Jaikar Prabhu Taluk Supply Officer, Ponneri
			2.	Thiru.T.J.Leelprasath Deputy Block Development Officer (G) Minjur Block
			3.	Tmt.Jayaprabha Revenue Inspector, Ponneri.
9.	R.K.Pet	Tahsildar, R.K.Pet 9790936078	1.	Thiru.Baskar Revenue Inspector, R.K.Pet
			2.	Thiru.A.S.Vengatesan Deputy Block Development Officer (G) R.K.Pet
			3.	Thiru.Venkatesan Taluk Supply Officer, R.K.pettai

Functions of the Committee

The Relief Centre and shelter Management Committee Team are ordered to be formed under the leadership of Assistant Director (Panchayats) and District Supply Officer, in this District.

In the above Team, all the Team members placed in charge of their respective taluks should have a vigil on the areas of their jurisdiction and bring to the notice of the Head of the team on daily basis regarding displacement of victims in the shelters.

The team leaders should secure the keys of the shelters well in advance and should also ensure the availability of all basic infrastructure such as food, sanitation, power supply, drinking water, milk for infants, Mats, Bed sheets with Medical facilities etc.,

DISASTER RELIEF AND REHABILITATION

- As and when a disaster strikes or an early warning is issued the first priority to ensure that the affected or likely to be affected, are evacuated/rescued from the danger zone to pre-identified Relief Shelters. Evacuation to relief shelters ensure that valuable lives along with their most valuable assets are protected. Once people are shifted to the Relief Shelters, the Government extends, relief measures which play a critical role in providing much needed succour to those affected during the disaster and are temporarily accommodated in the relief centres.
- The Government of Tamil Nadu follows the minimum standard prescribed by SDRF / TNDRF to provide relief to those accommodated in the relief centres.
- The objective of Disaster Relief and Rehabilitation is to provide immediate relief and rehabilitation to the affected Community. The focus of the relief strategies adopted in Tamil Nadu is to ensure that those evacuated and shifted to the relief centres are provided with food and other basic necessities as well as ensuring that their health is taken care.
- The special needs of Women, Children, Aged and differently abled are given distinctive attention. The security of Women and Children,

rebuilding their emotional equilibrium are also part of the priorities of the Government.

SEARCH AND RESCUE COMMITTEE

Head of the Team : District Fire Officer, Tiruvallur-94450 86156

Sl. No.	Name of Taluk	Designation and Working Station (Thiruvallargal)
1	Tiruttani	Station Officer Tiruttani
2		Fireman 9078, Tiruttani
3	Pallipet	Station Officer, Pallipattu
4		Fireman 8848 Pallipet
5	Gumidipoondi	Station Officer Gumidipoondi
6		Firemen 11464, Gumidipoondi
7	Ponneri	Station Officer, Ponneri
8		Driver Meachnic 7623,
9	Tiruvallur	Station Officer, Tiruvallur
10		Special Station Officer (6568) Tiruvallur
11	Uthukottai	Station Officer, Thervoy Kandigai
12		Special Station Officer (6943) Thervaikandigai (Sipcot)

Functions of the Committee

The Search and Rescue Team are ordered to be formed with the following Fire and Rescue services Department Members, in each Taluk in Tiruvallur District.

The above team should have a vigil on areas of their jurisdiction and bring to the notice of the District Fire and Rescue Services Department, Tiruvallur who will be the Head of the team immediately

regarding the abnormal occurrence if any, for taking remedial measures.

State Disaster Response Force (SDRF)

SDRF Members	Committee	50-Police Men
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SDRF/ NDRF - Accomodation facilities

Tiruvallur Revenue Divisional Nodal Officer	Revenue Divisional Officer, Tiruvallur
Accomodation	Moongilan Udaiyar Marriage Hall, Tiruvallur. Shanthy Marriage Hall, Tiruvallur.
Ponneri Revenue Divisional Nodal Officer	Revenue Divisional Officer, Ponneri
Accomodation	Ulaganatha Narayanasami Govt. Arts & Science College, Ponneri

SDRF TEAMS



6. A) Major Accident Hazards (MAH) Industries

There are 17 Major Accident Hazards (MAH) Industries in Tiruvallur District. The plans covered all possible disorders including Chemical Disasters. Chemical Industries are instructed to create awareness via Phamplets etc., among the local community residing in nearby clusters so that effective mitigation efforts can be takenup to minimize further

incidents extent safety audits are being conducted once in a month Emergency Mock Response Drill being conducted in the presence of Joint Director Industrial Safety and Health at an interval of every 6 months and training are being conducted periodically as per the factories act.

Preparedness of Health Department:

Emergency Medical equipments such as water gel Blanket, Medical Accident Cylinder and Stretcher are kept in Terminal's occupational Health Centre (OHC) and a part time Medical Officer is available at occupational Health Centre (OHC) First Aid Boxes are kept in prominent places and the department of public health and preventive medicine is advised to stock adequate antidote medicines to meet the requirement in the event of any emergency plan.



(Prepared under Rule 14 of Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.)

First Responders Training

Based on the announcement made by the Hon'ble Minister for Revenue on the floor of Legislative Assembly during Budget Demand on 31.08.2021, the Government has sanctioned a sum of Rs. 1.608 Crore for Tiruvallur District, towards the identification and training of 4500 first Responders at habitation level thereby forming a Community Disaster Response Force (CDRF).

Based on the allotment, we need to train 4,500 First Responders in Tiruvallur District, as per the instructions of ACS/CRA.

The tentative training schedule to provide training to 4,480 volunteers with the help of Tamil Nadu Fire and Rescue Services Department and locally available NGOs for the period between May 2022 to September 2022 in respect of Tiruvallur District as detailed below:-

Phase - I **FIRKA LEVEL**

(Time between May 2022 and June 2022)

S. No	Firka Name	No. of Batch	FR Per Batch	Total	Starting Date	End Date
[1]	Tiruvallur Taluk - 632 First Responders					
1.	Tiruvallur	2	36	72	23.05.2022	24.05.2022
2.	Poondi	2	35	70	25.05.2022	26.05.2022
3.	Pandur	2	35	70	27.05.2022	28.05.2022
4.	Velliyur	2	35	70	30.05.2022	31.05.2022
5.	Ammanampakkam	2	35	70	01.06.2022	02.06.2022
6.	Tirur	2	35	70	03.06.2022	04.06.2022
7.	Vengathur	2	35	70	06.06.2022	07.06.2022
8.	Kadambathur	2	35	70	08.06.2022	09.06.2022
9.	Mappedu	2	35	70	10.06.2022	11.06.2022
Total		18	316	632		
[2]	Avadi Taluk - 534 First Responders					
10	Avadi	3	38	114	23.05.2022	25.05.2022
11	Thirunindravur	3	35	105	26.05.2022	28.05.2022
12	Thirumullaivoyal	3	35	105	30.05.2022	01.06.2022
13	Morai	3	35	105	02.06.2022	04.06.2022
14	Vellanoor	3	35	105	06.06.2022	08.06.2022
Total		15	178	534		
[3]	Uthukottai Taluk - 500 First Responders					
15	Uthukottai	3	35	105	23.05.2022	25.05.2022
16	Periyapalayam	3	35	105	26.05.2022	28.05.2022
17	Kannigaipair	3	35	105	30.05.2022	01.06.2022
18	Pennalurpettai	2	40	80	02.06.2022	03.06.2022
19	Velagapuram	3	35	105	04.06.2022	07.06.2022
Total		14	180	500		

[4]	Poonamallee Taluk - 215 First Responders					
20	Poonamallee	2	35	70	23.05.2022	24.05.2022
21	Thirumazhisai	1	40	40	25.05.2022	25.05.2022
22	Nemam	1	35	35	26.05.2022	26.05.2022
23	Vayalanallur	1	35	35	27.05.2022	27.05.2022
24	Vanagaram	1	35	35	28.05.2022	28.05.2022
Total		6	180	215		
[5]	Ponneri Taluk -1100 First Responders					
25	Ponneri	4	35	140	23.05.2022	26.05.2022
26	Sholavaram	4	35	140	27.05.2022	30.05.2022
27	Gnayiru	3	40	120	31.05.2022	02.06.2022
28	Arani	4	35	140	03.06.2022	06.06.2022
29	Thirupalaivanam	4	35	140	07.06.2022	10.06.2022
30	Kolur	3	35	105	11.06.2022	14.06.2022
31	Minjur	3	35	105	15.06.2022	17.06.2022
32	Kattur	3	35	105	18.06.2022	21.06.2022
33	Puzhal	3	35	105	22.06.2022	24.06.2022
Total		31	320	1100		
[6]	Gummidipoondi Taluk -499 First Responders					
34	Gummidipoondi	4	35	140	23.05.2022	26.05.2022
35	Madharpakkam	3	38	114	27.05.2022	30.05.2022
36	Elavur	4	35	140	31.05.2022	03.06.2022
37	Poovalamabedu	3	35	105	04.06.2022	08.06.2022
Total		14	143	499		
[7]	Tiruttani Taluk -445 First Responders					
38	Tiruttani	3	35	105	23.05.2022	25.05.2022
39	Cherukkanoor	2	35	70	26.05.2022	27.05.2022
40	Poonimangadu	2	35	70	28.05.2022	30.05.2022
41	Kanagammachathiram	2	35	70	31.05.2022	01.06.2022
42	Thiruvalangadu	2	35	70	02.06.2022	03.06.2022
43	Manavoor	2	30	60	04.06.2022	06.06.2022
Total		13	205	445		
[8]	Pallipet Taluk -210 First Responders					
44	Pallipet	3	35	105	23.05.2022	25.05.2022
45	Podhaturpettai	3	35	105	26.05.2022	28.05.2022
Total		6	70	210		
[9]	R.K.Pettai Taluk -345 First Responders					
46	R.K.Pettai	3	40	120	23.05.2022	25.05.2022
47	Erumbi	3	40	120	26.05.2022	28.05.2022
48	Balapuram	3	35	105	30.05.2022	01.06.2022
Total		9	115	345		
Grand Total		126		4480		



PHASE- II
DIVISION LEVEL (TIME BETWEEN JULY -AUGUST -2022)

S. No.	Firka Name	No. of Batch	FR Per Batch	Total	Starting Date	End Date	Venue of Training
[1]	Tiruvallur Division - 1850 First Responders						
1.	Tiruvallur	12	50	600	01.07.2022	14.07.2022	Tamil Nadu Revenue Association Building, Taluk Office, Tiruvallur
2.	Uthukottai	10	50	500	15.07.2022	26.07.2022	Taluk office Meeting Hall, Uthukottai
3.	Avadi	11	50	550	27.07.2022	08.08.2022	DRBCC Indhu College, Pattabiram
4.	Poonamallee	4	50	200	09.08.2022	12.08.2022	Akni Muthammal Marriage Hall, Sennerkuppam
	Total	37		1850			
[2]	Ponneri Division - 1610 First Responders						
5	Ponneri	22	50	1110	01.07.2022	26.07.2022	Revenue Divisional Office, Ponneri
6	Gummidipoondi	10	50	500	27.07.2022	07.08.2022	
	Total	32		1610			
[3]	Tiruttani Division - 1000 First Responders						
7	Tiruttani	9	50	450	01.07.2022	11.07.2022	Revenue Divisional Office, Tiruttani 1 st floor
8	Pallipet	4	50	200	12.07.2022	15.07.2022	
9	R.K.Pet	7	50	350	16.07.2022	23.07.2022	
	Total	20		1000			
	Grand Total	89		4460			



Phase - III
DISTRICT LEVEL (TIME SEPTEMBER 2022)

S. No.	Firka Name	No. of Batch	FR Per Batch	Total	Starting Date	End Date
[1]	First Responders					
1.	Tiruvallur Division	5	50	250	01.08.2022	10.08.2022
2.	Ponneri Division	5	50	250	11.08.2022	22.08.2022
3.	Tiruttani Division	2	50	100	23.08.2022	24.08.2022
Total		12	150	600		



Aapda Mitra Training

In Tiruvallur District 500 Community Volunteers were selected for Aapda Mitra Training, a project of NDMA at Gandhi Foundation, No.23. M.S.Dhoni Street, SP Avenue, Srinivasa Nagar, Poonamallee, Chennai - 600 056 in Tiruvallur District.

Aapda Mitra volunteers Training



7. DISASTER RESPONSE RELIEF & REHABILITATION

Purpose of the Response Plan

- To develop a plan of action for the District Disaster Management Authority and other district stakeholders to set priorities and provide directions for disaster risk reduction;
- To define the roles of various stakeholders in disaster risk management;
- To raise awareness of stakeholders about disaster risks and the requirements for disaster risk management;

Formation of Response Team

Each Taluk is supervised by a Zonal Officer in the cadre of Deputy Collector for the effective implementation of response plan with the taluk level Key-department officials.

The Key-Department Taluk Level Officials were well trained to discharge the time sensitive actions to save lives and property, as well as per action to being skylines the situation, such response action includes notifying Emergency Management Personnel of the crisps, warning evocations or sheltering the population if possible, keeping the population informed, resting individuals and providing medical treatment, maintaining the rule of law, assessing damage, addressing mitigation issues that arise from response activities.

RELIEF & REHABILITATION



INCIDENT RESPONSE SYSTEM

The Incident Response System is adopted in the District to ensure the unification of efforts of all the stake holders to ensure immediate response during disaster to protect people and their properties.

Sl. No.	Department	Designation/ Post
1	Revenue Department	Personal Assistant (General) to Collector, Tiruvallur
2	Police	Deputy Superintendent of Police, Tiruvallur
3	Health	Deputy Director of Public Health, Tiruvallur
4	PWD	Asst.Exe.Engineer Tank and Restoration Spl.Sub-Division, Arakkonam
5	Fire & Rescue Services	District Fire Officer
6	Public Relation Office	Public Relation Officer
7	Development	Assistant Director (Panchayat's)

MULTI-PURPOSE EVACUATION SHELTERS / CYLONE SHELTERS / OTHER

RELIEF CENTRES

CYCLONE SHELTERS

Sl. No	No.of Cyclones Shelters	Capacity of Shelter (No. of Persons)	Incharge Officer & Contact No.
1.	Vairavankuppam, Ponneri Taluk	150 People	Thiru.Mahendiran Panchayat Clerk Minjur- 9842544297
2.	Kattupalli Ponneri Taluk	150 People	Tmt.Nagajothi Panchayat Clerk - Kattupalli - 8610778047

CYCLONE SHELTERS



KATTUPALLI



VAIRAVANKUPPAM

MULTIPURPOSE EVACUATION SHELTER

Sl. No.	Details of Location of MPES	Type of Building	Capacity of Shelter (No. of Persons)	Incharge Officer & Contact No.
1.	Thirupalaivanam Ponneri Taluk	Community Hall	1000 People	Thiru.Kumar Panchayt Secretary, Thirupalaivanam - 9940561276
2.	Andarmadam Ponneri Taluk	Community Hall	2000 People	Thiru.Sundararajan Panchayat Secretary Andarmadam - 8681028129
3.	Pallipalayam Ponneri Taluk	School	500 People	Thiru.Muthu Panchayat Secretary Pallipalayam - 8248289273
4.	Elavoor-1 Gummidipoondi Taluk	School	500 People	Thiru.Prabhu, Village Assistant Elavur -II - 9629977610
5.	Elavoor-2 (Methipalayam) Gummidipoondi Taluk	Community Hall	1000 People	Thiru.Prabhu, Village Assistant Elavur -II - 9629977610

The 5 Multipurpose Evacuation Shelters (MPES) in Ponneri and Gummidipoondi Taluks and 2 Cyclone Shelters in Ponneri Taluk is maintained properly with all basic amenities like provision for cooking food, adequate and safe water supply, as well as proper sanitation as per NDMA guidelines, Generators with fuel for power back up, etc.,

They have facilities like kitchens, water storage and toilets for men & women thus providing a safe and hygienic shelter.

To accommodate livestock, separate infrastructure has been created. These structures are planned as multipurpose utility buildings and can be used for activities like classrooms, community function halls, meeting rooms for SHGs, community meetings, vocational trainings and other such community activities on a regular basis, making this infrastructure a vital part of the development of the communities.



PONNERI TALUK - THIRUPALAIVANAM

MINIMUM STANDARD OF RELIEF (FOOD AND NUTRITION)

- To Ensure Milk and other dairy products are available for providing to the children and lactating mothers.
- To ensure steps are taken that hygiene is maintained in the camp kitchens.
- To ensure whether the community and camp kitchens have adequate facility for providing food to all the people accommodated.

DRINKING WATER - DEWATERING AND SANITATION

- Supply of clean drinking water to disaster affected areas is extremely essential to prevent any incidence of water borne diseases.
- The minimum standards prescribed by the State for supply of drinking water to people affected by disasters are adhered to in the relief centres.

- 3 litres of safe drinking water per person per day is provided to the inmates of the centres.

EMERGENCY PREPAREDNESS FOR HEALTH RESPONSE

- To ensure Mobile Medical Teams visit the relief centres to attend the affected people. All precautionary steps are taken to avoid spread of communicable diseases.
- To ensure Necessary basic arrangements are made for pregnant women for safe delivery.
- To ensure the Arrangements are made well in advance to ensure the availability of Doctors / Para Medical Staff from Government / Private Hospitals with sufficient quantity of essential medicines to attend the health needs and concerns of the affected people in relief centres.

TERINARY CARE

- In respect of Rehabilitation of Animals the DDMA has instructed the JD Animal Husbandry to ensure the availability of adequate stock of fodder, veterinary medicine and essential drugs in advance before the onset of Monsoon to be transported to needy places.

Name of the district	Name of the division	Medicine details	Fodder availability		Capacity (stock available)
					Medicine
Tiruvallur	Tiruvallur	Life saving drugs, mineral supplement, bacterial and viral vaccines, fluids available	Green Fodder	000 Mt	Each Rs.60,000/- worth medicines are available in 84 No. of Veterinary Dispensaries and each Rs.75,000/- worth medicines are available in 5 No.of Veterinary Hospitals
			Dry Fodder	0,000 Mt.	
	Ponneri	Green Fodder	1,000 Mt.		
		Dry Fodder	0,000 Mt.		
	Tiruttani	Green Fodder	000 Mt.		
		Dry Fodder	000 Mt.		



RECOVERY AND REHABILITATION

- Providing and erecting temporary housing for the victims of the disaster who are displaced.
- Providing claims and grants as per the relief manual.
- Providing medical support to the affected people.
- Clearing and disposing of debris
- Reconstruction with the participation of communities

VILLAGE LEVEL COMMITTEE

- Village Level Committee has been formed to have better community involvement in Disaster Management with the Formation of village wise **RESCUE, RELIEF AND RESTORATION for 792 Villages** with 11 members in each team totalling to 33 members for three teams respectively.

- The Officials from Revenue, Rural Development, Police, Agriculture, Horticulture, Fisheries, TNEB, Health, PWD, Animal Husbandry, Fire, First Responder and Volunteers have been appointed as Village Level Committee Members.

EMERGENCY RESPONSE STRUCTURE



8. DISASTER PREVENTION AND MITIGATION PLAN

The ultimate purpose of emergency management is to save lives, preserve the environment and protect property and the economy. Emergency management is comprised of four interdependent risk-based functions: prevention/mitigation, preparedness, response and recovery. Mitigation provides a critical foundation for emergency management.

Disaster mitigation measures may be structural (e.g. flood) or non-structural (e.g. land use zoning). Mitigation activities should incorporate the measurement and assessment of the evolving risk environment. Activities may include the creation of comprehensive, pro-active tools that help decide where to focus funding and efforts in risk reduction.

STRUCTURAL MEASURES	NON STRUCTURAL MEASURES
<p>Housing</p> <ul style="list-style-type: none"> • Disaster Resistant Housing, • Multi –Purpose Evacuation Shelter 	<p>Economic Measures</p> <ul style="list-style-type: none"> • Diversification of Economic Activity • Subsidies, • Credit Waiver
<p>Water Resources</p> <ul style="list-style-type: none"> • Restoration of River drainage systems • River Grading / Stream Training, Flood Routing • Clearing inflow channels 	<p>Risk Measures</p> <p>Insurance, Credit & Tax Policies</p>
<p>Infrastructure</p> <ul style="list-style-type: none"> • Roads • Bridges • Drinking Water • Power • Communication, • Education • Heritage, 	<p>Societal Measures</p> <ul style="list-style-type: none"> • Public Information Campaigns • Non formal Education • Community Involvement

<ul style="list-style-type: none"> • Tourism 	
<p>Ecosystem restoration</p> <ul style="list-style-type: none"> • Raising Shelter Belts along coast, • Afforestation • Restoring fragile interface Ecosystems viz., creeks, marshlands, wetlands, etc., • Enhance Ecosystems' Health 	<p>Physical Planning Measures</p> <ul style="list-style-type: none"> • Land use Planning • Safety in Designs • Retrofitting <p>Safety Audit</p> <p>Disaster Resilient public Infrastructure (Buildings Roads, Bridges, Water Bodies & Reservoir)</p> <p>Management & Institutional Measures</p> <p>(Educational Training – School/ College Disaster Re-search Strengthening Technical Expertise, Strengthening of local Authorities</p>

I) STRUCTURAL MEASURES

Structural measures are implemented as detailed below.

1 (a) Disaster Resistant Housing

Due to the devastating destruction caused by Tsunami, as part of the Tsunami Rehabilitation measures, the houses for the poor who lost their houses were provided with Tsunami houses.

1 (b). Multi -Purpose Evacuation Shelter:

Multipurpose Evacuation Shelters have been constructed in the coastal area to accommodate the Vulnerable population in the coastal areas of Ponneri and Gummidipoondi Taluk . The shelter is multiple utility building and can be used for activities like class rooms, community functions, meeting rooms for SHGs, community meetings, vocational training and other activities.

3) WATER RESOURCES

- The mitigation measures are dominantly in the form of cleaning and blockage removals in the drainages so as to ensure free flow of water, interlinking of the drainages and linking them with the tanks and reservoirs, since most of the drainages of the misfit rivers belonging to Araniyar, Kosasthalaiyar and Coovum were fragmented and dismembered. Desilting of the tanks and the strengthening of bunds were carried out along with recharge schemes.
- Cleaning / desilting of natural water reservoirs and drainage channels have been done in the flood prone areas.
- Desilting & Encroachment Removal in River Courses / irrigation canals
- Encroachments /obstructions on ponds/tanks have been removed.
- Embankments along rivers and nallahs, ring bunds and other bunds have been inspected and strengthened.
- Necessary maintenance of sluice gates, barrages, embankments, etc., are being done.
- Storm water drains in urban have been inspected and Desilted for safe outflow of surplus runoff of flood water.
- Percolation ponds / check dams / Recharge pits with shafts or ring wells / sub surface dykes are constructed in vulnerable areas

CLEARING BLOCKAGES AND CULVERTS AND BRIDGES

- Proper maintenance of all National and State Highways and Rural Roads by clearing blockages and Culverts and Bridges including 1000 meters upstream and downstream to enable free flow of flood water.
- Providing additional vents for the bridges
- Converting existing Pipe Culvert to Box Culverts as part of prevention and mitigation strategies

II. NON STRUCTURAL MEASURES

2. a) Economic Measures

In order to mitigate the plight of the formers during the flood and drought The Prime Minister's Fasal Beema Yojana (PMFBY) introduced by Government of India addresses the concerns of the highly vulnerable farming community.

About 20,897 farmers have been enrolled and 45038 Acre has been insured under the scheme. The insurance companies have raised a sum of Rs. 179.25 lakhs to the farmers till date.

2. b) Societal Measures

- Public awareness and Mass campaigns
- Community Based Disaster Management
- Social Security Schemes

2. C) Management and Institutional Measures

- Capacity Building
- Research and Technology Transfer
- Physical Planning Measures

EARLY WARNING SYSTEM DETAILS

In Tiruvallur District under the **Early Warning System**, it has been proposed to provide Disaster Warning Announcement System to remote locations for all habitations of Coastal area classified as **DWAS-Remote site**.

The DWAS-R unit has the capability to send out Siren Warning tone audible over 1 km radius and clearly audible warning voice message over a minimum of 700 m radius.

One **DWAS- Disaster Warning Announcement System** (DWAS-D) unit has been proposed to set up in District Head Quarters controlled by "Central Unit (DWAS-C) at State Emergency Operation Centre.

In Tiruvallur District 24 Early Warning Systems have been installed in the following Coastal areas of Ponneri and Gummidipoondi Taluk as

detailed below and will function soon, so as to avoid the human delays in dissemination of information to the communities.

Taluk	Sl. No	Village	Habitate	Site
Ponneri	1	Pulicat	Light house kuppam	Community Hall, Ponneri Taluk Thiruvallur District
	2	Thangal Perumbulam	Sathan Kuppam (Thangal Perumbulam Panchayat)	Panchayat Union Elementary School, Thangal Perumbulam, Ponneri Taluk Thiruvallur District
	3	Kattupalli	Kattupalli Panchayat	Cyclone Shelter, Kattupalli, Ponneri Taluk Thiruvallur District
	4	Pulicat	Kottaikuppam	Library Building, Kottaikuppam, Ponneri Taluk Thiruvallur District
	5	Avurivakkam	Avurivakkam	Palwadi Avurivakkam, Ponneri Taluk, Thiruvallur District
	6	Kallur	Kallur Panchayat	Palwadi, Pudhukuppam, Kallur, Ponneri Taluk, Thiruvallur District.
Ponneri	7	Kallur	Kallur Panchayat Periyamangodu	Community Hall Periyamangodu, Kallur, Ponneri Taluk, Thiruvallur District.
	8	Annamalai cheri	Annamalaiche ri	Community Hall Annamalaicherry, Ponneri Taluk Thiruvallur District
	9	Pulicat	Jameelabath Kottaikuppam Panchayat	Mosque building Jameelabath Kottaikuppam Panchayat, Ponneri Taluk, Thiruvallur District
	10	Pulicat	Pasiyavaram	Palwadi, Pasiyavaram Ponneri Taluk , Thiruvallur District.
	11	Pulicat	Vairavan-kuppam	Cyclone Shelter Vairavankuppam, Ponneri Taluk, Thiruvallur District.
	12	Pulicat	Gunan Kuppam	Palwadi Gunankuppam, Ponneri Taluk, Thiruvallur District
	13	Pulicat	Arangankuppam	Panchayat Union Middle School, Arangankuppam, Ponneri Taluk, Thiruvallur District
	14	Karungali	Koraikuppam	Panchayat Union Middle School Koraikuppam Ponneri Taluk, Thiruvallur District
	15	Karungali	Karungali	Panchayat Union Elementary School, Karungali S.No:64/51 Ponneri Taluk,

				Thiruvallur District
	16	Kaalanji	Kaalanji	Panchayat Union Elementary School, Kaalanji Ponneri Taluk, Thiruvallur District
Gummidipoondi	17	Arambakkam	Nochikuppam	Panchayat, Union Middle School Nochi kuppam (Arambakkam) Gummidipoondi Taluk Thiruvallur District
	18	Arambakkam	BattaiKuppam	Panchayat Office, Arambakkam Battai Kuppam Gummidipoondi Taluk Thiruvallur District
Gummidipoondi	19	Sunnambu- kulam	Karaikadu kuppam	Panchayat, Union Middle School, Karaikadukuppam Gummidipoondi Taluk Thiruvallur District
	20	Sunnambu- kulam	Sunnambu- kulam	Panchayat Office, Sunnambukulam Gummidipoondi Taluk Thiruvallur District
	21	Obasa- muthiram	Obasa- muthiram	Panchayat Office Obasamuthiram Gummidipoondi Taluk Thiruvallur District
Ponneri	22	Pulicat	Pulicat	Primary Health Centre, Pazhaverkadu Ponneri Taluk Thiruvallur District
	23	Andarmadam	Pulicat	Cyclone Shelter, Andarmadam, Pulicat, Ponneri Taluk Thiruvallur District
Gummidipoondi	24	Obasa- muthiram	Vallambedu	Vallambedu kuppam Multi Purpose Evacuation Shelter Gummidipoondi Taluk, Thiruvallur District



VALLAMBEDU, GUMMIDIPOONDI TALUK

NEW AUTOMATIC RAIN GAUGE STATIONS -33 Nos

Sl. No	Taluk	Block	Firka_name	Village	Building_Name	Method_of Instalation
1	Avadi	Poonamallee	Avadi	Town	VAO Office	Ground
2	Avadi	Villivakkam	Morai	Village	Panchayat Office	Ground
3	Avadi	Poonamallee	Thirunindravur	Town	Municipality Office,	Building Top
4	Gummidipoondi	Gummidipoondi	Elavur	Village	Revenue Inspector Office	Ground
5	Gummidipoondi	Gummidipoondi	Gummidipoondi	Village	Revenue Inspector Office	Ground
6	Pallipattu	Pallipattu	Podathurpettai	Town	Panchayat Office	Ground
7	Ponneri	Cholavaram	Gnayiru	Village	Revenue Inspector Office	Ground
8	Ponneri	Minjur	Kolur	Village	Panchayat Office Kolur	Ground
9	Ponneri	Minjur	Ponneri	Town	Panchayat Office Guduvanchery Ponneri	Building Top
10	Ponneri	Puzhal	Redhills	Town	Revenue Inspector Office	Building Top
11	Ponneri	Minjur	Thirupalaivanam	Village	Revenue Inspector Office	Ground
12	R.K.Pet	R.K.Pet	Erumbi	Village	VAO Office	Ground
13	Tiruttani	Tiruttani	Cherukkanur	Village	Agriculture Godown K.G.Kandigai	Ground
14	Tiruttani	Tiruvalangadu	Kanagammachatram	Town	Revenue Inspector Office	Ground
15	Tiruttani	Tiruvalangadu	Manavur	Village	Revenue Inspector Office	Ground
16	Tiruttani	Tiruvalangadu	Kanagamachatram	Village	VAO Office Kuppam madura Lakshmapuram	Ground
17	Tiruttani	Tiruvalangadu	Tiruvalangadu	Viyasapuram	PUP School Viyasapuram	Ground

18	Tiruvallur	Kadambathur	Mappedu	Village	Revenue Inspector Office	Ground
19	Tiruvallur	Poondi	Poondi	Village	Revenue Inspector Office	Ground
20	Tiruvallur	Ikkadu	Velliyur	Village	PHC , Velliyur	Ground
21	Tiruvallur	Kadambathur	Vengathur	Town	Melnalathur Vao Office	Building Top
22	Uthukottai	Ellapuram	Kannigaiper	Village	Revenue Inspector Office	Ground
23	Uthukottai	Poondi	Pennalurpettai	Village	Revenue Inspector Office	Ground
24	Uthukottai	Ellapuram	Periapalayam	Ellapuram	Ellapuram BDO Office	Ground
25	Uthukottai	Poondi	Velagapuram	Village	VAO Office	Ground
26	Gummidipoondi	Gummidipoondi	Madharpakkam	Village	Revenue Inspector Office	Ground
27	Ponneri	Minjur	Kattur	Village	Thiruvellavoyal RIOffice	Ground
28	Tiruttani	Tiruttani	Cherukkanur	Village	Cherukkanur Anganwadi centre Suryanagaram	Ground
29	Tiruttani	Thiruvalangadu	Poonimangadu	Village	VAO Office Nallatur	Ground
30	Ponneri	Minjur	Kattur	Village	Kadapakkam Panchayat Office	Ground
31	Tiruvallur	Ikkadu	Veliyur	Village	Near by VAO Office , Keelanur	Ground
32	Gummidipoondi	Gummidipoondi	Madharpakkam	Village	Karadipudhur, VAO Office	Ground
33	Gummidipoondi	Gummidipoondi	Poovalambedu	Village	Erukuvai, VAO Office	Ground

AUTOMATIC WEATHER STATIONS – 14 Nos

Sl. No.	Block	Village	Address	Working details
1	Gummidipoondi	Gummidipoondi	Taluk Office Gummidipoondi	Yes
2	Ellapuram	Village	BDO Office	Yes
3	Tiruttani	Village	Taluk Office	Yes
4	R.K. Pettai	Village	Taluk Office	Yes
5	Kadambathur	Kadambathur	ADA Office, BDO Office, Kadambathur Panchayat – 631203	Yes
6	Minjur	Ponneri	PWD Site, VR Palayam, Sheemapuram Post, Ponneri-203	Yes
7	Pallipet	Kodivalasa	Siddamma Farm, AthimanjeriPettai Village, Kodivalasa Panchayat, Tiruvallur	Yes
8	Poonamallee	Sorancheri	Eswaran Koil Street, Sorancheri Village, Pattibaram, Chennai-72	Yes
9	Poondi	Kozhundalur	State Seed Farm, Kozhundalur	Yes
10	Thiruvallur	Tirur	Rice Research Station, Tirur	Yes
11	Tiruvalangadu	Tiruvalangadu	Tiruttani Co-Operative Sugars Mill Ltd, Tiruvalangadu, Tiruvallur -210	No
12	Villivakkam	Palavedu	Panchayat Land, 1/30, Perumal Koil Street, Palavedu Village , Avadi, Ambattur -600055	No
13	Puzhal	Vilangadupakkam	V Bangaru Lakshmi Ammankoil Street, Sendrapakkam, Vilangadupakkam Post, Chennai - 600052	Re Location
14	Sholavaram	Jaganathapuram	G Kesavan S/O Ganeshan Parents Teacher Association , Jaganathapuram Village Post, Ponneri, Sholavaram, Tiruvallur	Re Location

TN-SMART

The Disaster Management department / Tamil Nadu Disaster Risk Reduction Agency is implementing the Tamil Nadu – System for Multi-Hazard potential impact Assessment and Emergency Response Tracking (TN-SMART) project in collaboration with Regional Integrated Multi-Hazard Early Warning System (RIMES) to strengthen the State Emergency Operations with essential technical capacities for effective disaster risk management in Tamil Nadu.

TN-SMART is a dynamic web-based system with advanced data analytics capabilities to archive, analyze, model, and communicate disaster risk information. The system will act as a data management system for managing and processing weather, disaster risk, vulnerability profile, disaster damage, and emergency response resources data. TN-SMART will be used for assessing potential impacts of a hazard based on weather forecast information in order to evaluate, generate and designate impact management options. Further, the potential risk and impact management options would be communicated to revenue officials at various administrative levels and first responders through a specialized Mobile application, in addition to SMS, Email, Fax and other means. The response tracking functionalities in TN-SMART mobile application would facilitate two way communications between SEOC and information user.

TN-SMART has been tested at SEOC as an operational system for 2018 Northeast monsoon season. For operationalising the system, the following datasets were updated from the district administrative office for effective development and functioning of TN-SMART:

- Event wise disaster damage data at village level for the period 2005-2017
- Updated vulnerable location details and its emergency contacts (nodal officers, team leader, first responder, and others)
- List of revenue villages (taluk wise, district wise) along with population details.

SCHOOL SAFETY POLICY:

As per the direction of Hon'ble Supreme Court, the National Disaster Management Authority and Ministry of Human Resource Development (MHRD), New Delhi will jointly monitor the implementation of School Safety Policy -2016 guidelines at the National Level.

Some of the major Roles and Responsibilities of DDMA as per the School Safety Policy as detailed below.

- Collaborate with and involve education authorities in DM Planning, Policies, processes and in developing minimum standards for School safety before, during and after emergencies. This can be done by co-opting the District Education Officer and / any other officials / NGOs/ Private agencies as part of DDMA.
- DDMA's need to make sure that school safety is given due attention in the DDMPs.
- Collaborate with and provide training inputs to Departments of Education for training of School Safety Focal point teachers and School Management Committee members to lead school safety efforts in their respective schools.
- Ensure that all School buildings whether Government or Private, comply with the building codes and directives of the Hon'ble Supreme Court of India in relation to safety of Children.
- Facilitate specialized training in schools for teachers and peer educators.

- Include issues of School safety – in the District Disaster Management Plans.
- Conduct periodic mock drills at the District Level activity involving schools.

In this connection the Chief Educational Officer is directed to ensure the said guidelines at District Level through periodical meetings. The action has to be taken at the District Level to strengthening school safety measures as stipulated in the school safety plan-2016.

1.DETAILS OF SCHOOL DISASTER MANAGEMENT COMMITTEE

According to School Safety Policy, School Disaster Management Committee were formed and Advisory Committees were formed to inspect the safety measures in schools, such as Building Stability, Water facility and Electricity .

Members of the Disaster Management Committee:

The following school members are involved in School Safety Policy.

1. School Headmaster
2. School Assistant Headmaster
3. Head of Parents and Teachers Association
4. Office Assistant (2)

Duties of the Members:

The duties are followed by the members who are involved in Disaster Management committee. If any damages are found in schools the members will rectify the problems as provided in the checklist and to assured the students safety.

- Is the school will located in flood area?
- Is there building stability is proven?
- Is there drinking water facility is safe or not?

- Is there any electricity problem near by school?

2) DETAILS OF TRAINED MEMBERS IN DISASTER MANAGEMENT PROGRAMME

In Tiruvallur Educational District there are of 5 HM's and 25 Teachers went to the training program from 22.01.2018 to 24.01.2018. The program was conducted by Anna University in Raja Annamalaipuram, Chennai – 600028.

3. DISTRICT LEVEL COMPETITION ABOUT AWARENESS OF NATURAL CALAMITIES

The District level Essay Competition about Awareness of Natural Calamities was conducted for the students and winners were selected.

4. TRAINING BY FIRE SERVICE DEPARTMENT

In 23 Schools, Fire Service Department conducted the demo class regarding student safety from calamities.

MITIGATION MEASURES DONE VULNERABLE PLACES IN TIRUVALLUR DISTRICT

Sl. No	Name of the Taluk	Very High	High	Medium	Low	Total
1.	Avadi	2	12	4	11	29
2.	Poonamallee	0	9	7	2	18
3.	Uthukottai	0	1	0	0	1
4.	Tiruvallur	0	0	0	13	13
5.	Ponneri	6	17	19	11	53
6.	Gummidipoondi	0	0	14	0	14
7.	Tiruttani	0	0	0	1	1
8.	Pallipatu	0	0	0	4	4
Total		8	39	44	42	133

Action taken to reduce Vulnerable Locations

VERY HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	A. Reddy palayam.	Overflowing of water and breached water causes heavy damaged during Floods.	1).Rehabilitation of A-Reddypalayam check Dam and Strengthening the flood banks in Araniyar River at Ponneri Taluk of Thiruvallur District. Estimate Amount Rs: 9.70 Crore (Work Completed) 2). Strengthening the breached portion of Araniyar River Right side flood bank at Brick Chamber near A-Reddypalayam and Somanjeri Villages in Ponneri Taluk of Thiruvallur District.Estimate amount Rs.12.50 Lakhs). (Work Completed).
	Aladu (Manopuram).	Overflowing of water and breached water causes heavy damaged during Floods.	1).Strengthening the breached portion of Araniyar River Right Side Flood bank at In-Let near Peria Manopuram, Kolathur and Kammarpalayam Villages in Ponneri Taluk of Thiruvallur District.Estimate Amount Rs.12.50 Lakhs. (Temporary work Completed) . 2).Construction of Flood Protection of wall in Araniyar River Right side flood Bank at Manopuram and Kolathur Villages in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs.32.00. crore).(Permanent Restoration work). (Proposals sent to Government.)
	Thathamani.	Overflowing of water and breached water causes heavy damaged during Floods.	1). Strengthening and formation of Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 124.150 km to 126.100 km in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs.16.55 Crore. (Work is in Progress) 2. Rehabilitation of Inlet & Outlet Regulators from LS 112.800km to LS 124.800km and Strengthening the Overwashed portion of Flood bank from L17.500 km to 119.700 km & 126.700 km to 126.970 km in Araniyar River of Ponneri Taluk in Thiruvallur District. Estimate Amount Rs.22.50 Crore. (Work is in Progress)

VERY HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	Vichoor	Illicut cut opens in Kosathalaiyar river Bund near vichoor village	Kosasthalaiyar River near Vitchoor village and the surrounding areas, Illicut opens are closed. The existing bund strengthening work completed under flood mitigation work.
	Perumbedu kuppam	Overflowing of water and breached water causes heavy damaged during Floods.	<ol style="list-style-type: none"> 1) Re- Construction of In-Let at Araniyar River Left side Flood Bank at L.S.122.70 Km near D/s of Perumbedukuppam Village in Ponneri Taluk of Thiruvallur Distirict. Estimate Amount Rs.5.2519 Crore. (Work completed) 2) Strengthening and formation of Left Flood Bank with River Training Works damaged due to Cyclone Michaung in Araniyar River from LS 119.700 km to 123.900 km in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs.19.00 Crore. (Work is in Progress) 3) Strengthening the Araniyar River Left and Right side Flood Banks near Perumbedu kuppam Village in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs. 40.50 Crore). (Proposals sent to Government)
	Vanjivakkam	Overflowing of water and breached water causes heavy damaged during Floods.	<ol style="list-style-type: none"> 1) Re- Construction of In-Let at Araniyar River Left side Flood Bank at L.S.122.70 Km near D/s of Perumbedukuppam Village in Ponneri Taluk of Thiruvallur Distirict. Estimate Amount Rs.5.2519 Crore. (Work Completed) 2) Strengthening the Araniyar River Left and Right side Flood Banks near Perumbedu kuppam Village in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs. 40.50 Crore). (Proposals sent to Government)

VERY HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
	Tirunindravur	Surplus and catchment water from Thirunindravur Eri	<ul style="list-style-type: none"> • Three location 50 HP Motor 2 Nos. 20 HP Motor 4 Nos. installation work Completed. • Additional motors 50 HP 2 Nos. 20 HP Motor 2 Nos. and permanent pump room DPR submitted for an amount of Rs.50.00 lakhs to the Collector Tirunivallur for want of fund. • Improvement to earthen drainage in Indra Nagar 2nd Main Road estimate amount Rs.3.55 lakhs under TNPCB / CSR fund Work Completed • Sand bags are kept ready to attend the temporary restoration work in case of breaches
Avadi	Paruthipattu	Low lying Area During rainy season Paruthipattu lake over flow water spreading in that area since there is no proper channel to Ayapakkam lake.	<p><u>Avadi Corporation</u> Construction of new Storm water drain at Kamaraj Nagar 4th Street to Coovam river (via Pandiyan nagar, Ashok niranjan nagar & Sriram Nagar) in Ward no 47 at an Estimate cost of Rs.4.50 crores in Advisory Committee for Mitigation and Management of flood risk scheme. The work has been fully completed and put it into use.</p> <p>1. Construction of new Storm water drain at Vasantham nagar main road in Ward no 43 at an Estimate cost of Rs 2.50 crores in Advisory Committee for Mitigation and Management of flood risk scheme The work has been fully completed and put it into use.</p> <p><u>Public work Department</u> Providing flood Regulator arrangements in Paruthipattu tank Weir and work completed.</p> <p><u>Highways Department</u> 2.Construction of new Storm water drain at Avadi- Poonamallee High Road at an Estimate cost of Rs 49.50 Crores and work is completed on 31.08.2023</p>

HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	Athipattu Pudhu Nagar,	These habitations are Pulicat Back water area and low lying area.	In the low lying area action has been taken to strengthening the bunds.
	Vellivoyal	Kosasthalaiyar river bund near Vellivoyal village are not sufficient to carry heavy floods more than 25,000 cusecs.	Kosasthalaiyar River near Vellivoyal village Bund height is increased. The existing bund strengthening work completed under flood mitigation work
	Gnayaruru (Pasavanpalayam)	Breach in Kosasthalaiyar river bund in Pasuvanpalayam village	The river bund Breached portion are closed under premonsoon work in 2023.
	Siru pazhaverkadu Colony	Overflowing of water in Araniyar River and Kosasthalaiyar River basins and Stagnation of Rain Water	1). Strengthening the Araniyar River Flood Banks (Both sides) with Flood Protection wall at D/S of Minjur - Pazhaverkadu Road Bridge near Prelayambakkam Village in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs.86.50 Crore. (Sent to Government for Administrative Sanction).

HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	Kadapakkam Colony	Due to Heavy Rain overflow of water in Araniyar River and Kosasthalaiyar River Basin.	1). Strengthening the Araniyar River Flood Banks (Both sides) with Flood Protection wall at D/S of Minjur - Pazhaverkadu Road Bridge near Prelayambakkam Village in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs.86.50 Crore. (Sent to Government for Administrative Sanction).
	Karungali	Due to Heavy Rain overflow of water in Arani River and Kosasthalai River Basins.	Restoration work is completed.
	Kalanji	Due to Heavy Rain overflow of water in Arani River and Kosasthalai River Basins.	Restoration work is completed.
	Kattupalli	Due to Heavy Rain overflow of water in Arani River and Kosasthalai River Basins.	Restoration work is completed.
	Thangalperumpulam	Surplus water from Pulicut lake and Kosasthalaiyar River stagnation.	1). Cut Opening the Mouth of easy drain out the flood water from Araniyar River to Bay of Bangal via Pulicat Lake in Ponneri Taluk of Thiruvallur District. For the Month of October, November & December 2022. Estimate Amount Rs.20.00 Lakhs. 2) To minimize the problem of inundation in Thangalperumbulam village, a proposal has been sent by the Fisheries Department as a Permanent measures to from Gryones for an approximate Estimate Cost Rs.27.00 Crore. And awaiting approval from the Government.

HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	Pazhaverkadu	Overflowing of water in Araniyar River and Kosasthalaiyar River basins and Stagnation of Rain Water.	1). Cut Opening the Mouth of easy drain out the flood water from Araniyar River to Bay of Bangal via Pulicat Lake in Ponneri Taluk of Thiruvallur District. For the Month of October, November & December 2022. Estimate Amount Rs.20.00 Lakhs. 2) To minimize the problem of inundation in Thangalperumbulam village, a proposal has been sent by the Fisheries Department as a Permanent measures to from Gryones for an approximate Estimate Cost Rs.27.00 Crore. And awaiting approval from the Government.
	Thandal Kazhani (Samiyar Madam)	Low lying area and no proper drainage from near by lands.	Protective Measures along Redhills Surplus course like pre-monsoon work is under progress.
	Theerthakaraiyam pattu	Inundation occurred in Theerthakaraiyampattu area due to surplus in Padiyanallur Tank.	Improvements to the Padiyanallur Tank surplus course desilted to ensure free flow of surplus water.
Ponneri	Palavoyal	Inundation occurred in palavoyal area due to surplus in Padiyanallur Tank.	Improvements to the Padiyanallur Tank surplus course desilted to ensure free flow of surplus water.
	Alinjivakkam	Low lying area and no proper drainage from near by lands.	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out.

HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	Vadakarai	Low lying area and no proper drainage from near by lands.	Protective Measures along Redhills Surplus course like pre-monsoon work is under progress.
	Grantline	Low lying area and no proper drainage from near by lands.	Desilting of Redhills Surplus Course is under progress as actively in Premonsoon work. The excess water will drain into Redhills surplus course.
	Sirugavur	Low lying area and no proper drainage from near by lands.	Temporary Drainage blockages are cleared Permanent works to be carriedout.
Uttukottai	Thirukandalam.	The water from the damaged check dam entered the habitation area. During 2015 flood	Rehabilitation and improvement works to the flood damaged portion of check dam across Kosasthalaiyar river near Thirukandalam village of Uthukottai Taluk in Thiruvallur District at the cost of Rs.18.17 Crores. The work has been started on 28.02.2019 and it was completed on 31.08.2021.
Avadi	Bhavani Nagar, Nadukuthagai	Low lying area and due to NH road raised.	Storm Water Drainage work Completed so water not stagnated
	Moovendhar Naga, Nadukuthagai		
	Ramadasapuram Nadukuthagai		
	North Prakash Nagar, Nadukuthagai		
	Diliban Nagar Nadukuthagai,		
	Amirthanagar Nadukuthagai		
	Thendral Nagar Nadukuthagai	Overflow of water from Nadukuthagai Channel	Nadukuthagai Channel Desilting work is in Progress.

HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Avadi	Rajeevgandhi Nagar, Kovilpathagai	Overflow of water from Koilpadhagai Eri	Desilting work completed surplus course desilted in the year 2022.
	Pudhunagar, Paleripattu	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Ananda Nagar, Paleripattu	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Periyarnagar, Paleripattu	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Vettaikarapalayam Vilinjiyampakkam	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Nanthavanamettur, Vilinjiyambakkam	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Kavaraipalayam, Vilinjiyambakkam	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
Poonamallee	Amma Nagar, Poonamallee	The excess water came from Nasarath pettai and Malayambakkam area through ORR road culvert.	New Drain has to be proposed at Trunk Road (From Panayathamman kuttai to ORR Bypass road) by Highways department. The excess water came from Nasarath pettai and Malayambakkam area through ORR road culvert. This will be diverted to Chikkarayapuram quarry area by TNRDC.
	Ambedhkar Nagar, Poonamallee		
	Santhiya Nagar, Poonamallee		
	Panaiyathamman Nagar, Poonamallee		Drain work completed.

HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Poonamallee	Ayanambakkam,	Low lying areas and issue for Proper Drain Constructed	1) For Permanent measures Construction of Storm Water Drain at Balaji Nagar, Dinesh Nagar, New Centurian Nagar, Ram Pooran Nagar, Bharathiyar Street, Iswariya Nagar Main Road, Yagavamangal Raj Street, ICF Colony Main Road, Sankar Seeling Road has been carried at an Estimate Cost of Rs.795.00 Lakhs.
	Koladi	Low lying areas and issue for Proper Drain Constructed	1) For Permanent measures Construction of Storm Water Drain at Rani Anna Nagar, Sundara Vinayagar Nagar, Murugan Nagar, Kasthuribai Avenue, Aravidha Nagar, MR Nagar Main Road, Vadanoombal, Rajankuppam main Road has been carried at an Estimate Cost of Rs.692.00 Lakhs 2) Further SDMF – 2023 Scheme, Construction of Storm Water Drain at Indira Gandhi Street, Bharathiyar Street, Rajive Gandhi Salai, Kavery Nagar, Srinivasa Nagar, Arul Vinayagar Nagar, Thiruvankadam Nagar at an Estimate Cost of Rs.358.00 Lakhs in being carried and it will be completed before September 2023.
	Vanagaram,	Inundation occurred in Coovum River in	Premonsoon Work for Vulnerable Place in Coovum River from D/o Vanagaram Bridge to Padikuppam Casuway work will be started before north east monsoon
	Noombal,	Low lying areas and issue for Proper Drain Constructed	1) For Permanent measures Construction of Storm Water Drain at Mahalakshmi Nagar, Noombal Theruveethiamman Koil Street to Rajive Nagar 1st Main Road, Moogambigai Nagar, Ashok Nanadhavanam, Rajesh Garden has been carried at an Estimate Cost of Rs.568.00 Lakhs 2) Further SDMF – 2023, Scheme Construction of Storm Water Drain at Puliyambedu Main Road, Balaji Nagar, Moovendhar Nagar, Krishna Nagar, Chellammal Nagar, Jai Nagar at an Estimate Cost of Rs.332.00 Lakhs in being carried and it will be completed before September 2023.
	Kanniyamman Nagar	Low lying area and due to NH road raised.	Storm water Drainage to be constructed.

MODERATE VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	Ponneri - I	Overflowing of water and breached water causes heavy damaged during Floods.	1) To minimize the problem of inundation in Ponneri I and Ponneri II, Rehabilitation of Lakshmipuram Anicutat L.S.114.80 Km. and Strengthening the Araniyar River U/S and D/S of Both side Flood Banks in Lakshmipuram anicut in Ponneri Taluk of Thiruvallur District. Estimate Amount of Rs.25.00 Crore. Proposal Sent to Government.
	Ponneri - II	Overflowing of water and breached water causes heavy damaged during Floods.	To minimize the problem of inundation in Ponneri I and Ponneri II, Rehabilitation of Lakshmipuram Anicutat L.S.114.80 Km. and Strengthenig the Araniyar River U/S and D/S of Both side Flood Banks to A.Reddypalayam L.S.119.00Km in Ponneri Taluk of Thiruvallur District. Estimate Amount of Rs.26.00 Crore. Proposal Sent to Government.
	Chinnamedu	Surplus water from Araniyar River and Stagnation of water.	Rehabilitation of Chinnamedu Large Tank work is Completed in all respect.
	Peravallur	Surplus water from Araniyar River and Stagnation of water.	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out.
	Arani	Surplus water from Araniyar River and Stagnation of water.	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out.
	Seemavaram	Breaches Occurred due to Insufficient River width. Hence Land Acquisition is essential	Name of Work :- Strengthening the breached portion of Kosasthalaiyar River Right side Flood bank at U/S and D/S of Vallur Anicut near Seemavaram Village in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs:- 25.00 Lakhs. Work is Completed in all respects in Premonsoon 2022

MODERATE VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	Annamalaichery	Due to Heavy Rain and back water of PazhaverkaduEri.	To minimize the problems of inundation in Pazhaverkadu mouth, a proposal has been sent by the Fisheries Department as a permanent measures to form Gryones for an approximate Estimate cost of Rs. 27.00 Crores and awaiting approval from theGovernment.
	Senjiyamman Nagar, Pazhaverkadu	These habitations are nearer to the back water area of Pulicat.	In the low lying area action has been taken to strengtheing the bund.
	Kulathumedu, Pazhaverkadu	These habitations are nearer to the back water area of Pulicat.	In the low lying area action has been taken to strengtheing the bund.
	Rajarathinam Nagar, Pazhaverkadu	These habitations are nearer to the back water area of Pulicat.	In the low lying area action has been taken to strengtheing the bund.
	Kallukadaimedu, Pazhaverkadu	These habitations are nearer to the back water area of Pulicat.	Steps have been taken to strengthen the embankment in the low-lying area.
	MGR Nagar, Thirupalaivanam	Low lying areas	Name of Work :- Re- Construction of In-Let at Araniyar River Left side Flood Bank at L.S.122.70 Km near D/S of PerumbeduKuppam Village in Ponneri Taluk of Thiruvallur District. Estimate Amount Rs :- 5.25 Crore, G.O (Ms.) No. 53, Water Resources (S1) Department Dated 29.06.2022, . Restoration work is completed
	Theerthakaraiyam pattu	Inundation occurred in Theerthakaraiyampattu area due to surplus in Padiyanallur Tank.	Improvements to the Padiyanallur Tank surplus course desilted to ensure free flow of surplus water.
	Palavoyal	Inundation occurred in palavoyal area due to surplus in Padiyanallur Tank.	Improvements to the Padiyanallur Tank surplus course desilted to ensure free flow of surplus water.

MODERATE VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons Vulnerability for	Action Taken report
Ponneri	Athivakkam	As precautionary measure, the unwanted garbage's and weeds grown in the channels area cleaned by local body.	The ditches and canals are being desilted by local bodies to free flow the stagnant water and excess rain water.
	Alinjivakkam	As precautionary measure, the unwanted garbage's and weeds grown in the channels area cleaned by local body.	The ditches and canals are being desilted by local bodies to free flow the stagnant water and excess rain water.
	Vadakarai,	As precautionary measure, the unwanted garbage's and weeds grown in the channels area cleaned by local body.	The ditches and canals are being desilted by local bodies to free flow the stagnant water and excess rain water.
	Pulliline	As precautionary measure, the unwanted garbage's and weeds grown in the channels area cleaned by local body.	The ditches and canals are being desilted by local bodies to free flow the stagnant water and excess rain water.
	Vilangadu pakkam	As precautionary measure, the unwanted garbage's and weeds grown in the channels area cleaned by local body.	The ditches and canals are being desilted by local bodies to free flow the stagnant water and excess rain water.

MODERATE VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Poonamallee	Nazarathpettai	Low lying area and due to NH road raised.	Storm water Drainage to be constructed.
	Parivakkam		
	Vayalanallur		
	Nochimedu	Lowlying areas	Drain work completed
	Bababee Dharka, Poonamallee		
	Ammankoil Street, Poonamallee	Low lying area and due to NH road raised.	Storm water Drainage to be constructed.
	MGR Nagar, Kattupakkam		
	K.K.Nagar Kattupakkam		
	Amman Nagar Kattupakkam		
Avadi	Avadi TNHB	Overflow of water from Koilpadhagai Eri	Bund strengthened and surplus course desilted in the year 2020. Action being taken to evict encroachments
	Nagathamman Nagar, Nemilichery	Low lying area and due to NH road raised.	Storm water Drainage to be constructed.
	Rajeevgandhi Nagar, Nemilichery	Low lying area and due to NH road raised.	
	Brindhavan Nagar, Kovilpathagai	Overflow of water from Koilpadhagai Eri	Bund strengthened and surplus course desilted in the year 2020. Action being taken to evict encroachments.

MODERATE VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Gummidipoondi	Sunnambukulam	Due to Heavy rain Overflow water from Pulicat Lake.	To minimize the problems of inundation in Pazhaverkadu mouth, a proposal has been sent by the Fisheries Department as a permanent measures to form Gryones for an approximate Estimate cost of Rs. 27.00 Crores and awaiting approval from the Government.
	Gummidipoondi Office EB	Due to Heavy Rain Overflow of water from Periya Eri.	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out
	Enathimelpakkam	Due to Heavy Rain Overflow of water from Periya Eri	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out
	Chinna sozhiyambakkam	Due to Heavy Rain Overflow of water from Periya Eri	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out
	Periya sozhiyambakkam	Due to Heavy Rain Overflow of water from Periya Eri	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out

MODERATE VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Gummidipoondi	Edur	Due to Heavy rain Overflow water from Pulicat Lake	To minimize the problems of inundation in Pazhaverkadu mouth, a proposal has been sent by the Fisheries Department as a permanent measures to form Gryones for an approximate Estimate cost of Rs. 27.00 Crores and awaiting approval from theGovernment.
	Ezhukannupalam	Due to Heavy rain Overflow water from Pulicat Lake.	To minimize the problems of inundation in Pazhaverkadu mouth, a proposal has been sent by the Fisheries Department as a permanent measures to form Gryones for an approximate Estimate cost of Rs. 27.00 Crores and awaiting approval from theGovernment.
	Vallambedukuppam	Due to Heavy rain Overflow water from Pulicat Lake.	To minimize the problems of inundation in Pazhaverkadu mouth, a proposal has been sent by the Fisheries Department as a permanent measures to form Gryones for an approximate Estimate cost of Rs. 27.00 Crores and awaiting approval from the Government.
	Arambakkam	Due to Heavy rain Overflow water from Pulicat Lake.	To minimize the problems of inundation in Pazhaverkadu mouth, a proposal has been sent by the Fisheries Department as a permanent measures to form Gryones for an approximate Estimate cost of Rs. 27.00 Crores and awaiting approval from theGovernment.

MODERATE VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Gummidi poondi	Chinnaobula puram	Due to Heavy Rain Overflow of water from Pulicat lake	To minimize the problems of inundation in Pazhaverkadu mouth, a proposal has been sent by the Fisheries Department as a permanent measures to form Gryones for an approximate Estimate cost of Rs. 27.00 Crores and awaiting approval from the Government.
	Karani	Arani River and Mukkarambakkam Lake overflow	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out.
	Mangalam	Arani River and Mukkarambakkam Lake overflow	Restoration work is completed
	Mukkarambakkam	Arani River and Mukkarambakkam Lake overflow	Improvements to the surplus course work to ensure free flow of surplus water is to be carried out.
	Serpedu	Arani River and Mukkarambakkam Lake overflow	Restoration work is completed.

LOW VULNERABLE LIST

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Avadi	Vazhaikutti, Thirumullaivoyal-1	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Annai Therasa Nagar, Thirumullaivoyal - 1		
	Ettiyamman Nagar, Thirumullaivoyal - 1		
	MGR Nagar, Thirumullaivoyal - 1	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Thendral Nagar, Thirumullaivoyal - 1		
	Ambedhkar Nagar, Thirumullaivoyal - 1		
	Moorthy Nagar, Thirumullaivoyal - 1		
	Saraswathi Nagar, Thirumullaivoyal - 1	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Indira Nagar, Thirumullaivoyal - II		
	Thamarai Nagar, Thirumullaivoyal - II		
	Sabari Ayyappan Nagar Thirumullaivoyal - II		
	Sivasakthi Nagar, Thirumullaivoyal - II		
	Ellaiyamman Nagar, Muthapudhupet	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.
	Muthapudhupet ICF Colony		
	Mittanamallee	Low lying Area	Kept high-pressure diesel pumps to remove the stagnated water from low-lying areas.

LOW VULNERABLE LIST

Name of the Taluk	Name of the Vulnerable Area	Reasons Vulnerability for	Action Taken report
Avadi	Pandeswaram	Low lying area since catchment water entered from near by panchayts.	Storm water Drainage to be constructed.
	Jasmin Nagar, Palavedu	Low lying area since catchment water entered from near by panchayts.	Storm water Drainage to be constructed.
	Muthamizh Nagar, Palavedu	Low lying area since catchment water entered from near by panchayts.	Storm water Drainage to be constructed.
	Sasthiri Nagar, Palavedu	Low lying area since catchment water entered from near by panchayts.	Storm water Drainage to be constructed.
	Ayapakkam	Low lying area since catchment water entered from near by panchayts.	Storm water Drainage to be constructed.
Poonamallee	Ammankoil Street, Korattur A	Low lying area and due to NH road raised..	Storm water Drainage to be constructed.
	Collector Nagar, Gudappakkam	Low lying area and due to NH road raised..	Storm water Drainage to be constructed.
Ponneri	Ambal Nagar,	Low lying area. Since near by NH roads were raised.	Storm water Drainage to be constructed.
	Nallur,	Low lying area. Since near by NH roads were raised.	Storm water Drainage to be constructed.
	Alamathi	Low lying area. Since near by NH roads were raised.	Storm water Drainage to be constructed.
	Gandhi Nagar, Attanthangal	Low lying area. Since near by NH roads were raised.	Storm water Drainage to be constructed.
	Andarmadam,	Heavy Rain water.	To minimize the problems of inundation in Pazhaverkadu mouth, a proposal has been sent by the Fisheries Department as a permanent measures to form Gryones for an approximate Estimate cost of Rs. 27.00 Crores and awaiting approval from the Government.
	M.G. Nagar Sendrambakkam	Low lying area and no proper drainage from near by lands.	Blockage in supply and surplus portions of Sendrambakkam Tank were cleared temporarily. Permanent works will be carried out in upcoming scheme works.

LOW VULNERABLE LIST

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Ponneri	Krishnasamy Chetty Nagar Sendrambakkam	Low lying area and no proper drainage from near by lands.	Blockage in supply and surplus portions of Sendrambakkam Tank were cleared temporarily. Permanent works will be carried out in upcoming scheme works.
	Telegu Sendrambakkam Colony	Low lying area and no proper drainage from near by lands.	Blockage in supply and surplus portions of Sendrambakkam Tank were cleared temporarily. Permanent works will be carried out in upcoming scheme works.
	Sendrambakkam Colony	Low lying area and no proper drainage from near by lands.	Blockage in supply and surplus portions of Sendrambakkam Tank were cleared temporarily. Permanent works will be carried out in upcoming scheme works.
	Naravarikuppam	Low lying area and no proper drainage from near by lands.	Desilting of Redhills Surplus Course is under progress as actively in Premonsoon work. The excess water will drain into Redhills surplus course.
	Grantline	Low lying area and no proper drainage from near by lands.	Desilting of Redhills Surplus Course is under progress as actively in Premonsoon work. The excess water will drain into Redhills surplus course.

LOW VULNERABLE LIST

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Pallipet	Sanakuppam	Located near the Kosasthalai River Banks.	In the low lying area action has been taken to strengthening the bunds
	Sangeetha Kuppam	Located near the Kosasthalai River Banks.	In the low lying area action has been taken to strengthening the bunds
	Samanthavada	Located near the Kosasthalai River Banks.	In the low lying area action has been taken to strengthening the bunds
	Nedium	Located near the Kosasthalai River Banks.	In the low lying area action has been taken to strengthening the bunds
Tiruttani	Jageermangalam	Now a high level bridge has been constructed across the Arthaneri Odai hence the public have easy assess.	Now a high level bridge has been constructed
Tiruvallur	Kakkalur	Heavy Flood Over washed in Tank Bund	Breeched portion completely arrested.
	Thandalam	Heavy Flood Over washed in Tank Bund	Breeched portion completely arrested.
	Amsa Nagar	Amsanagar portion is situated at perambakkam tank water spread area by Revenue people during the year.During increase of water level the perambakkam tank that portion will be affected at the time Revenue will taken necessary evacuation process from the water spread area.	Meanwhile from PWD we proposed to reduce the depth of water by diverting excess water from water spread area to recharging pond 1to 4.Necessary Proposal Submitted to District Collector, Thiruvallur via., Sub Collector , Thiruvallur for fund awaited.
	Gandhi Gramam	GandhiGramam Once it Level of FRL Even it is low (Poondi reservoir) vulnerability area.Its belong's to the patta land. The top patta land is situated at FRL level.Hence the water level (reach) the FRL at the time may be affected	Proposal for increasing the depth of water over the FRL upto 2 feet is under serutiny by the government after approval getting from government The necessary foreshoe bund are to be proposed is in progress

LOW VULNERABLE LIST

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Action Taken report
Tiruvallur	Ellappanaidupettai	Low lying area catchment are of the Poondi Lakh.	In the low lying area action has been taken to strength the bunds
	Narayanapuram	Low lying area catchment are of the Poondi Lakh.	In the low lying area action has been taken to strength the bunds .
	MGR Nagar	Low lying area and no proper drainage from near by lands.	Survey work completed eviction to be carried out as per the Tank protection eviction act.
	Manavalanagar	Low lying area and culver constructed and staganised water has been restored.	Storm water Drainage to be constructed.
	Vengathur	Low lying area and culver constructed and staganised water has been restored.	Storm water Drainage to be constructed.
	Pinjivakkam	Low lying area and culver constructed and staganised water has been restored.	Storm water Drainage to be constructed.
	Sattharai	Tank Bund Portion Weak	Bund Strengthening Work Completed in Kudimaramathu Scheme in 2020-2021
	Pakkam	Heavy Flood Over washed in Tank Bund	Breeched portion completely arrested.
	Nathambedu	Heavy Flood Over washed in Tank Bund	Breeched portion completely arrested.

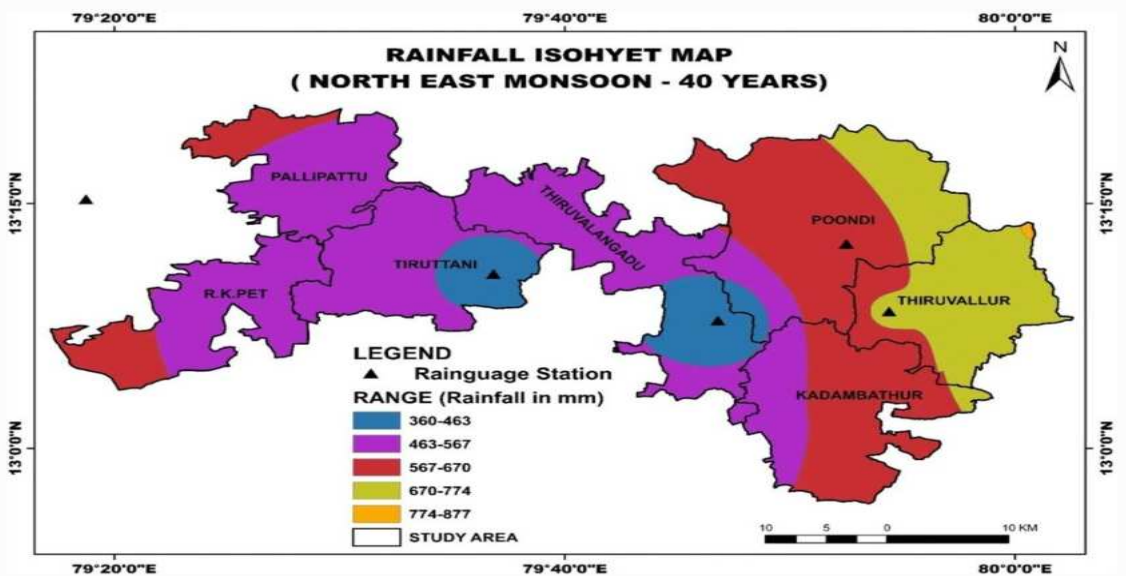
FLOOD MITIGATION MEASURES

Flood is the interface dynamics between geo-terrain system parameters; viz., **lithology, geological structures, geomorphology, soil, drainage conditions, slope, land use and land cover** etc., and flood. Hence the flood vulnerability mapping requires the understanding and mapping of all terrain parameters. With this in mind, an attempt has been made to delineate flood vulnerable zones in the rural blocks of **Thiruvallur District**

CAUSES OF FLOOD

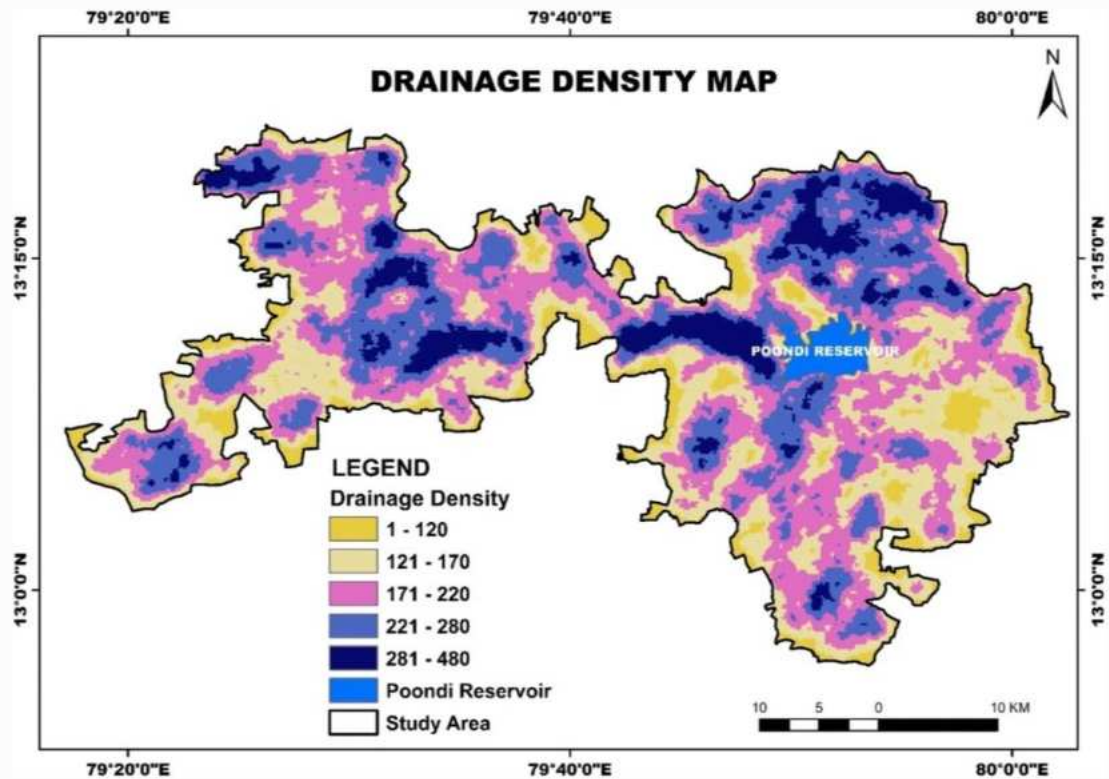
The main cause for flooding is due to an aftermath of meteorological events such as an

- intense and **prolonged rainfall**,
- increase in water level in coastal ,construction of flood plains
- Estuarine waters due to storm surges and seiches as the area close to Bay of Bengal.
- The other reason is breaching of Couvam, Kosasthalaiyar and Araniyar rivers and a spate of Poondi Reservoir.



- Rainfall data were collected from rain-gauge stations namely **Ponneri, Thiruvallur, Tiruttani, Thiruvallangadu** which influence to interpolate the spatial distribution of rainfall.
- The rural blocks of Thiruvallur District lie in the tropical monsoon zone. As the monsoons bring heavy rainfall, it improves not only the recharging of groundwater and the storage of surface water, also brings flood as the flow of water gets strucked due to various obstacles.
- Hence, the monsoon period is hydrologically significant for water and related analysis will help us a **comprehensive flood management**

DRAINAGE, TANKS AND RESERVOIR



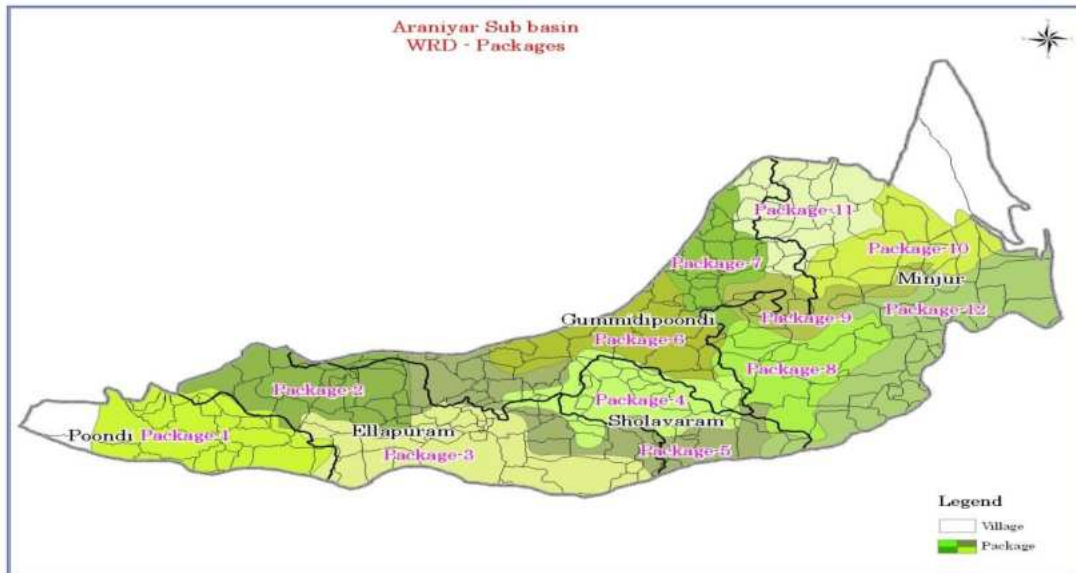
- Drainage is an important ecosystem controlling the hazards as its densities denote the nature of the soil and its geotechnical properties
- Kosasthalaiyar and Araniyar rivers are the two main rivers flow through the study area.
- Kosasthalaiyar river originates from **Panapakkam forest of Andhra Pradesh State,**
-

- It enters the study area through the eastern slope of the hills in Pallipattu block at an altitude of about 531 m.
- **Nandiyar** and **Nagariyar** are the tributaries of Kosasthalaiyar river which are seasonal and non-perennial.
- The flood in the rivers are sporadic and it lasts generally for about 10 days in a year.
- The total length of the main river from its origin is about 155 km in which Poondi reservoir is located on the eastern river course.
- It is the major source of storage, irrigation and supplying drinking water to the nearest city.

RIVER BASIN

- Thiruvallur District lies on the western and northern parts of Chennai city which is spread over the river basins of **Araniyar and Kosathalaiyar** with its tributaries namely Nandhiyar, Nagariyar and isolated independent water sheds like Otteri Nalla, Captain Cotton canal, Kodungaiyur, Redhills etc. draining into Kosathalaiyar through Bankingham canal.
- The rivers in Thiruvallur District are **seasonal** having floods during the period of heavy rainfall in Northeast Monsoon since the areas close to the coast in the above isolated water sheds like **Manali, Redhills** adjoining north Chennai and the urban areas adjoining the rivers are highly prone to inundation during floods due to flat terrain with very low elevations.
- In order to reduce the flood risk the following interventions are being implemented and contemplated.

ARANIYAR BASIN DIVISION:-



A **Comprehensive Flood Protection Plan** for Tiruvallur District have been developed for mitigating the flood impact by the Public Works Department in Araniyar River Basin.

From the field visits and preliminary analysis of data, the following are some of the present observations:

- The hydrological model of the basin is developed using HEC-HMS software. The basin is digitized in a GIS environment and transferred into the HMS software using **HEC-GeoHMS** specialized tools.
- The hydraulic model of the basin is developed using HEC-RAS software. The basin is digitized in a GIS environment and transferred into the RAS software using **HEC-GeoRAS** specialized tools.
- From the analysis, Flood prone zones could be demarcated and possible mitigation methods could be suggested.
- The Survey data has to be supplied by the PWD regarding the cross-section of the river course at intervals of **300m** along flow direction.

- Some more Rainfall data has to be collected from the IMD for the most extreme flood events based on the rainfall analysis.
- The flow data or discharge data has to be acquired from the anicuts to help in calibration and validation of the model (to be supplied by PWD).
- The study is well on course and frequent reporting will be done to the satisfaction of PWD Engineers and Thiruvallur collectorate.
- Based on the magnitude of Synthetic Unit Hydrograph four catchments of Araniyar Sub Basin, A1, A2, A9 and A11, results higher peak runoff as well as larger base periods.
- The remaining **seven catchments**, namely, A3, A4, A5, A6, A7, A8 and A10 produce comparatively lower peak runoff with lesser time to base period.
- From the **Flood Hydrograph**, the first two catchments A1 and A2 are having higher magnitude of peak runoff 1034.91 m³/s, 1006.92 m³/s respectively. The A11 catchment is having magnitude of 784.89 m³/s. The fourth catchment A9 is having peak runoff of 296.3 m³/s.
- The maximum flood discharge is higher (more than 800 m³/s) for Pichatur, Surattapalli and Arniyar Checkdam in the upstream reaches and at A.Reddipallyam and Confluence Point at the downstream reaches.
- In the middle reaches of Arniyar River receives moderate to lower flood discharge. Hence, the flood mitigation works must concentrated at both upstream and downstream reaches the Araniyar River.
- The lower gradient of bed results in longer backwater profile at upstream of **A.Reddipalayam, Sengathakulam, Lakshmipuram and Paleswaram** structures. Hence, the flood protection works must be provided for the

reaches having more backwater length, such as Sengathakulam, Araniyar, Paleswaram, Lakshmipuram and A.Reddipalyam reaches.

- Provide flood banks (either earthen or masonry) at the upstream of Araniyar Checkdam and Panapakkam Checkdam for the length more than the back water profile developed.
- The backwater profile and maximum and minimum stage in river shows continuous stagnation of water in between AN Kuppam and A.Reddipalayam reach. Since, comparatively denser habitats existing on either side of these reaches Flood Walls are more suitable.
- The minimum height of flood protection works must be 4m between Lakshmipuram Anicut and A.Reddipalayam Checkdam.
- A cut off channel must be developed between Andarmadam to Bay of Bengal either constructing a new channel or by connecting the existing flow path at the downstream of Andarmadam area.
- It is proposed to desilt to a depth of **1.5 meters** in about **50%** of the water spread area of the three water supply reservoirs in Thiruvallur District viz. Poondi, Redhills and Cholavaram as a revenue model which will minimise flooding problems in the peri-urban areas of North Chennai and also **improve the Chennai** water supply position during the **drought periods**.

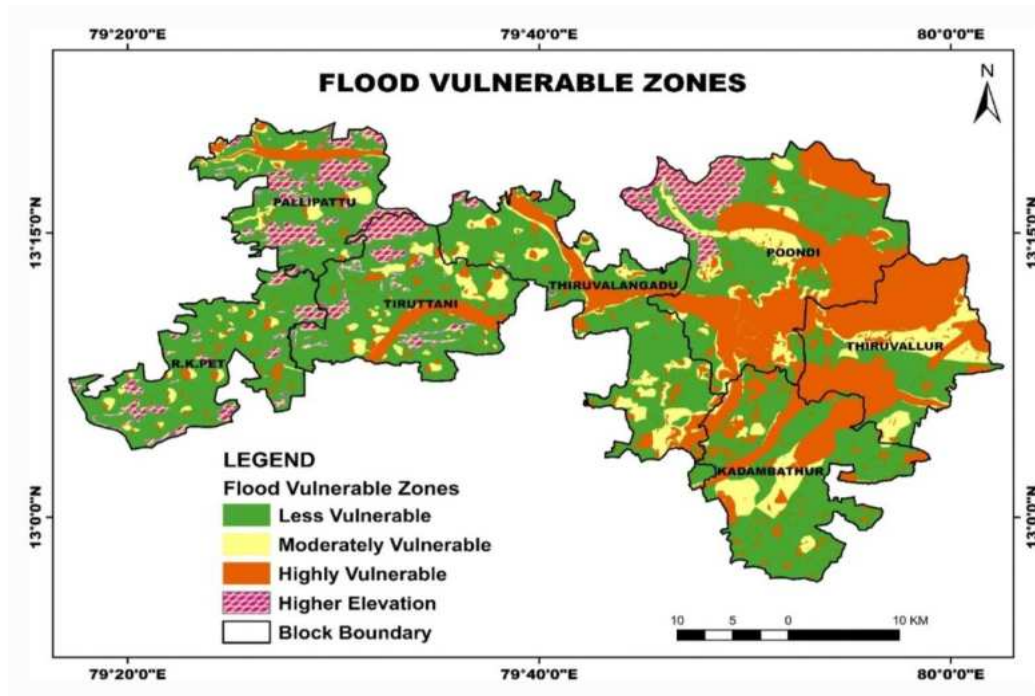
COOUM RIVER BASIN

Cooum River in Thiruvallur district spreads through Perampakkam, Sathiraikandikagai, Egattur, Aranvoyal, Korattur, Kannapalayam, Paruthipattu, Thiruverkadu, Maduravoyal, and Nerkundram

Integrated Cooum River Eco-Restoration Plan

- The Eco-restoration activities (60 subprojects) for a 27.33 km stretch of the river between Paruthipattu and the river mouth are under progress.
- The stretch of Cooum River in the urban and peri-urban areas of Chennai is being rehabilitated and restored by implementing **Cooum River Eco-Restoration Project** in which the following works are under progress through the line departments namely PWD, GCC, CMA, DRD, CMWSSB and TNSCB under the coordination of CRRT:-
- Desilting, demarcation and fixing boundary stones and bio-metric survey and improvements to the river like forming inner canal, providing rip rap cover for the inner canal with Geo textile fabric base, providing coconut blanket on the river banks to prevent erosion.
- Solid waste removal, fencing, boom deployment for collecting and removing floating and suspended debris, developing parks, cycle tracks and walkways
- Solid waste removal, fencing and developing parks
- Laying interceptors, installing modular sewage treatment plants and UGSS
- Resettlement and Rehabilitation Plan
- Mangrove development, flora plantation, community education programmes and monitoring of project implementation.
- By implementing the above scheme flood risk mitigation, environmental enhancement and ground water potential improvement are assured.
- The restoration works were started in 2016 and the Government has accorded Administrative Sanction of Rs **604.77** crores for the short-term phase of the project. The Work was completed upto Thiruverkadu and remaining work is going on.

Evaluation of possible flood vulnerable zone



GIS plays a more key role in analysing the flood vulnerability.

This kind of natural hazard cannot be avoided but can be managed successfully through proper **flood management plan**.

- The principal objective of this study was to analyse all possible resource maps to delineate the probable **flood vulnerable zones**.
- The present paper identifies the flood vulnerable zones by analysing the satellite imageries of the respective period and **GIS** enables the integration and management of multi thematic data.

Thematic layers on drainage slope, soil, geology, geomorphology, land use and land cover, lineament and zones of possible tectonic subsidence were prepared, and these layers were analysed by overlay analysis with 40 years northeast monsoon rainfall for generating possible flood vulnerable zonation map.

- A periodic and systematic inspection, rehabilitation and maintenance programme is done to ensure that the design capabilities are maintained and also restoration/strengthening of vulnerable spots.

- Sea walls/coastal protection works in the form of groynes etc. are constructed to prevent flooding erosion in coastal areas by sea water.

VERY HIGH VULNERABLE ZONES

HIGHLY VULNERABLE WITHIN 5KM RADIUS

1 PONNERI

- 1 A. Reddypalayam.
- 2 Aladu (Manopuram).
- 3 Thathamaji.
- 4 Vichoor
- 5 Perumbedukuppam
- 6 Vanjivakkam

2. AVADI

- 7 Tirunindravoor
- 8 Paruthipattu

HIGH VULNERABLE ZONES

PONNERI

- Aathipattu, PudhuNagar, VellivoyalGnayar (Pasavanpalayam)
- Sirupazhaverkadu Colony, Kadapakkam Colony
- Karungali, Kalanji, Kattupalli
Thangalperumbulam, Pazhaverkadu
- Thandal Kazhani (Samiyar Madam)
- Theerthakaraiyampattu,
- Palavoyal,
- Alinjivakkam
- Vadakarai
- Grantline
- Sirugavur

UTTUKOTTAI

- Thirukandalam.

AVADI

- Bhavani Nagar moovendhar Nagar, Thendral Nagar, Ramadasapuram North Prakash Nagar, Nadukuthagai Diliban Nagar Nadukuthagai,
- Rajeevgandhi Nagar, Kovilpathagai
- Pudhunagar, Ananda Nagar, Periyarnagar, Paleripattu
- Vettaikarapalayam, Nanthavanamettur, Kavaraipalayam, Vilinjiyambakkam

POONAMALLEE

- Amma Nagar, Ambedhkar Nagar, Santhiya Nagar, Poonamallee
- Panaiyathamman Nagar, Poonamallee
- Ayanambakkam, Koladi, Vanagaram, Noombal, Kanniyamman Nagar

REMOVAL OF ENCROACHMENTS:-

Due to anthropogenic activities there will be obstruction in water ways and even block the water ways .This is due to illegal construction of public buildings and illegal encroachments by people of different strata. Hence **removable** of the encroachments play an important role and the **relocation** in maintaining the integrity of the water ways and minimise the risks due to floods. The District will launch a special drive to remove the **encroachments on a priority basis** in all water bodies and water ways. After securing clearance from the judiciary, a massive drive has been launched to remove the encroachments in **Araniyar, Kosathalaiyar** and other river banks. The district administration will be according high priority for removal of the encroachments in the water ways and water bodies.

NON - STRUCTURAL MEASURES

- By analysing, the sufficient parameters in the GIS platform, the flood vulnerability map are generated, and the block boundaries were overlaid. The percentage of **highly vulnerable area** in **Thiruvallur, Poondi and Kadambathur** blocks Long term flood mitigation and management plan shall be developed in these blocks by quantifying the runoff and stagnant floodwater.
- The **centralized database system** for the region shall be established by collecting all relevant data from various agencies, departments, institutions etc. This common database may enable the researchers to conduct a micro level study through which site-specific mitigation plan could be arrived within the span of time.

STRUCTURAL MEASURES

ARTIFICIAL RECHARGE & RAINWATER HARVESTING STRUCTURE –

- Thiruvallur district lies within the **tropical monsoon zone**.
- The District receives an average annual rainfall of 1139.6 mm
- During north east monsoon (October to December), it receives **589.3** mm and by south west monsoon (June to September) **451.6** mm. Predominantly, the precipitation process occurs only in the form of cyclonic storms, forms in the Bay of Bengal during the north east monsoon.

MEDICAL PREPAREDNESS

- Flood associated with contamination of water, which may lead to mosquito breeding sites and electric shocks, sanitation problems diseases such as a diarrhoea, vector borne diseases malaria, dengue etc. In our district Medical preparedness for floods constitutes the following components.
- **Medical kits** will be prepared for the management of flood casualties.
- **Medical awareness** Our district has created medical awareness such DENGUE AWARENESS PROGRAMME CONDUCTED FREQUENTLY , **Hygienic practices** such as hand washing with soap and use of the toilet for defecation, use of boiled water or adding chlorine to water and safe food cooking by disease-free persons will be promoted.
- Creation of **Trained Medical First Responders and medical team** is also done for first aid and resuscitation measures for drowning cases.
- A list of trained medical and paramedical staff must also make available.
- **Patient Evacuation Plan:** Emergency medical equipment and drugs for resuscitation will be available. Trained Paramedical staff for resuscitation, triage and to maintain vital parameters like pulse, blood pressure, respiration and intravenous drip during evacuation.
- **Ambulances** will be deployed to aid in the evacuation of flood casualties collected at high points. The ambulances has Standard Operating Procedures (**SOPs**) for treatment
- **Mock drill also been conducted** about drowning in **ponneri taluk**.

- **Oxygen cylinders, life saving drugs continuous positive air pressure (CPAP) ventilators, dressing materials, blood and IV fluid** for transfusion will be stocked.
- The action will be immediately initiated for crisis expansion of required number of **beds**.
- **Portable X-ray machines**, mobile operation theatres, resuscitation equipment and life-saving drugs, etc. Resuscitation, triage and medical evacuation of victims

REAL TIME FLOOD FORECASTING AND SPATIAL DECISION SUPPORT SYSTEM FOR ARANIYAR AND KOSASTHALAIYAR RIVERS BASINS

- In order to address the recurrent floods in TIRUVALLUR DISTRICT it will be undertaking a study and implement a “Real Time Flood Forecasting and Spatial Decision Support System the river basin areas of, Kosasthalaiyar Rivers and araniyar to forecast flooding
- And help prepare various stakeholders and Government agencies involved in risk reduction as well as prepare the community.
- The entire basins of araniyar Kosasthalaiyar will be studied for their hydrology along with street flooding patterns in urban local bodies such as **Poonamalle, Avadi, Ambattur, Thiruvallur** Municipalities.
- **Real-time Telemetry / GPRS** network of stations such as Automatic Weather / Automatic Rain Gauge stations, Online lake inflow and outflow meters, River flow level meters will be installed in the entire basin areas of Cooum (489.32 Sq.km) Kosasthalaiyar (1949.32 Sq.km)
- The project envisages over Automatic weather station (AWS) / Automatic Rain Gauge (ARG) as per the National Disaster Management guidelines

Flood Response

Effective response systems at all levels-District, Taluk, block, local and community.

- **Evacuation Plan:** Evacuation of **human population and livestock** is the only prescribed means to save them from the fury of floods. Evacuation of flood affected communities can be one of the most difficult response operations, especially, when it involves large population.

- **Precautionary measure** based on warning indicators, prior to impact, in order to protect flood-threatened persons from the full effects of the disasters.
- Evacuation may also be necessary after the area has been flooded in order to move persons from a flood-affected area to safer and better surroundings.
- **Relief resources** available with the local government, public and corporate institutions for possible accessing during the emergency.

Emergency Search and Rescue

- **People-centered preventive approach** in the affected area is done always the first responder after a
- Advanced **expertise level** and **brain storming session** conducted frequently to improve flood management technically
- **Mock drill** conducted periodically to replicate real situations
- Search and Rescue Teams Community level teams will be developed in each district with basic training in search and rescue.
- **Helpline centres** are to be made available in each block unit to speedy recovery

APPLICATION

- Google based application **RESCUE ME APP** process might be undertaken, which is used to rescue the person through GIS mapping technology. In case the person struck during flood the mobile expert team will communicate to the rescue team latter the rescue team will identify missing people through GPS location based service , and addressing the needs of education, health care, water supply and sanitation, food etc. of the affected community.
- It may further used for cyclone and other disaster assist the government in identifying the most vulnerable people who may need special assistance following floods.

