

# **DISTRICT DISASTER**

# **MANAGEMENT PLAN 2024**

for

# **Thoothukudi District**



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## II. LIST OF ABBREVIATIONS USED IN THE PLAN

Building Materials and Technology Promotion Control			
Non Governmental Organization			
Tamil Nadu Civil Supplies Corporation			
Mahatma Gandhi National Rural Employment Guarantee Act			
Disaster Warning System			
Primary Health Centre			
Area Cyclone Warning Centre			
Public Distribution System			
Village Health Nurse			
Health Inspector			
Assistant Program Manager			
Health Unit District			
Block Medical Officer			
Block Health Officer			
Community Health Nurse			
Very High Frequency			
District Disaster Management Authority			
Rural Development and Panchayat Raj			

## **III. INTRODUCTION**

The National Disaster Management Act, 2005 (NDM Act 2005) which lays down institutional and coordination mechanism for effective Disaster Management (DM) at the National, State, District and local levels created a multi-layered institutional system consisting of State Disaster Management Authority (SDMA) headed by the Honourable Chief Minister and the District Disaster Management Authorities (DDMA) headed by the District Collector. The institutional arrangements have been set up consistent with the paradigm shift from the relief-centric approach of the past to a proactive, holistic and integrated approach for Disaster Risk Reduction (DRR) by way of strengthening disaster mitigation, preparedness and response.

The Disaster Management Act 2005 defines "Disaster" as,

"Disaster" means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or 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 is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area."



The vision of District Disaster Management Plan is to enable disaster resilient development in Thoothukudi district and continuity of services essential for life and dignity of citizens during disaster and non disaster situations.

#### The key objectives of developing this plan are:

- To analyze the geography, social, political and economic context of Thoothukudi district from disaster management lens.
- To analyze current development problems and it's linkage with past disasters and hazards in the district.
- To identify areas vulnerable to different natural and man made hazards.
- To know underlying risks and develop action plans for different stakeholders for risk reduction.
- To build awareness among different stakeholders by their direct engagement with development of disaster management plan and establishing a process for regular up gradation of it in future.
- To introduce innovation and good practice in institutional mechanism at district level to make it an integrated and coordinated plan at all levels.
- To develop action plans for different stakeholders (Communities, Government line departments and other stakeholder groups) for disaster risk reduction, emergency response and recovery actions.
- To suggest mitigation measures to be adopted by different stakeholders for the risks identified in the district.

The Disaster Management Act 2005 also mandates that every Department of the Government must prepare a Departmental Disaster Management Plan in accordance with the DDMP

This plan is in effect at all times and applies to all levels of District Administration and its administrative units such as Taluk / Firka / Villages. This plan is for the initial period of one year, after which it could be reviewed.

The disaster response structure will be activated on the receipt of disaster warning on the occurrence of the disaster. The occurrence of disaster may be forecasted or reported by the concerned authority to the District Collector by the fastest means. The District Collector will activate all stakeholders for emergency response. Also, the line departments concerned will issue instructions to their respective department teams to include the following details:

- Exact quantum of resources (in terms of manpower, equipment and essential items from key departments / stakeholders) that is required.
- > The type of assistance to be provided
- > The time limit within which assistance is needed
- Details of other Task/Response Forces through which coordination should take place

Once the situation is totally controlled and normalcy is restored, the District Collector declares End of Emergency Response and issues instructions to withdraw the staff deployed in emergency duties.

## **IV. DISTRICT PROFILE**

#### 1. General Characteristics of the District

The etymology of the word "Thoothukudi" can be traced back to the period when the locals used to tap **drinking water by digging small ponds** (oothu in Tamil). Oothukudi, meaning to dig and drink, later came to be known as Thoothukudi. The district has a long and an illustrious **history dating back to the Pandyan era**. In the tenth century A.D. the region was **conquered by the Cholas and re-conquered by the Pandyan kings**. Subsequently, Thoothukudi was **ruled by Madurai Nayaks**, **the Portuguese**, **the Dutch and finally the English**. The English ruled Thoothukudi, which was a part of Tirunelveli District, till India's Independence.

Thoothukudi district was carved out of the erstwhile Tirunelveli district on **October 20, 1986**. Thoothukudi was a major natural pearl fishing center till last century. It has one of the oldest ports in the world. The **lighthouse built in 1842** marked the beginning of Thoothukudi's harbor development. India independence struggle has strong links with Thoothukudi. Notable freedom fighters like **Subramaniya Bharathi, V.O.Chidambaram Pillai, Vanchinathan and Veerapandia Kattabomman** hailed from Thoothukudi. The district has also been the headquarters of prominent missionaries like **G.U.Pope, Veeramamunivar and Caldwell**, who besides their **missionary** work, also contributed to the development of Tamil language and literature. Thoothukudi was established as a **Municipality in 1866** and on **August 5, 2008** attained the status of **Corporation** after 142 years.

#### **VOC Port Authority:-**

The minor port of the Thoothukudi anchorage port with lighter age facilities has had flourished traffic for over a century. In 1842, a Light House was constructed in Tuticorin which was one of the important milestones for development of Tuticorin Harbour.

Presently, V.O. Chidambaranar Port (Erstwhile Tuticorin Port) is one of the major Ports of India, located at South-Eastern coast of India at latitude of 8°45' N and longitude 78°13' E. The Port has an artificial harbour protected by two breakwaters and is connected to deep water by a dredged channel. V.O. Chidambaranar Port has two operational wings viz. Zone A and Zone B. Zone B is the then known as old anchorage minor port with minimum berthing facilities for large size boats.

The V.O. Chidambaranar Port Authority (VOCPA) was declared as a Major Port by the Government of India in July, 1974.V.O. Chidambaranar Port handles mainly dry bulk

cargoes and containers. It also handles liquid bulk and breakbulk cargoes. The cargo profile of the port comprises Coal & Coke, Fertilizers, Fertilizer Raw Materials, Limestones, Food Grains, Construction Materials, Timber Logs, Petroleum Products, LPG and various other bulk, break bulk and containerized cargoes. As per the statistics, the VOC port has handled cargo traffic of **34.12 million tonnes** in FY 2021 -22.

#### 2. Location & Geographical Area

Thoothukudi District is located in extreme Southern Parts of Tamil Nadu and it was carved out of Tirunelveli District on 20th October 1986. The district is located lies between between the northern latitude of 80 19'00"N and 90 20'00"N and the eastern longitude of 770 40'00"E and 780 10'00"E. The district is roughly triangular in shape and is bounded by Virudhunagar and Ramanathapuram districts in the north, Gulf of Mannar in the east and Tirunelveli and Tenkasi Districts in south and west. The total geographical area of the district is **4707 sq. kms** and Constituting about 3.61% of the state. It has **coastal line of 163.5 kms**.

The total extent of land in the District is 4,63,602 Hec. Comprising 28,915 Hec Extent of wet lands, 3,44,957 Hec Extent of Dry lands, 16,846 Hec Extent of poramboke lands and 72,884 Hec Extent of Others lands. River **Thamirabarani** passes through the district. The major basin is Thamirabarani. There is a total of 4,62,010 households.

#### 3. Administrative divisions

Thoothukudi District is divided into three Revenue Divisions and ten Taluks. There are 41 Revenue Firkas and 480 Revenue Villages.

Revenue Division	Taluk	Number of Revenue Villages
Thoothukudi	Thoothukudi	33
Ποοτημκυαι	Srivaikundam	46
	Tiruchendur	36
Tiruchendur	Eral	45
	Sathankulam	25
	Kovilpatti	38
	Ettayapuram	56
Kovilpatti	Kayathar	56
	Vilathikulam	89
	Ottapidaram	56
3	10	480

The District is divided into **12 Blocks** for Rural and Urban Development. The 12 Blocks are:

- Thoothukudi
- Srivaikundam
- Karunkulam
- Thiruchendur
- 🕹 Udangudi
- Alwarthirunagari
- 👃 Sathankulam
- \rm 🕹 Kovilpatti
- Kayathar
- Vilathikulam
- 🕹 Pudur
- Ottapidaram

The District has One Corporation, Three Municipalities, 18 Town Panchayats and 403 Villages Panchayats.

#### 4. Population:

As per 2011 census the total population of the District is **17,50,176** with 8,65,021 males (49.42%) and 8,85,155 females (50.58%).

The Sex ratio of the District is 1023 with 8,65,021 males and 8,85,155 females and the recorded decadal growth rate of the District was 11.32 %.

Rural population of the district is 8,73,374 (49.90%) and Urban population is 8,76,802(50.10%). The district with population **density of 369 sq.km** is thickly populated thus making it more vulnerable to various disasters.

Details	As per 1991 Census	As per 2001 Census	As per 2011 Census
Total Population	1455920	1565743	1750176
Male Population	709760	764087	865021
Female Population	746160	801656	885155
Rural Population	856229	903811	873374
Urban Population	599691	661932	876802

#### Literates:

Total Literates	:	1349697 - 86.16%
a) Males (%)	:	703106 - 91.14%
b) Females (%)	:	646591 - 81.33%

#### 5. Climate and Soil

The District which situate on the east coast has the typical climate with high humidity and relatively lower to moderate temperatures throughout the year. The rainfall occurs mostly in the months of October, November and December. During the period from October to January the climate remains relatively cooler. From February, the early summer sets in and the months of April, May, June, July and August are hot months.

The Climatic seasons for the District can be broadly classified into

- i. Winter Season (January February)
- ii. Summer Season (March May).
- iii. Southwest Monsoon (June September).
- iv. North East Monsoon (October December).

The District receives rainfall from Northeast Monsoons. Important agricultural seasons depend entirely on the Northeast Monsoon. Hence the rainfall during October to December plays an important role in deciding the fate of the agricultural economy of the District.

#### 6. Soil and Agro-Climate Zones

The predominant soils of Thoothukudi District are Red Loam, Lateritic, Black, Sandy Coastal Alluvium and Red Sandy soils.

#### 7. Rainfall

The District depends upon both monsoons for its rain. In the coastal region rainfall during the North East Monsoon is heavy and in the interior region it is lighter.

Thoothukudi District receives an annual average rainfall of 662.20 mm. approximately 9% of the rainfall is from the Southwest Monsoon and and 65% from the North east Monsoon.

# a. Details of Average rainfall (in mm)

Details	2017	2018	2019	2020	2021	2022	2023	2024
Normal Rainfall	662.2	662.2	662.2	662.2	662.2	662.20	662.20	662.20
Average Annual Rainfall	496.88	544.09	773.33	554.55	895.55	516.27	1053.58	
North East Monsoon (October to December)	342.57	342.16	624.91	455.51	562.77	285.83	869.14	
South West Monsoon (June to September)	104.61	58.23	117.99	60.16	81.51	106.42	56.21	
Summer (March to May)	31.33	142.73	2329	29.67	74.29	110.37	108.87	66.19
Winter (Jan, Feb)	18.37	0.97	7.13	9.21	176.98	13.65	19.36	30.48

### b. Comparison of Monthwise Average Rainfall (in mm):

Month	Normal	2018	2019	2020	2021	2022	2023	2024
January	38.9	0.18	1.83	3.51	175.66	3.84	9.10	20.98
February	23.1	0.79	5.31	5.70	1.31	9.81	10.26	9.51
March	30.5	64.20	-	-	8.53	9.89	12.61	8.95
April	54.3	39.23	14.19	14.96	29.64	89.83	41.07	5.00
May	26.1	39.30	9.11	14.71	36.12	10.65	55.18	52.41
June	6.1	1.21	8.83	3.60	25.36	9.24	8.62	6.19
July	10.0	5.78	4.25	11.33	12.79	26.29	0.19	1.16
August	18.5	14.74	20.32	13.86	15.57	38.61	9.63	
September	25.3	36.50	84.61	31.37	27.79	32.28	37.77	
October	150.7	200.29	279.31	41.39	144.83	78.03	51.06	
November	184.7	126.63	198.16	255.08	391.89	151.70	279.96	
December	94.0	15.24	147.45	159.03	26.05	56.10	538.12	
Total	662.2	544.09	773.33	554.55	895.55	516.27	1053.58	

#### 8. Temperature

Month	Normal (in Celsius)
January	26.9
February	27.0
March	29.2
April	31.2
May	31.4
June	26.8
July	26.5
August	26.4
September	26.9
October	26.9
November	26.8
December	27.1

#### 9. Crops

The chief Agricultural crops of the district are paddy, cumbu, Blackgram, Greengram, chillies, and banana. The chief non - agricultural crops are chenna and cotton.

#### Total Cultivable Area (Hec) : 2,26,053

#### **10. Natural Vegetation**

Thoothukudi District has an area of 105.37 Sq.Km under forests, which constitute 2.24% percent of the geographical area of the District out of 105.37 Sq.Km under forests, protected forests comprise 15.57%. The Tiruchendur Taluk has about 48.90% of its total area under forest, followed by Srivaikuntam with 20.15%, Kovilpatti with 11.94%, Thoothukudi with 10.48% and Sathankulam with 8.53%.

#### 11. Animal Husbandry and Fisheries

As per 20th CATTLE CENSUS (2021-2022):

S1. No	Category of Animals	Total
1.	Cattle	1,21,036
2.	Sheep	1,84,606
3.	Goat	3,86,663

S1. No	Category of Animals	Total
4.	Pig	1,770
5.	Dog	35,381
6.	Poultry	5,04,526
7.	Others	1,279
	Total	12,35,261

The maritime District of Thoothukudi is blessed with 163.5 km long coast line contributing 54524.43 tons of marine fish production. The Fisheries Department supports the livelihood of 23062 marine fishers and 1556 Inland Fishers.

#### **10. Natural resources**

There is only one main river Thamirabarani flowing in the District from west to eastern direction. Thamirabarani river is the main source of irrigation in the district.

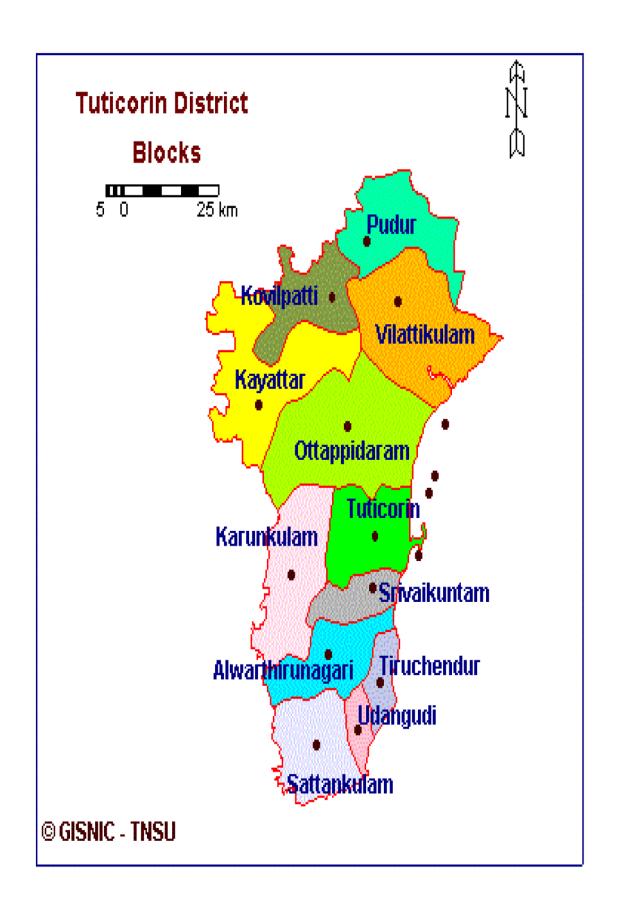
S1. No	Anicut	Height	Taluk	
1.	Maruthur	8 Feet	Srivaikuntam	
2.	Srivaikuntam	8 Feet	Silvaikulitalli	

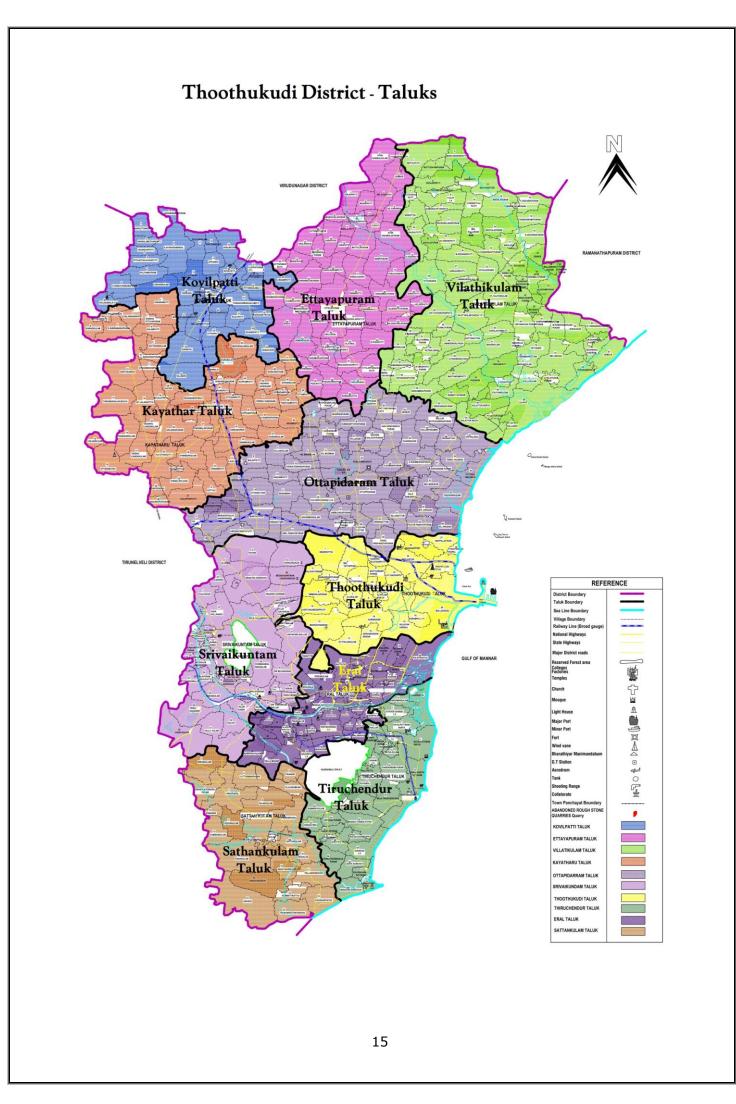
The Details of dams in Thoothukudi district are as follows:

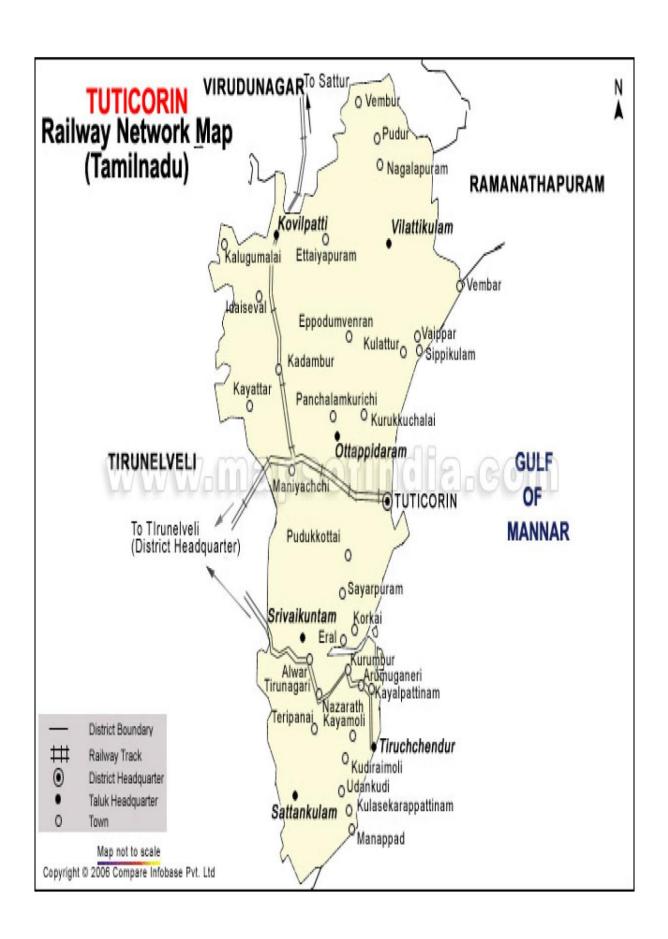
The total **227** PWD system tanks are the prime source of irrigation in the district. Apart from these **410** tanks under the maintenance of Local bodies are used for other irrigation source.

#### 11. Roads

S1. No	Classification of Road	Length in KM
1	National Highways	162.0
2	State Highways	2305.114
3	Corporation and Municipalities	747.66
4	Panchayat Union and Panchayat	3023.39
5	Town panchayat and Township	465.82
	Total	6703.984







## 11. List of Rain gauge Stations and location:

There are **19** rain gauge stations functioning in Thoothukudi District as follows:

S1. No	Taluk	S1. No	Location	Lattitude (N)	Longitude (E)
		1	RI Quarters	9.131586	78.164580
1	1 Vilathikulam	2	V.A.O Office	9.023936	78.246360
1	Vilatilikulalli	3	P.H.C, Kadalkudi	9.204755	78.242631
		4	Oorani Road,Surangudi	9.109360	78.319499
		5	Police Station	8.907721	78.020966
2	Ottonidonom	6	Police Station	8.863056	77.895
	Ottapidaram	7	Iyyanarpuram Check Post	8.861796	78.150742
			RI Quarters	8.9874966	78.1749773
		9	Taluk Office	8.4833	78.1167
3	3 Tiruchendur	10	V.A.O Office, Kayalpattinam	8.5700	78.1200
	1		Government Hospital	8.4000	78.0500
4	Karaila atti	12	Taluk Office	9.174688	77.874371
4	Kovilpatti	13	Near Town Panchayat	9.150764	77.703767
_	K - d - malaaan	14	Near P.H.C, Kayathar Road	8.995126	77.857020
5	Kadambur 15		P.H.C, Kayathar	8.946990	77.773816
6	Thoothukudi	16	Harbour(Port Trust)	8.752732	78.210586
7	Srivaikuntam	17	Taluk Office	8.505175	77.998771
8	Satankulam	18	Taluk Office	8.388273	77.919168
9	Ettayapuram	19	Sub-Registrar Office	9.149805	77.989588

There are 49 Automatic Rain Gauge Stations were installed in Thoothukudi District and they were in testing mode. List of Automatic Raingauge Stations are detailed below,

S1. No	Name of Taluk / Village / Firka	Name of ARG Location	ARG No & ARG Location on Roof Top / Ground	Lattitude	Longitude
1	Eral/ Siruthondanallur / Taluk Office, Eral Arumugamangalam		ARG876 Ground	8.628868	78.018621
2	Eral / Themangulam / Alwarthirunagari	Near Grama Sevai Centre, Thangaiahpuram, Themankulam	ARG877 Ground	8.592581	77.96018
3	Ettayapuram / Padarnthapuli / Padarnthapuli	Near E-sevai maiyam, Padarnthapuli	ARG894 Ground	9.142136	78.037529
4	Ettayapuram / Muthulapuram / Muthulapuram	Near E-Sevai Centre, South Muthulapuram	ARG895 Ground	9.235915	78.03085
5	Ettayapuram / Kadalaiyur / Kadalaiyur	Primary Health Centre, Kadalaiyur	ARG896 Ground	9.20145	77.9428
6	Ettayapuram / Masarpatti / Muthulapuram	ttayapuram / Panchayat office, Iasarpatti / Masarpatti		9.286365	78.036877
7	Ettayapuram / Cholapuram / Cholapuram	Panchayat Office, Cholapuram	ARG904 <b>Roof Top</b>	9.051496	78.025365
8	Kayathar/ Akilandapuram / Kayathar	Near Vertinary Hospital, Akilandapuram	ARG897 Ground	8.97978	77.8041
9	Kayathar/ Kalugasalapuram / Kadambur	Primary Health Centre, Kadambur	ARG898 Ground	8.994655	77.857741
10	Kayathar/ Chettikurichi / Chettikuruchi	Revenue Inspector Quarters Near, Chettikuruchi	ARG899 Ground	9.108023	77.985319
11	Kayathar/ Revenue Inspector		ARG900 Ground	9.079431	77.93702
12	Kayathar/ Pannikulam / Kadambur	har/ ikulam / VAO Office, Pappikulam		8.953581	77.815892
13	Kovilpatti / Kovilpatti / Kovilpatti	Taluk office Kovilpatti	ARG881 Ground	9.174146	77.874672
14	Kovilpatti / Ilaiyarasanenthal / Ilaiyarasanenthal	VAO office, Ilaiyarasanenthal	ARG882 Roof Top	9.215858	77.786342

S1. No	Name of Taluk / Village / Firka	Name of ARG Location	ARG No & ARG Location on Roof Top / Ground	Lattitude	Longitude
15	Kovilpatti / Vanaramutti / Kalugumalai	Panchayat office Vanaramutti	ARG901 Ground	9.143239	77.7884
16	Kovilpatti / Uthupattti / Kalugumalai	Grama Seyalagam Uthupattti	ARG902 <b>Roof Top</b>	9.11019	77.854113
17	Ottapidaram / Ottapidaram / Ottapidaram	Taluk Office, Ottapidaram	ARG883 Ground	8.90577806	78.02164405
18	Ottapidaram / Pasuvanthanai / Pasuvanthanai	VAO Office, Pasuvanthanai	ARG884 Ground	8.998694	77.962984
19	Ottapidaram / Parivallikottai / Parivallikottai	Police Station Near, Naraikinaru	ARG885 Ground	8.857958	77.843734
20	Ottapidaram / Vedanatham / Vedanatham	VAO Office, Vedanatham	ARG886 Ground	8.9678118	78.1452193
21	Ottapidaram / Melapandiyapuram / Maniyachi	VAO Office, Melapandiyapuram	ARG906 Ground	8.855858	77.936782
22	Ottapidaram / Araikulam / Ottapidaram	E-Sevai Centre Near, Araikulam	ARG916 Ground	8.924881	77.973771
23	Sattankulam / Naduvakurichi / Pallakurichi	Village Administrative Office, Naduvakurichi	ARG880 Ground	8.373971	77.938076
24	Sattankulam / Nedunkulam / Sathankulam	Panchayat Office, Nedunkulam	ARG909 <b>Roof Top</b>	8.459151	77.863494
25	Sattankulam / Pannamparai / Sathankulam	Panchayat Union Middle School, Pannamparai	ARG915 <b>Roof Top</b>	8.458699	77.937248
26	Srivaikuntam / Srivaikuntam / Srivaikuntam	Old Taluk Office, Srivaikuntam	ARG873 Ground	8.629232	77.912194
27	Srivaikuntam / Vitlapuram Kovilpathu / Seidunganallur	vaikuntam / Block Development lapuram Office, vilpathu / Karungulam @		8.666516	77.826064
28	Srivaikuntam / North Vallanadu / Vallanadu	Near E-Sevai Centre, Vada Vallanadu	ARG875 Ground	8.72196	77.851731
29	Srivaikuntam / Cherakulam / Seithunganallur	Panchayat Office, Cherakulam	ARG907 Ground	8.572966	77.815939

S1. No	Name of Taluk / Village / Firka	Name of ARG Location	ARG No & ARG Location on Roof Top / Ground	Lattitude	Longitude
30	Thoothukudi / Thoothukudi II / Thoothukudi	Taluk Office, Thoothukudi	ARG869 Ground	8.803224	78.125169
31	Thoothukudi / Mudivaithanenthal / Mudivaithanenthal	Near VAO Office, Mudivaithanenthal	ARG870 Ground	8.722026	77.992813
32	Thoothukudi / Puthukottai / Puthukottai	RI Quarters, Pudukottai	ARG871 Ground	8.743628	78.050179
33	Thoothukudi / Keelathattaparai / Keelathattaparai	VAO Office, Keelathattaparai	ARG872 Ground	8.76562	76.00402
34	Thoothukudi / Mappillaiyurani / Thoothukudi	Music School, Mappillaiyurani	ARG910 Ground	8.835664	78.145228
35	Tiruchendur / Mela Tiruchendur / Tiruchendur	Near E-Sevai Centre, Tiruchendur	ARG878 Ground	8.488231	78.068485
36	Tiruchendur /Manapadu / Udangudi	Primary Health Centre, Manapadu	ARG879 Ground	8.373991	78.054993
37	Tiruchendur /Kayalpattinam South / Authoor	VAO Office, Kayalpattinam South	ARG911 Ground	8.56826	78.120036
38	Tiruchendur /Paramankurichi / Udangudi	VAO Office, Paramankurichi	ARG913 Ground	8.480337	78.044971
39	Tiruchendur /Ammanpuram / Tiruchendur	Vertinary Hospital Ammanpuram	ARG914 Ground	8.564854	78.064124
40	Vilathikulam / Kavundanpatti / Pudur	Vertinary Hospital, Kavundanpatti	ARG887 Ground	9.230303	78.13952
41	Vilathikulam / Kuralayampatti / Vilathikulam	Fire Station, Vilathikulam @ Kuralayampatti	ARG888 Ground	9.115448	78.204008
42	Vilathikulam / Mettilpatti / Pudur	Near E-Sevai Centre, Mettilpatti	ARG889 Ground	9.33434	78.320177
43	Vilathikulam / Kulathur / Kulathur	Panchayat Office, Kulathur South	ARG890 Roof Top	9.00354	78.190368
44	Vilathikulam / Vembar / Vembar	Government Hr. Sec. School, Vembar	ARG891 Ground	9.077061	78.3556
45	Vilathikulam / Sivagnanapuram / Sivagnanapuram	Government Hr. Sec. School , Sivagnanapuram	ARG892 <b>Roof Top</b>	9.055336	78.087877

S1. No	Name of Taluk / Village / Firka	Name of ARG Location	ARG No & ARG Location on Roof Top / Ground	Lattitude	Longitude
46	Vilathikulam / Kadalkudi / Kadalkudi	Revenue Inspector Quarters, Kadalkudi	ARG893 <b>Roof Top</b>	9.205399	78.242588
47	Vilathikulam / Ariyanayaki puram / Vembar	Government High School, Ariyanayakipuram	ARG908 Ground	9.097411	78.252545
48	Vilathikulam / Surangudi / Vembar	Stanislaus Middle School, Surangudi	ARG912 Roof Top	9.107068	78.320182
49	Vilathikulam / Madhalapuram / Kadalkudi	VAO Office, Madhalapuram	ARG917 Ground	9.274816	78.219654

## 12. List of Automatic Weather Stations and location:

S1. No	Name of Taluk	Name of the Location	Lattitude (N)	Longitude (E)
1	Thoothukudi	Joint Director of Agriculture Office Campus, Thoothukudi	8.7844	78.0996
2	Srivaikuntam	Agricultural College & Research Institute, Killikulam	8.7064	77.8551
3	Tiruchendur	Aadithanar College of Arts and Science, Veerapandiyanpattinam	8.5088	78.1203
4	Tiruchendur	Veterinary Hospital, Theriyur, Chettiyapathu	8.4291	78.0183
5	Eral	Margoschius College of Arts and Science, Pillayanmanai, Nazereth	8.5514	77.9590
6	Eral	Kilpidagai Kaspa, Eral	8.6067	77.9861
7	Sathankulam	Farmer Field in Sadayankinaru, Ananthapuram	8.4929	77.9329
8	Kovilpatti	Agricultural Research Station, Kovilpatti	9.1908	77.8797

S1. No	Name of Taluk	Name of Taluk Name of the Location		Longitude (E)
9	Vilathikulam	Vilathikulam Union office Campus	9.1407	78.1639
10	Vilathikulam	Government Hr.Sec.School, Pudur	9.2990	78.1370
11	Ottapidaram	Lawyer Thottam, Melamangalam	8.9493	77.9560

One Automatic Weather Station installed in Thoothukudi District as mentioned below and it is in testing mode.

S1 No	Station_ Code	Taluk / Firka / Village	Name of AWS Location	Lattitude	Longitude	Method of Installation (Ground/ Building TOP)
1	AWS82	Kayathar / Kayathar / Kayathar	Taluk Office, Kayathar	8.947	77.772	Ground

#### 13. Tanks:

Thoothukudi District has totally 637 tanks and the details as follows:

#### a. Tanks under PWD:

S1. No	WRD Division	No.of Tanks
1	Upper Tamirabarani Aru	91
2	Lower Tamirabarani and Korampallam Aru	107
3	Vaippar	29
	Total	227

## b. Tanks under Local Bodies:

S1. No	Taluk Coverd	Panchayat Union/ Corpoation	No.of tanks
1	Kovilpatti	Kovilpatti	40
2	Kovilpatti Ettayapuram	Kayathar	91
3	Vilathikulam	Vilathikulam	14
4	Vilathikulam	Pudur	15
5	Ottapidaram	Ottapidaram	79
6	Srivaikuntam, Eral	Srivaikuntam	25
7	Srivaikuntam	Karungulam	52
8	Thoothukudi	Thoothukudi	52
9	Sattankulam	Sattankulam	23
10	Tiruchendur, Eral	Alwarthirunagari	9
11	Kovilpatti	Kurivikulam	7
12	Thoothukudi	Corporation	3
		Total	410

## 14. List of Bridges over the Rivers / Water Courses

S1. No	River	Bridge Location
		Vallanadu
1	Tamirabarani	Authoor
		Srivaikundam
		Keela Vaippar
2	Vaippar	Vilathikulam
		Muthalapuram
3	Kattodai	Pudukottai
5	Mattoual	Tharuvaikulam
4	Kallar	Veppalodai

S1. No	River	Bridge Location
5	Kovankuttam supply channel	Pannaiyur
6	Velanari odai	Pallakulam
7	Chendakati Odai	E. Velayuthapuram
8	Kalangarai Odai	M. Shanmugapuram
9	Vembar	Vembar
10	Sea Back Water	Vembar

## 15. List of Railway under pass ways

S1. No	Name of Taluk	Location of Railway Underpasses	
1.	Thoothukudi	Umarikkottai	
2.	Thoothukudi	North Silukkanpatti	
3.	Srivaikuntam	Kilakulam H/o Karungulam	
4.		Ilayarasenandal road	
5.		Near Lakshmi mills	
6.	Kovilpatti Velayuthapuram		
7.		Aalampatti	
8.		Nalattinputhur	
9.	Vorathan	Melaparaipatti	
10.	Kayathar	Kodangal	
11.		Maniyachi	
12.		Ottanatham	
13.	Ottapidaram	Parivillikkottai	
14.		Maruthanvalvu to Puliyampatti Road	
15.		Maruthanvalvu to Akkanayakkan Road	

## 16. Industries:

S1. No	Details	Nos
1	Registered Working Factories	2554
2	Trade Unions	337
3	Large Scale Industries	20
4	Small Scale Industries	4582
5	Cottage Industries	12125

## Industrial Parks:

S1. No	Department	Nos	Location
1	SIPCOT	1	Korampallam
2	SIDCO	4	Thoothukudi Phase 1, Thoothukudi Phase 2, Kovilpatti, Pidaneri
3	Thoothukudi Cooperative	1	Korampallam
	Total	6	

## **Important Industries:**

S1. No	Taluk	Nos	Name			
			Coastal Energen Pvt. Ltd.,			
			Heavy Water Plant, Govt of India			
			Ramesh Flowers Pvt. Ltd.,			
		14	SPIC Ltd.,			
			VV Titanium Pigments Ltd.,			
	Thoothukudi		Nila Sea Foods Pvt Ltd.,			
			NLC Tamilnadu Power Ltd, 2 X 500 MWJV, Thermal Power Project,			
			SEPC POWER (P) LTD,			
			D.C.W. Limited, V.C.M. Installation, Harbour Estate, Tuticorin-4,			
			Greenstar Fertilizers ltd,			

S1. No	Taluk	Nos	Name
			SPIC Ltd, Ammonia Import Terminal, New Port,Mutthaya puram,Tuticorin
			SHV Energies pvt ltd, L.P.G.Storage Terminal,
			Bharath Petroleum Corporation Ltd.,
			Indian Oil Corporation Limited,
2	Tiruchendur	1	DCW Ltd.,
3	Eral	1	Zirconium Plant Govt. Of India
4	Kovilpatti	1	Lakshmi Mills
	Total	17	

## V. DISASTER MANAGEMENT GOALS (2015-2020)

#### Sendai Frame work for Disaster Risk Reduction 2015-2020

Disasters induced by climate change have in fact increased in frequency and intensity. The recurring small-scale disasters and slow-onset disasters particularly affect communities, households and small- and medium-sized enterprises. In fact, these sections of people face a high percentage of losses.

Water crisis faced, most of which is due to climate change—global and local. The Sendai Framework recognizes the need to develop an action-oriented framework that Governments and relevant stakeholders can implement in a supportive and complementary manner that can help to identify disaster risks to be managed and guides investment to improve the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner.

The disaster management plan should apply to the risk of small scale and large scale, frequent, sudden and slow-onset disasters caused by natural or manmade hazards relating to environmental, technological and biological hazards and risks.

#### **Disaster Management Goals:**

- Comprehensive flood protection to reduce the risks through structural interventions and also enhance resilience of the community with special reference to Thoothukudi taluk, Punnakayal, and Authoor villages in Tiruchendur taluk and Mukkani in Srivaikundam Taluks.
- Minimize the risk of urban floods with special focus on Thoothukudi Corporation.
- Plans for reducing flood in Tamirabarani river through structural interventions to reduce the risk of flood in Mukkani, Punnakayal and Authoor.
- Plans for enhancing the resilience of the Community with special reference to cyclone in the 21 coastal habitations.
- Recharge the aquifers and bring down the categories of Blocks where ground water is currently over exploited / critical / semi critical categories in to safe categories and schemes to enhance water availability for cultivation.
- Reclaim and Restore areas affected by sea water intrusion and sea water intrusion in coastal areas through substantial Development Initiatives with special focus on Mukkani and Punnakayal villages.

- Enhance Bio shields to mitigate floods and storms in 21 coastal villages.
- Repair and strengthen water bodies and restore the capacity of the water bodies through desiltation.
- Promote sustainable Dry land agricultural practices in Rain fed areas with special focus on 6 blocks in the district.
- Reduce the risks of specific disasters like industrial disasters and fire/ explosion hazards.
- Enhance Awareness levels of the Community and promote safety measures and strengthen legal provisions and regulatory to reduce the risks due to Man made and Natural disasters.

### **Targets:**

- Substantially reduce the disaster mortality (deaths) by 2020-30 compared to 2005-2015.
- Substantially reduce the number of affected people 2020-2030 compared to 2005-2015.
- Substantially reducing the direct disaster economic loss.
- Substantially reduce the disaster damage to critical infrastructure and disruption of basic services like health, educational facilities by developing their resilience by 2030.
- Developing local Disaster Risk Strategy.
- Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessment to people by 2030.

## **Priorities for action**:

- Understanding the disaster risk.
- Strengthening disaster risk governance to manage disaster risk.
- Investing in disaster risk reduction for resilience.
- Enhancing Disaster Preparedness for effective response.

## VI. HAZARD, RISK AND VULNERABILITY ANALYSIS WITH

## SAMPLE MAPS AND LINK TO ALL VULNERABLE MAPS

#### **Types of Hazards**

Thoothukudi district is vulnerable to following type of hazards;

- Cyclone
- Tsunami
- Flood
- Earthquake
- Fire Accident
- Drought
- Industrial hazard
- Man Made hazard

#### 1. Cyclone

Cyclone means a large-scale, atmospheric wind-and pressure systems characterized by low pressure at its center and by circular wind motion, counter clockwise in the Northern Hemisphere, clockwise in the Southern Hemisphere.

According to the Vulnerability Atlas of India 2006, published by Building Materials and Technology Promotion Council (BMTPC), the Thoothukudi District is in moderate damage risk zone for winds and cyclone hazards. In the past 115 years, two to four cyclonic storms including severe cyclone storms have crossed one degree latitudes in this area. The probable maximum wind speed is 64 km/s in the area. Whereas, probable maximum storm surge varies between 6.0 m on the eastern coast of Kanniyakumari to 4.5 m for the northern coast of Thoothukudi.

#### History and Impact:

A severe cyclonic storm with **wind velocity of 100-300 km** per hour swept through the coastal villages of Thoothukudi district on the afternoon of **13<sup>th</sup> November 1992** leaving behind a trail of destruction along its path. The cyclone lashed the coast for a period of 3-4 hours accompanied by ghastly winds, heavy rains and huge tidal waves thereby causing untold havoc to life and property. All together nineteen villages were affected by this cyclone. Among them only 3 villages such as **Therespuram**, **Punnakayal and Tharuvaikulam were worst affected**. Punnakayal fishing village was totally cut off from the rest of the places with flood water of Tambaraparani river and tidal waves rising to a height of 2-3 m. Fisherfolk took shelter in the local high school campus and church hall. At Therespuram victims were accommodated in the relief camps arranged by the local revenue authorities. Losses incurred were due to damages caused to vallams, catamarans and nets.

S1. No	Taluk	Nos	Cyclone Prone Areas
1	1 Thoothukudi		Therespuram Inigo Nagar
2	2 Tiruchendur		Punnakayal
3	Eral	1	Palayakayal
4	Ottapidaram	2	Tharuvaikulam Pattinamaruthur
	Total	6	

#### **Cyclone Prone Areas in the District:**

#### 2. Tsunami

Tsunami means a long, high sea wave caused by an earthquake or other disturbance. Coastline of Thoothukudi district is prone to Tsunami hazard from the Sumatra and the **December 2004** Tsunami is a case in study. The impact of 2004 tsunami was severe in Kanniyakumari district while it was relatively less in Thoothukudi and Tirunelveli districts due to shielding of their coasts from direct hit of tsunami waves by the Sri Lankan landmass.

#### History and Impact:

Thoothukudi District is one among the 13 coastal districts which was struck by the Tsunami on 26<sup>th</sup> December, 2004. As many as **23 coastal villages** were affected in this district due to the unprecedented devastation. The Tsunami affected villages comprised in six taluks are located along the 120 km. stretch of the South east coast of Tamil Nadu.

The affected villages are given below:

S1. No	Taluk		Revenue Village		Coastal Habitation
		1	Mappillaiyurani	1	Siluvaipatti
1	Thoothukudi	2	Thoothukudi I	2	Loorthammalpuram
1	Thoothukudi	3	Thoothukudi I	3	Threaspuram
		4	Meelavittan II	4	Inigonagar
		5	Punnakayal	5	Punnakayal
		6	Kayalpattinam South	6	Kombuthurai
				7	Singithurai
		7	Veerapandianpattinam	8	Veerapandianpattinam
2	Tiruchendur		8 Keela Tiruchendur	9	Jeeva Nagar
		8		10 11	Amali Nagar Alanthalai
		9	Kulasekarapattinam	12	Kulasekarapattinam
		10	Manappadu	13	Manappadu
3	Eral	11	Palayakayal	14	Palayakayal
		11		15	Ratchanyapuram
4	Sattankulam	12	Padukkapathu	16	Periathalai
		13	Vembar	17	Vembar
5	Vilathikulam	14	Periasamypuram	18	Periasamypuram
		15	Keela Vaippar	19 20	Keela Vaippar Sippikulam
		10	Dette a e a e e e 11		
		16	Pattanamaruthur	21	Pattanamaruthur
6	Ottapidaram	17	Tharuvaikulam	22	Tharuvaikulam
		18	Keela Arasadi	23	Vellapatti

## **Details of Coastal Habitations:**

S1. No	Name of Revenue Village & Coastal Habitations	Population	Approxima te population to be evacuated during disaster	Name of Shelters identified for evacuees	Distance from the Coastal habitation to Relief Shelter	Holding Capacity of shelter (No.of Persons)
	Vilathikulam Taluk		1			1
	Vembar, Vembar	5565	1500	Multi purpose evacuation shelter	1Km	1000
1	Vembar Periasamy-puram	1603	1500	(Govt.High Secondary School)	6Km	1000
I	Keela Vaippar Keela Vaippar	2565	080	Louis High	1Km	1000
	Keela Vaippar Sippikulam	3565	5 980	School	3/4 Km	1000
	Ottapidaram Taluk		1	1		
	Pattana-maruthur Pattana-maruthur	1860	120	P.U.M.School Pattinamaruthur	800m	70
2	Tharuvaikulam Tharuvaikulam	14500	2000	Govt Hr Sec School Tharuvaikulam	700m	2000
	Tharuvaikulam 3000 Vellapatti		1000	Nalla Alosanai Community Hall Vellapatti	1500m	800
	Thoothukudi Taluk		1			
	Thoothukudi I Threshpuram	5000	3000	<ol> <li>Corporation hr sec school</li> <li>Sathya Mahal</li> <li>St. Joseph</li> <li>Girls school</li> <li>R.C. Auzilium</li> <li>School</li> <li>Malar Mahal</li> </ol>	1.5 Km 2 Km 1.5 Km 1 Km 1 Km	500 1000 400 500 600
3	Meelavittan II Inigo Nagar	1400	700	1) Lazal Hr sec school 2) Karapetai boys School	1.5 Km 1.5 km	400 400
	Mappillaiyurani Siluvaipatti	15000	2500	Multi purpose evacuation shelter	500 m	2000
	Thoothukudi I Loorthammal puram 20000 2700		2700	Corporation Hr.Sec.School, Samuelpuram	500 m	500

S1. No	Name of Revenue Village & Coastal Habitations	Village &     population       stal     Population		Name of Shelters identified for evacuees	Distance from the Coastal habitation to Relief Shelter	Holding Capacity of shelter (No.of Persons)
	Eral Taluk					
	Palayakayal Palayakayal	1450	950	St.Antonys Higher Secondary	500 m	
4	Palayakayal Ratchanya puram	1943	1943	School, Palayakayal	1 km	800
	Tiruchendur Taluk					
-	Punnakayal Punnakayal	3000	300	Rajakanni matha thiruthalam Punnakayal	1Km	200
	Kayalpattinam South Kombuthurai	600	150	Multi purpose evacuation shelter	2 km	1000
	Kayalpattinam South Singithurai	1200	300	Community hall	1 km	200
	Veerapandian- pattinam Veerapandian- pattinam	6700	500	St.thomas Higher Secondary school Veerapandiyanpa tnam	500 m	500
5	Tiruchendur Jeeva Nagar	250	250	Multi purpose evacuation shelter	1.5 Km	1000
	Tiruchendur Amali Nagar	3500	700	Rc School Amalinagar	500m	200
	Tiruchendur Alanthalai	4000	900	Thiru kudumban school	500 m	500
	Kulasekara- pattinam Kulasekara- pattinam	8900	1500	Communuty hall	1 km	200
	Manapad Manapad	5200	1200	St.Joseph Hr.sec school	500 m	500
	Sathankulam Taluk	I	1			
6	Padukkapathu Periathalai	7000	2000	Govt Hr. Sec. School, Periathalai	0.5 Km	2000

The unprecedented devastation caused by the Tsunami claimed three human lives. The Tsunami in its suddenness and ferocity damaged 52 huts fully and 683 huts partly. The particulars of damage are given below:

S1.	Taluk	Habitation	Loss of Human		nouses / amaged	Population	No. of families suffered wage loss
No			life	Fully	Partly	affected	
		Loorthammalpuram				4200	
1		Siluvaipatti	_		-	4620	0070
1	TUT	Thoothukudi North	-	-	371	30300	9270
		Thoothukudi South			263	28421	
		Punnakkayal				7747	
		Kombuthuria		-	-	664	
		Sigithurai	1	30	35	1144	
		Veerapandian		4	7	2927	
2	TDR	pattinam		т			5300
2	IDR	Jeeva Nagar		-	7	225	
		Amali Nagar				1837	
		Alanthalai				2815	
		Kulasekarapattinam			-	517	
		Manapadu				5076	
3	ERAL	Ratchanyapuram			-	693	441
3	ERAL	Palayakayal		-		928	441
4	SAT	Periathalai	1	5	-	5075	982
		Vembar		13		2157	
5	VKM	Periyasamypuram	1			912	1460
Э	VKIVI	Keelavaippar		-	-	1620	1460
		Sippikulam				727	
		Pattinamaruthur				810	
6	OPM	Tharuvaikulam	-	-	-	6050	1427
		Vellapatti				1145	
	Total		3	52	683	110610	18880

#### 3. Flood

Flood is an overflow of a large amount of water beyond its normal limits, especially over what is normally dry land. Flooding may occur as an overflow of water from water bodies, such as a river or lake in which the water over tops or breaks levees resulting in some of that water escaping its usual boundaries, or it may occur due to an accumulation of rainwater on saturated ground in an aerial flood. Floods can also occur in rivers when the flow rate exceeds the capacity of the river channel particularly at bends or meanders in the waterway. Some floods develop slowly, while others such as flash floods can develop in just a few minutes and without visible signs of rain. Additionally, floods can be local, impacting a neighborhood or community, or very large, affecting entire river basins.

#### 4. Earthquake

Earthquake is a sudden violent shaking of the ground, typically causing great destruction, as a result, of movements within the earth's crust or volcanic action. On the basis of the intensities or the destructiveness of the earthquakes a map of India has been published by the Meteorological Department in collaboration of the Indian Standard Institution. The map shows the five seismic zones based on modified Mercalli Scale.

S1. No	Zone	Intensity	Туре
1	Ι	V	(instrumental, feeble, slight, moderate rather strong
2	II	VI	Strong
3	III	VII	Very Strong
4	IV	17111	destructive
5	V	VIII	disastrous, catastrophic

The coastal areas of Tamil Nadu come under **Zone II (Intensity VI (Strong))**. Since, Thoothukudi District is one of the coastal areas of Tamil Nadu State, there is a possibility of **Intensity VI (Strong)** earthquake in this District.

#### 5. Fire Accident

Fire is a very good servant, but, a very bad master. As long as fire is under our control, it serves a lot of useful purposes for us, but, once it goes out of our control, it can create a lot of destruction. However, despite the presence of fire safety measures, the occurrence of accidents is oftentimes inevitable.

It is this combination (of good servant and bad master), which is dangerous. Because of the useful purposes that it serves, people keep sources of fire in/around their houses/workplace. And, these sources could sometimes result in "undesired" fire.

#### **Causes of Fire:**

The most common causes of fire are:

- 1. Electrical
- 2. Pantry Area
- 3. Smoking

#### Electrical

Incidents of fire mainly caused due to overloading, short circuit etc. As people start staying in a new apartment, or, a new office, they start making modifications to the wall socket outlets in order to be able to plug in additional apparatus etc. Then, there reaches a time, when the total amount of current drawn from all the sockets together could exceed the rated capacity of the internal wiring.

As time progresses, due to various minor repairs etc. wires might be changed, jumbled up etc., or, the insulation among wires might break down. This might cause some wires to come in contact with each other, and, thus, create a short circuit. This shortcircuit can cause a very high current flow through the wires and, thus causing fires.

#### **Pantry Area**

Leakage of cooking gas, accompanied by a spark around the leakage could cause fire. These are typically very dangerous. Sources of sparks could be anything: - a burning item, turning on/off of electrical gadgets/switches etc. The leak itself can be in the gas cylinder itself, the pipeline carrying the gas, the regulator, joints etc.

#### Smoking

Smoking in/around combustible materials could cause fire, due to hot ashes falling from the cigarette.

#### **Uneven Distribution of Incidents**

Incidents of fires are usually not evenly distributed. There is higher number of fires during:

- **Summer season** Due to higher ambient temperature; as well as leaves etc. being dry catch fire easily. This is the time, when many forest-fires start.
- Some specific festive events due to use/availability of fire-crackers, and/or lights etc. Fire based lights could pose a direct fire-risk, while, electricity based lighting could cause the risk due to overloading.

#### 6. Drought

Drought is a prolonged period of abnormally low rainfall, leading to a shortage of water. Drought has many causes. It can be caused by not receiving rain or snow over a period of time. The water cycle and weather that changes in the wind patterns that move clouds and moisture through the atmosphere can cause a place to not receive its normal amount of rain or snow over a long period of time.

As a drought persists, the conditions surrounding it gradually worsen and its impact on the local population gradually increases.

- Meteorological drought is brought about when there is a prolonged time with less than average precipitation. Meteorological drought usually precedes the other kinds of drought.
- Agricultural droughts are droughts that affect crop production or the ecology of the range. This condition can also arise independently from any change in precipitation levels when soil conditions and erosion triggered by poorly planned agricultural endeavors cause a shortfall in water available to the crops. However, in a traditional drought, it is caused by an extended period of below average precipitation.
- Hydrological drought is brought about when the water reserves available in sources such as dam, tanks, lakes and reservoirs fall below the statistical average. Hydrological drought tends to show up more slowly because it involves stored water that is used but not replenished. Like an agricultural drought, this can be triggered by more than just a loss of rainfall.Time of droughts can have significant environmental, agricultural, health, economic and social consequences. The effect varies according to vulnerability. For example, subsistence farmers are more likely to migrate during drought because they do not have alternative food sources. Areas with populations that depend on water sources as a major food source are more vulnerable to famine.

Drought can also reduce water quality, because lower water flows reduce dilution of pollutants and increase contamination of remaining water sources. Common consequences of drought include:

- Diminished crop growth or yield production and carrying capacity for livestock
- Hunger, drought provides too little water to support food crops.
- Malnutrition, dehydration and related diseases
- Mass migration, resulting in internal displacement and international refugees
- Reduced electricity production due to reduced water flow through hydroelectric dams
- Shortages of water for industrial users
- Social unrest.

Since, Thoothukudi District has tropical climate and hence, there is a possibility of drought.

#### Drought 2016

The rainfall during N.E Monsoon was **150.55 mm against the normal NE monsoon rainfall of 429.4mm**. Hence rainfall was **65% deficient** for this district and the district sufferred with drought. Crops raised in **1,79,784 Hectares** of land got damaged due to droght. Government in their G.O No. 6 Revenue Department dated 10.01.2017 has declared all the districts in Tamilnadu as drought hit districts. In G.O Ms No. 47 Revenue Department dated 21.02.2017 has sanctioned input subsidy to the farmers who has suffered crop loss due to drought.

#### 7. Industrial Hazard:

Industrial hazards consist of four principle hazards, viz fire, explosion, toxic/chemical release and environment damage. This is because industries employ many different processes involving a wide range of different raw materials, intermediates, waste products and final products. The hazards encountered are fire, explosion, toxic release and environmental damage.

#### a. Fire

This is the most frequent of the hazards however the consequences are generally less. The effect of fire on people usually takes the form of skin burns and is usually dependant on the exposure time and the intensity of the heat. Fire can also produce toxic fumes like Acrolein, Carbon monoxide and Cyanides. Physical structures can be damaged either by the intensity of the heat or combustion. It may also have an effect on essential services like power and instrumentation which can cause an escalation of the incident.

Over 1000 Match factories are there in Kovilpatti area manufacturing safety matches. Small and Medium factories are doing their box filling works are prone to fire accidents.

#### **b.** Explosion

Explosions are usually heard from far away as a 'bang'. This is the result of a shock wave. This over pressure can kill people but usually the indirect effects of collapsing buildings, flying glass and debris causes far more loss of life and severe injuries. There are different types of explosions which include gas explosions and dust explosions. Gas explosions occur when a flammable gas mixes with air and is exposed to an ignition source. Dust explosions occur when flammable solids, especially metals, in the form of fine powders are intensively mixed with air and ignited.

10 Fire works factories are manufacturing different types of Fire crackers are prone

for explosion.

#### c. Toxic/Chemical release

Sudden releases of toxic vapours have the potential to cause death and severe injuries several miles from the release point. They are carried by water and air. Their release into public sewage systems, rivers, canals and other water courses, either directly or through contaminated water used in fire fighting can result in serious threat to public. The number of casualties depends on the weather conditions, population density in the path of the cloud and the effectiveness of the emergency arrangements.

#### d. Gas /Oil leakage

A gas leak refers to a leak of natural gas from a pipeline or other containment into a living area or any other area where the gas should not be present. Because natural gas may explode when exposed to flame or sparks, this situation is very dangerous to the general public. In addition to causing fire and explosion hazards, leaking flammable gases can kill vegetation, including large trees, and releases powerful greenhouse gases to the atmosphere.

Since, many major industries are situated in Thoothukudi District, the possibility of gas and oil leakage incidents are very high in nature.

#### e. Environmental Damage

As well as having the potential for causing injury, loss of life and damage to property, the hazards of fire, explosion and toxic releases may pose a severe threat to the environment. Release of other substances, not directly toxic to humans can cause major pollution problems. It is becoming increasingly recognized that damage to natural resources such as plant and animal life can have serious long term consequences

Since, Thoothukudi Disrict has large number of major and minor industries, the possibility of **Industrial hazard is very high in nature**.

#### **History and Impact**

#### a. Gas Leakage from Sterilite Industries Limited

On **23.03.2013**, the  $SO_2$  was emitted in excess quantity from Sterlite Copper Industry. The toxic effect of the gas has been realized in the early morning and it led to health problems like eye irritation, throat infection, severe cough, breathing problem and nausea to the people of Thoothukudi town particularly Anna Nagar, Toovipuram, Bryant Nagar and George road areas.

#### b. Gas Leakage from Seafood Processing Unit

The disaster occurred at a sealed cold storage unit of a private seafood processing company in Tuticorin on 5<sup>th</sup> June, 2014. Fifty-four workers suffered a breathing problem after ammonia gas leaked from the sealed cold storage unit. Fire and Rescue Services personnel responded swiftly to contain the leak from a valve. Two water tenders worked nearly an hour and diluted the concentration of the gas.

#### c. Man Made Hazard

Disasters also can be caused by humans. Hazardous materials emergencies include chemical spills and groundwater contamination. Workplace fires are more common and can cause significant property damage and loss of life. Communities are also vulnerable to threats posed by extremist groups who use violence against both people and property. High-risk targets include military and civilian government facilities, international airports, large cities and high-profile landmarks. Cyber-terrorism involves attacks against computers and networks done to intimidate or coerce a government or its people for political or social objectives.

#### Man-Made and Technological Types of Disasters

- Hazardous materials
- Power service disruption and blackout
- Nuclear power plant and nuclear blast
- Radiological emergencies
- Chemical threat and biological weapons
- Cyber attacks
- Explosion

#### Vulnerability Analysis:

The vulnerability of the district is defined by the ability to anticipate, cope with, resist and capacity to recover from any probable disaster. The factors like limited livelihood opportunities, low per capita income, under developed infrastructure, unplanned development, rapid urbanization, prevalent, social structures, demographic expansion and environmental degradation make Thoothukudi district highly vulnerable to multi disaster.

#### 1. Infrastructure Vulnerability

Due to rapid urbanization, the buildings, constructions and other infrastructures have been developed rapidly without taking into consideration the disaster vulnerability of the district. Most of the constructions are not disaster resilient or earthquake safe which increases the vulnerability of the population to various hazards.

#### 2. Non Structural Vulnerability

Thoothukudi district is highly vulnerable to multi hazards and few of the disasters are annual such as flood, fire, heat etc. The community is aware of these recurrent disasters and has some understanding and experience towards these disasters. However, the community is unaware of the risks arising out of rapid urbanization, unplanned development, deforestation, environmental degradation and other such potential disasters. This unawareness and inexperience to these situations poses added vulnerability to the community.

#### **3. Economic Vulnerability:**

Being a coastal district, the economy of district is primarily dependent on coastal and its allied sector. The economy of Thoothukudi is based on shipping, fishing, salt pan, mineral and agricultural industries. Thoothukudi has a host of other industries including power, chemicals copper smelting etc. and one of India's fastest growing ports.

Hence Thoothukudi district is economically vulnerable due to multi hazards such as for Cyclone, Tsunami, Flood, Tsunami, Earthquake, Fire Accident, Gas/Oil leakage, Drought, Industrial hazard, anthropogenic disasters.

There are ten large hazardous industries in Thoothukudi district which makes the district vulnerable to industrial hazards. The large hazardous industries in the districts are:

- Thoothukudi Thermal Power Station.
- Neyveli lignite corporation Thermal Power Station.
- Sterlite Copper industries ltd. (Now Closed)
- Thoothukudi Alkaline Chemicals.
- DCW Ltd
- Southern Petrochemical Industries Corporation Ltd.
- Ind-Bharath Co-Gen Ltd.
- Costal Energen Private Ltd.
- V.V. Titanium Pigments Pvt ltd.
- Bharath Petroleum Corporation Pvt.

#### 4. Social Vulnerability:

Thoothukudi District is one of most urbanized and has high socio- economic wealth. It has also higher HDI, Literacy, and Sex ratio than many other districts. As of 2011, the district had a population 17, 38,376 with a sex ratio's of 1,023 females for every 1,000 males. The social structure of Thoothukudi is divided on caste, religion and ethnic lines which make the minorities and poor highly vulnerable. The vulnerable groups like children and women are at higher risk in the district as they are dependent on others.