ONLINE UPDATION OF ESSENTIAL COMMODITIES STOCK

In future there may online updation of essential commodities of stock and mapping of cold storage units such as maintenance of MILK unit during disaster these stock may transported to vulnerable area precautiously spot

and frequent updation will help us to manage available resources and route it to exact needy

TIEUP WITH CSR

- Voluntary corporate may tie up with District administration to help the needy in exact time recently certain corporate has responded overwhelming humanitarian financial and material support

SPECIALISED TEAMS FOR RESPONSE

- **NDRF** : Specialised multi skilled teams to meet the challenges arising out of various disasters, NDRF proposes to set up specialised teams to tackle **chemical, biochemical, nuclear, and mountaineering disasters and building** collapses, future **MOU** may made with foreign company to train NDRF. **Training to volunteers** The district administration has started to set up for training more and more volunteers and spreading awareness on the different aspects of disaster management.

EMERGENCY LOGISTICS

- **Equipment Motor launches**, country boats, inflatable rubber boats, life jackets, life buoys and other equipments are made ready before the monsoon immediately after floods to carry out search and rescue of trapped people.
- **Relief Camps** The setting up of relief camps for the people whose houses have been damaged by floods and the provision of basic amenities in such camps involves logistics of **mobilising relief supplies, tents, water supply and sanitation systems, transport and communication systems**, and medical supplies.

AFTERMATH OF A FLOOD,

- **Public health response** is one of the prime responsibilities of medical authorities.
- They will ensure safe water supply and clean food availability along with maintenance of hygiene and sanitation by proper **bio-waste disposal**.
- Water testing and food inspection will be done periodically to prevent outbreak of any epidemic.
- An effective medical team and first responders will be available for urgent medical response.

- **Mortuary Facilities and disposal of Dead Bodies** DISTRICT have sufficient mortuaries to preserve the dead bodies. After proper identification, dead bodies will be immediately disposed through district authorities, to prevent outbreak of an epidemic and environmental pollution.

CYCLONE MITIGATION MEASURES:-

Tiruvallur is one of the districts which comes under Indian Classification of Cyclonic Disturbances in the North Indian Ocean (The Bay of Bengal and Arabian Sea).

PRECAUTIONARY MEASURES TO CYCLONE:

Awareness to Public regarding what to Do and Don'ts

Awareness to Public regarding what to Do and Don'ts during Cyclone and Awareness among local communities on knowledge of escape routes and relief shelters will be given. Education Department distributed Books/uniforms/other learning aids for school children as soon as possible in the relief camps itself, as was done in 2015. This had resulted in maintaining learning outcomes/exam results.

Do's:

- People should Keep radio/television on and listen to latest weather warnings and advisories. Pass the information to others
- People should Pass only the official information you have got from the Radio/TV to others.
- Strong winds can break windows/doors, so People should keep them secured.
- Get away from low-lying beaches or other locations which may be swept by high tides or storm waves. Leave sufficiently early before your way to the high ground gets flooded. Do not delay and run the risk of being marooned
- If house is out of danger from high tides and flooding from the river and it is well built, it is then probably the best place.

- Be alert for high water in areas where streams of rivers may flood due to heavy rains.
- Get extra food, especially things which can be eaten without cooking or with very little preparation. Store extra drinking water in suitably covered vessel.
- People should remain in shelters until informed by those in charge that you may return home
- People should keep away from disaster areas unless you are required to assist.

Don'ts:

1. People should not go outside until officially advised safe.
2. Avoid being misled by rumours

PREPAREDNESS, RELIEF AND REHABILITATION
CYCLONE SHELTERS

4. At a community level, the District Administration has provided Cyclone Shelters and Multi-Purpose Evacuation Shelters. Further, Public Buildings, Choultries, Community Halls and buildings owned by various private educational institutions have also be identified for use as cyclone shelters, for evacuation and temporary occupation.
5. Sufficient Rescue Shelters are opened to feed people. Food, drinking water and other basic amenities to be provided to the inmates of the relief camps. Milk is provided to the Children below 5 years in the relief camps.
6. Toilet facilities and Lighting arrangements are also made at the relief camps.

SPECIAL MEDICAL CAMPS - Special Medical Camps to be conducted in all the Rescue Shelters. Temporary Medical camps will be organized to prevent spreading of water-borne diseases like diarrhoea etc.,

WATER SUPPLY

Gen-sets and water supply Lorries are put in place to provide potable water to the public across the District. Chlorination of water will be done all over the District meticulously.

TRANSPORTION

In all 500 workers drawn from Municipalities, Town Panchayats and Village Panchayats in Tiruvallur District with power saw, Lorries and JCB will be pressed into service to remove the debris and branches of trees to restore the traffic and bounce back to normalcy.

ELECTRICITY

2000 officials in the cadre of Executive Engineers, Assistant Executive Engineer, Wiremen and Helpers with JCB and lorries will be involved to restore electricity in the affected areas. Power supplies were turned off during cyclonic storms.

DIESEL GENERATORS

Enough Number of Diesel Generators Should be made available at village level. Sufficient diesel/oil stock with power/oil/telecom companies with proper storage facilities at safe locations.

FIRST RESPONDERS

Volunteers with skills of swimming and climbing are enrolled as first responders in each vulnerable area. A total of 1499 first responders team were formed. Mobile teams of snake catchers were also formed.

Alternate livelihood opportunities for fishing and farming community during such disasters, periodical revision and updation of District Disaster Management Plan (DDMP), strengthening of the SDRF, Fire and Rescue Services and other agencies engaged in response and rescue, creation of a pool of multi-skilled trained volunteers at district and village level, are some of the other important recommendations.

FISHERMEN SAFETY

A census for fishing communities' year on year or at least once in a few years to track the number of fishermen and boats venturing into the sea will be done. All fishermen therefore have to be educated about the importance of registering with the government. That has to be a mechanism in place whereby fishermen can intimate authorities before venturing into the sea.

DISTRESS ALERT TRANSMITTER

The Tamilnadu government has introduced a scheme of supplying distress alert transmitter, a satellite-based distress transmission device with 90% subsidy assistance for mechanised fishing boats and the same will be implemented the scheme in our district successfully. These distress alert transmitters will be made mandatory.

EARLY WARNING SYSTEMS

Early Warning Systems and information dissemination systems like Tamil Nadu System for Multi-Hazard Impact Assessment, Alert and Emergency Response Planning and Tracking (TNSMART).

In Tiruvallur District under the **Early Warning System**, it has been proposed to provide Disaster Warning Announcement System to remote locations for all habitations of Coastal area classified as **DWAS-Remote site**. The DWAS-R unit has the capability to send out Siren Warning tone audible over 1 km radius and clearly audible warning voice message over a minimum of 700 m radius. One **DWAS- Disaster Warning Announcement System** (DWAS-D) unit has been proposed to set up in District Head Quarters controlled by “Central Unit (DWAS-C) at State Emergency Operation Centre.

TO AVOID HUT DAMAGES

Hazard Risk Vulnerability Assessment

- Hazard Risk Vulnerability Assessment (HRVA) needs to be done on priority basis for all districts. As a matter of practice, the kit of relief articles to be distributed during disasters to affected households, should be prepared in advance.
- **Institutional mechanism** and **Standard Operating Procedures** need to be formulated for seeking assistance from neighbouring districts and states.
- Provision for underground cabling in coastal areas to prevent disruption of power supply.

- The districts should have the District Disaster Management Plan (DDMP) with periodic revision. Business Continuity **Planning for B2B and B2G** can be encouraged for essential sectors. Universal accessible designs need to be implemented in all Multi-Purpose Cyclone Shelters.

DROUGHT MITIGATION:-

Thiruvallur is dependent on north east monsoon majorly and exposed to the least risks of drought due to agroclimatic changes, in Vagaries of monsoon as well as sea water incursion, anthropogenic interventions such as depletion of ground water resources. Northeast Monsoon is associated with cyclones and low pressure in the East Coast and benefits the State along the east coast with its short duration high-intensity rains. Though such least risk of drought condition our district has planned and created resilient infrastructure.

MUMMARI – A UNIQUE INITIATIVE ACROSS TIRUVALLUR

“Crystal clear, everlasting water body, surrounded with plains, mountains and cool dense forest forms a protective Kingdom”.

- In a bid to follow the great saints the seasonal rain could be sustained and this will bring about the prevention of traditional water bodies from seasonal drought.
- Hence only the terminology “Mummari” has been evolved. Under this scheme the traditional water bodies in Tiruvallur District has been chalked out by the District Collector
- By calling upon interested people from all **communities** such as Villagers, Individual persons, Voluntary Organisation - NGOs, companies, factories with CSR and CER to take up the rejuvenation of the water bodies.

- The outcome is that, total orders were issued for 125 tanks out of which 79 tanks were completed and 46 tanks are Ongoing. 472500 Cu.m, of silt removed. This year a quantity of 16.69 Mcft. of Water is stored
- **Through this initiative we shall save each and every drop of rain water for us and our future generation and eradication of drought.**

GREEN BELT DEVELOPMENT TREE PLANTATION DISTRICT INITIATIVE

ADAR VANAM

- **ADARVANAM (SOLAI) – ANCIENT TRADITION OF NATURAL CONSERVATION Sacred Groves** responds to climate change.
- A Sacred Groves is a small patch of land with a few particular type of trees.
- Local community keeps the area untouched and they protect it as a holy place where usually we get rainfall.
- Impact of Adarvanam- The vegetation of Adarvanam prevents soil erosion **increase the soil fertility, increases water storing capacity and attracts rainfall.**
- Helps to build dense, native forests.
- The approach is supposed to ensure that plant growth is 10 times faster and the resulting plantation is 30 times denser than usual.
- **This dense cool, shady forest creates a micro environment and provides a local conducive environment for rainfall-brings at least three rainfall per month.**

MICRO IRRIGATION UNDER PMKSY - MORE CROPS PER DROP

- Water being the vital input, Our district has well recognized the importance of Micro Irrigation Scheme

- The benefit extending **100%** subsidy to Small/Marginal farmers and **75%** subsidy to other farmers In order to encourage more small farmers to install drip and sprinkler irrigation systems.
- Drip irrigation is a type of micro-irrigation system that has the potential to save water and nutrients by allowing water to drip slowly to the roots of plants Increase the area under **MI technologies** to enhance water use efficiency Increase the productivity of crops
- Promote MI technologies in water intensive/consuming crops like Sugarcane, banana, etc and give adequate focus to extend coverage of field crops under MI technologies.
- Through this we can **DOUBLE THE FARMERS INCOME 2022** by precision water management.

IRRIGATED AGRICULTURAL MODERNISATION PROJECT

- Tamil Nadu Irrigated Agricultural Modernisation Project is a massive effort which will serve Flood & Drought Mitigation together with its major component of rehabilitation of water bodies.
- The project also promotes water conservation/ management through Micro Irrigation, Agriculture, Horticulture and Animal Husbandry Fisheries components.
- The IAMWARM Project II -The scheme was implementation in **Tiruttani, Pallipet & Ponneri Taluks** in Thiruvallur District. 21 Tanks & its Supply channels have been taken up for execution to restore the Original position
- This will help us to mitigate drought as well as to serve the flood control purposes.

MGNREGS

- It serves drought proofing as well as for flood prevention.
- The Farm ponds and Percolation Ponds taken up under MGNREGS help to conserve water and aid in water harvesting.
- The construction, **repair of canals, diversion drains, feeder channels**, etc. help to stabilise irrigation under tanks systems.

- The **afforestation** (including plantation / necessary) provides drought proofing and **moderates heat waves**. The MGNREGS will be judiciously utilised to reduce the adverse impacts of droughts.

PROTECTION OF COASTAL ECOSYSTEM

In coastal ecosystems, which include coral reefs, mangroves and seagrass beds, are threatened by a number of factors including unsustainable development and fishing practices. Therefore, there is an urgent need to conserve, protect and restore coastal and marine ecosystems, to secure back the multiple ecosystem services rendered by them. The Government proposes to continue schemes for Protection and Conservation of important coastal vulnerable zones like **pulicat, Thirupalaivanam, pakkam, andalmadam, thathamani** and protection of Bird sanctuary in **Pazhaverkaadu** Sanctuary during 2018-2030 and the coming years.

FIRE ACCIDENTS

Thiruvallur comes under very high risk category due to high population density and industrial area In order to enhance the preparedness of the Fire & Rescue Services Department the Government have been strengthening the department by procuring modern equipment which play a significant role in dousing the fires quickly. The Fire Services Training Institute will also be strengthened in the years to come to build the capacity of personnel of the department as well as act as a nodal agency for building the capacity of **SEARCH AND RESCUE COMMITTEE** has been formed **6 team and 12 members**.

EARTH QUAKE

- The District is located in Zone II of seismic vulnerability as captured in the Vulnerability Atlas. Earthquakes and tsunamis are inevitable. A rapid response to a damaging earthquake will reduce the loss of life, lessen the complications that stem from injuries and secondary damage, and expedite relief to victims.
- Reliable and up-to-date information can have an impact on the mitigation of risk and prevention of disaster.
- Pre-earthquake phase, preparedness, mitigation and prevention are concepts to work on. Post-disaster, immediate rescue and relief

measures including temporary sheltering soon after an earthquake until about 3 months later and re-construction and re-habilitation measures for a period of about sixmonths to three years need to follow.

- To encapsulate, the most effective measures of risk reduction are pre-disaster mitigation, preparedness and preventive measures to reduce vulnerability and expeditious, effective rescue and relief actions immediately after the occurrence of the earthquake.
- Depending upon the calamity and its consequences, strategies can also be divided into long term (five to fifteen years), medium term (one to five years) and short term (to be taken up immediately in high risk areas).
- Since it has been realized that earthquakes don't kill people but faulty constructed buildings do, the task of reducing vulnerability of structures and buildings will be the key to earthquake risk reduction.

TSUNAMI MITIGATION MEASURES

A tsunami cannot be precisely predicted, even if the magnitude and location of an earthquake is known. Geologists, oceanographers, and seismologists analyse each earthquake and based on many factors may or may not issue a tsunami warning.

However, there are some warning signs of an impending tsunami, and automated systems can provide warnings immediately after an earthquake in time to save lives. One of the most successful systems uses bottom pressure sensors, attached to buoys, which constantly monitor the pressure of the overlying water column.

Regions with a high tsunami risk typically use tsunami warning systems to warn the population before the wave reaches land. On the west coast of the United States, which is prone to Pacific Ocean tsunami, warning signs indicate evacuation routes.

- A **tsunami warning system (TWS)** is used to detect tsunamis in advance and issue warnings to prevent loss of life and damage to property.
- It is made up of two equally important components: a **network of sensors** to detect tsunamis and a **communications infrastructure to issue** timely alarms to permit evacuation of the coastal areas.
- When operating, seismic alerts are used to instigate the watches and warnings; then, data from observed sea level height (either shore-based tide gauges or DART buoys) are used to verify the existence of a tsunami.
- Other systems have been proposed to augment the warning procedures; for example, it has been suggested that the duration and frequency content of t-wave energy (which is earthquake energy trapped in the ocean SOFAR channel) is indicative of an earthquake's tsunami potential.
- The **Indian Ocean Tsunami Warning System** is a tsunami warning system set up to provide warning to inhabitants of nations bordering the Indian Ocean of approaching tsunamis.
- Regional (or local) warning system centers use **seismic data** about nearby recent earthquakes to determine if there is a possible local threat of a tsunami. Such systems are capable of issuing warnings to the general public (via public address systems and sirens) in less than **15 minutes**

- As Tiruvallur District is concerned there were 3 coastal taluks and as per analysis of Mean Sea level of Tiruvallur there are 77 villages of 3 coastal taluks like Thiruvottiyur ,Avurivakkam, Pulicat .Most deaths caused by tsunami are because of drowning. Associated risks include flooding, contamination of drinking water, fires from ruptured tanks or gas lines, and the loss of vital community infrastructure.

AWARENESS

- Official warnings are broadcast through radio, TV, and wireless emergency alerts. They may also come through outdoor sirens, officials, text message alerts, and telephone notifications.

<p>Warning Take Action—Danger! A tsunami that may cause widespread flooding is expected or occurring. Dangerous coastal flooding and powerful currents are possible and may continue for several hours or days after initial arrival. Follow instructions from local officials. Evacuation is recommended. Move to high ground or inland.</p>	<p>Advisory Take Action—A tsunami with potential for strong currents or waves dangerous to those in or very near the water is expected or occurring. There may be flooding of beach and harbor areas. Stay out of the water and away from beaches and waterways. Follow instructions from local officials.</p>
<p>Watch Be Aware—A distant earthquake has occurred. A tsunami is possible. Stay tuned for more information. Be prepared to take action if necessary.</p>	<p>Information Statement Relax—An earthquake has occurred, or a tsunami warning, advisory or watch has been issued for another part of the ocean. Most information statements indicate there is no threat of a destructive tsunami.</p>

RELIEF AND EVACUATION

- All arrangements have been made in the relief centres to provide food packets to the persons housed in the centres from dawn to dusk. Food materials will be arranged locally and food packets will be prepared and

distributed to the affected persons who have been lodged in the relief centres.

CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR (CBRN)

DISASTER PREVENTION

DISTRICT CRISIS GROUPS

- As per chemical accidents (emergency planning preparedness and response) RULES 1996 **District Crisis Groups** has been formed with DISTRICT COLLECTOR as a chair person and 20 members.

PREVENTIVE MEASURES TO BE TAKEN BY INDUSTRIES

- **Emergency Response and Disaster Management Plan (both Offsite and Onsite)** are being submitted by the Industries each year to the District Administration.

AWARENESS GENERATION

Offsite

- Emergency drills and mock exercises once in **12** months Fire mock drills conducted **monthly**
- Annual off-site disaster drill is conducted with participation of **District Administration , fire service, police department, medical service, transport department, civil defense organization and multi aid group**

Onsite

- Testing and mock drills for onsite emergency plan shall be carried out once in **3 months**
- Annual mock drill can be carried out in location having more than one industry member .
- These mock drills will enable the unit/location to access the capability of the individual and performance as the group.
- **As a result** it will Promote culture of disaster risk prevention, mitigation, and better risk management
- Promote attitude and behavior change in the awareness campaigns/ IEC

- use of insurance/ risk transfer being promoted
- Strengthening network of civil society organizations for awareness generation about DRR and DM done
- Focusing on safety and compliance with SOP at workplace for workers
- Protection of disaster-affected animals

Early warning alarm system - installation

- Early warning alarm system installation is ensured for Gas monitoring sensor are provided at vulnerable location ,heat detection system for fire fighting , high level alarms for storage bullets are installed.

Fire Alarm System should be installed in all the Industries at appropriate locations like access points, approach roads, walkways etc.

Automatic gas detection system and automatic Shut off System, Emergency Trip Buttons, Manual Call Buttons have to be available in the appropriate companies.

Solid waste Management by Industries

The Municipal Solid wastes generated from the local bodies in and around Gummidipoondi were disposed/dumped haphazardly on road/river/eri etc and the same was frequently burnt by the rag pickers. In order to manage the indiscrimination of solid waste disposal, the District Collector has taken effective steps to install one Pyrolator through CSR activities and the same is installed at SIPCOT Industrial Complex, Gummidipoondi and Tiruvallur District. Presently the daily generation of mixed solid waste from the local body is disposed through said Pyrolator and the same is under trial run.

Common Hazardous Waste Treatment And Disposal Facility at Sipcot Industrial Complex Gummidipoondi - As of now about 4.83 Lakh metric ton of hazardous wastes are Landfilled.

INCINERATOR IN TNWML, GUMMUDIPOONDI



- There are about 3006 members registered in the facility out of which 1163 authorized members are utilizing the facility.
- The Hazardous Waste generated such as **land fillable waste and Incinerable wastes** are disposed through this facility
- Tamil Nadu Waste Management Limited (TNWML) has constructed double liner composite system landfill to dispose the land fillable wastes.
- There are three disposal pathways. Direct landfill, landfill after treatment and incineration.

Treatment of Sewage - Sewage generated from the industries is treated in the sewage treatment plant, Treated sewage is utilised for on land for gardening and the remaining 2121 KLD is utilized for toilet flushing.

THE MEASURES TAKEN FOR CONTROLLING AIR POLLUTION FROM INDUSTRIES

Air Pollution Control - 596 industries are required to provide air pollution control measures and they have provided them.

- **Monitoring** Emission standards have been notified under the Environment (Protection) Act, 1986 to check pollution.
- Industries have been directed to install necessary **pollution control equipment** in a time bound manner and legal action has been initiated against the defaulting units.
- Polluted areas like **Ponneri, Gummidipoondi, and Avadi** have been identified. Action plans have been formulated for restoration of environmental quality in these areas.
- **Environmental clearance** is made compulsory for 29 categories of development projects involving public hearing/NGO participation as an important component of Environmental Impact Assessment process.
- The process of Environment Auditing has been initiated in highly polluting industries. The methodology has been standardised and finalised for respective group of industries. Submission of Environmental Statement has been made mandatory.
- Industries are monitored to follow National air quality index standards under the Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act 1986.
- Fly ash possesses good pozzolonic properties due to presence of active and finely divided silica, alumina and calcium oxide, which provide it with cement like qualities in combination with lime rich material. Thus fly ash

emitted by thermal power plants can be used for manufacturing bricks, blacks, aggregates and cement production.

- Use of cleaner technologies is a new dimension emerging rapidly for cleaner production and to increase production efficiency, and at the same time eliminate or at least minimize emission and waste at their source rather than to treat them at the end of the production chain after they are generated.
- Industrial wastes like slags, red mud etc. are generated from iron and steel and during extraction of non-ferrous metals such as aluminium and copper. The slags are dumped in the vicinity of plant while red mud is disposed as slurry.
- This slurry becomes air borne after getting dried. In phosphoric fertilizer plants about 4.5 million tonnes of phospho-gypsum (with fluoride contents 0.7 to 1.5 %) are produced. This can be used for cement, gypsum board, partition panel, ceiling tiles, artificial marble and fibre boards. The thrust will have to be made for proper disposal and reutilisation of these waste materials.

PREVENTIVE MEASURES IN CASE OF OIL SPILLAGE- UNDERGROUND PIPELINES

Tiruvallur District falling under this category because of the manufacture / storage of highly inflammable petroleum / petro-chemical products in large quantities. **There are underground pipelines carrying petroleum products across the District.**

In all cases extreme care is to be taken to avoid spillage of products to avoid formation flammable vapours. Following should be ensured to avoid Spillage.

- a. Arrest the leakages from Leakage sources such as flanges, tanks, valves, pipelines etc.
- b. Preventive maintenance to ensure integrity of the equipment should be carried out periodically as per standard operating

procedures and maintenance schedule specified by OEM/ISO manuals.

- c. Based on the risk analysis the preventive measures for the possible affected areas to be decided.
- d. Emergency Response & Disaster Management plan should be formulated based on the observations of Risk analysis.
- e. The evacuation arrangements & procedure to be followed.

SUGGESTED APPROACH METHODOLOGY:

- a. In case of spillage of oil in tank dyke area, close all the drain/dyke valves to avoid spread of oil.
- b. Apply foam through MX foam generators/foam cum water monitors (Fixed or trolley/foam tender mounted)
- c. In case of generation of vapour cloud, evacuate the area as per the risk analysis guidelines. Stop all the activities such as welding/cutting etc. to prevent ignition of vapour cloud.
- d. Approach the site from upwind side.
- e. Apply the water in form of spray from monitors (foam cum water monitors) on the vapour cloud to disperse/dilute the vapours.
- f. In case of fire.
 - I Approach from upwind direction.
 - Start cooling of nearby tanks & affected tank by means of sprinkler system.
 - Apply foam by means of MX foam generators/Foam cum water monitors (Fixed or trolley/foam tender mounted)
 - Evacuate the personnel from the area.
 - Safety Committee Meetings should be conducted by industries on monthly basis.

INSPECTIONS

Monthly inspections have to be conducted by Administration to ensure the safety of the insustries and reports to be obtained.

SHELTERS, EVACUATION, AND SUPPORT FACILITIES

- Shelters provided with basic facilities like drinking water and first aid for chemical exposure
- Ensuring **water storage facilities** and sources for water for accident containment and firefighting operations
- Ensuring wide roads and multiple routes in the industrial area to allow quick access by **first responders** and to ensure escape pathways
- Establishment of **decontamination facilities** for off-site emergencies at all of MAH units

DISASTER PREVENTIVE MEASURES - KAMARAJAR PORT LIMITED

Indian ports have strategic naval and Coast guard facilities co-located with them

CHEMICAL DISASTER:-

In case of accidental release of a quantity of toxic chemicals into environment, resulting in death or injury to workers or members of nearby communities, then it is a case of chemical Disaster.

- In the event of a chemical Disaster, the Unit commander/control Room In-charge will immediately contact **The Disaster Magistrate, Thiruvallur and CISF** Higher Formation.
- If required shall inform The Nodal Ministry for chemical Disaster i.e. Ministry of Environment, Forest and climate change.
- The medical officer with their team and ambulance including first aid kit will assemble at site and provide assistance if needed

QUICK RESPONSE TEAM

- The mission of quick response team of the port security unit will provide teams of tactically trained security personnel to deal with the management of any security threats as well as high risk and volatile situation
- They are trained to do dynamic entries into buildings, rescue of persons including hostage rescue, vehicle and vessel assaults and other dynamic situations

DRILLS AND EXERCISES

- The objective of drills and exercises is to ensure that port security personnel and staff are proficient in all assigned security duties, at all security levels and to identify any security related deficiencies which needed to be addressed
- Various types of drills will be conducted in conjunction with **Government of India, Indian navy, Indian coast guard, Customs**, Immigration authorities, employee of port facility, company security officers, and ship security officers.
- Both **onshore drills and offshore** drills will be conducted once in **12 months**.

MITIGATION MEASURES

Mitigation measures against Tsunami and storm for further improvement of safety measures in reactor systems.

- **Bio Shield** :A bio-shield formed by planting a vegetation belt along coastlines would protect the region against coastal storms, cyclones and Tsunamis. The plantations could absorb the force of severe storms and Tsunamis, and it could act as a '**carbon sink**' by absorbing emissions of the greenhouse gas. The coastal front comprises beaches, sand dunes, head lands, creeks/river, and rocky cliffs.
- **Mangroves**:Mangroves are often recognized as the best defenses against wind, waves and erosion by deflecting and absorbing much of the energy of winds hence, Forest department encourages afforestation of Mangroves. Because of planting suitable species of mangroves along the coastline, during 2004 Tsunami, the fishing hamlets located on the leeward side of the **Pitchavaram** were totally safe without any traces of Tsunami. Therefore, Kamarajar Port may explore the suitability of their location to plant mangroves in consultation with Forest department.
- **Planting of Casuarinas**: Casuarinas equisetifolia is the most popular farm forestry tree in the coastal lands of Mainland India. In coastal front would provide substantial protection to the project region from the impacts of storm surges and Tsunami. Hence the

water level rise during a Tsunami or storm will not have any major impact in this region.

EMERGENCY EVACUATION

- Evacuation of people from risk areas is the **first priority** when early warning is received or the natural warning sign indicates the immediate arrival of cyclone, Tsunami wave or rise of storm surge.
- Evacuation plan describes **the time span** available before and during the Tsunami or storm surge event.
- The primary objective should be bringing as many people as possible out of the reach of the wave's impact to safe or '**relatively safe**' areas. Therefore necessary steps will be taken in advance to enable and support the community at risk to protect themselves at any time. **Two Cyclone shelters** per cluster must be provided along the region of port

VIGILANT ONLINE MONITORING

- Live contact will be kept with the organizations indicated above to transmit the instant warning on occurrence of cyclone, Tsunami and storm surge.
- The vigilant team will monitor the warning systems around the clock.
- The vigilant team will have proper knowledge about the warning systems by attending the training programs conducted by the Tsunami warning centres.
- Operational and emergency preparedness procedures will be planned meticulously in order to act on the warning and to disseminate it rapidly and effectively to the public.

10. BUILD BACK BETTER

Build Back Better strategy is to deliver best with available resources and to implement within the limited time.

Necessary pre- arrangements are made at Taluk level by the Tahsildars concerned with the assistance of local Police, Fire, PWD, Health, Co-operative, Transport Corporation, Electricity and NGOS for the provision of shelters for the evacuation of the victims and providing relief for house damages, organizing food and medicines for them.

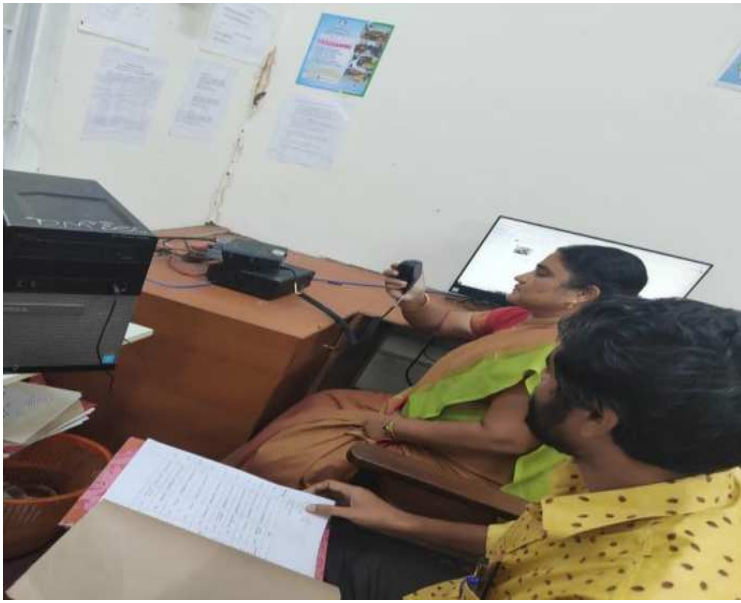
Effective statistics are formulated at District and Taluk Level for the earlier restoration of power, repairing the damaged tanks and roads and restoration of transport facilities in the affected areas.

The Cyclone Shelters (**Vairavankuppam and Kattupalli in Ponneri Taluk**), Multipurpose Evacuation Shelters (**Thirupalaivanam, Pallipalayam and Andarmadam, in Ponneri Taluk and Elavur -I , Elavur- II Methipalayam in Gummidipoondi Taluk) and 660 Temporary Shelters** are readily available with basic amenities for accommodating flood affected people.

STRENGTHENING OF EMERGENCY OPERATION CENTRES.

The DEOC are equipped with multi communication facilities like VHF, mobile telephony etc., for generating vital information during pre-disaster and during disaster phases to effectively communicate the risks to community as early as possible.

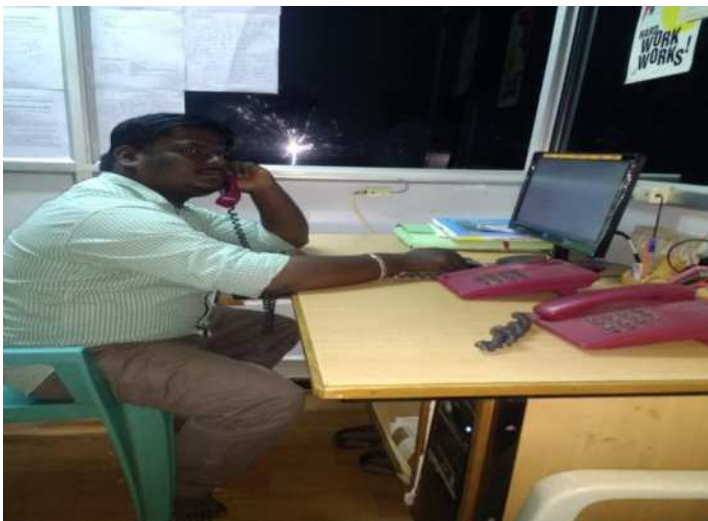
The EOCs at Taluk level has been improved to facilitate for dissemination of information at all levels from the State to local level, by adding wireless communication sets Internet telephony, Ham radios, Satellite Phone etc., so that communication is uninterrupted even during power outages.



VHF - BASE STATION AT DEOC TIRUVALLUR



VSAT - DEOC, Tiruvallur



IP -Phone - Collectorate, Tiruvallur



HAM RADIO - Collectorate, Tiruvallur

SUSTAINABLE AGRICULTURAL DEVELOPMENT

*** Mission for Sustainable Dry Land Agriculture,**

Objectives of the Project:

- A. Focused engineering activities to overcome Soil Moisture Stress.
- B. Rainwater Harvesting Structures for efficient harvest and storage of rain water.
- C. Motivating Farmers to use of Drought Resistant, Short duration crops / Varieties.
- D. Technology to overcome moisture stress from sowing to harvest.
- E. Activities enriching Soil Health with application of manures and fertilizers.
- F. Collectivizing of farmers to enhance bargaining power of farmers while marketing farm produce.
- G. Value addition for higher price realization.
- H. Improving Socio – Economic status of Farmers.

MGNREGS:

Improving inflow Channels, Tree Planting, Watershed Development. In every Village there are lot of water bodies are available for desilting. Desilting of supply channels/ M1 Channels is taken up under MGNREGS. The channels are cleaned by the workers there by the rain water flows through the channel to the main water body. This increases the water table along the route. Because of the cleaning of channels flooding of an area near to the channel is avoided. Tree Plantation is taken up in a massive scale. This helps in preventing erosion and also helps in maintaining ecological balance and helps in reducing global warming.

INTEGRATED WATERSHED MANAGEMENT PROCESS

In, District Watershed Development Agency, Tiruvallur, the Natural Resource Management works are being carried out under PMKSY (Watershed Development). Sanctioned works such as Check dam, Recharge shaft, Percolation pond, Farm pond, Supply channel, Cattle pond and Renovation of pond are completed .

10. MAINSTREAMING DISASTER RISK REDUCTION INTO DEVELOPMENTAL PLANNING

Mainstreaming Disaster Management into the development planning process has the following purpose.

1. To make certain that all the development programmes and projects that originate from or funded by the Government will have a consideration for reducing the risks.
2. To make certain that all the development programmes and projects that originate from or are funded by the Government do not inadvertently increase vulnerability to disaster in all sectors; social, physical, economic and environment.
3. To make certain that all the disaster relief and rehabilitation programmes and projects that originate or are funded by the Government are designed to contribute to development aims and to reduce future disaster risk.
4. To make certain that area specific plan (prone to disasters) are prepared so as to enable the convergence of all future development programmes and projects to reduce the risks.

A study in the above subject has been conducted by Assistant Collector, Training Thiru.Kamal Kishore in Minjur Block, Ponneri Taluk of Tiruvallur District.

Drought affects all parts of our environment as well as our communities. Different types of droughts have varying economic, environmental and social impacts.

Due to high temporal and spatial variability in rainfall and wide variations in physiographic and climatic conditions, droughts are experienced in varying intensities (moderate or severe) almost every year irrespective of a good monsoon.

The National Commission on Agriculture classifies droughts as Meteorological, agricultural and hydrological based on the concept of its utilization. While it is difficult to demarcate the onset and end of drought, the impacts can be severe affecting the poorest and most deprived sections of the society.

Several policy measures undertaken by the Government help in building capacity for drought prevention, preparedness, mitigation and management.

This has also led to a shift in perception of droughts from a crisis of an urgent nature" to a management issue.

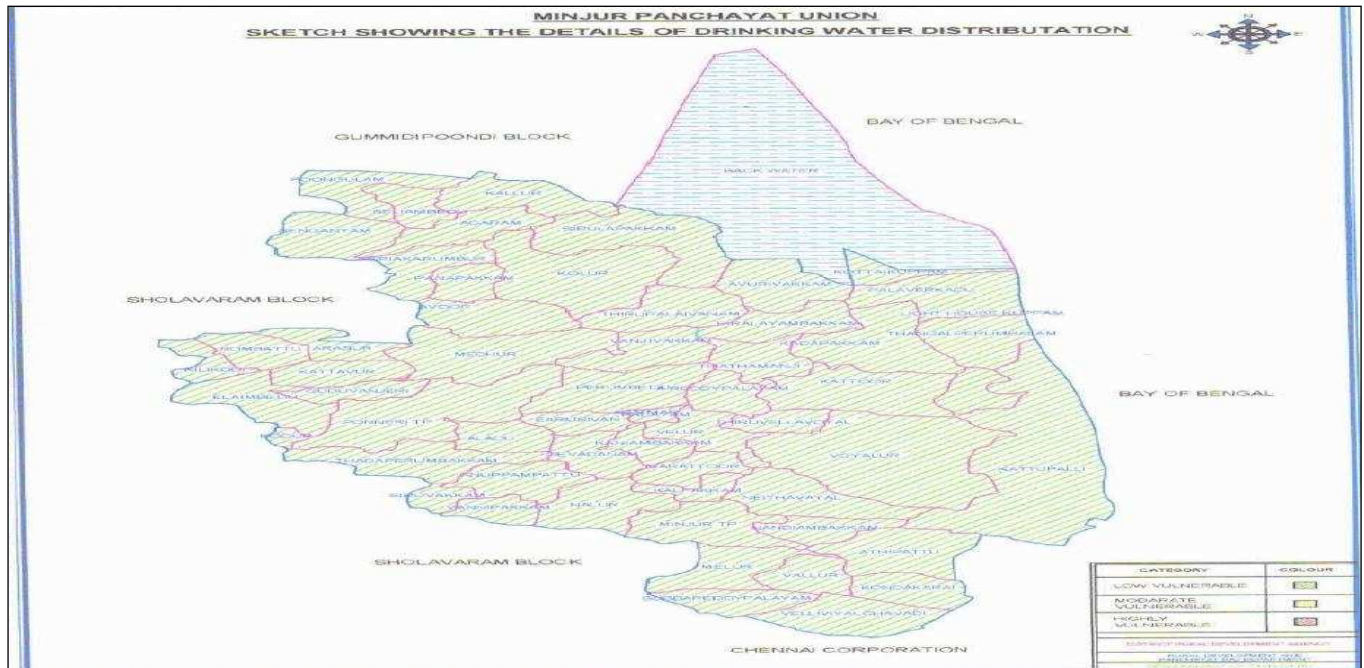
Mainstreaming of drought management in development plans will have to be looked from the following angles

- 1) Shortage of drinking water
- 2) Crop loss due to insufficient irrigation
- 3) Loss of Employment
- 4) Shortage of fodder for cattles

SHORTAGE OF DRINKING WATER

The main reason for drought is the deficiency in rain fall. **Conservation of water** and its judicious use is one of the important ways to manage drought. **Recharging the ground water table** is another important thing. Mainstreaming drought management calls for incorporating **structural** and **non-structural** measures in development plans.

As far as Minjur block is concerned, 22 villages are affected by drought in 2017. These villages are Agaram, Annamalaicheri, avurivakkam, chinnaveppathur, Enjur, Kanavanthurai, kankanimedu, keerapakkam, Mangodu, pakkam, prelayapakkam1, prelayapakkam2, periyaveppathur, pungulam, seliyambedu, sirulapakkam, sirupalaverkadu, Thangalperumbulam, uppunevayal, Voyalur1, Voyalur2 and voyalur3.



The **structural measures** will include

- 1) Constructing ground water recharging structures like recharge pits, percolation tanks, check dams, ponds etc
- 2) Desilting and widening of existing water bodies to enable them to store more water. There are 100 MI tanks and 397 ponds maintained by RD department in this block
- 3) Removal of ipomoea, water hyacinth and Seemai karuvelam from water bodies
- 4) Converting defunct bore wells into recharge shafts.
- 5) Attending leakages caused by pipe burst in a time bound manner.
- 6) Repairs to bore wells including replacement of hand pump/motor
- 7) Deepening of open wells and flushing of existing bore wells
- 8) Construction of rain water harvesting structures
- 9) Massive tree plantation in drought prone areas.

Some of the existing schemes with PWD, Rural Development, Agricultural department and Forest Department can be used for this purpose. Convergence of schemes can also be done to achieve this.

1) MGNREGS:

The MI tanks in the vulnerable villages in Minjur block can be desilted and widened through this scheme. CSR funds from industries like Kamarajar port limited, Ennore Thermal Power Station etc can be used to provide machines to desilt the tanks properly. Then the silt can be deposited on the shores to strengthen the bund by using the labour component under MGNREGS. Similarly, CSR funds can also be channelized for converting defunct bore wells into recharge shafts

2) THAI II SCHEME:

This scheme allows the de-silting of MI tanks under the control of Panchayaths. This scheme can be utilized for de-silting the MI ponds in vulnerable villages of Minjur block.

3) IAMWARM II:

Water Resources Department of PWD coordinates this project which includes 7 line departments.

It promotes integrated water resources management approach. Araniyar river basin is prone to flooding. There are many system tanks in this region maintained by PWD.

These tanks can be desilted under this scheme especially in vulnerable areas like Manopuram, Alad, Thathamaji, Avutivakkam, keerapakkam etc.

5) IAY:

Construction of houses under IAY can be converged with CSR funds to provide rain water harvesting structures in all the drought prone villages.

6) CDDRP:

This project assisted by World Bank aims to reduce the vulnerability of coastal villages to natural disasters. Under this, various components are there like CBDRM. Basic amenities like facility for drinking water can be taken under this.

7) TREE PLANTATION:

Forest department has various schemes for tree plantation. Latest is the plan for planting 69 lakhs trees throughout the state. Massive tree plantation drive can be done in above mentioned drought prone villages. Labour component of MGNREGA can be converged for this purpose. Compensatory Afforestation Management Authority (CAMPA) scheme can also be used for tree plantation.

8) DAM REHABILITATION AND IMPROVEMENT PROJECT:

Agricultural engineering department implements this project. It can be effectively converged with PWD schemes to rehabilitate existing water storage structures.

9) RAIN WATER HARVESTING AND RUN OFF MANAGEMENT PROGRAM:

This scheme by Agricultural engineering department can be utilized for promoting rainwater harvesting methods in drought prone area in Minjur block.

10) SETTING UP OF EMERGENCY OPERATION CENTRE:

Setting up of DEOC and its round the clock functioning is important in coordinating the relief works during disasters.

11) SETTING UP OF DESALINATION PLANTS

In water scarce coastal regions of Minjur block has to be examined. There is a large and highly efficient Desalination plant working in Koodankulam Nuclear Power Plant (KKNPP) complex which caters to the drinking purpose of all people in residing inside the complex. It works on Israel Technology. Viability of something similar can be explored in coastal areas of Tiruvallur District. CSR funds of many industrial organisations can be converged to make it a reality.

Following **NON-STRUCTURAL MEASURES** can be adopted to mitigate the vulnerability to drought

1.Awareness Programmes for people about the need for water conservation. These programs can be made a part of school curriculum under Sarva Sikhsha Abhiyan. NGOs and Voluntary Organizations can be roped in too. Dissemination of awareness messages through print and visual media is also of utmost importance.

2.A Water budgeting scheme can be done to identify and understand the gap between requirement of water and its actual usage in a watershed area. TAWDEVA's expertise and funds available with them under various schemes can be utilized for this purpose.

3. Traditional knowledge about drought proofing can be tapped. For example mulching near the tree roots will reduce the evaporation near the roots which will in turn protect the trees from drought.

4. Regulatory Mechanisms should be tighten to prevent the over drawing of ground water through bore wells. Illegal connections in the water supply pipelines have to be cut off. Water pressure has to be checked in different places in the distribution system to find out the illegal connections. A special drive has to be conducted to cut these illegal connections before every summer season especially in drought prone areas.

5. Administrative Measures: Increase the frequency of water supply and reduce the time duration so that people won't store water unnecessarily. The CWSS schemes should be complemented by finding out alternative water sources. Similarly, financial incentives for efficient water use can be promoted.

6. Water shed mapping and geo tagging of all government water assets should be done.

This will help in decision making with respect to drought as well as flood mitigation measures. Again, TAWDEVA's expertise and funds available with them under various schemes like NADP; IWMP can be utilized for this purpose.

7. Revenue records updation and maintenance: proper upkeep and reconciliation of records like Adangal with Agriculture and statistical department will help in effective and efficient distribution of relief during disasters like flood, drought, cyclone etc.

8) Crop loss due to insufficient irrigation Apart from the measures mentioned above for ground water recharging and rain water harvesting, efficient use of water for irrigation should also be followed.

9) Pradhan Manthri Krishi Sinchayi Yojana: This scheme aims for better utilization of water resources for irrigation. Modern technologies like Drip irrigation, sprinkler irrigation etc should be adopted.

10) Agriculture Engineering Department has various schemes for land development and micro irrigation which can be effectively tapped in drought prone areas of Minjur block. Precision farming methods have to be adopted.

11) Pradhan Manthri Fazal Bheema Yojana: All farmers have to be brought under crop insurance scheme so that they will get adequate compensation for crop loss in the wake of disasters like drought. This has to be done on a priority basis especially with farmers in drought prone areas of Minjur block.

12) Drought resistant variety seeds should be used for cultivation in such areas. TNAU can provide a lot of inputs in this regard to the farmers. Farmers should be sensitized about the agritech portal of TNAU which has a wealth of information about best agricultural practices. ATMA's role is also vital in this regard. Field functionaries and extension workers under ATMA should be optimally utilized to educate and train farmers to use various techniques to overcome the drought situation.

13) Water intensive crops should be avoided in drought prone areas. Minjur block has predominant paddy cultivation. This has to be gradually shifted to less water intensive crops like pulses especially in drought prone villages. Dry land cultivation methods have to be promoted. Farmers need to be educated on how to effectively use the service of Krishi Vigyan Kendras (KVK) and they have to be persuaded to follow

suitable agronomic practices including mulching, inter cropping and mixed cropping.

14) Rashtriya Krishi Vikas Yojana: 10 % of the funds under this scheme can be utilized to take appropriate mitigation measures in the eventuality of weak monsoon or deficient rain fall.

15) Organic farming has to be promoted especially in drought prone areas because the use of chemical soil reduces the water retention capacity of the soil.

16) Minjur block has got a lot of vegetables cultivation. **Integrated Horticulture Development Scheme** needs to be utilized to promote better practices to mitigate the impact of drought.