## 5. Environmental Vulnerability:

Due to urbanization and limited livelihood opportunities in the rural areas, peoples are migrating to urban areas creating additional pressure on the limited resources. These altogether form the key reasons for exploitation of the available resources, deforestation, Unplanned development and various other related after effects including environmental degradation & risk of increasing man made &human induced disasters like accidents, industrial / chemical disasters etc. The agriculture in Thoothukudi is highly depending on the local rainfall which makes the district highly vulnerable to drought and flood.

## 6. Technological Vulnerability

There is lack of proper and effective technology to forecast, monitor and disseminate early warning information of onset of any threatening event in the district. This increases the risk of people living in vulnerable areas. Besides, lack of appropriate technology and information also resists the capacity of the district to mitigate the risk.

## 7. Physical Vulnerability

The low lying areas inside and near the embankments are vulnerable to water logging problems as the soil in the district retains water for longer duration. Many areas of the districts face floods due to the heavy rain and flood in river Thamirabarani. Due to physical phenomenon of the district, it faces vulnerability as a result of cyclone, tsunami, tidal waves, and storm surges.

S1. No	Taluk	Physical Vulnerability	Nos	Vulnerable areas
1	Thoothukudi	Sea-Coast and low lying area	15	<ul> <li>Sankaraperi</li> <li>Athimarapatti including Veeranayakanthattu.</li> <li>Abraham Nagar including PSP Nagar</li> <li>Madathur, P&amp;T Colony</li> <li>Muthammal Colony</li> <li>Athiparasakthi Nagar</li> <li>Kurinji Nagar</li> <li>Thiru Vee Ka Nagar</li> <li>Kovilpillai nagar</li> <li>Kalankarai</li> <li>Mullakadu JS Nagar</li> </ul>

The vulnerable areas due to physical features of this district are as follows:

S1. No	Taluk	Physical Vulnerability	Nos	Vulnerable areas
				<ul> <li>Rajiv Nagar</li> <li>Kandhan Colony</li> <li>Kathirvel Nagar</li> <li>State Bank Colony</li> </ul>
2	Srivaikuntam	Thamirabarani River	4	<ul> <li>Kongarayakurichi</li> <li>Sriparangusanallur</li> <li>Muthalankurichi</li> <li>Agaram</li> </ul>
3	Tiruchendur	Sea-Coast / Thamirabarani river	3	<ul><li>Punnakayal</li><li>Authoor</li><li>Kayalpattinam</li></ul>
4	Eral	Thamirabarani River / low lying area	5	<ul> <li>Sivaramamangalam</li> <li>Mukkani</li> <li>Thirukalur (Kakkanji Nagar)</li> <li>Angamangalam</li> <li>Alwarthirunagari (Vadambokki Street)</li> </ul>
5	Sattankulam	Tanks near by	3	<ul><li>Puthantharuvai</li><li>Komaneri</li><li>Virakulam</li></ul>
6	Kovilpatti	Low lying area	2	<ul><li>Illuppaiurani</li><li>Gandhi Nagar</li></ul>
7	Kayathar	Low lying area	2	<ul><li>Thangammal Puram</li><li>Sanathuputhukudi</li></ul>
8	Vilathikulam	Sea-Coast and low lying area	1	• Vaippar
9	Ottapidaram	Surroudned by Jungle stream	1	• Valasamuthitram
	Tota	1	36	

## 8. Vulnerability due to Climate

The poor, marginal and farmers are vulnerable to seasonal hazards like heat waves and seasonal flooding. The sudden onset of monsoon and heavy rainfall not only damages the standing crops but also takes lives of the people and livestock. On the other hand, the district face drought due to deficient rains.

## 9. Vulnerability Mapping

Maps have been prepared to depict the vulnerable areas in rural and urban areas. Each map incorporates not more than 3 vulnerable areas in a Firka (Rural areas) / Ward (Urban area). Analysis of the Vulnerability and its magnitude in the areas identified, along with details of escape route to the nearest relief centre are all captured in the vulnerability map.

Map Showing the Very Highly Vulnerable, Highly Vulnerable, Medium Vulnerable and Low Vulnerable Locations:



# VII. RISK GOVERNANCE - INSTITUTIONAL FRAMEWORK FOR DISASTER MANAGEMENT

#### 1. Introduction

India has integrated administrative machinery for management of disasters at the National, State, District and Sub-Division levels. The basic responsibility of undertaking rescue, relief and rehabilitation measures in the event of natural disasters, as at present, is that of the State Governments concerned. The central government supplements the efforts of the states by providing financial and logistics support.

The District administration is the focal point for implementation of all governmental plans and activities. The actual day-to-day function of administering relief is the responsibility of the District collector who exercises coordinating and supervising powers over all departments at the district level.

The 73<sup>rd</sup> and 74<sup>th</sup> constitutional amendments recognize Panchayat Raj institutions as 'Institutions of self -government'. The amendment has also laid down necessary guidelines for the structure of their composition, powers, functions, devolution of finances, regularly holding of elections and reservations of seats for weaker sections including women. These local bodies can be effective instruments in tackling disasters through early warning system, relief distribution, providing shelter to the victims, medical assistance etc.

Other than the national, state, district and local levels, there are various institutional stakeholders who are involved in disaster management at various levels in the country. These include the police and para-military forces, civil defence and home guards, fire services, ex-servicemen, non government organization (NGOs), public and private sector enterprises, media all of whom have important roles to play.

The institutional and policy mechanisms for carrying out response, relief and rehabilitation are well-established in the district. These mechanisms have proved to be robust and effective so far as response, relief and rehabilitation are concerned. This section gives a brief overview of the institutional mechanism for disaster management in the district.

#### 2. Classification of the institutions at district level

The various institutions at Thoothukudi District can be classified as per their administrative levels which are below:

- District level
- Division level
- Taluk level

### 3. District Disaster Management Authority (DDMA)

District Disaster Management Authority is an institution constituted as per the Disaster Management Act, 2005 at the district level to ensure effective management and response to any disaster.

The District Disaster Management Authority constituted as per Disaster Management Act, 2005 and G.O.Ms.No.33, Revenue Department, dated: 24.01.2012 in respect of Thoothukudi District is as follows:

Designation	Position	
District Collector	Chairperson	
• District Panchayat Chairman	Co-Chairperson	
District Revenue Officer	Chief Executive Officer	
Superintendent of Police	Member	
• Joint Director (Health Services)	Member	
• PA(G) to Collector	Member	
Additional Collector, DRDA	Member	
Chief Educational Officer	Member	

#### 4. District Emergency Operation Centre (DEOC)

DEOC is functioning under the supervision of the District Collector, DEOC acts as a communication centre at the district level for carrying out all operations during disaster such as evacuation, search and rescue, relief and restoration operations at Taluk and Village level based on the forecast / alerts received from SEOC and disseminates the information to the General Public. During disaster period the centre functions by drafting

the services of the Line Departments in the district for quick dissemination of alerts and collects information on search, rescue, relief and rehabilitation operations from various quarters and updates the same to Commissioner of Revenue Administration and State Relief Commissioner. This centre is accessed by the public by calling toll free No.1077.

## 5. District Advisory Committee

The District Advisory Committee is the apex body for disaster management in the district. The committee is headed by the Collector of Thoothukudi district as the chairman and the District Revenue Officer acting as vice-chairman. The main function of the district advisory committee is to coordinate the activities of various departments during the time of emergency in the district.

Designation Position **District Collector, Thoothukudi** Chairman District Revenue Officer, Thoothukudi Vice Chairman Superintendent of Police, Thoothukudi Member Member • Commissioner, Corporation, Thoothukudi Additional Collector, DRDA, Thoothukudi Member • Superintending Engineer, TNEB, Thoothukudi Member • Superintending Engineer, TWAD, Kovilpatti Member • Revenue Divisional Officers, Thoothukudi, Kovilpatti, • Member Tiruchendur Superintending Engineer, (PWD - WRO), Tirunelveli Member • Divisional Engineer, Highways, Thoothukudi Member ٠ Senior Regional Manager, TNCSC, Thoothukudi Member Joint Registrar (Cooperative) Thoothukudi Member •

The following officers constitute the District Advisory Committee.

Designation	Position
Municipal Commissioner, Kovilpatti, Kayalpattinam and Tiruchendur	Member
Joint Director of Health Services, Thoothukudi	Member
Regional Transport Officer, Thoothukudi	Member
Public Relations Officer, Thoothukudi	Member
Deputy Director of Health Services, Thoothukudi / Kovilpatti	Member
Assistant Director of Panchayats, Thoothukudi	Member
Assistant Director of Town Panchayat, Tirunelveli	Member
Deputy Superintendent of Police, Home Guard, Thoothukudi	Member
• Executive Engineer (Building Constructions and Maintenance Division), Thoothukudi	Member
• Joint Director of Agriculture, Thoothukudi	Member
Commanding Officer, (NCC) Thoothukudi	Member
• Joint Director of Animal Husbandry, Thoothukudi	Member
District Supply and Consumer Protection Officer, Thoothukudi	Member
• District officer, Fire and Rescue Department, Thoothukudi	Member
Chief Educational Officer, Thoothukudi	Member
Special Deputy Collector (SSS), Thoothukudi	Member
All Personal Assistants to Collector, Thoothukudi	Member

## 6. Crisis Management Group

The Crisis Management Group under the leadership of District Collector with the core group of district level officers as given below.

Designation	Position
District Collector	Core Group Leader
• District Revenue Officer, Thoothukudi.	Member
Superintendent of Police, Thoothukudi.	Member
Divisional Engineer, Highways, Thoothukudi	Member
• Executive Engineer, (PWD) Buildings, Thoothukudi.	Member
• Superintending Engineer, TWAD, Kovilpatti.	Member
• Superintending Engineer, TNEB, Thoothukudi.	Member
Joint Director of Health Services, Thoothukudi.	Member
• Joint Director, Industrial Safety and Health, Thoothukudi.	Member

## 7. Divisional Disaster Management Team

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 he will be called Additional Zonal Officer. This additional Zonal Officer's shall operate from the Taluk headquarters. The Revenue Divisional Officers and their staffs consist of Divisional Disaster Management Team.

Additional Nodal officers appointed for each Taluk as follows:

Taluk	Designation of Additonal Nodal Officer
Thoothukudi	PA (Noon Meal) to Collector, Thoothukudi
Srivaikundam	APO (H&S),D.R.D.A, Thoothukudi
• Tiruchendur	PA (Small Savings) to Collector, Thoothukudi

[	
Taluk	<b>Designation of Additonal Nodal Officer</b>
• Eral	AEE, (R & B),Thoothukudi.
• Sattankulam	APO (Infra-II), D.R.D.A, Thoothukudi.
• Kovilpatti	AEE,(R & B),Kovilpatti.
Vilathikulam	AEE (RD),Thoothukudi Sub Division
• Ettayapuram	APO (Infra-I), D.R.D.A, Thoothukudi
• Ottapidaram	Secretary, District Panchayat, Thoothukudi.
• Kayathar	AEE (RD), Kovilpatti Sub division.

Divisional Disaster Management team formed as detailed below:

## Thoothukudi Division:-

- Revenue Divisional Officer, Thoothukudi Head.
- Tahsildar, Thoothukudi.
- Tahsildar, Srivaikundam
- Executive Engineer, P.W.D., Korampallam basin, Thoothukudi
- Executive Engineer, P.W.D., (Buildings) Thoothukudi.
- Divisional Engineer, Highways, Thoothukudi
- Deputy Director, Health, Thoothukudi
- Deputy Superintendent of Police Rural, Thoothukudi
- Deputy Superintendent of Police Urban, Thoothukudi
- Deputy Superintendent of Police Srivaikuntam
- Personal Assistant (Noon Meal), Thoothukudi.
- Assistant Director, Fisheries, Thoothukudi
- Assistant Divisional Engineer, H & R.W., Thoothukudi
- Block Development Officer, Thoothukudi.
- Block Development Officer, Srivaikundam.
- Block Development Officer, Karungulam

## **Tiruchendur Division:-**

- Revenue Divisional Officer, Tiruchendur Head
- Tahsildar, Tiruchendur

- Tahsildar, Sattankulam
- Tahsildar, Eral
- Deputy Director, Health, Thoothukudi
- Assistant Director, Fisheries, Thoothukudi
- Deputy Superintendent of Police, Tiruchendur
- Assistant Executive Engineer, P.W.D., Thamiraparani, Srivaikuntam .
- Assistant Divisional Engineer, Highways, Tiruchendur
- Secretary, District Panchayat, Thoothukudi.
- Block Development Officer, Alwarthirunagari.
- Block Development Officer, Tiruchendur.
- Block Development Officer, Udangudi.
- Block Development Officer, Srivaikuntam.

## Kovilpatti Division:-

- Revenue Divisional Officer, Kovilpatti Head
- Tahsildar, Kovilpatti.
- Tahsildar, Vilathikulam.
- Tahsildar, Ottapidaram.
- Tahsildar, Ettayapuram.
- Tahsildar, Kayathar.
- Deputy Director, Public Health, Kovilpatti
- Deputy Superintendent of Police Kovilpatti,
- Deputy Superintendent of Police Vilathikulam
- Deputy Superintendent of Police Maniyachi.
- Assistant Executive Engineer, P.W.D, Korampallam division, Kovilpatti
- Assistant Divisional Engineer, Highways, Kovilpatti.
- Personal Assistant (Small Savings) to Collector, Thoothukudi.
- Block Development Officer, Kovilpatti.
- Block Development Officer, Vilathikulam.
- Block Development Officer, Ottapidaram.
- Block Development Officer, Pudur.
- Block Development Officer, Kayathar.

### 8. Taluk Disaster Management Team

Taluk Disaster Management Team is hereby constituted consisting of following officials.

### Thoothukudi Taluk

- Tahsildar, Thoothukudi- Head
- Inspector of Police, Thoothukudi with a team of Policemen
- Revenue Inspectors and Village Administrative Officers
- Assistant Director, Fisheries with team of divers and Swimmers.
- One Medical officer with medical team and ambulance.
- Assistant Engineer, Highways, Thoothukudi
- Assistant Engineer (TNEB), Thoothukudi
- Assistant Director (Animal Husbandry).
- Divisional Fire Officer with necessary fire brigade.
- Block Development Officer, Thoothukudi

#### Srivaikundam Taluk

- Tahsildar, Srivaikuntam- Head
- Inspector of Police, Srivaikundam with a team of Policemen
- Revenue Inspectors and Village Administrative Officers
- One Medical officer with medical team and ambulance
- Assistant Engineer (P.W.D), WRO, Srivaikundam
- Assistant Engineer, (Highways), Srivaikundam
- Assistant Engineer (TNEB), Srivaikundam
- Fire station officer, Srivaikundam with Fire Brigade, swimmers and divers.
- Block Development Officer, Srivaikundam, Karungulam
- Veterinary Inspector, Animal Husbandry, Srivaikuntam

#### Tiruchendur Taluk

- Tahsildar, Tiruchendur- Head
- Inspector of Police, Tiruchendur with a team of Policemen and Swimmers.
- Revenue Inspectors and Village Administrative Officers
- One Medical officer with medical team and Ambulance.
- Assistant Engineer, PWD, WRO, Srivaikundam
- Assistant Engineer (TNEB), Tiruchendur
- Assistant Engineer, Highways, Tiruchendur

- Assistant Director, Fisheries, Tiruchendur with boats divers and Swimmers
- Block Development Officer, Tiruchendur, Udankudi, Alwarthirunagari
- Fire station officer, Tiruchendur with Fire Brigade, Swimmers and divers.
- Veterinary Inspector, Animal Husbandry, Tiruchendur

## Eral Taluk

- Tahsildar, Eral- Head
- Inspector of Police, Eral with a team of Policemen and Swimmers.
- Revenue Inspectors and Village Administrative Officers
- One Medical officer with medical team and Ambulance.
- Assistant Engineer, PWD, WRO, Srivaikundam
- Assistant Engineer (TNEB), Tiruchendur
- Assistant Engineer, Highways, Tiruchendur
- Assistant Director, Fisheries, Tiruchendur with boats divers and Swimmers.
- Fire station officer, Tiruchendur with Fire Brigade, Swimmers and divers.
- Block Development Officer, Alwarthirunagari, Srivaikuntam
- Veterinary Inspector, Animal Husbandry, Alwarthirunagari

## Sattankulam Taluk

- Tahsildar, Sattankulam- Head
- Inspector of Police, Sattankulam.
- Revenue Inspectors and Village Administrative Officers concerned.
- One Medical officer with medical team and ambulance.
- Assistant Engineer, PWD, WRO, Moolakaraipatti
- Assistant Engineer, Highways, Sattankulam
- Assistant Director, Fisheries, with boats and men.
- Assistant Engineer (TNEB), Vilathikulam
- Fire station officer, Sattankulam with Fire Brigade and team of divers and swimmers.
- Block Development Officer, Sattankulam
- Veterinary Inspector, Animal Husbandry.

## Kovilpatti Taluk

- Tahsildar, Kovilpatti Head
- Inspector of Police, Kovilpatti with a team of Policemen.

- Revenue Inspectors and Village Administrative Officers
- One Medical officer with medical team and ambulance.
- Assistant Engineer (P.W.D), WRO, Kovilpatti
- Assistant Engineer (Highways) Kovilpatti.
- Assistant Engineer (TNEB) Kovilpatti
- Fire station officer, Kovilpatti with Fire Brigade, Swimmers and divers
- Block Development Officer, Kovilpatti
- Veterinary Inspector, Animal Husbandry, Kovilpatti

## Ettayapuram Taluk

- Tahsildar, Ettayapuram Head
- Inspector of Police, Ettayapuram
- Revenue Inspectors and Village Administrative Officers.
- One Medical officer with medical team and ambulance.
- Executive Officer, Town Panchayat.
- Assistant Engineer, PWD, WRO, Kovilpatti
- Assistant Engineer, Highways, Kovilpatti
- Assistant Engineer (TNEB), Ettayapuram
- Fire station officer, Kovilpatti with Fire Brigade, Swimmers and divers
- Block Development Officer, Vilathikulam
- Block Development Officer, Pudhur
- Block Development Officer, Kovilpatti
- Block Development Officer, Kayathar
- Veterinary Inspector, Animal Husbandry,

## Kayathar Taluk

- Tahsildar, Kayathar- Head
- Inspector of Police, Kayathar
- Revenue Inspectors and Village Administrative Officers.
- One Medical officer with medical team and ambulance.
- Executive Officer, Town Panchayat, Kayathar
- Assistant Engineer, PWD, WRO, Kovilpatti
- Assistant Engineer, Highways, Kovilpatti
- Assistant Engineer (TNEB), Kayathar
- Fire Station Officer, Kalugumalai.

- Block Development Officer, Kayathar.
- Veterinary Inspector, Animal Husbandry.

## Vilathikulam Taluk

- Tahsildar, Vilathikulam- Head
- Inspector of Police, Vilathikulam with a team of Policemen.
- Revenue Inspectors and Village Administrative Officers concerned.
- One Medical officer with medical team and ambulance.
- Assistant Engineer, PWD, WRO, Vilathikulam
- Assistant Engineer, Highways, Vilathikulam
- Assistant Director, Fisheries, with adequate boats and team of divers and Swimmers.
- Assistant Engineer (TNEB), Vilathikulam
- Fire station officer, Vilathikulam with Fire Brigade Swimmers and Divers.
- Block Development Officer, Vilathikulam, Pudur.
- Veterinary Inspector, Animal Husbandry.

## Ottapidaram Taluk

- Tahsildar, Ottapidaram- Head
- Inspector of Police, Ottapidaram
- Revenue Inspectors and Village Administrative Officers.
- One Medical officer with medical team and ambulance
- Assistant Engineer, PWD, WRO, Thoothukudi
- Assistant Engineer, Highways, Vilathikulam
- Assistant Engineer (TNEB), Ottapidaram
- Fire station Officer, Ottapidaram with Fire Brigade and team of divers and swimmers.
- Block Development Officer, Ottapidaram.
- Veterinary Inspector, Animal Husbandry.

## 9. Inter Departmental Zonal Teams for Group of Vulnerable Areas

Inter departmental Zonal Teams are formed under the leadership of Revenue Officials at Taluk Level. The team members are drawn from Police, Fire services, Rural Development, Forest, Agriculture Departments etc. Each team will closely monitor vulnerable areas. 36 Interdepartmental zonal teams are formed to monitor the 36 vulnerable areas during the Monsoon season.

## 10. Rapid Response Team (Public Health Department)

Team No.	HUD	Officer Incharge	Contact No.
1	Thoothukudi District	Dr.S.Porchelvan, DHO, Thoothukudi	9840361340
2	Kovilpatti HUD	Dr.D.Jegaveerapandian @ Gunasekaran DHO, Kovilpatti	7373676777
3	Thoothukudi Corporation	Dr.Dinesh, CHO (i/c)	9751890485

## A. Rapid Response Team (District Level)

## B. Thoothukudi HUD

## Rapid Response Team (Block Level - District Responsible Officer)

Team No	Block	Officer Incharge (Dr / Thiru )	Contact No.
1	Thoothukudi HUD / District	Dr.S.Porchelvan, DHO, Thoothukudi	9840361340
2	Thoothukudi Corporation	Dr.Dinesh, CHO(i/c)	9751890485
3	Thoothukudi	Thiru.M.Mathuram Brighton PA to DHO, Thoothukudi	9488481818
4	Srivaikuntam	Thiru.P.Anthonysamy, HE	9442353848
5	Karungulam	Tmt.A.Padma, DMCHO (i/c)	8056377975
6	Tiruchendur	Dr.Bharathidhasan, DTTMO	9487246496
7	Udangudi	Dr.Mathivanan, AD(SBHI)	7010067233
8	Alwarthirunagari	Thiru.Udhayakumar, District Entomologist (i/c)	9790308865
9	Sathankulam	Dr.Ranjithvinod, DPO (NCD)	9600300037
10	Kovilpatti HUD	Dr.D.Jegaveerapandian @ Gunasekaran, DHO, Kovilpatti	7373676777
11	Kovilpatti, Kayathar	Dr. Muppidathi DTTMO, Dr.S.KKaushik Sundar	9944081620
12	Ottapidaram, Vilathikulam, Pudur	Thiru.S.Periasamy, PA to DDHS, Kovilpatti	9843638452

S1. No	РНС	Name & Designation (BMO /MO / BHS / HI) (Dr / Thiru / Ms / Tmt)	<b>Contact No.</b> 6385866546 9944075643 9943282048
1	Pudukottai	<ul> <li>Dr.Hemalatha</li> <li>Arumuganainar</li> <li>P.Kamatchi</li> </ul>	
2	Vallanadu	<ul> <li>Dr.Krishnajothii/c</li> <li>M.MuthukumaraVenkatesan</li> <li>Shakir</li> </ul>	9585782469 9443453316 9600370441
3	Kayamozhi	<ul><li>Dr.AhamaedHilmi</li><li>R.Subramanian</li><li>S.Jaisankar</li></ul>	9840295298 9442265922 9486741231
4	Meignanapuram	<ul><li>Dr.S.AnnieBirmine</li><li>M.SethuKutralam</li><li>Anthonyraj</li></ul>	9487848521 9080967761 9677454485
5	Eral	<ul><li>Dr.J.Dinesh</li><li>V.Murugesan</li><li>Agastin</li></ul>	9442266028 8778172356 9344997639
6	Thenthiruperai	<ul> <li>Dr.M.S.Parthiban</li> <li>Mahesh Kumar</li> <li>Paul Abarham (i/c)</li> </ul>	9994030678 6382558010 9486560936
7	Mudalur	<ul> <li>Dr.S.IlinSUmathi</li> <li>Paul Abarham</li> <li>C.ChristopherSelvadass</li> </ul>	9443772785 9486560936 9486454740

## C. Rapid Response Team (Block PHC Level) (Thoothukudi HUD)

## D .Rapid Response Team (PHC Level) (Thoothukudi HUD)

S1. No	РНС	Name and Designation (MO / HI / BHS) (Dr / Thiru / Ms / Tmt)	Contact No.
1	Mappillaiurani	<ul><li>Dr.C.Maglincalista</li><li>L.N.A.Wilson</li></ul>	9500462053 9842610992
2	Mudivaithanendal	<ul><li>Dr.Kaliswari</li><li>Alwarsamy</li></ul>	9655509500 8220154174
3	Keelachekkarakudi	<ul><li>Dr.Shanmugaraja</li><li>R.Muthukumar</li></ul>	9791814194 9629592736
4	Karungulam	<ul><li>Dr.Ramesh Raja</li><li>Balakannan</li></ul>	8220688978 7373634040
5	Singathakurichi	<ul><li>Dr.Muthamizilselvi</li><li>Shanmugaperumal</li></ul>	9786447784 9442360093
6	Pitchivilai	<ul><li>Dr.S.NasrinFathima</li><li>Selvakumar</li></ul>	9566853650 9489539179
7	Arumuganeri	<ul><li>Dr.A.Srinivasan</li><li>P.Maharajan</li></ul>	7598331128 9442505669

S1. No	РНС	Name and Designation (MO / HI / BHS) (Dr / Thiru / Ms / Tmt)	Contact No.
8	Sonaganvilai	<ul><li>Dr.N.AmbikapathiThirumalai</li><li>L.Anandaraj</li></ul>	9600357203 8754328795
9	Kulasekarapattinam	<ul><li>Dr.AhamaedSuhair</li><li>Muthuselvan</li></ul>	8870199890 9095545638
10	Paramankurichi	<ul><li>Dr.Ashwin</li><li>M.Alwar</li></ul>	9962948999 9489191763
12	Authoor	<ul><li>Dr.Rajalakshmi</li><li>S.J.Subash</li></ul>	9790922816 7639545709
13	Alwarthirunageri	<ul><li>Dr.Jawahar</li><li>Anish</li></ul>	9442061683 9047138754
14	Mookuperi	<ul><li>Dr.Soniya</li><li>Johnnewmon</li></ul>	8098268328 8754016915
15	Udaiyarkulam	<ul><li>Dr.S.J.Vijayakumar</li><li>S.Thiyagarajan</li></ul>	9842070078 9486178426
16	Salaipudur	<ul><li>Dr.Birunthamaheshwari</li><li>P.Jesuraj</li></ul>	9489426901 8300204977
17	Sebathaiyapuram	<ul><li>Dr.Janani</li><li>Ravi</li></ul>	8870640227 9994636717
18	Sivakalai	<ul><li>Dr.J.Dinesh</li><li>Srithar</li></ul>	9442266028 8056694941
19	Betmanagaram	<ul><li>Dr.Sathya</li><li>Pitchandi</li></ul>	9600971872 9976567877
20	Pandaravilai	<ul><li>Dr.Joshvabrown</li><li>Ramakrishnan</li></ul>	9940338562 7708031130
21	Padukkapathu	<ul><li>Dr.A.Lakshmi</li><li>G.A.Manthirarajan</li></ul>	9443875068 9488740101
22	Anandapuram	<ul><li>Dr.Merinvasantharuba</li><li>G.Jeyapaul</li></ul>	7397649304 9442274791

## Rapid Response Team (Block PHC Level) (Kovilpatti HUD)

S1. No	РНС	Name and Designation (Dr / Thiru / Ms / Tmt)	Contact No.
1	Kovilpatti	<ul><li>Dr.M.UmaSelvi</li><li>Dr.Velu Prakash</li><li>Thiru.Karunanithi</li></ul>	8248787398 7639473755 9443872375

S1. No	РНС	Name and Designation (Dr / Thiru / Ms / Tmt)	Contact No.
2	Kayathar	<ul><li>Dr.J.Rajkumar</li><li>Dr.Akilesh</li><li>Thiru.Ramakrishnan</li></ul>	7373751036 9600424031 9443034753
3	Vilathikulam	<ul><li>Dr.Inbaraja</li><li>Dr.Mohanraj</li><li>Thiru.Tamilselvan</li></ul>	9751198111 9500509860 9486869768
4	Pudur	<ul> <li>Dr.Raveendran</li> <li>Dr.ThirumalMurugan</li> <li>Thiru.ThiruVenkateshwaran</li> </ul>	9442759554 9626405016 9489267300
5	Ottanatham	<ul> <li>Dr.AnbuMalathi</li> <li>Dr.BlessyNitisha</li> <li>Thiru.Arumugam Pillai</li> </ul>	9444223508 8754077657 9942715865

## Rapid Response Team: PHC level (Kovilpatti HUD)

S1. No	РНС	Name and Designation (MO / HI / BHS) (Dr / Thiru / Ms / Tmt)	Contact No.
1	Kovilpatti UPHC	<ul><li>Dr.Ramamoorthy</li><li>Lalitha (SHN)</li><li>Kannan SI</li></ul>	9585073269 9442490240 8825456725
2	Sri Ram Nagar Urban PHC	<ul><li>Dr.Shanmathuri</li><li>Gomathi (SHN)</li><li>Ariyankaavu SI</li></ul>	9942880088 9486369051 9345292155
3	Kalugumalai	<ul><li>Dr.Akilesh</li><li>S.Revathi (SHN)</li><li>Vignesh HI</li></ul>	9600424031 9791281103 9600870309
4	Villiseri	<ul><li>Dr.NimithraPadmashree</li><li>Indirarani (SHN)</li><li>Navaneethakannan HI</li></ul>	9486856081 9442937135 9750790145
5	Erachi	<ul><li>Dr.Thai Lakshmi</li><li>Ranganayaki (SHN)</li><li>Ayyalusamy HI</li></ul>	7871162746 6374162149 9442140394
6	Ilayarasanenthal	<ul><li>Dr.Saranya</li><li>B. Uma Maheswari (SHN)</li><li>Bala Subramanian HI</li></ul>	8778406570 9445132436 9789714143
7	KeelaIral	<ul><li>Dr.Velu Prakash</li><li>Rathibai (SHN)</li><li>Subramani HI</li></ul>	7639473755 8778744185 9943032502

S1. No	РНС	Name and Designation (MO / HI / BHS) (Dr / Thiru / Ms / Tmt)	Contact No.
8	Kadalaiyur	<ul><li>Dr.Karthick</li><li>B.Thanalakshmi (SHN)</li><li>Raghavan Raj HI</li></ul>	8248671188 9445132406 9943184222
9	Kadambur	<ul><li>Dr.Rajkumar</li><li>G.Shanthi (SHN)</li><li>Rajasekar HI</li></ul>	7598756999 9486095593 7397051746
10	Kayathar	<ul> <li>Dr.Karunyakirangnanaia h</li> <li>Subbulakshmi (SHN)</li> <li>Vijaya Kumar HI</li> </ul>	9488209415 7339105251 9488101122
11	Vellalankottai	<ul> <li>Dr.Ishwarya</li> <li>M.Esakkiammal (SHN)</li> <li>Saravanan HI</li> </ul>	9445697678 7339502374 8825823161
12	Nagalapuram	<ul><li>Dr.ThirumalMurugan</li><li>C.Prema (SHN)</li><li>Seetharaman HI</li></ul>	7639473755 6379724737 7010892622
13	Boothalapuram	<ul><li>Dr.Subramaniyan</li><li>Thilagavathy (SHN)</li><li>RamarPandi Raja HI</li></ul>	7373445065 8072226718 9788805146
14	Pudur	<ul><li>Dr.NaveenNirmal</li><li>Rajeswari (SHN)</li><li>Pommiah HI</li></ul>	8526290501 8946093422 9486882247
15	Perilovanpatti	<ul><li>Dr.Selvarasu</li><li>Noorjahan (SHN)</li><li>Balakrishanan HI</li></ul>	9659545972 8940203076 6369671715
16	Kulathur	<ul><li>Dr.Anand</li><li>Kasthuri (SHN)</li><li>Ramalingam HI</li></ul>	9789656494 8778924019 9486741220
17	Vembar	<ul><li>Dr.Mohanraj</li><li>Shanthi (SHN)</li><li>Palanikumar HI</li></ul>	9500509860 9585675178 9894341987
18	Ottanatham	<ul><li>Dr.BlessyNitisha</li><li>D. Valarmathi (SHN)</li><li>Kalimuthu HI</li></ul>	8754077657 9445132429 9442545710
19	Puthiamputhur	<ul><li>Dr.Anbumalathi</li><li>P. Thamaraikani (SHN)</li><li>Devasundaram HI</li></ul>	9444223508 9445132435 9865237560

S1. No	РНС	Name and Designation (MO / HI / BHS) (Dr / Thiru / Ms / Tmt)	Contact No.
20	S.Kailasapuram	<ul> <li>Dr.Jeyapraba</li> <li>P. Maragatham (SHN)</li> <li>Deva SundaramHI (i/c)</li> </ul>	8056245944 9445132452 9865237560
21	Eppodumventran	<ul><li>Dr.Vijila Anne</li><li>Vadivu (SHN)</li><li>Gangadharan HI</li></ul>	9443694187 6382118818 9751686142
22	Pasuvanthanai	<ul> <li>Dr.JeevarajPandiyan</li> <li>Chinnathai (SHN)</li> <li>Kalimuthu HI (i/c)</li> </ul>	9443995216 6374275299 9442545710
23	K.T.Puram	<ul><li>Dr.Marivijay</li><li>KajathaBeevi ( SHN)</li><li>Maneksha HI</li></ul>	8300122721 8838930543 9788695527
24	Veppalodai	<ul><li>Dr.M.Abilasa</li><li>Chitra</li><li>Arunachalam HI</li></ul>	8248061424 8270891413 8220154174

## 11. School safety advisory committee

In section 5.3 (iii) of guidelines on School Safety Policy, 2016 prepared by NDMA, it has been stated that a school safety advisory committee at the district level shall be constituted.

As per the instructions, the School safety advisory committee is hereby constituted with the following officials.

S1.No	Designation Positio	
1	District Collector, Thoothukudi.	Chair person
2	Superintendent of Police, Thoothukudi.	Member
3	District Revenue Officer, Thoothukudi.	Member
4	Joint Director (Health Services),Thoothukudi	Member
5	PA(G) to Collector, Thoothukudi	Member
6	Additional Collector, DRDA, Thoothukudi	Member
7	Chief Educational officer, Thoothukudi	Member
8	District Educational officers, Thoothukudi / Kovilpatti / Tiruchendur	Member
9	EE, PWD, (Buildings and Maintenance), Thoothukudi	Member
10	District Officer, Fire, Rescue and Safety Services	Member

This committee shall be involved in devising school safety policies and in developing minimum standards for school safety.

## 12. Community First Responders

The first responders are trained to make the communities strong and vibrant in proactively tackling the disasters. Community participation at grass root level is enabled through enrolment of able-bodied volunteers, with skills of swimming and climbing, as first responders. The first responders are trained by Fire Services / TNDRF.

## **13. Departments and Functions**

The various departments of Government and the local bodies associated with the disaster management functions are presented below:

S1. No	Departments / Agencies	Functions
1	DDMA	Activation of Trigger mechanism.
2	Revenue, DEOC, DIPR, Media and Telecommunication networks.	Risk Communication.
3	Revenue, Urban and local bodies, Police, Home Guards, Fire and Rescue services, SDRF, NDRF, Armed Forces, Volunteers, "108" ambulance, community and others.	Evacuation, Search and Rescue of People.
4	Revenue Urban and Rural Local bodies.	Shelter arrangement for rescued People and Creating Temporary Shelters on need basis.
5	Traffic Police, Home Guards, Volunteers.	Traffic control and diversions
6	SDRF, NDRF, Police, Home Guards and Volunteers	Cordoning off the disaster affected areas, apart from Evacuations, Search and Rescue of People.
7	Police and Home Guards	Law and Order maintenance during Evacuation, Search and Rescue Operations
8	Health Department, Local bodies	Provision of First Aid / Triage, Trauma Care / Prevent Spread of Epidemic and Endemic Diseases.
9	Revenue Health Department & Local bodies	Relief camps and basic amenities in shelters.
10	Revenue Police, Health Department and Local bodies	Identification of dead and injured

S1. No	Departments / Agencies	Functions
11	Health Department	Arrangement of medical support for causalities
12	Revenue, Urban and local bodies, Experts	Impact & Assessment of Loss and Damage
13	RD, PWD, Highways & Urban Local bodies	Clearance of disaster affected areas.
14	Health Department and local bodies	Preventive health camps
15	Revenue Civil supplies and Consumer Protection Department, RD&PR and Urban Local bodies	Mobilizing Resources for relief & restoration Food Arrangements, Provision of Relief supplies.
16	SDRF, F&RS, PWD, Highways Department and Local bodies.	Clearance of debris / Solid waste.
17	PWD, Highways, Urban / Rural Local bodies, RD&PR, TANGEDCO	Restoration of Communication & Road networks
18	TWAD and Local bodies	Provision of Water
19	TANGEDCO	Restoration of Electricity
20	Road Transport and Highways	Resumption of Transportation
21	Health, Revenue and Local bodies	Temporary Mortuary / Dead body disposal
22	Animal Husbandry Department Local bodies and Volunteers	Evacuation and shelter arrangement for cattle / Livestock Carcass disposal
23	Revenue all Line Departments	Restoring normalcy

#### 14. Fire & Rescue Services Department

Fire and Rescue Services Department of the Government of Tamil Nadu is entrusted with the task of fire fighting and rescue operations in times of emergency. The Fire and Rescue Services Department plays a very vital role in the area of firefighting and fire prevention. Apart from fire fighting, this department also undertakes rescue activities and rescues people, marooned in floods, and caught in the debris of fallen buildings, road and rail accidents and other natural and man-made disasters

### **15. Emergency Management Contact Directory**

An Emergency Management Contact Directory containing contact numbers of all nodal officials in disaster management at the District level has been prepared and maintained.

## 16. India Disaster Resource Network (IDRN)

India Disaster Resource Network (IDRN) is a web-based information system for managing the inventory of the equipment, skilled human resources and critical supplies for emergency response in the entire country. This database is to enable assessment of the level of preparedness for specific disaster related vulnerabilities. It is a nationwide district level resource database. The IDRN network will enable quick access to resources to minimize response time in emergencies.

## **VIII. PREPAREDNESS**

A preparedness meeting will be conducted for the North East Monsoon by the District Collector. All the line department officials will be called for to the meeting and their role during disasters will be explained. The role of the different officials in Disaster response plan are furnished below.

Designation of the Officer	Role of the Officer
Commissioner, Thoothukudi	<ul> <li>All the public buildings and bus stand / bus stops buildings should be inspected and buildings found dilapidated should be demolished. A certificate should be sent to the effect that all the public buildings in their jurisdiction are found stable.</li> <li>All the ICDS buildings should be inspected and if any building is found dilapidated condition, it should be shifted to private/</li> </ul>
Corporation	public buildings. A certificate should be sent to the effect that all the ICDS buildings in use
<ul> <li>Municipal Commissioner Kovilpatti / Kayalpattinam / Tiruchendur</li> <li>Assistant Director,</li> </ul>	<ul> <li>are safe.</li> <li>The school buildings, community halls and marriage halls owned by the local bodies should be got repaired and should be in a position to function as temporary shelter for</li> </ul>
<ul> <li>(Panchayats)</li> <li>Assistant Director, (Town Damah awata)</li> </ul>	<ul><li>the evacuees.</li><li>Arrangement should be done to supply protected chlorinated water during flood</li></ul>
<ul> <li>Panchayats)</li> <li>Project Officer, ICDS, Thoothukudi</li> </ul>	<ul> <li>situations. Temporary latrines should be constructed at the temporary shelters and arrangements should be done for maintaining the temporary shelters in hygiene manner.</li> <li>All the tanks should be inspected and weak bunds should be strengthened and see that</li> </ul>
	<ul><li>no breach occurs.</li><li>Garbage in the drainage channels should be</li></ul>

Designation of the Officer	Role of the Officer
	<ul> <li>cleaned and there should be no obstruction for the rain water drainage.</li> <li>Garbage in the bridges /culverts at the road and railway lines should be cleaned and there should be no obstructions for the rain wate drainage.</li> </ul>
•. Revenue, Local bodies, Police, Fire and Rescue, Health and PWD department officials.	The inter departmental zonal team officials appointed for the already identified Vulnerable locations should inspect the locations and temporary shelters and take the preparatory measures to tackle any flood situation.
• All the local bodies and PWD officials	• The Karuvel trees at the water bodies should be removed and desilted. Priority should b given at the vulnerable locations.
• Executive Engineer, PWD, Buildings (Construction and Maintenance), Thoothukudi.	<ul> <li>School buildings, Community halls and Cyclone shelters under the maintenance of PWD should be inspected and repairs if an needed should be attended at once.</li> <li>It should be ensured that the basic amenitie for the evacuees are available.</li> </ul>
• Superintending Engineer, TWAD, Kovilpatti.	<ul> <li>Arrangements for immediate restoration of drinking water facilities throughout the district if they are disrupted.</li> <li>Arrangements to erect new bore in case of emergency where normal natural sources of drinking water fails.</li> <li>To inspect whether there is any leakage in the supply lines and got it repaired.</li> <li>Arrangements to erect bore well near the shelter homes.</li> <li>Contingent plan has to be drawn for the requirement water tanks and (lorries) tankers</li> </ul>

Designation of the Officer	Role of the Officer
<ul> <li>Executive Engineer, PWD (WRO), Tamirabarani Division, Tirunelveli</li> <li>Executive Engineer, PWD (WRO), Korampallam Division, Thoothukudi.</li> <li>Executive Engineer, PWD (WRO), Vaippar Division, Virudhunagar.</li> </ul>	<ul> <li>Arrangements for patrolling river tanks, tank bunds and anicuts.</li> <li>Guarding all vulnerable points and strengthening weak points in rivers, channels and tanks against breaches.</li> <li>Arrangements to mobilize men and materials to close the breaches as and when they occur.</li> <li>Arrangements to regulate the flow in the rivers and flood carriers.</li> <li>Any repairs in the sluices in the tanks should be repaired and kept operational.</li> <li>All the channels should be cleaned and kept for free flow of rain water.</li> <li>Channels at both sides of the bridges for a length of 1000 mts should be desilted and ensured that there is no obstruction.</li> <li>If the bridges are not capable of carrying flood water, possibility of diverting the flood water to the sideways of the bridge should be explored.</li> <li>Sufficient quantity of sand bags and casuarina poles should be stocked at the needy spots.</li> </ul>
<ul> <li>Chief Educational Officer, Thoothukudi.</li> <li>Joint Director of Collegiate Education, Tirunelveli.</li> </ul>	<ul> <li>The electrical wiring and installations in the educational institutions should be inspected and ensured that they are in safe condition.</li> <li>Pits should be closed. Rain water drainage pipes of the buildings should be cleaned and there should not be any clogging.</li> <li>Do's and Don'ts during the rainy period should be taught to the students for their</li> </ul>

Designation of the Officer	Role of the Officer
<ul> <li>Regional Manager, TNCSC, Thoothukudi</li> <li>District Supply Officer, Thoothukudi.</li> <li>Joint Director, Co-operative, Thoothukudi.</li> </ul>	<ul> <li>As the educational institutions will be used as shelters for the evacuees, they should be instructed to hand over the buildings to the Revenue officials during flood situations.</li> <li>Any building found in dilapidated condition should not be used and they should be barricaded and kept away from use.</li> <li>The list of NSS students in the Colleges should be shared with the revenue officials and their services shall be used during flood situations.</li> <li>All the ration shops should be inspected and any shop in dilapidated building it should be shifted at once. A certificate should be sent to the effect that all the ration shops building are secure.</li> <li>Sufficient stock of kerosene, rice and essential commodities should be kept.</li> <li>Lorries needed for movement of essential commodities to the kept ready.</li> <li>Storage points of the essential commodities for supply to the vulnerable locations should be intimated.</li> <li>Food and other materials needed for the temporary shelters should be arranged by the Joint Registrar, Cooperative, Thoothukudi.</li> </ul>
• Superintending Engineer, TANGEDCO, Thoothukudi.	<ul> <li>All the electric poles should be inspected and any pole found unsafe should be replaced. A certificate should be sent stating that all the poles are in safe condition.</li> <li>Arrangements to keep close watch over powe supply sub stations lines and other vita installation etc.</li> </ul>

Designation of the Officer	Role of the Officer
<ul> <li>Divisional Engineer, Highways, Thoothukudi.</li> <li>Divisional Engineer, NABARD and Rural Roads, Tirunelveli.</li> </ul>	<ul> <li>Arrangements to keep alert the operation and maintenance staff to carryout repairs and to restore supply as and when it gets disrupted.</li> <li>The tree branches near the power line should be cut off.</li> <li>Sufficient quantity of electric poles and wire should be kept ready.</li> <li>Strengthening the roads against over washe and providing drainage facilities agains breaches.</li> <li>Pot holes in the roads should be attended.</li> <li>JCB, Power saws and bull dozers with operators should be identified and kept ready</li> <li>Arrangement should be made for immediate clearing of fallen trees and electric poles or roads.</li> <li>The blockages in the bridges and culvert across the road should be cleared.</li> <li>Sufficient quantity of sand bags and casuaring poles needed to arrest breaches should be stocked and vulnerable points.</li> </ul>
<ul> <li>Joint Director, Health Services, Thoothukudi</li> <li>Deputy Director, Health Thoothukudi / Kovilpatti</li> </ul>	<ul> <li>Arrangements including storing of medicine and materials of mass immunization agains endemic and epidemic</li> <li>Mobile medical teams should be formed and kept ready.</li> <li>Sufficient quantity of bleaching powder and chlorine should be kept.</li> <li>Power pack ups for ICU and ICCU in all the hospitals should be ensured.</li> <li>Stock of sufficient quantity of Diesel for the DG sets and oxygen cylinders should be ensured.</li> </ul>

Designation of the Officer	Role of the Officer
	<ul> <li>Generators in the hospitals should be kept in elevated position so that it will not be affected due to flood.</li> <li>List of pregnant women, Physically challenged and Elders in the vulnerable locations should be prepared and shared with revenue officials for giving preference during evacuation.</li> <li>Plan should be prepared to tackle any epidemic occurs during flood.</li> </ul>
• Joint Director, Fisheries, Thoothukudi	<ul> <li>o disseminate the IMD fishermen warnings to the fishermen and boatmen at all the possible means immediately.</li> <li>To keep ready sufficient number of private boats and Kattumaram with crew, swimmers and nylon ropes etc. for rescue operation.</li> <li>To keep the list of fishermen venturing in to sea and to ensure that they have reached the shore during cyclonic time. If any fishermer found not returned, the list should be shared with Coastal Guard and actions should be taken to rescue them.</li> </ul>
District Officer, Fire and Rescue Department, Thoothukudi	<ul> <li>To keep the vehicle and other fire fighting equipments in good condition and making available the required number of men to commence rescue operations.</li> <li>To be acquainted with the routes shortest to go to the spot in consultation with the Divisional Officers, if the necessary arises.</li> <li>To conduct mock drills, particularly at the vulnerable locations. The volunteers / first responders in the vulnerable locations are to be trained.</li> </ul>

Designation of the Officer	Role of the Officer
• Joint Director of Animal Husbandry, Thoothukudi	<ul> <li>Arrangements to keep the Veterinary Dispensaries equipped with essential medicines to take care of the cattle during the affected period and after the hit by any natural calamities.</li> <li>Shelters should be identified for the cattle evacuated from the low lying areas. Arrangements for fodder and medical facilities should be made at the shelters.</li> </ul>
<ul> <li>District Forest Officer, Thoothukudi</li> </ul>	<ul> <li>Arrangements to supply casurina sticks for closing the breaches.</li> <li>Arrangements to supply dry fuel to the shelter homes</li> </ul>
Divisional Manager, TNSTC, Thoothukudi. Regional Transport Officer, Thoothukudi / Kovilpatti / Tiruchendur.	<ul> <li>Arrangements to keep all the vehicles roads- worthy.</li> <li>To keep ready list of private vehicles along with the contact numbers of owners so that the vehicles can be sent to the affected areas whenever warranted.</li> </ul>
General Manager, BSNL, Thoothukudi.	<ul> <li>To keep ready sufficient staff to restore telephone connections during flood situations and to restore connectivity immediately.</li> <li>As the power supply will be cut off during flood/ heavy rains, arrangement should be done for keeping sufficient Power Pack ups fo the mobile phone towers.</li> </ul>
<ul> <li>Public Relations Officer, Thoothukudi.</li> </ul>	<ul> <li>To alert the public during flood situations.</li> <li>Arrange to disseminate the rescue and relie activities taken by the District Administration</li> </ul>
Commanding Officer, N.C.C., Thoothukudi	<ul> <li>Arrange to use the services of the NCC students in the Colleges for the evacuation o public in low lying areas and evacuation shelter maintenance related works.</li> </ul>

Designation of the Officer	Role of the Officer
<ul> <li>Superintendent of Police, Thoothukudi</li> <li>Deputy Superintendent of Police, Home Guard, Thoothukudi.</li> </ul>	<ul> <li>Formation of Rescue Teams and impart training to them.</li> <li>Evacuation of people lying in low lying area and helping the Revenue Administration in this task.</li> <li>Keeping Law and Order under control during the time of Natural Calamities.</li> <li>Giving protections to the evacuees in the temporary shelters.</li> <li>Clearing the traffic for the transport of evacuees and relief materials to the temporary shelters.</li> </ul>
• Revenue Divisional Officer, Thoothukudi / Tiruchendur / Kovilpatti.	<ul> <li>Conducting meetings of Divisional leve Emergency Relief Committee at regular intervals.</li> <li>Arrangements to establish control room in divisional offices which would work round the clock for disseminating message to subordinate officers and other department officers</li> <li>Appointing Firka level Zonal Officers for relie operations</li> <li>Inspecting the shelter homes to make them ready to be occupied at any time in case o emergency.</li> <li>Identify suitable place for storing rescue and relief materials near the vulnerable locations and stock them.</li> <li>Arrangements should be made for providing DG sets at the Temporary shelters.</li> </ul>

Designation of the Officer	Role of the Officer
	<ul> <li>Keep wheel chair at the temporary shelters</li> <li>Identify and keep ready halls for the stay of TNSDRF and NDRF coming for rescue operations.</li> </ul>
<ul> <li>Additional Collector, DRDA, Thoothukudi</li> </ul>	<ul> <li>Keeping all the VHF sets operational</li> <li>Mobilize necessary resources in emergency mitigation</li> </ul>
• N.G.Os.	• To coordinate with revenue department officials in rescue and relief operations.

The Village Administrative Officers in each village will report the case of occurrence of natural calamity to the office of the Revenue Department not lower in rank than a Deputy Tahsildar with a copy to the police officers soon after the nearest Police Station. The Police Officers on getting the report should immediately contact the Head quarters office by wireless and pass on the information to the Collector, to the Superintendent of Police and also to the Co-ordinating Officer. The Tahsildar or the Deputy Tahsildar will be responsible for sending a team of persons to the affected areas to survey the damages caused, assess relief measures to be under taken and rush up the supply of relief materials including first Aid Team and food stuffs irrespective of cost involved and at the same time, he must report the case to the Co-ordinating Officer and also the Collector by immediate possible means.

## Introduction

Mitigation measures are taken to reduce the adverse effects of hazards to the minimum possible or eliminated them fully is feasible. Both structural and non structural measures shall be taken as part of mitigation plan.

## **Structural Mitigation:**

Structural mitigation refers to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard resistant and protective structures and infrastructure.

#### **Structural Mitigation Measures**

- All public buildings like schools, hospitals, health centres should be multi hazard resilient being built on raised grounds and platforms with retrofitting and having adequate exit gates and fire extinguishers in place.
- Construction multipurpose community shelters in all vulnerable areas.
- Houses built in the area should have multi hazard resilient features keeping in tune with cultural housing practices.
- Watershed management
- A study may be conducted by the District Administration to assess the existing structures and system in place for watershed management and recommend best options for effective watershed management.
- Periodically cleaning, distilling and deepening of natural water reservoir and drainage channels.
- Construction of irrigation channels. Sluice gates may be linked with ponds which could be used as a water resource for enhancing livelihood.

## Nonstructural Mitigation:

Nonstructural mitigation refers to policies, awareness, knowledge development, public commitment and methods and operating practices, including participatory mechanisms and the provision of information, which can reduce risk with related impacts.

#### **Non- Structural Mitigation Measures:**

- Risk transfer mechanism: Establishment and strengthening of insurance schemes and policies which would transfer losses the risk due to hazard to a third party. Insurance schemes for crop, cattle, small business and life should be strengthened and promoted to minimize economic losses.
- Formation of groups of architects, engineers and masons and trainings for them on building safe infrastructure.
- Alternate safe housing technology along with rainwater harvesting structures is constantly encouraged and main streamed for long-term vulnerability reduction. Policies and bye laws could be developed for the same.
- Continuous Awareness campaign and encouragement for disaster proof Habitat planning at community level including shifting / relocating from low lying areas and villages within embankments to safe raised grounds.(with some incentives if feasible).
- Disaster management may include first -aid, rescue & evacuation as a part of school, college, educational institutions (both techno- tech) curriculum starting from primary level.
- The DDMA may suggest conducting research on alternative cropping to reduce adverse affects due to flood, water logging or drought.

## **Specific Hazard Mitigation Actions**

In addition to the multi hazard mitigation actions, the following hazard specific mitigation actions should be taken depending on the vulnerability of the village / block:

## a. Cyclone:

#### **Structural Mitigation Measures:**

- Construction of Cyclone Shelters for the safe housing of the local people.
- Plantation of Mangrove trees in specific areas.

#### Nonstructural Mitigation Measures:

- Preparation of designated evacuation route during cyclone.
- Creating awareness about the risk of cyclone and educate them to make self prepared measures and family plan in case of emergency.

# b. Tsunami

## **Structural Mitigation Measures** :

• More effective protection and management measures in the Gulf of Mannar. Marine National parks are needed. Protection and plantation of mangrove forest is needed.

#### Nonstructural Mitigation Measures:

• Creating awareness among people to stay away from all low-lying areas when a tsunami warning is received.

## c. Flood

## **Structural Mitigation Measures:**

- Construction, maintenance and protection of flood control structure like embankments, ring bounds, etc
- Dams and levees can also be constructed which can be used as temporarily storing space which reduced the chances of lower plains getting flooded.
- Critical buildings as well as private houses in flood prone areas should be constructed on an elevated area and if necessary on stilts and platform.
- Construction of tube wells on raised platforms.
- Closure of past breaches in river and guarding of weak points.
- Rain recording and submission of rainfall reports.
- Deployment of boats at strategic points.
- Use of powerboats.
- Installation of temporary Police Wireless Stations and temporary telephones in flood prone areas.
- Arrangements for keeping telephones and telegraph lines in order,
- Storage of food in interior, vulnerable strategic and key areas.
- Arrangements of dry foodstuff and other necessities of life.
- Arrangements for keeping the drainage system de-silted and properly maintained.

- Selection of food shelters.
- Advance arrangements for army assistance.

## Villages with embankment:

- Public buildings like schools and health centres should be designed keeping in mind that the level of mud /land is going to increase each year resulting in submerging parts of building.
- Safe shelters with tube wells and toilets should be constructed on the embankments to house the population when the river spreads within the width of embankments.
- Crops that can be harvested before the onset of monsoon/ flood season may be grown in the region to avoid loss due to seasonal flood.

## Villages next to the embankment

- Embankment should be monitored, maintained and strengthened compulsorily.
- DDMA should conduct a pre monsoon checks to identity vulnerable pockets / points in the embankment and suggest necessary actions to strengthen it.
- Sluice gates where existing should be made functions and new ones constructed where recommended for river water for river water to pass through when water level rises.
- Maintenance of sluice gates and latest technologies that minimize accumulation of sand and slit in the passage must be incorporated which comes with the river water.
- Existing ponds should be cleared and new ponds dug to store the water coming through sluice gates which could be used for agricultural or fisheries purposes. This could be done utilizing MGNREGA scheme and based on allocation available under MGNREGA in the village for the same.
- Crop insurance should be promoted as the region is vulnerable to damages to crops due to drought and seasonal flooding.

## Villages in low lying areas:

• DDMA should identify areas where water logging is caused due to roads and suggest necessary actions.

- Flood friendly crops that grow well even in presence of inches of water should be grown in the region.
- DDMA may suggest the concern department to conduct study to design and establish an effective drainage system.
- Sanitation schemes should be especially strengthened by Health organization as per the standard operating procedures in the region and special measures should be taken to prevent water borne diseases due to presence of stagnant water.
- Households living in huts in the drainage or within the water logged area should be identified and land should be allocated to them in different part of village.

## Villages far from the rivers:

- Rainwater harvesting should be promoted and supported in the region.
- Tube wells and boreholes should be placed all over the villages so that the source of water is secured.
- Irrigation channels and tube wells use should be promoted amongst farmers. Awareness on the government subsidy on the same should be generated.
- Short term crops so that it can be harvested before the monsoon season and the seasonal crops can be harvested before the onset of winter.
- Crop insurance should be promoted for the region to transfer the risk.

## Nonstructural Mitigation:

- Well maintained boats available at all times at GP level.
- Crops that can be harvested before the onset of monsoon/ flood season and crops that are flood friendly should be grown in the region.
- Awareness on floor proof habitat planning with long term goal of flood plain zoning and rehabilitating all to safer zones.
- Convening a meeting of the District Level Committee on natural calamities.
- Functioning of the Control Rooms.
- Communication of gauge-readings and preparation of maps and charts.
- Dissemination of weather reports and flood bulletins issued by the Meteorological Centres, Central Water Commission and Flood Forecasting Organizations.

# d. Earthquake

## Structural Mitigation Measures:

- All buildings especially public building must have earthquake resilient features.
- Building bye laws applicable for zone 2 region should be followed.

## **Non-Structural Mitigation Measures:**

• Awareness on building bye laws applicable for zone 2 region should be followed.

# e. Fire Accident

## **Structural Mitigation Measures:**

• Establishment of fire stations as per Fire safety bye laws.

## Non-Structural Mitigation Measures:

- Promotion of usage of fuel blocks during summers to minimize cases of fire during summer.
- Awareness campaign on fire hazard and strategies to prevent fire incidents.

# f. Gas/ Oil Leakage

Structural Mitigation Measures:

• Proper installation of safety measure equipments.

Non-Structural Mitigation Measures:

• Make awareness among the labours and people the risk of such disaster and trained them to handle such situation.

# g. Drought

Structural Mitigation Measures:

- Construction of irrigation channels.
- Existing ponds to be cleaned and more ponds to be dug in villages.
- Sluice gates to be linked with ponds.
- Tubewells and Borwells to be built in village.
- Construction and maintenance of grain banks on safer locations.

Non-Structural Mitigation Measures:

- Promotions and support for rainwater harvesting.
- Awareness on government subsidy on bore wells and tube wells for irrigation purposes.

# h. Industrial Hazard:

## **Structural Mitigation Measures:**

- Proper storage of hazardous Materials: All chemicals and hazardous materials should be kept at proper storage temperature and in locked cupboards . Also, if reactive substances are stored, it should be stored is a watertight container.
- All structural arrangements and equipments should be maintained to mitigate any disaster.

## **Non-Structural Mitigation Measures:**

- **Design and Premodification review**: This involves proper layout, facilities and material selection. Research should be done try to substitute extremely toxic chemicals with safer ones. Less chemicals should be stored; a reduction in inventory will automatically mean less damage if an accident is to occur.
- **Chemical Risk Assessment**: Chemicals are assessed based on compatibility, flammability, toxicity, explosion hazards and storage.
- **Process Safety Management**: HAZOP studies, reliability assessment of process equipment, incorporating safety trips and interlocks, scrubbing system, etc. should be done before effecting major process changes. Management should try to develop a culture of safety in industrial organizations
- **Safety Audits**: Periodical assessment of safety procedures and practices, performance of safety systems and gadgets along with follow up measures should be carried out.
- **Emergency Planning**: A comprehensive risk analysis indicating the impact of consequences and specific written down and practiced emergency procedures along with suitable facilities should be done. This can be done by communities as well as national or regional corporation authorities.
- **Training**: Proper training of employees and protective services should be done.
- Special times and escorts for dangerous vehicles
- **Public Cooperation on the road**: the public should cooperate with the police and any tankers and heavy duty vehicles to avoid accidents and allow for the shortest possible on road time for dangerous vehicles.

• **Public awareness:** Everyone should be aware of potential disasters and informed of protective and safety measures. MSDS sheets should be readily available to the public. Cautions must be placed to standout on dangerous household and car care products.

## Anthropogenic Hazard:

## **Structural Mitigation Measures:**

- Manmade disasters are preventable. If the buildings are constructed according to the prescribed by-laws, there would be no collapses. Similarly, if fire fighting equipment's have been installed and safety routes provided, even when fire breaks out, the damage to human beings would be minimal.
- Sticking to rules is most important for installations like nuclear power plants. Avoid making and storing weapons of mass destruction. Factories Act prescribes safety conditions. If all manufactures adhere to those safety measures, there would be fewer industrial accidents.
- Strengthen the Coast security to prevent terrorist attack.

## **Non-Structural Mitigation Measures:**

• Make awareness among the people about the risk of Man made disasters and training them to mitigate such incidents.

## **Receiving and Dissemination of Disaster Alerts:**

Mode of receiving and dissemination of Disaster alerts as shown below:

Nature of disaster	Organization from which information received	Modes of communication for receipt of information	Mode of dissemination from the District HQ to the villages/Blocks/taluks
Floods	State Control Room	1) E.mails 2) Whatsapp group	i) Very High Frequency Set (V.H.F) ii) Whatsapp iii) Telephone
Cyclone	Area Cyclone Warning Centre	E.mails	i) Very High Frequency Set (V.H.F) ii) Whatsapp iii) Telephone

#### **Disaster Warning System**

The Disaster warning system ensures that the warnings issued by the Meteorological department are received almost instantaneously by the State Government Officers to take immediate action for protecting the lives and property, of the people in the affected area. The system overcomes the limitation of considerable delay and complaints of non-receipt due to communication failure.

#### **Effective use of VHF Sets**

The VHF (Wireless two ways Communication System) will be used effectively during the North East Monsoon Period. VHF sets are fixed in the following offices and vehicles of the officers.

- District Collector, Thoothukudi vehicle
- District Revenue Officer's Vehicle
- Revenue Divisional Officer, Thoothukudi office and vehicle
- Revenue Divisional Officer, Tiruchendur office and vehicle
- Revenue Divisional officer, Kovilpatti office and vehicle
- Tahsildar, Thoothukudi office and vehicle
- Tahsildar, Srivaikundam office and vehicle
- Tahsildar, Sattankulam office and vehicle
- Tahsildar, Tiruchenudr office and vehicle
- Tahsildar, Ottapidaram office and vehicle
- Tahsildar, Kovilpatti office and vehicle
- Tahsildar, Vilathikulam office and vehicle
- Tahsildar, Ettayapuram office and vehicle
- Tahsildar, Kovilpatti office and vehicle
- District Emergency Opertional Centre (DEOC), Thoothukudi

The VHF instruments also installed in all the Block Development Officer's Offices and in the O/o.the Additional Collector, (DRDA), Thoothukudi and in the Vehicles of the above officers. Soon on receipt of the first warning, each relief officers either at Divisional Level, Taluk Level, Firka Level, Village Level should arrange to post a responsible person near the V.H.F. set that the messages received on the V.H.F. could be promptly passed on to the officers concerned.

According to existing arrangements V.H.F. sets are functioning at the Divisional Offices or in the nearest Police Station and it will be necessary for the staff of Revenue Offices to operate the V.H.F. sets at times of emergency. Before the commencement of season, the Revenue Divisional Officers should arrange to consult the Deputy Superintendent of Police, concerned and train at least 2 to 3 members of their staff so that their officers can be utilized in operating the V.H.F. sets

#### List of DSP Office / Police Stations

#### **DSP Offices:**

S1. No	Police Sub Division	STD Code	Phone Nos
1	Thoothukudi Rural	0461	2376093
2	Thoothukudi Urban	0461	2375150
3	Srivaikundam	04630	255236
4	Tiruchendur	04639	245100
5	Sathankulam	04639	266665
6	Kovilpatti	04632	220020
7	Vilathikulam	04638	233498
8	Maniyachi	0461	2273252

#### **Police Stations**

S1. No	Officers and Station	STD Code	Phone Nos
1.	Thoothukudi North	0461	2320051
2.	Thoothukudi Central	"	2321400
3.	Thoothukudi South	"	2321850
4.	Muthiahpuram	"	2355311
5.	Thermal Nagar	"	2352721
б.	Thermal Nagar	"	2360370
7.	Thoothukudi CCB	"	2326070
8.	Thoothukudi NCB	"	2326070
9.	Thoothukudi South CB	"	2321850
10.	AW PS (Thoothukudi)	"	2337999
11.	Control Room.	"	2340393
12	Pudukottai	"	2271230
13.	Thattaparai	"	2261240
14.	SIPCOT	0461	2341472

S1. No	Officers and Station	STD Code	Phone Nos
15.	AW PS (Pudukottai)	0461	2271430
16.	Murappanad	04630	261229
17.	Srivaikundam.	04630	255228
18.	Seidunganallur	"	263237
19.	AW PS (Srivaikundam.)	"	256826
20.	Tiruchendur.	04639	242241
21.	Tiruchendur Temple.	"	246100
22.	Arumuganeri.	"	280350
23.	Authoor.	"	238411
24.	Kulasekarapattinam.	"	250286
25.	AW PS (Tiruchendur).	"	246111
26.	Meignanapuram .	"	227233
27.	Eral	04630	271240
28.	Alwarthirunagari	04639	273230
29.	Kurumbur.	"	235100
30.	Sawyerpuram .	"	273340
31.	Nazareth .	"	277233
32.	Sathankulam .	"	266233
33.	Thattarmadam .	"	253244
34.	Kovilpatti East	04632	220050
35.	Kovilpatti West	"	220048
36.	Koppampatti	"	244219
37.	Nalattinpudur	"	248740
38.	Kalugumalai	"	251201
39.	AW PS (Kovilpatti)	"	220060
40.	Ettayapuram .	04632	271201
41	Masarpatti.	, , , , , , , , , , , , , , , , , , , ,	272240
42.	Kayathar	"	261232
43.	Kadambur	04632	246231
44.	AWPS ( Kadambur)	04632	246488
45.	Vilathikulam .	04638	233125
46.	Soorankudi.	»	262300
47.	Pudur.	"	252240
48.	Kadalkudi	"	291101
49.	Kulathur.	04638	227224
50.	AW PS.Vilathikulam	04638	233925
51.	Ottapidaram	»	2366238
52.	Pasuvanthanai	"	2262225
53.	Maniyachi	"	2268226
54.	Puliampatti .	"	2273217
55.	Eppothumvendran.	0461	2265226
56.	Tharuvaikulam .	0461	2203220
57.	Puthpiamputhur	<u> </u>	2261214
58.	Naraikinaru .	"	2273292

#### 5. Mock Drills

#### Aim

The aim of public awareness programme is to ensure that the community is well informed, alert and confident enough to play its role in support of disaster management activities undertaken by the Government agencies during the disaster.

#### Aspects of awareness creation:

This activity desires to have impact among the community by informing the nature of hazards of the Disaster, practical knowledge on the preparedness measures, improving human attitudes to warning. The community should also have at least a broad understanding of the scope & limitations of Government responsibility in the matter of prevention, mitigation & Development issues.

#### The community needs to know the following facts:

- What disaster will do.
- The best immediate action to take personally & by families & other kin groups.
- How best to help other members of the community.
- What the Government has planned to do to assist the community.
- How to participate effectively in the Disaster communication & warning process.
- How to improvise shelter & sustenance until assistance is available.
- The role and functions of external aid agencies at the time of Disaster.
- What has happened or may happen to the community, property and environment due to the flood, earthquake and other emergencies.
- What recovery is likely to involve.
- What plans are in place for the well beings of the community.
- What services and resources are available for recovery of the community.
- The information which will assist the community to affect recovery.

#### Methods for information dissemination:

#### a. Personal Contacts

- Through first volunteers (Appointed for the vulnerable locations and coastal habitations)
- Through the discussion in village level Panchayat meetings and Gramasabha.

## b. Through media:

- 1. Handbills
- 2. Newspapers

#### c. Mass media

- Social Media
- All India radio
- Local cable TV channels
- Through the cinema slides.

#### **Community Based Disaster Management:**

The community is the first responder to any Disaster. The Community has its own traditional wisdom and local knowledge to withstand the impact of disasters. Harnessing leadership and volunteerism among the Community and developing a team of trained community volunteers through participatory approach for special tasks of early warning, Search, Rescue Transport Arrangements & Evacuation, First Aid, Shelter and Relief (Food, Water and Sanitation) are essential for successful Disaster Management.

Volunteers from local community are identified as First Responders. The first responders are trained by Fire & Rescue Department / TNDRF.

#### **Pre-positioning of Men**

Prepositioning of men in the vulnerable areas will be done to ensure that rescue and evacuation operations are carried out swiftly and the affected or people likely to get affected are saved and possibility of loss of lives is averted.

#### Upscaling of Aapda Mitra - Community Volunteers Training Scheme

Under Aapda Mitra scheme an inhouse training for 12 days to the 300 Community Volunteers involving the Resource Institutions, Tamil Nadu Disaster Response Force, Chennai, Tamil Nadu Fire Service Department was given.

#### **6. School Safety Policy**

The following action has been taken on the the guidelines on School Safety Policy, 2016 prepared by NDMA.

Section	Instructions as per guidelines	Action taken
<b>4.2</b> i	Collaborate with and involve education authorities in DM planning, policies, processes and 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 the DDMA.	Orders have been issued co-opting the Chief Education officer, District Elementary Education Officer, District Education Officer, Inspector of Matriculation Schools, are included as member of the DDMA
ii	DDMAs need to make sure that school safety is given due attention in the DDMPs.	The safety aspects to be checked in school building construction and maintenance of buildings has been called for from the PWD. The safety aspects will be included in the DDMP plan book and reviewed during the preparedness meetings.
iii	Collaborate with and provide training inputs to Department of Education for training of School Safety Focal point teachers and School Management Committee members to lead school safety efforts in their respective schools	The Fire and Rescue Department has been requested to devise a training programme for school safety. The training programme will be given to the CEO, DEO, DEEOs and Inspector of Matriculation schools for execution.
iv	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.	The PWD and RD departments have been instructed to check the stability of the school buildings to withstand earthquake, Cyclones and heavy rains etc and issue certificate that they comply with the building codes/ norms prescribed by the Government and directives of the Hon'ble Supreme Court of India in relation to safety of children.

Section	Instructions as per guidelines	Action taken
v	Facilitate specialised training in schools for teachers and peer educators.	Fire and Rescue department has been requested to impart trainings to the teachers in all the schools.
vi	Include issues of school safety - in the District Disaster Management Plans.	The issues in school safety has been called for from the Fire and Rescue department. The identified issues will be included in the DDMP plan.
vii	Conduct periodic mock drills at the district level actively involving schools.	Fire & Rescue Department has been instructed to conduct periodic mock drills at the district level involving schools.

# Strengthening institutional commitment to safe learning environment for children

Section	Action to be taken as per guidelines.	Action proposed
5.3. 1.(i)	Co-opt senior officials of the Department of Education at the district level as part of DDMA	Orders have been issued co-opting the Chief Education officer as member of the DDMA. The District Elementary Officer, District Education Officers Inspector of Matriculation schools are also included as member in DDMA
5.3. 1.(ii)	Ensure District Disaster Management Plans include a focus on educational infrastructure and supportive action thereof, within the district	The safety aspects to be checked in school building construction and maintenance of buildings has been called for from the PWD. The safety aspects will be included in the DDMP plan book and reviewed during the preparedness meetings.
5.3. 1.(iii)	Constitute a school safety advisory committee at the district level	<ul> <li>A committee with the following members has been formed.</li> <li>&gt; District Collector</li> <li>&gt; Superintendent of Police</li> </ul>

Section	Action to be taken as per guidelines.	Action proposed
		<ul> <li>Additional Collector, DRDA</li> <li>District Revenue Officer</li> <li>Joint Director (Health Services)</li> <li>PA(G) to Collector</li> <li>Chief Educational Officer,</li> <li>District Education Officers,</li> <li>EE, PWD, (Buildings and Maintenance)</li> <li>District Officer, Fire and Rescue Department</li> </ul>
5.3. 1.(iv)	Establish a mechanism for monitoring safety parameters in all schools on a regular basis. Any existing monitoring formats being used by the authorities shall essentially include parameters on school safety.	The safety aspects to be checked in school building construction and maintenance of buildings has been called for from the PWD. The safety aspects will be included in the inspection report format for the schools inspection.
5.3. 2.(i)	Ensure school safety concerns are included in the DDMP	The safety aspects to be checked in school building construction and maintenance of buildings has been called for from the PWD. The safety aspects will be included in the DDMP plan book and reviewed during the preparedness meetings.
5.3. 2.(ii)	Prepare design of child friendly spaces for emergencies in advance	The EE, PWD, Buildings have been instructed to prepare a design for child friendly spaces in schools. This will be circulated to the education department authorities for execution.
5.3. 2.(iii)	Ensure all new schools include safety features	The Chief Education officer, Thoothukudi, District Elementary

Section	Action to be taken as per guidelines.	Action proposed
		Education officer, and District Education officers, Inspector of Matriculation schools have been instructed to inspect the schools periodically and ensure the safety features.
5.3. 2.(iv)	Prepare block-wise inventory of schools to be made safer (including physical condition of schools assessed through rapid visual screening or any other methodology for all hazards relevant to the area, hazardous industries in the vicinity etc)	The Tahsildars, the District Environmental Engineer, Pollution control board and Joint Director, industrial safety and health Department have been requested to send the list of schools which are to be made safer with the details of possible hazards identified and action to be taken to prevent it. This will be circulated to the Education authorities for necessary action.
5.3. 3.(i)	Appoint technical agencies to advise schools on local adaptations in school design based on local conditions, in line with national and state norms on school safety	The EE,PWD, Buildings and PD, DRDA have been instructed to arrange to inspect the schools and ensure that school buildings comply with norms on school safety.
5.3. 3.(ii)	Ensure that all existing as well as new schools conform to safety standards as per the National Building Code. In addition, any other norms prescribed by the state government need to be adhered to.	The EE,PWD, Buildings and PD, DRDA have been instructed to arrange to inspect the schools and certify that the buildings conform the safety standards as per National code / norms prescribed by state government.
5.3. 3.(iii)	Issue 'Recognition Certificate' under sub-rule (4) 15 of Right of	The Chief Education officer, Thoothukudi, District Elementary

Section	Action to be taken as per guidelines.	Action proposed
	Children to Free and Compulsory Education Rules, 2010 to only those schools that comply with safety norms prescribed by the state.	Education officer, and District Education officers, Inspector of Matriculation schools have been instructed to inspect the schools periodically and ensure the safety features while recommending / issue of Recognition certificate.
5.3. 3.(iv)	Review progress on non- structural safety measures in schools	The Education department officials have been instructed to review whether Non- structural safety measures have been imparted to the students and send a report periodically every quarter.
5.3 4.(i)	Training of all teachers / designates of the school	The CEO has been instructed to arrange to conduct the trainings and report.
5.3 4.(ii)	DIETs should also directly train teachers on safety aspects as part of their pre-service and in- service training programmes.	
5.3 4.(iii)	Train school safety focal point teachers on school safety concept and various activities related to execution of their responsibilities as the school safety focal point teachers.	This training programme has to be included in the curriculum of DIET (District Institute of Education and Training) and private institutes. Action has to be taken at state level.
5.3 4.(iv)	Training of teachers on psycho- social support for children affected by disasters	
5.3 4.(v)	Capacity building of SMC on	

Section	Action to be taken as per guidelines.	Action proposed
	different aspects of school safety	
	in case of an imminent disaster,	
	e.g. Sanitation and hygiene	
	needs of boys, girls and	
	teachers; first aid; handling	
	fires, handling	
	chemicals/hazardous materials	
	in Labs etc.	
5.3 5.(i)	Evolve a mechanism for monitoring safety parameters in all schools on a regular basis. Any existing monitoring formats	The District officer Fire and Rescue Department and EE, PWD, Buildings have been requested to send the safety parameters to be checked. This points
	being used by the authorities shall essentially include parameters on school safety.	will be included in the inspection reporting format of the officials inspecting the schools.
5.3 4.(ii)	Issue instructions to Block Education Officer or any other official as appropriate, for overseeing and facilitating school safety at the block level.	The Assistant Education officers at the Block have been instructed to oversee and facilitate school safety at the block level and send a periodical report every quarter.

## 7. Works proposed

#### a. Flood Prevention activities for Thoothukudi Corporation

#### Storm Water Drain Scheme

Phase I

- Construction of channels for diversion of Kalankarai odai to Periapallam odai and related works along NH 45B at a cost of Rs. 97.93 Crores for a length of 6.396 Km
- Construction of Strom Water at Kalankarai, Kalugupathai and Kaluthapathai Odai to S.V. Kulam at a cost of Rs. 14.38 Crores for a length of 5.699 Km
- Rejuvenation of Main S.V. Kulam, improvement of Mullikulam Tank and related works at cost of Rs. 13.47Crores.
- Construction of main storm water drain from S.V.Kulam along Meelavittan road and

drain towards railway side and related works at a cost of Rs. 13.83 Crores for a length of 2.702  $\rm Km$ 

- Construction of Storm Water Drain for diversion of flow of Chengulam Odai to Upparu river and related works (along NH-7A) at a cost of Rs. 81.30 Crores for a length of 4.750 Km
- Construction of Main Storm Water Drain at Mullakadu Odai and related works at a cost of Rs. 7.6 Crores for a length of 3.079 Km

All the above Storm water drain works have been completed under TNSUDP and Smart city Scheme, and put in good working condition to flow of water through the drain.

## Phase II

- Construction of Strom Water Drain along South cotton road (joins to George Road), Drain along North Raja Street, Drain along East Coast Road joins to Sea, Along Victoria Extension road & Branch joined to George road (Left & Right side of Road), Along Devispuram Road to Buckle Canal, Joins to SBI colony main Drain and along Devispuram and disposed to Buckle Canal at a cost of Rs.8.36 Crore for a length 4.711 Km
- Construction of Storm Water drain along cross road from Palayamkottai road to Buckle Canal, Teachers Colony and disposed at Buckle Canal, Along Millerpuram Main road and disposed to Buckle Canal, Along TMB Colony Main Road and disposed to Buckle Canal, Along Millerpuram East Main Road and Disposed to Buckle Canal at a cost of Rs.12.14 crore for a length 6.858 Km
- Construction of Storm Water drain from New colony to Sea (Via George Road), Geetha Jeevan Nagar to Sea at a cost of Rs.21.87 Crore for a length 7.468 Km
- Construction of Storm Water Drain Along SBI Colony Main Road (Disposal to Sea) at a cost of Rs.21.49 Crore for a length 3.559 km
- Construction of Storm Water Drain Along South West Great Cotton road. (From junction of Palayamkottai road to Buckle Canal), Along South west Great Cotton road and Disposed to Sea (Left and Right side of road) at a cost of Rs.8.21 Crore for a length 3.724 Km
- Construction of Storm Water Drain Along Jeyaraj Road to Buckle Canal (Left & Right side), along VVD road Main Road and Disposed to Buckle Canal (Left and Right side of road), Along Annanagar Cross Roads to Buckle Canal, Along Annanagar 2nd cross road (left and Right Side), Along Annanagar 1st cross road at a cost of Rs.9.43 Crore for a length 5.737 Km

All the above Storm water drain works have been completed under Smart city Scheme, and put in good working condition to flow of water through the drain.

## Phase III

• Construction of Storm Water Drain from Subbiahpuram to SH 176 Creek and

connected Secondary Drains Subbiahpuram and Masillamanipuram at a cost of Rs.15.52 Crore for a length 5.944 Km

- Construction of Storm Water Drain from Bryant nagar West main street west side drain and connected Secondary Drain Bryantnagar west area at a cost of Rs.9.68 Crore for a length 4.255 Km
- Construction of Storm Water Drain from Bryant nagar West main street East side drain and connected Secondary Drain Chidambaranagar and Bryantnagar Middle area at a cost of Rs.10.72 crore for a length 7.338 Km
- Construction of Storm Water Drain at MAC Garden, Kumaran Nagar, Sathyanagar, Ambethkarnagar and Sundaravelpuram at a cost of Rs.12.04 Crore for a length 8.332 Km

All the above Storm water drain works have been completed under Smart city Scheme, and put in good working condition to flow of water through the drain.

## Infrastructure and Amenities Fund

- Construction of Storm water Drain at SKSR Colony Road (Package –I) at a cost of Rs.6.16 Crore for a Length of drain is 5.485km
- Construction of Storm water drain at Housing Board Upto MCC link road (Package II) at a cost of Rs.5.16 Crore for a Length of drain is 4.192km
- Construction of Storm water drain at Thomas Nagar main road (Package –III) at a cost of Rs.5.55 Crore for a Length of drain is 5.952km
- Construction of Storm water drain at Toovipuram 1<sup>st</sup> Street West (Package –IV) at a cost of Rs.6.37 Crore for a Length of drain is 5.508km
- Construction of Storm water drain at Thiraviyarathina Nagar North 3<sup>rd</sup> Street (Package –V) at a cost of Rs.6.42 Crore for a Length of drain is 5.703km
- Construction of Storm water drain at Krishna Nagar main Road (Package -VI) at a cost of Rs.5.15 Crore for a Length of drain is 6.080km
- Construction of Storm water drain at Thiru VK Nagar Bye pass to Thiru VK Nagar Ration shop road W/E (Package -VII) at a cost of Rs.5.18 Crore for a Length of drain is 6.035km
- Construction of Storm water drain at Abirami Nagar W/E (Package -VIII ) at a cost of Rs.5.20 Crore for a Length of drain is 4.552km.

The above work has taken from Infrastructure and Amenities fund 2022- 2023 and Administrative sanction accorded Rs.45.19 Crore for a length of Drain is 43.507 Km. Out of this 41.962 km Length of drain work completed. Balance work 1.545 km Length work under progress. The work will be completed on 30.06.2024.

## Asian Development Bank Scheme (SWD Projects)

- Construction of storm Water Drain from Adhiparasakthi Nagar to Dhanasekar Nagar (Matchadu Nagar, Rahumath Nagar, Muthammal Colony, Iyyasamy colony)at a cost of Rs.10.836 Crore for a length 24.59km
- Construction of Storm Water Drain from Bharathi Nagar to Chinnakannupuram (Muthammal colony, Nethaji Nagar and Devar colony) at a cost of Rs.8.695 Crore for a length 20.37km
- Construction of Storm water Drain from Dhanasekar Nagar to Meelavittan Main road, (Ettayapuram main road, Polpettai west), Vishvapuram, Yokeshwar colony, Annai Indra Nagar, Iyyapan Nagar, Kurunji Nagar at a cost of Rs. 8.829 Crore for a length 21.04km
- Construction of Storm Water Drain form Ponsubaiah Nagar to Looruthammal puram main road (St.Marys Colony) and Rajiv Gandhi Nagar, Kalaigar Nagar, Sivarajapuram at a cost of Rs.8.007 Crore for a length 16.98km.

The above work has taken from Asian Development Bank tie up. The Estimate cost of Rs.82.98 crore and the length of Drain 36.36km. out of 36.36 Km, 11.42 length has been completed. Balance Drain work is under progress. The work will be completed on 31.07.2024.

And Construction of storm water drain with culvert at Sankaraperi OHT upto Ettayapuram Main Road Periyapallam Odai at a cost of Rs.12.00 Crore for a length of 3.6 Kms Under SDRF fund. Out of 3.6 Kms, 3.5 kms has been completed. Balance work is under progress. The work will be completed on 30.06.2024.

S1. No	Name of Work				
1	Construction of Sump with 355mm dia HDPE Pipe arrangements and Pump room at Kurinji Nagar 2nd Tower (Near Park)				
2	Construction of Sump with 280mm Dia HDPE Pipe arrangements and Pump room at Kalaingar Nagar				
3	Construction of Sump with 250mm Dia HDPE Pipe arrangements and Pump room at Athiaparasakthi Nagar				
4	Construction of Sump with315mm Dia HDPE Pipe arrangements and Pump room at Rahmath Nagar Pallivasal (near Park)				
5	Construction of Sump with 160mm Dia HDPE Pipe arrangements and Pump room at Ponsubbiah Nagar				
6	Construction of Sump with 200mm Dia HDPE Pipe arrangements and Pump room at Krishnarajapuram East				
7       Construction of Sump with 200mm Dia HDPE Pipe arrangements and F         at Packiyanathan Villai (Near Mayavadi)					

# Thoothukudi Corporation - Sump with Pump Room

S1.	Name of Work
No	
8	Construction of Sump with 200mm Dia HDPE Pipe arrangements and Pump room at Annai Velankanni Nagar (Near Ward Office)
0	Construction of Sump with 160mm Dia HDPE Pipe arrangements and Pump room
9	at SBI Colony South (Kutty Sankaraperi)
10	Construction of Sump with 160mm Dia HDPE Pipe arrangements and Pumproom at SBI Colony South (Kutty Sankaraperi)
	Construction of Sump with 200mm Dia HDPE Pipe arrangements and Pumproom
11	at Annai thersa Meeavar Colony
10	Construction of Sump with 200mm Dia HDPE Pipe arrangements and Pumproom
12	at Ettayapuram Housing Board (Near Old OHT)
13	Construction of Sump with 160mm Dia HDPE Pipe arrangements and Pumproom at Dhanasekar Nagar West OHT
	Construction of Sump with Pump room in Rainwater Stagnat area at P&T Colony
14	16thStreet from Park Site to Railway Track in West Zone (Ward-34)
	Construction of Sump with Pump room in Rainwater Stagnant area at P&T
15	Colony 9 <sup>th</sup> Street from Middle Street to Madathur Main Road in West Zone (Ward-34).
	Construction of Sump with Pump room in Rainwater Stagnant area at Kokkur
16	from Anganwadi to Buckle Odai in west Zone(ward -35
17	Supply Delivery and Fixing of Submersible Centrifugal Sewage Non-Clog pump at
17	P&T Colony west main road Existing Sump in west Zone (ward-34)
18	Construction of Sump with Pump room in Rainwater Stagnant area at P&T
	Colony 8th street to Buckle odai in West Zone (ward -34) Construction of Sump with Pump room in Rainwater Stagnat area at
19	Levenjipuram from Sivanthakulam 1st street west to Briyant nagar 10th street
19	Drain in west Zone
	Construction of Storm Water Drain with SWD culvert at Caldwell colony 2nd
20	street in South Zone (ward -49)
21	Construction of Storm water Drain with culvert a kuruvimedu (ward-49)
	Construction of sump with pump room at Keelatheru to Iyyan kovil street in
22	South Zone
23	Construction of Sump with Pump room in Rainwater stagnat area at Pannai nagar to Mullakadi Odai in South Zone
	Construction of Sump with pump room in rainwater stagn at area at
24	M.Saveriyarpuram Ganesh Nagar west to Mullakadu Odai in south Zone
25	Construction of Sump with Pump room at Iyyankovil street to Harbour
20	Construction Road in South Zone
26	Construction of Storm water Drain and Sump with 200mm Dia HDPE pipe
	arrangement and Pump room at Kurinji nagar Tower road
27	Construction of Sump with 200mm dia HDPE pipe arrangement and Pump room
	at Iyyarvilai

All the above Sump with Pump room works have been completed and put in good working condition.

# Thoothukudi Corporation - Pump set details

S. No	Location	Quantity (Nos)	НР	Motor Details
East 2	Zone			
1	Railway Line	1	15	Submersible pumpset
2	Railway Line	1	56	Diesel oil Engine
3	Arignar Anna Mandabam	2	7.5	Diesel oil Engine
4	Municipal Store	3	56	Diesel oil Engine
5	East Zonal Office	2	6	Diesel oil Engine
6	Municipal Store	3	42	Diesel oil Engine
7	Arignar Anna Mandabam	2	5	Petrol Engine
	Total	14		
North	Zone			
1	North Zonal Office	3	5	Petrol Oil Engine
2	North Zonal Office	3	6	Diesel oil Engine
3	Sathya Nagar	2	7.5	Diesel oil Engine
4	Rajiv Nagar	2	7.5	Diesel oil Engine
5	Kalaignar Nagar	1	10	Diesel oil Engine
6	Murugan theater	1	12.5	Electrical Motor
7	Maraikayar Mandabam	1	12.5	Electrical Motor
8	P&T Colony Middle St	1	12.5	Electrical Motor
9	North Zonal Office	1	12.5	Electrical Motor
10	Murugan Theater back side	1	7.5	Electrical Motor
11	Iyyar Vilai Pumb Room	1	7.5	Electrical Motor
12	BMC Water Tank	1	7.5	Electrical Motor
13	Manickam Mahal Opp	1	7.5	Electrical Motor
14	Loorthammalpuram Pumproom	1	10	Electrical Motor
	Total	20		
South	<u> Zone</u>			
1	Muthiahpuram Mcc	18	5	Petrol oil Engine

S. No	Location	Quantity (Nos)	НР	Motor Details
2	Soosai Nagar	2	7.5	Disel oil Engine
3	Soosai Nagar	1	5	Petrol oil Engine
4	CGE Colony	1	7.5	Electrical Pumpset
5	Thiruvika Nagar	1	10	Electrical Pumpset
6	Kuttam	1	10	Electrical Pumpset
	Total	24		
West	Zone		·	
1	Barathi Nagar Oht	1	7.5	Electrical Pumpset
2	P&T Colony 9th Street Pump Room	1	12.5	Electrical Pumpset
3	Kokoor Pump Room	1	10	Electrical Pumpset
4	West Zonal Office	10	5	Petrol Engine
5	West Zonal Office	3	7.5	Diesel Oil Engine
6	Rajaji Park	1	56	Diesel Oil Engine
7	Medical College Near Compost yard	1	42	Diesel Oil Engine
8	Rajaji Park Tank	1	12	Diesel Oil Engine
	Total	19		

# b. Flood Protective Works in Korampallam River (Uppathu Odai) in Thoothukudi Taluk Estimate Amount: Rs.5.00 Crores

The Road Culvertslocated at LS 4800m, 5350m, 5400m and Inlets located at Ls 2400m, 2800m of UppathuOdai were reconstructed. Moreover on the right bank of Korampallam Tank Surplus Course (UppathuOdai) at Ls 4350m an additional inlet has been newly constructed to prevent inundation in Athimarapatti and J.S.Nagar habitants. The surplusesfrom Korampallam tank flows through Uppathuodai, in order to stop the entry of flood water through the inlets and culverts during Monsoon period Screw gearing shutter arrangements have been provided to the cross drainage works thereby the inundation of low lying areas along the uppathuodai is prevented.

The flood protective walls at the Vulnerable stretches were constructed where the banks are shallow, through which frequent overtopping of flood water takes place causing damages to the existing Bituminous road connecting Veeranayakanthattu and Kalankarai village of Thoothukuditaluk in Thoothukudi District. The work of "Flood Protective Works in Korampallam River (UppathuOdai) in ThoothukudiTaluk" at an estimate amount of Rs.500.00 Lakh has been completed on 17.07.2023 under Environmental Improvement Scheme 2022-23.

#### b. Sea water intrusion.

A check dam is being constructed at the tail end of Tamirabarani river at Mukkani, approximately 6 Km from the sea at an estimate 25.75 crores. This project will curtail the sea water intrusion in to the sea shore villages of Mukkani and Authoor. Another project of construction of check dam at a cost of 46.14 crores at Tamirabarani river at Punnakayal and Serthamangalam Villages has been completed . As a result of this project sea water intrusion in the near by villages has also been arrested.

# c. Permanent Stability of Costal Inlet of Tamaraparani River in Punnakayal village in Thoothukudi District.

The work of "Permanent stability of Coastal inlet of Tamarabarani River and Fish Landing Centre works at PUNNAKAYAL village in this District" at an estimated cost of Rs.18 crores has been Completed as on 31.12.2017 under CDRRP Scheme Assisted by World Bank. Now this FLC was put into used by local Fisherfolks.

#### e. Drought - Flood Carrier canal

A Scheme has been formulated at an estimate of Rs.369 Crores for formation of flood carrier canal from kannadian channel to Drought prone area of Sattankulam, Thisaiyanvilai by interlinking Tamiraparani, Karumeniyar and Nambiyar rivers in Tirunelveli and Thoothukudi Districts.

The drought prone Sattankulam taluk will be much benefited by this scheme and ground water table will also increase in this area. The sub soil water to the nearby wells will be recharged. The sea water intrusion in the sattankulam area will be checked.

#### f. Tsunami - Vulnerablity mapping

The Indian National Center for Ocean Information Services (INCOIS) is creating a comprehensive 3D GIS database of Coastal, Urban areas that are vulnerable to Tsunami. The data base will comprise of 3D building models attached with socio-economic data of the residents. The M/S RSI Softech India Private Ltd have been nominated for conducting survey and collect the following data in respect of Thoothukudi town at an area of 70 Sq.km for this project.

• Conduct photographic survey for 3D mapping of buildings of the tsunami vulnerable areas.

- Conduct leveling survey using DGPS
- Collect Socio- economic data through a door -to-door survey using a prescribed form.

## g. Sea incursion

S1. No	Name of Work	Location	Estimate (in Crores)
1		Periyathalai	30.0
2	Groynes	Veerapandianpattinam	1.2
3		Jeevanagar (Tiruchendur)	3.0
4		Alanthalai	2.0
5		Fishermen Colony (Near Thermal -II)	2.0
6		Kulasekarapattinam	
7	Fish landing Centres	Periyathalai	9.0
8		Veerapandiyanpattinam	5.0
9		Manapad	45.0
10		Amalinagar	3.0
11		Keelavaipar	9.0
12	Dredging	Dredging Thoothukudi FH	
13	Fish Landing Centre -Extension	Tharuvaikulam	10.0
14	Construction of Wharf	Thoothukudi FH	25.0
15	New Government Fish Seed Rearing Centre	Kadamba	5.0
	Total		156.20

## **Completed Works**

## **Ongoing Works**

S1. No	Name of Work	Location	Estimate (in Crores)	Status
1	Fish landing	Sippikulam	7.0	87% work completed
2	Centres	Threaspuram	21.0	95% work completed

S1. No	Name of Work	Location	Estimate (in Crores)	Status
3	Bait arch	Amali Nagar	58.0	10 % work completed
4	Additional Infrastructure facilities	Thoothukudi Fishing Harbour	10.0	28 % work completed
5	Establishment of Training Centre with Integrated Office Building	Fisheries Campus, Thoothukudi	5.0	94 % work completed
	Total		101.0	

# **New Proposals**

S1. No	Habitation	Status	Proposed Work	Estimate (In Crores)	Scheme
1	Inigo Nagar	National Green Tribunal (NGT) has prohibited the construction of hard	Construction of groynes	25.00	-
2	Vembar	structures like Breakwater at present. Based on the NGT order further process will be followed.	Existing groynes need to be extended	45.00	-
3	Threaspuram	The Thasildhar, Minority Welfare insisted to prepare estimate for Rs.2.00 Crore or less instead of Rs.21.45 Crore. This proposal has been dropped.	Construction of integrated community centre.	-	PMJVK
4	Jeeva Nagar (Mild Sea Erosion)	National Green Tribunal (NGT) has prohibited the construction of hard structures like Breakwater at present. Based on the NGT order further process will be followed.	Shore Protection Works for Jeevanagar at Tiruchendur in Thoothukudi District	25.00	NABARD
5	Singithurai	DPR prepared and submitted to Government for getting approval	Construction of Bait arch and improvements to the singithurai FLC in Thoothukudi District	52.00	NABARD
6	Kombuthurai	DPR prepared and submitted to Government for getting approval	Construction of Bait arch and upgradation of Kombuthurai FLC	46.00	NABARD

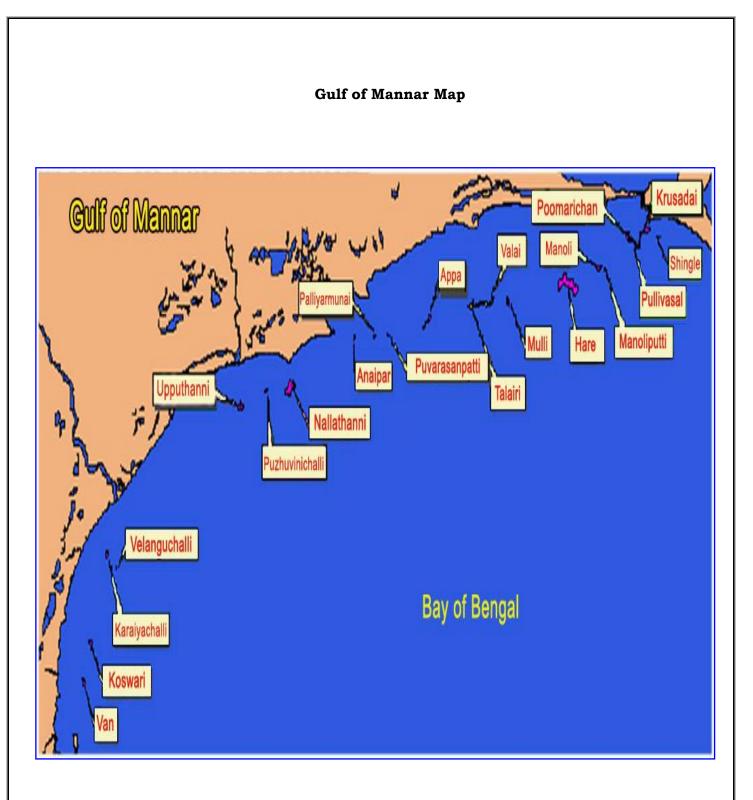
S1. No	Habitation	Status	Proposed Work	Estimate (In Crores)	Scheme
			in Thoothukudi District		
7	Punnakayal	DPR prepared and submitted to Government for getting approval	Extension of Bait arch at Punnakayal FLC in Thoothukudi District	32.00	NABARD
8	Periathalai	DPR prepared and submitted to Government for getting approval	Extension of main Bait arch from LS 1160m to LS 1290m and Leeward Arch from LS 460m to 530m at Periathalai FLC in Thoothukudi District	35.00	NABARD
9	Tharuvaikulam	DPR prepared and submitted to Government for getting approval	Renovation of Tharuvaikulam FLC in Thoothukudi District	21.00	NABARD
10	Threaspuram	DPR prepared and submitted to Government for getting approval	Providing Additional infrastructure facilities at Threaspuram FLC in Thoothukudi District	50.00	NABARD
11	Tharuvaikulam	DPR prepared and submitted to Government for getting approval	Consultancy services for conducting detailed surveys, Mapping of existing structures, Investigation and model studies for preparing Techno- Economic Feasibility Report and Detailed Project Report for construction of a Fishing Harbour at Tharuvaikulam in Thoothukudi District	1.00	State fund
		Total	District	332.00	

#### h. Protection of Gulf of Mannar:

#### Brief Note on Gulf Of Mannar Marine National Park

The Gulf of Mannar in the southeast coast of India extends from Rameswaram in the north to Kanyakumari in the south. The costal length between Rameswaram and Kanyakumari is 365 km, covering four district viz. Ramanathapuram, Tuticorin, Tirunelveli and Kanyakumari. It has a chain of 21 uninhabited islands stretching from Mandapam to Tuticorin to a distance of 140 km along the coast. The islands occur at an average distance of 8-10 km from the mainland. The Gulf of Mannar Biosphere Reserve (GOMBR) was set up in 08.02.1989 by Government of India covering 10,500 sq.km areas between Rameshwaram and Kanniyakumari.

The Government of Tamilnadu in 1986 declared the 21 islands and surrounding shallow waters as Gulf of Mannar Marine National Park, which is the Core Zone of the GOMBR, for the purpose of protecting marine wildlife and its environment. The islands are located between Lat. 8° 47' N and 9° 15 N and Long. 78° 12' E 79° 14' E and are grouped into four for management purposes namely, Mandapam group (7 Islands - Shingle, Krusadai, Pullivasal, Poomarichan, Manoliputti, Manoli and Hare), Keezhakkarai group (7 Islands - Mulli, Valai, Thalaiyari, Appa, Poovarasanpatti, Valimunai, and Anaipar), Vembar group (3 Islands - Nallathanni, Puluvinichalli and Upputhanni), and Tuticorin group (Kariyachalli, Vilanguchalli, Koswari and Vaan). This area is the last refuge of any significance off the Indian coast where the most endangered mammal, Dugong (*Dugong dugon*) occurs. The area also contains the rare and unique Balanoglossus which is a link between invertebrates and vertebrates. The area is also very richly endowed with unique coral formations, marine shells, molluscs and tropical fish associated with coral islands. The playful Dolphins are also seen in this area.



S1.No	Island Name	Group	Area (Hect)
1	Van Isand		16.00
2	Kasuwar		19.50
3	Karaichalli	Thoothukudi	16.46
4	Villanguchalli		0.95
5	Upputhanni		29.94
6	Puluvinichalli	Vembar	6.12
7	Nallathanni		110.0
8	Anaipar		11.00
9	Valimunai		6.72
10	Appa		28.63
11	Puvarasan patti	Keelakarai	0.25
12	Vaalai		10.15
13	Thalaiyari		75.15
14	Mulli		10.20
15	Muyal		129.04
16	Manoli		25.90
17	Manoliputti		02.34
18	Poomarichan	Mandapam	16.58
19	Pullivasal		29.95
20	Krusadai		65.80
21	Shingle		12.69
	Total		623.37

The Gulf of Mannar is considered as "Biologists' paradise" with over 4223 species of flora and fauna. The Gulf of Mannar is endowed with a rich variety of marine flora and fauna as it includes ecosystems like coral reefs, rocky shores, sandy beaches, mud flats, estuaries, mangrove forests, seaweed stretches and seagrass beds. These ecosystems support a wide variety of fauna and flora including rare chanks, shrimps, lobsters, pearl oysters, whales, dugongs, turtles, seahorses, sea snakes and sea cucumbers etc. The diverse nature of ecosystems in the Gulf of Mannar supports a wide variety of significant species including 117 species of corals, 14 species of seagrasses, 158 species of crustaceans, 856 species of molluscs, 1147 species of fin fishes, 153 species of echinoderms and 181 species of seaweeds apart from the seasonally migrating marine mammals like whales, dolphins, porpoises and turtles. The mangrove habitats in the Gulf of Mannar have 10 different species of vegetation supporting a variety of marine fauna including seabirds and sea snakes.

#### **Coral reefs**



Coral reefs are live in tropical and subtropical region. It is made up of calcium carbonated secreted by many animals known as coral polyps. The corals are belongs to Coelenterate family, which including black corals, sea fans and high quality corals. In India, coral reefs abundantly found in Gulf of Mannar, Andaman and Nicobar, Gulf of Cutch and Lakshadweep. Mostly coral reefs are used as breeding and feeding ground for many associated fishes, animals and plants. Moreover, sea cow, dolphin and other prohibited animals using as coral habitat for breeding and feeding ground. Coral could able to absorbing the atmospheric carbon di-oxide is converted into calcium carbonate; it will create healthy and rich environment.

#### Seaweeds



Seaweeds are non-flowering plants growing 100 -200 m depth. It is not having true leaves, stem and root like structure and branch portion of the seaweeds known as Thalus. It can be divided in to three type's *viz.*, 1. Green sea weeds 2. Brown sea weeds and 3. Red sea weeds. Sea weeds are mainly used for food materials, fertilizer, chemical substances and materials. Gracilaria, Hypnea, Gelidiella, Sargassum

pharmaceutical raw materials. Gracilaria, Hypnea, Gelidiella, Sargass and Acanthophora species are mainly found in Gulf of Mannar coast.

#### Seagrasses



Seagrasses are flowering plants. It is largely spread over in the sea bottom like terrestrial grasses. Sea grasses have lengthy leaves, stems and strong roots system. Annually, seagrasses are involving the sequestration of carbon (approximately 550 -1100g) in 1 square meter. Seagrasses used as feeding and breeding grounds for enormous animals and their juveniles. Moreover, it can able to reduce the wave

action and protect coastal areas from erosion. Species like Cymodacea, Enhalus, Syringodium and Halophila etc., are present in this region. However, *Enhalus* species is endemic to Gulf of Mannar.

#### Mangroves



Mangroves are salt tolerant plants; it is growing between land and sea. There are 3 types of mangrove adaptation present in India viz., 1. River swamps 2. Marine swamps 3. Islands. It is used as feeding and breeding grounds for fresh and marine water fishes, prawns, mussels, mollusc etc. In Gulf of Mannar Islands Rhizophora, Avicenia and Pemphis species are abundantly found than other species. It can able to adopt to survive against temperature, strong winds. Further, it will fully protect the coastal areas from erosion.

#### Sea cucumbers



In India 75 sea cucumbers genera have been reported. Of these, 13 species considered as economically important species. Among the 13 species, 5 species found in Gulf of Mannar coastal waters *viz.*, Chalk or Brown sand fish, Green fish, Black fish, Sand fish and pink fish. They are acting as sea scavengers. They are help to

maintain the clear and healthy environment. Many researchers have been reported that, the sea cucumbers have anti-cancer, anti-tumor, antimicrobial compounds.

#### Sea horses



In India 2 species of sea horses are living. Of these *Hippocampus kuda* species only found in Gulf of Mannar. Sea horse head shape is similarly like terrestrial horse. Hence, that name arrived. Its tail is curved to adopt to attach easily to the seagrass and sponges. Mostly, they are living in the shallow water region. Sea horses are used as traditional medicine, whooping cough in children.

Dolphins



Dolphins are fast moving aquatic mammals, which can equally swim with boats for food. They spending entire life in the sea and they have produced their young ones from their bodies known as Marine Mammals. It is used as aquarium sports animals.

Sea cow



These are bulbous aquatic mammals that live in warm, shallow waters. They have a streamlined body with a flat, fluked tail. This is only one marine mammals comes under the herbivore, are mainly feeds on seagrasses. Researchers have pointed out that sea cow abundantly sighted in Mandapam coast of the Gulf of Mannar. Its breeding occurs throughout the year. The gestation

period is about 1 year. There is no biggest morphological variation between male and female sea cow. In Gulf of Mannar coast some marine animals comes under schedule I. Hence, the marine animals are protecting under wildlife protection Act 1972. The Schedule Marine animals are tabulated and the name lists are given below.

S. No	Marine Prohibited animals	Schedule
1	Whales	
2	Dolphin	
3	Porpoise	I Part I
4	Sea cow	
5	<ul> <li>All turtles</li> <li>Green turtle</li> <li>Leather back turtle</li> <li>Logger head turtle</li> <li>Hawksbill turtle</li> <li>5. Olive Ridley</li> </ul>	I Part II
6	<ul> <li>Fishes</li> <li>Whale Shark</li> <li>Pointed saw fish</li> <li>Pondicherry Shark</li> <li>Spear toothed shark</li> <li>Ganges Shark</li> <li>Small toothed shark</li> <li>Green saw fish White spotted shovel nose ray</li> <li>Scaly sting – ray</li> <li>Thorny ray</li> </ul>	I Part II A
7.	Giant Grouper	I Part IV A
	Sea horses and pipe fishes	-
8. 9.	<ul><li>All corals</li><li>Sea fans</li></ul>	-
9. 10.	<ul> <li>Sea fails</li> <li>Mollusc <ul> <li>King shell</li> <li>Horse hoof clam</li> <li>Pine apple shell</li> <li>Giant clam shell</li> <li>Chambered nautilus</li> <li>Glory of India</li> <li>Frog shell</li> <li>Spiral chank</li> <li>Giant clam</li> </ul> </li> <li>Map Shell <ul> <li>Spotted shell</li> <li>Chocolate bonded cowry</li> </ul> </li> </ul>	I and Part 4B

## Marine Prohibited animals under Indian Wildlife Protection Act 1972

S. No	<b>Marine Prohibited animals</b>	Schedule
	Trapezoid shell Striped shell	
	Spider conch	
	• Spider shell	
	Arthritic spider conch	
	Orange spider shell	
	Scorpion shell	
	• Millipede	
	• White conch	
	• Top shell	
	• Turban shell	
	Window Pane oyster	
11	All Sea cucumbers	I and Part IV C
12	All Sponges	III

#### **Punishments**

Provided that where the offence committed is in relation to meat of any animal which is banned, animal article, trophy, or uncurled trophy derived from such animal or where offence relates to altering the boundaries of a sanctuary or a National Park, such offence shall be punishable with imprisonment for a term which shall not be less than 3 years but may extend to 7 years and also with fine which shall not be less than ten thousand rupees.

Gulf of Mannar Marine National Park, Ramanathapuram split into four Ranges, each one range hold one forest range officer. For that, four range officers working at four range office viz., Mandapm, Keelakarai, Ramanad and Tuticorin respectively. Moreover, One Assistant conservator of Forests assists to Squad in this division for quick protection and enforcement.

In addition, Gulf of Mannar Marine National Park comprised 5 bird sanctuaries. The details are given below.

#### 1. Chithirangudi Bird Sanctuary

It is located in Mudhukulahtur taluk of Ramanathapuram district and 5 km away from Mudhukulathur. Through Government G.O. No.684 Environment and Forest dated 21.09.1989, it was announced as bird sanctuary and the total area is 47.63 hectares.

#### 2. Kanjirankulam Birds Sanctuary

This also comes under Mudhukulathur taluk of Ramanathapuram district and 5 km away from Mudhukulathur. Total tank area is 104.21 hectares.

#### 3. Mela Selvanoor - Keela Selvanoor

It is located in KadaladiTaluk of Ramanathapuram district in 593.09 hectares area at Mela Selvanoor -keela Selvanoor tank. Through Government order no.57 Environment and Forest dated 10.03.1998 under Wildlife Act section 18(1), it was announced as bird sanctuary.

#### 4. Therthangal Bird sanctuary

This sanctuary in Paramakudi taluk of Ramnad district in 29.29.5 ha (S.No.6) in Therthangal village is now declared as Therthangal Bird sanctuary vide G.O W6/220/E&F (FR.V) dt: 15.12.2010.

#### 5. Sakkarakottai Bird sanctuary

The Sakkarakottai sanctuary in Ramnad taluk and Ramnad district in 230.49.5 ha (S.No.68;383,209;25) in Sakkarakottai, Rajasuryamadai and Achadipirambu villages specific parts are now declared as Bird sanctuary vide G.O MS.No.114, E&F (FR.V) dt: 17.04.2012.

#### **Mangrove Blocks**

Thirteen mangrove blocks are situated along Ramanathapuram districts coastal areas from Devipattinam to Thondi and these blocks are notified under Tamilnadu forest Act 26 for protection. The Avicenia sp. is regenerated in these blocks.

#### **Protection in Islands and Coastal areas**

For the Islands and coastal area protection and enforcement engaged by the forester, Forest guards and Anti-poaching watchers. The varieties of boats are operated here for patrolling and enforcement. The details are given below.

S1. No	Boats	Nos
1	Speed Boats	3
2	OBM Boats	2
3	Vallam	4
4	Coral Boat	3
5	Small Boats	1
	Total	13

# X. RESPONSE PLAN – INCLUDING INCIDENT RESPONSE SYSTEM (COVERING RESCUE, EVACUATION, RELIEF AND INDUSTRIAL POLLUTION)

#### Flood:

#### a. Flood Warning

The Executive Engineer, Public Works Department, Thamiraparani River Basin Division, Tirunelveli is responsible for giving flood warning depending upon the water level in the Maruthur Anicut and Srivaikuntam Anicut and on the likely discharge from the reservoir into the river. The Executive Engineer, PWD (WRO), Koramballam Basin Division, Thoothukudi , Executive Engineer, PWD (WRO), Vaipar Division, Virthunagar and the Assistant Executive Engineer, P.W.D.(WRO), Lower Thamirabarani Basin Sub Division who is working under the Executive Engineer Public Works Department, Thamiraparani River Basin Division, Tirunelveli are responsible for the proper maintenance of the channels and rivers banks. They should also patrol the banks of the rivers and channels and pass the information about the flood situation to the District Collector. The Revenue Divisional Officers should also be simultaneously alerted by the Assistant Engineers / Executive Engineer concerned whenever a flood situation is threatened.

The Village Administrative Officers and Village Assistants shall also be posted in most and very vulnerable areas for patrol duty along the rivers. The warnings about the floods are issued by the Public Works Department in consultation with Collector and the Revenue, Development and other Departments are alerted. Patrolling on the banks of river as also evacuation of the residents in low lying areas to safer places are attended to by the Revenue, P.W.D. Police and Fire Service Officials.

On receipt of warning about the flood either from the Collectorate or from the Public Works Department, the Emergency Relief Officer and the Revenue Divisional Officer, or the Assistant Director (Panchayat) or the Tahsildar should communicate the message of warning to the Officers listed out through quickest operating mode of communication. The list includes of all heads of Departments at the District Level and other subordinate officers to whom the Collectorate will disseminate the warning are listed. The Departmental Officers will have to communicate the message to their entire subordinate through quickest operating mode of communication. The Taluk Tahsildars are responsible to communicate the message to the Zonal Deputy Tahsildars and Firka Revenue Inspectors and through them to all the Village Administrative Officers of the village expected to be affected. The message to the villages should be sent through through all communications which are possible. The Tahsildar and Zonal Deputy Tahsildars should also arrange to procure the available Government or hired vehicles locally, fitting a mike to it, place it in charge of a responsible person and announce the message in those villages expected without any loss of time through the Block Development Officers, and Panchayat Presidents. The message so communicated to the village points shall be disseminated to all hamlets through the members of the village committee to be formed.

The flood warning should be conveyed by the Revenue Divisional Officers to the Deputy Superintendent of Polices concerned who will also arrange for the dissemination of flood warning. In respect of Municipal Towns, the Deputy Superintendent of Police should make all arrangements for wide publicity in the town through police van with mike. In case of inaccessible villages, the Tahsildars should draw duty roaster to the Village Assistants who should be available in the nearest village to receive information from the Village Administrative Officer of the later village and carry it to their villages.

The Revenue Divisional Officers who are expected to communicate the warnings to various officers shall ascertain from all offices the duty-arrangements made and ensure that the warnings are effectively communicated. Similar turn duty system may be enforced by all departmental officers concerned during the flood period. All other Revenue Officers, Tahsildars, Deputy Tahsildars working in various special posts and all Special Revenue Inspectors working under the control of the various special branches should be in their respective Head Quarters to enable them to make use of their services when any emergency.

#### b. Evacuation of affected persons and housing in Shelter Homes

The persons in flood prone areas should be evacuated and housed in nearby shelter homes. The details of shelter homes and their locations identified for the identified vulnerable areas are as follows.

# **List of Relief Shelters**

#### 1. Thoothukudi Taluk

	Name of the Area		Name of Relief Shelter
	Vul	ble Places	
1	Abraham Nagar including PSP Nagar	1	Good Shepherd Model School
2	Kalankarai (Korampallam - 1)		
3	Mullakadu	2	TNDTA Cabaal Athim ananatti
4	Athimarapatti including	4	T.N.D.T.A School, Athimarapatti
	Veeranayakanthattu	3	Corporation Primary School
5	Kathirvel Nagar (Meelavittan - 1)	4	Bon Secors school
6	Meelavittan (Madathur, P&T Colony)	5	Pathirakaliamman Kovil Kalyana Mandabam
7	Sankaraperi		
8	Muthammal Colony (Sankaraperi Village)		
9	Athiparasakthi Nagar (Sankaraperi Village)	6	Thangammal Memorial School
10	Kurinji Nagar (Sankaraperi Village)		
11	State Bank Colony (Sankaraperi Village)		
12	Thiru Vee Ka Nagar, Ganesh Nagar (Meelavittan - 2)	7	Chinna Mani Nadar School
13	Kovilpillai nagar (Mullakkadu - 1)	8	Mariyam Mahal, Muthaiahpuram
14	Rajiv Nagar, Paul Pandi Nagar	9	Vikasa School
15	Kandhan Colony (Thoothukudi - 1)	10	Govt.Polytechnic
		Othe	er Areas
		11	Amirtha Vidhyalaya School
16	Maravanmadam including Anthoniyarpuram	12	Community Hall
		13	Servite CBSE School
1.77	Threspuram including	14	Multi purpose evacuation shelter, Siluvaipatti
17	Mappillaiyurani	15	Malar Thirumana Mandapam, Threspuram
18	Inigonager	16	Karapettai Nadar Boys Hr.Sec.School
		17	St.Thomas Nursury and Primary School, Thermal Nagar
19	Mullakadu	18	AVS Primary School, Thermal Nagar
		19	Panchayat Union Middle School, Thermal Nagar
20	Buckle channel area in Meelavitan village.	20	D.R.D.A Kalyana Mandapam,9 <sup>th</sup> Street, Toovipuram, Thoothukudi

#### 2. Srivaikuntam Taluk

	Name of the Area		Name of Relief Shelter	
	Vulnerable Places			
1	Kongarayakurichi	1	Anantha Kalyana Mandapam, Kongaraykurichi	
2	Sriparangusanallur	2	Hindu Middle School, Sriparangusanallur	
3	Agaram	3	Govt.Primary School, Vallanadu	
4	Muthalankurichi	4	R.C.Middle School	
	Other Areas			
5	Savalaperi (Alandha)	5	Nadar Thirumana Mandabam	
6	Kilakulam	6	Perumal Koil Mandabam, Kilakulam	
7	Therkku Tholoppanpanai	7	Community Hall, Therkku Tholoppanpanai	

#### 3. Tiruchendur Taluk

	Name of the Area		Name of Relief Shelter		
	Vulnerable Places				
		1	Valanar Marriage Hall		
1	Punnakayal	2	St.Joseph Hr.Sec.School Building		
		3	Rajakanni Matha Thiruthalam, Punnakayal		
		4	Panchayat Union Middle School, Odakarai		
2	Kayalpattinam including Kombudurai	5	L.K. Higher Secondary School, Kayalpattinam		
		6	Multi Purpose Evacuation Shelter, Kombudurai		
	Authoor cusba	7	Veerabaghu Thirumana Mandapam, Authoor		
3		8	Shanmugasundaram Nadar Primary School, Authoor.		
		9	Town Panchayat Community Hall Authoor Kasba		
		Othe	er Areas		
4	Amalinager	10	Arulmigu Senthilandavar Hr.Sec.School		
5	Veerapandiyanpattinam	11	St.Thomas Higher Secondary School, Veerapandiyanpattinam		
	· · · · · · · · · · · · · · · · · · ·	12	IMA Hall		
6	Arumuganeri	13	Hindu Middle School, Arumuganeri		
7	Aalanthalai	14	Thiru Arul hr.Sec.School		

Name of the Area			Name of Relief Shelter
8	Kulaaskaranattinam	15	Community Hall
0	Kulasekarapattinam	16	KGM Thirumana Mandabam
9	Manapad	17	St.Valan Hr.Sec.School
		18	Shobana Marriage hall
10	Jeeva Nager	19	Multi Purpose Evacuation Shelter, Keela Tiruchendur

#### 4. Eral Taluk

	Name of the Area		Name of Relief Shelter		
	Vul	ble Places			
1	Thirukalur Kakkanji Nagar	1	RamaKrishna Thirumana Mandabam		
2	Alwarthirunagari Vadambokki Street	2	Ishwarya Thirumana Mandabam		
3	Sivaramamangalam	3	Chennai Living Hindu Nadar Thirumana Mandabam, Sivakalai		
		4	St.Antonys RC Middle School		
4	Mukkani	5	Panchayat Union Middle School		
		6	Govt Hr.Sec.School, Mukkani		
5	Angamangalam	7	Loosia High School, Angamangalam.		
	Other Areas				
6	Thenthiruperai	8	Community Hall, Thenthiruperai		
7	Sethukkuvaithan	9	Panchayat Union Primary School		
8	Mavadipannai	10	Government Higher Secondary School, Mavadipannai		
9	Rajapathi	11	TDTA Middle School, Rajapathi		
10	Pazhayakayal	12	St.Antonys Hr.Sec.School		
11	Alagiyamanavalapuram	13	CDG Middle School		

### 5. Sathankulam Taluk

Name of the Area			Name of Relief Shelter
	Vulnerable Places		
1		1	TDTA Middle School, Thirupanpauthantharuvai
	Puthantharuvai	2	Panchayat Union Middle School, Puthantharuvai
2	Komaneri	3	Evanjalin High School

	Name of the Area		Name of Relief Shelter
3	Virakulam	4	Community Hall
	Other Areas		
4	Periathalai	5	Thirumana Mandapam
4	Perlathalai	6	Little Flower School Building
5	Sasthavinallur	7	St.Mary's Higher Secondary School, Pothakalanvillai

### 6. Kovilpatti Taluk

	Name of the Area		Name of Relief Shelter	
	Vulnerable Places			
1	Gandhi Nagar in Kovilpatti Municipality	1	Malathi Nursery School, Gandhi Nagar, Kovilpatti.	
2	Iluppaiurani	2	Panchayat Union Middle School, Loyal Mill Colony	
	Other Areas			
2	V.O.C. Nagan Karibatti	1	Kanna Matriculation School, V.OC. Nagar, Kovilpatti	
3	V.O.C. Nagar, Kovilpatti	2	Kovilpillai Nadar Christian School, VOC Nagar, Kovilpatti	

# 7. Ettayapuram Taluk

	Name of the Area		Name of Relief Shelter
	Other Areas		
1	Perilovanpatti	1	T.V.A Nallalagu Nadar Hr.Sec.School
2	Ilambuvanam	2	Govt Girls Hr.Sec.School
3	Muthulapuram	3	Govt Hr.Sec.School
4	Mavilpatti	4	Panchayat Union Middle School
5	Ayankarisalkulam	5	Panchayat Union Middle School

# 8. Kayathar Taluk

Name of the Area		Name of Relief Shelter	
	Vulnerable Places		
1 Thangammal Puram		1	Community Hall, Thangammal Puram
2	Sanathuputhukudi	2	Community Hall, Sanathuputhukudi.