17) Formation of Farmers cooperatives need to be encouraged. The possibility of convergence of Schemes under TNSRLM can be explored.

18) Integrated Pest Management (IPM) techniques should be promoted to ensure sustainable agricultural practices.

19) Traditional knowledge for soil moisture content retention should be identified and utilized. For this community participation should be encouraged through bodies like Gram Sabha, SHGs etc.

3) LOSS OF EMPLOYMENT

1) During drought, small and marginal farmers will be badly affected and they will be pushed to become agricultural labourers. Subsequently it leads to employment loss. This leads to distress situation. To avoid this special focus needs to be given to generate employment. **MGNREGA** scheme can be effectively utilized for this purpose. Number of wage employment should be increased from 100 to 150 during drought season.

2) Funds under **Pradhan Manthri Kaushal VikasYojana** can be utilized for imparting skills to the rural farmers so that they will be able to find alternate employment. This will act as a cushion for them in case of crop failures.

4) SHORTAGE OF FODDER

Feed and Fodder are the major limiting factors in enhancing livestock productivity. Feeding cost constitutes about 65% - 70% of the total cost of the livestock farming. The feed fed to cattle comprises of dry fodder, green fodder and concentrates.

The shortage of dry fodder is felt only during severe drought situations, whereas there exists 25% gap between demand and availability of green Fodder. To overcome the shortage of fodder during drought, following structural and non-structural measures can be taken.

1) State Fodder Development Scheme (SFDS): Animal husbandry department promotes this scheme to increase the availability of green fodder. It has various components and these components have to be utilized judiciously in drought prone areas of Tiruvallur District. Cultivation of high yielding fodder crops like Cumbu Napier (Co3/Co4) under irrigated condition is encouraged in this scheme.

2) Similarly cultivation of **Sorghum** and **cowpea** should be promoted. Feeding of tree fodder to animals is another important thing. In this regard, distribution of Agathi seeds to farmers at free of cost should be promoted vigourously.

3) Installation of rain guns: To increase the water use efficiency in increasing green fodder production, rain guns installation at fodder farms should be actively promoted under SFDS scheme.

4) **Propagation of Azolla:** This is a water plant which is a high quality fodder rich in protein, can be substituted for green fodder and produced at a cheaper cost.

5) Animal husbandry department should strengthen the efficiency of **Cattle Breeding and Fodder Development (CBFD)** Units at district level to mitigate the shortage of fodder during drought situation.

6) Fodder development schemes are carried out through veterinary dispensaries. This has to be augmented to tackle drought like situation.

7) Measures can be taken to increase the fodder production capacity of existing fodder cultivable lands

8) Availability of seed and plant materials need to be ensured so that the live stock farmers will be in a position to plant them as and when the need is anticipated.

9) Augmentation of fodder stock in government live stock farms during drought will help in mitigating the impact of drought on fodder availability.

10) SHGs can be encouraged for establishment of community feed and fodder banks. Schemes under Animal Husbandry department and Mahalir Thittam/Pudhu Vazhvu project can be converged for this purpose.

Structural measures and non-structural measures are needed to be adopted for mainstreaming flood management into development plans. Structural measures are more or less similar for both drought and floods. Construction of new water storage structures, desilting of existing

water bodies, clearing of storm water drains etc can be taken up under various schemes under Rural Development, PWD, Agriculture department and Forest Department.

1) MGNREGS: Funds under this scheme can be utilized to reduce the vulnerability of the Panchayat against natural hazards. Identifying works that are available, taking into account the hazard profile of a place will help in mitigating the vulnerability of that area to flood. Minjur block has 100 MI tanks and 397 farm ponds. These water bodies can be desilted periodically. The silt can be used for strengthening the bunds as well as to provide fertile soil to the farmers. Surplus courses, supply channels and canals can also be desilted and cleaned up by converging the PWD schemes with the labour component of MGNREGS.

3) IAMWARM II: Under this project modernization, rehabilitation and water management works can be taken up. Existing system tanks in Minjur blocks can be rehabilitated using this. Similarly rivers, Surplus Courses, supply channels and canals can be rehabilitated.

4) Dam Rehabilitation and Improvement Project (DRIP): Proper upkeep and maintenance of dams are necessary for ensuring the service life and effective performance of the dams. The periodic maintenance of Lakshmipuram Anicut in Ponneri Taluk can be done using this scheme.

5) Formation of new check dams/bed dams/grade walls etc at proper places will help in mitigating the impact of flood.

6) THAI II scheme: It provides funds for desilting MI tanks under the control of Panchayat. This fund has to be used wisely to

ensure the desilting of MI tanks in flood prone areas to make them store more water.

7) PMAY: The houses constructed under this scheme in areas prone to flooding should use flood proof designs. The basement level should be higher in such areas. While constructing houses under this scheme in coastal villages of Minjur, the above point should be kept in mind.

8) CBNRM: 15 village Panchayats and 61 habitations in Minjur block are covered under this World Bank funded scheme. It aims to empower the local community for coping up with the natural disasters. Local community members prepare opportunity map and vulnerability map of their locations so that they will be well aware of the ground reality. Moreover local community members can be trained and educated about flood mitigation measures. An opportunity map and a vulnerable map prepared for a vulnerable coastal habitation in Minjur block are given below

9) Tree plantation: Forest department has various schemes for tree plantation. Latest is the plan for planting 69 lakh trees throughout the state. Massive tree plantation drive can be done in the flood prone villages of Minjur. Labour component of MGNREGA can be converged for this purpose.

10) Pradhan Manthri Gram Sadak Yojana: Priority should be given to connect vulnerable habitations. Thangalperumbulam habitation was cut off for one day from the main road during the last cyclone due to increased water level. Vulnerable locations like this can be given priority

in this scheme. Provision for cross drainage, slope stabilization, protection works shall also be taken up under this scheme.

11) Removal of encroachments in water bodies: This has to be given utmost priority. Temporary encroachments can be easily evicted but permanent encroachments of eviction needs a rehabilitation plan. Coordination between various departments like revenue, rural development, survey, municipalities, police are essential in this regard. At any cost, new encroachments should be prevented.

12) Roads and highways department should periodically maintain culverts, drainages etc., to ensure smooth flow of excess water during heavy rain. They should also maintain pumping systems in vulnerable road areas to quickly clear off the road during flood like situation.

Some of the **Non structural measures** for mainstreaming flood management into development plans are given below

1)SSA: Teachers can be trained on school safety and structurally safe designs for schools, especially in disaster prone areas can be adopted under this scheme. Training of rural engineers appointed under SSA and training of masons also can be taken up under this scheme.

2)NGOs and other Community Organizations can be roped to create awareness among the public on the importance of mitigation measures for managing flood.

3)NRHM: Under this scheme training can be given to health workers on disaster health preparedness and response. Disease health

surveillance system in rural areas can be strengthened. Village health plan and District health plan should address the disaster risk reduction concerns in vulnerable habitations. Doctors and Hospital Staffs can be trained on mass casualty management and emergency medicine that are likely to occur during disaster.

4)First responders: A set of first responders should be identified and kept ready in flood prone areas. These volunteers should know swimming and they should be given orientation training by fire and rescue department.

5)Snake catchers should be identified and sensitized before the onset of NE monsoon so that they can be immediately pressed into service in an emergency. MGNREGS funds can be utilized to give them wages.

6) Recognition of best efforts: This is one of the best incentives to promote the disaster risk reduction practices into development. Volunteers and officials should be recognized for their efforts in reducing vulnerability to flood.

7) Regulations: Strict guidelines have to be given to all public/private institutions, schools, colleges, hospitals etc not to keep costly equipments and generators in the ground floor.

8) Sufficient Supply of petrol/diesel should be ensured before every north east monsoon. At the time of disasters lot of fuel will be needed for carrying out relief works.

Mainstreaming Cyclone Management into Development Plans:

Cyclone risk reduction measures include structural as well as non structural measures too. Structural measures deal with constructing cyclone resistant homes, cyclone shelters, laying the selectric cables underground, pruning of the tree branches, massive tree plantation etc. Schemes under different departments like Rural Development department, Forest Department etc can be utilized for this purpose.

1. Coastal Disaster Risk Reduction Project: This World Bank assisted scheme operates in vulnerable coastal villages. Various components of this scheme are aimed at disaster risk reduction. Community Based Disaster Risk Management (CBDRM) is one of such important component which aims to make the community participate in the disaster mitigation activities and thereby to strengthen their resilience towards disasters. Installation of early warning system, laying electricity cables underground, construction of multi hazard permanent houses, preparation of evacuation route with signages, multipurpose evacuation shelters, wireless communication sets for fishermen, curriculum development for DRR in schools and training institutions are part of this project. 15 coastal villages of Minjur block is already covered under this scheme.

2. Tree plantation: Forest department has a mandate to increase the forest cover under National Forest Policy 1988. So they actively promote enhancing the tree cover outside the forests. Recently a scheme is launched for planting 69 lakh trees throughout the state. This scheme can be effectively tapped to plant trees in cyclone prone coastal areas of

Minjur block. Labour component of MGNREGS can be utilized for massive tree plantation.

3. MGNREGS: Labour component of MGNREGS can be dovetailed with Highways department (machinery) to prune the trees along the road sides so that during cyclone tree branches will not break and fall on the roads. Under Cyclone resistant home construction, labour component of MGNREGS can be utilized.

4. Prime Minister Aawas Yojana: While constructing houses in cyclone prone areas under this scheme, cyclone resistant designs shall be followed.

5. Cyclone shelters: These shelters should be constructed at strategic locations so that it will enable the easy evacuation of people in an emergency situation. Working condition of all cyclone shelters should be ensured before every North East monsoon.

Some of the non-structural measures for mainstreaming cyclone management into development plans are

1) Awareness creation among public: Sarva Siksha Abhiyan can be utilized to spread awareness among the students about cyclone and the precautionary measures to be taken. More than that training can be given to students on disaster risk reduction measures.

2) CSR funds: There are many industries in and around Minjur block. Their CSR funds can be effectively channelized to disaster risk reduction measures like construction of cyclone shelters, disaster resistant houses for vulnerable communities etc.

3) Capacity Development: Various stake holders including government officials should be given training on handling the cyclones, especially in coastal area.

4) Mock Drills: Community people can be sensitized about the cyclones by conducting periodic mock drills. NGOs participation in such mock drills will boost people's confidence.

5) First responders: Identification of first responders is another important step. These responders should be from within the community. They should be adequately trained to handle disasters.

6) Training to NSS, NCC and Nehru Yuva Kendra volunteers on response, rescue and rehabilitation will help in ensuring community participation in these activities and thereby to speed up the activities.

7) Tree plantation: Forest department has various schemes for tree plantation. Latest is the plan for planting 69 lakh trees throughout the state. Massive tree plantation drive can be done in the flood prone villages of Minjur. Labour component of MGNREGA can be converged for this purpose.

8) Pradhan Manthri Gram Sadak Yojana: Priority should be given to connect vulnerable habitations. Thangalperumbulam habitation was cut off for one day from the main road during the last cyclone due to increased water level. Vulnerable locations like this can be given priority in this scheme. Provision for cross drainage, slope stabilization, protection works shall also be taken up under this scheme.

9) Removal of encroachments in water bodies: This has to be given utmost priority. Temporary encroachments can be easily evicted but permanent encroachments eviction needs a rehabilitation plan. Coordination between various departments like revenue, rural development, survey, municipalities, police are essential in this regard. At any cost, new encroachments should be prevented.

10) Roads and Highways Department should periodically maintain culverts, drainages etc., to ensure smooth flow of excess water during heavy rain. They should also maintain pumping systems in vulnerable road areas to quickly clear off the road during flood like situation.

Some of the Non structural measures for mainstreaming flood management into development plans are given below

1)SSA: Teachers can be trained on school safety and structurally safe designs for schools, especially in disaster prone areas can be adopted under this scheme. Training of rural engineers appointed under SSA and training of masons also can be taken up under this scheme.

2)NGOs and other Community Organizations can be roped in to create awareness among the public on the importance of mitigation measures for managing flood.

3)NRHM: Under this scheme training can be given to health workers on disaster health preparedness and response. Disease health surveillance system in rural areas can be strengthened. Village health plan and District health plan should address the disaster risk reduction concerns in vulnerable habitations. Doctors

and hospital staff can be trained on mass casualty management and emergency medicine that are likely to occur during disaster.

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5)Snake catchers should be identified and sensitized before the onset of NE monsoon so that they can be immediately pressed into service in an emergency. MGNREGS funds can be utilized to give them wages.

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7)Regulations: Strict guidelines have to be given to all public/private institutions, schools, colleges, hospitals etc not to keep costly equipments and generators in the ground floor.

8) Sufficient Supply of petrol/diesel has ensured before every north east monsoon. At the time of disasters lot of fuels will be needed for carrying out relief works.

11. FINANCIAL ARRANGEMENTS

The Government of India have revised items and norms for assistance for sanction of relief from the State Disaster Response Fund (SDRF) / National Disaster Response Fund (NDRF), based on the report of Expert group of Ministry of Home Affairs. As per G.O.Ms.No.380, Revenue [D.M.III (2)] Department, Dated: 27.10.2015, G.O.Ms.No.246, Revenue [D.M.III (2)] Department, Dated: 03..08.2017 and G.O.Ms.No.579, Revenue [D.M.III (2)] Department, Dated: 09.12.2023. The following relief amount were disbursed to the victims of Natural Calamities namely Cyclone, Flood, Drought, Earth Quake , Fire , Tsunami and hailstorm from the State Disaster Response Fund (SDRF) / National Disaster Response Fund (NDRF).

Immediate relief to the victims of

* HUT FULLY / PARTLY	:	Rs.8,000/-
* PUCCA HOUSE PARTLY	:	Rs.6,500/-
* Loss of Human Life	:	Rs.4,00,000/-
* Free Rice	:	10 KG of Rice and 1 litre of Kerosene
* Free clothing	:	1 Saree and 1 Dothi

Relief for Cattle Loss

* Adult Cattle (Cow, Buffalo)	:	Rs.37,500/-
* Adult Cattle Bullock	:	Rs.32,000/-
* Calf of Cow	:	Rs.20,000/-
* Sheep, Goat	:	Rs.4,000/-
* Poultry	:	Rs. 100/-
* Cattle Shed	:	Rs.3,000/-

12.WAY FORWARD

The Disaster Risk Management has to build Resistant communities and as well as transform a vulnerable area to disaster into disaster resilient areas by significant investment in Disaster Risk Reduction from Government as Private sector and from the community. The various measures being implemented to the different priorities of the Sendai framework. Sendai Framework for Disaster Risk Reduction 2015–2030 was adopted at the Third United Nations World Conference on Disaster Risk Reduction, held from 14 to 18 March 2015 in Sendai, Miyagi, Japan, which represented a unique opportunity for countries:

SENDAI AGREEMENT

- The Sendai agreement for disaster risk reduction 2015-2030 is the first major agreement of the post 2015 development agenda with seven targets and four priorities for action.
- It is the 15 years voluntary non-binding agreement which recognizes that the state has the primary role to reduce disaster risk with the help of the government, stakeholders and private sectors.

TN-SMART

TN-SMART is a dynamic web-based system with advanced data analytics capabilities to archive, analyze, model, and communicate disaster risk information. The system will act as a data management system for managing and processing weather, disaster risk, vulnerability profile, disaster damage, and emergency response resources data. TN-SMART will be used for assessing potential impacts of a hazard based on weather forecast information in order to evaluate, generate and designate impact management options.

Further, the potential risk and impact management options would be communicated to revenue officials at various administrative levels and first responders through a specialized Mobile application, in addition to SMS, Email, Fax and other means. The response tracking functionalities in TN-SMART mobile application would facilitate two way communications between SEOC and information user.

PRIORITIES FOR ACTION:- **Understanding Disaster Risk**

1. Disaster Risk Management needs to be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.
2. All informations regarding risk should be recorded and to be analysed in detail

MITIGATION MEASURES

DISTRICT will adopt systems approach to promote holistic development of the **river basins** and to ensure that in the years to come, the communities will develop resistance to different disasters and the areas identified as vulnerable are transformed into areas resilient to the disasters.

PREPAREDNESS AND RESPONSE DURING DISASTER

By analytics of real time based meta data, it helps us to provide effective preparedness, risk communication, response and relief & build back better strategies. They help the community to tackle various disaster time to time. Now we shall see the reconstruction and rehabilitation measures in case of **flood and drought**.

DISTRICT DISASTER MANAGEMENT PLAN

District Disaster Management Plan has been prepared by the District Administration, as per the Disaster Management Act 2005 and also relied on the NDMA Guidelines each year and being followed during disaster time.

TALUK DISASTER MANAGEMENT PLAN

Taluk Disaster Management Plan has been prepared by each Taluk Administration, as per the Disaster Management Act 2005 and also relied on the NDMA Guidelines and being followed during disaster time.

PREPARATION OF VILLAGE PANCHAYAT DEVELOPMENT PLAN FOR COMPREHENSIVE DEVELOPMENT OF RURAL AREAS IN TAMIL NADU.

Need for Village Panchayat Development Plan:

As per section 240 of Tamil Nadu Panchayats Act, 1994, every Village Panchayat shall prepare a development plan for the Village Panchayat every year. Participatory planning process is important for ensuring fair, transparent and effective utilization of funds and other resources. The Government of Tamil Nadu have issued guidelines vide G.O.Ms.No.108, Rural Development and Panchayat Raj (PR1) Department, Dated: 24.07.2015 for utilization of the fourteenth Finance Commissioner Grant through grassroot level planning. Village Panchayat Development Plan and Participatory Planning will enable the Village Panchayats to provide basic amenities and infrastructure facilities, expand livelihood opportunities, improve rural connectivity, converge developmental works implemented by different line departments, promote rural housing and enable a clean and sanitized environment in rural areas, leading to substantial improvement in the quality of life the people.

Sl. No.	Key Focus Area	Expected outcome from Village Panchayat Development Plan
1.	Drinking Water Supply	Ensure regular supply of clean drinking water to all the habitations on daily basis. Ease of difficulties in collecting drinking water by extension of pipelines. Water supply works should be planned to ensure provision of 55 LPCD of Water in rural areas. During water scarcity period, drinking water supply should be provided atleast once in 3 days
2.	Cleanliness and sanitation	Solid and Liquid Waste Management Planning. Provision of dump yards and waste disposal by systems. Ensure people's participation for separation of biodegradable and non-biodegradable garbage. Promoting vermi-composting. Attaining open defecation free status in all the habitations. Ensure soak pits for liquid waste management. Clean up drains and stagnant pools of water. Removal of Seemai Karuvel Trees (Propopis Julifora)
3.	Infrastructure - Roads, Culverts, OHT/GLRs, Pipelines, Street Lights, Sewerage System	Ensuring good internal link roads. Undertake regular patch works and cleaning of the paths with shrubs. Ensure adequate number of functioning streetlights. Periodical Maintenance of Roads, Culverts, OTH/GLRs, Pipelines, Street Lights, Sewerage Systems. Construction of bath cum sanitary community toilets through different schemes.
4.	Natural Resource Management	Rain Water Harversting structures in all the public and panchayat buildings. Renovation of Ponds, Ooranies and Water Channels through different schemes. Plantation activities under MGNREGS Schemes. Ensure Watering of saplings and survival rates through MGNREGS Scheme. Promoting Avenue, massive and homestead plantations. Soil and water conservation works. Maintenance of Minor Irrigation tanks. Preparation of shelf works under

		MGNREGS Schemes with focus on natural resource management.
5.	Disease Preparedness	Hygienic environment in all habitations. Mosquito control –Eradication of all stagnant pools of waters and drains. Periodical Mass cleaning of all habitations and chlorination of drinking water sources. Plugging leakages in the taps and pipelines. Elimination of pit taps. Provision of cement concrete platforms for the handpump and bore well with soak pit to avoid breeding of mosquitoes. Ensuring periodical cleaning of overhead and ground level reservoirs. Preventive measures for the control of vector borne communicable diseases like, Malaria, Dengue, Chikungunya etc., Co-ordination with Health and Animal Husbandry Dept., for prevention of outbreak of human and animal diseases.
6.	Housing	People living below poverty line should be provided with adequate housing facilities through different rural housing schemes implemented at Panchayat Level. Construction of houses with individual household latrines along with soak pits.
7.	Drought, Floods and disaster preparedness	Preparation of contingency plan for mitigation of water scarcity during drought period. Anticipatory preventive measures for the control of damage caused by floods. Preventive measures for any other disaster based on vulnerability of the concerned Village Panchayat.

8.	Poverty eradication, Employment Generation and Social Security	Selection of the poorest of the poor beneficiaries in Grama Sabha for different socio- economic development schemes. Skill Development for youth through TNRLM, Women, Development, Pudhu Vazhuvu Project and other Government schemes. 100% Coverage of Wage employment for all the eligible households under MGNREGS Schemes. Stabilization of assets created under MGNREGS Scheme through Rural Infrastructure Scheme (RIS) / other funds. Promoting increased participation of rural women in the SHG movement. Empowerment of differently abled persons through increased coverage under MGNREGS Scheme. Preparation of an infrastructure plan for the provision of basic amenities for the Wards reserved for SCs and tribal hamlets. Ensure Water Supply, Street Lights, roads and other infrastructure facilities are provided in all SC and ST habitations.
9.	Planning for increase of Own Source of Revenue in Village Panchayats	100% assessment of House tax, Professional Tax, D&O Trade and other taxable sources. Make 100% check up of all the houses and levy demand for such houses which are constructed in the recent past and for which no tax is so far levied. Make 100% verification of all water Service connections and include such houses in the demand which are not included so far. Wherever there is a scope for giving additional water service connections based on water availability and NOC of TWAD is also there (in case of CWSS), new house service water connections be given and water charges augmented. The Professional Tax and Advertisement Tax should be augmented by widening the base at the given tax rates.
10.	Planning for Expenditure Management in Village Panchayats	Prompt and timely settlement of current consumption charges payable to TANGEDCO and water charges to TWAD Board to avoid arrears. New OHTs construction should be restricted to the requirement for storage of

		<p>water in proportion to the size of population. [Total capacity of all OHTs should not exceed total population x 55 litres for a single filling purpose. If there are 2 fillings of a tank per day. The total capacity of OHTs is to be accordingly reduced.]Alternative sources / extension of pipelines, deepening of openwells wherever necessary and feasible may be taken up. LED lights may be provided wherever current consumption charges are heavy by replacing bulbs, sodium and mercury lamps in the existing poles. New/ extended areas should be given priority with LED lights. Ensure the savings in electricity by installing energy efficient devices. Promoting fiscal prudence and expenditure management in Village Panchayats.</p>
11	Planning for Convergence	<p>The Village Panchayat can take up works from the gaps identified in Village Panchayat by dovetailing funds under MGNREGS SFC Grant, Pooled Assigned Revenue and the general funds of Village Panchayats in addition to the CFC Basic Grant to create / improve Infrastructure e facilities in rural areas. Through proper convergence and dovetailing of different schemes the village panchayats can create more number of infrastructure facilities and ensure delivery of services. Anganwadies, schools, Noon meal, women and child health case, skill development, poverty eradication and generation of wage and self employment could be the focus areas of Village Panchayat Development Plan through convergence of funds, functions and fuctionaries devolved by different Line Department. PRI representatives are nominated as ex-officio member of several parallel bodies in different line department at Village Panchayat Level. Such institutional structures available at grass roots level should be effectively utilized for better planning convergence and implementation of development initiatives.</p>

Preparation of Estimates

After identification and approval of works by the Village Panchayat and validation by the Grama Sabha, actual estimates should be prepared by the concerned technical officials.

No estimate should be prepared by the concerned technical officials without verification at the field. Estimates prepared by the Engineers should be randomly checked by the Assistant Executive Engineer and the Executive Engineer (RD) in order to ensure that only actual and correct estimates are prepared. The Government of India in partnership with the State Government has programmed to roll out people's plan campaign 'Sabki Yojana Sabka Vikas ' from 2nd October to 31st December – 2018 for preparing VPDP for 2019-2020.

The PD/DRDA is appointed as Nodal Officer for campaign and PD/TNSRLM is the Nodal Officer for Survey and monitoring the activities. The District Level Officers co-operation in the following 29 subjects listed in the eleventh schedule of Constitution as detailed below.

1. Agriculture
2. Land improvement
3. Minor irrigation
4. Animal Husbandry
5. Fisheries
6. Social forestry
7. Minor Forest Produce
8. Small Scale industries
9. Khadi, Village and cottage industries
10. Rural Housing
11. Drinking Water
12. Fuel and fodder
13. Roads
14. Rural Electrification
15. Non-conventional energy
16. Poverty alleviation programme
17. Education

- 18.Vocational education
- 19.Adult and non-formal education
- 20.Libraries
- 21.Cultural Activities
- 22.Markets and fairs
- 23.Health and Sanitation
- 24.Family welfare
- 25.Women and child development
- 26.Social Welfare
- 27.Welfare of the weaker sections
- 28.Public distribution system
- 29.Maintenance of community assets

CORPORATE SOCIAL RESPONSIBILITY

Business entities are expected to shoulder responsibilities for the impact of their activities on the consumers, employees and community as a whole. Efforts are therefore needed to engage corporate bodies in undertaking disaster risk reduction activities as a part of their corporate social responsibilities.

The schemes that are being implemented currently and in the next few years as well as schemes that are likely to be implemented in the next few years alone are discussed. The schemes that will be implemented subsequently will be detailed in the Action Plans that will be prepared periodically. The current plan lays down the road map up to the year 2030. The systems approach, Integrated development of vulnerable areas mainstreaming of disaster risk concerns into developmental plans will be the corner stones of DDMP. All future plans will be conceived with the above concepts providing the backbone for the disaster risk reduction efforts.

13) CORONA VIRUS DISEASE (COVID-19) INFECTION, PREVENTION AND CONTROL

Government of Tamilnadu under G.O.(MS).No.97, Health and Family Welfare (P1) Department, Dated 15.03.2020 and G.O.(MS).No.152, Health and Family Welfare (P1) Department, Dated 23.03.2020 issued notification and restrictions to prevent the Outbreak of Corona Virus Disease (COVID-19) under the Epidemic Diseases Act, 1897 (Central Act No.3 of 1897).

Corona Virus spreads from person to person directly through respiratory droplets produced when an infected person coughs or sneezes. people also become infected by touching surfaces contaminated with corona virus by droplets generated while coughing or sneezing and then touching their mouth or nose or eyes.

Respiratory Hygiene, hand Hygiene and cleaning and disinfection of surfaces frequently touched by hands are essential strategies for the prevention and transmission of COVID-19.

COVID-19 EX-GRATIA PAYMENT DETAILS 2020-2021, 2021-2022, 2022-2023, 2023-2024

Sl.No.	COVID-19 Cases	No of Cases
1	Bulletin Cases paid	1539
2	Committee Cases paid	1111
Total Cases		2650

Disaster Management Act 2005

Government of Tamilnadu under G.O.(MS).No.172, Revenue and Disaster Management Department, Dated 25.03.2020 issued notification under section 6(2)(i) of the Disaster management Act 2005, and conducted meetings on preparedness measures and prevention of COVID-19 and has issued directions from time to time.

COVID-19 – District Crisis Management Committee

Government of Tamilnadu under G.O.(MS).No.175, Revenue and Disaster Management Department, Dated 29.03.2020 issues orders for constitution of crisis management committee in every district under the chairmanship of the district collector.

Accordingly, in Tiruvallur District Crisis Management Committee formed under the Chairmanship of the District Collector with representatives from the connected departments – Health and Family Welfare, Revenue and Disaster Management, Rural Development, Agriculture, Animal Husbandry and Fisheries, related agencies both Government and Private, Food Manufacturers, Distributors, NGOs and consumer related stakeholders, etc. to contain the outbreak of COVID-19.

ANNEXURE – 1**RESPONSIBILITY MATRIX FOR PREPAREDNESS AND RESPONSE -
DISTRICT AGENCIES****District Disaster Management Authority**

Sl. No.	Designation	Position
1.	District Collector	Chair Person
2.	Superintendent of Police	Member
3.	District Revenue Officer	Chief Executive Officer
4.	Joint Director Health Services	Member
5.	Project Director, District Rural Development Agency	Member
6.	Personal Assistant (General) to Collector	Member

The roles and responsibilities of the DDMA have been elaborated in Section 30 of the DM Act, 2005. It will, inter alia perform the following roles and duties as per the act.

1. Prepare, Coordinate and monitor a disaster management plan including District response plan for the District.
2. Ensure that the areas in the District vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the District level as well as by the local authorities.
3. Ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and State Authority are followed by all the departments of Government at the District level and by the local authorities in the District;
4. Review the state of capabilities for responding to any disaster or threatening disastrous situation in the district and give directions to the relevant departments or authorities for their up gradation as may be necessary.

5. Organize and coordinate specialized training programmes for different levels of officers Governmental and Non-Governmental organizations and voluntary rescue workers in the District.
6. Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public.
7. Ensure that the Departments of the Government at the District level and the local authorities prepare their response plans in accordance with the District response plan.
8. Lay down guidelines for, or give direction to, the concerned Department.
9. Government at the District level or any other authorities within the local limits of the district to take measures to respond effectively to any threatening disaster situation or disaster.
10. Advise, assist and coordinate the activities of the Departments of the Government at the District level, statutory bodies and other Governmental and Non-Governmental organizations in the district engaged in the disaster management;
11. Provide necessary technical assistance or give advice to the local authorities in the District for carrying out their functions.
12. Review development plans prepared by the Departments of the Government at the District level, statutory authorities or local authorities
13. Identify buildings and places which could in the event of any threatening disaster situation or disaster, be used as relief centres or camps and make arrangements for water supply and sanitation in such buildings or places;
14. Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
15. Ensure communication systems are in order, and disaster management drills are carried out periodically;
16. Perform such other functions as the State Government or State Authority may assign to it or as it deems necessary for disaster management in the District.

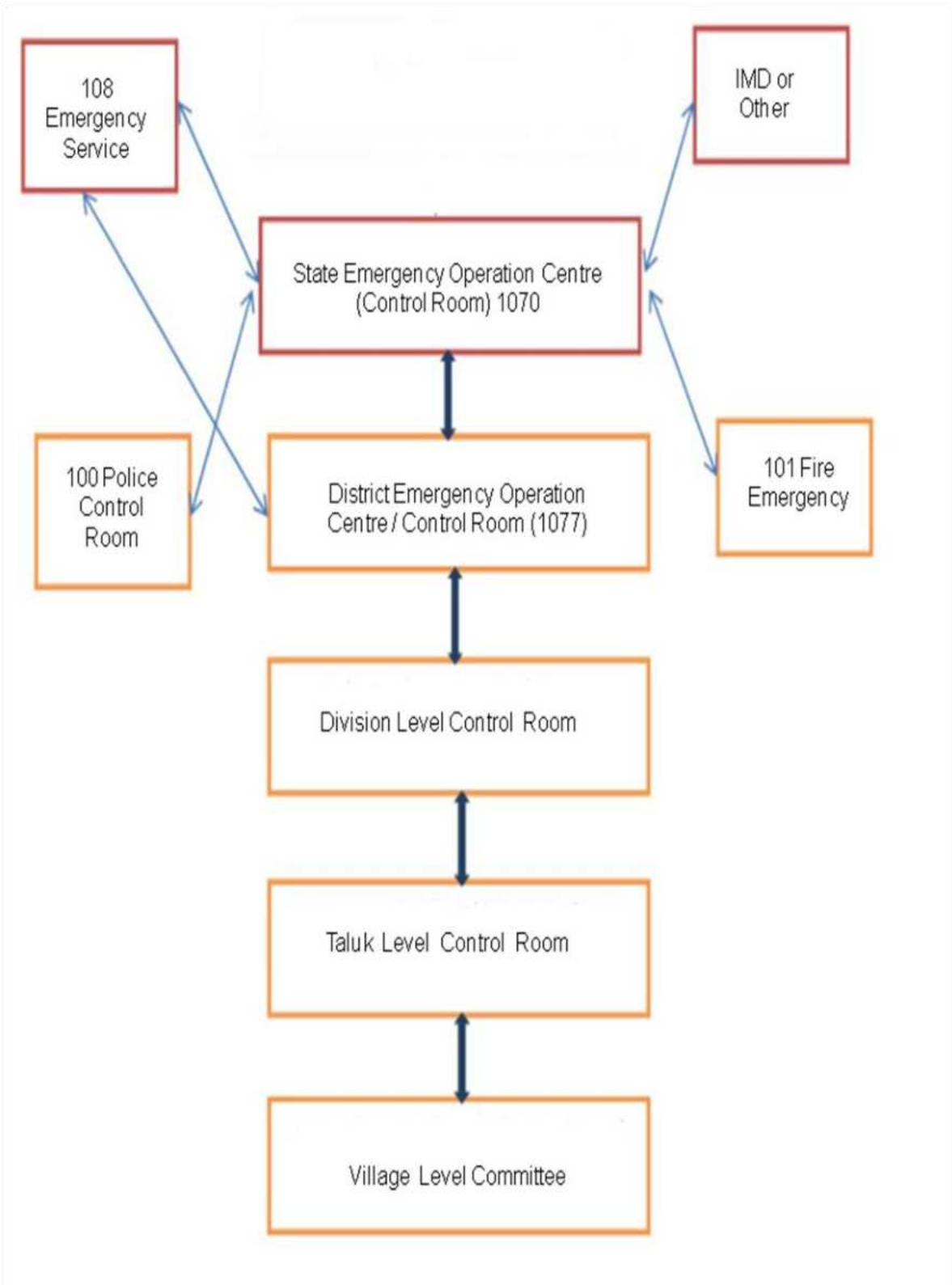
District Emergency Operation Centre in Tiruvallur District

- The District Emergency Operation Centre in Tiruvallur District is functioning and the **Toll Free No.1077** has been fully operationalized. Complaints received on this Toll Free No. are immediately passed on to the concerned authorities for taking immediate action.
- **Infrastructure facilities viz.,** Telephone Connection with STD facility, Fax, Computers with Internet access have been provided to the District Emergency Operations Centre with Landline Numbers **(044-27664177,044-27666746,** and **Whats App No. 9444317862** for receiving complaints are working for District Emergency Operation Centre and manned by the Desk Personnel as and when necessary it will be increased. That apart, additional staffs are from Police, Fire, PWD, TNEB, Animal Husbandry, Health Department are being posted 24 x 7 during North East Monsoon.
- Additional District Emergency Operation Centre is functioning with Landline Number **(044-27974073)** and **Whats App No. 9444317863** for receiving complaints is working at Revenue Divisional Office, Ponneri. The warning messages received from the Office of the Commissioner of Revenue Administration are immediately disseminated to the officials concerned with instructions to initiate immediate action.

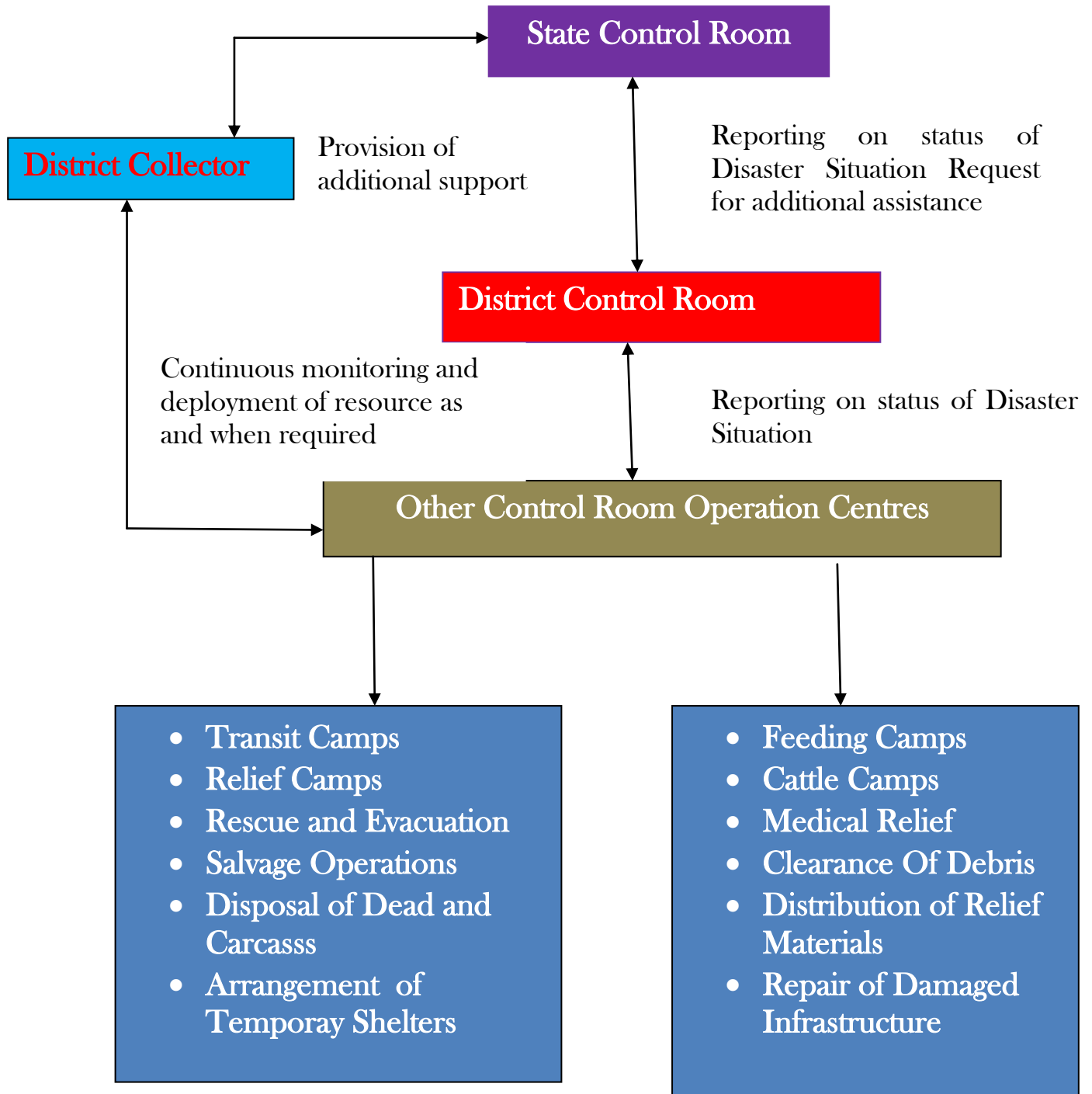
❖ Roles and Functions of Control Room:-

- The control room is the nodal centres in terms of disaster management.
- To monitor, coordinate and implement the actions for disaster management.
- Periodic check to ensure that all warnings, communication systems and instruments whether in working condition.
- To ensure an information system on a routine basis from the District Heads of Departments on the vulnerability of various blocks and villages.
- To receive reports on the preparedness of the district level departments and the resources at their disposal to arrange and meet their requirements.
- To upgrade the Disaster Management Action Plan according to the changing scenario.
- To maintain an inventory of all resources.
- To give warning signals as per the need of the hour.
- To monitor preparedness measures and conduct training programmes.
- To collect and transmit information concerning natural calamities and relief at all levels.
- To keep regular contact with the Centre for Seismology and Meteorology Shillong.
- To make arrangements for dissemination of information to all vulnerable places.

- To brief the media of the situations and furnish the day-to-day reports to the State Disaster Management Committee during disasters.
- To report the ground situation and the action taken by the District Administration.
- The control room can have many service divisions with assigned duties, example infrastructure / health / Drinking water / logistics / agriculture / communication etc. and according to the need it could be expanded.
- The District Control Room should have all the facilities for effective communication and also to anticipate in case of system failure to have alternative communication systems, ordinary and mobile phones, e-mail facility etc.
- To have a list of all personnel and trained persons who could be contacted at any time.
- To organize post disaster evaluation.
- To collect information and activate the District / State level for handling / getting assistance on need basis.



Activity wise Flow of Information among State Control Room, DEOC and Other Control Room Operation Centres



DISASTER AWARENESS MOCK DRILL **Tsunami Mock Drill – 2017**

As part of improving awareness and preparedness of the administration and the general public, Ministry of Home Affairs (MHA) intended to conduct tsunami mock drill to the coastal states of India. In this regard, National Disaster Management Authority (NDMA) in collaboration with Indian Tsunami Early Warning Centre (ITEWC), INCOIS along with District Administration conducted a tsunami mock drill on November 24, 2017 in Two villages

1. Nakkathuravu in Ponneri Taluk

2. Methipalayam in Gummidipoondi Taluk

The arrangements need to be made and equipments required to be kept ready for evacuation process are learnt from the drill.



GUMMIDIPOONDI TALUK – METHIPALAYAM VILLAGE



PONNERI TALUK – NAKKATHURAVU VILLAGE

Tsunami Mock Drill – 2018

As part of improving awareness and preparedness of the administration and the general public, Ministry of Home Affairs (MHA) intended to conduct tsunami mock drill to the coastal states of India. In this regard, National Disaster Management Authority (NDMA) in collaboration with Indian Tsunami Early Warning Centre (ITEWC), INCOIS along with District Administration conducted a tsunami mock drill on 05.09.2018 in Two villages

1. Pazhaverkadu Madhura Vairavankuppam - Ponneri Taluk

2. Obasamuthiram Madhura Karaikadukuppam - Gummidipoondi Taluk

The arrangements need to be made and equipments required to be kept ready for evacuation process are learnt from the drill.

NORTH EAST MONSOON – 2018

PREPAREDNESS – FIRST RESPONDERS TRAINING AND MEETING CONDUCTED BY DISTRICT COLLECTOR, TIRUVALLUR

HADR - ANNUAL HUMANITARIAN ASSISTANCE AND DISASTER



RELIEF (HADR)

The Annual Humanitarian Assistance and Disaster Relief (HADR) - 2019 - Mock Exercise conducted on 04.08.2019 at Pazhaverkadu Village in Ponneri Taluk.



COMMUNICATION THROUGH HAM RADIO



RESCUING THE PEOPLE FROM THE HOUSES BY FIRE AND RESCUE DEPARTMENT



RESCUE OF MAROONED PEOPLE BY FIRE AND RESCUE DEPT



PUTTING OF FIRE IN THE PETROL BUNK

DISASTER MOCK DRILL – 2019 AT POONAMALLEE TALUK

The Disaster in Water Bodies taking precautionary measure by Organizing Mock Drills & Awareness Campaigns on 07.11.2019



TNDRF



FIRE MOCK DRILL



ANIMAL HUSBANDRY DEPARTMENT



DEBRIEFING OF MOCK

EXERCISE

(FLOOD SCENARIO)

ON

01.09.2022

TIRUVALLUR DISTRICT

FLOOD MOCK EXERCISE IN
VULNERABLE AREAS TIRUVALLUR
DISTRICT

Very High	High	Medium	Low	Total
8	39	44	42	133

In above Very High Flood Vulnerable Locations the following 5 Flood Vulnerable Locations has been selected based on the their vulnerable as detailed below:-

- 1) A.Reddypalayam
- 2) Vichoor
- 3) Thirunindravur
- 4) Paruthipattu
- 5) Athipattupudhunagar

VERY HIGHLY VULNERABLE PLACES

Name of the Taluk	Name of the Vulnerable Area	Reasons for Vulnerability	Observer	Teams appointed for observer
Ponneri	A. Reddypalayam	Low lying areas.	Revenue Divisional Officer, Ponneri	<p>A team formed consisting of 10 departments for each observer</p> <p>(Revenue, Rural Development, Police, Fire & Rescue, Health, Animal Husbandary, TNEB, PWD (WRO) , RTO, Municipality & Civil Supplies</p>
	Vichoor	Illicit opens in Kosathalaiyar river Bund near vichoor village	Project Director, DRDA, Tiruvallur	
	Athipattu Pudhu Nagar, (High Vulnerable)	These habitations are Pulicat Back water area and low lying area.	Assistant Director of Panchayat, Tiruvallur	
Avadi	Tirunindravur	Overflow of Water from Thirunindravur Lake. Surplus and catchment water from Thirunindravur Eri	Sub-Collector, Tiruvallur	
	Paruthipattu	During rainy season Paruthipattu lake over flow water spreading in that area since there is no proper channel to Ayapakkam lake. Surplus water from Paruthipattu Eri	Commissioner, Avadi Coporation	

PREPAREDNESS



A.Reddypalayam



Paruthipattu

PROPHYLACTIC EVACUATION BEFORE FLOODING



Athipattu Pudhunagar



Vichoor

SEARCH AND RESCUE , RELIEF DURING ONSET OF FLOODS



Search and Rescue by Fire Department in Paruthipattu

RESCUE OF CATTLE



Vichoor



Athipattu Pudhunagar

RELIEF SHELTER



Athipattu Pudhunagar – Relief Thirunindravur- Shelter

Relief

Shelter



Athipattu Pudhunagar – People Enrolling in Relief Shelter



Food provided to Evacuated People



Relief to the evacuated people in shelters

HOSPITAL AFFECTED DUE TO FLOOD WATER



A.Reddy Palayam



Paruthipattu

MEDICAL CAMP



A.Reddypalayam



Vichoor

ARIEL VIEW OF THIRUNINDRAVUR



RESCUE OPERATION DUE TO RIVER BANK BREACHES



Vichoor



A.Reddypalayam

MOCKDRILL ACTIVITY - 2023

DEBRIEFING OF MOCK

EXERCISE

(CYCLONE SCENARIO)

ON

02.09.2023

TIRUVALLUR DISTRICT

FLOOD MOCK EXERCISE IN
VULNERABLE AREAS TIRUVALLUR
DISTRICT

Very High	High	Medium	Low	Total
8	39	44	42	133

In above Very High Cyclone Vulnerable Locations the following 5 Vulnerable Locations has been selected based on the their vulnerable as detailed below:-

1) A.Reddypalayam

2) Vichoor

3) Thirunindravur

4) Paruthipattu

5) Athipattupudhunagar

PREPAREDNESS



Availability Equipment's - TNFRS



Scope of Mock Exercise

1) A.Reddypalayam – Ponneri Taluk - Overflow of River (Affected person identified and Evacuated)



2) Vichoor- Ponneri Taluk – Cyclone Affected person identified and Evacuated



3) Athipattupudhunagar –Ponneri Taluk - Cyclone affected in IOCL Company and affected person identified and Evacuated



Industry damaged at Athipattu pudhunagar in Ponneri Taluk

4) Thirunindravur – Avadi Taluk – Cyclone alert given - affected person identified and Evacuated



Thirunindravur – Avadi Taluk – Nadukutthagai

**5) Paruthipattu – Avadi Taluk – Paruhipattu PHC
Cyclone affected and damaged - affected person
identified and Evacuated**



**Hospital Building Collapsed and Rescue the People
in Paruthipattu Village**

RELIEF SHELTER



Athipattu Pudhunagar – Relief Shelter

HOSPITAL AFFECTED DUE CYCLONE



Thirunindravur



A.Reddy Palayam

AFFECTED DUE CYCLONE- FALLEN OF TREES



Thirunindravur



A.Reddypalayam

ANNEXURE -2

NDMA Guidelines

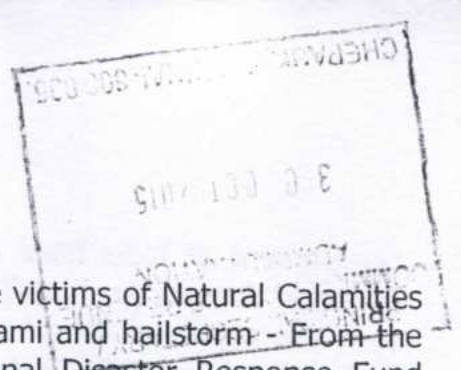
(<https://ndma.gov.in/en/ndma-guidelines.html>)

1	Cool Roof : House Owners' Guide to alternate roof cooling solutions
2	Guidelines on Management of Glacial Lake Outburst Floods (GLOFs)
2.a	Compendium of Task Force Report on NDMA Guidelines on Management of Glacial Lake Outburst Floods (GLOFs)
2.b	Summary for Policy Makers on NDMA Guidelines on Management of GLOFs
3	Guidelines for Preparation of Action Plan - Prevention and Management of Heat Wave
4	Landslide Risk Management Strategy
5	Guidelines on Disability Inclusive Disaster Risk Reduction
6	Guidelines on Temporary Shelters for Disaster-Affected Families
7	Guidelines on Prevention & Management of Thunderstorm & Lightning/Squall/Dust/Hailstorm & Strong Winds
8	Guidelines on Boat Safety
9	Guidelines on Cultural Heritage Sites and Precincts
10	Guidelines on Museums
11	Guidelines on Minimum Standards of Relief
12	Guidelines on Hospital Safety
13	Guidelines on School Safety Policy
14	Guidelines on Seismic Retrofitting of Deficient Buildings and Structures.
15	Guidelines on Scaling, Type of Equipment and Training of Fire Services
16	Guidelines on National Disaster Management Information and Communication System
17	Guidelines on Management of Drought
18	Guidelines on Management of Urban Flooding
19	Guidelines on Management of Dead in the Aftermath of Disaster
20	Guidelines on Management of Tsunamis
21	Guidelines on Incident Response System
22	Guidelines on Psycho-Social Support and Mental Health Services in Disasters
23	Guidelines on Management of Landslides and Snow Avalanches
24	Guidelines on Management of Nuclear and Radiological Emergencies
25	Guidelines on Management of Biological Disasters
26	Guidelines on Management of Cyclones
27	Guidelines on Management of Floods
28	Guidelines on Medical Preparedness and Mass Casualty Management
29	Guidelines on Preparation of State Disaster Management Plans
30	Guidelines on Chemical Disasters
31	Guidelines on Management of Earthquakes

ABBREVIATIONS

CBDM	-	Community Based Disaster Management
CBDRM	-	Community Based Disaster Risk Management
CBO	-	Community Based Organisation
CBRN	-	Chemical, Biological, Radiological and Nuclear
BDO	-	Block Development Officer
CMWSSB	-	Chennai Metropolitan Water Supply and Sewerage Board
CRA	-	Commissioner of Revenue Administration
DCG	-	District Crisis Group
DDMA	-	District Disaster Management Authority
DDMP	-	District Disaster Management Plan
DEOC	-	District Emergency Operation Centre
DM	-	Disaster Management
DRO	-	District Revenue Officer
DRR	-	Disaster Risk Reduction
E&F	-	Environment & Forest Department
EAP	-	Emergency Action Plan
ECS	-	Electronic Clearance System
ERC	-	European Research Council
EWS	-	Early Warning Centre
GOI	-	Government of India
GSI	-	Geological Survey of India
HQ	-	Head Quarters
IAS	-	Indian Administrative Service
IDRN	-	Indian Disaster Resource Network
IFS	-	Indian Forest Service
IMD	-	Indian Meteorological Department
INCOIS	-	Indian National Centre for Ocean Information Service
IPS	-	India Police Service
ITEWC	-	Indian Tsunami Early Warning Centre
MAH	-	Major Accident Hazard

MGNREGS	-	Mahatma Gandhi National Rural Employment Guarantee Scheme
NCC	-	National Cadet Corps
NDRF	-	National Disaster Response Force
NGO	-	Non-Governmental Organization
NSS	-	National Service Scheme
NSS	-	National Social Service
ORS	-	Oral Rehydration Salts
PA	-	Public Addressing
PWD	-	Public Works Department
PWD(WRD)	-	Public Works Department (Water Resources Department)
RD& PR	-	Rural Development & Panchayat Raj Department
RMC	-	Regional Metrological Centre
RTO	-	Regional Transport Officer
SDMA	-	State Disaster Management Authority
SDMP	-	State Disaster Management Plan
SDO	-	Sub Divisional Officer
SDRF	-	State Disaster Response Force
SEOC	-	State Emergency Operations Centre
SHG	-	Self Help Group
SOP	-	Standard Operating Procedure
SP	-	Superintendent of Police
TANGEDCO	-	Tamil Nadu Generation and Distribution Corporation
TNEB	-	Tamil Nadu Electricity Board
TNPCB	-	Tamil Nadu Pollution Control Board
TNSDMA	-	Tamil Nadu State Disaster Management Agency
TNWRD	-	Tamil Nadu Water Resource Department
TSP	-	Tamil Nadu Special Police
TWAD	-	Tamil Nadu Water Supply and Drainage Board
VAO	-	Village Administrative Officer



ABSTRACT

Natural Calamities - Grant of Financial assistance to the victims of Natural Calamities namely cyclone, flood, drought, earthquake, fire, Tsunami and hailstorm - From the State Disaster Response Fund (SDRF) and the National Disaster Response Fund (NDRF) - Revised Norms of Government of India - Adopted - Orders issued.

Revenue [DM.III(2)] Department

G.O.(Ms).No.380

Dated:27.10.2015
Manmadha, Ippasi-11
Thiruvalluvar Andu-2046

Read:

1. G.O.Ms.No.630/Revenue[DMIII(2)] Department, dated: 29.10.2007.
2. From the Government of India, Ministry of Home Affairs, New Delhi letter No.32-7/2014-NDM1, dated : 08.04.2015
3. From the Additional Chief Secretary / Commissioner of Revenue Administration letter No.NCI(2)/ 7837/2015, dated : 22.07.2015.

ORDER:

In the Government order first read above, the Government have issued orders adopting the revised norms of Government of India which envisage granting of enhanced relief to the victims of natural calamities under State Disaster Response Fund (SDRF)/National Disaster Response Fund (NDRF) in the form of financial assistance for loss of lives, loss of limb or eyes, grievous injuries, loss of crops, loss of cattle, damages to the houses etc., to mitigate the suffering and loss caused.

2. Based on the norms of assistance under State Disaster Response Fund communicated by Government of India, Ministry of Home Affairs, the Government of Tamil Nadu have issued several Government orders adopting the norms of financial assistance of Government of India from the State Disaster Response Fund on various occasions.

3. In the letter second read above, the Government of India have revised norms of financial assistance from the State Disaster Response Fund for certain items of relief assistance. Accordingly in the letter third read above, the Additional Chief Secretary/Commissioner of Revenue Administration has reported that the

/p.t.o/

Pl Communicate to all collrs.

1301x

Government of India have revised items and norms for assistance from the State Disaster Response Fund(SDRF)/ National Disaster Response Fund(NDRF) and sent the approved list of items and norms for assistance from State Disaster Response Fund(SDRF) / National Disaster Response Fund(NDRF) based on the report of the expert Group set up by the Ministry of Home Affairs. Hence, the Additional Chief Secretary/Commissioner of Revenue Administration has sought approval of the Government for adopting the revised norms of Government of India for sanction of relief from the State Disaster Response Fund(SDRF)/National Disaster Response Fund(NDRF).

4 The Government after careful consideration, accept the recommendations of the Additional Chief Secretary/ Commissioner of Revenue Administration and direct that the revised norms of Government of India or the existing State Government norms whichever are more beneficial be adopted. Accordingly the revised consolidated scale of relief is annexed. This order will come into the force from the date of issue of this order.

(By Order of the Governor)

**R.VENKATESAN
SECRETARY TO GOVERNMENT**

To

- ✓ The Principal Secretary/Commissioner of Revenue Administration,
Chepauk, Chennai-600 005.
- The Secretary, Ministry of Home Affairs, Government of India, New Delhi-110001.
- The Commissioner of Agriculture Department, Chennai-600 005
- The Commissioner of Horticulture Department, Chennai-600 005
- The Director of Animal Husbandry and Veterinary Sciences,
Teynampet, Chennai-600 006
- The Commissioner of Fisheries, Chennai-600 006
- The Director of Public Health & Preventive Medicine,
Kilpauk, Chennai-600 006
- The Director of Medical Education, Chennai-600 010
- The Director of Handloom, Egmore, Chennai-600 008
- The Director of Treasuries and Accounts, Chennai-600 015.

Copy to

- The Principal Accountant General, Chennai-600 018.
- The Principal Accountant General, (Commercial & Receipt Audit), Chennai-600 018.
- The Pay & Account Office, Secretariat, Chennai-600 009.

All District Treasury Officers.

All Departments, Secretariat, Chennai-600 009

All Head of Departments/Boards/Corporation.

The Chief Ministers Office, Chennai-600 009.

The Special Personal Assistant to Hon'ble Minister (Revenue), Chennai-600 009.

The Senior Private Secretary to Chief Secretary to Government,
Chennai-600 009.

The Private Secretary to Principal Secretary to Government,
Highways & Minor Ports Department, Chennai-600 009.

The Private Secretary to Principal Secretary to Government,
Public Works Department, Chennai-600 009.

The Private Secretary to Principal Secretary to Government,
Home Department, Chennai-600 009.

The Private Secretary to Principal Secretary to Government,
Finance Department, Chennai-600 009.

The Senior Private Secretary to Secretary to Government,
Revenue Department, Chennai-600 009.

The Finance (Revenue) Department, Chennai-600 009.

The Revenue (OP2, DM-I, DM-II, DM-IV) Department, Chennai-600 009.

Sf/Sc.

// Forwarded by Order //

J. Narayana
23/10/15
Section Officer
23/10/15

Revenue [DM.III(2)] Department

Annexure

Enclosure G.O.Ms.No.380, Revenue Department, Dated:27.10.2015

REVISED LIST OF ITEMS AND NORMS OF ASSISTANCE FROM STATE DISASTER RESPONSE FUND (SDRF) AND NATIONAL DISASTER RESPONSE FUND (NDRF)

Sl.No.	Items	Norms of Assistance
1	2	3
1	GRATUITOUS RELIEF	
	(a) Ex-gratia payment to families of deceased persons	Rs.4.00 lakh per deceased person including those involved in relief operations or associated in preparedness activities, subject to certification regarding cause of death from appropriate authority.
	(b) Ex-gratia payment for loss of a limb or eye(s)	(i) Rs. 59,100/- per person, when the disability is between 40% and 60% (ii) Rs.2.00 lakh per person when the disability is more than 60% Subject to certification by a doctor from a hospital or dispensary of Government, regarding extent and cause of disability.
	(c) Grievous injury requiring hospitalisation	(i) Rs.12,700/- per person requiring hospitalization more than a week (ii) Rs.4,300/- per person requiring hospitalization for less than a week
	(d) Clothing and utensils / household goods for families whose houses have been washed away / fully damaged / severely inundated for more than two days due to a Natural Calamity	Rs.1800/- per family for loss of clothing Rs.2000/- per family for loss of utensils / household goods.
	(e) Gratuitous Relief for families whose livelihood is seriously affected.	Rs.60/- per adult and Rs.45/- per child, not housed in relief camps. The Tahsildar shall verify and prepare a list of those affected and identify the beneficiaries.

		<p>Period of providing gratuitous relief will be as per assessment of State Executive Committee and the Central Team (in case of NDRF). The default period of assistance will be upto 30 days, which may be extended upto 60 days in the first instance, if required, and subsequently upto 90 days in case of drought / pest attack. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to the stipulation that expenditure on this account should not exceed 25% of SDRF allocation for the year.</p>
2	<p>SEARCH AND RESCUE OPERATIONS.</p> <p>a) Cost of search and rescue measures / evacuation of people affected / likely to be affected</p>	<p>As per actual cost incurred, assessed by State Executive Committee and recommended by the Central Team (in case of NDRF)</p> <p>By the time if the search and rescue operations are over before the visit of the Central Team, then the State Executive Committee will assess/ recommend actual /near actual cost.</p>
	<p>b) Hiring of boats/ essential equipments for carrying immediate relief and saving lives.</p>	<p>As per actual cost incurred, assessed by State Executive Committee and recommended by the Central Team (in case of NDRF)</p>
3	<p>RELIEF MEASURES</p> <p>a) Provision for temporary accommodation, food, clothing, medical care, etc., for people affected/ evacuated and sheltered in relief camps.</p>	<p>A package of 10 KG rice, one saree and one dhoti, one litre of kerosene and Rs. 1000/- to the families evacuated from their houses and moved to shelters.</p> <p>As per assessment of need by State Executive Committee and recommendation of the Central Team (in case of NDRF) for a period up to 30 days. The State Executive Committee would need to specify the number of camps, their duration and the number of persons in camps. In case of continuation of a calamity like drought or widespread devastation caused by earthquake or flood etc., this period may be extended to 60 days, and upto 90 days in cases of severe drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to the stipulation that expenditure on this account should not exceed 25% of SDRF allocation for the year. Medical care may be provided from National Rural Health Mission (NRHM).</p>
	<p>b) Air dropping of essential supplies.</p>	<p>As per actual, based on assessment of need by State Executive Committee and recommendation of the Central Team (in case of NDRF)</p> <p>The quantum of assistance will be limited to actual amount raised in the bills by the Ministry of Defence for airdropping of essential supplies and rescue operations only.</p>

	c) Provision of emergency supply of drinking water in rural areas and urban areas	As per actual cost, based on assessment of need by State Executive Committee and recommended by the Central Team (in case of NDRF) up to 30 days and may be extended upto 90 days in case of drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to the stipulation that expenditure on this account should not exceed 25% of SDRF allocation for the year.
4	CLEARANCE OF AFFECTED AREAS	
	a) Clearance of debris in public areas.	As per cost, within 30 days from the date of start of the work, based on assessment of need by State Executive Committee for the assistance to be provided under SDRF and as per assessment of the Central team for assistance to be provided under NDRF.
	b) Draining off flood water in affected areas	As per actual cost, within 30 days from the date of start of the work, based on assessment of need by State Executive Committee for the assistance to be provided under SDRF and as per assessment of the Central team (in case of NDRF)
	c) Disposal of dead bodies / Carcasses	As per actuals based on assessment of need by State Executive Committee and recommendation of the Central Team (in case of NDRF)
5	AGRICULTURE	
	Assistance to farmers	
A	A) Assistance for land and other loss	
	a) Desilting of agricultural land (where thickness of sand / silt deposit is more than 3" to be certified by the competent authority of the State Government)	Rs.12,200/-per hectare. {Subject to the condition that no other assistance / subsidy has been availed of by / is eligible to the beneficiary under any other Government Scheme)
	b) Removal of debris on agricultural land in hilly areas.	
	c) De-silting / Restoration / Repair of fish farms	
	d) Loss of substantial portion of land caused by landslide, avalanche change of course of rivers	Rs.37,500/- per hectare whose ownership of the land is legitimate as per the revenue records.

B	<p>Input subsidy (where crop loss is 33% and above)</p> <p>a) For agriculture crops, horticulture crops and annual plantation crops</p>	<p>Rs.7410/- per hectare for crops other than paddy In rainfed areas and restricted to sown areas.</p> <p>Rs.13,500/- per hectare for crops in assured irrigated areas, subject to minimum assistance not less than Rs.1000 and restricted to sown areas.</p>
	b) Perennial crops	Rs.18,000/- per hectare. for all types of perennial crops subject to minimum assistance not less than Rs.2000/- and restricted to sown areas.
	c) Sericulture	<p>Rs.7410/- per hectare for Eri, Malberry, Tussar.</p> <p>Rs.6,000/- per hectare for Muga.</p>
	d) Paddy	Rs.13,500/- per hectare subject to minimum assistance not less than Rs.1000 and restricted to sown areas.
6	<p>ANIMAL HUSBANDRY</p> <p>i) Replacement of milch animals, draught animals or animals used for haulage</p>	<p><u>MilchAnimals:-</u> Rs.30,000/- Buffalo / Cow / Yak / Mithun etc., Rs.3000/- Sheep / Goat / Pig</p> <p><u>DraughtAnimals:-</u> Rs.25,000/- Camel / Horse / Bullock etc. Rs.16,000/- Calf / Donkey/ Pony/ Mule.</p> <p><u>Poultry:-</u> Poultry @ Rs.100/- per bird .</p> <p>Note: Relief under these norms is not eligible if the assistance is available from any other Government Scheme, e.g., loss of birds due to Avian Influenza or any other diseases for which the Department of Animal Husbandry has a separate scheme for compensating the poultry owners.</p>
	ii) Provision of fodder / feed concentrate including water supply and medicines in cattle camps	<p>Large animals- Rs.70/- per day</p> <p>Small animals Rs.35/- per day</p> <p>Period for providing relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in case of</p>

		<p>NDRF). The default period for assistance will be upto 30 days which may be extended upto 60 days in the first instance and in case of severe drought upto 90 days. Depending on the ground situation the State Executive Committee can extend the time period beyond the prescribed limit, subject to the stipulation that expenditure on this account should not exceed 25% of SDRF allocation for the year.</p> <p>Based on assessment of need by State Executive Committee and recommendation of the Central Team, (in case of NDRF) consistent with estimates of cattle as per Livestock Census and subject to the certificate by the competent authority about the requirement of medicine and vaccine being calamity related.</p>
	<p>III) Transport of fodder to cattle outside cattle camps</p>	<p>As per actual cost of transport, based on assessment of need by State Executive Committee and recommendation of the Central Team (in case of NDRF) consistent with estimates of cattle as per Livestock Census.</p>
7	FISHERY	
	<p>(i) Assistance to Fishermen for repair/ replacement of boats, nets- damaged or lost</p> <ul style="list-style-type: none"> -Boat -Dugout-Canoe -Catamaran -Net <p>(This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/assistance, for the instant calamity, under any other Government Scheme)</p>	<p>i) Replacement of fully damaged/ lost wooden catamaran with a wooden catamaran, a full subsidy will be of Rs.32,000/-(inclusive of net)</p> <p>ii) For repair / rebuilding of partially damaged catamaran Rs.10,000/- unit</p> <p>iii) For replacement of fully damaged / lost wooden / FRP Vallam, the percentage of subsidy assistance will be enhanced from 35 % to 50% of the total cost subject to maximum subsidy of Rs.75,000/- calculated at a unit cost of Rs.1.5 lakhs (inclusive of engine and net)</p> <p>iv) For partially damaged FRP Vallam at the rate of Rs.20,000/- per unit</p> <p>v) For replacement of fully damaged / lost mechanised boats the subsidy to be paid will be 35% of total cost, restricted to a maximum subsidy of Rs.5 lakhs per boat.</p> <p>vi) For repairs of partially damaged mechanised fishing boats, the subsidy will be provided at 60% of the assessed value of the damages restricted to a maximum subsidy of Rs.3 lakhs per boat.</p> <p>vii) For replacement of Gill nets for catamaran Rs.10,000/- per unit.</p> <p>Repair of OBM / IBE Engines - Rs. 5000/- per engine.</p>

	ii) Input subsidy for fish seed farm	Rs.8,200/-perhectare (This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy / assistance, for the instant calamity, under any other Government Scheme, except the one time subsidy provided under the Scheme of Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture)
8	HANDICRAFTS / HANDLOOM ASSISTANCE TO ARTISANS i) For replacement of damaged tools / equipments	Rs. 4,100/- per artisan for equipments - Subject to certification by the competent authority designated by the Government about damage and its replacement.
	ii) For loss of raw material / goods in process / finished goods	Rs. 4,100/- per artisan for raw material (Subject to certification by the competent authority designated by the State Government about loss and its replacement).
9	HOUSING (a) Fully damaged / destroyed houses / severely damaged Pucca house	i) Rs. 95,100/- per house, in plain areas. ii) Rs.1,01,900/- per house in hilly areas including Integrated Action Plan (IAP) Districts
	(b) Partially damaged Houses Pucca (other than huts) where the damage is at least 15%	Rs.5200/- per house
	c) Damaged / destroyed huts	Fully Damaged Hut - Rs.5,000/- per hut Partially Damaged Hut - Rs.4,100/- per hut and 10.k.g rice for each case of damaged huts.
	d) Cattle shed attached with house	Rs.2,100/- per shed

<p>10</p>	<p>INFRASTRUCTURE</p> <p>Repair / restoration (of immediate nature) of the damaged infrastructure</p> <ol style="list-style-type: none"> 1.Roads&bridges 2.Drinking water supply works 3.Irrigation 4.Power (only limited to immediate restoration of electricity supply in the affected areas) 5.Schools 6.Primary Health Centres 7.Community assets owned by Panchayat Sectors such as Telecommunication and Power (except immediate restoration of power supply), which generate their own revenue and also undertake immediate repair / restoration works from their own funds / resources are excluded. 	<p>Activities of immediate nature: Illustrative lists of activities which may be considered as works of an immediate nature are given as Annexure II.</p> <p>Assessment of requirements: Based on assessment of need, as per State's costs / rates / schedules for repair, by State Executive Committee and recommendation of the Central Team (in case of NDRF) As regards repair of roads, due consideration shall be given to Norms for Maintenance of Roads in India, 2001, as amended from time to time, for prepares of roads affected by heavy rains / floods, Cyclone, landslides, sand dunes, etc., to restore traffic For reference, these norms are -Normal and Urban areas: Upto 15% of total of Ordinary Repair (OR) and Periodical Repair (PR) -Hills: Upto 20% of total of OR and PR.</p> <p>In case of repair of roads , assistance will be given based on the notified Ordinary Repair (OR) and Periodical Renewal (PR) of the State. In case OR and PR rate is not available, then assistance will be provided @Rs.1 lakh/Km for State Highway and Major District Road and @Rs. 0.60 lakh/km for rural roads. The condition of "State shall first use its provision under the budget for regular maintenance and repair" will no longer be required, in view of the difficulties in monitoring such stipulation, though it is a desirable goal for all the States.</p> <p>In case of repair of Bridges and Irrigation works, assistance will be given as per the schedule of rates notified by the concerned States. Assistance for micro irrigation scheme will be provided @Rs.1.5 lakh per damaged scheme. Assistance for restoration of damaged medium and large irrigation projects will also be given for the embankment portions, on par with the case of similar rural roads, subject to the stipulation that no duplication would be done with any ongoing schemes.</p> <p>Regarding repairs of damaged drinking water schemes, the eligible damaged drinking water structures will be eligible for assistance @Rs.1.5 lakh/damaged structure.</p> <p>Regarding repair of damaged primary and secondary schools, primary health centres, Anganwadi and community assets owned by the Panchayats, assistance will be given @ Rs.2 lakh / damaged structure.</p> <p>Regarding repair of damaged power sector, assistance will be given to damaged conductors, poles and transformers upto the level of 11 kv. The rate of assistance will be @ Rs. 4000 / Poles, Rs.0.50 lakhs per km of damaged conductor and Rs.1.00 lakh per damaged transformer</p>
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11	Procurement of essential search, rescue and evacuation equipments including communication equipments etc., for response to disaster.	Expenditure is to be incurred from SDRF only (and not from NDRF) as assessed by State Executive Committee(SEC) - The total expenditure on this item should not exceed 10% of the annual allocation of the SDRF
12	Capacity Building	-Expenditure is to be incurred from SDRF only (and not from NDRF) as assessed by State Executive Committee(SEC) - The total expenditure on this item should not exceed 5% of the annual allocation of the SDRF.
13	State specific disasters within the local context in the State, which are not included in the notified list of disasters eligible for assistance from SDRF/NDRF, can be met from SDRF within the limit of 10% of the annual funds allocation of the SDRF.	-Expenditure is to be incurred from SDRF only (and not from NDRF) as assessed by State Executive Committee(SEC) - The norm for various items will be the same as applicable to other notified natural disasters, as listed above or - In these cases, the scale of relief assistance against each item for "local disaster" should not exceed the norms of SDRF. - The flexibility is to be applicable only after the State has formally listed the disasters for inclusion and notified transparent norms and guidelines with a clear procedure for identification of the beneficiaries for disaster relief for such local disasters' with the approval of State Executive Committee (Provision of relief assistance to local disasters to be sanctioned as per norms and guidelines notified by GOTN)

R.VENKATESAN
SECRETARY TO GOVERNMENT

// True Copy //

J. Narayana Murthy
27/10/11
Section Officer.
27/10/11

Revenue [DM.III(2)] Department**Annexure II****Illustrative list of activities identified as of an immediate nature**

1	Drinking water Supply	<ul style="list-style-type: none"> i. Repair of damaged platforms of Hand pumps/Ring wells/Spring-tapped chambers / Public stand posts, cisterns. ii. Restoration of damaged stand posts including replacement of damaged pipe lengths with new pipe lengths, cleaning of clear water reservoir (to make it leak proof) iii Repair of damaged pumping machines, leaking overhead reservoirs and water pumps including damaged intake-structures, approach gantries/jetties.
2	Roads:	<ul style="list-style-type: none"> i. Filling up of breaches and potholes, use of pipe for creating waterways, repair and stone pitching of embankments. ii. Repair of breached culverts. iii. Providing diversions to the damaged/washed out portions of bridges to restore immediate connectivity. iv. Temporary repair of approaches to bridges/embankments of bridges., repair of damaged railing bridges, repair of causeways to restore immediate connectivity, granular sub base, over damaged stretch of roads to restore traffic.
3	Irrigation:	<ul style="list-style-type: none"> i. Immediate repair of damaged canal structures and <i>earthen/masonry works of tanks and small reservoirs with the use of cement, sand bags and stones.</i> ii. Repair of weak areas such as piping or rat holes in dam walls / embankments. iii. Removal of vegetative material / building material / debris from canal and drainage system. iv. Repair of embankments of minor, medium and major irrigation projects.

4	Health	Repair of damaged approach roads, buildings and electrical lines of PHCs/Community Health Centres.
5	Community assets of Panchayat	a. Repair of village internal roads b. Removal of debris from drainage/sewerage lines c. Repair of internal water supply lines d. Repair of street lights e. Temporary repair of primary schools, Panchayat ghars, community halls, anganwadi etc.
6	Power	Poles/conductors and transformers upto 11 kv

7. The assistance will be considered as per the merit towards the following activities:-

	Items/Particulars	Norms of assistance will be adopted for immediate repair
i	Damaged primary school building Higher secondary/middle college and other educational institutions buildings	Up to Rs.1.50 lakh/unit Not covered
ii	primary health Centre	Upto Rs.1.50 lakh/unit
iii	Electric poles and wires etc	Normative cost (Upto Rs.4000 per pole and Rs.0.50 lakh per km)
iv	Panchayat ghars/Anganwadi/Mahila Mondal/Yuva kendra/ community hall	Upto 2.00 Lakh/Unit
v	State Highways/Major District road	Rs.1.00 lakh/Km *
vi	Rural road/bridge	Rs.0.60 lakh/Km *
vii	Drinking water scheme	Upto 1.50 lakh/unit
viii	Irrigation sector: Minor irrigation schemes/canal Major irrigation scheme	Upto Rs.1.50 lakh/scheme Not covered

	Flood control and anti Erosion Protection work	Not covered
ix	Hydro Power Project / HT Distribution systems/ Transformers and sub stations	Not covered
x	High Tension Lines (above 11Kv)	Not covered
xi	State Government Buildings viz departmental / Office building, departmental/residential quarters, religious structures, patwarkhana, Court premises, play ground, forest bungalow property and animal/bird sanctuary etc.,	Not covered
xii	Long terms/permanent Restoration work incentive	Not covered
xiii	Any new work of long term nature	Not covered
xiv	Distribution of commodities	Not covered (However, there is a provision for assistance as GR to families in dire need of assistance after a disasters)
xv	Procurement if equipments/machineries under NDRF	Not covered
xvi	National Highways	Not covered (Since GOI born entire expenditure towards restoration works activities)
xvii	Fodder seed to augment fodder production	Not covered

*** If OR and PR rates are not provided by the State**

**R.VENKATESAN
SECRETARY TO GOVERNMENT**

// True Copy //

J. Narayana
29/10/15
Section Officer.



சுருக்கம்

பேர்திடர் மேலாண்மை - 2015ஆம் வருட வடகிழக்கு பருவமழை காலத்தில் ஏற்பட்ட வெள்ளத்தின் காரணமாக நிலம் மற்றும் வீட்டு மனைப் பட்டா, கல்வி சான்றிதழ் மற்றும் பிற சான்றிதழ்களை இழந்த பொதுமக்களுக்கு அவற்றை வழங்கும் பொருட்டு சிறப்பு முகாம் நடத்தலில் ஆணை வெளியிடப்படுகிறது.

வருவாய் [பே.மே.2] துறை

ஆரசு ஆணை (நிலை) எண்.423

நாள்:07.12.2015

மன்மத, கார்த்திகை 21,
திருவள்ளூர்வாண்டு 2046

படிக்கவும்:

மாண்புமிகு முதலமைச்சர் அவர்களின் அறிக்கை, நாள் 07.12.2015

ஆணை:

மாண்புமிகு முதலமைச்சர் அவர்கள், 2015ஆம் வருட வடகிழக்கு பருவமழை காலத்தில் ஏற்பட்ட வெள்ளத்தின் காரணமாக நிலம் மற்றும் வீட்டு மனைப் பட்டா, கல்வி சான்றிதழ் மற்றும் இதுபோன்ற பிற சான்றிதழ்களை இழந்த பொதுமக்களுக்கு அவற்றை வழங்கும் பொருட்டு ஆணை பிறப்பித்துள்ளார்கள்.

2. மாண்புமிகு முதலமைச்சர் அவர்களின் அறிக்கையில் ஆணையிட்டுள்ளவாறு ஆவணங்களை இழந்துள்ள பொதுமக்களுக்கு மீண்டும் அவற்றை வழங்கும் பொருட்டு பின்வருமாறு ஆணையிடப்படுகிறது:-

- (அ) வெள்ளத்தின் காரணமாக பொதுமக்கள் இழந்துள்ள நிலம் மற்றும் வீட்டு மனைப் பட்டா, கல்வி சான்றிதழ், வரி வாய் இணைப்பு அட்டை, ஆதார் அட்டையான அட்டை, வாக்காளர் அட்டையான அட்டை, வங்கி கணக்குப் புத்தகம், நிலம்/ வீட்டு கிரையப் பத்திரம் உள்ளிட்ட ஆவணங்களை அவர்களுக்கு வழங்கும் பொருட்டு சிறப்பு முகாம்கள் பாதிக்கப்பட்ட பகுதிகளான சென்னை, காஞ்சிபுரம், திருவள்ளூர் மற்றும் கடலூர் மாவட்டங்களுக்குட்பட்ட வருவாய் வட்டங்களிலும், கல்வி சான்றிதழ்களுக்கு, பள்ளி மற்றும் கல்லூரிகளிலும் வருகின்ற 14.12.2015 முதல் இரண்டு வாரங்களுக்கு நடத்தப்படும் இம்முகாம்களில், தலித்/பாதிபெரிய அரசின் பல்வேறு துறை அதிகாரிகளும், மத்திய அரசின் தொடர்புடைய நிறுவனங்களின் அதிகாரிகளும் கலந்து கொண்டு பொதுமக்கள் பரிசீலனை விண்ணப்பங்களை பெற்று ஒரு வாரத்திற்குள்ளாக நகல் ஆவணங்களை கட்டணமின்றி வழங்குவர். சிறப்பு முகாம்களில் மட்டுமின்றி, பொதுமக்கள் விண்ணப்பங்களை பொது சேவை மையங்கள் மூலமாகவும் கொடுத்து நகல் ஆவணங்களைப் பெறலாம்.

/த.பி.பா/

(ஆ) ஒட்டுநர் உரிமைச் சான்று, வாகன பதிவுச் சான்று (R.C Book) ஆகியவற்றை இழந்த ஆட்டோ ஒட்டுநர்கள் உள்ளிட்ட அனைவருக்கும் மேற்காணும் நடைமுறைப்படி ஆவணங்கள் வழங்கப்படும்.

(ஆளுநரின் ஆணைப்படி)

கு. ஞானதேசிகன்,
தலைமைச் செயலாளர்.

பெறுநர்

முதன்மைச் செயலாளர்/வருவாய் நிருவாக ஆணையர்,
எழிலகம், சேப்பாக்கம், சென்னை-600 005

கூடுதல் தலைமைச் செயலாளர்,

போக்குவரத்து துறை, தலைமைச் செயலகம், சென்னை- 600 009.

முதன்மைச் செயலாளர்,

பள்ளிக் கல்வித் துறை, தலைமைச் செயலகம், சென்னை-600 009.

முதன்மைச் செயலாளர் (பொறுப்பு),

வணிகவரி மற்றும் பதிவு துறை, தலைமைச் செயலகம், சென்னை-600 009.

முதன்மைச் செயலாளர் (பொறுப்பு),

பிற்படுத்தப்பட்டோர், மிகப்பிற்படுத்தப்பட்டோர் மற்றும்

சிறுபான்மையினர் நலத் துறை,

தலைமைச் செயலகம், சென்னை-600 009.

செயலாளர்,

ஆதிதிராவிடர் மற்றும் பழங்குடியினர் நலத் துறை,

தலைமைச் செயலகம், சென்னை-600 009.

செயலாளர்,

உயர்கல்வித் துறை, தலைமைச் செயலகம், சென்னை-600 009.

மாவட்ட ஆட்சியர்கள்,

சென்னை, காஞ்சிபுரம், திருவள்ளூர் மற்றும் கடலூர் மாவட்டம்.

நகல்

வருவாய்த்துறை அமைச்சரின் சிறப்பு

நேர்முக உதவியாளர், தலைமைச் செயலகம், சென்னை-- 600 009.

தலைமைச் செயலாளர் அவர்களின் முதுநிலை தனிச் செயலர்

தலைமைச் செயலகம், சென்னை - 600 009.

அரசு செயலாளர், வருவாய்த்துறை அவர்களின் முதுநிலை

தனிச்செயலாளர், சென்னை- 600 009.

முதலமைச்சர் அலுவலகம், சென்னை-600 009.

இ.கோ/உதிரி

//ஆணைப்படி அனுப்பப்படுகிறது//

2023/12/15
பிரிவு அலுவலர்.



ABSTRACT

Disaster Management - North East Monsoon 2015 - Flood due to heavy rain - Damages caused to infrastructure - Release of a sum of Rs.500.00 Crore under State Disaster Response Fund (SDRF) - for Relief and Restoration of damages - Orders issued.

Revenue [DM-II] Department

G.O.(Ms) No.403

Dated: 17.11.2015

மன்மத, கார்த்திகை 1,
திருவள்ளூர்வராண்டு 2046

Read:

1. Honourable Chief Minister's announcement, dated 16.11.2015
2. G.O.(Ms) No.380, Revenue [D.M.III(2)] Department, dated 27.10.2015.

ORDER:

The heavy rain during the North East Monsoon 2015 has caused widespread damage to life and property in the State. The damages caused to human lives, cattle, huts, crops, road, electricity, water supply and irrigation sources have been extensive.

2. The Honourable Chief Minister has, in a Press Statement, dated 16.11.2015, announced the release of a sum of Rs.500 crore towards sanction of relief assistance and immediate restoration works during the North East Monsoon -2015.

3. Considering the vast number of people affected and heavy loss of cattle, damages to huts and houses, crops, roads, electricity, drinking water supply and irrigation sources and the need to carry out relief and restoration measures on a war footing manner, the Government sanction a sum of Rs.500 crore (Rupees Five hundred crore only) under State Disaster Response Fund (SDRF) for immediate relief and restoration measures in the State.

4. The amount sanctioned in para 3 above shall be debited to the following head of account :-

Relief Package:-

"2245 Relief on account of Natural Calamities 02 Flood, Cyclones etc., - 101 - Gratuitous Relief - I Non-Plan-AB - Distribution of Free Supply of Rice, Cloth, Food, Kerosene etc. in flood affected areas - 24 Materials and Supplies"

(DPC 2245 02 101 - AB 2403)

/p.t.o/

Cash Doles:-

"2245 - Relief on account of Natural Calamities - 02 Floods, Cyclones etc. - 101 - Gratuitous Relief -I Non-Plan - AE - Cash Doles to persons affected in floods - 56 Feeding and Cash Doles"

(DPC 2245 02 101 AE 5600)

Assistance for Crop Loss:-

"2245 Relief on account of Natural Calamities - 02 - Floods, Cyclones etc., 114 - Assistance to Farmers for purchase of Agricultural inputs -I Non-Plan-AA Subsidy to Small and Marginal Farmers for Agricultural Inputs due to Flood -11 Subsidies 01- Individual based subsidy".

(DPC 2245-02-114-AA-1114)

Local Bodies:-

"2245 Relief on account of Natural Calamities - 02 Floods, Cyclones etc., 191 - Assistance to Municipal Corporations-I. Non-Plan - AD - Distribution of free supply of Rice, Cloth, Food, Kerosene, etc., in flood affected areas in Local Bodies - 24 - Materials and Supplies"

(DPC 2245 02 191 AD 2400)

Huts Damaged:-

2245 Relief on account of Natural Calamities - 02 flood, cyclones, etc., 113 Assistance for repairs / reconstruction of Houses - I- Non-Plan-AB Assistance for Repair/Reconstruction of damaged Houses, Huts in the Flood Affected Areas - 09 Grants-in Aid - 09 Others. (DPC 2245-02-113-AB-0991)

Tamil Nadu Electricity Board :-

"2245 - Relief on account of Natural Calamities - 02 - Floods, Cyclones, etc., 190 - Assistance to Public Sector and other Undertakings - I Non-Plan-AB Assistance to Tamil Nadu Electricity Board - 09 Grants-in Aid - 09 Others".

(DPC 2245-02-190-AB-0999)

Damages to Roads:

"2245-Relief on account of Natural Calamities - 02, Flood, Cyclones, etc., - 106-Repairs and Restoration of Damaged Roads and Bridges - I - Non-Plan - AA-Repairs and Restoration of Damaged Roads due to Floods - 17 - Minor Works"

(DPC 2245-02-106-AA-1700)

Drinking Water Supply:

"2245 - Relief on account of Natural Calamities-02 Flood, Cyclones, etc., - 102-Drinking Water Supply - I - Non-Plan - AA-Repairs and Restoration of protected water supply silted wells, pump sets, etc - 09-Grants-in-Aid - 09 - Others"

(DPC 2245-02-102-AA-0996)

Compensation for Loss of Human Lives:

"2245 -Relief on account of Natural Calamities - 02 Flood, Cyclones, etc., - 111 - Ex-gratia payment to bereaved families - I - Non-Plan - AB - Ex-gratia Payment to Bereaved Family of the deceased - 51 - Compensation - 02 - Other Compensations"

(DPC 2245 - 02 - 111-AB-5123)

Compensation for Loss of Cattle:

"2245 - Relief on account of Natural Calamities - 02 Flood, Cyclones, Etc., 800 - Other Expenditure - I - Non-Plan - BI-Ex-gratia payment to the persons who lost their animals due to Natural Calamities - 51 - Compensation - 02 - Other compensations"

(DPC 2245 - 02-800-BI-5127)

Compensation for Fishing Implements:

"2245 - Relief on account of Natural Calamities - 02 Flood, Cyclones, etc., - 118 - Assistance for Repairs / Replacement of damaged boats and Equipment for fishing - I-Non-Plan - AA - Relief Measures to Fishermen - 51 - Compensation - 02 - Other Compensations"

(DPC 2245 - 02 - 118 -AA-5121)

5. Necessary additional funds will be provided in RE/FMA 2015-2016 to meet the expenditure sanctioned in paragraph 3 above. Pending provision of such funds in RE/FMA 2015-16, the Principal Secretary /Commissioner of Revenue Administration is authorized to draw and disburse the amount. However this should be brought to the notice of Legislature by specific inclusion in the Supplementary Estimates 2015-2016. The Principal Secretary/ Commissioner of Revenue Administration is directed to include the expenditure sanctioned above, while sending the Budget proposal for RE/FMA 2015-2016, and also to send necessary Explanatory Notes for including the above expenditure in the Supplementary Estimates 2015-2016 to Finance (BG-I/Revenue) Department without fail.

6. The Principal Secretary/Commissioner of Revenue Administration is requested to obtain the details of loss of lives, damage to huts and houses, crops,

/p.t.o/

electricity, water supply, damages to roads and bridges and irrigation sources etc., and re-allocate the amount sanctioned, as per need, among the affected districts based on the norms indicated in the Government order second read above. The Principal Secretary/ Commissioner of Revenue Administration is also directed to assess the damage and the extent of damage caused to the crops through the District Collectors.

7. This order issues with the concurrence of Finance Department vide its U.O.No.4964/FS(P)/BG.II/2015-1, dated 17.11.2015 and A.S.L.No.1339 (One thousand three hundred and thirty nine)

(BY ORDER OF THE GOVERNOR)

**R. VENKATESAN,
SECRETARY TO GOVERNMENT**

To

The Principal Secretary and Commissioner of Revenue Administration,
Ezhilagam, Chepauk, Chennai - 600 005.
The Principal Accountant General, Chennai - 600 018/600 035.
The Pay and Accounts Officer (East/South/North), Chennai - 600 008/35/01.

Copy to:

The Honourable Chief Minister Office, Chennai - 600 009.
The Special Personal Assistant to Honourable Minister (Revenue), Chennai - 9.
The Personal Assistant, Chief Secretary to Government, Chennai - 600 009.
The Principal Secretary to Government, Public Works Department, Chennai-9.
The Principal Secretary to Government, Home Department, Chennai - 600 009.
The Principal Secretary to Government, Finance Department, Chennai -600 009.
The Principal Secretary to Government, Municipal Administration and Water Supply Department, Chennai - 600 009.
The Principal Secretary to Government, Highways Minor Ports Department, Chennai-600 009.
The Secretary to Government, Energy Department, Chennai-600 009.
The Secretary to Government, Rural Development & Panchayat Raj Department, Chennai -600 009.
The Secretary to Government, Animal Husbandry & Fisheries Department, Chennai-600 009.
The Agriculture Production Commissioner and Secretary to Government, Agriculture Department, Chennai-600 009.
The Personal Secretary to Secretary to Government, Revenue Department, Chennai - 600 009.
The Finance (Revenue/BG-I/BG-II) Department, Chennai -600 009.
The Revenue (O.P.II) Department, Secretariat, Chennai - 600 009.
SF/SC.

//FORWARDED BY ORDER//

Received P.O Copy
(in original)

A. S. Saeed
AC - 11/11/15

SECTION OFFICER .

(Signature)
A/11/15



ABSTRACT

Disaster Management - 'Vardah' Cyclone - Extensive damage to infrastructure and properties - Release of Additional funds from State Disaster Response Fund (SDRF) for payment of compensation for damages to Crops/Fishing Implements/Gratuitous Relief and for Rescue Operations - Sanction - Orders issued.

Revenue [DM-II] Department

G.O.(Ms) No.307

Dated : 29.12.2016

தூன்முகி, மார்஑ழி 14,
திருவள்ளூர்வராண்டு 2047

Read:

1. G.O.Ms.No.380, Revenue [D.M.III(2)] Department dated 27.10.2015
2. G.O.Ms.No.298, Revenue [D.M.2] Department, dated 14.12.2016
3. Letter No.NC.I(4)/15623/2016, from the Principal Secretary/Commissioner of Revenue Administration, dated 27.12.2016

ORDER

On 12.12.2016, a severe cyclonic storm 'Vardah' hit the northern Districts of Tamil Nadu namely, Chennai, Thiruvallur and Kancheepuram leaving in its wake a trail of destruction and causing further damages in the Districts of Vellore, Thiruvannamalai and Dharmapuri.