# 9. Vilathikulam Taluk

	Name of the Area		Name of Relief Shelter		
	Vulnerable Places				
	Vaippar-II	1	Motcha Alangara Annai Mahal, Keela Vaippar		
1		2	St.Therasa Middle School, Sippikulam		
		3	St.Lousia Hr.Sec.School, Vaippar		
			Community Hall, Kella Vaippar		
	Other Areas				
	Vembar	5	Multi Purpose Evacuation Shelter, Vembar		
2		6	Govt Hr.Sec.School, Vembar		
3	Periyasamypuram	7	St.Antoniyar High School, Periyasamypuram		
4	4 Kallorani		Panchayat Union Primary School, Kallorani		
5	Vilathikulam	9	Government Higher Secondary School, Vilathikulam		
6	Athankarai	10	TNDTA Primary School, Athankarai.		

# 10. Ottapidaram Taluk

	Name of the Area	Name of Relief Shelter			
	Vulnerable Places				
1	1 Valasamuthitram		Womens Self Help Group Building, Panchayat Office.		
	Other Areas				
2	Vellapatti	2	Thooya Nalla Alosanai Matha Community Hall		
		3	Primary School		
	Tharuvaikulam	4	Multi Purpose Evacuation Shelter, Tharuvaikulam		
3		5	Govt High School Building		
		6	Self Help building		
4	Pattanamaruthur	7	Panchayat Union Middle School		
5	5 Keela Arasadi		Panchayat Union Primary School, Keela Arasadi		
6	Veppalodai	9	TNDTA Middle School, Veppalodai		
7	7 Therkku kalmedu		Panchayat Union Primary School, Therkku Kalmedu		

#### Non Total **S1**. Vulnerable Taluk Shelters Vulnerable Shelters No Locations Locations Shelters Locations Thoothukudi Srivaikuntam Tiruchendur Eral Sattankulam Kovilpatti Kayathar Ottapidaram Vilathikulam -\_ Ettayapuram --Total

#### Abstract

#### c. Movement of Relief Materials

The entire administrative machinery of the Departments i.e. Revenue and Development will be pressed into service under the leadership of the Revenue Divisional Officers and Assistant Director of Panchayat in the Divisional Level and Tahsildars at the Taluk Level and Block Development Officers at the Block Level to move the stock from the prescribed centres.

#### Response plan for heavay rains Source

Extremely Heavy	Most Vigil:
Rainfall (>244.4mm)	• Actions to be taken and sustained till warning is withdrawn in the villages/taluks/districts predicted to be affected by rainfall.
	• DEOC – Keep checking the tsunami bulletins from the INCOIS site.
	<ul> <li>District –Taluk Control Rooms of Revenue &amp; Police-24hours functioning</li> <li>NDRF, SDRF and Fire and Rescue Service – pre-positioned as per the direction of State Incident Commander</li> </ul>
	<ul> <li>the direction of State Incident Commander</li> <li>BSNL and Police – deploy emergency communication systems</li> </ul>

· · · · · · · · · · · · · · · · · · ·	
•	Hospitals and PHCs in the villages predicted to be affected by rainfall - function at full strength 24 hrs
•	Tahsildar – Start the relief camps; Quarry blasting to be banned unti- atleast 24 hrs of rain free situation arises in the quarry locality based or evaluation by the village officers.
•	Local bodies – relocate vulnerable population to the relief camps and othe safe locations.
•	Transport department – take control of all cranes and earthmovers in th district for deployment in the event of major calamities.
•	TANGEDCO & PWD – Emergency repair teams to be ready for deployment.
•	District Officers of TANGEDCO, PWD, Health, Irrigation & Transpor - to be available at the district collectorates.
•	Police – Stop vehicular traffic other than that of emergency service via roads prone to landslides and flash floods; ensure strict onewa system for vehicle movement.
•	Declare holiday for all educational institutions. All mass gatherings and social events to be stopped.

Very Heavy	Be prepared :
(124.5 to 244.4 mm)	• Actions to be taken and sustained till warning is withdrawn, in the districts predicted to be affected by rainfall
	<ul> <li>DEOC - Emergency time functions activated</li> <li>Deoc, District - taluk Control Rooms of Rvenue and Police - 24 hrs functioning.</li> </ul>
	• SDRF and Fire and Rescue Service – pre-positioned a s per the direction of State Incident Commander.
	• Army, Navy, Air Force, Coast Guard and other central forces in the state informed.
	• Hospitals and PHCs – ensure doctors and paramedical staff are available on call.
	• Tahsildar – take control of the identified relief shelters; Quarry blasting to be banned until at least 24 hrs of rain free situation arises in the quarry locality based on evaluation by the village officers.

<ul> <li>Local bodies – advice public to restrain from standing near and crossin streams</li> </ul>
• Transport department – ensure that cranes and earth movers in the district are ready for deployment in the event of major calamities.
<ul> <li>TANGEDCO &amp; PWD – Emergency repair teams to be ready f deployment.</li> </ul>
• Police – Stop vehicular traffic other than that of emergency services v roads prone to landslides and flash floods.
<ul> <li>District Officers of TANCEDCO, PWD, Health, Transport – to be availab on call to District Incident Commander.</li> </ul>
<ul> <li>Tourism &amp; Forest Departments – Advise tourists not to stop in the sid of streams and take bath in streams when it is raining as these a possible tracts of flashfloods.</li> </ul>
• Voluntary evacuation warning to public living in the flood prone areas the district

Heavy	Be updated:
Rainfall (64.4	• Actions to be taken and sustained till warning is withdrawn, in the
to 124.4 mm)	<ul> <li>Actions to be taken and sustained till warning is withdrawn, in the</li> <li>Tourism &amp; Forest Departments - Advise tourists not to stop in the sides villages/taluks/districts predicted to be affected by rainfall</li> <li>SEOC - All state level officers of the nodal departments informed</li> <li>DEOC - Emergency time functions activated</li> <li>District Control Rooms of Revenue &amp; Police-24hours functioning Tahsildar <ul> <li>ensure that shelters are available if needed; Quarry blasting to be banned until atleast 24 hrs of rain free situation arises in the quarry locality based on evaluation by the village officers</li> <li>Transport department - take control of all cranes and earthmovers in the district for deployment in the event of major calamities</li> <li>TANGEDCO &amp; PWD - Emergency repair teams to be ready for deployment</li> </ul> </li> <li>Tourism &amp; Forest Departments - Advise tourists not to stop in the sides of streams and take bath in streams when it is raining as these are possible</li> </ul>
	tracts of landslide

# Tsunami Response Plan

	Source of Information – INCOIS:				
	http://www.incois.gov.in/Incois/tsunami/eqevents.jsp				
Warning	Most vigil:				
	• Action to be taken and sustained till Warning is withdrawn in villages/districts predicted to be affected by tsunami.				
	• SEOC-Technology verify the warning from INCOIS.				
	• SEOC & DEOC – Emergency time functions activated.				
	• State- district- Taluk Control Rooms of Revenue & Police- 24 hours functioning.				
	• NDRF, SDRF & Coastal Police – deployed to the coastline.				
	• Army, Navy, Air Force & other Central Forces in the state – deployed to the coastline.				
	• BSNL & Police – deploy emergency communication systems.				
	• Hospitals and PHCs in the districts functions at full strength 24 hours.				
	• Tahsildars - Evacuate public within 250m from the coastline to the relief camp and other higher ground and start the relief camps.				
	• Local self government – Evacuate public within 250m from the coastline to the relief camp and other safe higher ground.				
	<ul> <li>Department of Ports&amp; Harbour Engineering – Move all seafaring vessels to deep ocean</li> </ul>				
	• TANGEDCO & PWD - Emergency repair teams to be ready for deployment				
	• District Officers of TANGEDCO, PWD, health, Irrigation, transport, ports & harbour engineering - to be available at the respective district collectorates.				
	• Police – Stop vehicular traffic other than that of emergency services to the area predicted to be affected: ensure strict one way system for vehicle movement.				

• Declare holiday for all educational Institutions in the taluks predicted
to be affected by the event.
• All mass gathering and social events in the taluks predicted to be
affected by the event is to be stopped.
• Public within 250m from the coastline to be moved to higher ground
and further inland.
• Tourism dept - Close all reports within 250m of the coastline and
lowlying areas in river- mouth/coastal estuaries and evacuate public
to safer areas.

Alert	Be prepared:
	• Actions to be taken and sustained till warning is withdrawn, in the villages/taluks/districts predicted to be affected by tsunami
	• SEOC – Telephonically verify the warning from INCOIS
	• SEOC & DEOC – Emergency time functions activated
	• State- district- Taluk Control Rooms of Revenue & Police -24 hours functioning.
	• SDRF & Coastal Police – deployed to the coastline.
	• Army, Navy, Air Force & other Central Forces in the state – on high alert and standby
	• BSNL & Police – deploy emergency communication systems.
	• Hospitals and PHCs in the districts functions at full strength 24 hours
	• Tahsildars – Evacuate public within 250m from the coastline to the relief camp and other higher ground and start the relief camps
	• Local self government – Evacuate public within 250m from the coastline to the relief camp and other safe higher ground.
	<ul> <li>Department of Ports&amp; Harbour Engineering – Move all seafaring vessels to deep ocean</li> </ul>
	<ul> <li>TANGEDCO &amp; PWD – Emergency repair teams to be ready for deployment</li> </ul>

	<ul> <li>District Officers of TANGEDCO, PWD, health, Irrigation, transport, ports &amp; Harbour engineering – to be available at the respective district collectorate.</li> <li>Police – Stop vehicular traffic other than that of emergency services to the area predicted to be affected: ensure strict one way system for vehicle movement.</li> <li>Declare holiday for all educational Institutions in the taluks predicted to be affected by the event.</li> <li>All mass gathering and social events in the taluks predicted to be affected by the event is to be stopped</li> <li>Public within 250m from the coastline to be moved to higher ground and further inland</li> <li>Tourism dept – Close all reports within 250m of the coastline and</li> </ul>
Watch	<ul> <li>Tourism dept – Close all reports within 250m of the coastline and lowlying areas in river- mouth/coastal estuaries and evacuate public to safer areas.</li> <li>Be updated: <ul> <li>Actions to be taken an sustained till warning is withdrawn, in the Villages/taluks/ districts predicted to be affected by tsunami</li> <li>SEOC &amp; DEOC – keep checking the tsunami bulletins from the INCOIS site.</li> <li>State- district- Taluk Control Rooms of Revenue &amp; Police 24- hours functioning</li> <li>All concerned district administrations and nodal departments listed above</li> </ul> </li> </ul>
Threat passed	<ul> <li>to be on alert mode.</li> <li>SEOC- cross check with INCOIS that the threat has passed.</li> <li>DEOC - Cross check with SEOC that the threat has passed.</li> </ul>

# Earthquake Response Plan

The urgent measures to be undertaken in the aftermath of a damaging earthquake will include the following:

- Maintenance of law and order, prevention of trespassing, looting etc.
- Evacuation of the people.

- Recovery of dead bodies and their disposal.
- Medical care for the injured.
- Supply of food and drinking water.
- Temporary shelters like tents, metal sheds etc.
- Restoring lines of communication and information.
- Restoring transport routes.
- Quick assessment of damage and demarcation of damaged areas according to the grade of damage.
- Cordoning off severely damaged structures that are liable tocollapse during aftershocks.
- Co-ordination between various agencies involved in rescue and relief work is extremely important for success in avoiding gaps and duplication.

#### Response plan for Heat waves

The following activities shall be done in times of heat wave conditions.

S1. No	Activities to be done	Officials responsible
1.	Press release regarding Do's and Don'ts during heat waves shall be issued	Personal Assistant (General) to Collector
2.	<ul> <li>MGNREGS workers shall be educated in following the do's and don'ts during Heat wave conditions.</li> <li>Adequate water, shelter should be provided as per the rules prescribed under MGNREGS. It is also to be ensured that the children of MGNREGS workers are also adequately taken care of and not exposed to sun.</li> <li>ORS packets shall be supplied by the DD, Health at the work spots.</li> <li>PHC mobile units shall be deployed wherever necessary.</li> </ul>	Kovilpatti.
3.	<ul> <li>Identify the areas and provide shelter and drinking water during heat alert period such as bus stops / depots, markets, railway stations, pilgrimage, tourist, industrial areas etc.</li> <li>Display of prevention measures to overcome Heat Waves.</li> </ul>	<ol> <li>Commissioner, Corporation, Thoothukudi.</li> <li>Assistant Director, Panchayat, Thoothukudi.</li> <li>Municipal Commissioner, Kovilpatti.</li> </ol>

S1. No	Activities to be done	Officials responsible
	<ul> <li>Keep open the parks in afternoon and for a longer duration during evenings.</li> <li>Release of messages on Dos and Don'ts to the general public and vulnerable groups about heat Waves.</li> <li>Actively involve NGOs /Rotary clubs /Lion clubs and corporate houses as part of Corporate Social Responsibility to provide shelters, drinking water (Thaneer Pandhal) during heat days.</li> </ul>	<ol> <li>Municipal Commissioner, Kayalpattinam.</li> <li>Municipal Commissioner, Tiruchendur</li> <li>Assistant Director, Town Panchayat, Tirunelveli.</li> </ol>
4.	<ul> <li>Checking of inventories of medical supplies including IV fluids, cool packs or ice, ORS powder in PHCs, UHCs and 108 emergency ambulances.</li> <li>Adequate arrangements for treatment of heat stroke patients round the clock.</li> <li>Display the prevention measures to overcome Heat Waves.</li> <li>Ensure the services of 108 /104 Emergency service with adequate supply of IV fluids.</li> <li>Establish mobile Health teams to cover major bus stands /Terminals, pilgrimage, tourist centers and other public places.</li> <li>To conduct training programs / orientation course on heat illness for medical staff. The Gist of the instructions issued by Medical department may be given and an exam may be conducted on the conclusion of training.</li> <li>Training of school teachers to equip them with knowledge of heat protection tips and activities which they can disseminate in class rooms</li> </ul>	<ul> <li>Dean, Medical College Hospital, Thoothukudi.</li> <li>Joint Director, Medical Services, Thoothukudi.</li> <li>Deputy Director, Health Services, Thoothukudi / Kovilpatti</li> </ul>
5.	• Poultry and cattle will also be adversely affected during heat wave and hence Cattle and poultry owners to be cautioned accordingly.	Joint Director, Animal Husbandry, Thoothukudi

S1. No	Activities to be done	Officials responsible
	<ul> <li>Ensure adequate stock of medicines in all veterinary hospitals for treatment of cattle/ poultry birds.</li> <li>Ensure provision of water in veterinary dispensaries.</li> </ul>	
6.	<ul> <li>Police personnel on duty in the open, to be educated on precautionary measures to be taken during heat wave.</li> <li>Shelters for traffic police may be provided, wherever feasible</li> </ul>	Superintendent of Police, Thoothukudi
7.	<ul> <li>Children in anganwadis and schools shall be advised to ensure that they are not exposed to the sun.</li> <li>Training of School teachers to equip them with knowledge of heat Protection tips and activities, which they can disseminate in class rooms.</li> <li>The students shall be educated in following the do's and don'ts during Heat wave conditions at the School assembly sessions.</li> </ul>	<ul> <li>Chief Educational Officer, Thoothukudi.</li> <li>Project officer, ICDS, Thoothukudi</li> </ul>
8.	Labour department should enforce better working conditions for workers such as provision of sheds, safe drinking water, bathing facilities etc as per the Labour Act.	Labour Inspector, Thoothukudi
9.	ORS packets should be supplied to the Anganwadi centers. Panchayats should arrange to supply sufficient drinking water to the Anganwadi centers.	<ul> <li>Project officer, ICDS, Thoothukudi.</li> <li>AD, Panchayat, Thoothukudi.</li> <li>AD, Town Panchayat, Tirunelveli.</li> </ul>
10.	Shall arrange to disseminate the heat wave warnings through the publicity vehicles.	<ul> <li>Public Relation officer, Thoothukudi</li> </ul>

# 1. Introduction, Use and Control of Off-Site Emergency Plan Back-Ground to Off-Site Emergency

Manufacture, storage and use of hazardous substances pose a serious risk to industry, people in the neighbourhood and the environment. Accidental release of hazardous chemicals, which are flammable, explosive or toxic, may lead to emergencies. Depending upon the nature of the substance and magnitude of the release, emergency could either be confined within the industry (On-site Emergency) or could transgress the boundary of the industry and affect the public in the neighbourhood in which case it would be an Off-site Emergency.

The Off-site Emergency Plan is a document detailing how emergencies relating to a possible major accident involving a hazardous chemical in an industry, which may have ramifications outside the boundary walls of that industry will be dealt with.

The rule 14(1) of MSIHC Rules read with Schedule 5 requires the District Authorities to prepare an Off-site Emergency Plan in consultation with the Chief Inspector of Factories and assistance from the Chief Controller of Explosives.

The details to be furnished in the Off-site Emergency Plan are given in Schedule 12 of the Rules. These are:

- The type of accidents and release to be taken into account.
- Organizations involved including key personnel and responsibilities and liaison arrangements between them.
- Information about the site including likely locations of dangerous substances, personnel and emergency control rooms.
- Technical information such as chemical and physical characteristics and dangers of the substances and plant.
- Identification of the facilities and transport routes.
- Contact for further advice e.g. meteorological information, transport, temporary food and accommodation, first aid and hospital services, water and agricultural authorities.
- Communications links including telephones, radios and standby methods.
- Special equipment including fire fighting materials, damage control and repair items.

- Details of emergency response procedures.
- Notification to the public.
- Evacuation arrangements.
- Arrangements for dealing with the press and other media interests.
- Long term clean up.

Transportation of hazardous chemical by road or pipeline may pose a threat to the population and environment. Such accidents also belong to the category of off-site emergency. The definition of major chemical accident includes accidents during transportation vide rule 2(1) of the CA (EPPR) Rules.

#### **Off-Site Emergency**

The chemical release, fire, explosion or spillage in an industrial unit including isolated storages that may have ramifications outside the boundary of that particular industrial unit or such a chemical release, fire, explosion or spillage during the transportation of hazardous chemicals by road or by pipeline, all of which may pose a threat to life and property of public at large, is a situation qualifying to be an off-site emergency with the declaration to this effect by the District Collector or authority appointed in lieu thereof.

#### Off-site Emergency Plan and its use

The off-site emergency plan foresees the possible emergency scenarios leading to offsite emergency plan.

The following is the use of off-site emergency plan.

#### **Pre-Emergency Use**

- The plan identifies the resources required for dealing with likely emergencies and draws attention to additional resources that may be required.
- The plan helps to inform the necessary authorities and stake-holders of their responsibilities during the emergency.

#### **During Emergency Use**

- The plan gives the procedures to be executed by various roles during the off-site emergency for its control and mitigation.
- The plan serves as a ready-reckoned for all vital and factual information that is required during emergency.

#### **Post-Emergency Use**

- The plan gives procedures for prevention of damage in the long term that may arise as effect of an emergency.
- The plan lays for review of emergency to draw necessary observations and lessons for self-enrichment of plan for future emergencies.

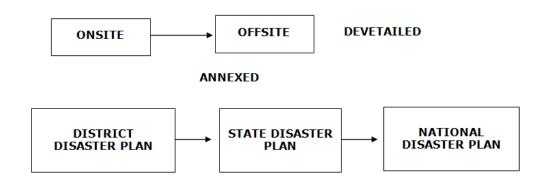
#### Scope of Offsite Emergency Plan

The off-site emergency plan applies to the entire district. The off-site emergency plan compiles all the possible emergency scenarios pertaining to industrial or transportation hazards that may arise within the district boundaries and provides for the response mitigation of the same.

#### Declaration of Off-Site Emergency and Enforcement of Plan

The responsibility and the power of declaring the off-site emergency in the district vests with the District Collector. In his absence, the responsibility and power vests with the authority appointed in lieu of the District Collector.

#### **Possessors of Off-Site Emergency Plan**



S1. No	Authority	Address (O, R)	Telephone (O, R, M)
1	District Collector	District Collectors office Korampallam, Thoothukudi- 628 101.	0461-2340600
2	Director of Industrial Safety and Health (Chief Inspector of Factories)	Director, ISH, No.47/1, Thiru.Vi.Ka. Industrial Estate, Guindy, Chennai-32.	044-22502103 044-22502104

S1. No	Authority	Address (O, R)	Telephone (O, R, M)
3	Superintendent of Police	S.P. Office, Collectorate, Korampallam, Thoothukudi-628 101.	0461-2420200
4	Joint Director of Industrial Safety and Health (Dy. Chief Inspector of Factories)	Joint Director of Industrial Safety and Health, 128B, SubbaiahMudhaliarpuram, Thoothukudi-3.	0461-2330624
5	Divisional Fire Officer	Divisional Office, Thoothukudi.	0461-2310107
6	Deputy Director Health	DDO Office, Opp. St.Mary's College, Thoothukudi.	0461-2266207
7	Regional Transport Authority	RTA, Thoothukudi.	(O) 0461-2325184 (R) 0461-2329894
8	Electricity Board	TNEB Office, Thoothukudi.	0461-2345751

The District Collector is responsible for the maintenance and upkeep of the Off-site Emergency Plan. He shall designate one officer to carry out the tasks pertaining to this role.

This off-site emergency plan is a dynamic document and must at all times reflect the ground realities by changing when these change.

For this purpose, the off-site emergency plan is set to expire after a period of 2 years from the date on which it is effected. A new version of the plan shall be prepared, released and distributed before the expiry of the current version. Should there be any major changes such as upcoming of new industrial units, identification of new hazards among others or an instance of an off-site emergency the off-site emergency plan shall be revised even before its due expiry.

Should there be any minor changes such as changes in person(s) holding particular authorities, changes in phone numbers among others, these shall be communicated to all the possessors of the off-site emergency plan via Annexure 3 by the District Collector. The stakeholders of the plan undergoing change in positions or having changed their phone numbers should inform the same to the District Collector.

#### Dovetailing of On-Site Emergency Plans with this Plan

This off-site emergency plan is put use when an industrial on-site emergency is expected to or has already transcended the boundaries of the industrial unit. It is necessary that the actions enlisted in the on-site plan are consistent with the plan of action in this off-site emergency plan. For this purpose it is necessary for the MAH units to ensure that their plan agrees to and is consistent with the off-site emergency plan. The dovetailing to this effect needs to be ensured in the following areas among others.

- Communication to the **District Authorities / Agencies**.
- Line of command.

The diagram below shows the relation of offsite plan with in the schema of disaster management plans.

The Onsite Plans and Offsite Plans are chemical disaster plans as stipulated in the MSIHC Rules, 1989. The District Disaster, State Disaster and National Disaster Plans are general disaster plans as stipulated in the Disaster Management Act, 2005.

#### I. Identification Of Hazards

#### Introduction to Hazards

Hazard is the existence of a situation that can potentially lead to disaster. The offsite emergency plan identifies the hazards that can lead to a chemical disaster. The hazards identified are primarily the MAH installations including isolated storages. However hazards are not restricted to MAH installations alone. Therefore, identification of hazards other than those at MAH installations is important as well. This chapter identifies the hazards in the district.

#### **MAH Unit Installations**

All MAH units including isolated storages have been listed and detailed in the table below:

# Information on MAH Unit Installations

S1. No.	MAH Unit Name with address and Phone Number	Activity Carried out	Hazardous Chemicals Handled with Quantities	Disasters Likely	Contact Persons Name (Occupier, Factory Manager, Site Incident Controller)
1	<b>BPCL, L.P.G.</b> <b>Filling Plant,</b> Madurai By Pass Road, Thoothukudi – 8. Phone No: 0461-2340072, 2340720, 2340753, 2340050	Bottling of LPG Cylinders and filling of LPG truck tankers		LDC fire /	Mr. B. Gopi Krishna Landline:0461- 2340050 Mobile: 9731395622 M- Mr. Jabamalairaj Landline:0461- 2340753 Mobile: 8056855353
2	SHV Energy (P) Ltd., Thoothukudi New Harbour, Thoothukudi –4 Phone No: 0461-2353268	Receipt of LPG from ships via pipeline, storage and distribution	LPG	LPG fire/ explosion	O- Mr. Ajay Singh Mr.R. Prabhakaran Landline:0461- 2353268 Mobile: 9894020243 S-Mr.M. Maheswaran Landline:0461- 2352242 Mobile: 9944280158
3	DCW- Sahupuram, Thoothukudi-628 229 Phone No: 04639-280231	Manufacturing of Caustic Soda, Liquid Chlorine, Trichloro Ethylene, PVC and Ilmenite, HSD	Chlorine, VCM, HCL Acid 30%, HFO, LFO, Caustic Soda	Chlorine toxic release, VCM, LPG fire / explosion, HSD fire	Mr. Krishnamoorthy Krishnan Landline:04639- 281181 Mobile:9820210549 M-Mr. T. Roopakumar Landline:04639- 285537 Mobile:7373729256 S-Mr. S. Alwis Gift Mobile: 9442128573
4	<b>DCW-VCM</b> Installation, Opp. Blue Gate, Thoothukudi Port	Receipt of VCM from ships via pipeline,	VCM	VCM, LPG	Mr. Krishnamoorthy Krishnan Mobile:9820210549

Sl. No.	MAH Unit Name with address and Phone Number	Activity Carried out	Hazardous Chemicals Handled with Quantities	Disasters Likely	Contact Persons Name (Occupier, Factory Manager, Site Incident Controller)
	Trust, Thoothukudi – 4 Phone No: 04639-280231	storage and distribution		fire / explosion	M-Mr. T Roopakumar Mobile:7373729256
5	<b>IOCL</b> , Marketing Division, Harbour Estate, Thoothukudi – 4 Phone No: 0461-2352401	Receipt of FO, BS II HSD, LSHF HSD and LDO from ships via pipeline, storage and distribution	LSHF-HSD,	FO, LDO, HSD Naphtha fire	Mr. KameswarRao Landline:0461- 2353401 Mobile:9937083569
6	<b>SPIC,</b> Ammonia Importation Terminal, SPIC Limited, Thoothukudi –4 Phone No: 0461-2352400.	Import storage & distribution of Ammonia	Ammonia	Ammonia toxic release	Mr. S. Ravichandran Landline:0461- 2243413 Mobile:9489050747
7	<b>SPIC,</b> SPIC Nagar, Thoothukudi – 5 Phone No: 0461-2355401	Manufacturing of urea, DAP AIF-3, ammonia, Sulphuric acid and Phosphoric acid	Ammonia, Naphtha, Furnace Oil, Phosphoric Acid, Sulphuric Acid	Ammonia toxic release, Naphtha, FP fire	

# Transportation of Hazardous Goods

Information of Hazmat Transportation **by Road** 

S1. No.	Stretch From-To	Hazardous chemicals	Flow with
1	Kerala, Karnataka, TN to DCW, Sahupuram	Liquid Chlorine,	12,000
2	Thoothukudi to Sahupuram	Vinyl Chloride Monomer	90,000
3	Thoothukudi to Sahupuram	Sulphuric Acid,	400

S1. No.	Stretch From-To	Hazardous chemicals	Flow with
4	From SHV Energy (P) Ltd to various destinations in India	LPG	1,25,000
5	Milavitan (Thoothukudi) to SPIC factory	Sulphuric Acid,	21,000
6	Milavitan (Thoothukudi) to SPIC factory	Phosphoric Acid,	37,000
7	Arumuganeri to SPIC factory	Chlorine Cylinder 240 trucks	90,000
8	Caltex to BPCL		40.000
9	KRL Cochin to BPCL	LPG Bullets,	42,000
10	BPCL to distributors in 6 districts	LPG cylinders through packed trucks.	44,710
11	Kochi to IOCL	LDO	72

Information on Hazmat Transportation **by water** 

S1. No	Stretch From-To	Hazardous chemicals	Flow with Quantity Annually (MT/KL)
1	Qatar to Thoothukudi	Vinyl Chloride Monomer	90,000
2	Haldia to CPCL to IOCL	FO	1,30,543
3	CPCL to IOCL	BS-II HSD	80899
4	CPCL to IOCL	LSHFHSD	24073
5	IOCL to general customers	BS-II HSD	82380
6	IOCL to general/bunker customers	LSHFHSD	26860
7	IOCL to general/bunker customers, Poompuhar Shipping Corp.	FO	125324

Information on Hazmat Transportation **by pipeline** 

S1. No	Stretch From-To	Hazardous chemicals	Flow with Quantity Annually (MT/KL)
1	From Port to SHV Energy (P) Ltd	LPG	1,50,000
2	IOCL to general / bunker customers, Poompuhar Shipping Corp.	FO	1,25,324

#### II. Identification Of Emergency Scenarios and Delineation Of Vulnerable Zones

# Introduction to Emergency Scenarios and Vulnerable Zones Emergency Scenarios:

Major industrial hazards are generally associated with the potential for toxic chemical release, fire or explosion.

# a. Events involving toxic materials:

#### Release of toxic materials

- Slow or intermittent release of toxic substance from a leaking valve.
- Rapid release for limited duration due to fracture of pipe leading to a toxic cloud which may travel or dissipate.
- Massive release of toxic substance due to failure of large storage or process vessel or uncontrolled chemical reaction.
- Loss of containment for a plant threatened by a fire.

#### Events involving flammable materials

Spillage of flammable liquids or loss of containment of flammable gases.

- Confined spill
- Unconfined spill
- a. Major fires with no danger of explosion: hazards from high levels of thermal radiation and smoke, for example.
- Pool fire.
- Flash fire.
- Jet fire etc.
- Explosion.
- b. Hazards from blast waves, flying debris, high level of thermal radiation. Serious emergencies that can be envisaged are:
  - Confined explosions.
  - Unconfined vapour cloud explosion.
  - BLEVE

Assessment of possible incidents is to be carried out for each MAH installation, in terms of:

- The quantity of hazardous material which could be released.
- The rate of release
- Effects of such a release.
- Thermal radiation from a fire at different distances.
- Blast over-pressures due to an explosion as function of distance from the incident spot.
- Toxic effects affecting the vulnerable zone (circle showing concentrations)
- Number of people likely to be affected.

#### Methodology for calculation Vulnerable Zones prescribed by MOEF:

The injury criteria or level of concern is used to determine vulnerable zones. The consequence distances for Toxic Release, Fire and Explosion scenario are worked out as per micro-methodology evolved by the MOEF.

#### **Toxic Exposure**

The IDLH (immediately dangerous to life and health) concentration value is taken as the criterion for identifying vulnerability zone. Accidents giving rise to toxic clouds from each of the MAH units in the area need to be considered.

The calculations for consequence distances should be done for weather stability class D with wind speed of 3 m/s and also for class F with wind speed of 1 to 2 m/s. The circles with radii equal to the consequence distances should be drawn on maps to indicate vulnerable zones for planning and preparedness purpose. The toxic cloud arrival and departure time should also be indicated on the map for each circle.

#### Heat Radiation (Pool Fire, Flame, BLEVE)

The heat radiation greater than 10 kw/m<sup>2</sup> results in fatality and greater than  $5 \text{ kw/m}^2$  results in injury.

This intensity of radiation is chosen as the limit value to identify vulnerable zone.

#### Explosion

It is assumed that everyone inside an area in which the peak over-pressure is greater than 0. I bar will be wounded. This are is and will be represented by a circle drawn around the explosion centre and having radius equal to the (calculated) distance from explosion centre at which peak over-pressure = 0. 1 bar is expected. In the case of a vapour cloud explosion, the explosion centre, which coincides with the cloud centre, will vary depending upon the prevailing weather conditions and the time when it gets source of ignition.

#### Use of Vulnerability Templates:

The maps are useful for planning and preparing, in advance, for the likely emergencies. The maps are also useful to identify area under threat in an actual emergency.

To assess the impact of toxic release, use of computer software along with the real time input of meteorological data would be an ideal method to identify the area under threat. However, it may not be always possible to have such sophisticated facility available at every place. Under such circumstances, transparent "Templates" can be developed and used to assess the effects of spread of the toxic cloud with concentration levels as function of distance from the point of origin.

The transparent templates for each scenario which are to be used in the following manner.

#### Place the transparency on the relevant map with

- The toxic release source on the map and the plume source on the transparency coinciding.
- The X-axis of the plume pointing in the prevailing wind direction.
- Injuries requiring medical attention will extend up to the contours of the transparency superimposed on the area map.

Templates should be developed for the Hazardous Chemicals used, stored or transported in the MAH Units to provide the District Emergency Authority and the Local Crisis Group with a tool for rapid assessment of vulnerable zones.

Templates should be drawn on transparent sheets and indicate the shape and extent of a vulnerable zone. The vulnerable zone in the event of a given toxic release scenario is assessed by using the appropriate template in conjunction with its associated map.

The scale of the template needs to be the same as that of the map.

It may be noted that the templates will be useful for identifying the vulnerability zone in case of toxic cloud.

#### **Computer Models:**

MOEF in association with National Informatics Centre (NIC) is in process of evolving computer software model for calculation of vulnerable zone and its projection on digital maps. Wherever available this computerized model may be used for delineation of vulnerable zones.

#### Use of specific information:

The use of specific information regarding wind velocity, temperature etc. at the site during the actual occurrence of emergency can be made wherever the computer software model is in use. In its absence the standard calculations of Class D with wind speed of 3 m/s and Class F with wind speed 1 to 2 m/s as prescribed by MOEF shall be used accordingly for delineation of vulnerable zones.

#### **Emergency Scenarios in MAH Installations**

- # Based on Maximum Credible Loss Scenario (MCLS)
- Project disaster category L1, L2, L3 as per the National Disaster Management

Guidelines on Chemical Disasters, April 2007 by NDMA. According to the guidelines, the classification is to be given on the basis of magnitude of probable severity and the level of control required. The classification L1-L3 is explained as:

- **L1:** A district level disaster within the capabilities of district administration to deal With.
- **L2:** A state level disaster within the capabilities of the state government to deal with.
- **L3:** A National level disaster requiring major direct intervention of the Central Government.

Also, the guidelines define fourth category 'L0' as 'No disaster situation. This is a level at which surveillance, preparedness and mitigation activities must be carried out.

S. No.	MAH Unit	Hazardous Chemicals Handled	Disaster Scenarios #	(L.1/ L.2/ L.3)	Vulnerable Zone Radius in meters	Population
1	BPCL	LPG	LPG Fire/explosi on	L.1	460	Floating population on National highway & Railway track adjacent to plant

#### **Emergency Scenarios in Industrial Installations**

S. No.	MAH Unit	Hazardous Chemicals Handled	Disaster Scenarios #	(L.1/ L.2/ L.3)	Vulnerable Zone Radius in meters	Population
2	SHV Energy (P) Ltd	LPG	LPG Fire/explosi on	L.2	347	8 persons at AIT, floating population on adjacent road & road to oil jetty.
3	DCW, Sahapuram	Chlorine, VCM, Hel Acid 30%, HFO, LFO, Caustic Soda.	Chlorine toxic release, VCM, LPG fire/ explosion, HSD fire	L.1	2400	About 3000 including population at DCW colony, Kamlavati higher secondary school,Thalaivanvadal i& Keeranoor
4	DCW, VCM Installation	VCM	VCM fire / explosion	L.2	612	Population at Caltex, IOCL & AFF
5	IOCL	LDO, FO, LSHF-HSD, BS II HSD, LS-FOR, Naphtha	FO, LDO, HSD, Naphtha fire	L.2	130	Floating population on railway track near IOC and 50 persons at DCW, VCM installation.
6	SPIC, ammonia importation terminal	Ammonia	Ammonia toxic release	L.2	1820	42 at Caltex floating population on adjacent road & road to oil jetty.
7	SPIC, Spic Nagar	Ammonia, Naphtha, Furnace Oil, Phosphoric Acid, Sulphuric Acid	Ammonia toxic release, Naphtha, FP fire	L.1	2700	About 700 persons at SPIC nagar colony & population at Muthiahpuram, Thoothukudi harbor estate.

#### **Emergency Scenarios in Transportation.**

S1. No	Transportatio n Description (Route, Mode)	Disaster Scenarios #	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc.	Population In Vulnerable Zone
1	Pipeline *	Rupture	Harbour area	100-120
2	Ship	Leak in LPG storage	Harbour area	100-120
3	Truck tanker	Accident	Appx. 500 m.	Floating

- # Based on Maximum Credible Loss Scenario (MCLS)
- No habitation on 300 meter on either side of pipeline

# **Domino Effects of Emergency Scenarios**

S. No.	Disaster Scenario (Table no., Sr.andDescription)	Triggered Scenario 1	Triggered Scenario 2	Triggered Scenario 3	Remarks
1	8,500 T – LPG fire/explosion at SHV	10,000 T – SPIC AIT	-	-	-
2	11,545 MT, BS II HSD fire at IOCL	Neighboring tanks of 6632 MT or 2312 MT	-	-	-
3	VCM bullet at DCW, VCM	VCM adjacent bullets	VCM adjacent Bullet cluster of 6 bullets	VCM Horton sphere	-
4	VCM 2400 T Horton sphere at DCW, Sahapuram	VCM 360 T Horton sphere	-	-	-
5	LPG 680 T Horton sphere at BPCL	LPG 60 T bullet	LPG 60 T bullet	-	
6	Naphtha 6160T tank	Neighboring 4305 T tank	Neighboring 4305 T tank	-	-

# Emergency Scenarios arising out of Natural Disasters

S1. No	Natural Disasters Likely	Vulnerable MAH unit, Disaster Scenario
1	Tsunami	
2	Earth Quake	All 7 MAH units
3	Hurricane	

### Vulnerability Template Catalogue

SI. No	MAH unit Disaster Scenario Ref No. and Description	Vulnerability Template Identification No	Map Identification	Remarks
1	BPCL	1A 1B	1	-
2	SHV Energy (P) Ltd	2A 2B	2	-
3	DCW, Sahapuram	3A 3B 3C 3D	3	-
4	DCW-VCM Installation	4A 4B	4	-

S1. No	MAH unit Disaster Scenario Ref No. and Description	Vulnerability Template Identification No	Map Identification	Remarks
5	IOCL	-	5	-
6	SPIC, AIT	6A 6B	6	_
7	SPIC, SPIC Nagar	7A 7B	7	-

### Resources with MAH unit forming part of Mutual Aid Resources

S. No.	MAH unit name with Address and phone Number	Designated contact persons with Address and Phone Numbers	Type and Number of Fire Tenders	Other equipment and materials (SCBA, PPE, Fire Extinguishers)
1	DCW Sahupuram	Mr.R.Jayakumar (M) 9842130991 (O) 04639-281181 04639-280231 (R) 04639-281991	Fire water Foam Fire tender <b>(4 each)</b>	Fire suit PVC suit SCBA Cl <sub>2</sub> kit Ambulance P.A. System Jeep Bus Chain pulley blocks Flame proof torches (4 each)
2	DCW, VCM Installation	Mr.S.Alwis Gift (M) 9442128573 (O) 0461-2352331	Fire water Foam Fire tender <b>(4 each)</b>	Fire suit PVC suit SCBA Cl <sub>2</sub> kit Ambulance P.A. System Jeep Bus Chain pulley blocks Flame proof torches (4 each)
3	SPIC, Spic Nagar	Mr.E.Balu (M) 9443311903 (O) 0461-2243322 (R) 0461-2244119	<ul> <li>2 comp fire water,</li> <li>4 (15,000L)</li> <li>foam</li> <li>2 fire tender 1</li> <li>fire suit</li> </ul>	<ul> <li>25 PVC suit</li> <li>60 SCBA</li> <li>1 Cl<sub>2</sub> kit</li> <li>1 Ambulance</li> <li>1 P.A. System</li> <li>1 Jeep</li> <li>4 Bus</li> <li>3 mobile crane</li> <li>10 Chain pulley blocks</li> <li>2 flame proof torches</li> </ul>

# Fire Department Information

S1. No.	Fire station with Address and phone Number	Designated contact persons with Address and Phone Numbers	Type and Number of Fire Tenders (Water, Foam, Mist tenders)	Other equipments and materials (SCBA, PPE, Dry Chemical Powder etc.)
1	District Office, Fire - Rescue Service, Thoothukudi	0461-2310107 9445086276	1 Jeep	-
2	Thoothukudi Thermal Fire- Rescue Services Station	0461-2352113 0461-2352308 0461-2352523 0461-2352524	2 Water tender, 1 Ambulance 1 Foam tender	6 SCBA 3 Aluminium suits 1 Asbestos suit 1 pair asbestos Gloves 1 life boy 2 extension ladders
3	Thoothukudi Sipcot Fire- Rescue Services Station	0461-2340091	Water tender Pump <b>(1 each)</b>	<ul> <li>3 SCBA</li> <li>1 Chemical</li> <li>protective suit,</li> <li>1 Asbestos suit,</li> <li>1 pair asbestos</li> <li>gloves</li> <li>2 life boy2</li> <li>1 life jacket</li> <li>1 extension ladder</li> </ul>
4	Fire Station, Tiruchendur.	04639-242301		<ol> <li>SCBA</li> <li>pair asbestos</li> <li>gloves</li> <li>life boy</li> <li>life jacket</li> <li>rubber boat</li> <li>single ladder</li> <li>extension ladder</li> </ol>

#### **Technical Experts Directory**

S1. No.	Chemical	Expert Name	Address(O,R)	Phone Numbers (O, R, M)
1	Ammonia	Mr. Ravichandran	SPIC	04639-280244 9489050747
2	Chlorine	Mr.R.Jayakumar	V.P - DCW Sahupuram	04639-280231 9842130991
3	LPG	Mr.R.Prabhakaran	SHV Energy (P) Ltd	0461-2353268 9894020243
4	Naphtha	Mr.KoteshwaraRao	IOCL	0461-2352570 9444910932
5	VCM	Mr.S.Alwis Gift	V.P - DCW Sahupuram	0461-2352331 944212573

#### **Emergency Response Data Sheets (ERDS)**

Prestels recommends maintenance of Emergency Response Data Sheets (analogous to material safety Data Sheets – MSDS) for all the hazardous chemicals handled in the district. The ERDS contains all the information required by the District authorities and Agencies to take appropriate emergency response measures. The ERDS sheet for Chlorine, Ammonia, LPG, VCM, HSD and Naphtha is attached.

S1. No	Transport Company	Address	Phone Numbers
1	PSTS	No.22, South Raja street, Thoothukudi-628 001.	0461-2320322 0461-2320115
2	Hari& Co	No.133, GC Road, Thoothukudi-628001.	0461-2321705 0461-2325276
3	JVP Associates	41/64, SPIC Ancillary Industrial Estate, SPIC Nagar, Thoothukudi.	0461-2355247
4	SICAL	Thoothukudi	0461-2355512
5	TLS Agents Associates	112, North car street, Thoothukudi	0461-2345423 0461-2330629
6	Reliable Services	Millerpuram, Thoothukudi	

#### **Evacuation Information - Transport**

#### **Evacuation Information – Sheltering**

S.	Evacuation Area	Capacity	Contact Details
No.	Location	(Number of people)	
1	Jain Nagar Hall	150-200	Tahsildar:- 9445000680

S. No.	Evacuation Area Location	Capacity (Number of people)	Contact Details
2	Chandy Matric School	300	Muthiahpuram 0461-2355960
3	Sri KamakshiVidyalaya Hr. Sec. School	300	Tiruchendur Road 0461-2375204

# **Other Emergency Resources – Transporters and Earthmoving Equipment**

Sl. No.	Transport Company	Phone Numbers
1	PSTS, No.22, South Raja street, Thoothukudi-628 001.	0461-2320311 0461-2320115
2	Hari& Co, No.133, GC Road, Thoothukudi-628 001	0461-2321705 0461-2325276
3	JVP Associates, 41/64, SPIC Ancillary Industrial Estate, SPIC Nagar, Thoothukudi.	0461-2355247
4	SICAL, Thoothukudi	0461-2355512
5	TLS Agents Associates 112, North car street, Thoothukudi	0461-2345423 0461-2330629

# **Other Emergency Resources – NGOs**

S1. No	Agency Name with Address and Phone Number	Contact Persons Name, Address and Phone Number (O, R, M)		
1	Lions club of Sahapuram, DCW Ltd	04639-280231		
2	ISTD Sahapuram, DCW Ltd	04639-280439		
3	SYMF, DCW Ltd	04639-280014		
4	SRC Sahapuram, DCW Ltd	04639-280231		
5	Empower, 107J/133E, Millerpuram, Thoothukudi-8.	0461-2310151		

# **III. Roles And Responsibilities**

# Introduction

Meticulous role playing and effective discharging of responsibilities is crucial to management of off-site emergency. The responsibilities of various authorities and agencies are provided in this chapter.

#### **Important Roles and Responsibilities**

It is important that the concerned authorities and agencies know, understand and accept their responsibilities. The issues pertaining thereof should be resolved in peace times. Apart from the assigned responsibilities, the specifies of situation may call for prudent action. It is however envisaged to foresee various tasks and assign the respective responsibilities. The list of responders to off-site emergency is provided in Chapter 4 of Part A of this guideline document. The responsibilities of the responders listed therein are provided below.

## **District Collector (OR THE DEA)**

- Take overall responsibility for combating the Off-site emergency.
- Ensure the Police and Fire, personnel combat the emergency.
- Arrange, if necessary, for warning and evacuating the public, through the Department of Police.
- Communicate with Media to disseminate vital information to public.
- Arrange for dispensing vital information to public using arrangements like mass-SMS, public announcement using pre-recorded tapes.
- Direct the team of Doctors headed by the Medical Officer.
- Direct the local chief of State Transport Corporation to arrange for transport of victims and evacuation of people trapped within the hazard zone, if necessary.
- Direct the Electricity Board officials to give uninterrupted power supply.
- Direct the official in-charge to provide uninterrupted water supply as required.
- If evacuation of population is necessary direct the Revenue officer and the Supply officer to provide safe shelters, food and other life sustaining requirements for the evacuees, if required.
- Co-ordinate with the media.
- Arrange for release and provide necessary funds at various stages of disaster mitigation.
- Direct railways to stop train, if required.

#### Police

- Communicate and co-ordinate with
- i. MAH unit
- ii. District Collector
- iii. Fire Services
- iv. Transport authorities

- v. Medical Department
- vi. Media
- vii. Civil Defence and Home Guards
- viii. Local Army establishment as required.
  - Warn and advice the people in the affected area
  - Regulate and divert traffic
  - Arrange for evacuation
  - Maintain law and order in the area
  - Ensure protection of life and property of evacuees
  - Deal sternly with people exploiting opportunism in Wake of a disaster.

# **Fire Service Department**

- Perform fire-fighting operations by deploying men and appliances
- Perform rescue operation in the affected area
- Communicate and co-ordinate with Police, Medical Department of necessary information
- Keep knowledge on appropriate response to different chemical emergency scenarios.
- Keep adequate stock and resource information on necessary means, material, appliances required to deal with particular emergency situations with updated details of suppliers and stockists.

# **Medical Department**

- Arrange for preparing casualties to be sent to government/private hospitals.
- Set up temporary medical camp and ensure medical facilities at affected location and neighbourhood.
- Keep knowledge on appropriate response to different cases of toxic consumption and injuries.
- Set up temporary mortuary, indentification of dead bodies and post-mortem.

# **Transport Fleet Owners Including State Transport**

- Act on the Direction of District Collector (or DEA) or Police.
- Ascertain the extent of transport required with pick-points, routes and

destinations to transport people.

- Promptly arrange for dispatch of vehicles with sufficient fuel for evacuation purposes.
- Arrange vehicles to transport water and other provision to camps set up

# **Technical Experts**

- Promptly respond to provide the necessary technical advice to MAH unit, District Collector, Factory Inpsectors, Fire Department, Medical Department among thers.
- Provide on-phone help after properly understanding and assessing the situation.
- Make visit to the site in co-ordination with District Collector, Factory Inspector(s) to provide for appropriate technical assistance.

# Factory Inspectorate Department

- Provide necessary direction to MAH unit and assistance to District Collector, Fire Department, Medical Department among others.
- Seek help from and involve assistance of Technical Experts of relevant and appropriate expertise and specialization.
- Initiate, facilitate and provide for investigation into the accident.

# Pollution Control Board

- Project likely areas to be polluted.
- Carry out pollution assessment at suspected locations including soil, river and air assessment.
- Ensure controlling of long-term pollution damage.
- Identify unidentified substances, chemical releases, if any.

# **Electricity Board**

- Arrange for uninterrupted power supply to the plant, as required.
- Arrange for lighting: at temporary medical camps etc.
- Arrange for switching off power supply on request from District Authorities.
- Take care of electrical equipment within the damaged zone.

# Animal Husbandry Department

• Arrange for taking care of cattle – especially milch animals living in affected zone.

- If evacuation of cattle is required, identify the evacuation area and shelter.
- Transport arrangements for evacuation.
- Fodder, drinking water arrangements for cattle.
- Arrange for veterinary doctor.

# Agriculture Department

- Arrange for protection of food grains and standing crops in the vulnerable zone.
- Give instructions, to farmers, if any.

# **Civil Defence & Home Guards**

- Co-ordinate with Police authorities.
- Extend help in evacuation.
- Arrange for round the clock security arrangements in the affected and evacuation
- areas.
- Safeguard the properties and belongings of evacuees.

# Public Works Department / Water Supply

- Ensure adequate water supply for fire-fighting.
- Arrange for drinking water for evacuated persons at rallying posts, parking yards and evacuation centers.
- Arrange water for cattle.

# **Civil Supplies Department**

• Arrangement to provide food and clothing as necessary, to the evacuees and all others involved in emergency controlling operations.

# Occupier of MAH unit

- Possess up-to-date copy of off-site emergency plan.
- Communicate promptly, any foreseeable disaster, to the District Collector, Police, Fire Service and Inspector of Factories in-charge of the District.
- Communicate changes within the factory that may require inclusion or suitable modification in the off-site plan to the Maintenanace Officer of the Plan.

# Transporter of Hazardous Chemical

• Possess up-to-date copy of off-site emergency plan.

- Communicate promptly, any foreseeable disaster during transportation to the District Collector, Police, Fire Service and Inspector of Factories in-charge of the District.
- Communicate new assignments, newly added routes or other changes that may require inclusion or suitable modification in the off-site plan to the Maintenance Officer of the Plan.

# **Regional Transport Authority**

• To investigate into the cause of road accident involving hazardous goods carrier and take necessary action.

#### **Mutual Aid Groups**

• To quickly mobilize the resources required to emergency mitigation at the site or wherever required.

# Aviation Department (Civil and Defense)

Mobilise resources such as helicopters for knocking down vapour clouds etc.

#### Railways

- Act as per the direction of District Collector to stop incoming trains, if required
- Arrange for evacuation, if required.

#### **National Disaster Response Force**

• Carry out tasks for disaster mitigation as required.

#### Local Government Bodies

- Mobilise necessary resources in emergency mitigation.
- Provide for community halls, town halls for evacuees.

#### **Telecommunication Department**

• Ensure working of communication lines to enable effective communication between various responder agencies.

#### NGOs

- Act as per the direction of District Collector, Police and other District Authorities.
- Aid and assist the district authorities in emergency mitigation.

#### Water Supply Board

• Arrange for supply of water to evacuees and all others involved in emergency control operations.

#### Media

- Disseminate vital information to public on direction of District Collector, Police and other Authorities.
- Act responsibly in disseminating vital information and dispel rumours, if any.

# Coast Guards and Port Trusts (in case of emergency situation in coastal areas)

- Co-ordinate with Police authorities.
- Provide necessary help in emergency mitigation.

## **Emergency Organisation Chart of Roles**

• The emergency organization chart of roles must be clearly defined. The emergency organization and line of command may differ from the operational line of command during peace times.

#### **Emergency Behaviour of Public at Large**

- The extent of damage control in an emergency situation can improve greatly if the public at large conducts itself in a responsible and intelligent manner. The possible reasons for disadvantageous behaviour by the public is
- Panic
- Curiosity or Excitement
- Purposeful exploitation of the situation

The following are the ways and means of addressing the above causes of disadvantageous behvaiour.

#### 1. Panic

Panic arises out of sense of urgency coupled with lack of knowledge and information to deal with the situation. Panic can be dealt with effectively by dissemination of important knowledge, information and instructions on response behaviour. A toxic gas leak may require people to stay confined than run out in helter-skelter. Such useful response instruction can be disseminated to public at large through mass education campaigns. Such campaigns shall be periodically conducted by vulnerable industrial units. Educational syllabus for schools shall include lesson on response behaviour in case of emergency Chemistry lessons shall include simple tips on responding to various gases. For instance, in case of MIC leak at Bhopal, the magnitude of toxic consumption could have generally reduced had people put a wet handkerchief on their nose since MIC dissolves in water.

#### 2. Curiosity or Excitement:

Uproar, noise, mass gatherings bring curiosity to the mind of people who add to the number of on-lookers. Police should play an active role in cordoning off the emergency area and judiciously allow volunteers who are willing to act to mitigate the disaster.

#### 3. Purposeful exploitation of situation:

Unfortunately some people seek opportunism for themselves in wake of a disaster. Such people contribute only to the reducing the efficacy of mitigation effort. Such people should be identified and dealt sternly with by the Police and other authorities involved in mitigation.

#### Specific Actions Required by Public at Large and Communication to them

An emergency situation may call for the public at large to act on information such as evacuation to a particular area or confinement of themselves in their houses with all windows closed. The dissemination of such information shall be made using media such as Radio, Television, Mass-SMS, Mobile Public Announcement System.

#### Introduction

#### **IV.Emergency Response Plan**

The emergency response plan is the detailed plan to be executed in case of an emergency. The emergency response plan is drawn for the emergency scenario under consideration.

No two emergency scenarios are alike and as such the possible emergency scenarios at any given time can be infinite. Laying down common emergency response plan is not possible and also not advisable as different scenarios will call for different plans.

It is therefore prudent to begin with emergency response planning for most critical emergency scenarios. The emergency response planning can be put to test during the mock drill. This should ensure preparation of emergency response plan for new emergency scenario every time a mock drill is conducted. Prestels has developed PAC analysis for emergency response planning, which is attached and explained in Part C of this document. The PAC analysis yield emergency response plan for the emergency scenario under consideration.

#### **Enforcement and Implementation of Plan**

The responsibility for enforcement and implementation of the plan rests with the District Collector. In event of offsite emergency, the district collector will declare the emergency via Annexure I and communicate the same to the authorities and agencies listed there under along with other responders. The various authorities and agencies shall discharge their responsibility and carry out all such tasks that the situation on had may call for.

An emergency scenario is an undesired event that may occur. Resources both material and intellectual are required to mitigate the possible effect of an emergency scenario. The people involved in applying the resources for mitigation should discharge their expected roles and responsibilities intelligently and faithfully. Thus, we must in advance keep the resources and roles-responsibilities mapped to the emergency scenario.

#### Discharging and Co-Ordination of Roles and Responsibilities

It is of utmost importance that all authorities and stakeholders involved in disaster mitigation discharge their roles and responsibilities in letter and spirit. It is for this purpose necessary to ensure that the authorities and stakeholders know with full awareness their roles and responsibilities.

#### V. Post-Emergency Restoration

#### **Calling Off Emergency**

Having satisfied himself that the emergency is over, the District Collector shall call off the emergency. The calling off of emergency shall restore life to normaly and curtail the spread of misinformation, rumours giving opportunism for exploitation of the situation. The emergency camps set up shall continue to function after calling off of emergency till they provide all the needed support to the aggrieved.

#### **Controlling of Long-Term Damage**

The emergency may affect natural resources of soil, water and air. The PCB unit shall make assessment of the areas adjoining the emergency scene where such damage may take place. The PCB shall submit their report to the District Collector. The District Collector shall act on the information and recommendation provided by the PCB.

## **Investigation Studies and Reporting**

The District Collector shall appoint a committee constituting the necessary stakeholders who may be necessary to carry out through investigation into the emergency as well as introspection of the response actions and measures. The investigation report shall become a part of Chapter 10 of this report. The lessons drawn from the investigation shall be incorporated into this plan in the appropriate chapters.

#### **Compensation and Settlements**

The compensation and settlements shall be carried out by the District Collector. The District Collector shall process compensations as claimed under the PLIA.

#### VI. Mock Drills

Mock drills are exercises to test the effectiveness of plan Mock drills must be carried out at periodic intervals. The lessons drawn from Mock drills must be used to improve the plan.

S1. No.	Response Agency	Response	Observation and Comments	Remarks
1.	Factory	Affected people not being taken care of till ambulance arrives	brought to fresh air	
2.	District Collector	Response measures unaffected by change in wind direction	and areas affected	Technical experts should be consulted in case of doubt.
3.	Fire Brigade	Water was directed near the bullet.	Water should be directed at the source of chlorine leakage.	
4.	Ambulance	Responded immediately	Response time is good	
5.	District Collector	Most responders informed after emergency had been called off.	All responders should be informed when emergency is called off.	

#### **Emergency Response Data Sheets (ERDS)**

## **ERDS for Ammonia**

- Organic gas, Colorless, Strong Pungent Odor, Stable (Reactivity)
- Flammable: NO
- Flash point: N.A
- LEL-UEL: 16-25%

- Auto ignition temperature: 651 C
- Toxic: YES, Highly
- IDLH: 300 (ppm)
- 210 (mg/m3)

# **General Response Actions**

- On-site: Stop discharge. Wear SCBA (self contained breathing apparatus)
- EVACUATE area
- Isolate the source of leakage.
- Isolation Distance: 158 m cross wind direction Downwind distance: 104 m
- The figures in above table are not true values but arbitrary for demonstrating the concept.

## Fire

## **Suggested Actions**

- Stop flow of gas
- Use water spray or fog

#### **Cautions:**

• Keep the containers cool by spraying water if exposed to heat of flame.

#### PPE:

- Use self-contained breathing apparatus and encapsulating chemical protective clothing.
- Use goggles, gas mask and protective clothing in case of liquid ammonia.

# Medical

# Dangers

- Dangerous if inhaled or on skin or ingested.
- 700 ppm causes eye irritation and permanent injury may result if prompt medical measures are not taken.
- 5000 ppm may cause death from inflammation or edema of the larynx Contact of

the liquid with skin freezes the issued and causes the caustic burns symptoms.

# Suggested Actions:

- Move to fresh air.
- If inhaled and breathing is difficult, provide artificial respiration or oxygen.
- If in skin and eyes, then wash the affected area with plenty of water for 15 minutes.
- Remove contaminated clothing while continuing to apply water, being careful not to tear the skin.
- In case of ingestion, if victim is conscious give large quantities of water or weak acids citrus juice or diluted vinegar.

# Antidotes: NA

# Pollution

- Ammonia may pose danger if it enters water intake. In case of spillage, contain leaking liquid or earth, allow evaporating, diluting the vapors with plenty of water.
- Seal all waste in vapor right plastic bags for eventual disposal because ammonia is highly toxic to fish & aquatic life.

# **Chemical Information**

# a. Chemical Reactivity

# **Reactivity with Water:**

Ammonia is soluble in water. Its solubility in water is 30.

# **Reactivity with Common Materials:**

Ammonia is chemically stable. However it is incompatible with strong oxidizers and some materials like calcium hypochlorite, gold, mercury, silver, halogen and acetaldehyde.

Ammonia reacts with silver chloride. silver nitrate silver azide, chlorine, bromine, iodine, heavy metals and their compounds. Incandescent reaction occurs when heated with calcium.

Ammonia can have hazardous reaction products. Ammonia reacts with silver chloride, silver nitrate, silver azide and silver oxide to form explosive silver nitride Ammonia is easily soluble in alcohol. Ammonia and air in a fire can detonate. Ammonia can produce potentially violent or explosive reactions on contact with interhalogens. It forms sensitive explosive mixture with air and hydrocarbons.

**Polymerization**: Hazardous polymerization will not occur.

# **Combustion Products**

Ammonia emits toxic fumes of NH3 & NOX.

# **Chemical Properties**

- Physical State: Liquified
- Boiling Point 33.4 C
- Freezing Point: -77.77
- Vapor Denisty: 0.60
- Specific Gravity: 0.771
- TLV: 25 ppm 18 mg/m3.