2. In Government Order second read above, the Government sanctioned a sum of Rs.500.00 crores from the State Disaster Response Fund (SDRF) to take up relief, restoration and other emergent works necessitated by the damages caused by the Cyclonic storm 'Vardah', following the guidelines of State Disaster Response Fund (SDRF) as applicable and has been allocated to various departments as detailed below:-

Sl.No.	Name of the Department	Amount (Rs. in crores)
1.	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)	350.00
2.	Greater Chennai Corporation	75.00
3.	Highways	25.00
4.	Revenue	20.00
5.	Fisheries	10.00
6.	Public Works Department (Buildings)	7.00
7.	Police (Traffic)	5.00
8.	Health	3.00

/p.t.o/

9.	Forests	2.50
10.	Transport	2.00
11.	Aavin	0.50
	Total	500.00
(Rupees Five hundred crores only)		

3. In the letter third read above, the Principal Secretary/Commissioner of Revenue Administration has submitted the following proposals:-

I- Crop Damages

The Agriculture Department has submitted proposals for an amount of Rs.4618.58 lakhs towards crop damages and Horticulture Department has submitted proposals for an amount of Rs.1080.20 lakhs towards crop damages totalling to Rs.56.99 crores. Earlier, in G.O.(Ms) No.298, Revenue (D.M.II) Department, dated 14.12.2016, an amount of Rs.20.00 crores was allotted to District Collectors by the Principal Secretary/Commissioner of Revenue Administration. Now, the Principal Secretary/Commissioner of Revenue Administration has proposed to utilise a sum of Rs.19.85 crores available with the Collectors of Kancheepuram and Tiruvallur Districts for payment of compensation for crop damages in Agriculture Department.

The Principal Secretary/Commissioner of Revenue Administration has requested the balance amount of Rs.37.14 crores required to compensate damages to Agriculture and Horticulture crops. i.e. Rs.26.34 crores in respect of crop damages in Agriculture Department and Rs.10.80 crores in respect of crop damages in Horticulture Department.

II- Fisheries Department

The Fisheries Department has estimated the total value of damages in Tiruvallur, Chennai and Kancheepuram Districts as Rs.19.13 crores and submitted proposal requesting relief amount to the tune of Rs.19.13 crores.

Earlier, an amount of Rs.10.00 crores allotted to Fisheries Department in G.O.(Ms) No.298, Revenue (D.M.II) Department, dated 14.12.2016 and after deducting the above requirement of Fisheries Department is worked out as Rs.9.13 crores. Hence, the Principal Secretary/Commissioner of Revenue Administration has requested that the balance amount of Rs.9.13 crores may be sanctioned.

III- Fire and Rescue Services Department

The Additional Director General of Police/Director, Fire and Rescue Services Department submitted proposals for an amount of Rs.4.87 crores towards funds required for rescue operation and damages caused to infrastructure due to Cyclone storm 'Vardah'.

As per G.O.(Ms) No.298, Revenue (D.M.II) Department, dated 14.12.2016, no funds has been allocated to Fire and Rescue Services Department. In this regard, the Principal Secretary/Commissioner of Revenue Administration has

stated that sanction is requested for a sum of Rs.2.35 crores to the Fire and Rescue Services Department.

IV - Sanction under Gratuitous Relief

The Principal Secretary/Commissioner of Revenue Administration has reported that during Cyclone 'Vardah', besides extensive damages to infrastructure, loss of human lives, live stock and damages to huts, Pucca houses were caused in the Districts of Tiruvallur, Kancheepuram and Chennai, the Collectors have been exercising the delegated powers and making payments to the affected families and an amount of Rs.36.8325 crores is required for providing relief assistance under Gratuitous Relief.

4. The Government examined the above proposal in detail and accept the recommendation of the Principal Secretary/Commissioner of Revenue Administration and based on the approval of State Executive Committee issue the following orders:-

I- Crop Damages

(a) As per the report of the Principal Secretary/Commissioner of Revenue Administration, the total requirement for crop damages has been worked out to Rs.56.99 crores. Permission is accorded to the Principal Secretary/Commissioner of Revenue Administration to utilise a sum of Rs.19.85 crores for distributing compensation for crop damages in Agriculture Department, out of the Rs.20.00 crores sanctioned to Revenue Department in the Government Order second read above. Rs.19.85 crores sanctioned above shall be incurred under the following head of account:-

"2245 Relief on account of Natural Calamities - 02 Floods, Cyclones etc., - 114 - Assistance to Farmers for purchase of Agricultural inputs - I. Non-Plan - AA Subsidy to small and marginal farmers for Agricultural Inputs due to Flood - 11 subsidies - 01 - Individual based subsidy"
(DPC 2245 02 114 AA 1114)19.85 crores

by re-appropriating Rs.19.85 crores from the amount of Rs.20.00 crores sanctioned to Revenue Department in the Government Order second read above from the following head of Account: -

"2245 Relief on account of Natural Calamities - 02 - Flood, Cyclone etc., - 800 Other expenditure - I. Non-Plan - BO Repair and Restoration works in Flood affected District - 09 Grants- in- aid - 09 Others"
(DPC 2245 02 800 BO 0997)

(b) Sanction is also accorded for an additional amount of Rs.37.14 crores (Rupees Thirty seven crores and fourteen lakhs only) to compensate for damages to Agriculture and Horticulture crops. i.e. Rs.26.34 crores in respect of crop damages in Agriculture Department and Rs.10.80 crores in respect of crop

/p.t.o/

damages in Horticulture Department. [Totally Rs.56.99 crores i.e. for Agricultural Department Rs.46.19 crores (Rs.19.85 crores by reappropriation + 26.34 crores additional) and Rs.10.80 crores for Horticulture Department]

II- Fisheries Department

Sanction is accorded for an amount of Rs.9.13 crores (Rupees nine crores and thirteen lakhs only) in addition to the Rs.10.00 crores already sanctioned in G.O.(Ms) No.298, Revenue (D.M.II) department, dated 14.12.2016 towards fishing implements damages during 'Vardah' Cyclone.

III- Fire and Rescue Services Department

Sanction is accorded for an amount of Rs.2.35 crores (Rupees two crores and thirty five lakhs only) towards tree clearing and other rescue operation during 'Vardah' Cyclone.

IV - Sanction under Gratuitous Relief

Sanction is accorded for an amount of Rs.36.8325 crores (Rupees Thirty six crores eighty three lakhs and twenty five thousand only) for payment of gratuitous relief towards the loss of human lives/live stock/damages to huts/houses during 'Vardah' Cyclone.

5. The amount sanctioned in paragraph 4 (b) above shall be debited to the following heads of account:-

Sl.No	Heads of Account	Amount (Rs.in crores)
1.	<u>Agriculture crop damages</u> "2245 Relief on account of Natural Calamities - 02 - Flood, Cyclones etc., - 114 Assistance to Farmers for purchase of Agricultural inputs - I. Non-Plan - AA Subsidy to small and marginal farmers for Agricultural Inputs due to Flood - 11 subsidies - 01 - Individual based subsidy" (DPC 2245 02 114 AA 1114)	26.3400
	<u>Horticulture crop damages</u> "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., - 800 Other expenditure - I. Non-Plan - BH Relief measures to farmers due to damaged of Horticultural Crops in Flood affected areas - 09 -Grants-in-Aid - 09 Others" (DPC 2245 02 800 BH 0991)	10.8000

2.	<p><u>Fisheries Department</u> "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., - 118 Assistance for repairs /replacement of damaged boats and Equipment for Fishing - I. Non-Plan - AA Relief Measures to Fishermen - 51 Compensation - 02 Other Compensations" (DPC 2245 02 118 AA 5121)</p>	9.1300
3.	<p><u>Fire and Rescue Services Department</u> "2245 Relief on account of Natural Calamities - 80 General - 800 Other expenditure - I. Non-Plan - AA Assistance for undertaking immediate relief works in connection with Flood/Fire/ Drought - 09 Grants-in -Aid- 01 Grants for current expenditure" (DPC 2245 80 800 AA 0910)</p>	2.3500
4.	<p><u>Gratuitous Relief</u> "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., - 111 Ex-gratia Payment to Bereaved family -I. Non-Plan - AB Ex-gratia payments to bereaved family of the deceased - 51 Compensation - 02 Other compensations" (DPC 2245 02 111 AB 5123)</p> <p>"2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., - 800 Other Expenditure - I. Non-Plan - BI Ex-gratia payment to the persons who lost their animals due to Natural calamities - 51 Compensation - 02 Other compensations". (DPC 2245 02 800 BI 5127)</p> <p>"2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., - 113 Assistance for repairs/reconstruction of Houses - I. Non-Plan - AB Assistance for Repair/ Reconstructions of damages Houses, Huts in the flood affected area - 09 Grants in Aid - 09 Others". (DPC 2245 02 113 AB 0991)</p>	<p>1.0025</p> <p>1.9400</p> <p>33.8900</p>
	Total	85.4525

6. The Principal Secretary/Commissioner of Revenue Administration is authorised to draw and disburse the above sanctioned amount. Further, the drawing officers/ disbursing officers are directed to strictly follow the norms and guidelines laid down in the Government Order first read above while incurring expenditure from sanctioned funds.

7. The amount sanctioned in paragraph 4(a) above will be met by re-appropriation as mentioned in paragraph 4(a).

8. Necessary additional funds sanctioned in paragraph 4(b) above will be provided in Revised Estimate/Final Modified Appropriation 2016-2017. However, this expenditure shall be brought to the notice of the Legislature by Specific Inclusion in the Supplementary Estimate 2016-2017. Pending provision of such funds, the Principal Secretary/Commissioner of Revenue Administration is authorized to draw and disburse the amount sanctioned in paragraph 4 above to the concerned. He is also directed to include this item of expenditure while sending the budget proposal for Revised Estimate/Final Modified Appropriation 2016-2017 and also send necessary draft explanatory note for inclusion of this expenditure in the Supplementary Estimate 2016-2017 to Government in Finance (BG.I/Revenue) Department at appropriate time without fail.

9. This order issues with the concurrence of Finance Department vide its U.O.No.69219/Finance (Revenue)/2016, dated: 29.12.2016 with ASL No.1759 (One thousand seven hundred and fifty nine).

(BY ORDER OF THE GOVERNOR)

Dr. CHANDRA MOHAN.B.,
SECRETARY TO GOVERNMENT

~~To~~
✓ The Principal Secretary/ Commissioner of Revenue Administration, Ezhilagam, Chepauk, Chennai - 600 005.
The Principal Accountant General, Chennai - 600 018.
The Pay and Accounts Officer (East), Chennai - 600 008.
The Pay and Accounts Officer (South), Chennai - 600 035.
The Pay and Accounts Officer (North), Chennai - 600 001.

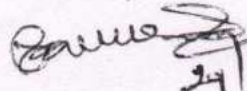
Copy to:


The Additional Chief Secretary to Government,
Finance Department, Chennai - 600 009.
The Additional Chief Secretary to Government,
Highways and Minor Ports Department, Chennai-600 009.
The Additional Chief Secretary to Government,
Energy Department, Chennai-600 009.
The Principal Secretary to Government,
Public Works Department, Chennai-600 009.
The Principal Secretary to Government,
Home Department, Chennai - 600 009.

/p.t.o/

- The Principal Secretary to Government, Municipal Administration and Water Supply Department, Chennai - 600 009.
- The Principal Secretary to Government, Transport Department, Chennai - 600 009
- The Principal Secretary to Government, Health and Family Welfare Department, Chennai - 600 009
- The Principal Secretary to Government, Environment and Forests Department, Chennai - 600 009
- The Agricultural Production Commissioner/Secretary to Government, Agriculture Department, Chennai - 600 009.
- The Secretary to Government, Animal Husbandry, Dairying and Fisheries Department, Chennai-600 009.
- The Honourable Chief Minister's Office, Chennai - 600 009.
- The Special Personal Assistant to Honourable Minister (Revenue), Chennai - 600 009.
- The Personal Assistant, Chief Secretary to Government, Chennai - 600 009.
- The Personal Secretary to Secretary to Government, Revenue Department, Chennai - 600 009.
- The Finance (Revenue/BG-I/BG-II) Department, Chennai -600 009.
- The Revenue (O.P.II) Department, Secretariat, Chennai - 600 009.
- SF/SC.

//FORWARDED/ BY ORDER//


24/12/16
SECTION OFFICER.


29/12/16.



ABSTRACT

Natural Calamities - North East Monsoon 2015 - Declaration of the State as '**Flood Affected**' - Orders Issued.

Revenue (DM II) Department

G.O.(Ms) No.436

Dated: 20.12.2015

**Manmatha, Margazhi, 4
Thiruvalluvar Aandu, 2046**

ORDER:

The unprecedented rains during the North East Monsoon this year has caused enormous devastation to standing crops, property and public infrastructure, besides loss of livelihood, loss of life and cattle.

2. Having regard to the enormity of the damage, the Government of India has declared the recent devastation caused due to torrential rains and floods in Tamil Nadu as '**Calamity of severe nature**'. The Government of Tamil Nadu declares the State of Tamil Nadu as flood affected. Accordingly, Government of Tamil Nadu advise the banks including Co-operative Credit Institutions in the State to extend various reliefs and concessions to flood affected farmers, families and industries including medium, small scale and micro enterprises in the State as per the Reserve Bank of India Guidelines in force.

3. The District Collectors are directed to instruct the competent revenue authorities in the respective Districts, to issue necessary certificates to the banks in respect of flood affected villages/farmers/families and industries for availing of various reliefs and concessions from the Banks including Co-operative Credit Institutions.

(BY ORDER OF THE GOVERNOR)

R. VENKATESAN,
SECRETARY TO GOVERNMENT

To

The Principal Secretary /Commissioner Revenue Administration,
Chepauk, Chennai-5.

All District Collectors

Convenor, State Level Bankers Committee.

Copy to:

The Office of the Hon'ble Chief Minister, Chennai-9.

The Special Personal Assistant to Hon'ble Minister(Revenue), Chennai-9.

SF/SC.

//FORWARDED BY ORDER//

gim SFS yobny 20/12/15
SECTION OFFICER.

20/12/15



ABSTRACT

Disaster Management – North East Monsoon 2015 – Flood due to heavy rain - Loss of Life and Cattle – Damages to Huts/Houses and infrastructure – Additional Funds sanctioned under State Disaster Response Fund (SDRF) - Orders issued.

Revenue [DM-II] Department

G.O.(Ms) No. 84

Dated: 15.02.2016

மன்மத, மாசி 3,
திருவள்ளூர்வராண்டு 2047

Read:

1. G.O.Ms.No.380, Revenue [D.M.III(2)] Department, dated 27.10.2015.
2. G.O.Ms.No.403, Revenue (DM-II) Department, dated 17.11.2015.
3. G.O.Ms.No.430, Revenue (DM-II) Department, dated 15.12.2015.
4. G.O.Ms.No.431, Revenue (DM-II) Department, dated 15.12.2015.
5. G.O.Ms.No.15, Revenue (DM-II) Department, dated 07.01.2016.
6. G.O(Ms)No.25, Revenue (DM-II) Department, dated 11.01.2016.
7. From the Principal Secretary/Commissioner of Revenue Administration Letter No.NC I(2)/5394/2015 dated 15.02.2016.

ORDER:

The heavy rain during the North East Monsoon 2015 has caused loss of lives and damage to property and infrastructure in the State. The damages caused to huts, crops, road, electricity, water supply and irrigation sources have been extensive.

2. In the letter seventh read above, the Principal Secretary/Commissioner of Revenue Administration has stated that the heavy rain during the North East Monsoon 2015 has caused loss of life and damage to property and infrastructure in the State. The damages to huts, crops, roads, electricity, water supply and irrigation sources have been extensive. Considering the large number of people affected and heavy loss of cattle, damages to huts and houses, crops, roads, electricity, drinking water supply and irrigation sources and the need to carry out relief and restoration measures on a war footing manner, the Government have earlier sanctioned a sum of Rs.2640.7955 crore under State Disaster Response Fund (SDRF) as tabulated below:

Sl.No.	G.O. No. & Date	Amount sanctioned (Rs. in crore)
1.	G.O.Ms.No.403, Revenue (DM-II) Department, dated 17.11.2015.	500.00
2.	G.O.Ms.No.430, Revenue (DM-II) Department, dated 15.12.2015.	300.00

3.	G.O.Ms.No.431, Revenue (DM-II) Department, dated 15.12.2015.	1000.00
4.	G.O.Ms.No.15, Revenue (DM-II)Department, dated 07.01.2016.	500.00
5.	G.O(Ms)No.25, Revenue (DM-II)Department, dated 11.01.2016.	340.7955
	Total	2640.7955

3. The Principal Secretary/Commissioner of Revenue Administration has now stated, that out of the above sum of Rs.2640.7955 crore sanctioned by Government, a sum of Rs.2635.1955 crore has been allocated to District Collectors and various line departments leaving a balance of Rs.5.60 crore as tabulated below:-

Sl. No.	Amount Sanctioned till date	Amount allotted to Collectors and Line Departments (Rs. in crore)
1	Gratutious Relief - Human Loss / Cattle Loss / Hut Damages / Inundated huts / houses	1560.2200
2	Fisheries	12.8200
3	Agriculture	405.1131
4	Animal Husbandry	2.0000
5	Horticulture	46.0424
6	Highways	150.0000
7	Chennai Corporation	200.0000
8	Chennai Metropolitan Water Supply and Sewerage Board	20.0000
9	Rural Development	30.0000
10	Tamil Nadu Water Supply and Drainage	2.0000
11	Tamil Nadu Generation and Distribution Corporation	50.0000
12	Municipal Administration	75.0000
13	Town Panchayats	5.0000
14	Public Works Department (WRD)	50.0000
15	Contingency Expenditure (Chennai, Tiruvallur, Cuddalore and Kancheepuram Districts)	4.0000
16	Contingency Expenditure (Chennai District Only)	2.0000
19	Handlooms and Textiles	20.0000
20	Social Welfare	1.0000
	Total	2635.1955

/p.t.o/

	(Rupees in Crores)
Amount sanctioned by Government	2640.7955
Less - Amount allocated to District Collectors and Line Departments	2635.1955
Balance Available	5.6000

4. The Principal Secretary/Commissioner of Revenue Administration has also stated that the anticipated requirement of funds for rescue and relief projected by District Collectors and Line Departments (excluding infrastructure) were already sent to Government in letter dated 07.01.2016 and 11.01.2016. Now, The Principal Secretary/Commissioner of Revenue Administration has informed that the District Collectors and some of the departments/agencies viz., Chennai Corporation, Health, Handlooms and Textiles, Tamil Nadu Civil Supplies Corporation, Agricultural Engineering, Aavin etc., have incurred expenditure towards relief and rescue operations, provision of food packets, supply of drinking water, milk powder, conduct of health camps, supply of rice etc., to the affected families due to floods during North East Monsoon 2015 from the own funds of their Department. The funds sought for by the Principal Secretary/Commissioner of Revenue Administration to various departments are as follows:

TABLE I

FUNDS REQUIRED FOR RELIEF AND RESCUE (Rupees in crore)					
S.No.	Category	Numbers	Total Amount Required	Amount sanctioned	Balance to be sanctioned
District Collectors					
1.	Relief Camps	7,239	9.8498	0.00	9.8498
2.	Food Packets	1,36,39,490	90.1609	0.00	90.1609
3.	Bed Sheets through Handlooms and Textiles	6,26,535	18.49	0.00	18.49
4.	Human Loss	470	18.35	6.76	11.59
5.	Cattle Loss	12,030	11.30	2.4568	8.8432
6.	Poultry Loss	85,895	0.86	.80672	0.05328
7.	Damage to Pucca Houses	Fully - 65 @ Rs.95,100 Partially - 17,674 @ Rs.5200	9.80863	2.1178	7.69083
8.	Inundated Dwellings / Hut Damages	4,93,716 Hut Damages 25,52,572 Inundated Dwellings	1548.0815	1548.0815	0.00

9.	Milk Powder	735.975 MTs	4	17.6634	0.00	17.6634
Total (A)				1724.5642	1560.2228	164.3414
Chennai Corporation						
10.	Rescue Operations	Super Sucker Machines, JCBs/Poclains, etc.,	20.00		0.00	20.00
11.	Mass Cleaning / Disinfection	1,27,050 MTs of Garbage	35.00		0.00	35.00
Total (B)				55.00	0.00	55.00
Municipal Administration						
12.	Rescue Operations	Pumps, JCBs and Gensets	16.9103		0.00	16.9103
13.	Mass Cleaning / Disinfection	Cleaning of Debris and Chlorination	0.97490		0.00	0.97490
Total (C)				17.8852	0.00	17.8852
Grand Total (A + B + C)				1797.4494	1560.2228	237.2266

TABLE II

FUNDS REQUIRED FOR RELIEF AND RESCUE (Rupees in crore)					
S.No.	Department	Numbers	Total Amount Required	Amount sanctioned	Balance to be sanctioned
			451.1566	451.1566	0.00
14.	Agriculture / Horticulture (Crop Damages)	382768.97 Hectares			
			5.3428	0.00	5.3428
15.	Agricultural Engineering	2392.10 Hectare of Land Loss			
			22.6625	2.00	20.6625
16.	Animal Husbandry	10,48,959 animals provided with fodder, medicine, vaccine and mineral mixture			
			20.77	12.07	8.7000
17.	Fisheries	Damages to Boats, Nets etc., Engines and Fish Seed Farms			
			3.30	0.75	2.55
18.	Fisheries	Hiring of Boats for rescue operations			
			77.42	20.00	57.42
19.	Sarees and Dhoties through Handlooms and Textiles	29,53,206			
			1.396	0.00	1.396
20.	Handloom Department	3,694 Weavers / Artisans			

21.	Tamil Nadu Khadi and Village Industries Board	726 families of Potters / Artisans	0.57	0.00	0.57
22.	Transport Department	Hiring of 1,509 Vehicles for rescue operations	0.81	0.00	0.81
23.	Tamil Nadu State Transport Corporation	Supply of Amma Water Bottles to the flood affected people	0.79	0.00	0.79
24.	Tamil Nadu Civil Supplies Corporation	29534.25 MTs	62.98	0.00	62.98
	Total		647.1979	465.9766	161.2213
	Table I + Table II		2444.6473	2026.1994	398.4479

5. The Principal Secretary/ Commissioner of Revenue Administration has therefore requested the Government to sanction a sum of Rs.398.4479 crore (Rupees Three Hundred and ninety eight crore and forty four lakh seventy nine thousand only) from State Disaster Response Fund towards the relief and rescue works and to meet out the expenditure incurred by the above Departments/ District Collectors.

6. Considering the large number of huts/houses inundated and huge damages caused to huts, houses and infrastructure, the Government hereby accord sanction for a sum of Rs.398.4479 crore (Rupees Three Hundred and ninety eight Crore and forty four lakh seventy nine thousand only) from State Disaster Response Fund towards the relief and rescue works and to meet out the expenditure incurred by the above Departments/District Collectors. Further, the Principal Secretary/Commissioner of Revenue Administration is authorised to draw and disburse the above amount to the District Collectors depending upon the requirement.

7. The amount sanctioned in paragraph 5 above shall be debited to the following heads of account:-

Sl.No.	Head of Account	Amount (Rs. in crores)
1	"2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 101 - Gratuitous Relief -I. Non-Plan - AB - Distribution of free supply of Rice, Cloth, Food, Kerosene, etc., in flood affected areas - 24 - Materials and Supplies" (DPC 2245 02 101 AB 2403) (Sl.No.1,2,3,9,19,23 and 24)	257.3541
2	"2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 111 - Ex-gratia payments to bereaved families -I. Non-Plan - AB - Ex-gratia payments to bereaved family of the deceased - 51 - Compensation - 02 Other compensation". (DPC 2245 02 111 AB 5123) (Sl.No.4)	11.59

- 3 "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 800 - Other Expenditure I. Non-Plan - BI - Ex-gratia payment to the persons who lost their animals due to Natural calamities - 51 - Compensation - 02 Other compensation".
(DPC 2245 02 800 BI 5127)
(Sl.No. 5 and 6) 8.8965
- 4 "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 113 - Assistance for repairs/reconstruction of Houses I. Non-Plan - AB - Assistance for Repair/ Reconstructions of damaged Houses, Huts in the flood affected area - 09 Grants in Aid - 09 Others".
(DPC 2245 02 113 AB 0991)
(Sl.No.7) 7.69083
- 5 "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 192 -Assistance to Municipalities /Municipal Councils - I Non-Plan - AB - Assistance to Municipalities for carrying out the repairs to the damages caused by floods and cyclones - 09 Grants-in-Aid - 09 Others".
(DPC 2245 02 192 AB 0995)
(Sl.No.12 and 13) 17.8852
- 6 "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 191 -Assistance to Municipal Corporations - I Non-Plan - AA - Repairs and Restoration Works in Municipal Corporations - 09 Grants-in-Aid - 09 Others".
(DPC 2245 02 191 AA 0999)
(Sl.No.10 and 11) 55.00
- 7 "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 105 -Veterinary care - I Non-Plan - AA - Assistance for purchase of Medicines - 67 Feeding /Dietary Charges - 09 Others".
(DPC 2245 02 105 AA 6798)
(Sl.No.16) 20.6625
- 8 "2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., -101 - Gratuitous Relief - I Non-Plan - AJ - Flood Relief - Other items- 73 Transport charges".
(DPC 2245 02 101 AJ 7304)
(Sl.No.18 and 22) 3.3600

9	<p style="text-align: center;">7</p> <p>"2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 119 -Assistance to artisans for repairs/replacement of damaged tools and equipments - I Non-Plan - AA - Subsidy to handloom weavers for Repairs /Replacements of damaged equipment due to flood - 51 Compensation - 02 Other Compensations". (DPC 2245 02 119 AA 5129) (Sl.No.20)</p>	1.396
10	<p>"2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 119 -Assistance to artisans for repairs/replacements of damaged tools and equipments - I Non-Plan - AB - Subsidy to khadi weavers and potters for Repairs /Replacements of damaged equipments - 51 Compensation - 02 Other Compensations". (DPC 2245 02 119 AB 5127) (Sl.No.21)</p>	0.57
11	<p>"2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 118 -Assistance for Repairs/ Replacement of damaged boats and Equipment for fishing - I Non-Plan - AA - Relief Measures to Fishermen - 51 Compensation - 02 Other Compensations". (DPC 2245 02 119 AA 5121) (Sl.No.17)</p>	8.7000
12	<p>"2245 Relief on account of Natural Calamities - 02 Flood, Cyclones etc., 115 -Assistance to farmers to clear sand/silt/salinity from lands - I Non-Plan - AA - Assistance to farmers to clear sand silt/salinity from lands - 09 Grants-in-Aid - 09 Others". (DPC 2245 02 115 AA 0999) (Sl.No.15)</p>	5.3428
Total		398.4479

8. Necessary additional funds will be provided in Final Modified Appropriation 2015-2016 to meet the expenditure sanctioned in paragraph 5 above. Pending provision of such funds in Final Modified Appropriation 2015-2016, the Principal Secretary/Commissioner of Revenue Administration is authorized to draw and disburse the amount. However this expenditure should be brought to the notice of Legislature by specific inclusion in the Supplementary Estimates 2015-2016. The Principal Secretary/Commissioner of Revenue Administration is directed to include the expenditure sanctioned above, while sending the Budget Proposal for Final Modified Appropriation 2015-2016, and also

to send necessary Explanatory Notes for including the above expenditure in the Supplementary Estimates 2015-2016 to Finance (Revenue) Department.

9. This order issues with the concurrence of Finance Department vide its U.O.No.12232/Finance (Revenue)/2016, dated 15.02.2016 and A.S.L.No.2432 (Two thousand four hundred and thirty two).

(BY ORDER OF THE GOVERNOR)

**R. VENKATESAN,
SECRETARY TO GOVERNMENT**

To

- The Principal Secretary and Commissioner of Revenue Administration, Chepauk, Chennai - 600 005.
- The Chennai Metro Water Supply and Sewerage Board, Chennai - 600 002
- The Chief Executive Officer, Tamil Nadu Khadhi and Village and Industries Board, Chennai - 600 108.
- The Commissioner of Municipal Administration, Chennai -600 005
- The Commissioner, Corporation of Chennai, Chennai - 600 003.
- The Chief Engineer(Agricultural Engineering), Chennai-600 035
- The Commissioner, Co operative Milk Producers Federation, Aavin Illam, Madavaram Milk colony, Chennai -600 051.
- The Engineering - in - Chief, Water Resource Department and Chief Engineer(General), Public Works Department, Chennai - 600 005.
- The Chief Engineer(Agricultural Engineering), Chennai-600 035.
- The Principal Accountant General, Chennai - 600 018.
- The Principal Accountant General, Chennai - 600 035.
- The Pay and Accounts Officer (East/South/North), Chennai - 600 008/600 035/600 001.
- The Pay and Accounts Officer, Madurai.
- The Pay and Accounts Officer, Coimbatore.
- All District Collectors.
- All District Treasury Officers.

Copy to:

- The Additional Chief Secretary to Government, Public Works Department, Chennai-600 009.
- The Additional Chief Secretary to Government, Finance Department, Chennai -600 009.
- The Additional Chief Secretary to Government, Highways and Minor Ports Department, Chennai-600 009.
- The Principal Secretary to Government, Home Department, Chennai - 600 009.
- The Principal Secretary to Government, Municipal Administration and Water Supply Department, Chennai - 600 009.
- The Principal Secretary to Government, Handlooms, Handicrafts, Textiles and Khadhi Department, Chennai - 600 009.

/p.t.o/

- The Secretary to Government, Animal Husbandry, Dairying
and Fisheries Department, Chennai - 600 009.
- The Commissioner, Corporation of Chennai, Chennai - 600 003
- The Chief Minister's Office, Chennai - 600 009.
- The Special Personal Assistant to
Honourable Minister (Revenue), Chennai - 600 009.
- The Personal Assistant, Chief Secretary to Government,
Chennai - 600 009.
- The Senior Personal Secretary to Secretary to Government,
Revenue Department, Chennai - 600 009.
- The Finance (Revenue/BG-I/BG-II) Department,
Chennai -600 009.
- The Revenue (O.P.II) Department, Chennai - 600 009.
SF/SC.

//FORWARDED BY ORDER//

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SECTION OFFICER.

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15/1/16

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15/1/16



சுருக்கம்

பள்ளிக் கல்வி – கனமழை காரணமாக வெள்ளத்தால் பாதிக்கப்பட்ட மாவட்டங்கள் – நிவாரணம் மற்றும் மீட்புப் பணிகள் – மாண்புமிகு தமிழ்நாடு முதலமைச்சர் அவர்களின் அறிக்கை – கல்விச் சான்றிதழ் உள்ளிட்ட ஆவணங்களை இழந்துள்ள பொது மக்களுக்கு பள்ளிகளில் சிறப்பு முகாம் நடத்தி அவற்றின் நகல்களை உடனடியாக வழங்குதல் – ஆணை வெளியிடப்படுகிறது.

பள்ளிக் கல்வி (பக5(1)) துறை

அரசாணை (1டி) எண்.414

நாள்: 07.12.2015

திருவள்ளூர் ஆண்டு 2046

கார்த்திகை 21

படிக்க

மாண்புமிகு தமிழ்நாடு முதலமைச்சர் அவர்களின் 07.12.2015 நாளிட்ட அறிக்கை

ஆணை:

வங்கக் கடலில் உருவான குறைந்த காற்றழுத்த தாழ்வுநிலை காரணமாகவும், மேலடுக்கு சுழற்சியின் காரணமாகவும், நவம்பர் மற்றும் டிசம்பர் 2015 –ல் நான்கு கட்டங்களில் பெய்த கனமழையின் காரணமாக ஏற்பட்ட வெள்ளப் பெருக்கினால் அதிக பாதிப்புக்குள்ளான மாவட்டங்களான சென்னை, திருவள்ளூர், காஞ்சிபுரம் மற்றும் கடலூர் ஆகிய மாவட்டங்களில் மேற்கொள்ளப்பட்டுவரும் மீட்பு, நிவாரணம் மற்றும் சீரமைப்பு பணிகளை துரிதப்படுத்தும் பொருட்டு மாண்புமிகு தமிழ்நாடு முதலமைச்சர் அவர்கள் 7.12.2015 நாளிட்ட அறிக்கையில் வெளியிட்டுள்ள ஏனைய பிற ஆணைகளுடன் பின்வரும் ஆணையினையும் வெளியிட்டுள்ளார்கள்.

“வெள்ளத்தின் காரணமாக பொதுமக்கள் தங்களது கல்விச் சான்றிதழ் உள்ளிட்ட ஆவணங்கள் இழந்துள்ளனர் என தகவல் கிடைக்கப்பெற்றுள்ளதை தொடர்ந்து மேற்சொன்ன ஆவணங்களை இழந்துள்ள மாணவர்களுக்கு அவற்றின் நகல்களை உடனடியாக வழங்க நான் உத்திரவிட்டுள்ளேன். இதற்காக சிறப்பு முகாம்கள், பள்ளிகளிலும், கல்லூரிகளிலும் வருகின்ற 14.12.2015 முதல் இரண்டு வாரங்களுக்கு நடத்த நான் உத்திரவிட்டுள்ளேன். இம்முகாம்களில் தமிழ்நாடு அரசின் பல்வேறு துறை அதிகாரிகளும் மத்திய அரசின் தொடர்புடைய நிறுவனங்களின் அதிகாரிகளும் கலந்து கொண்டு பொதுமக்களிடமிருந்து விண்ணப்பங்களை பெற்று ஒரு வாரத்திற்குள்ளாக நகல் ஆவணங்களை கட்டணமின்றி வழங்குவார்”

2. மேற்காணும் முதலமைச்சரின் ஆணைக்கிணங்க சென்னை, திருவள்ளூர், காஞ்சிபுரம், கடலூர் உள்ளிட்ட வெள்ளத்தால் பாதிப்புக்குள்ளான மாவட்டங்களில் வெள்ளத்தின் காரணமாக

கல்விச் சான்றிதழ்களை இழந்துள்ள பொதுமக்களுக்கு விண்ணப்பத்தின் பேரில் அவற்றின் நகல்களை அவர்களுக்கு உடனடியாக வழங்குவதற்கு வருகின்ற 14.12.2015 முதல் இரண்டு வாரங்களுக்கு அனைத்து மேல்நிலைப் பள்ளிகளிலும் சிறப்பு முகாம் நடத்திடவும், உரிய வழிமுறைகளை பின்பற்றி ஒரு வாரத்திற்குள்ளாக கல்வி சான்றிதழ்களின் நகல்களை உரியவர்களுக்கு கட்டணமின்றி வழங்கிடவும் அரசு ஆணையிடுகிறது.

3. இம்முகாமினை செம்மையுற நடத்துவதற்கு பள்ளிக் கல்வி இயக்குநர், தொடக்கக் கல்வி இயக்குநர், மெட்ரிக்குலேஷன் பள்ளிகளின் இயக்குநர், மாநில கல்வியியல் ஆராய்ச்சி மற்றும் பயிற்சி நிறுவன இயக்குநர் மற்றும் அரசு தேர்வுகள் இயக்குநர் ஆகியோர் ஒருங்கிணைந்து அனைத்துவித ஏற்பாடுகளையும் செய்து உரிய நடவடிக்கை எடுக்க அறிவுறுத்தப்படுகிறார்கள்.

(ஆளுநரின் ஆணைப்படி)

த.சபிதா
அரசு முதன்மைச் செயலாளர்.

பெறுநர்

பள்ளிக் கல்வி இயக்குநர், சென்னை-6

தொடக்கக் கல்வி இயக்குநர், சென்னை-6

மெட்ரிக்குலேஷன் பள்ளிகளின் இயக்குநர், சென்னை-6

அரசு தேர்வுகள் இயக்குநர், சென்னை-6

மாநில கல்வியியல் ஆராய்ச்சி மற்றும் பயிற்சி நிறுவன இயக்குநர், சென்னை-6

மாநகராட்சி ஆணையர், சென்னை மாநகராட்சி, சென்னை-3.

✓ அனைத்து மாவட்ட ஆட்சியர்கள்.

நகல்


மாண்புமிகு முதலமைச்சர் அலுவலகம், சென்னை-9

மாண்புமிகு பள்ளிக் கல்வித் துறை அமைச்சர் அலுவலகம், சென்னை-9

அனைத்து முதன்மைக் கல்வி அலுவலர்கள் / மாவட்ட கல்வி அலுவலர்கள் /

மாவட்ட தொடக்கக் கல்வி அலுவலர்கள் / மெட்ரிக்குலேஷன் பள்ளிகளின் ஆய்வாளர்கள்.
இருப்பு கோப்பு/உதிரி

/ ஆணைப்படி அனுப்பப்படுகிறது /


அரசு சார்புச் செயலாளர்
07.12.15



ABSTRACT

Corona Virus Disease (COVID-19) – Infection Prevention and Control – The Epidemic Diseases Act, 1897 (Central Act No.3 of 1897) – Regulations – Notification - Issued.

HEALTH AND FAMILY WELFARE (P1) DEPARTMENT

G.O.(Ms).No.152

Dated: 23.3.2020
Vihari, Panguni – 10
Thiruvalluvar Aandu – 2051.

Read the following:

G.O.(Ms)No.97, Health and Family Welfare (P1) Department ,
dated: 15.03.2020.

G.O.(Ms) No.150, Health and Family Welfare (P1) Department,
dated 22.3.2020.

NOTIFICATION

Whereas in exercise of powers under the Epidemic Diseases Act, 1897, the Government of Tamil Nadu has already issued the Tamil Nadu COVID-19 Regulations, 2020 for the prevention and containment and prevention of the spread of COVID -19.

2. Whereas it is imperative to put in place strict measures of isolation and social distancing, to contain the spread of COVID-19 in all districts of Tamil Nadu.

3. Therefore, now, under section 2 of the Epidemic Disease Act, 1897 and regulations made thereof, it is hereby ordered that the following restrictions shall be imposed in the territorial jurisdiction of the **State of Tamil Nadu from 18.00 hrs of 24.3.2020 to 06.00 hrs of 1.4.2020.**

- a) All suspected cases and foreign returnees who arrived after 1st March, 2020, are directed to remain under strict home quarantine for such period as decided by local Health Authorities. They will be monitored on a daily basis by the District

Administration / Revenue Department / Local Bodies / Police authorities / Health Authorities.

- b) People are required to stay at home and come out only for accessing basic and essential services and strictly follow social distancing norms detailed in this order and maintain a distance of 1 meter or 3 feet norms.
- c) Any congregation of more than 5 persons in public places is prohibited (District Collectors and Commissioner of Police, Chennai have to issue orders separately).
- d) All shops, commercial establishments, TASMACHOP shops, shall close their operations subject to the exceptions indicated in this order.
- e) All Government Offices, autonomous bodies, Public Sector Undertakings, shall close, subject to the exception indicated in this order.
- f) Public transport services including operation of private buses, stage/contract carriages, State Transport Undertakings, Metro services, taxis, share-autos, auto-rickshaws and ride sharing services including air-conditioned bus services of State Transport Corporation and private operators will not be permitted. However, exempted categories indicated in this order will be permitted
- g) All Inter-State and inter-district services shall not be operated.
- h) All teachers and staff of all educational institutions shall work from home till 31.3.2020 except, where conduct of examinations/evaluation is required. This, however, will not apply to Tamil Nadu Dr. MGR Medical University, Medical Wing of Annamalai University, all (Government, Private, Self Finance, Deemed Universities) Medical, Dental and Nursing Colleges and these institutions will continue to function.

4. However, establishments providing the following services / activities shall be exempt from the above restrictions: -

List of Exempt Services / Activities

A. State Government, Autonomous Bodies, Corporations etc. -

- i) Departments of the Secretariat and the Heads of Departments of Health and Family Welfare, Public, Home, Finance, RD & PR, MAWS, Co-operation, Food and Consumer Protection, P&AR, Revenue, Law, Transport, Social Welfare, Industries, Housing, MS&ME, Labour & Employment, regulatory departments like Pollution Control Boards, Legal Metrology, Boiler Administration, Drug Control, Highways and Minor Ports, Public Works Department, Commercial Taxes and Registration, Animal Husbandry, Fisheries and Dairying, Handloom, Handicrafts Textiles and Khadi, Welfare of Differently Abled, Director of Information and Public Information shall function with required staff.
- ii) Police, Prohibition and Excise, Home Guards, Fire & Rescue Services, Prisons and Social Defence Homes.
- iii) Courts
- iv) District Administration
- v) Public Utilities - Electricity Boards, Public Works Department, Metro Water (TWAD Board), Water Supply, Sewerage and Municipal Services.
- vi) Urban Local Bodies
- vii) Village Panchayats and Panchayat Unions.
- viii) Hospitals and all Health related establishments, including Animal Husbandry
- ix) Regional Transport Offices
- x) Commercial Taxes and Registration Offices
- xi) Treasury and Sub-Treasury
- xii) Public Distribution System shops and related offices

- xiii) Aavin and Milk Unions
- xiv) Amma Canteens with adequate social distancing.
- xv) Any other office considered necessary by the District Collector / State Government.

For those offices that are shut down, the officers / staffs shall remain on "work from home" basis, and can be summoned for duty as and when required and Government employees should be available on call.

B. Government of India Agencies

Defence, Para Military, Tax / Revenue related (eg. Income Tax, Customs, GST etc.), Medical Services & related Public Utilities, Ports Immigration, MEA branch secretariat, FRRO, Development Commissioner, MEPZ, Joint Director, Foreign Trade, Food Corporation of India, Post Offices, Railways, Airports, Doordarshan, All India Radio and any other media.

C. Commercial and Private Establishments

- i) Hospitals, Dispensaries, Clinics, Chemist shops, Optical stores, oxygen cylinder units, Pharmaceuticals, medical equipment manufacturing/service units, health related manufacturing units including mask and sanitation material manufacturing units and their transportation related activities.
- ii) Food including Rice, Pulses, Edible oil, Spices and condiments, Processed food, Groceries, Milk, Bread, Fruit, Vegetable, Meat, Eggs, Fish, Rice and other essential and perishable products and their transportation related activities and warehousing
- iii) Dairy, Poultry feed, fodder, fodder units & Milk Booths.
- iv) Banks & ATM (as per RBI regulations)
- v) Press and Media offices and establishments
- vi) IT, Financial Services Back Offices and ITES Companies. IT and ITES units will ensure employees work from home. Where it is

not feasible to do so, units dealing with critical and essential services will continue to operate taking all protective measures.

- vii) Restaurants, Eateries, Kitchens – only take away (seating not permitted). In tea shop no gathering is allowed.
- viii) Petrol Pumps, LPG Gas and Bottling plants, Oil Agencies, Petroleum & Gas Stations / Depots / product outlets and their godowns transportation.
- ix) Depositories, Stock Brokers and SEBI Registered Participants, subject to SEBI guidelines.
- x) E-Commerce, Pharmaceutical and other essentials. However, home delivery of food items through aggregators like Swiggy, Zomato, Uber eats are prohibited.
- xi) Agriculture and Horticulture, Animal Husbandry and Fisheries related shops and markets.
- xii) All security services including those provided by private agencies.

D. Factories, Workshops and Industries

- i) Medical supplies / equipment, Pharmaceuticals and Biotech units.
- ii) Food related / food processing industries, including flour mills
- iii) Those units which are of a continuous nature where immediate shutting down would disrupt the on-going process for a long time or not possible Chemical factories.
- iv) All industries permitted to operate shall work at 50% of their strength on rotation basis.
- v) Export units and SEZs at 50% of their strength on rotation basis.
- vi) Manufacturing units engaged in production of essential commodities, agriculture commodities & agriculture inputs, food items and wholesalers, retailers of such items.
- vii) Transport arrangements made by the IT, ITES, industries and establishments to transport their employees from home and drop.

E. Transport

- i) Ambulances
- ii) Vehicles / Cabs owned or contracted by the companies under exempted categories for transportation of staff to work place and back.
- iii) All Goods Carriers (trucks, tempos, container trailers etc.)
- iv) Taxis to and fro from airport, hospitals to home
- v) Hearse/funeral services vehicles
- vi) Government vehicles engaged in essential services/duties

F. Public Utilities and Media Services

- i) Electricity- Generation, Transmission and distribution,
- ii) Water supply Sewerage and Municipal Services
- iii) Print and Electronic Media
- iv) Postal, Telecom and Internet Service Provider (ISPs)
- v) Ports and Airports
- vi) All essential construction activities subject to diseases prevention measures as per protocol and continuous monitoring and health status of workers.
- vii) Manufacture, transport and delivery of drinking water cans, bottles and packaged water.
- viii) Godowns and warehouses

G. Health and Medical Services

- i) All pregnant women who are expected to deliver in the ensuing months shall be listed, monitored and assisted by field personnel of health department to ensure institutional deliveries.
- ii) All elective surgeries may be rescheduled in private and Government hospitals as may be required after setting aside necessary beds for treatment of COVID-19 patients.

H. Revenue Administration, Local Bodies, Police and General Points

- i) All Private establishments that support the above services or are linked to the efforts for containment of COVID-19 will remain open.
- ii) Services to Working women hostels, services to old age persons and old age homes, differently abled persons and orphanages is exempted.
- iii) All exempted units shall ensure the necessary precautionary measure, hygiene and safety of the employees, including maintaining 3 feet of social distancing, frequent hand-washing of employees, disinfection of premises and transport vehicles.
- iv) Shops that are under the exempted categories shall ensure that at any given time are not crowded and customers inside also maintain social distancing of 3 feet between each other. The premises shall be cleaned and disinfected three times daily. They shall also ensure that sanitizers are provided at the entrance for all customers.
- v) Resident Welfare Associations shall take necessary measures for social distancing and for maintaining essential services. If any violation is found, same shall be informed to Local Bodies / Local Health Authority by President/ Secretary of RWAs.
- vi) All items/services mentioned in these notifications includes their production, manufacturing, transport, storage, wholesale, retail etc., and are included as essential items/services. In respect of the drivers and work force involved in loading/unloading the manufacturer shall provide necessary preventive measures.
- vii) If there is any doubt as to whether a service is essential or not, the Collector and District Magistrate shall be the competent authority to decide. In case of Chennai, Commissioner of Chennai Corporation will be competent authority. In case, any order issued earlier which is in contradiction to this order then these orders shall prevail.