# **ERDS For Chlorine**

- Yellow Green Color, Gas, Pungent Odor, Corrosive
- Flammable : NO
- Flash Point : N.A.
- LEL UEL : N.A.
- Toxic : YES
- IDLH : 10 ppm
- TLV : 1 ppm

# **General Response Actions**

- **On-Site**: Stop Chlorine leakage, if possible safely. Wear Self Contained Breathing Apparatus (SCBA) and use Chlorine Emergency Kit.
- **Inform** people to stay confined indoors with doors and windows tightly shut and ventilators and ACs off.
- Shelter and Confine: unhoused people to an indoor area outside likely cloud

travel path.

- Use water spray/fog to disperse and dilute vapors.
- Collect run off for disposal as potential hazardous waste.

# **Evacuation Zone Dimensions**

SI. No	Mass of Release (tones)	Appx. Vulnerable Distance (m) (in the direction of wind)	Appx. Time to reach Max Vulnerable dist. (min)
1	1	3000	5
2	5	5000	8
3	10	6000	10

#### Fire

- Chlorine is non flammable, so the cascading effect in case of fire explosion is absent. Hence, no Domino Effect.
- However, it amy ignite or explode on contact with combustible materials.

# **Suggested Actions**

- Use water, spray/fog as extinguishing medium.
- Do not use dry chemicals, carbon dioxide or halogenated extinguishing agents.
- For large fires-Flood with fine watger spray.

## Medical

# Dangers

- Poisonous if inhaled. Fatality may be caused due to inhalation when concentration in air is greater than 10 ppm (IDLH)
- Low level exposures to Chlorine in air will cause eye/skin/airway irritation, sore throat and cough.
- At higher levels of exposure, signs and symptoms may progress to chest tightness, wheezing, dyspnea, and bronchospasm.
- Low level exposures to Chlorine gas will cause eye and skin irritation. Higher
- exposures may result in severe chemical burns or ulcerations. Exposure to
- compressed liquid Chlorine may cause frostbite of the skin and eyes.

# Suggested Actions:

• Inhalational Chlorine poisoning can be treated with supportive care and can

include administration of humidified oxygen, bronchodilators and airway management.

• Pulmonary edema may be delayed and, therefore, patients should be monitored for up to 24 hours following severe inhalation exposures.

#### **Antidotes:**

N.A.

#### Pollution

- 1. A leak of Chlorine vapor poses a significant air pollution hazard.
- 2. Chlorine is heavier than air and dispersion is slow. Hence, state of emergency will last longer.

## **Chemical Information**

#### **Chemical Reactivity**

#### **Reactivity With Water**

Chlorine is sparingly the soluble in water. The water solubility of Chlorine is 0.7% 20 C.

#### **Reactivity with Common Materials:**

Chlorine is aggressive to certain non-metallic material like natural rubber and many plastics; therefore equipment and houses must be suitable for Chlorine. Chlorine is chemically stable. It is incompatible with strong oxidizers. It does not react with common materials but may react with oxidizing materials. Olefinic impurities may lead to narcotic effect or it may act like a simple Asphyxiant.

Polymerization: Hazardous polymerization will not occur

#### **Combustion Products**

Not Applicable since Chlorine is not flammable

#### **Properties**

٠	Physical State at 15 C and 1 atm	:	Gas
•	TLV	:	1 ppm
•	IDLH	:	10 ppm
•	MOLECULAR WEIGHT	:	70.906
•	BOILING POINT	:	-34Degree Celsius

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•	FREEZING POINT	:	-101 Degree Celsius
•	VAPOR PRESSURE	:	5168 MM Hg (a) 21 Degree Celsius
	VADOD DENOTV (a; -1)		0.40

- VAPOR DENSITY (air=1) : 2.49
- LIQUID DENSITY (water=1) : 1.56

# **ERDS for High Speed Diesel**

- Liquid, Stable (Non Reactive, Non Corrosive)
- Flammable : YES
- Flash Point: >62 C
- Auto ignition temperature: 210 C
- TOXIC: NO
- IDLH: N.A.

# **General Response Actions**

- On-site: Stop Discharge
- Wear PPE (Personal Protective Equipment), namely, gloves, goggles and fire resistant suit.
- If HSD is spilt in dyked area, spread foam over spillage to prevent HSD from catching fire.
- Evacuation Zone Dimensions for 20 KL tank failure.

#### Fire

# **Suggested Actions**

- Spread Foam over spillage and restrict the spillage to the dykes.
- In case of rupture of IPG pipeline or catastrophic failure of bullet tank, Start sprinklers and fire hydrants to keep adjacent tanks cool.
- Adjacent tanks may explode due to heat from fire, Cool exposed tanks with water.

# **Cautions:**

- If HSD is spilt in dykes and has not caught fire, the n extinguish naked flames.
- Be careful and exercise caution. HSD is not easily ignitable and fire will occur only in extremely negligent condition.
- **PPE**: Wear gloves and fire protective suits. Use safety goggles.

### Medical

#### Dangers

- HSD is non reactive and non corrosive.
- NOT dangerous to life and health on exposure.

#### Suggested Actions:

- Remove wet clothes and shoes to avoid fire risk.
- If in eyes, open and flush with plenty of water.

## Antidotes: N.A.

#### Pollution

HSD may pose danger if it enters water intake.

#### **Chemical Information**

#### **Chemical Reactivity**

#### **Reactivity With Water:**

HSD is stable and no reactive

#### **Reactivity with Common Materials**:

HSD is stable, non reactive and non corrosive.

### **Polymerization:**

Polymerization will not occur.

#### **COMBUSTION-PRODUCTS**

- CO2 Carbon dioxide
- H2O Water Vapor.

#### **Chemical Properties**

•	Physical State at 15 C and 1 atm	:	Liquid
•	Boiling Point Range	:	up to 370 C
•	Kinematic Viscosity	:	2-7-5 centistokes at 38 C
•	Auto Ignition Temperature	:	210 C

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# **ERDS for LPG**

•	Flammable	:	Yes
•	Flash Point	:	-104 (propane), -60 (butane)
•	LEL - UEL	:	1.9 - 9.5 %
•	Auto ignition temperature C	:	466 propane, 405 butane.
•	Toxic	:	YES, Asphyxiant, Liquid Frostbite
•	IDLH	:	19,000 ppm (LEL)

#### **General Response Actions**

- On-site: Stop discharge Wear Respirator. Hold wet cloth on nose if it's a short time activity and respirator is not available.
- EVACUATE: area Isolate the source of leakage
- INFORM: people to run cross wind.
- Do not allow any spark producing activity in the vicinity and extinguish all naked flames.
- In case of fires, start sprinklers and fire hydrant systems.

#### **Evacuation Zone Dimensions**

Isolation Distance: 158 m cross wind direction Downwind distance: 104 m

#### Fire:

#### **Suggested Actions**

- In case of jet fire, start fire hydrant system to cool tank; CO2, dry chemical powder, water spray for fire extinguishing.
- In case of rupture of LPG pipeline or catastrophic failure of bullet tank, start sprinklers and fire hydrants to keep adjacent tanks cool.
- Adjacent tanks may explode due to heat from fire. Cool exposed tanks with water.

## **Cautions:**

- LPG is approximately twice as heavy as air when in gas form and will tend to sink to the lowest possible level. Hence explosive environment lasts longer.
- This vapor may explode if proper care is not taken.

## PPE:

Wear gloves and fire protective suit with self-contained breathing apparatus. Use safety goggles and gas mask.

# Medical

## Dangers

- Dangerous if inhaled or if skin exposed.
- Concentration greater than 10% causes dizziness in few minutes.
- High concentration causes asphyxiation.
- Liquid LPG on skin causes frostbite.
- Vapor/air mixtures arising from leakages may be ignited some distance from the point of escape and the flame can travel back to the source of the leak.

#### **Suggested Actions:**

- Move to fresh air.
- If inhaled and breathing is difficult, give artificial respiration.
- Remove (contaminated) wetted clothing and shoes.
- Wash affected area with plenty of water.
- If in eyes, flush with plenty of running water for 15 minutes.

# Antidotes: N.A.

#### Pollution

- A leak of LPG vapor is unlikely to pose any significant ground or water pollution hazards.
- LPG is approximately twice as heavy as air when in gas form and will tend to sink to the lowest possible level and may accumulate in cellars, pits, drains etc.

#### **Chemical Information**

#### **Chemical Reactivity**

#### **Reactivity With Water:**

Insoluble in water.

#### **Reactivity with Common Materials:**

LPG is aggressive to certain non-metallic material like natural rubber and many plastics; therefore equipment and houses must be suitable for LPG. LPG is chemically stable. It is incompatible with strong oxidizers. It does not react with common materials but may react with oxidizing materials. Olefinic impurities may lead to narcotic effect or it may act like a simple Asphyxiant.

**Polymerization**: Hazardous polymerization will not occur.

## **Combustion Products**

- **CO2**: Carbon dioxide.
- **H2O**: Water Vapor.
- **CO**: Carbon Monoxide.

#### **Chemical Properties**

- **Physical State** at 15 C and 1 atm : Gas
- Molecular Weight: 44.09
- **Boiling point** 40 C
- Vapor Density (Air=1): 1.5
- Specific Gravity (water=1): 0.51-0.58
- **TLV**: 1000 ppm 1800mg/m3
- Vapor pressure of propane at 15 C 7 bar (100 psi)
- Vapor pressure of butane at 15 C 2 bar (30 psi)

#### **ERDS for Liquefied Natural Gas (LNG)**

- Flammable : Yes
  Flash Point : Methane (67-97), Ethane (3-29), Propane (0-4)
  LEL UEL : 1.9 9.5 %
- Auto ignition temperature C : 999 ° F (537 ° C)

• Toxic	:	No, however large amount of LNG vapor are
		released as a result of a spil or leak, the LNG
		vapors may displace air from the area and
		cause loss of consciousness, serious injury,
		or death.
• IDLH	:	Oxygen less than 19.5 %

#### **General Response Actions**

- On-site: Stop discharge Wear Respirator. Hold wet cloth on nose if it's a short time activity and respirator is not available.
- EVACUATE: area Isolate the source of leakage
- INFORM: people to run cross wind.
- Do not allow any spark producing activity in the vicinity and extinguish all naked flames.
- In case of fires, start sprinklers and fire hydrant systems.

#### **Evacuation Zone Dimensions**

Isolation Distance: 158 m cross wind direction Downwind distance: 104 m

#### Fire:

#### Suggested Actions

- In case of jet fire, start fire hydrant system to cool tank; CO2, dry chemical powder, water spray for fire extinguishing.
- In case of rupture of LNG pipeline or catastrophic failure of bullet tank, start sprinklers and fire hydrants to keep adjacent tanks cool.

• Adjacent tanks may explode due to heat from fire. Cool exposed tanks with water. **Cautions:** 

• Natural gas is approximately twice as heavy as air when in gas form and will tend to sink to the lowest possible level. Hence explosive environment lasts longer.

• This vapor may explode if proper care is not taken.

## PPE:

Wear gloves and fire protective suit with self-contained breathing apparatus. Use safety goggles and gas mask.

# Medical

## Dangers

- Dangerous if inhaled or if skin exposed.
- Concentration greater than 10% causes dizziness in few minutes.
- High concentration causes asphyxiation.
- Liquid LPG on skin causes frostbite.
- Vapor/air mixtures arising from leakages may be ignited some distance from the point of escape and the flame can travel back to the source of the leak.

#### **Suggested Actions:**

- Move to fresh air.
- If inhaled and breathing is difficult, give artificial respiration.
- Remove (contaminated) wetted clothing and shoes.
- Wash affected area with plenty of water.

#### Antidotes: N.A.

#### Pollution

- A leak of LNG vapor is unlikely to pose any significant ground or water pollution hazards.
- LNG is approximately twice as heavy as air when in gas form and will tend to sink to the lowest possible level and may accumulate in cellars, pits, drains etc.

## **Chemical Information**

#### **Chemical Reactivity**

#### **Reactivity With Water:**

Insoluble in water.

# **Reactivity with Common Materials:**

LNG is aggressive to certain non-metallic material like natural rubber and many plastics; therefore equipment and houses must be suitable for LNG. LNG is chemically stable. It is incompatible with strong oxidizers. It does not react with common materials but may react with oxidizing materials. Olefinic impurities may lead to narcotic effect or it may act like a simple Asphyxiant.

**Polymerization**: Hazardous polymerization will not occur.

# **Combustion Products**

- **CO2**: Carbon dioxide.
- **H2O**: Water Vapor.
- **CO**: Carbon Monoxide.

# **Chemical Properties**

- **Physical State** at 15 C and 1 atm : Gas
- Molecular Weight: 44.09
- **Boiling point** =  $-162 \circ C$
- Vapor Density (Air=1): 0.0435-0.0481
- **Specific Gravity** (water=1): 0.43
- **TLV**: 1000 ppm 1800mg/m3
- As low as 4.0% depending upon LNG composition; the higher the ethane content, the lower the lower explosive content.
- As high as 15.0% depending upon LNG composition; the higher the methane content, the higher the higher explosive content.

# ERDS For Naphtha

- Colorless watery Liquid with gasoline like odor, Stable (Non Reactive, Non Corrosive)
- Flammable: YES
- **Flash Point:** > 100 F
- Auto ignition temperature: 444 F
- **TOXIC:** Yes
- **IDLH:** 1000 ppm

# **General Response Actions**

- On-site: Stop Discharge
- Wear PPE (Personal Protective Equipment), namely, gloves, goggles and fire resistant suit.

• If Naptha is spilt in dyked area, spread foam over spillage to prevent Naptha from catching fire.

# **Evacuation Zone Dimensions**

- For 20 KL tank failure
- To avoid fatality Atleast 7 m
- To avoid injury Atleast 9 m.

## Fire

## **Suggested Actions**

- Spread Foam over spillage and restrict the spillage to the dykes
- Adjacent tanks may explode due to heat from fire. Cool exposed tanks with water.

## **Cautions:**

- If Naphtha is spilt in dykes and has not caught fire, the n extinguish naked flames.
- Be careful and exercise caution. Naphtha is easily ignited by heat, sparks or flames.

#### PPE:

Wear gloves and fire protective suits.

Use safety goggles.

# Medical

#### Dangers

- Naphtha is non reactive and non corrosive.
- It is Immediately Dangerous to Life and health (IDLH: 1000 ppm)

#### Suggested Actions:

- Remove wet clothes and shoes to avoid fire risk.
- If in eyes, open and flush with plenty of water.

## **Antidotes: NA**

#### Pollution

Naptha may pose danger if it enters water intake.

# **Chemical Information**

# A Chemical Reactivity:

# **Reactivity with Water:**

HSD is stable and non reactive.

#### **Reactivity with Common Materials.**

HSD is stable, no reactive and non corrosive.

#### **Combustion Products**

- CO2: Carbon dioxide
- H2O: Water Vapor

#### **Chemical Properties**

- Physical State at 15 C and 1atm: Liquid
- Boiling Point Range: 130-155 C
- Auto Ignition Temperature: 444 F

#### **ERDS For Vinyl Chloride Monomer**

- Colorless gas with sweet odor, Stable (Reactivity)
- Flammable: YES
- Flash Point: 110.0 F
- LEL UEL: 3.6 33%
- Auto ignition temperature : 882.0 F
- Toxic: at high concentrations

#### **General Response Actions**

- On-site: Stop discharge. Wear Respirator. Hold wet cloth on nose if it's a short time activity and respirator is not available.
- EVACUATE area. Isolate the source of leakage.
- INFORM people to run cross wind.
- Do not allow any spark producing activity in the vicinity and extinguish all naked flames.
- In case of fires, start sprinklers and fire hydrant systems.
- Isolation Distance: 167 m cross wind direction. Downwind distance: 112 m

#### **Evacuation Zone Dimensions**

#### Fire

## **Suggested Actions**

- Do not extinguish fire unless flow can be stopped. use water in flooding quantities as fog. Cool all affected containers with flooding quantities of water. Apply water from as far a distance as possible.
- In case of rupture of VCM pipeline or catastrophic failure of bullet tank, start sprinklers and fire hydrants to keep adjacent tanks cool.
- Adjacent tanks may explode due to heat from fire. Cool exposed tanks with water.

#### **Cautions**:

- VCM vapors are heavier than air and will tend to sink to the lowest possible level. Hence explosive environment lasts longer.
- This vapor may explode if proper care is not taken.

**PPE:** Wear gloves and fire protective suit with self-contained breathing apparatus.

Use safety goggles and gas mask.

#### Medical

#### Dangers

- Dangerous if inhaled or if skin exposed.
- High Concentration causes dizziness in few minutes.
- Liquid VCM on skin may cause frostbite.
- Vapor/air mixtures arising from leakages may be ignited some distance from the point of escape and the flame can travel back to the source of the leak.

#### Suggested Actions:

- Move to fresh air.
- In inhaled and breathing is difficult, give artificial respiration.
- Remove (contaminated) wetted clothing and shoes.
- Wash affected area with plenty of water.
- If in eyes, flush with plenty of running water for 15 minutes.

#### **Antidotes: NA**

#### Pollution

- A leak of VCM vapour is unlikely to pose any significant ground or water pollution hazards.
- VCM is heavier than air when in gas form and will tend to sink to the lowest possible level and may accumulate in cellars, pits, drains etc.

## **Chemical Information**

## A Chemical Reactivty:

## **Reactivity With Air:**

Long storage in contact with air increases the concentration of the poly peroxides to hazardous levels.

## **Reactivity with Common Materials:**

Many oxidizing agents apparently initiate polymerization (oxides of nitrogen, O2, etc.). VCM may react with very hot water or steam to produce toxic fumes.

**Polymerization:** VCM is peroxidizable. It forms explosive polymeric peroxides in contact with air. Long storage in contact with air increases the concentration of the poly peroxides to hazardous levels

# **Combustion Products**

VCM forms highly toxic combustion products such as hydrogen chloride, phogenic, and carbon monoxide.

# **Chemical Properties**

- 1. Physical State at 15 C and 1atm: Liquid
- 2. Molecular Weight: 62.5
- 3. Boiling Point: 7.0 F at 760 mm Hg
- 4. Specific Gravity: 0.969 at 8.6 F

# Vulnerability Information for the Chemicals Having Off-Site Consequence

The following pages provide the vulnerability information for various accident scenarios as described under the hazard analysis section. The analysis is quite conservative

and the actual results are expected to vary considerably vis-a-vis the predictions. These are only indicative, planning tools.

- F/2: Atmospheric Stability Condition F, Wind Velocity 2 m/s.
- D/3: Atmospheric Stability Condition D, Wind Velocity 3 m/s.

# Chemical – LPG

S1.		BPG	CL	Caltex		
No	Details	D3	F2	D3	F2	
1	Quantitiy, MT	650	650	8500	8500	
2	Storage temp.deg.C	35	35	-28	-28	
3	Max Ambient temp.deg.C	40	40	40	40	
4	Initial Flash Quantitiy, MT	130	130	170	170	
5	Quantitty of materilal evaporated, MT	141.9	141.9	134.5	134.5	
	Flammable Vapour dispersion					
1	LFL 1.9%	1.9	1.9	1.9	1.9	
2	Downwind dist.m	119	198	51	75	
3	Max.evacuation zone width, m	120	288	48	71	
4	Containment arr.time, min	1.0	3.5	1.0	2.0	
5	Containment dep.Time, min	49	53	>1 Hour	> 1 Hour	
	Vapour Cloud Explosion					
1	0.1 bar overpressure radius, m	176-323	265-460	151-253	223-363	
2	0.3 bar overpressure radius, m	130-176	206-265	121-151	182-223	
3	1.0 bar overpressure radius, m	1-130	1-206	1-121	1-182	
	Fireball (BLEVE)					
1	Diameter of fireball, m	486	486			
2	Duration of fireball, sec	25	25		spheric Not under	
3	Thermal load radius, m			pressur	e, Hence	
4	Injury 5kw/m2	971	971	BLEVE not considered.		
5	Fatality 10Kw/m2	688	688			

# Chemical – VCM

S1. No	Details	Sahu	puram	DCW,VCM	
		D3	F2	D3	F2
1	Quantitiy, MT	2400	2400	4000	4000
2	Storage temp.deg.C	35	35	35	35
3	Max Ambient temp.deg.C	40	40	40	40
4	Initial Flash Quantitiy, MT	480	480	480	480
5	Quantitty of materilal evaporated, MT	317.5	317.5	323.5	323.5

# Flammable Vapour disperson

1	LFL 1.9%	3.6	3.6	3.6	3.6
2	Downwind dist.m	177	306	185	310
3	Max.evacuation zone width, m	264	620	304	612
4	Containment arr.time, min	2.25	4.0	1.5	4.5
5	Containment dep.Time, min	25	> 1 Hour	49	> 1 Hour

# Vapour Cloud Explosion

1	0.1 bar overpressure radius, m	197-207	300-339	179-214	302-347
2	0.3 bar overpressure radius, m	132-179	178-300	123-179	168-302
3	1.0 bar overpressure radius, m	1-132	1-178	1-123	1-168

# Fireball (BLEVE)

1	Diameter of fireball, m	474	474	532	532
2	Duration of fireball, sec	24	24	27	27
3	Thermal load radius, m				
4	Injury 5kw/m2	919	919	1000	1000
5	Fatality 10Kw/m2	631	631	704	704

# Chemial - Chlorine

S1.No	Details	Sahu	puram-I	Sahupuram-II		
51.10		D3	F2	D3	F2	
1	Quantitiy, MT	50 T		50 T 50 '		Т
2	Storage temp.deg.C	-	-	-	-	
3	Max Ambient temp.deg.C	-	-	-	-	
4	Initial Flash Quantitiy, MT	-	-	-	-	
5	Quantitty of materilal evaporated, MT	-	-	-	-	

# **Toxic Vapour dispersion**

1	IDLH, ppm	10	10	10	10
2	Downwind dist.m	1600	2400	1100	1500
3	Max evacuation zone width, m	540	1020	540	1020
4	Containment arr.time, min	6.5	16.5	6.5	16.5
5	Containment dep.Time, min	> 1 Hour	> 1 Hour	> 1 Hour	> 1 hour

# **Chemical-HSD**

S1. No	Pool Fire Hazard	DCW, Sahapuram	Sterlite	IOCL
1	During pool radius, m	1.8	4.75	28
2	Flame load radius, m	6	10	37
3	Themal load radius, m			
4	Injury 5kw/m2	13	25	130
5	Fatality 10kw/m2	7.5	14	64

# Chemical - Ammonia

S1. No	Details	Spic,	SPIC	SPIC,	AIT
1	Quantitiy, MT	3000	3000	10,000	10,000
2	Storage temp.deg.C	0	0	-33	-33
3	Max Ambient temp.deg.C	40	40	40	40
4	Initial Flash Quantitiy, MT	600	600	2000	2000
5	Quantitty of materilal evaporated, MT	100	100	54	54

S1. No	Toxic Vapour dispersion	D3	F2	D3	2
1	IDLH,ppm	300	300	300	300
2	Downwind dist.m	2200	2700	1500	1820
3	Max.evacuation zone width, m	540	840	430	520
4	Containment arr.time, min	9.0	19.0	12.5	23.5
5	Containment dep.Time, min	>1 Hour	> 1 Hour	> 1 Hour	> 1 Hour

# Flammable Vapour disperse

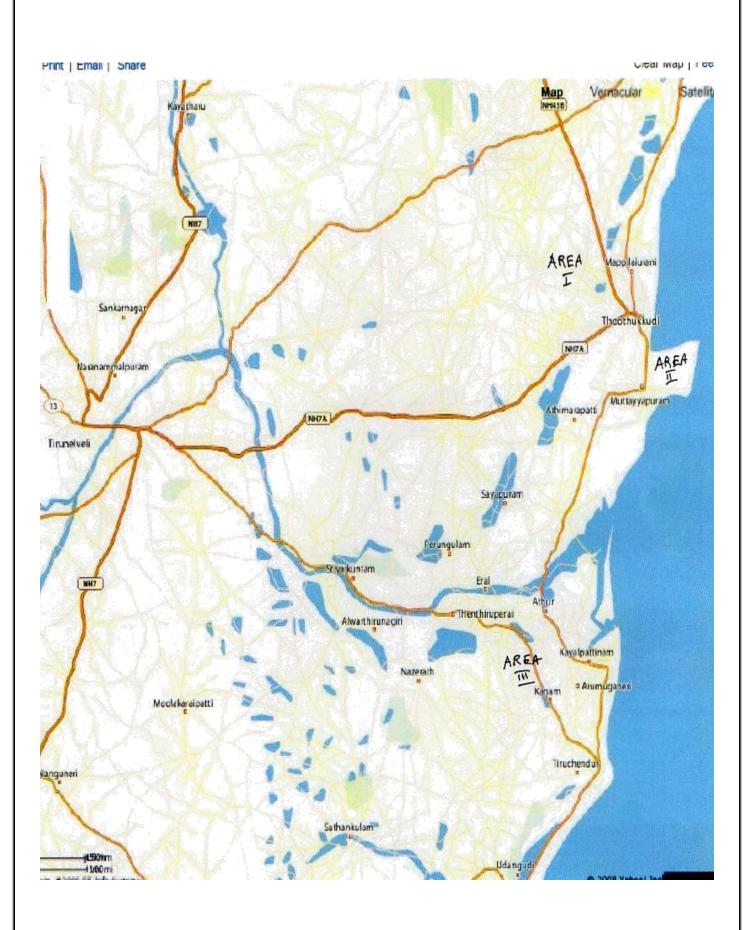
1	LEL %	16	16	16	16
2	Downwind dist.m	51	95	36	67
3	Max.evacuation zone width, m	Mar-00	107	55	119
4	Containment arr.time, min	0.5	1.0	1.0	2.0
5	Containment dep.time, min	>1 Hour	> 1 Hour	> 1 Hour	> 1 Hour

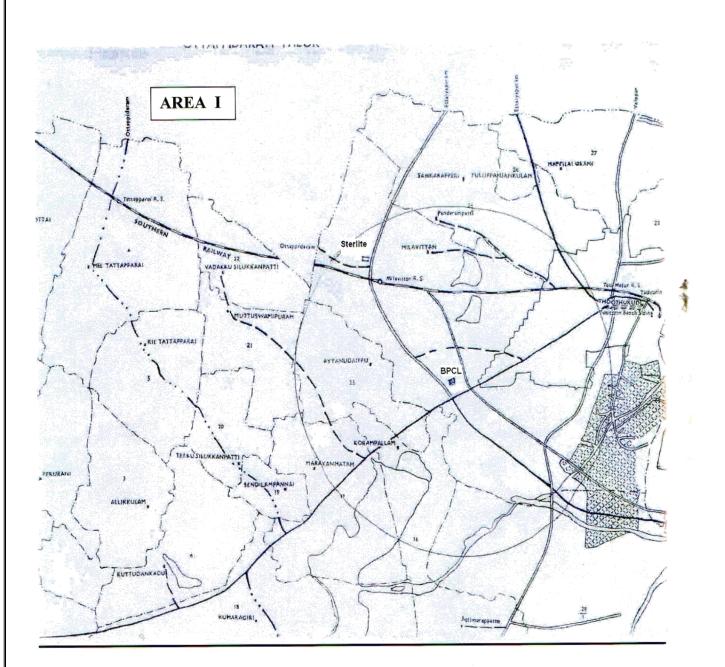
# Vapour Cloud Explosion

1	0.1 bar overpressure radius, m	83-143	136-214	59-101	92-147
2	0.3 bar overpressure radius, m	61-83	104-136	42-59	69-92
3	1.0 bar overpressure radius, m	0-61	0-104	0-42	0-69

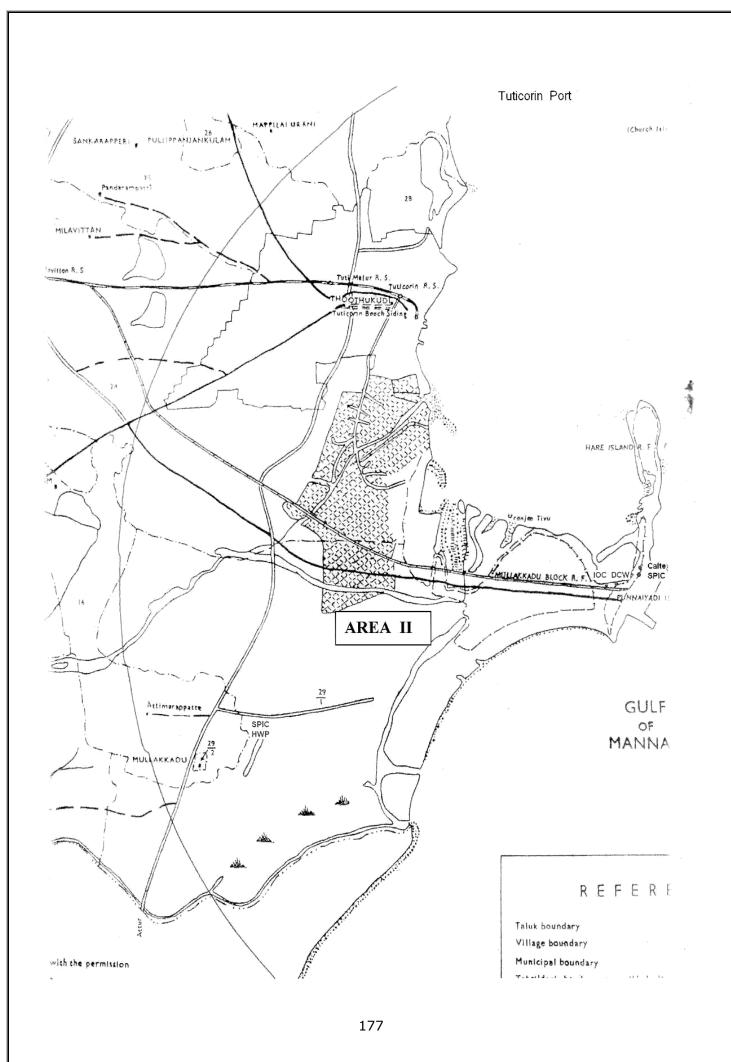
# Chemical-Naphtha

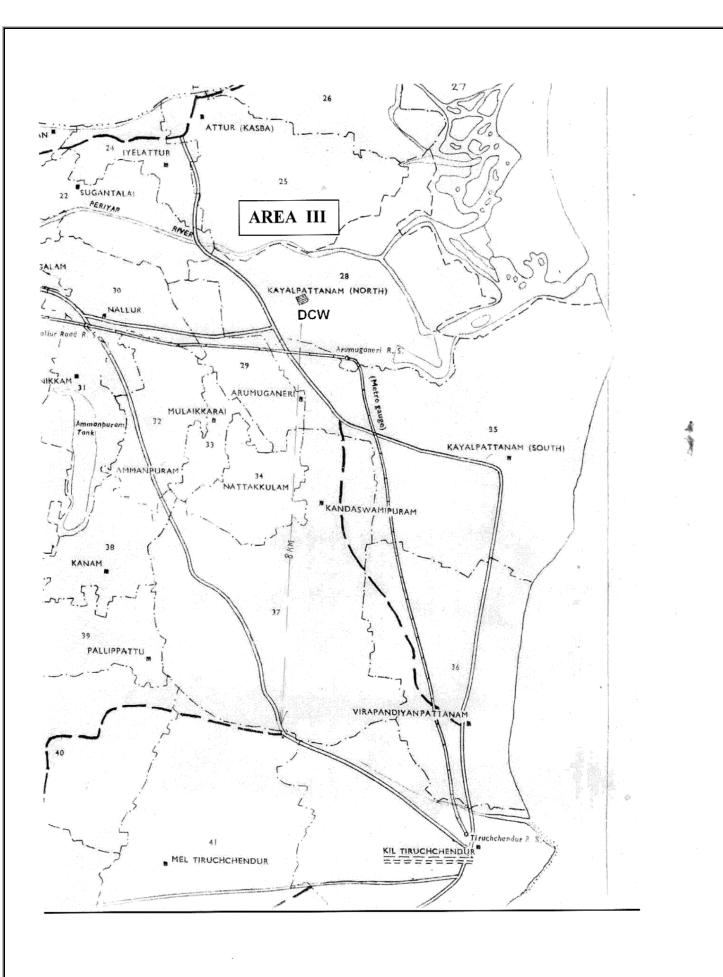
S1. No	Pool Fire Hazard	SPIC, SPIC Nagar	IOCL
1	Burning pool radius, m	3.5	28
2	Flame height, m	31	37
3	Thermal load radius, m		
4	Injury 5 kW/m2	73	130
5	Fatality 10 KW/m2	54	64





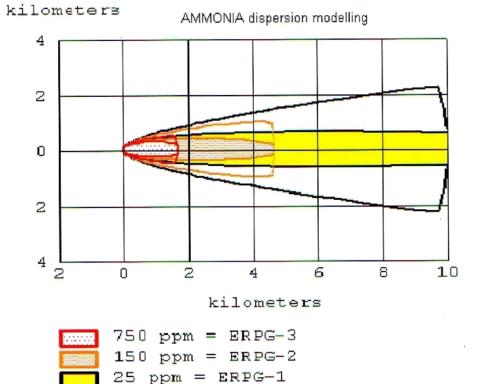
A 21





A 23

# **DISPERSION MODELS (ALOHA Outputs)**



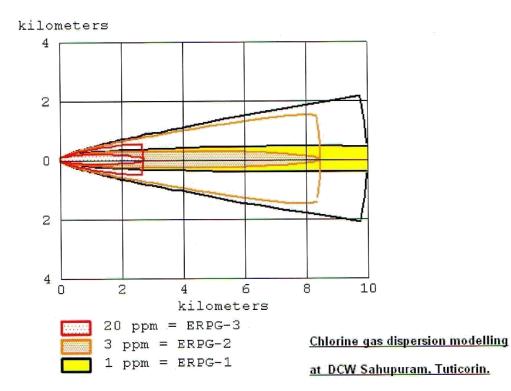
#### SPIC AMMONIA IMPORTATION TERMINAL at Tuticorin Harbour site

Tank height -- 19 mts.: Dia -- 33 mts. Leaking pipe dia -- 6 in. Wind speed -- 3 mts/sec.; RH -- 70% ; Ammonia qty. 5000 tons

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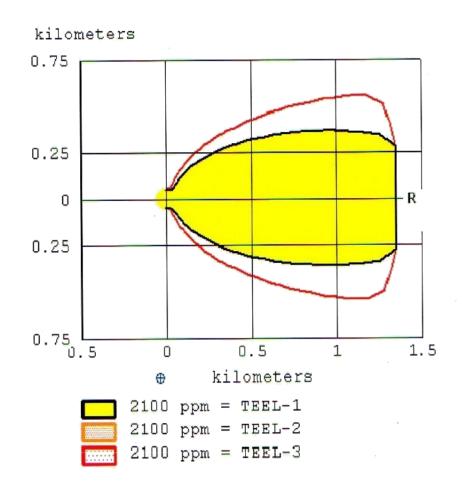


Tank Dia. -- 2.5 mts.; Length -- 10 mts.; Leaking pipe dia. -- 2 in. Wind speed -- 3 mts/sec.; RH -- 75%.; Chlorine qty. -- 50 tons.

A (8)

A

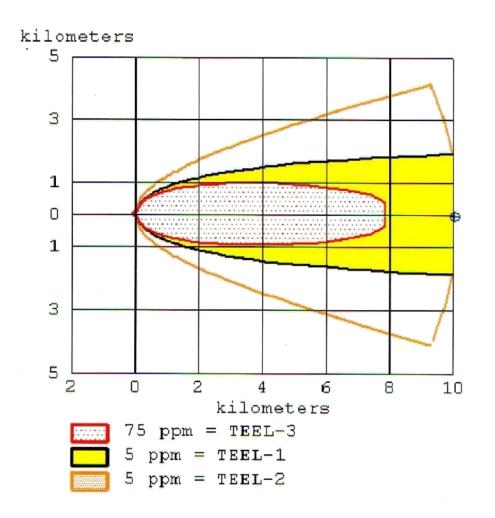
ALC: NO



Barath Petroleum Corporation, LPG botteling plant, Tuticorin

Spherical Tank Dia.= 14 Mts. Wind speed = 3 mts/min Leakage opening = 15 cm Quantitiy od LPG = 680 tons RH = 75% Leakage site = Bottom

Time to reach the point R = 60 min.



DCW ltd. VCM storage terminal at Tuticorin Harbour

Spherical Tank Dia = 21.24 mts.; Capacity = 5000 Cu.Mts Wind speed = 3 mts/sec ; Humidity = 50% Leakage at the bottom thro 8 in pipe. VCM storage = 4000 tons.

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## XI. RECOVERY AND RECONSTRUCTION PLAN

#### Introduction

The recovery and reconstruction plan include the following:

- There should be the provision of damage insurance/loans and grants.
- Temporary housing should be provided to the disaster hit people and affected areas.
- There should be long term medical care that is to be provided.
- Unemployment insurance is to be made available.
- The public is to be informed regarding the disasters and its repercussions.
- There should be awareness campaigns and health/safety education should be provided.
- The reconstruction work should commence in order to bring normalcy to the locality.
- The NGOs and the community should make sure that regular counseling programmes are conducted.
- Economic impact studies are to be conducted to get a fair idea of the situation.
- Builders/carpenters are to be trained so that there can be speedy reconstruction of the damaged property and infrastructure.

#### Damage Assessment

For this purpose the Revenue Divisional Officer concerned should draw a proforma if not already done and allot staff required to carry out an intensive enumeration of (i) the people dead, (2) cattle dead (3) damages to crops (4) damages to houses and (5) damages to other operations etc., A duty chart should be drawn by the Revenue Divisional Officer concerned involving Panchayat Union and Revenue Staff for assessing damages in special areas.

# Team for assessing damages to huts, if the damage is more than 50 huts in a village.

S1. No	Designation of the official	Position	
1.	Tahsildar (SSS) of concerned taluk.	Head	
2.	Revenue Inspector concerned.		
3.	Village Administrative officer concerned	– Member	

S1. No	Designation of the official	
4.	Overseer of the block concerned	

# Team for assessing damage to pucca buildings and infrastructure in Villages.

S1. No	Designation of the official	Position
1.	Assistant Engineers of the block concerned.	Head
2.	Assistant Engineer, Highways concerned.	
3.	Revenue Inspector concerned. Member	
4.	Village Administrative officer concerned.	

# Team for Assessing damage to pucca buildings and infrastructure in Corporation/ Municipal area

S1. No	Designation of the official	Position
1.	Assistant Engineers of the Municipal Corporation / Municipality concerned.	Head
2.	Assistant Engineer, Highways concerned.	
3.	Revenue Inspector concerned. Member	
4.	Overseers in Panchayat union.	
5.	Village Administrative officer concerned.	

## Team for Assessing damage to pucca buildings and infrastructure in Town Panchayat areas

S1. No	Designation of the official	Position
1.	Assistant Engineers of PWD concerned.	Head
2.	Assistant Engineer, Highways concerned.	
3.	Revenue Inspector concerned.	
4.	Overseers of the block concerned. Memb	
5.	Village Administrative officer concerned.	

The above teams should function under the supervision of the Divisional officers i.e Revenue Divisional Officer, Thoothukudi, Revenue Divisional officer, Kovilpatti and Revenue Divisional officer, Tiruchendur.

#### **Relief Distribution**

Preliminary Estimate of damages should be conveyed to the Collector in not less than 24 hours. Adequate staff will be set apart for this purpose at the rehabilitation process such as the construction of houses etc., has to begin immediately after the recession of floods and that the evacuees cannot be kept in the shelter homes indefinitely. Soon after the assessment of the damages is over, the payment of cash relief and distribution of clothes etc. will follow.

The Emergency Relief Officers in each taluk shall be responsible for carrying out the enumeration and payment in their areas. However the Revenue Divisional Officer shall supervise the disbursement of cash etc.

Phase	Needs and Timely Actions	Timeline/remark	
Phase-I	Search and rescue, first aid,	1 to 30 days (depending on extent and	
Acute	disposal of dead bodies and	gravity of disaster) Timely and	
emergency	animal carcasses, damage and	appropriate response will depend on	
phase or early	needs assessment, relief	the preparedness and contingency	
recovery	mobilisation and distribution,	planning put in place by	
	temporary shelter, registration,	theGovernment and NGOs, CBOs	
	information management,	and CSOs.	
	coordination etc.		
Phase-II	Food, water, sanitation, health The length of this phase will depend of		
Care,	care, psycho-social care, the type of emergency. In floods this		
maintenance	education, livelihoods, training, might not exist while in case of big		
and	coordination	earthquake it might be couple of	
recovery phase		years. This is the phase before	
		affected population can return to	
		normal ways of living. It also called	
		transitional phase.	
Phase-III	Durable solution' for It may take 2 to 5 years to		
Reconstruction	livelihoods, housing skill restore the life back to normalcy and		
and	building, institution building,	establish all the institutions and	
long term	coordination etc.	infrastructure 'better than pre-	
recovery		disaster days'.	

#### **Phases of Recovery and Reconstruction**

## XII.MAINSTREAMING OF DISASTER MANAGEMENT IN DEVELOPMENT PLAN AND LINKAGES WITH OTHER AGENCIES

Comprehensive flood protection To give protection during Floods and Cyclones floods by a. Improving the storage capacity of water bodies.	<ul> <li>IAMWARM scheme to rehabilitate the tanks in Tamirabarani system tanks, Vaipar basin and tanks at Korampallam basin.</li> <li>Kudimaramath Works</li> <li>Desilting of tanks under G.O 50</li> </ul>
b. Moderate flood flows by diversion	Comprehensive Flood Protection Plan for Korampallam aru basin for diversion of water at Upparu odai as per In G.O.(Ms)No.37 Revenue [DM-II] Department dated : 09.02.2017.
c. Reducing flood in Tamirabarani river through structural interventions	<ul> <li>Formation of flood carrier canal from kannadian channel to Drought prone area of Sattankulam, Thisaiyanvilai by interlinking Tamiraparani, Karumeniyar and Nambiyar rivers in Tirunelveli and Thoothukudi Districts.</li> </ul>
d. Minimize the risk of urban floods	<ul> <li>Project at a cost of Rs. 73.06 Crores for the storm water drain works as per the announcement made by the Honorable Chief Minister of Tamilnadu under Assembly Rule 110</li> <li>Discharging the stagnated flood water inside the Thoothukudi city at a cost of Rs. 315.80 Crores under Environmental Ecology Protection scheme</li> </ul>
Enhancing the resilience of the Community with special reference to cyclone in the 21 coastal habitation	• CBDRM programme is functioning in 21 coastal habitations.
e. Sustainable Agricultural Development.	• Promote Mission on sustainable Dry land agricultural practices in Rain fed areas with special focus on 6 blocks in the district viz

To combat Drought and Climate mitigation.	Karungulam, Kovilpatti, Kayathar, Vilathikulam, Pudur and Ottapidaram. • Micro irrigation
f. Recharging the ground water.	<ul> <li>Rain water Harvesting through MGNREGS, PUGF and IGFF.</li> <li>Artificial Recharging of Ground water through Agricultural Engineering department and TAWDEWA works.</li> </ul>
g. Natural Resources conservation To address Drought, floods, Heat waves and climate impact.	<ul> <li>Improving inflow Channels, Tree planting and watershed development through MGNREGS</li> <li>Watershed Development in Pudur and Vilathikulam blocks.</li> <li>Micro irrigation to agriculture and horticulture crops</li> <li>Reclaim and restore areas affected by sea water intrusion and sea water intrusion in coastal areas through a Checkdams with special focus on Mukkani and Punnakayal villages.</li> </ul>
Sustainable Management of Ecologically fragile areas	<ul> <li>Bio shields to mitigate floods and storms in 21 coastal villages in the district.</li> <li>Ecorestoration of marsh lands, estuaries and creeks in area of Punnakayal and Pazhayakayal</li> </ul>

## XIII. COMMUNITY AND STAKE HOLDERS PARTICIPATION

The community and following stake holders will be made to participate in the rescue and relief operations.

#### a. CBDRM.

The Community based Disaster Risk Reduction Management Programme is functioning in this district. A Village Level Orientation camp was conducted in all the Villages in the District and a total of 3500 Community Volunteers were identified. Firka Level and Divisional Level Training on Disaster Management were conducted for the above 3500 First Responders. Further, 40 First Responders from each Taluk were selected out of the above 3500 First Responders and a total of 400 First Responders were identified and a District Level Training for the 400 First Responders was conducted. TheVillage level Disaster Management plan is available for 21 Coastal villages.

#### b. First Responders.

First responders for all the highly vulnerable places have been identified and they are in position. 3500 First Responders have been identified in the District spreading in all the Villages. Further 300 Aapda Mitra Volunteers have also been identified in the District.

#### c. NGOs:

The following NGOs functioning in this District will be involved in the Disaster Response activities.

S1. No	Organization	Address	Contact
1	AWAKE	Secretary, 33/19, Sannathy Street, Sattankulam - 628 704 Thoothukudi District	9443308315
2	HFO	7A/316-1 Ceylone Colony Siluvaipatti, Thoothukudi.	
3	Project Co Ordinator	CEDAR 130, 148, Kasi xray Floor, Puthu Road, Kovilpatti -1	04639-266902, 9442023290

S1. No	Organization	Address	Contact
4	OSARD	64/45 E, Ittamozhi Road Satankulam.	
5	Co ordinator	SCAD Project Offce, SCAD KVK,Vakaikulam Mudivaithanendal	
6	SANDS	Sivieshapuram, Ittamozhi 627652 Thisayanvilai.	9442886656
7	УМСА	Raja artin Farm, Rajapudukudi, Gangaikondan (Via).	
8	WED	1-A/11, Rayan Complex North St, Tiruchendu-215	9443105912
9	WEEDS	Mudalur - 628 702 Sattankulam (Via)	9443583458
10	CHEVALIAR	Derose Centre, 42,Polpettai, New Bus Stand (opp) Thoothukudi.	9842146227
11	SEDCO	25 G Nazareth Road, Sattankulam - 628 704	9443126450
12	Mother Social Service Trust,	6/10-6, SJ, Kennady Compound, Krishnarajapuram, 2 <sup>nd</sup> Street, East, Thoothukudi-2. Email-mothersstrust@gmail.com	9442911291

#### d. Red Cross

The redcross society wing (0461-2328871, 9894300455) is available in this District and they are giving training in First Aid to the college students and public. Their services will be utilized during disasters.

#### e. Welfare Association

The services of the following welfare associations will be utilized during disasters

## f. Local Bodies and etc.,

The services of the local bodies, Coast Guard, CISF, NCC and Home Guard will also be utilized during disasters.

S1. No	Organization	Address	Contact
1	Coast Guard	The officer-in –Charge MRSC Tuticorin C/O ICGS Tuticorin Harbour Estate, Tuticorin-4.	0461-2353907 0461-2352046 0461-2353503
2	CISF	TPT Tuticorin Commandant CISF Unit TPT Tuticorin CISF Unit VOC Port Trust,	0461-2352350, 2352781 0461-2352781 9443389511
3	NCC	<ul> <li>Officer commanding 29(TN)Indep coy NCC 16,9<sup>th</sup> street,Toovipuram Tuticorin-3</li> <li>Commanding Officer 3(TN),Naval Unit NCC 1,A-5,Sundaravelpuram Tuticorin-2</li> </ul>	0461-2321436 0461-2321595
4	Home Guard	Ganesa Mani Kandan Honoary President, Home Guard, campus of Armed reserve, Back side of the St.Marys school, Millerpuram, Thoothukudi.	9443382974 0461-2310351

# XIV. LINKAGES / CO-ORDINATION WITH OTHER AGENCIES FOR DISASTER MANAGEMENT

- All development plans and projects by different agencies shall be consulted widely with different stakeholders, to mitigate any adverse disaster risks due to development initiative.
- All developmental plans approved by state/ district authorities and flagships programme running in the district should have a special component for disaster mitigation and additional budgets should be ear marked for the same if required.
- DDMA shall make recommendations to all the district departments about possible mitigation cum development projects that could be taken.
- All district departments to take lead for mainstreaming mitigation aspect in their projects and earmark at least 10% budget for the same in their plans.
- Member Parliaments and MLAs under the MP Local Area Development Scheme and MLA local area development fund should sanction (a) projects which have taken into account the mitigation / disaster resilient factors (b) projects for mitigation from disaster.
- Continuous planning & execution of plans for providing sustainable livelihood for most vulnerable communities.
- Infrastructure development like construction of irrigation channels, sluice gates, pucca roads, multipurpose safe shelter should be given a priority as it aids both mitigation from disaster and leads to development.

#### **Electricity Supply:**

The Superintending Engineer, Electricity Board concerned should see that arrangements are made to give powers as immediately as possible and to disconnect services at the appropriate time to avoid any loss of life due to short circuit contact with live wire etc., on receipt of information from Zonal Officers.

#### **Drinking Water Supply:**

At times of cyclone flood or tidal waves, it may happen that the water in the tanks gets polluted due to merger of rain water with the tank water or otherwise. In Municipal areas where the population looks to the water supply department the system may fail on account of failure of electricity and the public may suffer due to lack of drinking water. It is the responsibility of the Municipal Commissioners in Municipal areas, the Extension Officers in Town Panchayats and the Panchayat Union Commissioners in rural areas to provide drinking water to these areas without delay. These officers should therefore have with them the required number of tube wells and wells sinking machineries and machines so that drinking water can be supplied immediately by sinking bore wells.

They should keep in touch with the officials of Tamil Nadu Water Supply and Drainage Board and be ready to provide good water in time. Pending sinking of tube wells, it may be necessary to transport drinking water from the nearest town possible where water has not been spoilt or where the system has not failed. For such purposes, the Municipal Authorities should keep themselves ready to transport water through lorries, or water tank carriers so that within hours of the calamity drinking water can be made available to the public.Spreading of epidemics, through water is a common occurrence on occasions of floods / cyclone. It is therefore necessary to chlorinate all ponds and tanks, the water of which is usually used by the villagers so that the outbreak of epidemics through water can be controlled. The Joint director Health Service and Panchayat Union Commissioners in rural areas and the Municipal Commissioners and the Town Panchayat Extension Officers in urban areas should arrange to store sufficient medicines in advance and keep their staff on alert to act wherever necessary.

#### **Roads:**

The length of the National Highways and State Highways, major district roads and other district roads in Thoothukudi District are furnished below:

1	National Highways	-	162 Km
2	State Highways	-	2305.114 Km
3	Corporation and Municipalities Road	-	747.66 Km
4	Panchayat Union and Panchayat Road	-	3023.39 Km
5	Town Panchayat and Township Road	-	465.825 Km

The foodstuffs and other articles cannot be stored for an indefinite period and hence to ensure normal supplies of commodities, the restoration of road communication is essential. One of the most important items of work the relief officer is to attend to the clearance of roads, closing of breaches etc. The Highways roads are under the control of the Divisional Engineer (Highways), rural roads under the control of Divisional Engineers (H&RW) directly and other under the control of Panchayat Unions or Panchayats.

The Divisional Engineers (Highways) & Rural Roads should allocate the areas to be taken charge by their Assistant Divisional Engineers, Assistant Engineers and Lower subordinate staff both under Highways and rural roads and Panchayat union roads. The Divisional Engineer and his staff and the Panchayat Union Engineers shall be responsible to restore the road communication by cutting and removing the trees as also by closing the breaches, wherever necessary. The villagers shall also be permitted to cut and remove the fallen trees wherever necessary so as to allow the vehicles to pass through.

The Divisional Engineers will arrange to procure additional cutting tools in each section under their control and under the control of Panchayat unions and with the help of the local laborers and sawmen. The Revenue Divisional Officers will furnish a list of Sawmen available in the villages to the Assistant Divisional Engineers and the Village Administrative Officers of the road side villages shall be responsible for procuring labour for the work.

#### **Transportation:**

This District is adequately served by all well laid network of roads and railways. This District has got good road facilities on all the directions for transporting the evacuees during all seasons. All the Taluks are connected with State Highways. The National Highways are also covering the major roads of the district. Hence, the Evacuation Scheme is drawn up to utilize fully the road facilities. The principal village link roads, if necessary, can be utilized for movement of evacuees to the maximum extent.

The following resources available in the district will be utilized during the diaster response activities.

#### 1. Public Distribution System

List of Fair Price Shops where the stock of essential commodities for two months are to be stored to meet out emergency due to floods / Cyclone, by the Regional Manager, Tamil Nadu Civil Supplies Corporations Ltd.,/ Deputy Registrar (Public Distribution System).

S1. No	Name of Taluk	Name of the Location	Name of the Local Body	Name of the F	air Price Shop
		Very High	Vulnerability Place	es	
1	Thoothukudi	Sankaraperi	Thoothukudi Corporation	Sankaraperi	26AP009PY
2	Thoothukudi	Athimarapatti including Veeranayakan thattu	Thoothukudi Corporation	Athimarapatti	26AB019PN
3	Thoothukudi	Abraham Nagar including PSP Nagar	Korampallam Panchayat	Korampallam	26AA019PY
4	Tiruchendur	Punnakayal	Punnakayal Panchayat	Punnakayal-1 Punnakayal Nooruveedu Punnakayal-2	26CP022PY 26CP022P1 26CP023PN
5	Eral	Sivarama mangalam	Keelpidagai Appan Kovil Panchayat	Keelpidagai Appan Kovil	26BP019PN
		High Vu	Inerability Places		
1	Thoothukudi	Meelavittan (Madathur, P&T Colony)	Thoothukudi Corporation	Meelavittan Madathur	26AP008PN 26AP030PN
2	Srivaikuntam	Kongarayakurichi	Kongaraya kurichi Panchayat	Kongaraya kurichi	26BP017PN
3	Srivaikuntam	Sriparangusanallur	Sriparangusa nallur Panchayat	Alwarthoppu	26BP026PN
4	Tiruchendur	Kayalpattinam	Kayalpattinam Municipality	Kombudurai Singidurai	26CD004P126 CP086P1
5	Tiruchendur	Authoor	Authoor Town Panchayat	NIL	
6	Eral	Thirukalur (Kakkanji Nagar)	Thirukalur Panchayat	Thirukalur Paulkulam Manalkulam	26CP035PY 26CP035P1 26CP035P2

S1. No	Name of Taluk	Name of the Location	Name of the Local Body	Name of the F	air Price Shop
7	Eral	Mukkani	Mukkani Panchayat	Mukkani-1 Mukkani-2	26BP027PN 26BP028PN
8	Sathankulam	Thirupani Puthantharuvai	Puthantharuvai Panchayat	1.Puthan tharuvai 2.Usharaththuk udieruppu 3.Chettivillai	26DP031PN 26DP034PY 26DP034P1
9	Ottapidaram	Valasamuthiram	Valasamuthiram Panchayat	Valasamuthi ram	26FA002PY
		Medium	Vulnerability Place	S	
S1. No	Name of Taluk	Name of the Location	Name of the Local Body	Name of the Fair Price Sho	
1	Thoothukudi	Muthammal Colony	Thoothukudi Corporation	Polpettai-2	26AC002PN
2	Thoothukudi	Athiparasakthi Nagar	Thoothukudi Corporation	Annai Indra nagar	26AC016PN
3	Thoothukudi	Kurinji Nagar	Thoothukudi Corporation	KVK Nagar	26AC005PN
4	Thoothukudi	Thiru Vee Ka Nagar	Thoothukudi Corporation	Thiru Vee Ka Nagar	26AA028PN
5	Thoothukudi	Kovilpillai nagar	Thoothukudi Corporation	Alangarathattu	26AP032PN
6	Thoothukudi	Kalankarai	Korampallam Panchayat	Vadakku Kalangarai	26AA019P1
7	Thoothukudi	Mullakadu JS Nagar	Thoothukudi Corporation	Mullakadu	26AP003PY
8	Srivaikuntam	Muthalangkurichi	Muthalang kurichi Panchayat	Muthalangkuric hi	26BP012PN
9	Srivaikuntam	Agaram	Vallanadu Panchayat	Agaram	26BP043P2
10	Kovilpatti	Iluppaiurani	Iluppaiurani Panchayat	Iluppaiurani Loyal Mill colony Poosaripatti Thamos nagar	26EP035PN 26ED004PN 26EP034PN 26EP107PN

S1. No	Name of Taluk	Name of the Location	Name of the Local Body	Name of the F	air Price Shop
11	Kovilpatti	Gandhi Nagar	Kovilpatti Municipality		26EC003PN
		Low Vu	Inerability Places		
S1. No	Name of Taluk	Name of the Location	Name of the Local Body	Name of the F	air Price Shop
1	Thoothukudi	Rajiv Nagar	Thoothukudi Corporation	Millerpuram ARS	26AA005PN
2	Thoothukudi	Kandhan Colony	Thoothukudi Corporation	Millerpuram Co-op	26AC011PN
3	Thoothukudi	Kathirvel Nagar	Thoothukudi Corporation	Rajagopal Nagar	26AA026PN
4	Thoothukudi	State Bank Colony	Thoothukudi Corporation	State Bank Colony	26AC006PN
5	Eral	Angamangalam	Angamangalam Panchayat	Angamangalam	26CP075P1
6	Eral	Alwarthirunagari Vadambokki Street	Alwarthirunagari Town Panchayat	Alwarthiru nagari-1 Alwarthiru nagari-2	26CP080PN 26CP081PN
7	Sathankulam	Komaneri	Komaneri Panchayat	Komaneri	26DP018PN
8	Sathankulam	Virakulam	Karugadal Panchayat	Virakulam	26DO012PN
9	Kayathar	Thangammal Puram	Kadambur Town Panchayat	Kadambur -1 Kadambur-2 Kadambur	26EP001PN 26EP002PY 26EC012PY
10	Kayathar	Sanathuputhukudi	Sanathuputhuku di Panchayat	Sanathuputhu kudi	26EP010PN
11	Vilathikulam	Vaippar	Vaippar Panchayat	Vaippar Sippkulam Kalaignan puram Keelavaippar	26GP029PY 26GP031PN 26GP029P1 26GP030PN

# **Coastal Villages:**

Taluk	Revenue Village	Coastal Habitation	Fair Price Sho	ps
	Mappillaiyurani	Siluvaipatti	Siluvaipetti	AP027PN
		T 1	Loorthammalpuram	AP014PY,
	Thoothukudi I	Loorthammalpuram	SiluvaipettiLoorthammalpuramKrishnarajapuramPolpatti 2K.V.K. NagarState Bank ColonyToovipuramMillerpuramAnnai Indra NagarPolpatti 3MasilamanipuramThirespuram 3SanthanamariyammanKovil TheruPoopalarayarpuram 1Poopalarayarpuram 2Thirespuram 1Thirespuram 2Lionstown 1George RoadMillerpuramBrindnagar ARSMeelavittanMullakkaduPunnakayal 1Punnakayal 2KombuduraiSingidurai	AP014P1
				AC002PN
				AC005PN
				AC006PN
				AC008PN
				AC011PN
				AC016PN
				AC017PN
				AC012PN
			Thirespuram 3	AC026PN
Thoothukudi	Thoothukudi I & II	Thoothukudi North	Santhanamariyamman	AD004PN
			Kovil Theru	
			Poopalaravarpuram 1	AD005PN
				AD006PN
				AB001PN
				AB002PN
			-	AP011PN
				AA004PN
				AA005PN
				AA011PN
	Thoothukudi II,		Meelavittan	AP008PN
	MeelavittanII,	Thoothukudi south	Mullakkadu	AP003PY
	Mullakadu II			
			Punnakaval 1	CP022PY,
	Punnakayal	Punnakayal		CP022P1,
	i umakayai	i umukuyui		CP023PN
		Kombuthurai		CD004P1
Tiruchendur	Kayalpattinal South			
		Singithurai		CP086P1
			Veerapandianpattinam	CD013PN,
	Veerapandianpattinam	Veerapandianpattinam	Shanmugapuram	CP095PY,
			Pilominagar	CP095P1
		Jeeva Nagar	Tiruchendur 1	CP083PN,
	Tiruchendur	Amali Nagar	Amali Nagar	CA002P1,
		Alanthalai	Alanthalai	CD015PN
			Kulasekarapattinam(M)	CP074PN
Tiruchendur			Kulasekarapattinam	CP005PY
	Kulasekarapattinam	Kulasekarapattinam	Kalamozhi	CP005P1
			Kulasekarapattinam (M)	CP096PN
			Manapadu 1	CP073PN
	Manapad	Manapad		
		-	Manapadu 2	CP093PN
		Vembar	Patchaiyapuram	GP001P1
	Vembar	Periasamypuram	Periyasamypuram	GP001PY
Vilathikulam				
, naumsulaill		Keela Vaippar	Keela Vaippar	GP030PN
	Keela Vaippar	Sippikulam	Sippikulam	GP031PN
		Sippikulalli		
	Pattanamamathar	Pottonomomithum	Pattinamaruthur	FD008P1
	Pattanamaruthur	Pattanamaruthur		
Ottopidorom			m1 1 1	EA001DN
Ottapidaram	The emprop :11	Tharuvaikulam	Tharuvaikulam	FA001PN,
	Tharuvaikulam	Vellapatti	Amutham	FD008PY
			Tharuvaikulam - 2	
		Palaykayal	Pazhzyakayal	BA009PY
Eral	Palayakayal	Ratchanyapuram	Pullavali	BA009P1
			Periyathallai-1	DP033PN,
Sattankulam	Padukkapathu	Periathalai		
	· ·		Periyathallai-2	DP038PN

## 2. List of School Buildings Used as Temporary Shelters:

## Taluk : Thoothukudi

S1. No	Name of the School	Location
	St. Francies Boys Higher Secondary School	G.C Road, Thoothukudi
	Victoria Girls Higher Secondary School	W.G.C Road, Thoothukudi
	Subbaiah Vidyalayam Girls Higher Secondary School	Devarpuram Road, Thoothukudi
	Joseph Hr.Sec School	Cruzpuram
	R.C Primary School	
1	T.D.T.A Primary School	Rathinapuram
	St.Mary's Hr.Sec School	Millomounom
	B.M.C Hr.Sec.School;	– Millerpuram
	Panchayat Union Primary School	Verranayakanthattu
	Panchayat Union Primary School	K.S Nagar
	A.V.S Middle School	Camp –I, Thoothukudi
	Panchayt Union Hr.Sec School	Mappilaiyurani

## Taluk : Srivaikuntam

S1. No	Name of the School	Location
_	Srikumarakuruparar Swamigal Higher Secondary School	Srivaikuntam
1	Pop Memorial Higher Secondary School	Sourcomurom
	St.Marys Girls Higher Secondary School	Sawyerpuram

#### Taluk : Tiruchendur

Sl. No	Name of the School	Location
	Senthilmurugan government Higher secondary school	Tiruchendur
	St. Thomas Higher Secondary School	VP Pattnam
1	St. Valanar High School	Manapad
	L.K. Higher Secondary School	Kayalpattinam
	Muthu puhari High school	

#### Taluk : Eral

S1. No	Name of the School	Location
1	St.Antony's Higher Secondary School	Palayakayal

#### Taluk : Sattankulam

S1.No	Name of the School	Location
	Panchayat Union Middle School	Pannamparai
	Mutharaman Middle School	Thatchamozhi
	Panchayat Union primary school	Komaneri
	T.D.T.A Middle School	Pudukulam
	R.C Middle School	Nedunkulam
	T.D.T.A Middle School	karungulam
	Panchayat Union Primary School	SriVenkateshwara puram
	Panchayat Union Primary School	Meerankulam-I
	T.D.T.A Middle School	Meerankulam-II
	Pachayat Union Primary School	Ambalaseri, Kattarimangalam
	T.D.T.A. High School Ranchiaron School	Palankulam
1	R.C Middle School	Pidaneri
	Sirumalar High School	Padukapathu
	R.C Church School	Periyathalai, Padukapathu
	S.S. Santhosh Nadar Higher SS	Komadikottai
	Thoya Yovan Hig her Secondary School	Pothakalanvillai Sasthavinnallur
	Annal Middle School	Thattamadam, Naduvakurichi
	Panchayat Union Middle School	Pudhantharuvai
	R.C. Middle School	PuchiKaddu, Arasur-I
Γ	Panchayat Union Middle School	Arasur-II
Γ	St. Micavel Higher Secondary School	Muthaloor
	Government Higher Secondary School	Sundankottai, Kallakurichi

# Taluk : Kovilpatti

S1. No	Name of the School	Location	
	Kanna Matriculation School	V.O.C. Norren Korrila etti	
1	Kovilpillai Nadar Christian School	V.O.C Nagar, Kovilpatti	
	Malathi Nursery School	Gandhi Nagar, Kovilpatti	

## Taluk : Kayathar

S1. No	Name of the School	Location
1	Veerapandian Katta Bomman Govt Hr.Sec.School	Pannikulam Road
2	Mothr Therasa Matric Hr.Sec.School	Kayathar

## Taluk : Ettayapuram

S1. No	Name of the School	Location
1	Indu Nadar Hr.Sec.School	Perilovanpatti

## Taluk : Vilathikulam

Sl. No Name of the School		Location
	St. Tharasa Middle School	Sippikulam
	St. Louis R.C Hr.Sec.School	Keelavaippar
1	St.Sebastian R.C Middle School	Vembar
	R.C St.Antony Middle School	Periyasamypuram
	T.D.T.A Primary School	Aathankarai

# Taluk : Ottapidaram

S1. No	Name of the School	Location
	Indu Nadar Primary School	K. Duraidamipuram
	Thoua .Kartherin Primary School	Tharuvaikulam
	T.D.T.A Primary School	Thatuvarkulani
1	R.C Primary School	Keelaarasadi
	Panchayat Union Primary School	Pattinamarudhur
	T.D.T.A Primary School	Verneledei
	P.S.T. Middle School	– Veppalodai

#### **3. Medical Facilities**

## a. Stock position of Medicine and drugs

#### Health Facilities:

a.	Medical Teams	232 Teams
b.	Mobile/Makeshift Hospital	12+24 RBSK
c.	Generators	5

#### Medicines & Disinfectents:

S1. No	Name of Item	ткмсн	Other GHs
a.	Bleaching powder	-	242 KG
b.	Chlorine Tablets	-	0
c.	Phenyl	-	192 Litres
d.	First Aid Kits	-	5
e.	Paracetamol	342960	501700
f.	Amoxicillin	197540	360800
g.	Aspirin	168970	127450
h.	Dicclofenac (pain killer)	20000	137650
I.	Pediatric medicine	14900	18879
j.	disposable syrinjes	166070	171407
k.	Sterilized water pouches	_	2960
1.	Nebulizers	62	36

# Medical Equipments & Personnel:

S1. No	Name of Item	ткмсн	Other GHs
a.	Strechers	86	53
b.	Wheel Chairs	82	51

S1. No	Name of Item	ткмсн	Other GHs
c.	Oxygen Cylinders	270	494
d.	Generator Sets	5	15
e.	Nurse & Paramedical staff	397/438	325
f.	Forecep/scissor	184/152	416
g.	Flexible beds for patients	-	44

# b. List of Government Hospitals & primary Health centres

S1. No	List of Government Hospitals & primary Health centres	Contact
1.	Government Medical College Hospital, Thoothukudi	0461-2321051
2.	GH, Kovilpatti	04632-220040
3.	GH, Tiruchendur	04639-242242
4.	GH, Srivaikuntam	04630-255241
5.	GH, Ottapidaram	0461-2366230
6.	GH, Sattankulam	04639-266500
7.	GH, Kayalpattinam	04639-280369
8.	GH, Kanlankudiyiruppu	04639-251110
9.	GH, Ettayapuram	04632-271795
10.	Eral	04630 - 270141
11.	Betmanagaram	04630- 291133
12	Sivakalai	04630 - 293690
13.	Sebathiyapuram	04630 - 273611
14.	Pandaravilai	04630 - 293691
15.	Kayamozhi	04639 - 232072
16.	Arumuganeri	04639 - 285399
17.	Pitchivilai	04639 - 232255
18.	Meignanapuram	04639 -227536

S1. No	List of Government Hospitals & primary Health centres	Contact
19.	Kulasekarapattinam	04639- 251360
20.	Paramankuruchi	04639 - 232938
21.	Mudhalur	04639- 261411
22.	Anandhapuram	04639 - 271677
23.	Padukkapathu	04639- 254210
24.	Pudukottai	0461 - 2271013
25.	Mappillaiurani	0461 - 2345515
26.	Lourthammalpuram	-
27.	Mudivaithanenthal	0461 - 2269304
28.	Mullakadu	0461- 2355810
29.	Thenthiruperai	04639- 273023
30.	Authoor	04639 - 238899
31.	Mookuperi	04639 - 277443
32.	Alwarthirunagari	04639 - 273550
33.	Salaipudhur	04639 - 274111
34.	Udaiyarkulam	04630 - 292100
35.	Vallanadu	04630 - 261403
36.	Keela chekkarakudi	04630 - 293406
37.	Karungulam	04630 - 264055
38.	Sonaganvilai	04369- 223344
39.	Kayalpattinam Urban PHC	-
40.	Kadambur	04632-246286
41.	Kalugumalai U.G.	04632-252400
42.	Kayathar	04632-261400
43.	Vellalankottai	04632-242266
44.	Keela Iral	04632-271003
45.	Villiseri	04632-243388
46.	Erachi	04632-244555

S1. No	List of Government Hospitals & primary Health centres	Contact
47.	Ilayarasanendal	04632-247007
48.	Nagalapuram U.G.	04638-242290
49.	Boothalapuram	04638-293175
50.	Pudur U.G.	04638-293174
51.	Ottanatham	0461-2268343
52.	Puthiamputhur	0461-2261100
53.	S. Kailasapuram	0461-2261176
54.	Eppodumvendran	0461-2265388
55.	Pasuvanthanai	0461-2262612
56.	K. Thalavaipuram	0461-2950203
57.	Veppalodai	0461-2267661
58.	Perilovanpatti	04638-222202
59.	Kulathur	04638-227175
60.	Vembar	04638-262266

#### **Ambulance Services**

#### **Government 108 Ambulance details**

S1. No	Vehicle Number	Base Location	Contact Number	Style
1	TN20G2935	Keela Eral Phc	9154250753	BLS
2	TN20G1159	Kovilpatti Gh Neonatal	9154250757	NEONATAL
3	TN20G2665	Kovilpatti Gh	9154250756	ALS
4	TN20G2921	Kayathar Panchayath Union Office	9154250752	BLS
5	TN20G3639	Nalatinputhur Anganwadi	9154189449	BLS
6	TN20G2788	Kovilpatti Municipal Office	9154250755	BLS
7	TN20G3174	Kalugumalai Phc	9154250751	BLS

S1. No	Vehicle Number	Base Location	Contact Number	Style
8	TN20G2810	Ottapidaram Gh	9154250761	BLS
9	TN20G3096	Sathankulam Gh	9154250763	BLS + VENTILATOR
10	TN20G2786	Srivaikundam Fire Station	9154250764	BLS
11	TN20G2937	Thiruchendur Gh	9154250769	ALS
12	TN20G3312	Thoothukudi Gh Neonatal	9154250770	NEONATAL
13	TN20G2070	Thoothukudi Police Quarters Als	9154265812	ALS
14	TN20G2138	Thoothukudi Govt.Medical College Hospital	9154250771	BLS
15	TN20G3049	Pudukottai Union Office	9154250762	BLS
16	TN20G3111	Udankudi Gh	9154250772	BLS
17	TN20G3154	Athur Women Self Help Center	9154250750	BLS
18	TN20G3511	Vilathikulam Union Office	9154250773	BLS
19	TN20G3307	Kulathor Phc	9154250758	BLS + VENTILATOR
20	TN20G1945	Mapilaiyoorani Phc	9154250759	BLS
21	TN20G2901	Pasuvandanai Phc	9566289293	BLS
22	TN20G3499	Ottanatham Phc	9150098357	BLS
23	TN20G3503	Kayalpattinam Gh	9150098274	BLS
24	TN20G2079	Nagalapuram Phc	9150098277	BLS
25	TN20G1980	Vallanadu Phc	9154745874	BLS
26	TN20G2066	Spare Backup	NA	BLS

## Private Party Ambulance:

S1. No	Name of the Private Hospital	Address of the Private Hospital	No.of Ambulances attached with the Hospital	Registration Number of the Ambulance
1	KAMALA SPECIALITY HOSPITALS PRIVATE LIMITED	48A & 48B, SANTHAIPETTAI STREET, KOVILPATTI	2	TN 69 AQ 6584, TN 96 7629
2	THULASI HOSPITAL	6/6 -A, Muthananthapuram, 2nd Street,, Kovilpatti - 628502	2	Force Tempo TN96 B 2810, Maruti Eeco TN96 D 9249
3	St.LUKE'S HOSPITAL	HOSPITAL ROAD, NAZARETH POST, ERAL TALUK, THOOTHUKUDI	1	TN69 AT8067
4	JEYANTH NALLATHAMBI HOSPITAL	3/186,PERIYANAYAGI PURAM ROATTHOOTHUKUDI	1	TN 69AK7110
5	RAJESH TILAK HOSPITAL	107J/79/50G PC ROAD WEST MILLERPURAM	1	TN69 AL3737
6	SUNDARAM ARULRHAJ HOSPITAL	145/5B JEYARAJ ROAD, THOOTHUKUDI	1	TN 69AB 1998
7	B.G HOSPITAL - VEERAPANDIA NPATNAM	Dr.A.Ramamurthy , M.D, 1/393 Tuticorin Road, Veerapandianpatnam 628 216. Tuticorin District	1	TN 92 C 0673
8	SRI HOSPITALS, KOVILPATTI	DR.LATHA SRIVENKATESH, 57, ETTAYAPURAM ROAD KOVILPATTI.	1	TN96D8723
9	Vasan Hospital, (Vasan Poly Clinic)	12B Pasuvanthanai Main Road, Kovilpatti.,Kovilpatti,Thoothuku di,Tamil Nadu,628501,04632 222790,	1	TN96D8379
10	SASI HOSPITAL.KOVI LPATTI,	P.KALARANI 3/535-D NELLAI MAIN ROAD INAM MANIYACHI KOVILPATTI 628502	1	TN96E1756
11	SANKAR HOSPITAL	East Car Street, 265/137A, Main Rd, Authoor, Korkai, Tamil Nadu 628151	3	TN 92 6446, TN 47AD7909, TN69AE 3696
12	THEIVA NURSING HOME	DR. J . SARAVANAN , 209-A, V.E ROAD, DHAMODHARA NAGAR MAIN ROAD, THOOTHUKUDI.	1	TN69AJ1100
13	A.V.M HOSPITAL, TUTICORIN	Dr. M. V. Lakshmanan, 135, Palayamkottai Road, Thoothukudi- 628 003	2	TN 69 BB 3718 TN 69 AC 5829

S1. No	Name of the Private Hospital	Address of the Private Hospital	No.of Ambulances attached with the Hospital	Registration Number of the Ambulance
14	Padmaprabha Hospital	136 muthanananthapuram street kovilpatti ,Kovilpatti,Thoothukudi,Tamil Nadu,628502,04632 220144,	1	TN 96 J 3449
15	Srinivasaa Hospital	87, AKS THEATRE ROAD ,KOVILPATTI,Thoothukudi,Tam il Nadu,628502,04632 220473,	1	TN 69 V 8848
16	Srimati Rajalakshmi Hospital	Sannathi St, Vilathikulam, Tamil Nadu 628907	1	TN 96 F 0100
17	Santhi hospital	15/70-2, salayam street,vilathikulam,Thoothukud i,Tamil Nadu,628907,04638 233120,	1	TN 96 H 7672
18	Thiraviam Orthopaedic Hospital	4B/135, 3RD STREET, CGE COLONY, ,THOOTHUKUDI,Thoothukudi, Tamil Nadu,628003,04612371111,	1	TN 74 AN 8601
19	Edison Cardiac Centre	Ground Floor, 286, Kulasai Road, Tiruchendur ,Tiruchendur,Thoothukudi,Tam il Nadu,628215,04639-245629,	1	TN 69 AT 3924
20	SACRED HEART HOSPITAL	SR. LIZ JOHN, SACRED HEART HOSPITAL, KANDASAMY PURAM, TUTICORIN	2	ALS: TN69BT4568 BLS: TN69AJ3297
21	VOC PORT HOSPITAL	DR. NARESH KUMAR .P, CHIEF MEDICAL DEPARTMENT, VOC PORT HOSPITAL, VOC PORT AUTHORITY, THOOTHUKUDI - 628 004	4	TN 69 BL 0725 TN 69 BL 0765 TN 69 BL 0790 TN 69 BL 0716

### 4. Fire Stations:

## List of Fire Stations in Thoothukudi District

S1. No	Name of the station	Office Number	Mobile Number
1.	Divisional Fire Office, Thoothukudi	0461- 2310107	9445086276
2.	Assistant Divisional Fire Office, Thoothukudi	0461-2310107	9445086277
3.	Fire Station, Thoothukudi	0461-2326501	9445086278
4.	Fire Station, Thoothukudi (Thermal)	0461-2352113	9445086285
5.	Fire Station, Sipcot, Thoothukudi	0461-2340091	9445086284
6.	Fire Station, Srivaikuntam	04630-255210	9445086282
7.	Fire Station, Tiruchendur	04639-242301	9445086283
8.	Fire Station, Sattankulam	04639-266399	9445086281
9.	Fire Station, Kovilpatti	04632-220099	9445086280
10.	Fire Station, Kazhugumalai	04632-251301	9445086279
11.	Fire Station, Vilathikulam	04638-233101	9445086286
12.	Fire Station, Ottapidaram	0461-2366101	9488006393

## 5. Cyclone Shelters

# Multipurpose Evacuation Shelters

S1. No	Revenue Village	Nature of Building	Location	Accommo dation	Latitute	Langtitude
1	Siluvaipatti H/o Mappillaiyurani	C.Hall	Community Hall, Siluvaipatti, Mappillaiyurani Village, Thoothukudi Taluk	2000	8.84308	78.15271
2	Keela Tiruchendur [Amali Nagar]	School	Arulmigu Senthil Andavar Government Boys Higher Secondary School, Keela Tiruchendur, Tiruchendur Taluk	1000	8.50127	78.11992

S1. No	Revenue Village	Nature of Building	Location	Accommo dation	Latitute	Langtitude
3	Kayalpattinam	School	Panchayat Union Middle School, Kombudurai, Kayalpattinam	1000	8.57270	78.12704
4	Vembar	School	Government Higher Secondary School, Vembar Village, Vilathikulam Taluk	1000	9.08158	78.35944
5	Tharuvaikulam	School	Government Higher Secondary School, Tharuvaikulam, Ottapidaram Taluk	1000	8.89298	78.16915

# 6. List of Public Building

S1. No	Taluk	Name of the Public Building	Location
		Municipal Kalyana mandapam	Chatram Street, Thoothukudi
1	Thoothukudi	Municipal Kalyana mandapam	Sivankoil street, Thoothukudi
		D.R.D.A Kalyana mandapam	Toovipuram 9 <sup>th</sup> street, Thoothukudi
		Arivoli Iyakam Building,	Srivaikuntam
2	2 Srivaikuntam	Kailasanathar Temple Building	Srivaikuntam
		Perumal Koil Building	Srivaikuntam
		Public Hall for fisheries department	Amalinagar
		Public Hall for fisheries department	Alanthalai
		Panchayat Union marriage hall	Punnakayal
3	Tiruchendur		Authoor
		Community Hall	Sernthamangalam
			Kulsekarapattinam
			Arumuganeri

S1. No	Taluk	Name of the Public Building	Location
			Srivenkateshwara puram
4	Sattankulam	Community Hall	Karungadal
			Kattarimangalam
5	Kovilpatti Municipal Middle School		Kovilpatti
		Panchayat Union Middle School	Ayankarisalkulam
C	E44	Panchayat Union Middle School	Mavilovanpatti
6	Ettayapuram	Govt.High School	Kottur
		Bharathiyar Memorial High School	Ettayapuram
		Panchayat Union Primary School	Vaipar
7	X7:1 - +1-:11	Pancahyat Union Primary School	Kalluruni
1	Vilathikulam	Govt.High School	Vembar
		Govt. Higher Secondary School	Vilathikulam
		Govt. Primary School	Therku Kalmedu
8	Ottapidaram	Govt.Primary School	Sunderaswaram
		Govt.High School	Tharuvai kulam

## 7. List of Marriage Halls

S1. No	Name of Taluk	No.of Marriage Halls
1	Thoothukudi	80
2	Srivaikuntam	16
3	Tiruchendur	65
4	Eral	19
5	Sathankulam	9
6	Kovilpatti	34
7	Ettayapuram	42
8	Kayathar	8
9	Vilathikulam	41
10	Ottapidaram	10
	Total	324

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
1	Thoothukudi	Salha Mahal	Krishnarajapuram 8th Street, Thoothukudi	9944695226
2	Thoothukudi	Pon Subbiah Mahal	Pon Subbiah Nagar, Thoothukudi	0461- 2323999
3	Thoothukudi	Joseph Jeyarani Mahal	S.S. Manickapuram, Thoothukudi	9626599046
4	Thoothukudi	John Samuel Mahal	60C/7, Poobalrayarpuram, Thoothukudi	9894056985
5	Thoothukudi	Anantha Mahal	Alagesapuram Main, Thoothukudi.	9443134062
6	Thoothukudi	Annathai Mahal	81/10A, Muthukrishnapuram, Thoothukudi	0461- 2362614
7	Thoothukudi	Panaiselvam Mahal	Near Karupatti Society, Muthukrishnapuram, Thoothukudi	9443159051
8	Thoothukudi	Athiban James Mahal	Packianathanvillai, Thoothukudi	9894880598
9	Thoothukudi	Maraikayar Mahal	Jeeva Nagar, Loorthammalpuram, Thoothukudi	9894255986
10	Thoothukudi	Malar Mandabam	Therespuram, Thoothukudi	9894194311
11	Thoothukudi	Thanthai Alangaram Arangam	Loorthammalpuram, Thoothukudi.	9894277839
12	Thoothukudi	S.S. Balurani Mahal	Ettayapuram Road, Polpettai, Thoothukudi	9842147803
13	Thoothukudi	Sri Arunachalam Manickavel Mahal	Polpettai East, Thoothukudi.	9442647900
14	Thoothukudi	Ramasamy Chettiayar Mahal	TMC Selvanayagapuram, Thoothukudi	9842120684
15	Thoothukudi	Murugan Mahal	Polpettai, Thoothukudi	9585730333
16	Thoothukudi	Santhiya Marriage Hall	VMS Nagar, Thoothukudi	9842127474
17	Thoothukudi	Pathirakaliamman Kovil Marriage Hall	Madathur, Thoothukudi	9444286120
18	Thoothukudi	Geetha Vathiam Marriage Hall	Pushpa Nagar, Thoothukudi	9789145060
19	Thoothukudi	Sabitha Sankar Mahal	Caldwell Colony 6th Street, Thoothukudi	9944908662
20	Thoothukudi	Vel Mark Mahal	Vallinayagapuram, Thoothukudi	9443436356
21	Thoothukudi	Ceen Thirumana Mandabam	Caldwell Colony 1st Street, Thoothukudi	8098443770, 9489431770
22	Thoothukudi	Kamarajar Mahal	Briyant Nagar 5th Street, Thoothukudi	9944908662
23	Thoothukudi	Pathirakaliamman Madasamy Yadhav Mahal	Briyant Nagar 2nd Street, Thoothukudi	

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
24	Thoothukudi	Rasi Mahal	9E, Briyant Nagar 9th Street, (Centre), Thoothukudi	8973267687, 8344886655
25	Thoothukudi	Meenakshi Sundaresar Thirumana Mandabam	Kasi, Chidambaranagar 2nd Street, Thoothukudi	9150195686
26	Thoothukudi	Banu Brindavan Mahal	105F, Palai Road, Thoothukudi	7373388577, 820010520
27	Thoothukudi	Roobavathi Palace	Millerpuram, Thoothukudi	9952777234
28	Thoothukudi	Annai Thirumana Mandabam	107/75, 107/76, Millerpuram, Bharma Colony, Thoothukudi	9842121862
29	Thoothukudi	Rani Mahal	Ashok Nagar, Thoothukudi	8220600440, 9940918440
30	Thoothukudi	Smart Palace	Palai Road, Opp. Polytechnic, Thoothukudi	9003003012, 4069254
31	Thoothukudi	Manickam Mahal	Trichendur Road, Levinjipuram, Thoothukudi	8870015583
32	Thoothukudi	S. Arumuganadar- Rajammal Thirumana Mandabam	1, Muniasamypuram, Kamaraj College Opp. Thoothukudi	9894155493, 236091, 2376839
33	Thoothukudi	Vijayalakshmi Mahal	2/1, Bungalaw Street, Sivanthakulam Road, Thoothukudi.	9443496574, 9486169196
34	Thoothukudi	Gomathi Mahal	Sundaravelpuram 2nd Street, Thoothukudi	9629100588
35	Thoothukudi	Elizhil Mahal	State Bank Colony, Main Road, Thoothukudi	9842181768, 9865345523
36	Thoothukudi	Kailash Mahal	State Bank Colony, 60 Feet Road, Thoothukudi	9443642351
37	Thoothukudi	Isac Mahal	State Bank colony, Thoothukudi	9865345523
38	Thoothukudi	V.M.J. Venkateshwara Mahal	Polpettai, Ettayapuram Road, Thoothukudi	9944918825
39	Thoothukudi	V.M.J. Selvam Mahal	Polpettai, Ettayapuram Road, Thoothukudi	9585730333
40	Thoothukudi	A.V.M. Kamalavel Mahal	Polpettai, Ettayapuram Road, Thoothukudi	9585730333
41	Thoothukudi	Kalainjar Arangam	Polpettai, Ettayapuram Road, Thoothukudi	9790027454
42	Thoothukudi	Lakshmi Mahal	Polepettai West, Thoothukudi	9443154192
43	Thoothukudi	S.S.T.R. Mahal	State Bank colony, Thoothukudi	9092345351
44	Thoothukudi	Mappillaiyurani Sri Pathirakaliamman Thirumana Mandabam	Mappillaiyurani	9344677888
45	Thoothukudi	Nila Thirumana Mandabam	Mathanagar Main	9245290706
46	Thoothukudi	Sona Thirumana Mandabam	Thalamuthunagar, Keela Alagapuri	9952161993

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
47	Thoothukudi	Andru Clori Mahal	Ramdoss Nagar	9944673167
48	Thoothukudi	Saveriyarpuram Public Thirumana Mandabam	T. Saveriyarpuram	9384564637
49	Thoothukudi	Ammu Palace	Muthu Nagar, Sahayamatha Pattinam	9843149387
50	Thoothukudi	Ramalakshmi Thirumana Mandabam	Mani Nagar 1st Street, Thoothukudi	2320745
51	Thoothukudi	Thanpadu uppu Etrumathi Viyabarigal Sanga Mandapam		
52	Thoothukudi	Kani Palace	Mani Nagar, Thoothukudi	2324454
53	Thoothukudi	Kailash Mandabam	Mani Nagar, Thoothukudi	9894926405
54	Thoothukudi	ASKR Thirumana Mandabam	Devarpuram Road, Thoothukudi	2322279
55	Thoothukudi	Jeyasri Mandabam	Theppakulam, Thoothukudi	9487922879
56	Thoothukudi	Sri Rasi Mahal	Sivan Kovil Street, Thoothukudi	
57	Thoothukudi	Saiva Vellalar Thirumana Mandabam	Sivan Kovil Street, Thoothukudi	
58	Thoothukudi	The Arumugampillai Thirumana Mandabam	9488150935	
59	Thoothukudi	Sivan Kovil Thirumana Mandabam	Sivan Kovil Street, Thoothukudi	8015698977
60	Thoothukudi	Snow Hall	Beach Road, Thoothukudi	
61	Thoothukudi	Sri Saratha Mahal	Sivan Kovil Street, Thoothukudi	
62	Thoothukudi	Ramaiah Mahal	WGC Road, Thoothukudi	
63	Thoothukudi	Alagar Mahal	VE Road, Thoothukudi.	2322283
64	Thoothukudi	E.P. Kavitha Mahal	Sivan Kovil Street, Thoothukudi	9443002300
65	Thoothukudi	Chandra Mahal	Mani Nagar, Thoothukudi	2324454
66	Thoothukudi	Sundari Mahal	Mani Nagar, Thoothukudi	8220667548
67	Thoothukudi	Rajam Mahal	Railway Station Road, Thoothukudi	2338643
68	Thoothukudi	Abirami Mahal	Andal Street, Thoothukudi	9344614243
69	Thoothukudi	Arigner Anna Thirumana Mandabam		
70	Thoothukudi	KSPS Nadar Kalyana Mandabam		9894366271
71	Thoothukudi	Thangabharathi Thirumana Mandabam	Kumarasamy Nagar, Athimarapatti	9629288501
72	Thoothukudi	Gnanam Thiruman Mahal	Tiruchendur Main Road, Thoothukudi	9894355344

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
73	Thoothukudi	S.K.S. Sankara Mahal	Thoppu Street, Muthiahpuram	9677981381
74	Thoothukudi	Maria Mahal	Opp. State Bank, Tiruchendur Main Road, Muthiahpuram	8754695220
75	Thoothukudi	Sathya Mahal	Main Road, Pudukottai	8056764901
76	Thoothukudi	R.C. Mahal	Main Road, Pudukottai	9443871689
77	Thoothukudi	Lakshmi Mahal	Main Road, Pudukottai	9840014637
78	Thoothukudi	Muthu Mahal	Perumal, Mudivaithanenthal	9442758891
79	Thoothukudi	Rajalakshmi Mahal	Vagaikulam to Mudivai. Main Road	9442051478
80	Thoothukudi	Unikka Mahal	Sivagnanapuram	9840044185
81	Srivaikuntam	Thampuratti Mahal	Mayandi Kovil Street	7825050202
82	Srivaikuntam	VTVD Mahal	Lakshmi Vinayagar Kovil Street	9790643428
83	Srivaikuntam	Surya Mahal	Perumal Kovil Street	9488010594
84	Srivaikuntam	Vijaya Shanmuga Mahal	Lakshmi Vinayagar Kovil Street	9865309693
85	Srivaikuntam	Mahlakshmi Mahal	Tirunelveli-Tiruchendur Main Road, Seidunganallur	9442834278
86	Srivaikuntam	Venkateshwara Mahal	Tirunelveli-Tiruchendur Main Road, Seidunganallur	9442787878
87	Srivaikuntam	Guru Mahal	Pillaiyar Kovil Street, Seidunganallur	8056332877
88	Srivaikuntam	SPR Mahal	Main Road, Ramanujamputhoor	04630 265226 9443884234
89	Srivaikuntam	Thalavai Nalla Madasamy Kovil Mandapam	Perumal Kovil Street Ramanujamputhoor	8976376392
90	Srivaikuntam	PMS Mahal	Main Road, Karungulam	9489415441
91	Srivaikuntam	Kammavar Mahal	North Street, Keelapoovani	9787172568
92	Srivaikuntam	Nadar Marriage Hall	South Street, Savalaperi, Alantha	8883128873
93	Srivaikuntam	Balaji Mahal	Pottaloorani - Sekkarakudi Main Road, Near Perumal Kovil, Pottaloorani	9789479049
94	Srivaikuntam	AVM Mahal	Keela Street, Keela Sekkarakudi	9159768048
95	Srivaikuntam	Pannai Mahal	Main Road	948757828
96	Srivaikuntam	Anantha Mahal, Kongarayakurichi	Puthumanai Street, Kongarayakurichi	9486701205

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
97	Tiruchendur	R.S.U.Selvaraj Marriage Hall	88/43, Santhaiyadi Street, Tiruchendur	9842424991
98	Tiruchendur	R.S.U.Inthumathi Marriage Hall	86/46, Santhaiyadi Street, Kalankudieruppu	9842424991
99	Tiruchendur	Royal Mahal	3/439/1A, Bypass Road, Tiruchendur	6380910235
100	Tiruchendur	P.A.P.Sundharammal Mahal	Melamalaiyan Street, Kulasekharanpattinam.	9976691875- 9087349190
101	Tiruchendur	Thangalakshmi Thirumana Mahal	Kelamalaiyan Street , Kulasekharanpattinam	9942380450
102	Tiruchendur	Sivanainthaperumal Mahal	3/19, Mutharamman Kovil Street, Kulasekharanpattinam	04639- 251347
103	Tiruchendur	VMS. Mahal	3/191, Mutharamman Kovil Street, Kulasekharanpattinam	9842942934
104	Tiruchendur	KGM Thirumana Mahal	Mutharamman Kovil Street, Kulasekharanpattinam	9842952604
105	Tiruchendur	Kuru Thirumana Mahal	Mutharamman Kovil Street, Kulasekharanpattinam	9865042540- 9442862540
106	Tiruchendur	Selvam Mahal, Mini Selvam Mahal	Mutharamman Kovil Street, Kulasekharanpattinam	9659823117- 9443527802
107	Tiruchendur	Lakshmi Mahal	Mutharamman Kovil Street, Kulasekharanpattinam	9842952604
108	Tiruchendur	Sri Sanmugar Mahal	Mutharamman Kovil Street, Kulasekharanpattinam	9094232273- 8056351303
109	Tiruchendur	Ramalakshmi Mahal	Kulasai	Not use
110	Tiruchendur	Aarasu Thirumana mandapam	Paramankurichi	9444079291- 9884264576
111	Tiruchendur	Peruratchi Thirumana Mandapam	Mariyamman Kovil Street, Govt hospital opposite	7824058185- 04639- 250016
112	Tiruchendur	S.M.K. Thirumana Mandapam	North street, Subhramaniyapuram	9382128024
113	Tiruchendur	J.K.Best Malti Purpose Hall	North street, Christiyanagaram	9842142599
114	Tiruchendur	Annam Kesaant	Kulasekharanpattinam Road	9842150592
115	Tiruchendur	Thooya Aavi Makkal Mandram	Raja Street, Manapadu	8760744990
116	Tiruchendur	Jeeva rose	Sathankulam Main Road, Meignanapuram	9444470581
117	Tiruchendur	Mistakulin	Udankudi Main road , Megnanapuram	9444470581
118	Tiruchendur	Veerabhagu Thirumana Mandapam	Mettuth Theru , Mela Authoor	9965759880
119	Tiruchendur	Sivanthi Aadhithanar Thirumana Mandapam	Main Road, Thergu Authoor	9585909696
120	Tiruchendur	Viyabari Sanga	Rama Hotel Ethir ,	9487613735-

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
		Thirumana Mandapam	Arumuganeri	9566868634
121	Tiruchendur	K.T. Kosalram Thirumana Mandapam	Main road, Arumuganeri	9787302423
122	Tiruchendur	INTUC Thirumana Mandapam	Main Road, Arumuganeri	9942025989
123	Tiruchendur	S.P. Annai Thirumana Mahal	Railway Station Road, Arumuganeri	9894012105
124	Tiruchendur	Muthu Mahal Thirumana Mandapam	Peyanvilai, Arumuganeri	9840786985
125	Tiruchendur	Rathna Thirumana Mandapam	Railway Station Arugil , Arumuganeri	9789498713
126	Tiruchendur	Theyva Kalyana Mandapam	120D, Kamarajar Salai, Tiruchendur	9324237418
127	Tiruchendur	Raj Kalyana Mandapam	16, Palaiyankodai Road, Tiruchendur	9842145064
128	Tiruchendur	14 Var Sengdunththar Muthaliyar Mandapam	82 A, Vadaku ratha veethi, Tiruchendur	944407387- 9842172314
129	Tiruchendur	Thiruvadudurai Aathinam Mandapam	43 , Kela ratha veethi, Tiruchendur	8903355747
130	Tiruchendur	V.P. Mahal	Eraniyal Mela theru setti samuthaya vagai, kela ratha vethi,Tiruchendur	9789317462- 9443605221
131	Tiruchendur	Elar Saliyar Saththiram Mandapam	12, Kela ratha veethi, Tiruchendur	9840861910
132	Tiruchendur	Selvam Thirumana Mandapam	1, Keela Ratha Veethi , Tiruchendur	9344335429
133	Tiruchendur	Sakthithara Pajana Saba Mandapam	27, Kela Rathha Veethi, Tiruchendur	6383006557- 04639- 245796
134	Tiruchendur	Pannaiyar Samuthaya Pothu Matam	28, Kela Ratha Veethi, Tiruchendur	9600747363
135	Tiruchendur	Kattiyam Sri Ayappa iyar Mahal	70D, Thergu Ratha Veethi , Tiruchendur	8778537488- 9500012985
136	Tiruchendur	Thirunavukarasar Thirumana Mandapam	80 A, Sabapathipuram Theru, Tiruchendur.	9442548728
137	Tiruchendur	Veerabagu Thirumana Mandapam	Veeraragavapuram theru, Tiruchendur	9842441134
138	Tiruchendur	Pandiya Kular Matam	53, Sannathi Theru, Tiruchendur	9361229785
139	Tiruchendur	Yathava Maruthuva Samuthaya Matam	69, Sannathi Theru ,Tiruchendur	9787612211
140	Tiruchendur	Vaniyar Pothu Kalyana Mandapam	61, Sannathi Theru , Tiruchendur	9442814544
141	Tiruchendur	Saraswathi Ramathas Vanniyar Viduthi	7, Veeraragavapuram theru, Tiruchendur	9442758977
142	Tiruchendur	Thesnama Nadar Sangam	Sannathi Theru, Tiruchendur	9486608812
143	Tiruchendur	Indhu Kodikkal Nadar Mandapam	1/93, Sannathi Theru, Tiruchendur	9443361301

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
144	Tiruchendur	Lakshmi Mahal	99, Sannathi Theru, Tiruchendur	9865138389
145	Tiruchendur	Anantha Vilas Nadar Matam	11/87, Sannathi Theru, Tiruchendur	6379625976
146	Tiruchendur	Vannar Samuthaya Thirumana Mandapam	6/71, Sannathi Theru , Tiruchendur	9486454934
147	Tiruchendur	Thirulekandar Tirumana Mandapam	127, Sannathi Theru, Tiruchendur	8270973353
148	Tiruchendur	Kallar Kula Thoondaimaan Tirumana Mandapam	116, Sannathi Theru, Tiruchendur	9788132828
149	Tiruchendur	Shanmugar Mahal	287/10, Thaluka office road, Tiruchendur	9865447536
150	Tiruchendur	Subha Mani Kalyana Mahal	Kovil Theru, Tiruchendur	8344685689
151	Tiruchendur	Sivamurugan Kalyana Mahal	43, Sannathi Theru, Tiruchendur	9842152799
152	Tiruchendur	Archana Mahal	221, Sannathi Theru , Tiruchendur	9047843311
153	Tiruchendur	Kurinchi Kalyana Mandapam	332-C, Santhana Mariyamman Kovil Theru	8903408800
154	Tiruchendur	K.T.M. Thirumana Mandapam	138 C, Thaluka office Road, Tiruchendur	9944596459
155	Tiruchendur	Thilagam Thirumana Mandapam	151 B, T.B. Road Tiruchendur	9444960158
156	Tiruchendur	Kanagamani Mahal	(Udhayam International ) T.B. Road,Tiruchendur	9884017532
157	Tiruchendur	Pasumpoon Muthuramalinga Thevar Mahal	177, Vadaku Ratha Veethi, Tiruchendur	9384749253
158	Tiruchendur	Maanila Sivayohiswarar Samuthaya Peravai Matam	Vadaku Ratha Veethi, Tiruchendur	9944382763
159	Tiruchendur	Thulathasi Annathana Kirushnar Matam	43/37, Thoopakulam Theru, Tiruchendur	9443872574
160	Tiruchendur	Kanam Samuthaya Nalakudam	Keela kanam , kanam kashba	4639223220- 7824058176
161	Tiruchendur	ValliVilai Indhu Nadar Samuthaya Kudam	Vallivilai	8903985365- 9486241046
162	Eral	St. Mark's Church Hundred Year Hall	Nazareth Main Road Mookuperi	04630- 270249
163	Eral	Rajammal Marriage Hall	Near Bus Stand Eral, Valavallan	94433333214
164	Eral	Maharaja Marriage Hall	31, Nattaramman Koil Street, Siruthondanallur.	9443528701
165	Eral	Je Je Marriage Hall	6/1, Bharathiyar Road, Eral, Siruthondanallur.	9442051554
166	Eral	Devi Nattaramman Marriage Hall	Devi Nattaramman Koil Street, Eral, Valavallan	9962956512

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
167	Eral	Muthumalaiamman Marriage Hall	Main Road, Siruthondanallur	9789717710
168	Eral	Vasamtham Marriage Hall	Soolaivaikal, Kottarakurichi	9443145383
169	Eral	Perinba Vilas Rathinamani Marriage Hall	Main Road, Sebathaiyapuram, Sawyerpuram	7867986137
170	Eral	Esakki Mahal	Main Road, Mukkani	9943674993
171	Eral	Narayanaswamy Marriage Hall	Puthumanai Nadar Street Mukkani	9443734397
172	Eral	Mutharamman Mariage Hall	Umarikkadu Bus Stop, Korkai Village	9443657320
173	Eral	KSVA Mahal	Sebathaiyapuram to Servaikaranmadam Main Road, Sawyerpuram	9790354465
174	Eral	Jeyam Mahal	Naduvakurichi, Sawyerpuram	9487271269
175	Eral	Helen Community Marriage Hall	Bharathar Street Mukkani	9443562625
176	Eral	Rasi Marriage Hall	Near Bus Stand Eral, Valavallan	9443562625
177	Eral	Selva Sumangali Mahal	Main Road, Naduvakurichi, Sawyerpuram	9443371376
178	Eral	S. S. Mahal	Main Road, Naduvakurichi, Sawyerpuram	7402377300
179	Eral	Kani Mahal	2/2, Pillaiyar Kovil Street, Pandaravilai Main road, Perungulam	9443371376
180	Eral	Chennai Vazh Sivakalai Hindu Nadar Marriage Hall	Main Road, Sivakalai	7402377300
181	Sattankulam	Thanga Ayyanar Thirumana Mandapam	3/6E, Arasoor Road, Sankarankovil Street, Srivenkadeshwarapuram	9442834320
182	Sattankulam	A.M.S. Mandapam	Salaiputhur Road, Srivenkadeshwarapuram	80826 26314
183	Sattankulam	Balaji Mandapam	3/453, Salaiputhur Road, Srivenkadeshwarapuram	98423 35499
184	Sattankulam	St.Mary's Marriage Hall	Chokkankudiyiruppu, Kommadikottai Village	94436 57384
185	Sattankulam	Viswas Jeyam Marriage Hall	Gandhi Nagar, Chokkankudiyiruppu, Kommadikottai Village	94420 55102
186	Sattankulam	Antony Kalyana Mandapam	Mela Sattankulam	04639- 267045
187	Sattankulam	VGV Saraswathi Mahal	Mela Sattankulam	94874 45584

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
188	Sattankulam	Vishwakarma samuthaya Kalyana Mandapam	Sattankulam	99946 70551
189	Sattankulam	Chellakani Marriage Hall	Sattankulam	
190	Kovilpatti	Aarthi Mahal	Kathiresan Kovil road, Kovilpatti	04632- 220147
191	Kovilpatti	Raj Mahal	Park Road, East Street, Kovilpatti	04632- 225338
192	Kovilpatti	Jeyashree Mahal	Manthi Thoppu road, Kovilpatti	04632- 223999
193	Kovilpatti	Thamarai Mahal	Byepass road, Inam maniyachi	04632- 220088
194	Kovilpatti	Saraswathi Mahal	A.K.S. Theatre Road, Kovilpatti	04632- 220360
195	Kovilpatti	Kammavar Mahal	Kathiresan Kovil road, Kovilpatti	04632- 221313
196	Kovilpatti	Sorna Mahal	A.K.S. Theatre Road, Kovilpatti	04632- 221516
197	Kovilpatti	Saiva Vellalar Mahal	South Bajar, Kovilpatti	04632- 221806
198	Kovilpatti	Nanthini Mahal	Vakkil Street, Kovilpatti	04632- 223535
199	Kovilpatti	Sathyabama Mahal	Ettayapuram Road, Kovilpatti	04632- 220230
200	Kovilpatti	Jeyakrishnan Mahal	Krishnan Kovil Street, Kovilpatti	04632- 221272
201	Kovilpatti	Ponthangavel Nadar Mahal	Sekkadi Street-2, Kovilpatti	04632- 220229
202	Kovilpatti	Rajeswari Mahal	Ettayapuram Cross Road, Kovilpatti	04632- 229060 04632- 220118
203	Kovilpatti	Thanaga Mahal	Manthi Thoppu road, Kovilpatti	04632- 221821
204	Kovilpatti	Lakshmi Mills I.N.T.U.C Mahal	Main Road, Kovilpatti	9245135188
205	Kovilpatti	Selva Mahal	Pasuvanthanai Road, Kovilpatti	04632- 229465
206	Kovilpatti	Kalyani Ambal	New Road, Kovilpatti	04632- 226640
207	Kovilpatti	Shree Lakshmi Mahal	Palani Aandavar Kovil Street, Kovilpatti	04632- 221284
208	Kovilpatti	Meera Mahal	Shenbagavalli Amman Backside, Kovilpatti	04632- 227265
209	Kovilpatti	Saratha Thirumana Mandabam	Krishnan Kovil Street, Kovilpatti	9442306387
210	Kovilpatti	Raguram Mahal	Main Road, Kovilpatti	9442306389

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
211	Kovilpatti	Yokeeswarar Thirumana Mandabam	Baharathi Nagar, Kovilpatti	9994246526
212	Kovilpatti	Devar Mahal	Park Road, East Street, Kovilpatti	9486403464
213	Kovilpatti	Sutharson Mahal	Manthi Thoppu road, Kovilpatti	9566603442
214	Kovilpatti	Saiva Reddiyar Mahal	Manthi Thoppu road, Kovilpatti	9789148062
215	Kovilpatti	Vels Mahal	Manthi Thoppu road, Kovilpatti	9994917898
216	Kovilpatti	Mahalakshmi Mahal	Pasuvanthani road, Kovilpatti	9344666111
217	Kovilpatti	N.K.Mahal	Ettayapuram Road, Kovilpatti	9842887432
218	Kovilpatti	Annamalai Reddiyar Mahal	Kathiresan Kovil road, Kovilpatti	9600871540
219	Kovilpatti	Sowbagya Mahal	Venkatesh Nagar, Kovilpatti	9443121813
220	Kovilpatti	Chithambaranadar - Kamatchiamman Mahal	Ettayapuram Road, Kovilpatti	9894717795
221	Kovilpatti	A.V.K.C Mahal	Shenbagavalli Amman Kovil Near, Kovilpatti	9789337423
222	Kovilpatti	Gayathri Mahal	Shenbagavalli amman Kovil near, Kovilpatti	9443191564
223	Kovilpatti	Sundaravalli Mahal	Saramariamman Kovil Street, Kovilpatti	9791500084
224	Ettayapuram	Sareswathi Marriage Hall (Small)	Cholapuram	9159598026
225	Ettayapuram	Kamarajar Thirumana Mahal	Pungavarnatham	8608566427
226	Ettayapuam	Periya Pillayaramman Marriage Hall	Pungavarnatham	9600871501
227	Ettayapuram	Poojari P.Mariappasamy Nadar -Krishnaammal Marriage Hall	Ethilappanayakkanpatti	6383071354
228	Ettayapuram	Nadar Marriage Hall	Kannakattai	8072623434
229	Ettayapuram	T.Arunachalapuram Nadar Uravinmurai Ponmadasamy Kovil Hall	Keelaeral	7339004779
230	Ettayapuram	Kammavar Marriage Hall	Keelaeral	9944234595
231	Ettayapuram	Nadar Uravinmurai Marriage Hall	Keelaeral	9965848548
232	Ettayapuram	Kathava Nadar Hall	Keelaeral	9566057156
233	Ettayapuram	Rediyar Marriage Hall	Suraikkaipatti	-
234	Ettayapuram	Rajakampalam Marriage Hall	Suraikkaipatti	-

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
235	Ettayapuram	Senaiyar Marriage Hall	Erachi	9443181955
236	Ettayapuram	Devar Community Hall	Erachi	9486015200
237	Ettayapuram	Ramasamy Nadar- Pushpammal Marriage Hall	Erachi	8098444777
238	Ettayapuram	Avudaiyaammal Marriage Hall	Ettayapuram, Theppakulam Street, Bus stand Opposite	9940087717
239	Ettayapuram	Senai Thalaivar Marriage Hall	South Senaiyar Street, Ettayapuram	-
240	Ettayapuram	Chandran Marriage Hall	Main Road Street, Ettayapuram	9443131258
241	Ettayapuram	Eswari Marriage Hall	Police line Street, Ettayapuram	9894492430
242	Ettayapuram	Sai Ganesh Marriage Hall	Tuticorin Road, Ettayapuram	9443721848
243	Ettayapuram	NR Marriage Hall	Middle Road Street, Ettayapuram	9486250512
244	Ettayapuram	Tamillagam Marriage Hall	Kottai South Street, Ettayapuram	9486287382
245	Ettayapuram	Chettiar Marriage Hall	Wavana Rauther Street, Ettayapuram	9790436333
246	Ettayapuram	Muthuchami Dikshitar Marriage Hall	Busstand Near Ettayapuram	9894859649
247	Ettayapuram	Athiyappan Nadar Uravinmurai Marriage Hall	Middle Street, North Muthulapuram	9944109471
248	Ettayapuram	Kammavar Marriage Hall	Middle Street, Muthulapuram	9751049429
249	Ettayapuram	Nadar Marriage Hall	N.Vedapatti	9940836752
250	Ettayapuram	Konar Marriage Hall	N.Vedapatti	9894636417
251	Ettayapuram	Nayaker Community Marriage Hall	Ayanvadamalapuram	8667400607
252	Ettayapuram	Bhajanimadam Marriage Hall	West Street, Vembur	9486738445
253	Ettayapuram	Nadar Community Marriage Hall	Alagapuri, Vembur	9655081303
254	Ettayapuram	Kammavar Marriage Hall	Melakaranthi	9443436384
255	Ettayapuram	Nayaker Privat Marriage Hall	Perilovanpatti	9788251533
256	Ettayapuram	Devar privat Marriage Hall	Perilovanpatti	9047364561
257	Ettayapuram	Nadar privat Marriage Hall	Muthalipatti, Perilovanpatti	6382302297
258	Ettayapuram	Kammavar Marriage Hall	Kalugachalapuram	9566592060

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
259	Ettayapuram	Ayyudaiammal - Velsamy Private Marriage Hall	Melanambipuram	9841121525
260	Ettayapuram	Pattirakaliamman Kovil Private Marriage Hall	Melabambipuram	9840306379
261	Ettayapuram	Kammavar Marriage Hall	Sindalakarai	-
262	Ettayapuram	Marriage HAll	Peekilipatti	9443900140
263	Ettayapuram	Senai Thalaivar Marriage Hall	kadalailur	9677367849
264	Ettayapuram	Muthaliyar Marriage Hall	kadalailur	7845764414
265	Ettayapuram	Kammavar pothu madam	chinnamalaikundru	9003807754
266	Kayathar	Mariappa nadar ramalakshmi kalyana mandapam	Kaliamman kovil st kadambur	9442445577
267	Kayathar	Kamikalai nadar thangaduraichi	therku rathaveethi kadambur	9442445577
268	Kayathar	Surya mahal	Mainroad kayathar	9443414540 8675008803
269	Kayathar	Maheswari kalyana mandapam	S.R.O Street	8489954208
270	Kayathar	Senaiyar Community hall	Chatram street	9486418170
271	Kayathar	Chitrakalyana mandapam and sivanarayana kalyana mandapam	Main road kayathar	9443417005 8098591725
272	Kayathar	Yadhava Community Hall	West st Pudukottai kayathar	9788750945
273	Kayathar	Vinnarasi Thirumana mahal	East Street Kamanaickenpatti	9003807527
274	Vilathikulam	Kamatchiamman Mahal	Chithavanayakkanpatti	9443147559
275	Vilathikulam	Devendra Nadar Mahal	Jamin Karisalkulam	9787951995
276	Vilathikulam	Paulpandi Nadar Mahal	Matharajapuram	9585397925
277	Vilathikulam	Muthumariamman Mahal	Ayanbommaiahpuram	8940270065
278	Vilathikulam	Thirukumaran Mahal	Ayanbommaiahpuram	9952635828
279	Vilathikulam	Muthramman Mahal (Nadar)	Athankarai	9943463978
280	Vilathikulam	Reddiyar Mahal	Keelavilathikulam-I	9790352802
281	Vilathikulam	Aarthi Mahal	Vilathikulam	9443527529
282	Vilathikulam	K.S.Alagupaul Mahal	Vilathikulam	9943321304

S1. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
283	Vilathikulam	M.Ponnusamypillai	Vilathikulam	9894255437
284			Vilathikulam	8668015709
285	Vilathikulam	SVMR Mahal	Vilathikulam	9443164145
286	Vilathikulam	SVMR Kasthuri Mahal	Vilathikulam	9443164145
287	Vilathikulam	Thangaraj Mahal	Vilathikulam	9715581103
288	Vilathikulam	N.K.S Akkammal Mahal	Vilathikulam	9443163102
289	Vilathikulam	G.V.N Mahal	Vilathikulam	9865266283
290	Vilathikulam	R.B.K Mahal	Vilathikulam	9443584274
291	Vilathikulam	Chinnamani Nadar Mahal	Vilathikulam	9442520442
292	Vilathikulam	Solai Mahal	Vilathikulam	9789499163
293	Vilathikulam Murugaiah Nadar Vilathikulam		Vilathikulam	984600372
294	Vilathikulam Mani Muthaliyar Mahal Vilathikulam		9080129613	
295	Vilathikulam Jeyaguru Mahal Vilathikulam		Vilathikulam	9176662136
296	Vilathikulam	Nadar Community Marriage Hall	Ariya Nayagipuram	9486454106
297	Vilathikulam	Pannaikottai Muniyasamy Mahal	Melmanthai	9444896758
298	Vilathikulam	D.M.R Mahal	Vembar	9444452616
299	Vilathikulam	Santhom Mahal	Vembar	8098112526
300	Vilathikulam	Kammavar Mahal	Puthupatti	9486454018
301	Vilathikulam	Devandra Kula Vellalar Mahal	Vowalthoothi	9786324011
302	Vilathikulam	Alagar Mahal	Kulakattankurichi	9442445533
303	Vilathikulam	Reddiyar Community Hall	Muthu Samy Puram	9487248901
304	Vilathikulam	Kulatheeshwari Mahal	Muthu Samy Puram	9865685300
305	Vilathikulam	D.R. Subburaj Mahal	Puthur	9994156913
306	Vilathikulam	Rajamani Mahal	Puthur	9944227424
307	Vilathikulam	Cholaiappa Nayakar Mahal	Puthur	9952371227
308	Vilathikulam	Devankar Chettiyar Mahal	Puthur	9487050219
309	Vilathikulam	S.M.S. Mahal	Puthur	9342291229
310	Vilathikulam	Kammavar Mahal	Nagalapuram	9842814172

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SI. No	Name of Taluk	Name of the Marriage Hall	Address of the Marriage Hall	Contact Number
311	Vilathikulam	Mathalai Mahal	Nagalapuram	9442132272
312	Vilathikulam	Chenai Thalaivar Mahal	Pattithevan patti	9597577526
313	Vilathikulam	Lakshmi Mahal	Gowdanpatti	9790242655
314	Vilathikulam	Reddiyar Mahal	V.Vedapatti	9790352802
315	Ottapidaram	Kammavar Marriage Hall	Parivallikottai	9443105821
316	Ottapidaram	Chenai Thalaivar Marriage Hall	Vellaram	9095406145
317	Ottapidaram	Arumugam Pillai Marriage Hall	Pasuvanthanai	9629740096
318	Ottapidaram	Reddiyar Marriage Hall	Pasuvanthanai	9715546373
319	Ottapidaram	Nadar Marriage Hall	Pasuvanthanai	8903987616
320	Ottapidaram	Durga Marriage Hall	Pasuvanthanai	9443872010
321	Ottapidaram	Sivanthi Aadhithanar Marriage Hall	Puthiyamputhur	9443161277
322	Ottapidaram	Indu Nadar Marriage Hall	Puthiyamputhur	944329441
323	Ottapidaram	Senkundhar Marriage Hall	Puthiyamputhur	9600639875
324	Ottapidaram	Sudalaimani Marriage Hall	Puthiyamputhur	9600346962

# 8. Thoothukudi Country craft owner list

S1. No	Name	Boat Registration No	Mobile Nos
1.	Starwin	IND TN 12 MO 1744	9791585697
2.	Amalraj	IND TN 12 MO 0633	9578105206
3.	Joy	IND-TN-12-MO-413	9751435574
4.	Francis	IND-TN-12-MO-403	9443002274
5.	Amalan	IND-TN-12-MO-701	9715629798

#### 9. Swimmers (Working in Fire Station)

S1. No	Rank & No	Name (Thiruvalargal)	Fire Station	Mobile Number
1.	FM 9495	S.Karuppasamy	Thoothukudi	9585328267
2.	FM 9526	S.Ramesh	Thoothukudi	9489123845
3.	FM -9520	S.Jagatheesh	Kalugumalai	8526085911
4.	FM -9581	R.Satheesh	Kovilpatti	7708339914

S1. No	Rank & No	Name (Thiruvalargal)	Fire Station	Mobile Number
5.	FM-9343	K.Karuppasamy	Kovilpatti	8778750026
6.	FM 9480	D.Mariselvam	Ottapidaram	9498254779
7.	FM10193	A.Vetrivel Murugan	Ottapidaram	8754847478
8.	FM-9860	R.Vaikundam	Sattankulam	8825591590
9.	FM - 485	P.Pravin Samuel	Sattankulam	7904647284
10.	FM 8548	M.Murugan	Srivaikundam	7708529322
11.	FM 8229	A.Ramachandran	Srivaikundam	9962674775
12.	FM 8751	R.Muthu Jeyakumar	Thoothukudi-Sipcot	9498254942
13.	FM 9292	J.Samuvel	Thoothukudi-Sipcot	7373939643
14.	FM 9801	T.Esakkimuthu	Thoothukudi Thermal	9159592900
15.	FM 9794	S.Athi Sudalai	Thoothukudi-Thermal	9566036101
16.	FM 9593	A.Antony Michael	Thoothukudi-Thermal	9750216978
17.	FM 9573	R.Muthumanikandan	Tiruchendur	7299091343
18.	FM 8772	P.Esaki	Tiruchendur	8428842408
19.	FM 0738	M.Tamilraj	Vilathikulam	9597497855
20.	FM 9899	J.John Asir Selvam	Vilathikulam	9498253007

## Thoothukudi Country Craft Owners

SI. No	Name	Boat Registration No	Mobile Nos
1.	Starwin	IND TN 12 MO 1744	9791585697
2.	Anthony Pitchaiya	IND-TN-12-MO-5390	7548856482
3.	Ramesh	IND-TN-12-MO-1108	9842174702

### Vallam Owners

S1. No	Place	Name	Boat Registration No	Mobile No
1.	Vembar	Royappan	IND TN 12 MO 1174	9655914275
2.	Tharuvaikulam	Nicolas Ranjith Kumar	IND TN 12 MO 1326	9789193979
3.	New Harbour	Mariappan	IND TN 12 MO 1982	9626883255
4.	Amalinagar	Rethinaraj	IND TN 12 MO 2703	9442927804
5.	Amalinagar	Dixon	IND TN 12 MO 604	9500810935
6.	Kombuthurai	Francis	IND TN 12 MO 0403	9443002274
7.	Punnakkayal	Pitchaipraviston	IND TN 12 MO 3962	8870591095

### Swimmers

S1. No	Place	Name of the Swimmer	Mobile No
1.	Vembar	Raj	9444400013
2.	Tharuvaikulam	Anburaj	9655156710
3.	Tharuvaikulam	Sebastian	9442486207
4.	Thoothukudi	Ponnusamy	9787810153
5.	Thoothukudi	Maharaja	7845980570
6.	Thoothukudi	Stephen	9751118740
7.	Thoothukudi	Thangavel	9626057491
8.	Thoothukudi	Valampuri	9677164120
9.	Thoothukudi	Santhanasekar	9791424397
10.	Thoothukudi	Igbal	8015566003
11.	Thoothukudi	Sahulhameed	7867929905
12.	Thoothukudi	Anthony Pitchaiya	7548856482
13.	Thoothukudi	Ramesh	9842174702
14.	Thoothukudi	Jehon	7708599603
15.	Thoothukudi	Jeyakumar	9750276523
16.	Alanthalai	Starwin	9791585697
17.	Alanthalai	Vensuslas	9790524455
18.	Punnakayal	Sahayaraj	9788217640
19.	Punnakayal	Merit	8870189097
20.	Punnakayal	Thomas	8056930287
21.	Singithurai	Antony	9042405003
22.	Singithurai	Amalan	8870179326
23.	Singithurai	Prakash	9965425017
24.	Singithurai	Arun	8056345382
25.	Singithurai	Arokiyam	8015764294
26.	Singithurai	John Xavier	8870225933

S1. No	Place	Name of the Swimmer	Mobile No
27.	Singithurai	Alex	9791215698
28.	Singithurai	Jeyakumar	7395852842

#### 10. List of JCB Holders

The details of JCB owners furnished below.