- viii) In respect of other private establishments that support the above services, any doubt as to whether an establishment is covered under this clause shall be decided by the District Collector concerned. In case of Chennai, Commissioner of Chennai Corporation will be competent authority.
- ix) Police shall render necessary assistance as and when requisitioned by the afore mentioned officers.
- x) All employers will make payments of wages/salaries to workers/employees including those working on contractual and outsourcing basis during this period.
- xi) District Collectors will take all steps to ensure that there is no disruption in the provision of essential commodities and services as mentioned in this order.
- xii) All Government departments, institution, organisations, agencies etc. should ensure that in the course of departmental work that people do not congregate in large numbers.
- xiii) All District Collectors, District Superintendent of Police, Commissioners of Police, Municipal Commissioners of Corporations and competent authorities of all departments organisations and establishments shall take all necessary steps for the enforcement and implementation of the above said regulations.
- xiv) Any person found violating the above measures shall be deemed to have committed an offence punishable under section 188 and other relevant sections of Indian Penal Code (45 of 1860). Such a person shall in addition be dealt with under the provisions of the Epidemic Diseases Act, 1897, The Disaster Management Act, 2005.
- xv) **The restrictions imposed earlier shall continue to be in force.** Anganwadis, schools, colleges, Government welfare hostels, malls, theatres, large centrally air-conditioned shops, amusement parks, swimming pools, Gymnasium, zoos, museums, libraries, tourist resorts, tourist places, beaches, local shandies will continue to remain closed during this period.

- xvi) All religious places are closed for public darshan / worship. However, daily rituals may be conducted.
- xvii) The examination scheduled on 24.3.2020 for +2 students will be conducted as scheduled. However, +1 exams scheduled on 26.3.2020 stand postponed. All other exams related to colleges, schools and Government recruitments stand postponed.
- xviii) Marriages already fixed on or before 16.3.2020 in marriage halls alone can be conducted subject to a maximum number of 30 guests. The marriage halls are instructed to return the advance paid by the public for all cancelled bookings.
- xix) In case of any doubt, the State Government will issue necessary directions / clarifications.
- xx) No suit or legal proceeding shall lie against any person for anything done or intended to be done in good faith under this order.

Guidelines on disinfection procedure for preventing the spread of COVID-19 is enclosed in Annexure.

(BY ORDER OF THE GOVERNOR)

K. SHANMUGAM
CHIEF SECRETARY TO GOVERNMENT

To

The Works Manager, Government Central Press, Chennai- 600 079.
(for publication in the Tamil Nadu Government Gazette (2 copies)
The Director of Public Health and Preventive Medicine, Chennai – 600 006
The Secretary to Government of India,
Ministry of Health and Family Welfare Department,
Nirman Bhavan, New Delhi – 110011.
The Director of Medical and Rural Health Services, Chennai – 600 006.
The Director of Medical Education, Chennai – 600 010.

The Health and Family Welfare (Data cell) Department, Chennai – 600 009.
The Special Personal Assistant to Hon'ble Minister for Health and Family Welfare,
Chennai – 600 009.
The Senior Private Secretary to Law Secretary, Chennai – 600 009.
Stock file/Spare copy.

//FORWARDED BY ORDER//

SECTION OFFICER

Annexure

Guidelines on Disinfection Procedure for Prevention of COVID-19 in Public Places

Corona Virus spreads from person to person directly through respiratory droplets produced when an infected person coughs or sneezes. People also become infected by touching surfaces contaminated with corona virus by droplets generated while coughing or sneezing and then touching their mouth or nose or eyes.

Respiratory Hygiene, Hand Hygiene and cleaning and disinfection of surfaces frequently touched by hands are essential strategies for the prevention and transmission of COVID-19.

Disinfection of floors and surfaces frequently touched by hands such as seats, hand rails, straps in trains and buses, door handles, lifts, hand rails, chairs, tables, ticket counters, in the shopping malls, hotels, cinema theatres, marriage halls, seats in trains and buses will certainly help in interruption of transmission to a larger extent.

a. Disinfections for surfaces frequently touched by hands

- Disinfection of seats, chairs, door handles, ticket counters and hand railings in cinema theatres should be cleaned with Lysol spray after every show.
- In buses and trains, the door handles, straps, hand rails and seats should be cleaned with Lysol periodically after every trip.
- In hotels, lodging houses and marriage halls, Lysol should be sprayed on the surfaces frequently touched by hands should be done periodically, as many times as possible.

Lysol spray for disinfection

Lysol IP (50% Cresol and 50% Liquid Soap)

- Bus Stands, railway stations, buses, trains, vehicles, malls, cinema theatres, marriage halls, etc.,
 - 2.5% Lysol (1 litre of Lysol in 19 litres of water)
- Hospitals, clinics and ambulances
 - 5% Lysol (1 litre of Lysol in 9 litres of water)As per the concentration of Lysol in the market, required concentrations can be prepared.

b. Disinfections for floors / ambulances

01% Hypochlorite solution should be used for cleaning the floors.

Sprayers

Different kinds of sprayers including power sprayers and water wash pumps can be used for spraying, and cleaning can be done by wet mopping.

Technical Guidance and support

Deputy Directors of Health Services / City Health Officers of the concerned districts may be contacted for technical guidance and support.

24x7 Control Room for information in COVID-19	
044-29510400	9444340496
044-29510500	8754448477



Abstract

Disaster Management – Corona Virus Disease (COVID-19) – Infection prevention and control – The Disaster Management Act,2005 – Notification – Issued.

REVENUE AND DISASTER MANAGEMENT DEPARTMENT

Disaster Management Wing, DM II Section

G.O.(Ms)No.172

Dated. 25.03.2020

விகாரி, பங்குனி 12
திருவள்ளூர் ஆண்டு 2051

- Read:
1. G.O.(Ms)No.97 , Health and Family Welfare (P1) Department, dated 15.03.2020.
 2. G.O.(Ms)No.150 , Health and Family Welfare (P1) Department, dated 22.03.2020.
 3. G.O.(Ms)No.152 , Health and Family Welfare (P1) Department, dated 23.03.2020.
 4. National Disaster Management Authority, Government of India Order No.1-29/2020-PP(P1-II), dated 24.03.2020 Guidelines annexed to the Ministry of Home Affairs Order No.40-3/2020-DM-I(A)dated 24.03.2020.
 5. Ministry of Home Affairs Order No,40-3/2020-DM-I(A)dated 25.03.2020 -Addendum to the Guidelines annexed to the Ministry of Home Affairs Order No.40-3/2020-DM-I(A)dated 24.03.2020.

NOTIFICATION

WHEREAS, in exercise of the powers under Section 6(2)(i) of the Disaster Management Act,2005, the National Disaster Management authority (NDMA) has issued an ORDER No.1-29/2020-PP (Pt-II) dated 24th March,2020 directing the Ministries / Departments of Government Of India, State / Union Territory Governments and State/Union Territory Authorities to take effective measures so

as to prevent the spread of COVID-19 in the country which has already been declared as pandemic by the World Health Organization;

AND WHEREAS under directions of the aforesaid ORDER OF NDMA, and in exercise of the powers, conferred under Section 10(2)(1) of the Disaster Management Act, 2005, the Union Home Secretary, in his capacity as Chairperson, National Executive Committee, has issued Order No.40-3/2020-DM-1(A) dated 24th March, 2020 and also issued an addendum to the Guidelines in the said order;

AND WHEREAS, the State Disaster Management Authority (SDMA) has so far conducted five meetings on preparedness measures and prevention of COVID-19 and has issued directions from time to time.

AND WHEREAS, the State Government of Tamil Nadu has issued orders under G.O.(Ms) No.152, Health And Family Welfare Department, Dated.23.03.2020 for regulations under the Epidemic Act, 1897(Central Act No.3 of 1897) imposing restrictions in the territorial jurisdictions of the State of Tamil Nadu from 18.00 hours of 24.03.2020 to 06.00 hours of 01.04.2020.

AND WHEREAS, the Government of Tamil Nadu is satisfied that effective and immediate measures need to be continued to prevent and contain the spread of COVID-19;

NOW THEREFORE, the State Government of Tamil Nadu in supersession of the orders issued in G.O.Ms.No.152, Health And Family Welfare Department, Dated.23.03.2020, issues the following orders applicable throughout the State with immediate effect. The order shall remain in force, for a period of 21 days with effect from 25.03.2020.

1. Offices of the Government of India, its Autonomous/Subordinate Offices and Public Corporations shall remain closed.

Exceptions:

Defence, Central Armed Police Forces, Treasury Public, utilities

(including petroleum,CNG,LPG,PNG), disaster management, power generation and transmission units, Post offices, National Informatics centre, Early Warning Agencies.

- Term Treasury includes Pay & Accounts Offices, Financial Advisers and field offices of the Controller General of Accounts, **with bare minimum staff**,
- Customs clearance at ports/airports/land border; GSTN; and MCA 21 Registry, **with bare minimum staff**.
- Reserve Bank of India and RBI regulated financial markets and entities like NPCI, CCIL, payment system operators and standalone primary dealers, **with bare minimum staff**.

2. Offices of the State Government, its Autonomous Bodies, the Corporations, etc., shall remain closed.

Exceptions:

- a) Police, Home Guards & Civil Defence, Fire and Emergency services, Disaster Management, and prisons.
- b) District Administration and Treasury including field offices of the Accountant General, **with bare minimum staff**.
- c) Electricity, water, sanitation
- d) Municipal bodies – only staff required for essential services like sanitation, personnel related to water supply etc.
- e) Resident Commissioner of the State in New Delhi **with bare minimum staff**, for coordinating Covid-19 related activities and internal kitchens operations.
- f) Forest offices: Staff/workers required to operate and maintain zoo, nurseries, wildlife, firefighting in forests, watering plantations, patrolling and their necessary transport movement.
- g) Social Welfare Department, **with bare minimum staff**, for operations of Homes for children/disabled/senior citizens/

destitute/women/ widows; Observation homes; pensions.

The above offices (Sl.No.1 & 2) should work with minimum number of employees. All other offices may continue to work-from-home only.

3. Hospitals and all related medical establishments, including their manufacturing and distribution units, both in public and private sector, such as dispensaries, chemists and medical equipment shops, laboratories, clinics, nursing homes, ambulance etc., will continue to remain functional. The transportation for all medical personnel, nurses, Para-medical staff, and other hospital support services be permitted. Hospitals include Veterinary hospitals, pharmacies (including Jan Aushadhi Kendra) and Pharmaceutical research labs.
4. Commercial and private establishments shall be closed down.

Exceptions:

- a) Shops, including ration shops (under PDS and FCI operations) dealing with food, groceries, fruits and vegetables, diary and milk booths, meat and fish, animal fodder and includes shops for seeds and pesticides. However district authorities may encourage and facilitate home delivery to minimize the movement of individuals outside their homes.
- b) Banks, insurance offices, ATMs and includes IT Vendor for banking operations, Banking Correspondent and ATM operation and cash management agencies.
- c) Print and electronic media.
- d) Telecommunications, Internet services, broadcasting and cable services. IT and IT enabled services only (for essential services) and as far as possible to work from home.

- e) Delivery of all essential goods including food, pharmaceuticals, medical equipment through e-commerce. However home delivery of food items through aggregators like Swiggy, Zomato, Uber eats are prohibited.
- f) Petrol pumps, LPG, Petroleum and gas retails and storage outlets.
- g) Power generation, transmission and distribution units and services.
- h) Capital and debt market services as notified by the Securities and Exchange Board of India. Data and call Centre **for Government activities only.**
- i) Cold storage and warehousing services.
- j) Private security services.

All other establishments may work – from- home only.

5. Industrial establishments will remain closed.

Exceptions:

- a) Manufacturing units of essential goods including drugs, pharmaceutical, Medical devices, their raw material & intermediates.
- b) Production units, which require continuous process, after obtaining required permission from the State Government.
- c) Coal and mineral production, transportation, supply of explosives and activities incidental to mining operations.
- d) Manufacturing units of packaging material for food items, drugs, pharmaceutical and medical devices.

6. All transport services -air,rail,roadways – will remain suspended.

Exceptions:

- a) Transportation for essential goods,including water tankers.
- b) Fire, law and order and emergency services.
- c) Operations of Railways, Airports and Seaports for cargo

movement, relief and evacuation and their related operational organizations.

- d) Inter-state movement of goods/cargo for inland and exports.
- e) Cross land border movement of essential goods including petroleum products and LPG, food products, medical Supplies.

7. Hospitality Services to remain suspended;

Exceptions:

- a) Hotels, homestays, lodges and motels, which are accommodating tourists and persons stranded due to lockdown, medical and emergency staff, air and sea crew.
 - b) Establishments used/earmarked for quarantine facilities.
8. All educational, training, research, coaching institutions etc., shall remain closed.
9. All places for worship shall be closed for public. No religious congregations will be permitted, without any exception.
10. All social/ political/ sports/ entertainment / academic/ cultural/ religious functions/gathering shall be barred.
11. In case of funerals, congregation of not more than twenty (20) persons will be permitted.
12. All persons who have arrived into India after 15.02.2020, and all such persons who have been directed by health care personnel to remain under strict home/ institutional quarantine for a period as decided by local Health Authorities, failing which they will be liable to legal action under Section 188 of the IPC.
13. Within the overall guidelines of NDMA orders, the following state specific exemptions are also allowed as essential services.
- i. Aavin and Milk Union
 - ii. Amma Canteens with adequate social distancing.

- iii. All essential construction activities subject to diseases prevention measures as per protocol and continuous monitoring and health status of workers.
 - iv. Manufacture, transport and delivery of drinking water cans, bottles and packaged water.
 - v. Services to working women hostels, services to old age persons and old age homes, differently abled persons and orphanages is exempted.
14. Wherever exceptions to above containment measures have been allowed, the organizations/employers must ensure necessary precautions against COVID-19 virus, as well as social distance measures, as advised by the Health Department from time to time.
15. In order to implement these containment measures, the District Collectors will deploy Deputy Collectors and Tahsildars as Executive Magistrates, who will serve as Incident Commanders in respect of their allotted local jurisdiction and will be responsible for the overall implementation of these measures in their respective jurisdictions. All other line department officials in the specified area will work under the directions of such Executive Magistrates. The District Collectors will authorize a specific Officer to issue passes for enabling essential movements as explained. In case of Chennai the Corporation Commissioner will be the competent authority.
16. All enforcing authorities to note that these strict restrictions fundamentally relate to movement of people, but not to that of essential goods.
17. The District Collectors and the Incident Commanders will in particular ensure that all efforts for mobilization of resources, workers and material for augmentation and expansion of hospital infrastructure shall continue without hindrance.

18. Any person violating these containment measures will be liable to be proceeded against as per the provisions of section 51 to 60 of the Disaster Management Act, 2005, besides legal action under section 188 of the Indian Penal Code (as per appendix) and other relevant sections of Indian Penal Code (45 of 1860).
19. In case of any doubt, the State Government will issue necessary directions/clarifications.
20. The above containment measures will remain in force, in all parts of the State, for a period of 21 days with effect from 25.03.2020.

All actions initiated in pursuance of earlier notifications under the Tamil Nadu Public Health act, 1939 (Tamil Nadu Act III of 1939) and under the Epidemic Act, 1897 (Central Act No.3 of 1897) will continue.

(BY ORDER OF THE GOVERNOR)

K.SHANMUGAM

Chief Secretary to Government

To

The Works Manager, Government Central Press, Chennai 600 079.
(for publication in the Tamil Nadu Government Extraordinary Gazette dated
25.03.2020 (50 copies)
The Additional Chief Secretary to Government,
Revenue and Disaster Management Department,
Secretariat, Chennai-9.
The Secretary, Health and Family Welfare Department,
Secretariat Chennai.
All Additional Chief Secretaries, Principal Secretaries and Secretaries to the
Government, Secretariat, Chennai.
Commissioner Revenue Administration, Ezhilagam, Chepauk, Chennai.
All the District Collectors.
Stock file/Spare Copy

//Forwarded//By Order//

Dr. G. Jagan Mohan
25.3.2020
Under Secretary to Govt.

Appendix

1. Section 51 to 60 of Disaster Management Act, 2005

OFFENCES AND PENALTIES

51. Punishment for obstruction, etc.—Whoever, without reasonable cause—

(a) obstructs any officer or employee of the Central Government or the State Government, or a person authorised by the National Authority or State Authority or District Authority in the discharge of his functions under this Act; or

(b) refuses to comply with any direction given by or on behalf of the Central Government or the State Government or the National Executive Committee or the State Executive Committee or the District Authority under this Act, shall on conviction be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall on conviction be punishable with imprisonment for a term which may extend to two years.

52. Punishment for false claim.—Whoever knowingly makes a claim which he knows or has reason to believe to be false for obtaining any relief, assistance, repair, reconstruction or other benefits consequent to disaster from any officer of the Central Government, the State Government, the National Authority, the State Authority or the District Authority, shall, on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

53. Punishment for misappropriation of money or materials, etc.—Whoever, being entrusted with any money or materials, or otherwise being, in custody of, or dominion over, any money or goods, meant for providing relief in any threatening disaster situation or disaster, misappropriates or appropriates for his own use or disposes of such money or materials or any part thereof or willfully compels any other person so to do, shall on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

54. Punishment for false warning.—Whoever makes or circulates a false alarm or warning as to disaster or its severity or magnitude, leading to panic, shall on conviction, be punishable with imprisonment which may extend to one year or with fine.

55. Offences by Departments of the Government.—(1) Where an offence under this Act has been committed by any Department of the Government, the head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly unless he proves that the offence

was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the head of the Department, such officer shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

56. Failure of officer in duty or his connivance at the contravention of the provisions of this Act.—Any officer, on whom any duty has been imposed by or under this Act and who ceases or refuses to perform or withdraws himself from the duties of his office shall, unless he has obtained the express written permission of his official superior or has other lawful excuse for so doing, be punishable with imprisonment for a term which may extend to one year or with fine.

57. Penalty for contravention of any order regarding requisitioning.—If any person contravenes any order made under section 65, he shall be punishable with imprisonment for a term which may extend to one year or with fine or with both.

58. Offence by companies.—(1) Where an offence under this Act has been committed by a company or body corporate, every person who at the time the offence was committed, was in charge of, and was responsible to, the company, for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the contravention and shall be liable to be proceeded against and punished accordingly: Provided that nothing in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence. (2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company, and it is proved that the offence was committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also, be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purpose of this section— (a) “company” means anybody corporate and includes a firm or other association of individuals; and (b) “director”, in relation to a firm, means a partner in the firm.

59. Previous sanction for prosecution.—No prosecution for offences punishable under sections 55 and 56 shall be instituted except with the previous sanction of

the Central Government or the State Government, as the case may be, or of any officer authorised in this behalf, by general or special order, by such Government.

60. Cognizance of offences.—No court shall take cognizance of an offence under this Act except on a complaint made by— (a) the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised in this behalf by that Authority or Government, as the case may be; or (b) any person who has given notice of not less than thirty days in the manner prescribed, of the alleged offence and his intention to make a complaint to the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised as aforesaid.

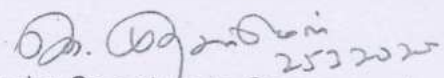
2. Section 188 in The Indian Penal Code

188. Disobedience to order duly promulgated by public servant.—Whoever, knowing that, by an order promulgated by a public servant lawfully empowered to promulgate such order, he is directed to abstain from a certain act, or to take certain order with certain property in his possession or under his management, disobeys such direction, shall, if such disobedience causes or tends to cause obstruction, annoyance or injury, or risk of obstruction, annoyance or injury, to any person lawfully employed, be punished with simple imprisonment for a term which may extend to one month or with fine which may extend to two hundred rupees, or with both; and if such disobedience causes or trends to cause danger to human life, health or safety, or causes or tends to cause a riot or affray, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

Explanation.—It is not necessary that the offender should intend to produce harm, or contemplate his disobedience as likely to produce harm. It is sufficient that he knows of the order which he disobeys, and that his disobedience produces, or is likely to produce, harm.

Illustration An order is promulgated by a public servant lawfully empowered to promulgate such order, directing that a religious procession shall not pass down a certain street. A knowingly disobeys the order, and thereby causes danger of riot. A has committed the offence defined in this section.

//True Copy//


Under Secretary to Government

ABSTRACT

- Corona Virus Disease (COVID-19) – Infection Prevention and Control – The Epidemic Diseases Act, 1897 (Central Act No.3 of 1897) – Regulations - Issued.

HEALTH AND FAMILY WELFARE (P1) DEPARTMENT

G.O.(Ms).No. 97

Dated: 15.03.2020
Vihari, Panguni – 2
Thiruvalluvar Aandu – 2051.

ORDER:

The World Health Organization has declared the recent COVID-19 epidemic affecting 114 countries including India as Public Health Emergency of International Concern (PHEIC) and has also characterized it as a controllable pandemic.

2. Considering the present situation arising out of Corona Virus Infection in the country, the Government have decided to prescribe regulations to prevent the Outbreak of Corona Virus Disease (COVID-19) under the Epidemic Diseases Act, 1897 (Central Act No.3 of 1897).

3. The following notification will be published in the Tamil Nadu Government Gazette:-

NOTIFICATION

In exercise of powers conferred under section 2 of the Epidemic Diseases Act, 1897 (Central Act 3 of 1897), the Governor of Tamil Nadu hereby makes the following Regulations.-

THE REGULATIONS.

1. Short title.-These regulations may be called the Tamil Nadu COVID -19 Regulations, 2020.

2. Definitions.-

(1)“Authorized person” means the Director of Public Health and Preventive Medicine, the Director of Medical and Rural Health Services, the Director of Medical Education, Deputy Director of Health Services, Joint Director of Medical and Rural Health Services, District Collectors or any other Medical Officer not below the rank of Assistant Surgeon.

(2) "Collector" means the District Collector or any other Officer authorized by the Government to perform the functions of the District Collector.

(3) "COVID-19" means a Disease caused by infection with severe acute respiratory syndrome Corona Virus 2 (SARS-CoV-2).

(4) "Designated laboratory" means any laboratory designated by the Central or State Government for the purpose of COVID-19.

(5) "District Nodal Officer" means the Nodal Officer appointed for COVID-19 by the Department of Health and Family Welfare in each district.

(6) "Hospital" means a place where patients are admitted for medical treatment and includes a Government Hospital.

3. Duties of Hospital.- (1) Every hospital shall maintain rooms or wards exclusively to examine and screen persons suspected of COVID-19.

(2) During screening of such cases, shall record,-

- (i) whether the person has travelled to any country or area where COVID-19 has been reported during the last 28 days; and
- (ii) the history of the person coming in contact with a suspected or confirmed case of COVID-19.

(3) In case the person falling under sub regulation (2), the hospital shall,-

(i) if the person is asymptomatic, he shall be advised to be in Home Quarantine for 14 days; or

(ii) if the person is symptomatic as per case definition of COVID-19, then he shall be isolated in the hospital as per the guidelines of the Government of India issued from time to time in this behalf.

(4) Every hospital shall collect samples for COVID-19 as per the guidelines of the Government of India issued from time to time in this behalf and send them to the Designated laboratory through the District Nodal Officer.

(5) Every hospital shall immediately inform all suspected cases of COVID-19 to the City Health Officer in the case of Chennai district and to the Deputy Director of Health Services in the case of other districts.

4. Power of Authorized Officer.- If any person falling under sub regulation (2) of regulation 3 refuses to be isolated and admitted in a hospital, the authorized officer shall forcefully admit and isolate him for a period of 14 days or till the report of the designated laboratory tests are received, whichever is earlier. Thereafter, further treatment shall be given based on the result of the Laboratory Test.

5. Containment Measures.- If cases of COVID-19 are reported from a defined geographic area such as village, town, city, ward, colony, settlement, the Collector shall have the right to implement following containment measures, but not limited to these, in order to prevent spread of the disease namely:-

- (i) sealing of the geographical area.
- (ii) barring entry and exit of population from the containment area.
- (iii) closure of schools, offices or any establishment and banning public gatherings.
- (iv) banning vehicular movement in the area.
- (v) initiating active and passive surveillance of COVID-19 cases.
- (vi) designating any building as containment unit for isolation of the cases.
- (vii) direct staff of any Government department for discharging the duty of containment measures.
- (viii) any other measure, as may be directed by the Department of Health and Family Welfare.

6. Private Laboratory.- No private laboratory shall take or test samples of COVID-19.

7. Precautionary Measures.- (1) Any person with a history of travel in for a period not less than 28 days to a country or area from where COVID -19, shall report himself to the nearest Government Hospital or at any time, call toll-free helpline number 104 or report to the Control Room (04429510500, 04429510400, 9444340496, 8754448477) at the Directorate of Public Health and Preventive Medicine or to the helpline number of the district concerned, available at the website www.tnhealth.tn.gov.in .

(2) Any person with a history of travel to a country or area from where COVID -19 for a period of not less than 28 days but does not have any

symptom of cough, fever or difficulty in breathing, shall isolate himself at home. Such a person shall take precaution to avoid contact with any other person including family members for a period of 14 days.

(8) Dissemination of Information.- No person or Institution or organization shall use any print or electronic media for dissemination of any information regarding COVID-19 without obtaining prior permission from the Director of Public Health and Preventive Medicine, Director of Medical and Rural Health Services, Director of Medical Education or Collector.

(BY ORDER OF THE GOVERNOR)

BEELA RAJESH
SECRETARY TO GOVERNMENT

To

The Director of Public Health and Preventive Medicine, Chennai – 600 006

The Works Manager, Government Central Press, Chennai- 600 079.

(for publication in the Tamil Nadu Government Gazette (2 copies)

The Secretary to Government of India,

Ministry of Health and Family Welfare Department,

Nirman Bhavan, New Delhi – 110011.

The Director of Medical and Rural Health Services, Chennai – 600 006.

The Director of Medical Education, Chennai – 600 010.

Copy to

The Health and Family Welfare (Data cell) Department, Chennai – 600 009.

The Special Personal Assistant to Hon'ble Minister for Health and Family Welfare,
Chennai – 600 009.

The Senior Private Secretary to Law Secretary, Chennai – 600 009.

Stock file/Spare copy.

//FORWARDED BY ORDER//

D. G. Dolorem
15/3/2020
SECTION OFFICER



ABSTRACT

Prevention and Control of COVID-19 - Additional measures - Setting up of a "Crisis Management Committee" under the Chairmanship of the District Collector in each District – Orders – Issued

Go.Ms.No. 175

Dated : 29.3.2020

விகாரி, பங்குனி 16
திருவள்ளூர் ஆண்டு 2051

Read:

From the Principal Secretary/Commissioner of Revenue Administration,
Letter No.1-Covid-19-Per, Dated 29.3.2020.

ORDER:

The Principal Secretary/Commissioner of Revenue Administration in the letter cited has stated that to address the district level issues on a regular and systematic basis, in every district, a "Crisis Management Committee" should be constituted under the Chairmanship of the District Collector. The Principal Secretary/Commissioner of Revenue Administration has suggested that it should have representatives from District Administration, the connected departmental representatives and in particular have representation from the Chamber of Commerce (CII, FICCI etc.,) Chairman/ Managing Directors/Heads of Private Hospitals, Medical Experts, Industries – Pharmaceuticals, Agriculture, Animal husbandry and Fisheries related agencies both Government and private, Food Manufacturers, distributors, NGOs and consumer related stakeholders, etc.

2. The Principal Secretary/Commissioner of Revenue Administration has also requested that to ensure that issues are resolved locally as and when they arise at the District levels, there should be a brief review once in 2-3 days to sort out such issues. The Principal Secretary/Commissioner of Revenue Administration has further requested that they should be linked to one officer of the concerned department, as done at the State level for day to day interaction. It is felt that this will enhance Public participation and also serve as a systemic forum for the stakeholders to resolve the issues at the District level and requested orders of the Government for the same.

/pto/

3. The Government accept the proposal of Principal Secretary/Commissioner of Revenue Administration and issues orders for constitution of "Crisis Management Committee" in every district, under the Chairmanship of the District Collector with representatives from District Administration, the connected departmental representatives and in particular have representation from the Chamber of Commerce (CII, FICCI etc.) Chairman/ Managing Directors/Heads of Private Hospitals, Medical Experts, Industries – Pharmaceuticals, Agriculture, Animal husbandry and Fisheries related agencies both Government and private, Food Manufacturers, distributors, NGOs and consumer related stakeholders, etc. The Committee should also ensure that issues are resolved locally and as and when they arise at the District levels, there should be a brief review once in 2-3 days to sort out such issues and they should be linked to one officer of the concerned department, as done at the State level for day to day interaction to enhance Public participation and also serve as a systemic forum for the stakeholders to resolve the issues at the District level.

(By Order of the Governor)

Dr. Atulya Misra
Additional Chief Secretary to Government

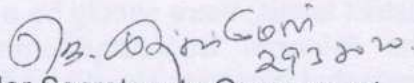
To

All Collectors,
The Principal Secretary/Commissioner of Revenue Administration,
Chepauk, Chennai-5.

Copy to

The Chief Secretary to Government, Chennai-9.
The Industries Department, Secretariat, Chennai-9.
The Minor, Small and Medium Enterprises Department, Secretariat, Chennai-9.
The Health and Family Welfare Department, Secretariat, Chennai-9.
The Agriculture Department, Secretariat, Chennai-9.
The Animal Husbandry & Fisheries Department, Secretariat, Chennai-9.
The Co-operation Food and Consumer
Protection Department, Secretariat, Chennai-9.
The Hon'ble Chief Minister's Office, Secretariat, Chennai-9.

//Forwarded/By Order//


Under Secretary to Government



சுருக்கம்

பேரிடர் மேலாண்மை - வடகிழக்குப் பருவமழை 2015 - தமிழகத்தில் இயற்கை சீற்றத்தின் காரணமாக பாதிப்படைந்த குடும்பங்களுக்கு நிவாரணம் வழங்குதல் - ஆணை வெளியிடப்படுகிறது.

வருவாய் [பே.மே.2] துறை

அரசு ஆணை (நிலை) எண்.424

நாள்:07.12.2015

மன்மத, கார்த்திகை 21,
திருவள்ளூர்வராண்டு 2046

படிக்கவும்:

1. மாண்புமிகு முதலமைச்சர் அவர்களின் அறிக்கை, நாள் 07.12.2015
2. அரசாணை (நிலை) எண்.380, வருவாய் [பே.மே.3(1)] துறை, நாள்.27.10.2015.
3. அரசாணை (நிலை) எண்.403, வருவாய் [பே.மே.2]துறை, நாள்.17.11.2015

ஆணை:

மாண்புமிகு முதலமைச்சர் அவர்கள், 2015ஆம் வருட வடகிழக்குப் பருவமழை காலத்தில் ஏற்பட்ட பெருமழையினால் பாதிக்கப்பட்ட குடும்பங்களுக்கு நிவாரண உதவிகள் வழங்கும் பொருட்டு ஆணை பிறப்பித்துள்ளார்கள்.

2. மாண்புமிகு முதலமைச்சர் அவர்களின் அறிக்கையில் ஆணையிட்டுள்ளவாறு நிவாரணம் வழங்க பின்வருமாறு ஆணையிடப்படுகிறது:-

(அ) மழை வெள்ளத்தால் முழுமையாக சேதமடைந்த குடிசைகளுக்கு ரூ.5000/-மும், பகுதி சேதமடைந்த குடிசைகளுக்கு ரூ.4100/-மும் பார்வை இரண்டில் குறிப்பிடப்பட்டுள்ள அரசாணையில் ஆணையிடப்பட்டுள்ளது. இந்த நிவாரண நிதி உதவிகளை உயர்த்தி, முழுமையாக மற்றும் பகுதி சேதமடைந்த குடிசைகளுக்கு நிவாரணத் தொகையாக ரூ.5000/-மும் மற்றும் துணிகள், பாத்திரங்கள் போன்ற வீட்டு உபயோக பொருட்கள் இழப்புக்கான சிறப்பு நிவாரணத் தொகையாக ரூ.5000/-மும் ஆக மொத்தம் ரூ.10,000/- மற்றும் 10 கிலோ அரிசி, ஒரு வேட்டி மற்றும் ஒரு சேலை ஆகியவை வழங்கப்படும். மேலும் பகுதி சேதமடைந்த குடிசைகளுக்கு ரூ.4100/- நிவாரணத் தொகை ஏற்கனவே வழங்கப்பட்டிருப்பின் அவர்களுக்கு கூடுதலாக ரூ.900/- தற்போது வழங்கப்படும்.

(ஆ) கனமழையின் காரணமாக இரண்டு நாட்களுக்கு மேல் வெள்ளத்தால் சூழப்பட்டு, அதனால் பாதிப்பிற்குள்ளான நிரந்தர/குடிசை வீடுகளில் வசிக்கும் குடும்பத்தினருக்கு துணிகள், பாத்திரங்கள் போன்ற வீட்டு உபயோக பொருட்கள் இழப்பிற்கான சிறப்பு நிவாரணத் தொகையாக ரூ.5000/-மும் மற்றும் 10 கிலோ அரிசி, ஒரு வேட்டி மற்றும் ஒரு சேலை ஆகியவை வழங்கப்படும்.

/த.பி.பா/

(இ) பாதிக்கப்பட்ட குடும்பங்களை கணக்கெடுக்கும் பணிகளை உடனடியாக துவங்கவும் கணக்கெடுப்பு முடிந்தவுடன் நிவாரணத் தொகை வழங்கவும் ஆணையிடப்படுகிறது. மேற்காணும் தொகையானது பாதிக்கப்பட்ட மக்களின் வங்கிக் கணக்கில் வரவு வைக்கப்படும். வங்கி கணக்கில்லாதவர்களுக்கு உடனடியாக புதிய வங்கி கணக்கு துவக்கப்பட்டு அக்கணக்கில் மேற்படி நிவாரணத் தொகை வழங்கப்பட வேண்டும். வேட்டி, சேலை மற்றும் அரிசி ஆகியவை சம்மந்தப்பட்ட நியாய விலைக் கடைகள் மூலம் வழங்கப்படும்.

3. மேற்காணும் நிவாரணத் தொகைகள், பார்வை மூன்றில் படிக்கப்பட்ட அரசாணையில், மாநில பேரிடர் நிவாரண (State Disaster Response Fund (SDRF) நிதியிலிருந்து ஒப்பளிக்கப்பட்டுள்ள தொகையிலிருந்து வழங்கப்படவேண்டும்.

4. இவ்வாணை நிதித்துறை அ.சா.கு.எண்.66703/நிதி(வ.செ.2)/2015, நாள். 07.12.2015 இன்படி வெளியிடப்படுகிறது.

(ஆளுநரின் ஆணைப்படி)

இரா. வெங்கடேசன்,
அரசு செயலாளர்.

பெறுநர்

முதன்மைச் செயலாளர்/வருவாய் நிருவாக ஆணையர்,
எழிலகம், சேப்பாக்கம், சென்னை-600 005.

முதன்மைச் செயலாளர்,

நிதித் துறை, தலைமைச் செயலகம், சென்னை-600 009

முதன்மைச் செயலாளர்,

கூட்டுறவு, உணவு மற்றும் நுகர்வோர் பாதுகாப்புத் துறை,
தலைமைச் செயலகம், சென்னை-600 009

முதன்மைச் செயலாளர்,

கைத்தறி, கைத்திறன், துணி நூல் மற்றும் கதர்த் துறை,
தலைமைச் செயலகம், சென்னை-600 009

அனைத்து மாவட்ட ஆட்சியர்கள்.

சம்பளம் மற்றும் கணக்கு அலுவலகம் (கிழக்கு, மேற்கு, வடக்கு),

சென்னை/மதுரை மற்றும் கோயம்புத்தூர்.

முதன்மை மாநில கணக்காயர், சென்னை 600 018/600 035.

அனைத்து மாவட்ட கருவூல அலுவலர்கள்.

நகல்

வருவாய்த்துறை அமைச்சரின் சிறப்பு

நேர்முக உதவியாளர், தலைமைச்செயலகம், சென்னை- 600 009

தலைமைச் செயலாளர் அவர்களின் முதுநிலை தனிச் செயலர்

தலைமைச் செயலகம், சென்னை - 600 009

அரசு செயலாளர், வருவாய்த்துறை அவர்களின் முதுநிலை

தனிச்செயலாளர், சென்னை- 600 009

முதலமைச்சர் அலுவலகம், சென்னை-600 009.

நிதி (வருவாய்/வ.செ.1/வ.செ.2)த் துறை, சென்னை-600 009

இ.கோ/உதிரி

//ஆணைப்படி அனுப்பப்படுகிறது//

(Handwritten Signature)
7/12/15

பிரிவு அலுவலர்.

(Handwritten Signature)
7/12/15



ABSTRACT



Disaster Management - Grant of Financial assistance - Inclusion of disasters such as Sea Erosion, Lightning, Thunder, Whirlwind, Gale Wind - Victims eligible for relief Assistance under State Disaster Response Fund - Orders - Issued.

Revenue and Disaster Management Department, Disaster Management Wing, DM3(2) Section

G.O (Ms) No.246

Dated: 03.08.2017

ஹேவிளம்பி, ஆடி 18,
திருவள்ளூர் ஆண்டு 2048

Read:

1. G.O.(Ms) No.380, Revenue [DM 3(2)] Department, dated 27.10.2015.
2. From the Principal Secretary/Commissioner of Revenue Administration, Chennai letter No.NC.I(2)/1002/2015, dated 18.07.2016.
3. Announcement made by the Hon'ble Minister for Revenue, on the floor of the Legislative Assembly on 10.07.2017.

ORDER:

The Hon'ble Minister for Revenue made the following announcement on the floor of the Legislative Assembly on 10.07.2017 as follows:-

2. இயற்கை சீற்றங்களுக்கு நிவாரணம் வழங்கப்படும் பிரிவுகளை நீட்டித்தல்.

"இயற்கைச் சீற்றங்களான புயல், வெள்ளம், வறட்சி, நிலநடுக்கம், தீ, சுனாமி மற்றும் ஆலங்கட்டி மழை ஆகியவற்றால் உயிரிழந்தவர்களின் குடும்பங்களுக்கு மாநில பேரிடர் நிவாரண நிதியிலிருந்து வழங்கப்பட்டு வரும் நிவாரண உதவிகளை நீட்டித்து கடல் அரிப்பு, இடி, மின்னல், சுழற்காற்று மற்றும் சூறைக்காற்று ஆகியவற்றினால் ஏற்படும் உயிரிழப்புகளுக்கும் இனிவரும் காலங்களில் மாநில பேரிடர் நிவாரண நிதியிலிருந்து நிவாரணம் வழங்கப்படும்."

2. The Government of India, Ministry of Home Affairs in their Office Memorandum dated 20.03.2015 have referred the recommendations of the 14th Finance Commission regarding Disaster Management and apprised the following decisions of the Government of India:

/p.t.o/

The Expenditure for providing immediate relief to the victims of State - specific disasters within the local context in the State, which are not included in the Government of India notified list of disasters eligible for assistance from State Disaster Response Fund (SDRF)/National Disaster Response Fund (NDRF), can be met from the State Disaster Response Fund (SDRF) within the limit of 10 percent of the funds available under the State Disaster Response Fund (SDRF). However, this flexibility would be applicable only after the State has formally listed the disasters for inclusion and notified transparent norms and guidelines with a clear procedure for identification of the beneficiaries for disaster relief for such local disasters with the approval of the State Executive Committee to ensure that individual beneficiary oriented assistance is necessarily disbursed through the bank account of the beneficiary.

The scale of relief assistance against each item for such local disaster should not exceed the norms of State Disaster Response Fund (SDRF)/National Disaster Response Fund (NDRF). Any amount spent by the State for such disasters over and above the ceiling would be borne out of its own resources and would be subject to the same accounting norms.

3. The allocation approved by the Government of India towards State Disaster Response Fund from 2015-2016 to 2019-2020 is as follows:

Year	Centre's Contribution (Rs. in Crores)	State's Contribution (Rs. in Crores)	Total (Rs. in Crores)
2015-2016	509.25	169.75	679.00
2016-2017	534.75	178.25	713.00
2017-2018	561.00	187.00	748.00
2018-2019	589.50	196.50	786.00
2019-2020	618.75	206.25	825.00
Total	2813.25	937.75	3751.00

4. In the Government order first read above, orders have been issued by the Government of Tamil Nadu, revising the norms for sanction of relief assistance to the victims of Natural Calamities namely Cyclone, Flood, Drought, Earth Quake, Fire, Tsunami and hailstorm from the State Disaster Response Fund (SDRF)/National Disaster Response Fund (NDRF) based on the norms of assistance communicated by the Government of India, Ministry of Home Affairs in their letter dated 08.04.2015. In the above Government Order, it has also been ordered therein to adopt the norms of Government of India or the existing norms of the State Government whichever is more beneficial.

5. The Principal Secretary/Commissioner of Revenue Administration in his proposal second read above has stated that the procedure currently followed for identification of beneficiaries of natural disasters may be adopted for identification of beneficiaries of area specific disasters also and hence recommended to include Sea

Erosion, Lightning, Thunder, Whirlwind, Gale Wind as area specific disasters and to sanction relief assistance from State Disaster Response Fund (SDRF).

6. Based on the announcement made by the Hon'ble Minister for Revenue on the floor of the Legislative Assembly on 10.07.2017 and based on the proposal of the Principal Secretary/Commissioner of Revenue Administration, the matter was placed before the State Executive Committee and the State Executive Committee has approved the same.

7. The Government hereby orders the inclusion of area specific disasters such as Sea Erosion, Lightning, Thunder, Whirlwind, Gale Wind in the list of items which are eligible for relief under State Disaster Response Fund (SDRF). The Government also accepts the proposal of the Principal Secretary/Commissioner of Revenue Administration with regard to the guidelines to be followed for sanction of relief as below:-

(1) LIST OF ITEMS AND NORMS OF ASSISTANCE.

Category	Relief Proposed	Guidelines to be followed for sanction of relief
GRATITIOUS RELIEF		
(a) Ex-gratia payment to families of deceased persons	Rs.4.00 lakh per deceased person.	A Certificate of cause of death shall be issued by an appropriate authority certifying that the death has occurred due to the disaster as applicable. In the case of Government employee / relief worker who loses his / her life, while engaged in rescue and relief operations, during disasters or during preparedness activities like mock drills, etc., his family would be paid this relief.
(b) Ex-gratia payment for loss of a limb or eyes	(i) Rs.59,100/- per person (when the disability is between 40% and 60% duly certified by a Government doctor or doctor from a panel approved by the Government)	A Certificate shall be issued by a Government Doctor or a Doctor from a panel approved by the Government certifying the cause for the disability and percentage of his disability. The Tahsildar concerned shall conduct a local enquiry and submit his report as to the occurrence of the disaster and the cause for the disability.

/p.t.o/

	(ii) Rs.2.00 lakh per person (when the disability is more than 60% duly certified by a Government doctor or doctor from a panel approved by the Government)	Proposals for sanction of Relief need to be sent to Government through State Relief Commissioner along with the Enquiry Report of the Tahsildar concerned seeking sanction of relief.
(c) Grievous injury requiring hospitalization	(i) Rs.12,700/- per person (grievous injury requiring hospitalization for more than a week) (ii) Rs.4,300/- per person (grievous injury requiring hospitalization less than a week)	A Certificate shall be issued from the Hospital concerned certifying the cause for his injury and his period of treatment in the hospital. The Tahsildar concerned shall conduct a local enquiry and submit his report as to the occurrence of the disaster and the cause for the disability. Proposals for sanction of Relief need to be sent to Government through State Relief Commissioner along with the Enquiry Report of the Tahsildar concerned seeking sanction of relief.
(d) Clothing and utensils/ household goods for families whose huts have been fully damaged	Rs.1800/- for loss of clothing per family Rs.2000/- per family for loss of utensils / household goods	As per the guidelines of State Disaster Response Fund.
(e) Damage to huts	Rs.4,100/-per partially damaged hut Rs.5,000/- per fully damaged hut (in addition 10 kg of rice, one dhoti, one saree, 1 litre of kerosene is granted as assistance free of cost for affected families)	As per the guidelines of State Disaster Response Fund.

AGRICULTURE

<p>(a) De-silting of agricultural land damaged due to Sea Erosion</p>	<p>Rs.12,200/- per hectare where thickness of sand / silt deposit is more than 3 inches.</p>	<p>Joint Inspection to be done by the Revenue and Agriculture / Horticulture Authorities. Lands Damaged should to be certified by the above Team.</p> <p>Proposal should comprise of the enquiry report of the Tahsildar concerned. Proposals for sanction of relief need to be sent to Government through State Relief Commissioner.</p>
<p>(b) (i) De-silting / Restoration / Repair of fish farms damaged by Sea Erosion</p>	<p>Rs.12,200/- per hectare (Subject to the condition that no other assistance / subsidy has been availed of by/ is eligible to the beneficiary under any other Government Scheme)</p>	<p>Joint Inspection to be done by the Revenue and Fisheries / Agriculture Authorities. Lands Damaged due to Sea Erosion should to be certified by the above team.</p> <p>Proposal should comprise of the enquiry report of the Tahsildar concerned.</p> <p>Proposals for sanction of relief need to be sent to Government through State Relief Commissioner.</p>
<p>(ii) Input subsidy to farmers of agriculture, horticulture crops and annual plantation crops where crop loss is 33% and above</p>	<p>Rs.7410/- per hectare in rainfed areas and restricted to sown areas. Rs.13,500/-in assured irrigated areas (crops including paddy) subject to a minimum assistance not less than Rs.1000/-and restricted to sown areas. Rs.18,000/- for all types of perennial crops subject to minimum assistance not less than Rs.2000/ and restricted to sown areas.</p>	<p>Joint Inspection to be done by the Revenue and Agriculture / Horticulture Authorities.</p> <p>Crops damaged should be certified by the above Team.</p> <p>Proposal should comprise of the enquiry report of the Tahsildar concerned.</p> <p>Proposals for sanction of relief need to be sent to Government through State Relief Commissioner.</p>

(iii) Assistance to Sericulture.	Rs.7,410/- per hectare	<p>Joint Inspection to be done by the Revenue and Agriculture / Horticulture Authorities. Damage due to Sea Erosion should be certified by the competent authority of the State Government.</p> <p>Proposal should comprise of the enquiry report of the Tahsildar concerned.</p> <p>Proposals for sanction of relief need to be sent to Government through State Relief Commissioner.</p>
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(2) The Financial assistance shall be disbursed to the affected family through the bank account of the beneficiary.