#### Thoothukudi Division:-

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
1	TN69BE6751	P Lakshmanan	NO 4/34 SOUTH STREET, SAKKAMMALPURAM D DURAISWAMIPURAM, THARUVAIKULAM TUTICORIN, 628105	
2	TN69BE8365	Annapushpam M	NO 7/542 GANDHI NAGAR, MULLAKADU, TUTICORIN, 628005	
3	TN69BE8422	T Siluvai Arockiam	NO 2/10 ANTHONIYAR STREET, ANTHONIYARPURAM MARAVANMADAM, KORAMPALLAM THOOTHUKKUDI, 628101	9092592821
4	TN69BF0684	A Maharajan	NO 5/110 SOUTH STREET, PULIYAMPATTI, TUTICORIN, 628008	9843867794
5	TN69BF0940	I Samuel	NO 5/140 B AMMAN KOVIL STREET, KALLATHIKKINARU PARIVALLIKOTTAI, OTTAPIDARAM TK TUTICORIN DIST, 628008	9942266997
6	TN69BF7346	A.Veeraperumal	NO:5/1449 KUMARASAMY NAGAR, 3RD STREET, MUTHAIAHPURAM, Thoothukkudi, 628005	9788691919
7	TN69BF7376	A.Durai Devadawson	NO:4/3, NORTH STREET, KUMARAGIRI, PUDHUKOTTAI, Thoothukkudi, 628103	9894140474
8	TN69BH0396	Paramasivan S	3/39 MIDDLE STREET VITTILAPURAM, K.DURAISAMIPURAM, VILATHIKULAM, , Thoothukkudi, 628712	9791830514

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
9	TN69BH1595	Ramamoorthy Blue Metals Private Ltd	NO:9, TOOVIPURAM 8TH STREET, , Thoothukkudi, 628003	9842821354
10	TN69BH2187	P.Karthick	NO:1/58, SORIESPURAM, AYYANADAIPPU, KORAMPOLLAM, Thoothukkudi, 628101	9600283606
11	TN69BH5143	J.Vinmathi	NO:86/1, DOOVIPURAM 2ND STREET, NEW C, , Thoothukkudi, 628003	7299994399
12	TN69BH6862	P Maharaja	NO.1/126A NORTH STREET, MELAKKOOTUDANKADU, KUTTUDANKADU, , Thoothukkudi, 628103	9994701809
13	TN69BH7088	S.M.Thomaiyar&Son	NO:4/162-E, CALDWELL COLONY, 4TH STREET WEST, , Thoothukkudi, 628008	8056349560
14	TN69BH7306	P.Jefferson Samuelraj	NO:7, MAL STREET, SAWYERPURAM, , Thoothukkudi, 628251	9443148151
15	TN69BH8623	B.Selvakumar	NO:5/62, MIDDLE STREET, SAVARIMANGALAM S.KAILASAPURAM, Thoothukkudi, 628301	7299994399
16	TN69BH8839	M.Muthumariappan	NO:3-203/5 NORTH STREET, MELAMANGALAM SILLANGULAM, OTTAPIDARAM TK, Thoothukkudi, 628718	9488239095
17	TN69BH9537	Sbs Transport And Earth Movers	NO:3/115 NORTH STREET, OSANOOTHU KULASEKARANALLUR, Thoothukkudi, 628401	8248563026
18	TN69BJ0221	Grace Group India Private Limited	NO:106/57B, MILLER PURAM, TUTICORIN, Thoothukkudi, 628008	9443727722
19	TN69BJ0516	N.Ganesh	NO:2/46 SOUTH STREET, KOLLANKINARU, OTTAPIDARAM TK, Thoothukkudi, 628302	8760565253
20	TN69BJ0554	S.Esrajoseph	NO:3/225 KOVIL STREET, PUDHUKOTTAI KUMARAGIRI, TUTICORIN, Thoothukkudi, 628103	9944695128

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
			NO:1/90, EAST STREET,	
21	TN69BJ0886	D Volcomy	SOUTH	9865221717
21	110900000	P.Velsamy	VEERAPANDIAYAPURAM,	9803221717
			TUTICORIN, , 628002	
			NO:20/1D, SOUTH	
22	TN69BJ1041	Benton Engineering	BEACH ROAD, ,	8012536618
			Thoothukkudi, 628001	
			NO:4/24/5,	
			ATHIPARASAKTHI	
23	TN69BJ1087	S.Esakkimuthu	NAGAR, MELUR,	9677757942
-0	11109201001	5.25aiiiiiiddiid	TUTICORIN,	5011101512
			Thoothukkudi, 628002	
			NO:4/42 KILAKU KALANI,	
			KATCHERI	
24	TN69BJ1688	M.Sureshkumar	DALAVAIPURAM,	9600015775
24	11109D01000	M.Suleslikullar	,	9000013773
			TUTICORIN,	
			Thoothukkudi, 628401	
			NO : 9/117,	
25	TN69BJ2633	Elshaddai Blue Metals	KASAVANKUNTRU,	9629198807
			ERACHI VILLAGE, -,	
			Thoothukkudi, 628720	
			NO:2/106, NORTHERN	
			STREET,	
26	TN69BJ3544	K.Balamurugan	SUPPAMMALPURAM,	9442366825
			SILLANGULAM,	
			Thoothukkudi, 628718	
			NO:5/12 WEST STREET,	
27	TN69BJ4216	I.Selvam	MUDIVAITHANENDAL,	8870836390
			Thoothukkudi, 628102	
			NO:1/46, SOUTH	
			STREET,	
28	TN69BJ4752	T.Ayyappan	ACKANAYAKKANPATTI,	7305119759
			Thoothukkudi, 628303	
			NO:3/115 NORTH	
		Sbs Transport And	STREET, OSANOOTHU,	
29	TN69BJ5850	Earth Movers	KULASEKARANALLUR, ,	8948563026
		Laith Movers	Thoothukkudi, 628401	
			NO:7/125 SOUTH	
20			STREET, ANINTHAMADAN	0050105155
30	TN69BJ6562	A.Muthukumar	PATCHERI,	9952127157
			THARUVAIKULAM,	
			Thoothukkudi, 628105	
			NO:3/18 COLONY	
31	TN69BJ6593	D.Sarathkumar	STREET, KEELA	9843359101
01	11107000000		MUDIMAN, Thoothukkudi,	9040009101
			628401	
			NO;20/68A, ROCHE	
20			COLONY 2ND STREET,	
32	TN69BJ7365	S.Simola	TUTICORIN,	9677757941
			Thoothukkudi, 628001	

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
33	TN69BJ7436	I.Samuel	NO:5/140B, AMMAN KOVIL STREET, KALLATHIKKINARU PARIVALLIKKOTTAI, OTTAPIDARAM, Thoothukkudi, 628714	9442811051
34	TN69BJ8451	N.Balammal	NO:2/116, SOUTH STREET, KOLLANKINARU, THOOTHUKKUDI, Thoothukkudi, 628302	8760565253
35	TN69BJ8946	Raj Carbons	NO:3/67-C, HARBOUR BYE PASS ROAD, THOOTHUKKUDI, Thoothukkudi, 628008	9443464000
36	TN69BK1696	M.Karuppasamy	NO:4/213-11, 1ST STREET, SUNDAR NAGAR, MUTHAIYAPURAM, Thoothukkudi, 628005	9442370929
37	TN69BK3236	V.Balasubramanian	NO:3F/255, P AND T COLONY 7TH STREET, CHIDAMBARANAGAR, Thoothukkudi, 628008	9080422464
38	TN69BK5191	P.Jefferson Samuelraj	NO:7, MAL STREET, SAWYERPURAM, , Thoothukkudi, 628251	9443148151
39	TN69BK7041	Raj And Associates	NO:86/2A ROSE BUILDING, EAST CAR STREET, , Thoothukkudi, 628002	9489192299
40	TN69BK7042	P.Sundararajan	NO:1/236, MATHAVAN NAGAR WEST, AYYANADAIPPU, KORAMPALLAM, , Thoothukkudi, 628101	9788870122
41	TN69BK9540	M/S.Asp Transport	NO:6/111B5, MAHALAKSHMI NAGAR, MUTHIAHPURAM, , Thoothukkudi, 628005	8667079209
42	TN69BL0406	S.Charles Thomas Gnanapradeep	NO:20/68A, ROCHE COLONY 2ND STREET, THOOTHUKKUDI, Thoothukkudi, 628001	9564475555
43	TN69BL1695	D.Sivakumar	NO:14, POL EPETTAI EAST, THOOTHUKKUDI, Thoothukkudi, 628002	9597985677
44	TN69BL4520	P.Rajasekaran	NO:111L/1N, GOMATHI BAI COLONY 1ST STREET, Thoothukkudi, 628002	9940256669

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
45	TN69BL6645	M.Muthu Mariappan	NO:3-203/5, NORTH STREET, MELAMANGALA, KEELA MANGALAM, SILARKULAM, OTTAPIDARAM, Thoothukkudi, 628718	9488239095
46	TN69BL7940	Thangam Traders	NO:11/130, KENNEDY COMPLEX MAIN ROAD, MUPPULIVETTI, , Thoothukkudi, 628401	9600390668
47	TN69BL8151	G.Vairam	NO:34/9, TYPE1, THERMAL NAGAR, Thoothukkudi, 628006	7540015112
48	TN69BL8190	M.Sathishkumar	NO:3A/451, INDIRA NAGAR 3RD MILE, Thoothukkudi, 628008	9994085982
49	TN69BM0499	G.Palanimurugan	NO:1/87, SANTHANA MARIYAMMAN KOVIL, STREET, MELA ARASADI, THOOTHUKKUDI, Thoothukkudi, 628002	6369441241
50	TN69BM0885	Raj And Associates	NO:86/2A, ROSE BUILDING, EAST CAR STREET, Thoothukkudi, 628002	9842124871
51	TN69BM1085	K.Senthilkumar	NO:1/126B, MIDDLE STREET, K.VALLINAYAGAPURAM, KURUKKUCHALAI, OTTAPIDARAM, 628722	9894867244
52	TN69BM1091	Mukundan Earth Movers	B3-2/266, GURU COMPLEX, MADATHUR BYE PASS ROAD, MADATHUR, Thoothukkudi, 628008	9047031065
53	TN69BM1510	Meghaengineeringinfra structuresltd	TTPP-STAGE-IV, NEAR FIRST CHECK POST, VOC PORT TRUST ROAD, Thoothukkudi, 628004	7898320330
54	TN69BM1516	Meghaengineeringinfra structuresltd	TTPP-STATE-IV, NEAR FIRST CHECK POST, VOC PORT TRUST ROAD, Thoothukkudi, 628004	7898320330
55	TN69BM1851	Zarah Co Co Fibre	NO:3/81-2, THIRUVANANTHAPURAM ROAD, PERURANI, THIMMARAJAPURAM, Thoothukkudi, 628102	9442631446

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
56	TN69BM2227	C.Shunmugaperumal	NO:2/68-28/3, PERIYAR NAGAR, MUTHAIYAPURAM, THOOTHUKKUDI, Thoothukkudi, 628005	9965171437
57	TN69BM2252	C.Shunmugaperumal	NO:2/68, 28/3, PERIYARNAGAR, MUTHAIYAPURAM, Thoothukkudi, 628005	9489291717
58	TN69BM2522	K.Thirupathi	NO:1/132, EAST STREET, NAGAMPATTI, THOOTHUKKUDI, Thoothukkudi, 628718	8608142127
59	TN69BM3042	S.Kandhasamy	NO:1/66, NORTH STREET, MELAPANDIYAPURAM, THOOTHUKKUDI, Thoothukkudi, 628301	6374971195
60	TN69BM4452	S.Veerapandi	NO:2/30, SOUTH STREET, K SHANMUGAPURAM, KURUKKUCHALAI, Thoothukkudi, 628722	8608531084
61	TN69BR0256	Kalpaka Chemicals Private Ltd	2/141, PUTHIYAMPUTHUR ROAD, NAINARPURAM POST, TUTICORIN, Thoothukkudi, 628452	9842657588
62	TN69BT1513	Dotcom	5/48Y, ABIRAMI NAGAR, ATHIMARAPATTU, THOOTHUKKUDI, Thoothukkudi, 628005	9047766944

## Kovilpatti Division:-

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
1	TN28BH7915	Karuppasamy P	1/136 EAST STREET, KARUPPUR, ETTAYAPURAM TK, Thoothukkudi, 626205	9092891362
2	TN18AE6579	Sundararaj	416/5 SHANMUGASIGAMANI NAGAR, KOVILPATTI, KVP, Thoothukkudi, 628501	9486453603
3	TN32AL6300	Ramasamy M	7/173, PALLIKUDATHERU, KOTTANATHAM,	9597514245

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
			VILATHIKULAM, Thoothukkudi, 628907	
4	TN57AK8418	Stalin S	NO 723 D1/A2, MUTHU NAGAR, PALLAKKU ROAD, SOUTH SIDE, THITTANGULAM, KOVILPATTI, Thoothukkudi, 628502	9842448733
5	TN57AQ9976	Muthu Muniyandi M	23/114 MELA THERU, PALLAKULAM, PALLAKULAM, Thoothukkudi, 628903	8778423883
6	TN59BH1208	Baskaran A	NO 3/81, NORTH STREET, PUTHU APPANERI, GVN KALLURI, KOVILPATTI TK, Thoothukkudi, 628502	9488351357
7	TN63AH9428	Kandhasamy T	NO 2/24 EAST STREET, MASARPATTI KEELNATTUKURICHI, ETTAYAPURAM, Thoothukkudi, 626202	8637474265
8	TN67BC8483	Karuppasamy K	NO 420 A 9/2 METTU STREET, MARAVAR COLONY ILUPPAIYURANI, KOVILPATTI, Thoothukkudi, 628502	9790354466
9	TN67BE1986	Karpaga Devi M	NO 6/167-3, EAST STREET, KALLURANI, VANARAMUTTI, KOVILPATTI TK, Thoothukkudi, 628721	9944210486
10	TN69AR2350	Kasiraja S	NO 116/3 WEST STREET, PANNEERKULAM, KAYATHAR, Thoothukkudi, 628952	6382839566
11	TN69AS8335	Balamurugan T	OLD NO 1/66B NEW NO 1/84, MATHIKULAM VILATHIKULAM TK, TUTICORIN DT, 628907	
12	TN69AS8778	M Kalaivanan	OLD NO 3/9A NEW NO 69 LEKKAMPATTI, MANTHIKULAM VILATHIKULAM TK, TUTICORIN DIST, 628908	9976408669
13	TN69BD6466	Ravichandran G	OLD NO3/99 NEW NO 2/119, CHATHIRAPATTI, IDAISEVAL, KOVILPATTI TK, Thoothukkudi, 628716	9597954372

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
14	TN69BD6471	Rajivgandhi S	NO.10/22, JAWAHARLAL NERHU STREET, KAYATHAR, KAYATHAR TK, Thoothukkudi, 628952	7506028455
15	TN69BD7635	Murugesan K	3/155, EAST STREET, PALLAKULAM, VAIPPAR, VILATHIKULAM, Thoothukkudi, 628903	9943957132
16	TN69BY4811	S Maheswaran	NO 140 K VELAYUTHAPURAM, KALUGUMALAI POST KOVILPATTI T K, TUTICORIN DIST, 628552	9443416227
17	TN72BD2935	A Malaiyarasan	258, SOURH STREET, KAILASA PURAM, TIRUNELVELI, 628520	
18	TN75R5392	Kottaisamy K	NO 132 WEST STREET, PANIKKARKULAM ATHIKULAM, KAYATHAR, Thoothukkudi, 628952	9566874050
19	TN84F3366	Balasubramanian P	86B/3 2ND STREET, VALLUVAR NAGAR, KOVILPATTI, Thoothukkudi, 628501	9790395979
20	TN960192	R V Selvakumar	OLDNO 2/50 NEWNO1/229 PILLAIYAR, NATHAMBLOCK1 PILLAIYARNATHAM, VILATHIKULAM TK TUTICORIN DIST, 628902	9842180298
21	TN963278	Jeyakumar V	2/176 EAST STREET, KOOTHANOORANI, MEENAKSHIPURAM VILATHIKULAM, 628907	
22	TN963292	Eswaran A	1/50C NEW NO 105, PITCHAITHALAVANPATTI, KOVILPATTI TK, 628501	9941440149
23	TN96A6189	Nanthagopal R	2/24 NORTH STREET, KALUGASALAPURAM, K SUBRAMANIAPURAM, KAYATHAR, Thoothukkudi, 628552	9842112808
24	TN12AB9874	Rehoboth Crane Service	6/2813/C, ILAYARASANANDAL ROAD, KOVILPATTI TK, Thoothukkudi, 628502	8098961278

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
25	TN16C1345	Manthiramoorthi A	8/102, SOUTH STREET, THERKU ILANTHAIKULAM POST, SALAIPUDUR, AHILANDAPURAM, Thoothukkudi, 628714	9092737868
26	TN18AD8002	Rehoboth Crane Service	6/2813/C, ILAYARASANENDAL ROAD, KOVILPATTI, Thoothukkudi, 628502	8098961278
27	TN25BB0176	Navaneethakannan K	1/69 NORTH STREET, CHOLAPURAM, , Thoothukkudi, 628908	9952583839
28	TN28BJ5011	Ramachandran M	61/1, FIRST STREET, ILAMBUVANAM ETTAYAPURAM TK, Thoothukkudi, 628902	7708677869
29	TN32AK0574	Gopi P	32 B, VEERAVANCHI NAGAR 1ST STREET, KOVILPATTI, Thoothukkudi, 628502	8190990390
30	TN40Q2151	Gnanaraj A	266/5, V.P.SITHAN NAGAR, NALATINPUTHUR, KOVILPATTI,	9944298114
31	TN47AJ7142	Athilingam B	Thoothukkudi, 628716 3/2, NORTH STREET, SIVALARPATTI, VILATHIKULAM, Thoothukkudi, 628905	8110021437
32	TN49BW2912	Ramalakshmi S	NO-5/86 SOUTH STREET , ALAGAPPAPURAM VANARAMUTTI-PO , KOVILPATTI-TK, Thoothukkudi, 628721	8575552211
33	TN49CZ4416	Kasipandi B	5/4, NORTH STREET, SALNAICKANPATTI, KAMANAICKENPATTI, KOVILPATTI TK, Thoothukkudi, 628720	9629268532
34	TN57AV7420	Rajkumar S	2/151-1/NA, MADURAI ROAD, K.SUNDARESAPURAM, AYANPOMMIYAPURAM, VILATHIKULAM, Thoothukkudi, 628907	9486220997
35	TN57BD7638	Gayathri K	1/106, EAST STREET VILLISERI, KOVILPATTI TK, Thoothukkudi, 628716	9025073049

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
36	TN59BJ4249	Arumugaraj R	84/2 SOUTH STREET, KOPPAMPATTI, KOVILPATTI, Thoothukkudi, 628720	9442693821
37	TN59BK2092	Pandi C	116/3, SOUTH STREET, VIJAYAPURI, KODUKKAMPARAI, Thoothukkudi, 628502	6380518335
38	TN63AT4756	Chinna Ayyanar P	NO 2/168, EAST STREET, KOOTHANOORANI, VILATHIKULAM TK, Thoothukkudi, 628907	8778937488
39	TN65AZ7960	Ilayaraja P	NO.3/30, WEST STREET, E VELAYUDHAPURAM, MELMANDAI, Thoothukkudi, 628901	6379300547
40	TN65U3395	Manokaran S	1/59, SOUTH STREET, PADARNTHAPULI, ETTAYAPURAM, Thoothukkudi, 628902	9442571356
41	TN66Q2242	Subburaj G	4/33 WEST COLONY, LAKSHMIPURAM INAM MANIYACHI, KOVILPATTI, Thoothukkudi, 628502	9443147419
42	TN67BA5884	Selvakumar M	112/2, SOUTH STREET, VALLINAYAKIPURAM, KATTARAMANPATTI, KADALAIYUR, ETTAYAPURAM, Thoothukkudi, 628902	7708414299
43	TN67BA9192	Balaji G	164/1, EAST STREET, KULASEKARAPURAM, LINGAMPATTI, KOVILPATTI, Thoothukkudi, 628502	8754266028
44	TN67BA9932	Bharathi R	359/2 VALLUVAR NAGAR, KADALAIYUR ROAD, KOVILPATTI TK, Thoothukkudi, 628501	9894718100
45	TN67BE8968	Venkatesan P	80 MIDDLE STREET, KEELA NAMBIPURAM, ETTAYAPURAM TK, Thoothukkudi, 628902	9360004709
46	TN67BF0669	Senthilkumar K	3/145, KOTTAI KINARRU STREET, ERACHI, KOVILPATTI, Thoothukkudi, 628720	9600210980

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
47	TN67BX1542	Kumar S	98 KANNI AMMAN KOVIL STREET, ILAMBUVANAM, ETTAYAPURAM, Thoothukkudi, 628902	6380615325
48	TN67BZ6663	Balakrishnan S	4 SOUTH STREET, AKILANDAPURAM, Thoothukkudi, 628714	8098331308
49	TN69BH6099	Shanmugaraj P	658, SOUTHSTREET, VADAKKUILANDAIKULAM , TERKUILANDAIKULAM- PO, KAYATHAR-TK, Thoothukkudi, 628952	9443363971
50	TN69BY5451	A Paramasivam	NEW NO 5/51A V P THALAYUTHU, THENNAMPATTI VILLAGE OTTAPIDARAM TK, TUTICORIN DIST, 628714	
51	TN69BY7132	Annalakshmi E	1/357, WEST COLONY, PITCHAITHALAIVANPATTI, KOVILPATTI TK, Thoothukkudi, 627713	9941440149
52	TN76AJ5704	Manikandan C	NO 63/ 171 KELATHURU, AYYANARUTHU, KAYATHAR TK, Thoothukkudi, 628952	9791820717
53	TN846046	M Ramesh Kumar	110/3210A, 1 ST STREET, SOUTH SANKARALINGAPURAM, KOVILPATTI, Thoothukkudi, 628501	9944938897
54	TN91V1276	Ilaiyaraja S	39/2 MIDDLE COLONY, MEENACHIPURAM, ETTAYAPURAM TK, Thoothukkudi, 628718	9597802257
55	TN964766	Karuppasamy V	2/87A SOUTH STREET ZAMIN DEVARKULAM, KOVILPATTI TK TUTICORIN DIST, KOVILPATTI, 628721	9943134877
56	TN96A8919	R.Vijayalatha	NO:1/224 SOUTH STREET, PILLAIYARNATHAM, CHITHAVANAIKENPATTI, Thoothukkudi, 628902	9443134137
57	TN96A8973	R.V.Radhakrishnan	NO:1/224, SOUTH STREET, PILLAIYARNATHAM, CHITHAVANAIKENPATTI, Thoothukkudi, 628902	9786156826

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58	TN96B7108	Marimuthu.M	NO. 1/1, EAST STREET, THIRUMANGALAKURUCH I, VELLALANKOTTAI, Thoothukkudi, 628952	8056302459
59	TN96B9021	K.Ayyadurai	1/244, MELATHERU, THERKKU ILANDAIKULAM, KOVILPATTI, Thoothukkudi, 628952	9994142086
60	TN96C7489	Mr.S.Sriman Narayanasamy	90/C/4, KEELAKOOTUPANNAI, PANNERKULAM (P.O), KAYATHAR (VIA), KOVILPATTI (TK), Thoothukkudi, 627352	9788123642
61	TN96C9446	Sheik Dawood P	NO 11A PAVALLAR STREET, KAYATHAR, KAYATHAR, Thoothukkudi, 628952	8637474265
62	TN96D1485	Sriman Narayanasamy . S	4/334, PANNEERKULAM MAIN ROAD, PANNEERKULAM, Thoothukkudi, 628952	9788123642
63	TN96D1757	Maheshkumar B	1/82-2, WEST STREET, AYAN RAJAPATTI, MASARPATTI, NENMENI, Thoothukkudi, 626202	7010425823
64	TN96E1561	Ramasamy	NO:1/272-MIDDLE STREET, PILLAIYARNATHAM, Thoothukkudi, 628721	9842684520
65	TN96E6186	S Vellaipandi Contractor	NO:64 A, SOUTH STREET, NORTH ILANTHAIKULAM, KAYATHAR, Thoothukkudi, 628952	9443151261
66	TN96F7274	Sfr Steels Private Limited	8/2C, 8/2D, PRANCHERI ROAD, RAJAPUDUKUDI POST SANNATHUPUDUKUDI, KAYATHAR PANCHAYAT UNION, Thoothukkudi, 628952	9677334222
67	TN96F9874	Vellapandi S	NO:64 A, SOUTH STREET, NORTH ILANTHAIKULAM, KAYATHAR, Thoothukkudi, 628952	9443151261
68	TN96H2517	Maha Shree M Sand	S.NO:144/2A, 144/5A, MUKUTUMALAI, KOVILPATTI TK, Thoothukkudi, 628501	9443191576

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
69	TN96H7425	Fathima Constructions	NO:5 ASATH STREET, KAYATHARU, KAYATHARU, Thoothukkudi, 628952	8489705000
70	TN05AY0661	Mohan Y	1/207 SOUTH STREET, PITCHAITHALAIVANPATTI, ILAIYARASANENDAL, KOVILPATTI, Thoothukkudi, 627713	9361915120
71	TN05BK0885	Kasi Rajan M	5/15 NORTH STREET, ANNANAGAR, ONAMAKULAM, Thoothukkudi, 628714	6383861194
72	TN20CT4415	Marisamy	2/315 NADAR STREET, MELAERAL, KILAIRAL, Thoothukkudi, 628908	8592815267
73	TN25AP3238	Radhakrishnan A	NO.3/241, SOUTH STREET, VADAKKU ILANTHAIKULAM, KAYATHAR TK, Thoothukkudi, 628952	8667014093
74	TN25AP6849	Muthulakshmi S	1/123 NORTH STREET, MANIYAKARANPATTI, VILATHIKULAM, Thoothukkudi, 628905	9944837133
75	TN25BA0851	S. Sahadevan	148/3, PADARNTHAPULI, THONUGAL, KOVILPATTI TK, 628501	
76	TN31CX6199	Ananthakumar E	4/766, SOUTH STREET, VALAMPATTI, KEELA ERAL, ETTAYAPURAM, Thoothukkudi, 628908	9994979547
77	TN33BQ7108	Muthulakshmi S	46/1, EAST STREET, ILLUPPAIYURANI, KOVILPATTI, Thoothukkudi, 628502	9043238401
78	TN37CV1873	Sadheeskumar M	152, SOUTH STREET, KAMALAPURAM, Thoothukkudi, 628907	9159832992
79	TN46V1881	Muthuramalingam S	NO 1/91 MELA STREET KARISALKULAM, VTC SIVANDIPATTI VIJAYAPURI, KOVILPATTI, Thoothukkudi, 628502	8754670037
80	TN48AW7400	Anantharaj P	4/42 WEST STREET, GOPALAPURAM THENNAMPATTI, KAYATHAR TK, Thoothukkudi, 628714	7708543411

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
81	TN61E7263	Muthukumar P	1/150, MIDDLE STREET, CHITHIRAMPATTI, KOVILPATTI, Thoothukkudi, 628502	7339232904
82	TN63BY1148	Mukkaiah M	4/418 SUBHA NAGAR, AYYANERI, KOVILPATTI, Thoothukkudi, 628502	8637474265
83	TN64X8901	Gopi P	32B, VEERAVANCHI NAGAR, 1ST STREET, KOVILPATTI, Thoothukkudi, 628502	8148216856
84	TN65AY4464	Liberty Match Company P Ltd	136A MAIN ROAD, SSD TOWERS 1ST FLOOR, KOVILPATTI, Thoothukkudi, 628501	9442006583
85	TN68P4487	Muthuganesh R	1/88 MIDDLE STREET, RAMANOOTHU, ETTAYAPURAM TK, Thoothukkudi, 628902	9751060229
86	TN69AK7285	Pmuthu	4/10, GOPALA PURAM, THENNAPATTI, OTTAPIDARAM, 625656	
87	TN69AP0426	Karuppasamy S	120/1 PILLAIYAR KOVIL STREET, ILLUPPAIYURANI, KOVILPATTI, Thoothukkudi, 628502	9344185861
88	TN69AP6108	Valaiya Periathambi R	NO.1/30A, MIDDLE STREET, MELMANDAI, VILATHIKULAM TK, Thoothukkudi, 628901	9751919886
89	TN69AQ0825	Kanagarasu M	O NI 3/101 N NO 3/126 BLOCK.3, EAST STREET, SOORANKUDI, VILATHIKULAM TK TUTICORIN DIST, 628901	
90	TN69AQ5510	Achammal R	5/36.A.KRISHN NAGAR PO, ALAMPATTI K R NAGAR, KOVILPATTI, 628501	7373728084
91	TN69AQ6148	Kasirajan K	DOOR NO 2/32 KANNAKKATTAI BLOCK 1, ETTAYAPURAM TK, TUTICORIN DIST, 628501	9944323226
92	TN69AQ8120	D Jeyakumar	2/112 THAPPATHY, ETTAYAPURAM TALUK, TUTTICORIN DIST, 628505	

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
93	TN69AS3447	Selvakumar C	89/3 SARAVANAPURAM, KOVILPATTI, DIST, 628501	
94	TN69AS8755	Tmvm Mines	NO 55/2 MEENAKSHIPURAM, KADALIYUR ETTAYAPURAM, TUTICORIN DIST, 628906	9585309672
95	TN69BC8637	Muthu Kumar V	4/57 GOPALAPURAM, THENNAMPETTI, OTTAPIDARAM DT, 600054	
96	TN69BE6123	Nadarajan K	2/79 WEST STREET, A.VELAYUTHAPURAM, ARUNGULAM, Thoothukkudi, 628712	9865438079
97	TN69BY0154	Liberty Match Company P Ltd	S S D TOWERS 1ST FLOOR, 136A MAIN ROAD KOVILPATTI , TUTICORIN DT, 628501	
98	TN69BY0631	Nagapandi M	NO 26 KOOTHALOORANI BLOCK 2, VELALAMMALPURAM PO, VILATHIKULAM, 628712	
99	TN69BY0821	Muthumariappan V	NO 3/529 KEELA THERU VALAMPATTI, KEELA ERAL POST ETTAYAPURAM TK, DIST, 628902	9385338566
100	TN69BY0824	Anitha K	NO 2/115, SULLAKARAI STREET, VANARAMUTTI, KOVILPATTI TK, Thoothukkudi, 628721	9360254675
101	TN69BY0954	Alagumalai K	4/121 BLOCK 4TH WARD, SOORANGUDI PO, VILATHIKULAM, 628901	
102	TN69BY3179	Saravanabricks	NO 4/181/3 KOTTUR, MUTHULAPURAM , ETTAYAPURAM, 628902	
103	TN69BY3803	Seenivasagan M	NO 60-15, HIGH SCHOOL ROAD, VILATHIKULAM, VILATHIKULAM TK, Thoothukkudi, 628907	9626554565
104	TN69BY5202	A Sivasubramanian	NO 5/51A NORTH STREET, V P THALAIYUTHU TENNAMPATTIPANCHAYA , OTTAPIDARAM TK TUTICORIN DIST, 628714	

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
105	TN69BZ0065	Ilayaraja P	NO.3/30, WEST STREET, E VELAYUDHAPURAM, MELMANDAI, Thoothukkudi, 628901	6379300547
106	TN69BZ6369	Selvaraj S	NO 4/139 SALANAYAKANPATTI, KAMANAICKANPATTI, TUTICORIN, 628720	
107	TN69BZ6557	Sivasubramanian A	NO 5/51A V P THALAIYUTHU, THENNAMPATTI PO, KOVILPATTI TK, 628714	
108	TN69BZ7299	A Krishnamoorthy	NO 4/503 SRIPADMAVATHI GARDEN, PUDHUAPPANERI GVN COLLEGE, KOVILPATTI TK TUTICORIN DIST, 628502	9487483537
109	TN69BZ7323	Venkatesh R	NO 3/73C PERIYAKINATHU THERU STREET, VILLUSERI POST KOVILPATTI, TUTICORIN DIST, 628716	9095255455
110	TN69BZ7969	S Seenivasagam	OLD NO 9/3 NEW NO 10/3, SEVAL PATTI BLOCK 3 THOTTAMPATTI, KOVILAPATTI TK TUTICORIN DIST, 628718	8903987004
111	TN70S4387	Maheshwari B	106/3, NORTH STREET, PADANTHAPULI, THONUGAL, KOVILPATTI, Thoothukkudi, 628503	9942322434
112	TN77H5910	Balakrishnan S	242, EAST STREET, KALANGARAIPATTI, KOVILPATTI, Thoothukkudi, 628721	9843257040
113	TN961086	Ananadaraj V	OLD NO 2/68B NEW NO 2/13 KELA STREE, MARTHANDAMPATTI VILATHIKULAM TK, TUTICORIN DISTRICT, 628904	
114	TN962836	Kanagaraj P	NO 1 13 NORTH MUTHUSAMYPURAM, SIVALARKULAM, VILATHIKULAM, 628905	8940012676
115	TN963007	Santhi T	49/2 MIDDLE STREET, VALLINAYAGAPURAM BLOCK 2,	

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
			VARATHAMPATTI ETTAYAPURAM TK, 628725	
116	TN963066	Kandhasamy V	1/26, WEST STREET, KEELA VILATHIKULAM, VILATHIKULAM-1, Thoothukkudi, 628907	9865549960
117	TN963480	Senthilmurugan S	2/14 MIDDLE STREET, KAMALAPURAM, VILATHIKULAM, 628907	9443205242
118	TN963513	Ramar K	91/3 WEST STREET, VANARAMUTTI, KOVILPATTI, 628501	
119	TN963616	Muthuvel S	26, KUTHANURANI, VILATHIKULAM TK, TUTICORIN DIST, 628901	9943183211
120	TN964149	Krishnamoorthy	NO 4/503 SRI PADMAVATHY GARDEN, NEW APPANERI, KOVILPATTI, 628502	9487483537
121	TN964745	Sri Ram Match Industries	113/14D ARUPPUKOTTAI MAIN ROAD, ETTAYAPURAM, , 628902	9443121648
122	TN965364	Alagirisamy S	3/44A EAST ST, K CHIDAMBARAPURAM, KADAMBUR, Thoothukkudi, 628714	9444527185
123	TN965724	Mr M Karuppasamy	NO 7/181 EAST STREET OLAIKULAM, THIRUMANGALAKURICHI, KOVILPATTI, 628952	
124	TN965731	Mrs Vijayalatha	NO 1/224 SOUTH STREET, PILLAIYARNATHAMCHINT HAVANAIKENPATTI, TUTICORIN DIST, 628902	9443134138
125	TN966905	Siva Gurunathan S	16A ARUMUGANAGAR INDRA GANDHI STREE, KALUGUMALAI (TP), KOVILPATTI-TK -DIST, Thoothukkudi, 628552	9443584191
126	TN969171	S Raj	NO 259/11A KATHIRESAN KOVIL ROAD, ASHOK NAGAR KOVILPATTI, TUTICORIN DIST, 628501	

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
127	TN969318	Gurusamy S	NO 24/9A ETTAIYAPURAM ROAD, KALUGUMALAI KOVILPATTI TK, TUTICORIN DIST, 628552	8489447516
128	TN969607	Yes Yea Enterprises	NO 111/9 MAIN ROAD, KAYATHAR TK, TUTICORIN DIST, 628952	
129	TN96A0213	Thiruppathi P	OLD NO 8 NEW NO 15 KANNAPAR 3RD ST, PUDUR VILATHIKULAM TK, TUTICORIN DISTRICT, 628501	
130	TN96A1110	Chellapandi S	NO 4/84, RC STREET, M KOTTUR, MUTHULAPURAM, ETTAYAPURAM TK, Thoothukkudi, 628902	7010277030
131	TN96A1354	S Vanamallusami	NO 2/25 SOUTH STREET, VAIPPAR, TUTICORIN, 628903	9843151367
132	TN96A1510	Kannan T	NO 1/122 ROAD STREET, VALLINAYAGIPURAM MARTHANDAMPATTI, TUTICORIN, 628903	9842063023
133	TN96A1608	Skm Mines	NO 56/2 MEENACHIPURAM OFF, KADALAIUR ROAD, DIST, 628501	9585309692
134	TN96A1959	Viyahapparaj J	NO 67/6 SOUTH STREET, VENKATACHALAPURAM, ETTAYAPURAM, 626205	9443944485
135	TN96A2048	Ms Yes Yea Enterprises	NO 111-9 MAIN ROAD, KAYATHAR TK, TUTICORIN DIST, 628952	
136	TN96A2379	R V Vaiyanan	NO 1/229 MAIN ROAD PILLAIYARNATHAM, CHITHAVANAIKENPATTI VILATHIKULAM TK, TUTICORIN DIST, 628902	
137	TN96A2395	V Harihara Vaiyanan	NO 1/229 MIDDLE STREET PILLAIYAR, NATHAM CHITHAVANAIKENPATTI, VILATHIKULAM TK TUTICORIN DIST, 628902	
138	TN96A3479	Siva Builders	NO 62/2 SIVA COMPLEX, 1ST FLOOR NEW ROAD, KOVILPATTI, 628501	

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
139	TN96A3656	S Chelladurai Contractor	NO4/75A MIDDLE ST AAVUDAYAMMALPURAM, KATTARANKULAM KOVILPATTI, , 628721	
140	TN96A5977	Ms Sugapriya Paper Boards Pvt Ltd	44/1 VENKATESH NAGAR, KATHIRESAN KOVIL STREET, KOVILPATTI TK TUTICORIN DIST, 628501	9626094876
141	TN96A6636	Jegatheeswari M	NO 118/5 MEENACHI NAGAR 1ST STREET, SALAIPUDHUR INAM MANIYACHI, KOVILPATTI TUTICORIN DIST, 628502	9842180298
142	TN96A7407	S Nagureddy	NO 5/311 EAST STREET, K VELAYUTHAPURAM K SUBRAMANIAPURAM, TUTICORIN, 628552	9176811155
143	TN96A7445	Santhi T	NO 49/2 MIDDLE STREET, VALLINAYAKIPURAM KATTARAMANPATTI, TUTICORIN, 628902	
144	TN96A7647	Kanagavel M	NO 2/49 SOUTH STREET, T SUBBAYAPURAM SAKKAMMALPURAM, TUTICORIN, 628712	
145	TN96A7696	Chinnaayyanar P	2/168, EAST STREET, KOOTHALOORANI, VILATHIKULAM-TK, Thoothukkudi, 628907	9585870286
146	TN96A8006	Vasamuthu S	NO 5/76 V P THALAIYUTHU, ONAMAKULAM KAUATHAR TK, DIST, 628714	9080546052
147	TN96A8518	Kulanthai Raja B	7A, ARANMANAI STREET, KADAMBUR, KOVILPATTI, Thoothukkudi, 628714	9750515410
148	TN96A8740	Chelladurai Y	NO 2/14 SOUTH STREET, RAJAPUDUKKUDI, TUTICORIN DIST, 628952	9443584191
149	TN96B2376	Ramakrishnan P	232/6 GANESH NAGAR, MANTHITHOPPU KOVILPATTI TK, THOOTHUKKUDI, Thoothukkudi, 628502	9677981190

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
150	TN96C8939	K Karuppasamy	3 4A SANNADUPUDUKUDI, RAJAPUTHUKUDI , Tirunelveli , 627352	9003331150
151	TN96D1317	Thiruppathi P	15/8 KANNAPPAR STREET PUDUR, VILATHIKULAM , , Thoothukkudi, 628905	9994721067
152	TN96E0424	S.Sriman Narayanasamy	90/C/4, KEELAKOTTUPANNAI, PANNIRKULAM, KAYATHAR, KOVILPATTI TK, Thoothukkudi, 627352	9788123642
153	TN96E1182	Rathakrishnan R	6/14, KOTTTAI NORTH STREET, ETTAYAPURAM, , Thoothukkudi, 628902	9600362541
154	TN96E4317	Marichamy S	2/102, WEST STREET, K.VENKATESWARAPURA M, THOOTHUKKUDI, Thoothukkudi, 628552	9842993900
155	TN96E5467	Lakshmanaperumal S	2/215 NORTH ST, A.CHOKKALINGAPURAM, PELLAIYARNATHAM POST, CHITHAVANAIKENPATTI, Thoothukkudi, 628902	9842993900
156	TN96F3722	Jagajothi M	5/86 EAST STREET, ZAMEEN DEVARKULAM, Thoothukkudi, 628721	8056570284
157	TN96F7141	M/S.Kingsley Agency	NO.3/237, THIPPANOOTHU, CHINNAMALAIKUNDRU OORATCHI, KOVILPATTI, Thoothukkudi, 628902	9842017568
158	TN96G0028	The Chief Engineer	AGRICULTURAL ENGINEERING DEPARTMENT, C/O ASST. EX. ENGINEER - KOVILPATTI, NO 27H CANARA BANK BACK SIDE, Thoothukkudi, 628501	9443276371
159	TN96H7947	Seenivasagam S	3/190, RAJIV NAGAR, PASSUVANDANAI, , Thoothukkudi, 628718	8903987004

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
160	TN96H8572	Neelakandamathan M	301A/3, KEELA STREET, SOUTHTITTANGULAM, KOVILPATTI, , Thoothukkudi, 628501	9384471618
161	TN96H8627	Karupasamy R	1/40, WEST STREET, VIRUSAMPATTI, VEDAPATTI (V), THOOTHUKKUDI, Thoothukkudi, 628907	9487950018
162	TN96H9567	Rajasekar A	1/73 MIDDLE STREET, KARUPPUR, Thoothukkudi, 626205	8610356810
163	TN96J0028	Shenbagaraj K	75/3, COLONY STREET, KATTURAMANPATTI, KADALAIYUR, Thoothukkudi, 628902	7871794373
164	TN69AQ6918	Gunasekaraperuma lsamy V	1057, RAJEEV NAGAR 5TH STREET, KOVILPATTI, TUTICORIN DIST, 628501	9385338566

#### **Tiruchendur Division:-**

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
1	TN05BT6643	Esakki S	2/27 NORTH STREET, DEIVASEYALPURAM, DEIVASEYALPURAM, Thoothukkudi, 628851	6374318119
2	TN65AX7175	Ramasamy A	4/55YADHAVAR KEELA STREET, ELLAINAICKENPATTI, , Thoothukkudi, 628851	8825701820
3	TN72BJ4394	Kaliyappan M	9/96 PILLAIYAR KOVIL STREET, VALLANADU, VALLANADU(KASBA), Thoothukkudi, 628252	9488080244
4	TN74AS3907	Ramesh S	35, THERKU THERU, THOTTIYANKUDI, KURANGANI, MAVEEDUPANNAI, THENTHIRUPERAI, Thoothukkudi, 628623	9715592069
5	TN74BB5442	Murugan P	31/5 SANTHANA MARIAMMAN KOVIL ST, KAYALPATTINAM, TIRUCHENDUR TK, Thoothukkudi, 628204	9489022172

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
6	TN92B3213	S Sabapathi	NO 11 MALAIYARUTHAN STREET, ERAL, TUTICORIN DIST, 628801	9597487494
7	TN92B3220	Akshya Construction And Contract	NO 8M GANESHAPURAM, ARUMUGANERI, TUTICORIN DIST, 628202	
8	TN92B4237	Thangapandi R	57-PERIYANVILAI, ARUMUGANERI, THOOTHUKKUDI, 628004	
9	TN92B4291	Aaron Anburaj S	NO 82/4 ITTAMOZHI ROAD, SATHANKULAM, TUTICORIN, 628704	
10	TN92B4377	T Harikrishnan	NO 37/24 WEST STREET MAVADIPANNAI, THENTHIRUPERAI, TUTICORIN, 628623	9443733599
11	TN92B4482	Magesh M	152 LAXMIPURAM KETTIAMMALPURAM, SRIVAIKUNDAM TK, TUTICORIN, 628601	8220786299
12	TN92B4515	Hari Kesavan A	NO 1/119 NORTH STREET, KOVANKADU, SRIVAIKUNDAM TK Thoothukkudi, 628152	7708090328
13	TN92B4600	L Rajaperumal	NO 3/64 AMMAN KOVIL STREET, KUDUVETTI PERUR, , 628620	
14	TN92B4865	N Balakrishnan	NO 3/4 SELVA NAGAR KURUKKATTUR, KURANGANI, TUTICORIN DT, 628623	
15	TN92B5524	Abel Rajesh L	NO 9/91 EAST STREET MARUDHARKARAI, MEGNANAPURAM, , 628210	
16	TN92B5563	Arunachalam	1/222 VADAKUR, AMUTHUNNAKUDI SATHANKULAM, TUTICORIN DT, 628704	
17	TN92B6537	M Merit Immanuvel	NO 51 A KAMARAJAPURAM NORTH STREET, ARUMUGANERI TIRUCHENDUR TK, TUTICORIN DIST, 628202	
18	TN92B6879	Velmurugan P	6/36, VINAYAGAR KOVIL STREET, MELUR, KARUNKULAM, SRIVAIKUNDAM TK, Thoothukkudi, 628615	8056647041

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
19	TN92B7510	Ravisundar A	5/43A, KAKIVILAI, SEMMARIKULAM, KUTHIRAIMOZHI, TIRUCHENDUR TK, 628213	9442796641
20	TN92B7808	Perumal D	NO 2/77 NORTH STREET, SIVARAMAMANGALAM KILPIDAGAIAPPANKOV, SRIVAIKUNDAM, 628612	
21	TN92B8002	K Muthulingam	NO 253 MUTHARAMMAN KOVIL STREET, KULASEKARAPATTINAM, TUTICORIN, 628206	
22	TN92B8617	Raja Transport Earth Movers	NO 161 E MAIN ROAD, AUTHOOR, , 628151	
23	TN92B8671	Sekar Timbers	NO4A BHARATHIYAR STREET, ERAL, TUTICORIN, 628801	9443979317
24	TN92B8679	The Commissioner	KAYALPATNAM MUNICIPALITY, THIRUCHENDUR 628204	
25	TN92B9399	Sivaraman Alias Dharmar	2/54 PONTHANPULI STREET, MUTHALANKURICHI VITILAPURAM, SRIVAIKUNDAM TUTICORIN DT, 628208	8526748481
26	TN92B9653	M Muthuravi	NO 6/40 VINAI THEERTHA VINAYAGAR, THERU MELUR KARUNGULAM, TUTICORIN, 628613	
27	TN92C0201	Velmurugan P	6/36 VINAI THEERTHA VINAYAGAR KOVIL, MELUR KARUNGULAM, TUTICORIN DT, 628815	
28	TN92C0290	Ramachanthiran V	NO 2/90 PERUMAL KOVIL STREET, KALVAY, KALVAY SRIVAIKUNTAM, Thoothukkudi, 628622	6374062730
29	TN92C0963	R Siva	NO 10/253 UDAYARKULAM, VALLANADU 628252	
30	TN92C2694	K.Rajendran	OLD NO:51, NEW NO:70, KEELA LAKSHMIPURAM, KAYALPATTINAM, 628204	7305555511
31	TN92C3071	Akash Engineering Services	SITE OFFICE: 2X660 MW UDANGUDI, TPP, KALLAMOLI VILLA, Thoothukkudi, 628206	9866332800

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
32	TN92C3098	Akash Engineering Services	SITE OFFICE: 2X660 MW UDANGUDI, TPP, KALLAMOLI VILLA, TIRUCHENDUR, TALUK, Tirunelveli, 627001	9866332800
33	TN92C3238	A.Raja David	NO:25B/5, KAMARAJAPURAM, ARUMUGANERI, Thoothukkudi, 628202	8344522427
34	TN92C3481	Esakkipandi .A	2/13, MIDDLE STREET, VITTILAPURAM, Thoothukkudi, 628809	9790276917
35	TN92C4249	Mahesh M	2/5 SARASWATHI AMMAN KOVIL STREET, SRIVAIKUNDAM, , Thoothukkudi, 628621	9677932442
36	TN92C4884	Murugan Magesh	NO.152 LAKSHMIPURAM POST, ARIYANAYAGAPURAM POST, Thoothukkudi, 628621	8220786299
37	TN92C5222	K.Jeyaradhadevi	NO:8/11, NADU THERU, MAVADIPPANNAI, THENTHIRUPERAI, Thoothukkudi, 628623	7904790424
38	TN92C5230	S.Muthukumar	NO:56, ANNA NAGAR, ALWARTHIRUNAGARI, Thoothukkudi, 628612	9486683180
39	TN92C5251	S.Thabasumani	NO:6/124, SHANKARALINGAPURAM, KEELA RAMASAMIYAPURAM, LAKSHMIPURAM, MEGNANAPURAM, Thoothukkudi, 628210	9443020030
40	TN92C5293	K.Nivash	NO:8/12, WEST CAR STREET, THENTHIRUPERAI, Thoothukkudi, 628623	9043272060
41	TN92F0957	Itd Cementation India Ltd	UDANGUDI SUPERCRITICAL THERMAL, POWER PROJECT, KALLAMOZHI VILLAGE, TIRUCHENDUR TK, 628206	9489928278
42	TN74BB5836	Thangadurai T	2/170-2 INDIRA KALANI, VITTHALAPURAM KOVILPATTU, SEYDUNGANALLUR, Thoothukkudi, 628809	9489022172

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
43	TN92C5509	M/S.Raja Transport & Earth Movers	NO:161, E, MAIN ROAD, AUTHOOR, Thoothukkudi, 628151	9443148479
44	TN92C6270	Gnanadurai P	24/94 SATHYAMOORTHY NAGAR, UDANGUDI CHRISTIANAGARAM, TIRUCHENDUR TK, Thoothukkudi, 628203	9865105275
45	TN92C7066	A.Eliah Gnanakumar	NO:25B/5, KAMARAJAPURAM, ARUMUGANERI, TUTICORIN, Thoothukkudi, 628202	8344522427
46	TN92C7233	E.Gengaiathithan	NO:25F, NAZRETH ROAD, SATHANKULAM, TUTICORIN, Thoothukkudi, 628704	9442567573
47	TN92D0102	S.Sudalai	NO:137/145, MUTHARAMMAN KOVIL STREET, THIRUCHENDUR, , Thoothukkudi, 628215	9443054111
48	TN92D0834	Svp Associates	NO:12/2, KAYALPATTINAM ROAD TIRUCHENDUR, TUTICORIN, Thoothukkudi, 628215	9514155111
49	TN92D1165	Raja Transport &Earth Movers	NO:161E, MAIN ROAD, AUTHOOR, Thoothukkudi, 628151	9443148479
50	TN92D2108	Theja Stag	NO.1/243-11 SRI KRISHNA NAGAR, MELA THIRUCHENDUR, Thoothukkudi, 628215	9942174422
51	TN92D2544	P.Sankaranainar	NO:41/4, MUTHARAMMAN KOIL STREET, THEMANKULAM TIRUKKALUR, TIRUCHENDUR TK, Thoothukkudi, 628612	9994999960
52	TN92D4596	Sri Rajammal Earth Movers	NO:500, ANUKULAPURAM, KULASEKARAPATTINAM, Thoothukkudi, 628206	8248500519
53	TN92D4959	Sb Construction	NO:3/26B WEST STREET, THANDUPATHU, Thoothukkudi, 628208	7373788251
54	TN92D5797	Kmb Networks	NO:3/114, KEELAMARAKKUDI STREET, KULASEKARAPATTINAM, Thoothukkudi, 628206	9994871668

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
55	TN92D5999	Antony Selvan. M	NO : 4TH, ASIRVATHAPURAM, 2ND STREET, SATHANKULAM, THOOTHUKKUDI, Thoothukkudi, 629704	9486936108
56	TN96B3390	Belsia Arputhamani	25B/5 KAMARAJAPURAM, ARUMUGANERI, TIRUCHENDUR TK, Thoothukkudi, 628202	8344522427
57	TN92D8659	T.Kathiresan	NO:3/189, EMMAKILAVILAI, IDAICHIVILAI, ARASOOR 1, Thoothukkudi, 628656	9965112530
58	TN92D8721	C.Narayanan	NO:7/61, MAYANDI KOVIL STREET, VALLANADU, SRIVAIKUNDAM, Thoothukkudi, 628252	9965424907
59	TN92D8742	P.Rajesh	NO :1/92 EAST STREET, VALAVALLAN, THOOTHUKKUDI,	9965444984
60	TN92D9937	E.Gengai Athithan	NO:25F NARETH ROAD, SATHANKULAM, Thoothukkudi, 628704	9442567573
61	TN92E0499	S.Navaneetha Muthukumar	NO:15, LAKSHMIPURAM, PANDARAVILAI, Thoothukkudi, 628751	9003891564
62	TN92E1005	C.Yesudasan	NO:3/17, PANNAI MUTTRAM, AMUTHUNNAKUDI, SATHANKULAM, Thoothukkudi, 628704	9385452044
63	TN92E1044	S.Thiagarajan	33/30 LAKSHMIMANAGARAM SOUTH STREET, ARUMUGANERI PO, TIRUCHENDUR TK, Thoothukkudi, 628202	9443161057
64	TN92E2770	M.Ponnudurai	NO:5/33, INDIRA COLONY, VADAKKUKARASERI, Thoothukkudi, 628851	9791951976
65	TN92E2908	A.Alexander	NO:2/84, MIDDLE STREET, PICHAVILAI POST, TIRUCHENDUR, Thoothukkudi, 628219	9080759677
66	TN92E2938	A.Mariyappan	NO:2/268, NORTH COLONY STREET, ALANDA, SAVALAPERI, SRIVAIKUNDAM, Thoothukkudi, 628303	8754273001

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
67	TN92E3580	Sivaperumal L	52, SOUTH STREET, N.MUTHAIYAPURAM, MELA TIRUCHENDUR, TIRUCHENDUR TK, Thoothukkudi, 628205	9489022172
68	TN92E3684	P.Balamurugan	NO:8/77, VETHA KOVIL STREET, VALLANADU, VALLANADU KASBA, Thoothukkudi, 628252	9047727212
69	TN92E4395	K.Chermadurai	NO:5/84 MAIN ROAD, MANI NAGAR PALLAKKURICHI, THOOTHUKKUDI, Thoothukkudi, 628703	9965050412
70	TN92E5220	M.Muthuravi	NO:6/40, VINAI THEERTHA VINAYAGAR, THERU, MELUR, KARUNGULAM, Thoothukkudi, 628615	9626624240
71	TN92E5874	S.Balasundar	NO:17/7(1), THATTARMADAM, SATHANKULAM ROAD MAIN ROAD, NADUVAKKURICHI,	8610502313
72	TN92E6274	J.Suresh	Thoothukkudi, 628653 NO:19/94, WEST STREET, PUTHANTHARUVAIPOST, ATHISAYAPURAM, ARASOOR-1, Thoothukkudi, 628656	9486415452
73	TN92E6793	M.Ramalakshmi	NO:29, SANTHAIYADIYUR M KOVIL THERU, CHRISTYA NAGARAM POST, UDANGUDI, Thoothukkudi, 628203	9976694158
74	TN92E7176	Abi&Co	NO:19/15, VELAN NAGAR, ADAIKKALAPURAM ROAD, ARUMUGANERI, TIRUCHENDUR, Thoothukkudi, 628202	9489774954
75	TN92E7691	T.Malaiyandi	NO:23/57B, NORTH CAR STREET, SATHANKULAM, Thoothukkudi, 628704	9443562393
76	TN72BS4700	Kannaiya P	NO 6/36/2 VINAI THEERTHA VINAYAGAR, THERU MELUR KARUNGULAM, SRIVAIKUNDAM TK, Thoothukkudi, 628615	9489022172

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
77	TN92E8025	S.Jeyakrishnan	NO:1/386, PRASATHNAGAR, VEERAPANDIANPATTINAM, Thoothukkudi, 628216	9843984365
78	TN92E8600	E.Lingaraj	NO:3/50, POOVANVILAI, EDAICHIVILAI POST ARASOOR 2, ARASOOR I , PUTHANTHARUVAI, Thoothukkudi, 628656	8610372605
79	TN92E8965	N.Ranjithkumar	NO:22, DR AMBEDKAR STREET, THOPPUR, TIRUCHENDUR, 628215	9442886450
80	TN92E9365	A.Antony Stanis Christober	NO:5/157, SILUVAI STREET, SOKANKUDIRUPO, KOMMADIKOTTAI, SOKKANKUDIYIRUPPU, Thoothukkudi, 628653	9442052270
81	TN92E9552	D.Packiaseelan	NO:52/36, KAMARAJAPURAM, SOUTH ARUMUGANERI, TIRUCHENDUR, 628202	9659824345
82	TN92E9927	S.Chithiraikumar	NO:16/147A, YOVAN IYER STREET, KADACHAPURAM, MUDALUR, Thoothukkudi, 628702	8682886001
83	TN92F0903	V.Sasithram	NO:91A THANDAVANKADUMEDU, KOTTAKADU , UDANGUDI, CHRISTIANAGARAM, Thoothukkudi, 628203	7530089025
84	TN92F1197	S.Jeyakrishnan	NO:1/386, PRASATH NAGAR, VEERAPANDIANPATTINAM, Thoothukkudi, 628216	9843989365
85	TN92F1453	C.Yesudasan	NO:3/17, PANNAI MUTTRAM, AMUTHUNNAKKUDI, SATHANKULAM, Thoothukkudi, 628704	9385452044
86	TN92F1615	E.Gengaiathithan	NO:25F, NAZARATH ROAD, SATHANKULAM, Thoothukkudi, 628704	9442567573
87	TN92F1627	P.Velmurugan	NO:6/36, VINAITHEERTHA VINAYAGARKOIL, STREET, MELUR KARUNGULAM, SRIVAIKUNDAM, Thoothukkudi, 628615	9488555377

S1. No	Registration Number	Owner Name	Permanent Address	Mobile Number
88	TN92F1866	Vnb Chamber Bricks	NO:3/109 KADAYAMPUDUR, SRIVAIKUNDAM, THOOTHUKKUDI, Thoothukkudi, 628601	9894672879

#### 11. List of Community Halls

S1. No	Name of Block	No.of Community Halls available
1	Block Development Office, Pudukottai @ Thoothukudi	3
2	Block Development Office, Srivaikuntam	10
3	Block Development Office, Karunkulam @ Seidunganallur	19
4	Block Development Office, Tiruchendur	11
5	Block Development Office, Udangudi	7
6	Block Development Office, Alwarthirunagari	16
7	Block Development Office, Sattankulam	8
8	Block Development Office, Kovilpatti	45
9	Block Development Office, Kayathar	42
10	Block Development Office, Vilathikulam	19
11	Block Development Office, Pudur	31
12	Block Development Office, Ottapidaram	29
	Total	240

S1. No	Block	Panchayat	Address of the Community Hall	Contact Number
1		Ayyanadaippu	Ayyanadaippu	9894105064
2	Thoothukudi	Thimmarajapuram	Thimmarajapuram	9787237245
3		Dalavaipuram	Dalavaipuram	9787237245
4		Aniyabaranallur	Aniyabaranallur	9943371442
5	Srivaikundam	K.Kaspa	K.Kaspa	9942949856
6	Shvaikundam	Mangalakurichi	Mangalakurichi	9443594749
7		Nattathi	Kombukaranpottal	9944080134

S1.			Address of the	Contact
No	Block	Panchayat	Community Hall	Number
8		Nattathi	Pattandivillai	9944080134
9		Padmanabamangalam	Padmanabamangalam	9842450985
10		Thiruppanichettikulam	Thiruppanichettikulam	8883227166
11		Tholappanpannai	Tholappanpannai	9488734891
12		Umarikadu	Umarikadu	9489123158
13		V.Athichanallur	V.Athichanallur	8220560248
14		Alantha	Savalaperi	9442814052
15		Kalivaoor	Kaliyavaoor	6374069163
16		Karungulam	Karungulam	9443086087
17		Karungulam	Puliyankulam	9443086087
18		Manakkarai	Manakkarai	9443285441
19		Muthulankurichi	Muthulankurichi	9994942347
20		M. Puthugrammam	Pakka Patti	8489157042
21		Poovani	Lakshmipuram	9787172568
22		Poovani	Mela Poovani	9787172568
23	Karungkulam	Seydunganallur	Seydunganallur	8940344571
24		Seydunganallur	Sattakaranpatti	8940344571
25		Serakulam	Elupaikulam	9385621433
26		Vadavallanadu	Vadavallanadu	9943017208
27		Vadavallanadu	Valathikulam	9943017208
28		Vallanadu	Vallanadu	7502745035
29		Vasavappapuram	Samauthavapuram	9715579796
30		Vittilapuram	Kolleerkulam	9865697110
31		Vittilapuram	Keelanattarkulam	9865697110
32		Vittilapuram	Melanattarkulam	9865697110
33	Thiruchendur	Ammanpuram	Ammanpuram	9486583297
34	rimuchendur	Mela Thiruchendur	N.MuthaiyaPuram	9488441025