(3) The sanction of relief is subject to the norms of State Disaster Response Fund (SDRF) as revised from time to time.

(4) It will be the responsibility of the Office of the State Relief Commissioner and Principal Secretary/ Commissioner of Revenue Administration to maintain the ceiling (10% of available balance in SDRF) while sending proposals to Government for sanction of relief and to maintain separate set of accounts for identifying the amount sanctioned for these relief measures.

(5) In the event of any payment in excess of amount prescribed by Government of India, the same shall be booked in the consolidated fund of the State. For such excess payment, office of the Commissioner of Revenue Administration shall maintain separate set of Accounts.

(6) While implementing the above procedure, the office of the State Relief Commissioner and Principal Secretary/Commissioner of Revenue Administration shall maintain the accounts and the State Relief Commissioner and Principal Secretary/ Commissioner of Revenue Administration shall verify the accounts for the

expenditure statement to be furnished to Government of India for sanction of funds under State Disaster Response Fund (SDRF).

8. This order issues with the concurrence of Finance Department vide its U.O.No.38467/Finance (Revenue)/2017, Dated 03.08.2017.

(BY ORDER OF THE GOVERNOR)

**CHANDRA MOHAN.B.,
SECRETARY TO GOVERNMENT**

To

- The Principal Secretary and Commissioner of Revenue
Administration, Ezhilagam, Chepauk, Chennai - 600 005.
The Secretary, Ministry of Home Affairs, Government
of India, New Delhi - 110 001.
The Commissioner of Agriculture Department, Chennai - 600 005.
The Commissioner of Horticulture Department, Chennai - 600 005.
The Director of Animal Husbandry and Veterinary Sciences,
Teynampet, Chennai- 600 006.
The Commissioner of Fisheries, Chennai - 600 006.
The Director of Public Health & Preventive Medicine,
Kilpauk, Chennai - 600 006.
The Director of Medical Education, Chennai - 600 010.
The Director of Handloom, Egmore, Chennai - 600 008.
The Director of Treasuries and Accounts, Chennai - 600 015.

Copy to:

- The Principal Accountant General, AAD/F & A Cell/Audit I/II,
Chennai - 600 018.
The Principal Accountant General, Chennai - 600 018.
The Pay and Account Office, Secretariat, Chennai - 600009.
The Pay and Accounts Officer (North), Chennai - 600 001.
The Pay and Accounts Officer (South), Chennai - 600 035.
The Pay and Accounts Officer (East), Chennai - 600 008.
All District Collectors.
All District Treasury Officers.
All Departments of Secretariat, Chennai - 600 009.
Chief Minister's Office, Chennai - 600 009.
The Special Personal Assistant to Hon'ble Minister
(Revenue), Chennai - 600 009.
The Additional Chief Secretary to Government,
Finance Department, Chennai -600 009.

/p.t.o

The Additional Chief Secretary to Government,
Highways and Minor Ports Department, Chennai-600 009.

The Additional Chief Secretary to Government, Home
Department, Chennai - 600 009.

The Principal Secretary to Government,
Public Works Department, Chennai-600 009.

The Personal Assistant to Chief Secretary to Government,
Chennai - 600 009.

The Senior Personal Secretary to Secretary to
Government, Revenue Department, Chennai - 600 009.

The Finance (Revenue/BG-I/BG-II) Department, Chennai -600009.

The Revenue (O.P.II, DM-1, DM-2, DM-4) Department, Chennai - 600 009.
SF/SC.

//FORWARDED BY ORDER//

A. Kumar
3/8/17
SECTION OFFICER.
3/8/17



ABSTRACT

Disaster Management – Grant of Financial Assistance to the Victims of Natural Calamities namely Cyclone, Flood, Drought, Earthquake, Fire, Tsunami and Hailstorm, Sea Erosion, Lightning, Thunder, Whirl Wind, Gale Wind & Pest attack in severe nature from the State Disaster Response Fund (SDRF) and the National Disaster Response Fund (NDRF) – Revised Norms of Government of India – Adopted – Orders issued.

REVENUE AND DISASTER MANAGEMENT DEPARTMENT **DISASTER MANAGEMENT WING, D.M.III (2) SECTION**

G.O. (Ms).No. 579

Dated : 09.12.2023

சோபகிருது வருடம், கார்த்திகை 23

திருவள்ளூர் ஆண்டு, 2054

Read:

1. G.O.(Ms).No.380, Revenue [DM.III(2)] Department, dated 27.10.2015.
2. G.O.(Ms).No. 246, Revenue & Disaster Management Department, dated: 03.08.2017.
3. G.O.(Ms).No. 212, Revenue & Disaster Management Department, dated: 03.07.2019.
4. From the Ministry of Home Affairs, (Disaster Management Division), Government of India letter F.No.33-03/2020-NDM-I, dated 11.07.2023.
5. From the Additional Chief Secretary / Commissioner of Revenue Administration & State Relief Commissioner, Lr. No. NC I(1)/706/2022, dated 05.12.2022, 08.08.2023 and 14.11.2023.

*

ORDER:

In the Government order first read above, the Government have issued orders adopting the revised norms of Government of India which envisage granting of enhanced relief to the victims of natural calamities under State Disaster Response Fund (SDRF) and the National Disaster Response Fund (NDRF) in the form of financial assistance for loss of lives, loss of limb or eyes, grievous injuries, loss of crops, loss of cattle, damages to the houses etc., to mitigate the suffering and loss caused.

2. Based on the norms of assistance under State Disaster Response Fund (SDRF) and the National Disaster Response Fund (NDRF) communicated by the Government of India, Ministry of Home Affairs, the Government of Tamil Nadu have issued several Government orders

adopting the norms of financial assistance of Government of India from State Disaster Response Fund (SDRF) on various occasions.

3. In the letter fourth read above, the Government of India have revised norms of financial assistance from the State Disaster Response Fund (SDRF) and the National Disaster Response Fund (NDRF) and stated that the revised list of items and norms for assistance from SDRF and NDRF will be effective from the financial year 2023-2024.

4. In the letter fifth read above, the Additional Chief Secretary/Commissioner of Revenue Administration & State Relief Commissioner has sent the approved list of items and norms of Assistance from State Disaster Response Fund (SDRF) and the National Disaster Response Fund (NDRF) based on the report of Ministry of Home Affairs, Government of India and sought the approval of the Government for adopting the revised norms of Government of India for sanction of relief from the State Disaster Response Fund (SDRF) / National Disaster Response Fund (NDRF).

5. The Government after careful consideration, accept the recommendations of the Additional Chief Secretary/Commissioner of Revenue Administration & State Relief Commissioner and direct that the revised norms of Government of India or the existing State Government norms whichever are more beneficial be adopted. Accordingly, the revised consolidated scale of relief assistance under SDRF and NDRF effective from the Financial year 2023-2024 is annexed to this order.

(By order of the Governor)

**V. RAJARAMAN
SECRETARY TO GOVERNMENT**

To

The Additional Chief Secretary/
Commissioner of Revenue Administration &
State Relief Commissioner,
Chepauk, Chennai-600 005.

The Director, Disaster Management,
Tamil Nadu Disaster Risk Reduction Agency,
Chepauk, Chennai-600 005.

The Joint Secretary, (DM Division)
Ministry of Home Affairs, Government of India,
New Delhi 110001.

The Commissioner of Agriculture, Chennai-600 005.

The Commissioner of Horticulture, Chennai-600 005.

The Director of Animal Husbandry and Veterinary Services
Chennai-600 006.

The Commissioner of Fisheries, Chennai-600 006.

The Director of Public Health & Preventive Medicine
Kilpauk, Chennai-600 010.

The Director of Medical Education, Chennai-600 010.

The Director of Handloom, Chennai-600 008.

The Director of Treasuries and Accounts, Chennai-600 015.

The Accountant General (A & E), Chennai-600 018.

The Pay and Accounts Officer (East), Chennai-600 009.

The Resident Audit Officer, Secretariat, Chennai-600 009.

Copy to:

The Office of the Hon'ble Chief Minister, Chennai-9

All Departments of Secretariat, Chennai-9

All District Collectors

All Heads of Departments/Boards/Corporations

The Special Personal Assistant to Hon'ble Minister for Revenue & DM, Chennai-9.

The Special Personal Assistant to Hon'ble Minister for Agriculture & Farmers' Welfare, Chennai-9.

The Special Personal Assistant to Hon'ble Minister for Finance & H.R.M, Chennai-9.

The Additional Chief Secretary,
Water Resources Department, Chennai-600 009.

The Additional Chief Secretary to Government,
Highways and Minor Ports Department, Chennai-600 009.

The Additional Chief Secretary to Government,
Health and Family Welfare Department,
Chennai-600 009.

The Principal Secretary to Government,
Home, Prohibition and Excise Department,
Chennai-600 009.

The Principal Secretary to Government,
Finance Department, Chennai-600 009.

The Principal Secretary,
Public Works Department, Chennai-600 009.

The Personal Assistant to Chief Secretary to Government,
Secretariat, Chennai-600 009

The Senior Principal Private Secretary to
Secretary to Government, Revenue and
Disaster Management Department, Chennai-600 009.

The Finance (Revenue/ BG-I) Department,
Chennai - 600 009.

The Revenue and Disaster Management (O.P.II, DM-I,II & DM-IV)
Department,
Chennai-600 009.

Stock File/Spare Copy.

// Forwarded by Order //


09.12.2023
Section Officer

ANNEXURE-I

Enclosure to G.O.(Ms) No.579, Revenue & D.M. [D.M.-III(2)] Department, Dated 09.12.2023

Revised List of Items and Norms of Assistance from State Disaster Response Fund (SDRF) and National Disaster Response Fund(NDRF)
(From the financial year 2023-2024)

S. No.	Items	Norms of Assistance
1.	Gratuitous Relief	
	a) Ex-Gratia payment to families of deceased persons.	Rs.4.00 lakh per deceased person, including those involved in relief operations or associated in preparedness activities, Subject to certification regarding cause of death from appropriate authority.
	b) Ex-Gratia payment for loss of a limb or eye(s).	Rs.74,000/- per person, when the disability is between 40% and 60%. Rs.2.50 lakh per person, when the disability is more than 60%. Subject to certification by a doctor from a hospital or dispensary of Government, regarding the extent and cause of disability.
	c) Grievous injury requiring hospitalization	Rs.16,000/- per person requiring hospitalization for more than a week. Rs.5,400/- per person requiring hospitalization for less than a week. Note: Injured persons getting treatment under the 'Ayushman Bharat' Yojna, will not be eligible for relief under this item.
	d) Clothing and utensils/ household goods for families, whose houses have been washed away / fully damaged/ severely inundated for more than two days due to a natural calamity.	Rs.2,500/- per family, for the loss of clothing. Rs.2,500/- per family, for loss of utensils/ household goods.
	e) Gratuitous relief for families whose livelihood is seriously affected.	Gratuitous Relief (GR) for families, whose livelihood is seriously affected will be provided to two adults members of the affected family as per actual rate of MNREGA per day or average rate of all States / UTs per day, whichever is lower. For this purpose, notification issued by Ministry of Rural Development from time to time, is to be referred for calculating average rate. The relief amount should be disbursed through DBT / cash (In case of exigency of the situation only) or the State Government may provide this relief in kind. State Govt. will certify that identified beneficiaries are not housed in relief camps, during the period GR is provide the basis and process for arriving at such beneficiaries district-wise. Period for providing gratuitous relief will be as per

		assessment of the State Executive Committee (SEC) and the Central Team (in case of NDRF). The default period of assistance will be upto to 30 days, which may be extended upto 60 days in the first instance, if required, and subsequently upto 90 days in case of drought/ pest attack. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit. Provided that expenditure on this account in no case, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year. However, in case of drought, in no case, should exceed 50% of SDRF allocation under this window (Response & Relief) for the year. Further, to ensure transparency, the list of persons to whom Gratuitous Relief is provided, should be uploaded on the website of the State Government. The State Government shall notify the basis and proof for the identification of beneficiaries in a transparent manner.
2.	Search & Rescue Operations	
	a) Cost of search and rescue measures/ evacuation of people affected/ likely to be affected	As per the actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF). By the time the Central Team visits the affected area, these activities may be already over. Therefore, the SEC and the Central Team can recommend actual / near-actual costs.
	b) Hiring of boats/essential equipments for carrying immediate relief and saving lives.	As per actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF). The quantum of assistance will be limited to the actual expenditure incurred on hiring boats and other essential equipment required for rescuing stranded people and thereby saving human lives during a notified natural calamity.
3.	Relief Measures	
	a) Provision for temporary accommodation, food, clothing, medical care, Gen-set etc. for people affected/ evacuated and sheltered in relief camps.	A package of 10 KG rice, one saree and one dhoti, one litre of kerosene and Rs.1,000/- to the families evacuated from their houses and moved to shelters. As per actual cost incurred, and assessed by SEC and recommendation by the Central Team (in case of NDRF), for a period upto 30 days. The SEC would need to specify the number of camps, their duration and the number of persons in camps. In case of continuation of a calamity like drought, or widespread devastation caused by earthquake or flood etc., this period may be extended to 60 days. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit. Provided that expenditure on this account, in no cases, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year. Medical care to be provided from National Health Mission (NHM).
	b) Air dropping of essential supplies and rescue by Air Force	As per actual cost incurred, assessed by SEC and recommendation by the Central Team (in case of NDRF). The quantum of assistance will be limited to actual amount raised in the bills by the Ministry of Defence for airdropping of essential supplies and rescue operations only.

	c) Provision of emergency supply of drinking water.	As per actual cost, based on assessment of need by SEC and recommended by the Central Team (in case of NDRF. up to 30 days, which may be extended upto 90 days in case of drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit. Provide that expenditure on this account, in no case, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year.
4.	Clearance of Affected Areas	
	a) Clearance of debris in public areas.	As per actual cost, for a period upto 30 days from the date of start of the work, based on assessment of need by SEC for the assistance to be provided under SDRF and as per the assessment of the Central team for assistance to be provided under NDRF.
	b) Draining off flood water in affected areas	As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central team (in case of NDRF).
	c) Disposal of dead bodies/ Carcasses	As per actual cost, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF).
5.	Agriculture	
(i)	(i) Assistance to Small and Marginal Farmers having Landholding Upto 2 Hectares	
A.	Assistance For Land and other Loss	
	a) De-silting of agricultural land (where thickness of sand/ silt deposit is more than 3", to be certified by the competent authority of the State Government.)	Rs.18,000/- per hectare for each item. Above is subject to a minimum assistance of not less than Rs.2,200/- per farmer. (subject to the condition that no other assistance/ subsidy has been availed of by/ is eligible to the beneficiary under any other Government Scheme)
	b) Removal of debris on agricultural land in hilly areas	
	c) De-silting/ Restoration/ Repair of fish farms	
	d) Loss of substantial portion of land caused by landslide, avalanche, change of course of rivers	Rs.47,000/- per hectare to only those small and marginal farmers whose ownership of the land is legitimate as per the revenue records. Above is subject to a minimum assistance of not less than Rs.5000/- per farmer.
B.	Input subsidy (where crop loss is 33% and above)	
	a) For agriculture crops, horticulture crops and annual plantation crops	Rs.8500/- per hectare for crops other than paddy in rainfed areas subject to a minimum assistance of not less than Rs.1,000/- per farmer and restricted to sown areas. Rs.17,000/- per ha. for crops in assured irrigated areas subject to a minimum assistance of not less than Rs.2,000/- per farmer and restricted to sown areas.

	b) Perennial crops/ Agro forestry (Plantation in own farmland)	Rs.22,500/- ha. for all types of perennial crops / Agro forestry (Plantation in own farmland), subject to a minimum assistance of not less than Rs.2,500/- per farmer and restricted to sown areas.
	c) Sericulture	Rs.7,410/- per ha. for Eri, Mulberry, Tussar Rs.7,500/- per ha. for Muga. Above is subject to a minimum assistance of not less than Rs.1,000/- per farmer and restricted to sown areas.
	d) Paddy	Rs.17,000/- per ha. subject to a minimum assistance of not less than Rs.2,000/- and restricted to sown areas.
(ii)	Input subsidy to farmers having more than 2 Ha. of landholding	Rs.8,500/- per ha. other than paddy in rainfed areas and restricted to sown areas. Rs.17,000/- per ha. for crops in assured irrigated areas and restricted to sown areas. Rs.17,000/- per ha. for Paddy crop and restricted to sown areas. Rs.22,500/- ha. for all types of perennial crops / Agro forestry (Plantation in own farmland) and restricted to sown areas. Assistance may be provided where crop loss is 33% and above, subject to a ceiling of 2 ha. per farmer.
6.	Animal Husbandry - Assistance to Small and Marginal Farmers and Landless Livestock Owners	
	i) Assistance for the loss of milch animals, draught animals or animals used for haulage.	Milch animals Rs.37,500/- Buffalo/cow/camel/yak/ Mithun etc. Rs.4,000/- Sheep/ Goat/ Pig Draught animals Rs.32,000/- Camel/ horse/ bullock, etc. Rs.20,000/- Calf/ Donkey/ Pony/ Mule/Heifers Poultry:- Poultry @ 100/- per bird. Note: Relief under these norms is not eligible if the assistance is available from any other Government Scheme, e.g. loss of birds due to Avian Influenza or any other diseases for which the Department of Animal Husbandry has a separate scheme for compensating the poultry owners.
	ii) Provision of fodder / feed concentrate including water supply and medicines in cattle camps.	Large animals- Rs.80/- per day. Small animals- Rs.45/- per day. Period for providing relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in

		<p>case of NDRF). The default period for assistance will be for the period of calamity upto 30 days, which may be extended upto 60 days in the first instance and in case of severe drought upto 90 days. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit. Provide that expenditure on this account, in no case, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year.</p> <p>Based on assessment of need by SEC and recommendation of the Central Team, (in case of NDRF) consistent with estimates of cattle as per Livestock Census and subject to the certificate by the competent authority about the requirement of medicine and vaccine being calamity related.</p>
	(iii) Transport of fodder to cattle outside cattle camp	As per actual cost of transport during notified calamity based on assessment of need by State Executive Committee and recommendation of the Central team (in case of NDRF) consistent with estimates of cattle as per Livestock Census.
7.	Fishery	
	<p>i) Assistance to Fisherman for repair / replacement of non-mechanized boats and damaged/lost nets (This Assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/assistance, for the instant calamity under any other Government Scheme).</p>	<p>i) Replacement of fully damaged/lost wooden catamaran – Rs.50,000/- per unit (inclusive of net)</p> <p>ii) Repair/rebuilding of partially damaged Catamaran Rs.15,000/- per unit</p> <p>iii) Replacement of fully damaged /lost wooden /FRP Vallam (35% to 50% assistance of the total cost subject to maximum subsidy of Rs. 1 lakh) calculated at a unit cost of Rs.2.00 lakh (inclusive of engine and net)</p> <p>iv) Partially damaged FRP Vallam Rs.30,000/- per unit</p> <p>v) Replacement of fully damaged /lost mechanised fishing boats (35% of the total cost, restricted to a maximum subsidy of Rs.7.5 lakh per boat)</p> <p>vi) Repairs of partially damaged mechanised fishing boats (60% of the assessed value of the damages restricted to a maximum subsidy of Rs.4 lakh per boat)</p> <p>vii) Rs.15,000/- for replacement of fully damaged net</p> <p>viii) Repair of OBM/IBE Engines – Rs.7500/- per engine.</p>
	ii) Input subsidy for fish seed farm to Small and Marginal Farmers	<p>Rs.10,000/- per hectare. (This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/ assistance, for the instant calamity, under any other Government Scheme, except the one time subsidy provided under the Scheme of Ministry of Fisheries, Animal Husbandry & Dairying.)</p>
8.	Handicrafts/Handloom Assistance to Artisans	
	i) For replacement of damaged main functional tools / equipments	<p>Rs.5,000/- per artisan for equipment. subject to certification by the competent authority designated by the Government about damage and its replacement.</p>

	ii) For loss of raw material / goods in process / finished goods	Rs.5,000/- per artisan for raw material. subject to certification by the competent authority designated by the Government about damage and its replacement
9.	Locust Control	
	Hiring of vehicles, tractors, with spray equipments for spraying of plant protection chemicals for pest control, hiring of water tankers and purchase of plant protection chemicals for locust control.	As per the actual cost, based on the assessment of need by the SEC and recommended by the Central Team (in case of NDRF). The quantum of assistance will be limited to the actual expenditure incurred on hiring vehicles, tractors with spray equipments for spraying of plant protection chemicals for locust attack. However, expenditure on this account, in no cases, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year.
10.	Housing	
	a) Fully damaged/destroyed houses and severely damaged houses	
	i) Pucca house	Rs. 1,20,000/- per house, in plain areas.
	ii) Kutcha House	Rs. 1,30,000/- per house, in hilly areas.
	b) Partially Damaged Houses (Other than huts) where the damage is at least 15%	
	i) Pucca house	Rs.6500/- per house
	ii) Kutcha House	Rs.4000/- per house
	c) Damaged / destroyed huts	Rs. 8,000/- per hut 10.Kg rice for each case of damaged huts (Hut means temporary, make shift unit, inferior to Kutcha house, made of thatch, mud, plastic sheets etc. traditionally recognized as hut by the State/ District authorities.)
	d) Cattle shed attached with house	Rs.3,000/- per shed.
11.	Infrastructure [Repair/restoration(of immediate nature) of damaged infrastructure]	
	(1) Roads & bridges , which may include the following activities: i) Filling up of breaches and potholes, use of pipe for creating waterways, repair and stone pitching of embankments. ii) Repair of breached culverts. iii) Providing diversions to damaged / washed out portions	Assessment of requirements: Based on assessment of need, as per States' notified schedule of rates for repairs by SEC and recommendation of the Central Team (in case of NDRF). In case of repair of roads, assistance will be given based on the notified Ordinary Repair (OR) and Periodical Renewal (PR) of the State. In case OR & PR is not available, then assistance will be provided as per rate prescribed in this item. However, in any case, the assistance will be provided at the rate whichever is lower. Prescribed rate are as under:- Repairs of State Highways, Major District Roads (MDR)

<p>of bridges to restore immediate connectivity.</p> <p>iv) Temporary repair of approaches to bridges / embankments of bridges, repair of damaged railing bridges, repair of causeways to restore immediate connectivity, granular sub base, over damaged stretch of roads to restore traffic.</p>	<p>In normal areas -- @ Rs.1.0 lakh / km; In hilly areas -- @ Rs.1.25 lakh / km; Repairs of Rural / village Roads with culverts In normal areas -- @ Rs.60,000/- km; In hilly areas -- @ Rs.75,000/-km; Repairs of RCC Culverts/ Bridges In normal areas -- @ Rs.60,000/- per culvert; In hilly areas -- @ Rs.75,000/- culvert;</p>
<p>(2) Drinking Water Supply Schemes, which may include the following activities:-</p> <p>i) Repair of damaged platforms of hand pumps / ring wells / spring-tapped chambers / public stand posts, cisterns.</p> <p>ii) Restoration of damaged stand posts including replacement of damaged pipe lengths with new pipe lengths, cleaning of clear water reservoir (to make it leak proof)</p> <p>iii) Repair of damaged pumping machines, leaking overhead reservoirs and water pumps including damaged intake-outtake structure, approach gantries / jetties.</p>	<p>Damaged drinking water supply schemes will be eligible for assistance as per actual, subject to a ceiling of Rs.2.00 lakh per damaged scheme.</p> <p>Cleaning of Community drinking water wells as per actual, subject to a ceiling of Rs.10,000/- per Well.</p>
<p>(3) Minor Irrigation Schemes, which may include the following activities:</p> <p>i) Immediate repair of damaged canal structures and earthen / masonry works of tanks and small reservoirs with the use of cement, sand bags and stones.</p> <p>ii) Repairs of weak areas such as piping or rat holes in dam walls / embankments.</p> <p>iii) Removal of vegetative material / building material / debris from canal and drainage system.</p> <p>iv) Repair or embankments of minor irrigation projects.</p>	<p>In case of repairs of minor irrigation works, assistance will be given as per the schedule of rates (SOR) for repairs notified by the concerned State.</p> <p>In case SOR is not available, assistance for irrigation scheme / canal will be provided as per actuals, subject to the ceiling of Rs.2.00 lakh per damaged minor scheme.</p> <p>Note: However, in any case, the assistance will be provided at the rate whichever is lower.</p> <p>Assistance for restoration of damaged embankment of minor irrigation projects will be at par with the case of similar rural roads, subject to the stipulation that no duplication would be done with any ongoing schemes.</p>

	<p>(4)Power (only limited to immediate restoration of electricity supply in the affected areas): Damaged Poles / conductors and transformers upto 11 kv.</p>	<p>Regarding repair of damaged power sector, assistance will be given for the damaged conductors, poles and transformers upto the level of 11 KV and LT lines with bare conductor, as per details hereunder:</p> <p>The rate of assistance will be: Rs.5000/- pole; Rs.0.50 lakh per km for repairing of damaged LT lines; Rs.1.00 lakh for replacement of one damaged distribution transformer.</p> <p>(Note: The above assistance will not be applicable for those items which can be reused)</p>
	<p>(5)Schools Repairs of damaged schools building</p>	<p>As per actual, subject to a ceiling of Rs.2.00 lakh per school.</p>
	<p>6)Primary / Community Health Centres Repair of Primary / Community Health Centres</p>	<p>As per actual, subject to a ceiling of Rs.2.00 lakh per unit.</p>
	<p>(7)Community Assets Owned by Panchayat Temporary repair of Mahila Mandal, Yuva Kendra, Panchayat Ghar, Community Hall, Anganwadi, etc.,</p>	<p>As per actual subject to a ceiling of Rs.2.50 lakh per unit.</p>
12.	<p>Procurement of essential search, rescue and evacuation equipments including communication equipments, etc. for response to disaster.</p>	<p>Expenditure from the preparedness and capacity building window will be governed by the Guidelines issued separately by the Ministry of Home Affairs for the Preparedness & Capacity Building window of SDRF / NDRF. (Guidelines for Preparedness and Capacity Building enclosed as Annexure III)</p>
13.	<p>Capacity building.</p>	
D.	State Specific Disasters	
	<p>State specific disasters within the local context in the State, which are not included in the notified list of disasters eligible for assistance from SDRF/ NDRF, can be met from SDRF within the limit of 10% of the annual funds allocation of respective window of the SDRF.</p>	<p>Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the State Executive Committee (SEC). The norm for various items will be the same as applicable to other notified natural disasters, as listed above. or In these cases, the scale of relief assistance against each item for 'local disaster' shall not exceed the norms of SDRF. The flexibility is to be applicable only after the State has formally listed the disasters for inclusion and notified transparent norms and guidelines with a clear procedure for identification of the beneficiaries for disaster relief for such local disasters with the approval of SEC (provision of relief assistance to local disasters to be sanctioned as per norms and guidelines notified by GoTN).</p>

		<p>(Sea Erosion, Lightening, thunder, whirl wind, gale wind & Pest Attack in severe nature have been notified as State Specific disasters vide G.O.Ms.No.246, R&DM Dept, dated 03.08.2017 & G.O.Ms.No.212, R&DM Dept, dated 03.07.2019 and the norms of assistance have also been issued.</p> <p>As per the revised norms of assistance of Government of India 2023, the norms for various items will be the same for specific disasters as applicable to other notified natural disasters and the scale of relief assistance against each item for 'local disaster' shall not exceed the norms of SDRF. Hence, the norms of assistance for natural disasters may be adopted for specific disasters also as notified by GoI.)</p>
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ANNEXURE –II**Items Not Covered Under SDRF/NDRF**

- a) Colleges and other educational institutions buildings
- b) Major / medium Irrigation Schemes
- c) Flood control and anti Erosion Protection work
- d) Hydro Power Project / HT Distribution systems/ Transformers and sub stations
- e) High Tension Lines (above 11 kv)
- f) State Govt. Buildings viz., departmental / office building, departmental/ residential quarters, religions structures, patwarkhana, Court premises, play ground, forest bungalow property and animal / bird sanctuary etc.,
- g) Long term / permanent restoration work
- h) Procurement of equipments / machineries under NDRF
- i) National Highways
- j) Sectors such as Telecommunication and Power (except immediate restoration of power supply), which generate their own revenues, and also undertake immediate repair / restoration works form their own funds / resources, are excluded.

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ANNEXURE – III

Guidelines on Constitution and Administration of Preparedness and Capacity Building Funding Window under National Disaster Response Fund (NDRF) and State Disaster Response Fund (SDRF)

Introduction: -

1. The Fifteenth Finance Commission (XV-FC) while recommending Disaster Management Grants has inter-alia allocated 10% of the State Disaster Risk Management Fund (SDRMF) and the National Disaster Risk Management Fund (NDRMF) for Preparedness & Capacity Building (P&CB) Sub-window to support the critical institutional, functional and technological components of the disaster management system. XV-FC has further recommended that a separate set of guidelines be developed for Preparedness & Capacity Building (P&CB) funding window.
2. Therefore, in pursuance to the recommendations of XV-FC, following guidelines are hereunder issued under Sections 46(2), 48(1)(a) and Section 62 of the Disaster Management Act, 2005 for the operationalisation of the P&CB grants under the State Disaster Response Fund (SDRF) and the National Disaster Response Fund (NDRF). These guidelines will be operative for the award period starting from the financial year 2021-22 to 2025-26.

Preparedness and Capacity Building Measures:

3. The Disaster Management (DM) Act, 2005 empowers the National, State and District Disaster Management Authorities to take measures for the prevention of disasters, or the mitigation, or preparedness and capacity building for dealing with the threatening disaster situation or disasters.
4. As per Section 2 (m) of the Disaster Management (DM) Act, 2005, preparedness is the "state of readiness to deal with a threatening disaster situation or disaster and the effects thereof."
5. Further, as per Section 2 (b) of the DM Act, 2005, Capacity Building includes-
 - Identification of existing resources and resources to be acquired or created;
 - Acquiring or creating resources identified under above sub-clause;
 - Organization and training of personnel and coordination of such training for effective management of disasters.

Resource Allocation and Earmarking of funds from NDRF / SDRF

6. Under NDRF:- As recommended by the XV-FC, the aggregate size of the P&CB funding window for the award period commencing from 2021-22 to 2025-26 would be Rs. 6,846 crore. Out of this amount, Rs. 5000 crore is earmarked for 'Expansion and Modernization of Fire Services'. Year-wise allocation from P&CB funding window is as under:

Yearwise Allocation	2021-22	2022-23	2023-24	2024-25	2025-26	Total for the award period 2021-22 to 2025-26 (Rs in crore)
Amount (Rs in crore)	1,239	1,301	1,366	1,434	11506	6,846

7. Under SDRF:- The aggregate size of the P&CB funding window commencing from 2021-2022 to 2025-2026 would be Rs.16,014 crore as recommended by the XV Finance Commission.

Year wise allocation from P&CB funding window is as under :

Year wise Allocation	2021-22	2022-23	2023-24	2024-25	2025-26	Total for the award period 2021-22 to 2025-26 (Rs in crore)
Amount (Rs in crore)	2,898	3,043	3,196	3,355	3,523	16,015 (10% of yearwise allocation of both Union and State Share of SDRMF taken together)

8. NDRF would receive 80 per cent of the total NDRMF. Within the NDRF, there would be three sub-allocations (i) Response and Relief (40 per cent), (ii) Recovery and Reconstruction (30 per cent) and (iii) Preparedness and Capacity Building (10 per cent). While the funding windows of NDRF and NDMF are not inter-changeable, there could be flexibility for re-allocation within the three sub-windows of NDRF for that financial year subject to the condition that earmarked allocation shall not exceed 10 per cent of the amount earmarked for the sub-window.

9. The SDRF would receive 80 per cent of total SDRMF. Within the SDRF there would be three sub-allocations (i) Response and Relief (40 per cent), (ii) Recovery and Reconstruction (30 per cent) and Preparedness and Capacity Building (10 per cent). While the funding windows of SDRF and SDRMF are not inter-changeable, there could be flexibility for re-allocation within the three sub-windows of SDRF for that financial year

10. The funds for earmarked allocations for 'Expansion and Modernization of Fire Services' will be provided to the State Governments in the next five years (2021-2026). There shall be no spill-over for the liabilities committed for any of the projects sanctioned against earmarked allocation beyond the award period (2021-2026) of the XV-FC.

Scope of Preparedness and Capacity Building Funding Window under NDRF / SDRF :-

11.1 As recommended by XV-FC:-

- At Central level, this funding window is made available within the NDRF which will largely be used to support national agencies. However, State Government may also seek assistance, if the State Government concerned, has insufficient fund available under P&CB window of SDRF,
- At State level, P&CB funding window is meant to support preparedness and capacity building of State Disaster Management Authorities (SDMAs), State Institutes of Disaster Management (SIDM), training and capacity-building activities, and emergency response facilities. State Governments would not use these resources for personnel support.

11.2 In the light of the recommendations made by XV-FC and the provisions contained in the DM Act, 2005, the P&CB funding window shall support and provide funds to the following type of projects from NDRF / SDRF:-

(i) NDRF:-

Category - A

Projects / Proposals of the following types to be implemented by the Central Ministries / National Agencies / Institutes / Entities:

- (a) Projects aimed at preparedness for hazards which are to be implemented in an area, which cuts across more than one State,
- (b) Projects aimed at setting up / strengthening national level "Early Warning Systems" or promote disaster awareness through intervention of updated technologies or otherwise including strengthening of "Emergency Operations Centres" and preparedness and response mechanisms across the States,
- (c) Projects aimed at preparedness and capacity building including hazard specific if front-line disaster mitigation / response forces, frontline workers and Government functionaries at various levels in the disaster management.

Category B

Under this category, projects / proposal of the following type shall be considered for funding from P&CB funding window of NDRF:-

- (a) Projects of the State Government(s) related to hazard preparedness, disaster awareness, early warning systems, emergency operations centres, training and capacity building. However, the projects for funding from P&CB funding window of NDRF will be considered only if the State Government concerned has exhausted the funds available under P&CB window of SDRF or the proposed project cost is more than the available balance in the P&CB window of SDRF,
- (b) Projects for 'Expansion and Modernization of Fire Services' including setting up of new fire stations / upgradation of existing fire stations and procurement of fire-fighting and rescue vehicles and equipment.

(ii) SDRF:

- (a) Projects aimed at preparedness for a specific-hazard which is to be implemented within a State,
- (b) Projects aimed at promoting disaster awareness in the disaster-prone areas of the State through intervention of updated technologies or otherwise preparedness and response mechanisms within the State,
- (c) Projects aimed for preparedness and capacity building including hazard-specific training of front-line disaster mitigation / response forces / local body members / selected volunteers.

11.3 There shall be no State share in the Projects / Proposals covered under Category A above. For all Projects / Proposals under Category B above for which assistance is sought by any State Government from P&CB funding window, as recommended in XV-FC, the concerned State Government shall contribute 10% in case of projects upto Rs. 250 Crore, 20 per cent in case of projects above Rs. 250 Crore and upto Rs. 500 Crore and 25 per cent in case of projects exceeding Rs. 500 Crore. However, for the projects / proposals under the earmarked allocation of 'Expansion and Modernization of Fire Services' through the P & CB Funding Window, State Governments shall contribute 10 per cent of the total cost of such projects / proposals.

12. Exclusions for utilization of P&CB funding window. of NDRF / SDRF

- (i) Resources under P&CB funding window cannot be used towards establishment expenditure such as salaries, office expenditure, etc. to be incurred by the Disaster Management Authorities or other entities except for payment of remuneration to technical staff included in the project costs. Such payments will be as per the General Financial Rules, 2017 and the extant Government of India guidelines,
- (ii) Resources under P&CB funding window shall not be used for outsourcing the routine and regular activities of the national agencies / State Governments to any consultancy firm including any international agency,
- (iii) P&CB funding window shall not be used to support construction-based projects and procurement of large / heavy equipment, except setting up of new fire stations / upgradation of existing fire stations and procurement of fire-fighting and rescue vehicles and equipment as envisaged under Category (B) (b) of para 6.2 (i) above. Further, this funding window shall also not be used for maintenance and upkeep of any structure or engineering measure aimed at mitigation,
- (iv) P&CB funding window shall not be used as a source of funding for existing government programmes / ongoing schemes etc. which are under implementation,
- (v) P&CB funding window must have a predominant focus on multi-hazard preparedness and capacity development and should not be used for general environmental improvement, plantations, afforestation or landscape beautification without a clear, logical and direct linkage to hazards.

(vi) All preparedness and capacity building activities would need to be undertaken and completed within the time-frame as specified in the approved proposal. Cost and time-frame for such proposals should ideally not be revised barring, some exceptional circumstances.

13. Technical Guidelines

Projects to be undertaken from NDRF / SDRF must have verifiable and measurable outcomes. NDMA will advise implementing authorities in the projects launched / being implemented under the preparedness and capacity building window including prescribing specific format for seeking information / project proposals etc. In addition, for the guidance of Implementing Partners / State Governments etc. for the wide range of activities within the broad framework of preparedness and capacity building, NDMA will also issue technical guidelines separately, with the concurrence of MHA. Further, detailed procedures for project execution will continue to be issued by NDMA from time to time in consultation with MHA.

14. Implementing Partners

Following agencies / entities may act as Implementing Partners for Preparedness and Capacity Building funding window:

For NDRF:

- i) National Disaster Management Authority (NDMA) and National Institute of Disaster Management (NIDM).
- ii) First Responder Organizations within the Central Government such as National Disaster Response Force.
- iii) Ministries / Departments / National Agencies within the Central Government for preparedness & capacity building activities and execution of projects in the States.
- iv) Central Research and Academic institutions in Disaster Management through the National Agencies including NDMA, NIDM and NDRF.
- v) Government supported Organizations e.g. Bharat Scouts & Guides, National Cadet Corps (NCC), National Social Service (NSS) and National Yuva Kendra Sangathan (NYKS) through National Agencies including NDMA, NIDM and NDRF.

For SDRF:

- i) State Disaster Management Authorities (SDMAs).
- ii) District Disaster Management Authorities (DDMAs).
- iii) First Responder Organizations within the State Governments such as State Disaster Response Force, Fire Services and Civil Defence.
- iv) Ministries/ Departments /Institutions within the State Government for preparedness & capacity building activities.
- v) State Research and Academic institutions in Disaster Management through State Agencies like SDMA and SIDM.

- vi) State Government supported Organizations e.g. Bharat Scouts & Guides, NCC NSS & NYKS through State Agencies like SDMA and SIDM.
- vii) Urban Local Governments/ Zilla Parishad / Gram Panchayats.

Administrative Mechanism for processing of funding proposals Under NDRF:-

15. NDMA will constitute an Appraisal Committee headed by a member of NDMA with representatives from the line-Departments, State Government concerned and subject matter experts (if required) for appraisal of proposals received from national agencies/entities, Central Ministries and State Governments.

16. Projects/proposals submitted by the State Government for funding under PACB funding window of NDRF should be approved by the State Executive Committee (SEC).

17. State Government(s), Central Ministries, and National Agencies/Entities shall submit the projects for which central assistance from the P&CB funding window of NDRF is sought to Ministry of Home Affairs. MHA will forward the same to the Appraisal Committee constituted under the Chairmanship of Member, NDMA for appraisal/evaluation of the proposed project.

18. The Appraisal Committee will make its recommendations to the MHA for placing the same before the Sub-Committee of the National Executive Committee (SC- NEC) for consideration. SC-NEC will have the power to approve proposals up to Rs. 100 Crore.

19. Proposals above Rs. 100 Crores will be placed before High Level Committee (HLC) along with the recommendations of SC-NEC. The HLC will approve the proposals for undertaking Preparedness and Capacity Building activities.

Under SDRF:-

20. SDMA will constitute a committee to be headed by a member of SDMA with members from line Departments of the State Government and State agencies/entities for appraisal/evaluation of the proposals / projects under P&CB funding window of SDRF/NDRF.

21. The Departments of the State Government and the agencies/institutes who wish to take up projects from P&CB funding window of SDRF will submit the projects to the State Government Department dealing with Disaster Management which in turn will refer the project to the committee headed by a member of SDMA as mentioned above.

22. The recommendations of the committee shall be placed before the SEC for consideration and the procedure in place for incurring expenditure from SDRF shall continue to apply mutatis-mutandis for P&CB funding window of SDRF/NDRF including all modalities.

23. SEC constituted by the State Government under the provisions of the DM Act, 2005, shall decide on all matters connected with the administration of P&CB funding window of SDRF.

Release of funds

24. Upon the approval of SC-NEC / HLC, Department of Expenditure, Ministry of Finance will release assistance from P&CB funding window of NDRF to the concerned State Governments based on the recommendations of the MHA.

25. For the projects covered under Category 'A', of NDRF; upon the approval of SC- NEC / HLC, and based on the recommendations of MHA, Department of Expenditure, Ministry of Finance will issue a Letter of Authorization (LOA) to the MHA or National Agencies (NDMA/NIDM/NDRF), as the case may be, so as to enable them to provide funds to the implementing agencies of approved projects.

26. Upon sanctioned by SEC, funds will be released to the States from PaCB Funding window under SDRF. Procedure as in vogue in the State for the release of funds under SDRF shall apply for preparedness and capacity building funding window.

Supervision of Projects

27. NDMA / SDMA need to identify specific disasters and evaluate preparedness for the same, prepare plans for the deficiencies observed either in preparedness or capacity building/ training so that disasters can be responded effectively. Such plans need to specify measures required to be taken to strengthen the capability / capacity of first responders to hazard specific disasters.

28. NDMA shall supervise and monitor the implementation of the preparedness and capacity building projects and in this process can seek progress / performance reports from the Implementing Partners. NDMA shall submit progress report to MHA and Department of Expenditure. In case of any shortfall in the progress of the preparedness and capacity building project, NDMA may take special measures, if required, for smooth and timely implementation of the project.

29. SDMA shall assist and provide technical advice to the State Government / Line Ministries / Departments from conceptualization to completion of the preparedness and capacity building proposals under SDRF.

30. SDMA shall supervise and monitor the Preparedness and capacity building projects/works and submit completion certificate as well as actual benefits achieved from it including population benefitted/ nature of risks reduced/impact analysis etc. to State Government and NDMA.

Disbursements

31. After the project is approved, the funds would be disbursed in the installments as specified in the proposal. The disbursement of funds would be linked to the deliverables and Utilization Certificates. The unspent balance in the preparedness and capacity building funding window under SDRF account as at the end of a financial year 2021-22 shall be the opening balance of said account of the successive financial year. The Central Government will communicate the modalities for handling any balances available at the end of 2025-26 in P&CB funding window under SDRF of the State.

Procurement

32. All the procurements made by government agencies for implementing the proposal would be in accordance with the General Financial Rules (GFR) and from GeM portal, as applicable. The implementing agencies would ensure that the project is implemented in a fair and transparent manner. In the entire implementation process, the DMAs need to ensure that there is no conflict of interest. Appropriate GFR will be followed by States and Government supported Organizations.

Project Database

33. A disaster database should be developed to help assess the impact of expenditures on different aspects of disaster management. All the project-related processes would be digitized. NDMA will maintain a national portal of all the preparedness and capacity-building projects that have been implemented through the NDRF / SDRF. This portal will contain a specific component for capacity building plans. NDMA will also monitor the database by holding periodic review.

Release, Accounting and other procedures

34. The detailed funding pattern, release of funds, investment of funds, accounting & auditing procedures, progress monitoring, savings and cost of maintenance / implementation etc. in respect of the projects initiated under P&CB Funding Window would be same, as envisaged in the primary guidelines issued by MHA on NDRF / SDRF for such purposes. The composition of HLC and SC-NEC will also be same as envisaged in the primary guidelines issued by MHA for NDRF / SDRF.

Interpretation and Amendment

35. In case of any difficulty in interpretation of any of these guidelines, the matter shall be referred to the Disaster Management Division, MHA whose decision in consultation with Department of Expenditure shall be final. Any amendment in this guideline will be issued by MHA in consultation with Department of Expenditure, Ministry of Finance.

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ANNEXURE – IV**GENERAL**

- (i) Ex-Gratia payment of Rs.50,000/- per deceased person, to next of kin of the deceased person, including those involved in the relief operations or associated in the preparedness activities, subject to the cause of death being certified as COVID – 19, as per the guidelines jointly issued by the Ministry of Health and Family Welfare and the Indian Council of Medical Research on 3rd September, 2021, will be given as per guidelines on minimum relief issued by the National Disaster Management Authority (NDMA) dated 11.09.2021. This ex-gratia assistance will be applicable from the date of first COVID-19 case reported in the country and will continue till de-notification of COVID-19 as a disaster or till further orders, whichever is earlier, to next of kin of the deceased due to COVID-19.
- (ii) The State Government are to take utmost care and ensure that all individual beneficiary – oriented assistance is necessarily / mandatorily disbursed through Direct Benefit Transfer in the bank account of the beneficiary.
- (iii) The scale of relief assistance against each item for all notified disaster including 'local disaster' should not exceed the norms of SDRF / NDRF. Any amount spent by the State for such disasters over and above the ceiling, would be borne out of the resources of the State Government and not from SDRF.

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