S1.			Address of the	Contact
No	Block	Panchayat	Community Hall	Number
35		Mela Thiruchendur	Thalavaipuram	9488441025
36		Mela Thiruchendur	Keelanalumoolaikinaru	9488441025
37		Mela Thiruchendur	Nadunalumoolaikinaru	9488441025
38		Nallur	Nallur	9995286471
39		Nallur	Kuranganthattu	9995286471
40		Pallipathu	Melapallipathu	9486736175
41		Pallipathu	Poochikadu	9486736175
42		Veeramanickam	Veeramanickam	9443689499
43		Veerapandianpattinam (Town)	Prasath Nagar	9788130863
44		Kulesakaranpatinam	Kulesakaranpatinam	9942745916
45	-	kuthiraimozhi	Manadu	9715898272
46		Mathavankurichi	Mathavankurichi	9159154567 8610795262
47	Udangudi	Meignapuram	Meignapuram	9688779925 9488749925
48		Paramankurichi	Ayyanarnagar	9965708564 7598418564
49		Paramankurichi	Samathuvapuram	9965708564 7598418564
50		Sirunadarkudiruppu	Sirunadarkudiruppu	9344444676
51		Alagappapuram	Alagappapuram	9489013001
52		Alagiyamanavalapuram	Chembur	9942026070
53		Cambellabad	Cambellabad	9244880480
54		Karungadal	Veerakulam	9442759658
55	Alwarthirungari	Karungadal	Palaniyappapuram	9442759658
56		Kattarimangalam	Kattarimangalam	9443872521
57		Kurripankulam	Chinnamadankudieruppu	9159295693
58		Melathoor	Melathoor	9442555104
59		Nalumavadi	Nalumavadi	8428677200
60		Sernthamangalam	Sernthamangalam	9443732650

61		<u></u>	Address of the	Contract
S1. No	Block	Panchayat	Address of the Community Hall	Contact Number
61	ļ	Sethukuvaithan	Sethukuvaithan	9092568608
62		Srivengateshapuram	Peikulam	9442574502
63		Suganthalai	Suganthalai	8098111024
64		Thirukaloor	Thirukaloor	7538833443
65		Varandiavel	Varandiavel	8903308530
66		Meerankulam	Meerankulam	9442004081
67		Arasoor	Idachivilai	9095322582
68		Arasoor	Thatchanvulai	9095322582
69	Sattankulam	Nedungulam	Melatheru	9384079020
70		Palangulam	Ananthapuram	9486480722
71		Pallakurichi	Therkku Udaipirappu	7402525252
72		Pidaneri	Samathuvapuram	7538802097
73		Subarayapuram	Subarayapuram	7845234847
74		Thirupani Puthantharuvai	Thirupani Puthantharuvai	8056813935
75		Avalnatham	Avalnatham	8825762434
76		Ayyakottiyur	Venkatachalapuram	9384079033
77		Chathrapatti	Chathrapatti-1	9500255281
78		Chidamparapuram	Chidamparapuram-1	9600322104
79		Chinnamalaikundru	Sathurappanayakkanpatti	0701010070
80		Chinnamalaikuilui u	Thippanoothu	9791212979
81	Kovilpatti	T2	Erachi-1	7602007025
82		Erachi	Kasavankundru-1	7603927035
83		Idaiseval	Idaiseval-1	8056811481
84		Illambuvanam	Illambuvanam	9095853546
85			Iluppaiyoorani-1	9994464313
86		Iluppaiyoorani	Thomas Nagar-1	0400102617
87			Koosalipatti	9489193617

S1. No	Block	Panchayat	Address of the Community Hall	Contact Number
88			Loyal Mill Colony-1	9489193617
89			Inammaniyatchi-2	
90		Inammaniyatchi	Alampatti-1	9486453602
91			Lakshmi Mill Colony	
92			Keeleral	0000001700
93		Keeleral	Nakkalakottai	8220921738
94		Koduppambarai	Vijayapuri-1	9677535337
95		Kulasekarapuram	Kulasekarapuram-2	9443867362
96		T := == == = + + :	Lingampatti-1	9344542649
97		Lingampatti	Samathuvapuram-1	9597958333
98		Manthithoppu	Manthithoppu	9442723910
99		M 1 . 1	Meenakshipuram-1	060106000
100		Meenakshipuram	Kumareddiyapuram	868186289
101		Melaeral	Melaeral	9994879714
102		Mudukkumeenkanpatti	Mudukkumeenkanpatti	7339404956
103		Moopanpatti	Thirumakai Nagar	7904983305
104		Semapudur	Anjuramanpatti	9790041508
105		Pandavarmangalam	KeelaPandavarmangalam	6382400008
106		TShanmuranuran	Kumarikulam	9942919790
107		T.Shanmugapuram	Aathikinaru	9942919790
108		Sinthalakarai	Sinthalakarai	9994574068
109		Sivothinotti	Sivathipatti-1	9443531700
110		Sivathipatti	Karisalkulam	9488758332
111		Suraikaipatti	Ranasooranayakanpatti	9500400480
112			South Thittankulam	9443772426
113		Thittankulam	Vadakku Thittankulam	9791259851
114			Shanmuga Nagar	9191209001

S1.			Address of the	Contact
No	Block	Panchayat	Community Hall	Number
115		Thonugal	Thonugal	8525828084
116		Urualikudi	Urualikudi	9047985072
117		Oothupatti	Oothupatti	9791705409
118		Varathampatti	Vallinayakipuram	9443452639
119		Varathampatti	Varathampatti	9786768087
120		Achankulam	Achankulam Karupasamy kovil near	9486232754
121		Achankulam	Achankulam Ulagamman kovil near	9486232754
122		Ahilandapuram	Ahilandapuram	9894416057
123		Cholapuram	Cholapuram	9442466828
124		Kalampatti	Balakrishnapuram	8489684466
125		Kalankaraipatti	Kalankaraipatti	9894461096
126	Kayathar	Kannakattai	Kannakatti Colony	9751218415
127		Kannakattai	Kannakatti	9751218415
128		Kappulingampatti	Kappulingampatti	9566414607
129		Kattalankulam	Kattalankulam	9442759321
130		Koppampatti	Pudhupatti	9443231792
131	nayama	K. subramaniapuram	Velayuthapuram West	8754125789
132		K. subramaniapuram	Velayuthapuram East	8754125789
133		K. subramaniapuram	Vallinayakipuram West	8754125789
134		K. sivagnanapuram	Vagaithavoor	9443529121
135		k.Kumareddiapuram	Kumaraeddiyapuram	9789335609
136		k.Kumareddiapuram	V:1-111	9789335609
137		k.Kumareddiapuram		9789335609
138		k.Kumareddiapuram	Sankaralingapuram	9789335609
139		k.Kumareddiapuram	Sankaralingapuram	9789335609
140		Kuppanapuram	Chokkalingapuram	7598075595
141		Kuruvinatham	Ilandhaipatti	9486232754

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S1. No	Block	Panchayat	Address of the Community Hall	Contact Number
142		K. Venkateswarapuram	K.Venkateswarapuram	7845604353
143		Paneerkulam	Paneerkulam	900387433
144		Panikkarkulam	Panikkarkulam	9578386553
145		Podupatti	Therku bommaiapuram	9159643608
146		Pungavarnatham	Subramaniapuram	7339641515
147		Raja pudukudi	Raja pudukudi	9994599010
148		Raja pudukudi	Palayapuram	9994599010
149		Savalaperi	Savalaperi	9865824733
150		Theethampatti	Govindanpatti	9092497300
151		Therku ilandhikulam	Athikulam	9791682996
152		Therku ilandhikulam	Manankathan	9791682996
153		Therku ilandhikulam	Therku ilandhikulam	9791682996
154		Therku kalugumalai	Koozaithevanpatti	9865020359
155		Thirumangalakurichi	Thirumangalakurichi near Vpsc	9443553168
156		Thirumangalakurichi	Thirumangalakurichi near Pilarkovil street	9443553168
157		Thirumangalakurichi	Periasamypuram	9443553168
158		Usilankulam	Usilankulam	9965845485
159		Vanaramutti	Vanaramutti	9487853851
160		Vanaramutti	Kallorani	9487853851
161		Vanaramutti	V.ramalingapuram	9487853851
162		Kumarasakkanapuram	Kumarasakkanapuram	9751366226
163		Marthandampatti	Marthandampatti	8525878216
164		M.Shanmugapuram	Mela Shanmugaapuram	9585934129
165	Vilathikulam	Melmandai	Melmanthai	9384079172
166		Nedungulam	Pallakulam	9790586517
167		Padanthapuli	Padarnthapuli	9894233155
168		Pillaiyarnatham	Pillaiyarnatham	9384079210

S1.			Address of the	Contact
No	Block	Panchayat	Community Hall	Number
169		Poosanoor	Poosanur	9943158798
170		Puliangulam	Puliyankulam	9943158798
171		Sakkammalpuram	Sakkammalpuram	9500545404
172		Soorangudi	Soorankudi	9943125658
173		Thathaneri	Matharajapuram	6379193873
174		Thathaneri	Thathaneri	6379193873
175		Vaippar	Kalaignanapuram	8056330182
176		Vaippar	Vaippar	8056330182
177		Vallinayagipuram	Vallinayagipuram	8098111756
178		Vedapatti (V)	Vedapatti	9865014545
179		Veerapandiapuram	Veerapandiapuram	9159593450
180		VEMBAR SOUTH	Pachiapuram	8072653911
181		AyanKarisalkulam	North Street Ayankarisalkulam	7639468630
182		AyanRajapatti	Near Panchayat Office, Ayanrajapatti	9944370804
183			Near Panchayat Office, Boothalapuram	
184		Boothalapuram	Near School,	9443048257
185		Chinnavanaickenpatti	Noothalakarai Village Near IMSC Building, Chinnavanaickenpatti	9655532513
186			InamArunachalapuram	
187	~ •	InamArunachalapuram	Thoolmalipatti	9943917597
188	Pudur	Kandasamypuram	Main Road, Kandasamypuram	9159938897
189		Karuppur	East Street, Karuppur	9787011145
190		KeelaArunachalapuram	KeelaArunachalapuram	9361253071
191		Keelakaranthai	Nagalapuram Main Road , Keelakaranthai	9442306591
192			Keelanattukurichi	
193		Keelnattukuruchi	Sangilipatti	9786415588
194		Masarpatti	Near Bus Stop, Masarpatti	9344015289

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S1. No	Block	Panchayat	Address of the Community Hall	Contact Number
195		Melaarunachalapuram	North Street Melaarunachalapuram	9944064946
196 197		Melakallurani	Main Road, Melakallurani Main Road, Keelakallurani	9965603506
198		Melakaranthai	Near Perumal Kovil Melakaranthai	8838719277
199		Melanambipuram	Keelanambipuram	6380506370
200		Mettilpatti	Mettilpatti	9498042524
201			Kunjchapuram	0005005040
202		Mittavadamalapuram	Senrayapuram (Mini Community Hall)	9865027349
203		N.Jegaveerapuram	N.Jegaveerapuram	9566691714
204 205		Nagalapuram	South Street , Nagalapuram Samathuvapuram, Nagalapuram	9976811606
206		Ramachandrapuram	Near School, Ramachandrapuram	9715811016
207		Sennamareddipatti	Colony Street, Semmamareddipatti	9787306485
208		Sivalarpatti	Aruppukottai Main Road, Sivalarpatti	8098268969
209		Vathalakarai	Pillaiyar Kovil Opposite, Vathalakarai	9944919709
210 211		Vowalthothi	AD Colony, Vowalthothi South Street, Vowalthothi	9486632746
212		Akkanayakkanpatti	Akkanayakkanpatti	9486703929
213		Akkanayakkanpatti	Ottudanpatti	
214		Elevelangal	Illavelangal	9486713674
215		Jampulingapuram	Jampulingapuram	9842192242
216	Ottapidaram	Kalappaipatti	Kalappaipatti, Veppankulam	
217		Keelakottai	Keelakkottai	9442913166
218		Keelakottai	S.Kailasapuram	
219		Kumareddiyapuram	Kumareddiyapuram, Indra nagar Primary School near	9842192242
220		Malaipatti	Malaipatti	9488440294

S1. No	Block	Panchayat	Address of the Community Hall	Contact Number
221		Maruthanvalvoo	Maruthanvalvoo	9976284289
222		Melaarasaradi	Melamarthur	9500775363
223		Melaarasaradi	Melaarasaradi	9500775363
224		Melaarasaradi	Puliyamaratharasadi	
225		Mullur	Mullur, Muthukumarapuram	9489305935
226		Murampan	Murampan	94885507134
227		Nagampatti	Nagampatti	8940490489
228		Onamakulam	Onamakulam	7639342687
229		Ottanatham	Ottanatham	9698854693
230		Ottapidaram	Panchalankurichi Neeravi Oorani Near	98655583715
231		Ottapidaram	Muppilivetti Panchayat Middle School	
232		Puthiamputhur	Neeravimedu near	9715823969
233		K.Shanmugapuram	K.Shanmugapuram Colony Street	9894245573
234		Sillanatham	Sillanatham, Nainarpuram	9788870286
235		K.Thalavaipuram	South Street, Panchayat Office near	9688550042
236		Thennampatti	Gobalapuram	9787502477
237		T.Veerapandiayapuram	Kumareddiyapuram	9842192242
238		Veppalodai	Kalugasalapuramm, Veppalodai	9488355170
239		Eppothumventran	Keela street, Eppothumventran	9488734388
240		Saminatham	Naduvakurichi	9788693800

## 12. List of Civil Supplies Godown

S1. No	Place of Godown	Phone Numbers
1.	Thoothukudi Harbour	0461-2352127
2	Meelavittan, Thoothukudi	0461-2341564
3.	Srivaikuntam	04630-255237
4.	Tiruchendur	04639-242213
5.	Sattankulam	04639-266209
6.	Kurukkusalai	0461-2372239
7.	Kovilpatti	04632-220692
8.	Vilathikulam	04638-233158
9.	Ettayapuram	04632-271905

## XV. BUDGET AND OTHER FINANCIAL ALLOCATION -OUTLAYS OF MAJOR SCHEMES

#### **Relief Amount**

The relief for the human loss, house damage, cattle loss has been drawn from Treasury and distribute to the victims under TR 27 rule without expecting allotment of funds.

#### **Capacity Building Training on Disaster Management:**

A sum of Rs.108 Lakhs was sanctioned in the proceedings of Additional Chief Secretary / Commissioner of Revenue Administration, Chennai No: NC III/4101/2021 dated: 28.01.2022 for identification of 3500 First Responders by conducting Village Level Orientation camp in all the Villages in the District and conduct of Firka Level and Divisional Level Training for above 3500 First Responders and conduct of District level training for selected 400 First Responders out of the above 3500 First Responders as a measure of Capacity Building and the above four level Trainings were conducted by utilizing the funds provided.

A sum of Rs.8.85 lakhs was sanctioned in the proceedings of Additional Chief Secretary / Commissioner of Revenue Administration, Chennai No: NC III(1)/5968/2019 dated: 5.7.2022 and 21.04.2023 for 12 days residential training programme for 300 Volunteers under Aapda Mitra Scheme implemented by National Disaster Management Authority as a measure of Capacity Building and the Training of 300 Aapda Mitra Volunteers was conducted by utilizing the funds sactioned.

#### **XVI. MONITORING AND EVALUATION**

During disasters the search and rescue exercise, evacuation, relief activities will be closed monitored by the District Administration. The District Collector and District Revenue officer will have overall monitoring on the activities. The Inter Departmental Zonal teams formed (Name of zonal teams in chapter 16.c) in Vulnerable zones will directly act at the disaster area and report the situation then and there. The district level line department officials will also be engaged in supervision of relief centers.

#### a. Hon'ble Ministers:

The precautionary measures taken to tackle disasters are being reviewed and monitored by the Hon'ble Ministers.

The drought damages caused to the crops due to drought are being reviewed by the Hon'ble Ministers

#### b. Monitoring officers:

The Monitoring officer deputed by the Government will conduct field inspections and review the work done during disasters and report to Government.

The monitoring officers conducting review meetings on the progress on drought relief works.

#### c. Inter Departmental Zonal Teams:

The inter departmental zonal teams have been formed for all the 36 vulnerable places in the District. The Nodal officers for the above 36 vulnerable locationas has been appointed in the cadre of Tahsildar.

#### d. Formation of Mobile Teams

The relief work done during disasters will be documented and will be kept a record for future study. These teams have been formed for the Coraporation, Municipalities and Rural Panchayats.

#### e. Formation of Committees to handle the Disaster Situation:

#### 1. Early Warning Committee

- Personal Assistant To Collector (General)
- Tahsildar, Disaster Management
- DM1 Senior Revenue Inspector
- I4 Senior Revenue Inspector
- DM2 Junior Revenue Inspector

#### 2. Search, Rescue & Evacuation committee

- District Officer, Fire and Rescue services, Thoothukudi
- Assistant Commandant, Indian Coast Guard, Thoothukudi
- Deputy Superintendent of Police, coastal security Group
- Assistant Director (Fisheries), Thoothukudi
- Secretary Red Cross organization, Thoothukudi
- Honorary president, Home Guard, Thoothukudi

#### 3. Shelter and Relief (Food, water and Sanitation) committee (for District)

- All Sub Divisional magistrates
- Project Director, DRDA
- Joint Registrar, Co-Operative Society, Thoothukudi
- District Supply officer, Thoothukudi
- Commissioner, Kayalpattinam Municipality
- Commissioner, Kovilpatti Municipality
- Commissioner, Tiruchendur Municipality
- Assistant Director (Town Panchayats), Tirunelveli
- Assistant Director (Panchayats), Thoothukudi

#### 3 (a) Shelter and Relief (Food, water and Sanitation) committee for

#### **Corporation Area**

- Commissioner ,Corporation, Thoothukudi
- Regional Manager, Tamil Nadu Civil Supply Corporation
- Executive Engineer, Corporation, Thoothukudi
- Tahsildar (Flying squad)
- City Health Officer, Thoothukudi

# 4. Water Ways management including eviction of encroachments committee

- District Revenue Officer
- District Forest Officer
- All Tahsildars
- Executive Engineer, Tamirabarani River Basin, Tirunelveli
- Executive Engineer, Korampallam River Basin, Thoothukudi
- Assistant Executive Engineer, Vaippar River Basin, Vilathikulam

#### 5. Public Health (District) committee

- Joint Director (Health), Thoothukudi
- Joint Director, Animal Husbandry, Thoothukudi
- Deputy Director(Health), Thoothukudi
- Deputy Director (Health),Kovilpatti
- Town Health officer, Kovilpatti, Kayalpatinam and Tiruchendur

#### 5(a) Public Health (Corporation) committee

- Deputy Director (Health), Thoothukudi
- City Health Officer ,Thoothukudi
- Health Inspectors, Thoothukudi
- Sanitary Inspectors, Thoothukudi

#### 6. Traffic Management committee

- Deputy Superintendent of Police, Armed Reserve Camp
- Regional Transport officer, Thoothukudi
- Divisional Manager, Tamil Nadu State Transport Corporation
- Traffic Inspector, Thoothukudi Member
- Regional Transport officer, Tiruchendur
- Regional Transport officer, Kovilpatti

#### 7. Media Management (including Social Media) committee

- Public Relation officer, Thoothukudi
- District Informatics Officer, NIC, Thoothukudi
- District E-governance Manager, Thoothukudi

S1. No	Name of Taluk	Name of the Location	Name of the Local Body	Type of Local Body
		Very High Vulr	nerability Places	
1	Thoothukudi	Sankaraperi	Thoothukudi Corporation	Corporation
2	Thoothukudi	Athimarapatti including Veeranayakanthattu	Thoothukudi Corporation	Corporation
3	Thoothukudi	Abraham Nagar including PSP Nagar	Korampallam Panchayat	Village Panchayat
4	Tiruchendur	Punnakayal	Punnakayal Panchayat	Village Panchayat
5	Eral	Sivaramamangalam	Keelpidagai Appan Kovil Panchayat	Village Panchayat
		High Vulner	ability Places	
1	Thoothukudi	Meelavittan (Madathur, P&T Colony)	Thoothukudi Corporation	Corporation
2	Srivaikuntam	Kongarayakurichi	Kongarayakurichi Panchayat	Village Panchayat
3	Srivaikuntam	Sriparangusanallur	Sriparangusanallur Panchayat	Village Panchayat
4	Tiruchendur	Kayalpattinam	Kayalpattinam Municipality	Municipality
5	Tiruchendur	Authoor	Authoor Town Panchayat	Town Panchayat
6	Eral	Thirukalur (Kakkanji Nagar)	Thirukalur Panchayat	Village Panchayat
7	Eral	Mukkani	Mukkani Panchayat	Village Panchayat
8	Sathankulam	Thirupani Puthantharuvai	Puthantharuvai Panchayat	Village Panchayat
9	Ottapidaram	Valasamuthiram	Valasamuthiram Panchayat	Village Panchayat
	•	Medium Vulne	erability Places	
1	Thoothukudi	Muthammal Colony	Thoothukudi Corporation	Corporation
2	Thoothukudi	Athiparasakthi Nagar	Thoothukudi Corporation	Corporation
3	Thoothukudi	Kurinji Nagar	Thoothukudi Corporation	Corporation
4	Thoothukudi	Thiru Vee Ka Nagar	Thoothukudi Corporation	Corporation
5	Thoothukudi	Kovilpillai nagar	Thoothukudi Corporation	Corporation
6	Thoothukudi	Kalankarai	Korampallam Panchayat	Village Panchayat
7	Thoothukudi	Mullakadu JS Nagar	Thoothukudi Corporation	Corporation

#### List of Places identified as Very High, High, Medium & Low Vulnerable

S1. No	Name of Taluk	Name of the Location	Name of the Local Body	Type of Local Body
8	Srivaikuntam	Muthalangkurichi	Muthalangkurichi Panchayat	Village Panchayat
9	Srivaikuntam	Agaram	Vallanadu Panchayat	Village Panchayat
10	Kovilpatti	Iluppaiurani	Iluppaiurani Panchayat	Village Panchayat
11	Kovilpatti	Gandhi Nagar	Kovilpatti Municipality	Municipality
		Low Vulnera	bility Places	
1	Thoothukudi	Rajiv Nagar	Thoothukudi Corporation	Corporation
2	Thoothukudi	Kandhan Colony	Thoothukudi Corporation	Corporation
3	Thoothukudi	Kathirvel Nagar	Thoothukudi Corporation	Corporation
4	Thoothukudi	State Bank Colony	Thoothukudi Corporation	Corporation
5	Eral	Angamangalam	Angamangalam Panchayat	Village Panchayat
6	Eral	Alwarthirunagari Vadambokki Street	Alwarthirunagari Town Panchayat	Town Panchayat
7	Sathankulam	Komaneri	Komaneri Panchayat	Village Panchayat
8	Sathankulam	Virakulam	Karugadal Panchayat	Village Panchayat
9	Kayathar	Thangammal Puram	Kadambur Town Panchayat	Town Panchayat
10	Kayathar	Sanathuputhukudi	Sanathuputhukudi Panchayat	Village Panchayat
11	Vilathikulam	Vaippar	Vaippar Panchayat	Village Panchayat

#### **XVII. RISK COMMUNICATION STRATEGIES**

In the district the Emergency Operation Center is functioning with toll free telephone connection No.1077 and operated 24X7. The weather warnings are being received by this office from CRA's office through e.mail. Taluk level Inter departmental teams have been formed to tackle any calamity. Any warning received from the IMD will be communicated to the Tahsildars and Revenue Divisional officers and they will be asked to respond to the situation with the help of inter departmental team officials. As every official is having mobile phones, warning messages reach the officials very fast and it reaches public also very quickly. Early warning system equipment are proposed to be involved at 19 places along the coast of Thoothukudi district, which will be very helpful in passing the warnings to the public in very fast and authentic manner. A proposal has also been sent for procurement of 18 more mobile VHF sets to this district so as to have a close control over the officials involved in warning, evacuation, search and rescue operations.

S1. No	Taluk	S1. No	Village	Location of DWAS-R
		1	Vaippar-II	Panchayat Office Building, D.No.1/230, Main Road, Keela Vaippar Village, Vaippar -II
1	Vilothilaulom	2	Vembar South	Survey No.242/1B Panchayat Office Building, Beach Road. Vembar South
	1 Vilathikulam	3	Vembar North	D.No-3/4-1B, PET BUILDING, Govt. Hr. Sec. School Vembar.
			Periasamy puram	D.No-Nil. Survey No.67/2 Library Building, Near VAO Office, Periasamypuram
		5	Keela Tiruchendur	Revenue Inspectors Office, Opp. Of Travellers Bungalow, Keela Tiruchendur village, Tiruchendur
		6	Veerapandiyapattinam	D.No. Nil, Panchayat Office Library building, Sur .No.167/2, Veerapandianpattinam
2	2 Tiruchendur		Kayal pattinam South	Sur.No.437/1B7, Municipal Office, Kayalpattinam
	8 Puppakayal D.No. Nil, Survey	D.No. Nil, Survey No.74/1, Panchayat Office Building. Punnakayal.		
		9	Mathavan Kurichi	D.No.Nil, Survey No.16/28, Panchayat Office Building (old Thai Sei Nala vidu health Sub center), Mathavankurichi

#### Early Warning Systems:-

S1. No	Taluk	S1. No	Village	Location of DWAS-R	
		10	Kulasekara pattinam	D.No. Nil, Survey No.186/1, Panchayat Office Building, Kualasekarapattinam	
	3 Ottapidaram		Keela Arasaradi	D.No.Nil, Survey No.286/4, Public Library Building, Vellapatti. H/o.Keela Arasaradi.	
3			Pattana maruthur	Library building, Nearby Panchayat Office Building, Thoothukudi-Vaippar Road, Pattanamaruthur	
			13		Tharuvai kulam
4	Sattankulam	14	Periathalai- H/o. Padukkapathu	D.No.Nil, Survey No. 602/2, Panchayat Office Building, Periathalai.	
	1		15	Thoothukudi-1	D.No.166, North Beach Road, O/o. the Joint Director of Fisheries, Fisheries Complex, (Old Collectorate Complex), Thoothukudi.
		16	Palayakayal	Fish landing Center, Palayakayal.	
5	Thoothukudi	17	Meelavittan-2	D.No.324, Assistant Director of Fisheries (Marine) Complex, Fishing Harbour, Upstairs of Base Workshop Building. Meelavittan-2, Thoothukudi	
		18	Mappillaiyurani	Cyclone Shelter, Siluvaipatti, Near Tsunami Colony, Mappillaiyurani village.	
			Mullakadu	South Zonal Corporation Office Building, J.S Nagar, Muthaihpuram.	

Information can be disseminating through Tamilnadu Arasu Cable TV Corporation at the wake of disasters.

The details of Press in Thoothukudi District is as follows:

Sl.No	Press	Cell / Phone No
1	Dinakaran	9840961969
2	The Hindu	9486637667
4	Daily Thanthi	9841749173, 9976703891
5	The Hindu-Tamil	7401329415
6	Malai Malar	9994405212
7	Malai Murasu	9944094973
8	Dinamurasu	9787743042
9	Theekathir	9443474885
10	Dinakural	9600452561
11	Dinamani	9843969415
12	Dinamalar	9940714214
13	Tuty On Line	9843593407

## XVIII. IMPORTANT CONTACT NUMBERS AND PROVISION

## FOR LINK TO DETAILED INFORMATION

#### **Contact Numbers**

Officers	Office	Residence	Mobile
District Collector	0461-2340600 2340601 to 2340605	0461-2320050, 2326747	9444186000
Superintendent of Police, Thoothukudi.	0461-2340200, 2340650	0461-2330111	94981 40141
Commissioner, Thoothukudi Corporation.	0461-2326901-02	-	7397389314
District Revenue Officer, Thoothukudi.	0461-2340400	0461-2340999	9445000929
Additioal Collector (DRDA)	0461-2340575	0461-2341003	7373704229 9443147321

#### Phone Numbers of Important District Officers Including Field Staff of the Departments Concerned

Officers	Office	Residence	Mobile
Revenue Divisional Officer, Thoothukudi	0461-2320400	0461-2312135	9445000479
Revenue Divisional Officer, Kovilpatti	04632-220258	0461-220238	9445000481
Revenue Divisional Officer, Tiruchendur	04639-245165	0461-245458	9445000480
Personal Assistant (General) to Collector	0461-2340606	_	9445008155
Personal Assistant (Accounts) to Collector	0461-2340601	-	9677929463

S1. No	Officers	Office	Mobile
1	District Supply Officer, Thoothukudi	0461-2341471	9445000370
2	Regional Transport Officer, Thoothukudi	0461-2341020	6442245524
3	Regional Transport Officer, Kovilpatti	04632-223455	9443230663

S1. No	Officers	Office	Mobile
4	Regional Transport Officer, Tiruchendur (i/c)	04639-242100	9442245524
5	Joint Registrar (Co-operative), Thoothukudi	0461-2324610	7338749400
6	Joint Director (Agriculture), Thoothukudi	0461-2340678	9629500919
7	Deputy Director of Horticulture, Thoothukudi	0461-2340681	9750549687
8	Dean, Medical College Hospital, Thoothukudi.	0461-2321051	7358151699
9	Joint Director (Health Services), Thoothukudi	0461-2330624	7358122149
10	Deputy Director (Health), Thoothukudi	0461-2320884	9840361340
11	Deputy Director (Health), Kovilpatti	04632-229585	7373676777
12	Joint Director (Fisheries), Thoothukudi	0461-2320673,	9384824209
13	Divisional Engineer, High Ways, Thoothukudi	0461-2345800	8903709299
14	Supt. Engineer (TWAD), Kovilpatti	04632-221070, 220018	
15	Executive Engineer, TWAD, Thoothukudi	0461-2391282	9342433052
16	Executive Engineer, RWS, Thoothukudi	0461-2390145	9443650643
17	Supt. Engineer(TNEB), Thoothukudi	0461-2324150	9443141502
18	Executive Engineer, PWD(WRO), Korampallam	0461-2326492	9487468658
19	Exe.Engineer, PWD (WRO), Tamirabharani Division, Tirunelveli	0462-2574282	9994841487
20	Exe.Engineer, PWD(WRO), (Vaipar Division) Virudhunagar	04562-243554	9894893656
21	Executive Engineer, PWD Buildings, Thoothukudi	0461-2325039	9942677680
22	Assistant Director of Panchayats, Thoothukudi	0461-2340597	7402608543

S1. No	Officers	Office	Mobile
23	Assistant Director, (Town Panchayat) Tirunelveli.	0462-2554809	8925809231
24	Commissioner, Kovilpatti Municipality	04632-2209254	7397389936
25	Commissioner, Kayalpattinam Municipality	04639-280224	7397389934
26	Commissioner, Tiruchendur Municipality	04639-242291	7305940972
27	Chief Educational Officer, Thoothukudi	0461-2326281	7373003031
28	District Forest officer, Thoothukudi	0461-2346600	9905407304
29	District Officer, Fire and Rescue Service, Thoothukudi	0461- 2310107	9445086276
30	Public Relation Officer, Thoothukudi	0461-2340571	9498042452
31	Regional Manager (TNCSC), Thoothukudi	0461-2340504	9489780564
32	Joint Director of Animal Husbandry, Thoothukudi	0461-2300517	9445001124
33	Project Officer ICDS Thoothukudi	0461-2300318	7598188558
34	Station Manager Southern Railway, Thoothukudi	0461-2337551	
35	General Foreman, Govt. Workshop, Thoothukudi.	0461-2347847	9942151904 8610742087
36	Chief Engineer, TTPS, Thoothukudi.	0461-2352345	9445856999
37	Executive Engineer, Slum Celarance Board, Tirunelveli	0462-2554182	9042076625
38	General Manager, TNSTC, Thoothukudi	-	9487502511
39	Designated Officer, Food Safety, Thoothukudi	0461-2340699	9361563420 9443158399
40	Joint Director, Industries Safety and Factories	0461-2330624	9787657872
41	District Environmental Engineer, Pollution Control Board, Thoothukudi	0461-2341298	8056011701

#### Police Department:

S1. No.	Officers	OUC No	Em ell ID	Р& Т	
		CUG No	Email-ID	Code	Number
1.	SP/TUT	94981 40141	sptutcoff@yahoo.co.in	0461	2340200
2.	ADSP/HQrs	94423 17751	adsphqtut@gmail.com	0461	2341391
3.	ADSP / CWC	91715 51140	Adspcwctut@gmail.com	0461	2340300
4.	ADSP / Cyber Crime	94981 02858	thoothukudicyber police@gmail.com	-	-
5.	DSP/ TUT TOWN	94210 39195	asptowntut@gmail.com	0461	2375150
6.	DSP/ TUT RURAL	94872 77362	dsptutrural@gmail.com	0461	2376093
7.	DSP/ TDR	87783 47770	dsptcr1@gmail.com	04639	245100
8.	DSP / SVM	63745 74394	dspsrivai@yahoo.com	04630	255236
9.	DSP / Maniyachi	83445 27095	dspmnitut@yahoo.co.in	0461	2273252
10.	DSP / KVP	97870 47987	dspkvptut@yahoo.com	04632	220020
11.	DSP / VKM	94425 87777	dspvkmtut26@gmail.com	04638	233498
12.	DSP / SKM	94981 19255	dspskm@yahoo.in	04639	266665
13.	DSP / DCRB	94981 94530	dcrbtut@@gmail.com	0461	2340584
14.	DSP / AR / TUT	94444 65414	dspartut@gmail.com	0461	2311440
15.	DSP / DCB I	94981 07588	dspdcbtut@yahoo.com	0461	2340585

#### XIX. DO'S AND DON'TS OF ALL POSSIBLE HAZARDS

#### **During A Lightning Do Not:**

- Stand under trees or road side power lines.
- Step into any stagnated water body around you.
- Use a Cordless phone outside your home or handle metal rods of any kind.

#### After a Lightning find out:

Is there anyone around you, who has been hit by the lightning? Check for burns both, in the place where it struck and where it left the body. Being hit by lightning can cause damage to nervous system, broken bones and loss of hearing or eyesight.

#### During A Flood Do Not:

- Touch any electrical appliances if you are wet or standing in water.
- Drive into flooded areas, You can get swept away with your vehicle.
- Let children remain on an empty stomach. Finding food might become difficult later.

#### After a flood find out:

- Is your building surrounded by flood water? Stay out of the building. Return only after authorities say it is safe.
- Are there any power line fallen in the water? Don't step into the water. The water will be electrically charged.
- Have you cleaned everything that became wet? Clean and disinfect everything that got wet. Mud left from flood water can contain sewage and chemicals.

#### During a Cyclone do not :

- Stay on the top floor of your building.
- Go into the sea and keep the boats tied
- Come out of the safe place of the wind stops suddenly, violent wind will blow from the opposite direction.

#### After a Cyclone find out:

- If there is any warning or instruction given on the radio? Follow all the instructions given on the radio by the Government.
- Are there any fallen power line or live wires around you? Don't step into the water that's around you.
- Are there any poisonous insects or snakes around you? Have a stick to poke and check all around you.

#### During a Tsunami do not :

- Go to the beach if the shore line is receding. It is the warning of Tsunami.
- Stand near the beach to watch the subsequent waves.
- Return to the sea if you are at the shore.

#### After a Tsunami find out:

- If you are surrounded by knee deep water? Move to a safer place. Even knee deep water can be very dangerous
- Is your building surrounded by water? If yes, get out safely. Tsunami water can cause walls to collapse
- Is the epic center of the earth quake located nearby? If yes, be prepared for after shocks, Move to a safe place.

#### During A Earthquake Do Not :

- Use the lift
- Stand near a Window, Glass partition, Mirror, Book cases and Light fixtures.
- Stand near signboards, bridges and power lines.

#### After an earthquake find out:

- Are you or anyone else injured? Provide first aid if needed
- Are the water, gas and Electricity lines damaged? Disconnect or unplug all the lines.

• Are there any unstable objects above and around you? Move to an open place.

#### During a fire do not:

- Start running if your clothes catch fire stop, Drop and Roll on the ground to extinguish it.
- Try to save any of your belongings. First save yourself and others around you.
- Forget to turn off Gas cylinder and Switch off all electrical appliances.

#### After a fire find out:

- Is there any smoke coming out of the building? If yes, do not enter the building till it is declared safe to.
- Are you a burn victim or is anyone around you a burn victim? Provide first aid, cover the burns to avoid further injuries. Go to a Hospital or call an Ambulance.

#### Heatwave - Do's and Dont's:

**Heat Wave conditions** can result in physiological strain, which could even result in death.

To minimise the impact during the heat wave and to prevent serious ailment or death because of heat stroke, you can take the following measures:

- Avoid going out in the sun, especially between 12.00 noon and 3.00 p.m.
- Drink sufficient water and as often as possible, even if not thirsty
- Wear lightweight, light-coloured, loose, and porous cotton clothes. Use protective goggles, umbrella/hat, shoes or chappals while going out in sun.
- Avoid strenuous activities when the outside temperature is high. Avoid working outside between 12 noon and 3 p.m.
- While travelling, carry water with you.

- Avoid alcohol, tea, coffee and carbonated soft drinks, which dehydrates the body.
- Avoid high-protein food and do not eat stale food.
- If you work outside, use a hat or an umbrella and also use a damp cloth on your head, neck, face and limbs
- Do not leave children or pets in parked vehicles
- If you feel faint or ill, see a doctor immediately.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. which helps to re-hydrate the body.
- Keep animals in shade and give them plenty of water to drink.
- Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- Use fans, damp clothing and take bath in cold water frequently.

## Chemical (Industrial) Accidents - Precautions to be taken during and after the chemical (Industrial) accidents

- Do not panic, evacuate calmly and quickly perpendicular to wind direction through the designated escape route
- Keep a wet handkerchief or piece of cloth/ sari on face during evacuation.
- Keep the sick, elderly, weak, handicapped and other people who are unable to evacuate inside house and close all the doors and windows tightly.
- Do not consume the uncovered food/ water etc open to the air, drink only from bottle
- Change into fresh clothing after reaching safe place/ shelter, and wish hands properly
- Inform Fire & Emergency Services, Police and medical services from safe location by calling 101, 100 and 108 respectively.

- Listen to PA (Public Addressal) System of the plant/ factory, local radio/ TV channels for advice from district administration/fire/health/police and other concerned authorities
- Provide correct and accurate information to government official.
- Inform others on occurrence of event at public gathering places (like school, shopping centre, theatre etc.).
- Don't pay attention to the rumours and don't spread rumours.

#### **General Precautions during Normal Time**

- Do not smoke, lit fire or spark in the identified hazardous area.
- Sensitize the community living near the industrial units and they should be more vigilant about the nature of industrial units and associated risks.
- Keep the contact numbers of nearest hazardous industry, fire station, police station, control room, health services and district control room, for emergency use.
- Avoid housing near the industries producing or processing the hazardous chemicals, if possible.
- Participate in all the capacity building programmes organized by the government/ voluntary organizations / industrial units.
- Take part in preparing disaster management plan for the community and identify safe shelter along with safe and easy access routes.
- Prepare a family disaster management plan and explain it to all the family members.
- Make the family/ neighbours aware of the basic characteristics of various poisonous/ hazardous chemicals and the first aid required to treat them.
- Adequate number of personal protective equipments needs to be made available, to deal with emergency situation.
- Prepare an emergency kit of items and essentials in the house, including medicines, documents and valuables.

#### **Instructions to General Public:**

- Keep your radio on and listen to latest weather warning and advisories from the report of All India Radio station, Chennai, pass on the information to others.
- Avoid being misled by rumours pass on only the official information you have received from the radio to others.
- Got away from low lying areas or other location which may be kept by High tides or strong waves. Leave sufficiently early before the high ground nets flooded. Do not delay and run the risk of being marooned.
- If your house is put in danger from high tides and flooding from the river, please act promptly if asked to vacate.
- Be alert from high water in areas where streams or rivers may flood due to heavy rains.
- Board up glass windows or put storm shutter in place. Use cool wooden planks securely boarding may be do not damages them none at all. Provide strong suitable support for outside doors.
- If you do not have wooden boards, handy, past paper strips on glasses to prevent splinters flying into the house.
- Get extra food, especially things which can be eaten without cooking or with very little preparation. Store extra drinking water in suitable clean vessels.
- If you are in the one of the evacuate areas, move your valuable articles to upper places to avoid flood damages.
- Have hurricane lanthers, flash lights and other emergency lights in working in conditions and keep them handy.
- Check on every thing at night below away or beaten loose kerosene, tind, canes, agricultural implements, garden tools, road signs and other objects became weapons of destructed in strong winds. Remove them and store them in to a covered room.
- Be sure that a window or door can be opened on the lee side of the house i.e., the side opposite to facing the wind.

- Make provision for children and adults required special diets.
- Remove cattle to safe places as far as possible.
- If the centre of 'eye' of the storm passes directly over your place, there will be lull in the wind and rain drizzles for half an hour or more. During this period stay in a safe place. Make emergency repairs during the full period if necessary; by remember that strong wind will return suddenly from the opposite direction, frequently with even greater violence.
- Be calm your ability to meet emergency will inspire and help other.

## XX. IMPORTANT G.O'S

Important Government Orders and Instructions issued from Commissionerate of Revenue Administration:

S1. No	G.O. No. and Date	Details
1	G.O.Ms.No.475 Highways Department Dt: 18.12.97.	Damages to Government roads – restoration of works delegation of powers for waiver to tender call orders issued.
2	Lr.No.NC 1(2)50422/98 Revenue Department. Dt. 16.10.98	Relief amount powers delegated to the Tahsildars and Revenue Divisional Officers - under TR27 for drawl of advance.
3	G.O.Ms.No.153 Revenue Department Dt: 26.1.99.	Enhancement of Financial powers to Revenue Divisional Officers and the Principal Commissioner and Commissioner of Revenue Administration - grant of relief to the victims.
4	NC1(3)76611/05 dated 27.9.05	Natural Calamities - damages to crops, etc - sending proposals for sanction of relief instructions issued - Regarding
5	G.O.Ms.No.380 Revenue (DM.III(2) Department dated 27- 10-2015	Natural Calamities- Grant of Financial Assistance to the Vitims 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.
6.	G.O (Ms).No.246 Revenue and DM Department dated 3.8.2017.	Disaster Management- Grant of finanacial assistantce- inclusion of disasters such as sea erosion, lightening, thander, whirlwind, gale wind- victims eligible for relief under SDRF orders- issued.
7.	CRA office circular No. NC.1(4)3137/2017 dated 8.9.2017	Natural Calamities- North East Monsoon 2017- Preparedness for pre disaster, during disaster and post disaster phases immediate response relief and restoration measures to be carried out - instructions issued- regarding.
8.	CRA office circular No. NC.1(4)3137/2017 dated 13.10.2017	Disaster Management- North East Monsoon 2017- preparedness measures for Management of <b>cyclone</b> instructions issued - regarding

S1. No	G.O. No. and Date	Details
9.	CRA office circular No. NC.1(4)/3838/2018 dated 25.08.2018	Natural Calamities- North East Monsoon 2018- Preparedness for pre disaster, during disaster and post disaster phases - Immediate response relief and restoration measures to be carried out - instructions issued- regarding.
10.	CRA office circular No. NC.1(4)/3838/2018 dated 25.08.2018	Disaster Management- North East Monsoon 2018- preparedness measures for Management of <b>cyclone</b> instructions issued - regarding
11.	CRA office circular No. NC.1(4)/4248/2019 dated 27.08.2019	Natural Calamities- North East Monsoon 2019- Preparedness for pre disaster, during disaster and post disaster phases - Immediate response relief and restoration measures to be carried out - instructions issued- regarding.
12.	CRA office circular No. NC.1(4)/4248/2019 dated 31.08.2019	Disaster Management- North East Monsoon 2019- preparedness measures for Management of cyclone instructions issued - regarding
13.	CRA office circular No. NC.1(4)/1875/2020 dated 26.08.2020	Natural Calamities- North East Monsoon 2020- Preparedness for pre disaster, during disaster and post disaster phases - Immediate response relief and restoration measures to be carried out - instructions issued- regarding.
14.	CRA office circular No. NC.1(4)/ 558/2022 dated 19.09.2022	Natural Calamities- North East Monsoon 2022- Preparedness for pre disaster, during disaster and post disaster phases - Immediate response relief and restoration measures to be carried out - instructions issued- regarding.
15.	CRA office circular No. NC.1(4)/ 1006/2023 dated 25.09.2023	Natural Calamities- North East Monsoon 2023 - Preparedness for pre disaster, during disaster and post disaster phases - Immediate response relief and restoration measures to be carried out - instructions issued- regarding.
16.	G.O.Ms.No.579 Revenue and Disaster Management Department, Disaster Management Wing DM.III(2) Section dated:09.12.2023	Natural Calamities- Grant of Financial Assistance to the Vitims 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.

### XXI. Linkages with IDRN

The men and materials available for disaster response are uploaded in the IDRN Portal <u>https://idrn.nidm.gov.in</u> as follows:

Record Uploaded: 2407

No.of items identified: 150

# XXII. SPECIFIC ISSUES ON VARIOUS VULNERABLE GROUPS HAVE BEEN ADDRESSED

The following damages occurred during the flood/cyclones in this District in the past.

**During March 2008,** unprecedented rains lashed in this district. During this rains **367 villages were affected and 15 villages got marooned**. 3489 people were evacuated and they were accommodated in 14 relief centres. One human loss and 13 cattle loss occurred. 615 huts were partly damaged and 277 huts were fully damaged. In assured irrigation area 6815 hectares of crops were affected and 11723 hectares of crops in rainfed area were affected. 312.5 Km of Highways road and 5 culverts got damaged. 15 tanks, 3 places in river banks, 8 places in channels and 3 places in Anicut got damaged. 241Kms of Local bodies' road and 4 culverts got damaged.

### North East Monsoon 2008

During the period of North East Monsoon 2008, there was widespread rain in Thoothukudi District. Due to heavy rains 481 houses were partly damaged and 190 Houses fully damaged, 1 Cow and 8 Sheep died due to lighting and 7 people died due to lighting and wall collapse etc.

### Northeast Monsoon 2009

During the period of North East Monsoon 2009, there was widespread rain in Thoothukudi District. Due to heavy rains 407 houses were damaged, 1 Calf and 5 Goats died, 3 people died due to heavy rain.

### Northeast Monsoon 2011

Due to heavy rains all over the District during November and December 2011, widespread damage was caused to infrastructure like roads, irrigation sources, etc. crops were also affected to a large extent. Due to heavy rains, 58 huts were fully damaged, 309 huts partly damaged, 33 families were evacuated, 3 cattle and 3 people died and 5.71 ha of crop damaged.

### Northeast Monsoon 2012

During the period of North East Monsoon 2012 in Thoothukudi District, there was little flood / Cyclone damage. Due to heavy rain, 11 houses were fully damaged, and 36 houses were partly damaged. 1 Cow and 1 Goat died due to heavy rain and 5 people died due to heavy rain/thunder/lightning.

### Northeast Monsoon 2013

During the period of North East Monsoon 2013 in Thoothukudi District, there was little flood damage. Due to heavy rain, 9 houses were fully damaged, and 21 houses were partly damaged. 4 Cow died due to heavy rain and 3 people died due to heavy rain/thunder/lightning.

### Northeast Monsoon 2014

During the period of North East Monsoon 2014 in Thoothukudi District, there was little flood damage. Due to heavy rain, 124 houses were fully damaged, and 418 houses were partly damaged. 3 Cow and 5 Goat died due to heavy rain and 10 people died due to heavy rain/thunder/lightning.

### **Effects of North East Monsoon 2015:**

### Thoothukudi - 13.11.2015

During the North East Monsoon 2015, Thoothukudi District was severely affected by Flood. Particularly on 13.11.2015 heavy rains lashed at Maniyachi, Ottapidaram and Kayathar areas of Thoothukudi District. Due to the above heavy rains the flood water from jungle stream merged with upparu odai which leads water into Korampallam tank which is situated nearby Thoothukudi town. The floods in upparu odai and its discharge channel has floods in <u>maravanmadam</u> <u>Panchayat, Kumaragiri, Athimarapatti, Veeranayakan Thattu , Muthaiahpuram,</u> <u>Mullakadu and Thermal Nagar Camp-1 & 2</u>. Further because of heavy rain in Ottapidaram and Thoothukudi rural areas the flood water reached Thoothukudi town and flooded in <u>Madathur, P&T Colony, Athiparasakthi Nagar, Muthammal</u> <u>Colony, Abi colony, Ambethkar nagar, Kurinji Nagar, Palpandi nagar, Raja gobal</u> <u>nagar, Rajiv nagar, Housing Board Colony, Magilchi Nagar, Thiru Vee Ka Nagar</u>. Most of the habitations located in Corporation areas were inundated and this status continued for over one month this is because some parts of Thoothukudi town are below MSL and stagnated water could not drained naturally into buckle canal which is the only canal inside the town taking surplus water into the sea. Immediate and speedy actions have been taken by the District Administration and 1770 persons have been evacuated from the above flood affected areas and they have been sheltered in relief camps.

### Thoothukudi - 23.11.2015

Further on the mid night of 22.11.2015 due to heavy rains at higher gradient places such as Maniyachi (113mm), Ottapidaram (80mm) and Kayathar (43mm). Most of the flood water comes in jungle stream merged with upparu odai and got unprecedent flooding and affected the following places namely Anthoniyarpuram, Maravanmadam, Kumaragiri, Therku silukanpatti, North Silukanpatti, Melathattapaarai, Keela thattapaarai, Ayyanadaipu, Korampallam. Further in Thoothukudi Corporation areas Madathur, P&T Colony, Athiparasakthi Nagar, Muthammal Colony, Abi colony, Ambethkar nagar, Kurinji Nagar, Palpandi nagar, Raja gobal nagar, Rajiv nagar, Housing Board Colony, Magilchi Nagar, Thiru Vee Ka Nagar. The situation was further aggravated by breaching of Chockalingapuram Tank weir and Thalavaipuram and Muramban Tanks skin wall / weir breaches, Due to this, The Korampallam Tank getting suddenly its full level and in order to protect the Korampallam Tank, all of the 24 vents in the surplus Regulator have been opened and released the water to match the inflow / outflow. Due to that enormous and sudden discharge from Korampallam Tank the bunds of surplus canal got breached in Athimarapati, Kalankarai, Veeranayakanthattu due to this many areas in and around surplus canal was got inundated. The impact of flash flood, were felt more in Anthoniyarpuram, Maravanmadam, Sorispuram, Korampallam, Kumaragiri and puthukottai. Where the flood water ran to a height of 3 to 6 feets on 23.11.2015. Moreover the area like Athimarapatti, Kalankarai, Kovilpillai Nagar, Thermal Nagar, Mullakadu and Muthaiyapuram were affected

and flood water had entered into the Agricultural lands by which heavy losses were caused to the Farmers.

District Administration mobilized rescue teams with boats from fire service department, Indian Coast guard, Fisheries department and Coastal Security group and 16 boats and rescue about 800 people from the marooned places.13,415 persons have been evacuated from the flood affected areas and they have been sheltered at evacuation shelters. Relief camps were organized and massive food distribution to the affected people(both in camps as well as persons in flood marooned areas) between 23.11.2015 to 19.12.2015 total number of 2,36,135 food pockets were distributed to the flood affected victims which includes 29,362 aavin milk pockets(250ml) and 20,363 bread pockets. The Assistant Collector (Training) was put in charge of food and relief arrangements and the leading establishments were tied up and the distribution was managed systematically.

### Medical Camps:

In Thoothukudi district 1614 mobile medical camps have been conducted from 14.11.2015 to 18.12.2015 for the benefit of flood affected people. Out of which in Thoothukudi Corporation and Thoothukudi Block areas which are severely affected due to 13.11.2015 & 23.11.2015 flood, 917 mobile medical camps have been conducted and 83,861 persons have been screened from 14.11.2015 to 30.11.2015 for minor ailments and adequate treatment has been given.

Person found with minor aliments have been treated and adequate treatment given in camp. Prophylactic Nilavembu Kudineer is also continuously given to general public and so far it has been given to 1,83,951 people in these areas. Medicines worth about Rs.8.00 lakhs has been exclusively allotted for flood relief camps through Tamil Nadu Medical Supplies Corporation (TNMSC). Due to the effective and extensive works taken till date no outbreak of Diarrhoea, Fever is reported in the District. Daily 17 Special mobile teams are being deployed till date in all affected areas and under continuous monitoring and supervision.

2 Columns of Army personnel comprising with 199 members were deployed in Thoothukudi District for rescue and relief operation during December 2015.

5 Battalions of NDRF Team members were deployed in Thoothukudi District for rescue and relief operation during NEM 2015.

Further there was heavy rainfall in Thoothukudi Town on 08.12.2015 and 09.12.2015 to an extent of 20.5 mm and 7.3mm respectively and this rain also hampered dewatering of inundated areas. Rainfall Details during NEM-2015 as follows

Month	Normal in mm	Actual in mm	Remarks % of (Deviation/ Excess )
October	150.70	116.12	-23%
November	184.70	341.44	+85%
December	94.00	158.69	+69%
North East Monsoon Total	429.40	616.25	+43.51

**Rainfall Details during North East Monsoon 2015** 

- Best of last 15 years : During 2008 1047 mm
- Lowest of last 15 years : During 2013 384.09 mm
- Best of December in last 15 years : During 2015 158.69 mm

Similarly the following places other than Thoothukudi Corporation areas but in Thoothukudi District have also been affected some extent during NEM-2015 as follows

### **Punnakayal:**

Due to release of 30,000 cuscs surplus water from Manimuthar dam, there was a breech on the right side bund of Tamiraparani river in Punnakayal village resulting inundation in Punnakayal village and the bund was temporarily restored now and the Rural Development Department have constructed a pucca retaining wall to prevent recurrence.

### Kannkanji Nagar (Thirukalur Panchayat), Alwarthirunagari:

The hamlet situated nearby Tamirabarani river bed inundated because of heavy rains during NEM-2015(December) further reason is this place is low lying area. The water could not be drained into Tamiraparani River. The level of the culvert in Tiruchendur-Tirunelveli road does not permit the natural drain. As both WRO and Highways Department could not mobilize funds, the District Collector in his discretionary funds sanctioned a siphon structure culvert under IGFF and Panchayat funds to a tune of Rs. 37 lakhs and the work is in progress.

### Rajapudukudi, Kayathar:

Last time, the water from the surplus weir has been flown through Highways road in Rajapudukudi and the road was cut off from the main road and the buses could not be played for 2 days. As a result, the school going children and the general public were affected. This is regular happening for last many years and the Highways could not find resources for building a bridge here. Utilizing Collector's discretionary funds from the IGFF and Panchayat Union general fund, a high level bridge was sanctioned to a tune of Rs. 18 lakhs and work is completed and this year the public in that area and school going children will have no problem when the flood water overflowing the main road.

### **Relief Given:**

An amount of Rs.31,62,00,000/- (Thirty One Crore Sixty Two lakhs) have been given as relief to the flood affected people on various categories as detailed below

S1. No	Details of Relief	No.of Beneficiaries	Amount (Rs.)
1.	Human Loss	5	20,00,000
2.	Cattle Loss	20	4,14,000
3.	Hut Damages	2682	1,17,71,500
4.	Inundation of Houses	22520	11,26,00,000
5.	Crop Damages	89159	18,94,19,000
	TOTAL	114386	31,62,04,500

### Following are done to prevent floods:

- The entire stretch of Uppar Odai from Thoothukudi to Korampallam and the surplus canal from Korampallam to war mouth of the sea was desilted mobilizing funds/machinery from the various departments of the Government and the Corporate.
- The breaches at Kalankarai and Athimarapatti were initially temporarily restored and permanent restoration has been done.

- The desilting of silt and the massive earth obstructing the canal was removed near Pudukottai Bridge and encroachments in the entire Uppar Odai have been removed.
- The tank on the west of T. Veerapandiapuram was desilted and bund strengthened to improve the storage capacity.
- The canal carrying heavy flood waters into Thoothukudi Corporation area was diverted from Vijay Ware House to the canal near Nila Sea Food and bushes and earth was completely desilted/removed.
- The Thoothukudi Corporation has desilted the Puckle canal and other culverts to prevent any inundation.

### Following are the learning's of the NEM-2015 floods

- As Thoothukudi District acts as drainage for Tirunelveli and Virudhunagar District because of the gradient, one should keep a close watch on the rainfall details of those districts and also the dam level and surplusing of dams.
- In Thoothukudi Corporation some parts on North West side are below MSL and rain water could not find the natural drain into the buckle canal.
- The surplusing of neighborhood enter thoothukudi corporation area only in the following points
  - > Buckle canal starting at FCI (korampallam and madathur area surplus)
  - Vijaya Ware House culvert (West side of South Veerapandia puram)
  - > Jothi Nagar ( Surplus of North side around Nila foods)
- The buckle canal which has some places permits the natural drain but after it was concreted the natural drain spots got closed and hence areas like Kurinji nagar and Muthammal colony has to be pumped own drained only.
- First flooding on 13.11.2015 affected Muthammal Colony, Kurinji nagar, Athiparasakthi Nagar, P&T Colony and Thiru Vee Ka nagar.
- Second flooding on 23.11.2015 flooding areas spread to SBI colony, Raja gobal nagar, Rajiv nagar, Palpandi nagar, etc.,

• The third flooding ( rain on 8.12.2015 and 9.12.2015) flooding areas extended to Chidambara nagar, VOC College, Priyant Nagar, Kamaraj College, Teachers Colony, etc.,

### Northeast Monsoon 2016

During the period of North East Monsoon 2016 in Thoothukudi District, there was little flood damage. Due to rain, 4 houses were fully damaged, and 21 houses were partly damaged. 43 cattles died due to heavy rain and 5 people died due to heavy rain/thunder/lightning.

### Drought 2016

The rainfall during N.E Monsoon was 150.55 mm against the normal NE monsoon rainfall of 429.40mm. Hence rainfall was 65% deficient for this district and the district suffered with drought. Crops raised in 179784 Hectares of land got damaged due to drought. Government in their G.O No. 6 Revenue Department dated 10.1.2017 has declared all the districts in Tamilnadu as drought hit districts. In G.O Ms No. 47 Revenue Department dated 21.2.2017 has sanctioned input subsidy to the farmers who has suffered crop loss due to drought.

S1. No	Department	No.of farmers	Extent	Amount
1	Agriculture	78353	94210.5	712389976
2	Horticulture	36160	19625.7	189687243
3	Sericulture	3	2.0	14820
	Total	114516	113838.1	902092039

### Northeast Monsoon 2017

Rains with heavy wind were experienced in the district during Ockhi cyclone. As timely warnings given to the fishermen of Thoothukudi district, no casualty occurred in the district. However, the fishermen of Thoothukudi district who ventured into Kerala waters from Colachel fishing harbour were affected by the severe OCKHI Cyclone. **2 fishermen died and 3 fishermen found missing.** 

### **Evacuation:**

On 1.12.2017 night around **24,000 cusec of water was released** into Tamirabarani river due to heavy rain fall at Tirunelveli district and Thoothukudi district due Ockhi cyclone. Tamirabarani river merges in to sea at Punnakayal village. Due to heavy flow in Tamirabarani river, the water could not be drained in to sea and got stagnated. The stagnated flood water entered in to the streets of Punnakayal village on 1.12.2017 night. Hence the people in the habitations were rescued and accommodated at a **relief shelter at Punnakayal village** 

### **OCKHI Cyclone damages :**

House Damages	Fully	Partly	Total
Hut Damages	6	54	60
House other than Hut	13	101	114
Total	19	155	174

Cattle Loss	Cow	Goat	Total
Cow-4 (Thoothukudi-2, Sathankulam-1, Kayathar-1) Goat-1 (Kayathar-1)	4	1	5

### Other damages

Boats damaged	25 (FRP vallam 12, wooden vallam 10, Cattamaram 3)
Crop loss	488 Hectares ( Banana)
Fallen Electric Poles	115
Transformer damaged	1
Trees fallen	51

### Roads

1	High ways road :	50.8
2	Municipal roads :	13.58
3	Town Panchayat road :	3.1
4	Village roads :	45.12
	Total	112.6 km

### Culverts

Corporation	3
Panchayats	12

### Northeast Monsoon 2018

During the period of North East Monsoon 2018 in Thoothukudi District, there was flood damage. Due to rain, 24 houses were fully damaged, and 81 houses were partly damaged. 3 cattles died due to heavy rain and NO people died due to heavy rain/thunder/lightning.

### Northeast Monsoon 2019

During the period of North East Monsoon 2019 in Thoothukudi District, there was flood damage. Due to rain, 79 houses were fully damaged, and 532 houses were partly damaged. 4 cattles died due to heavy rain **and No people died** due to heavy rain / thunder / lightning.

### North East Monsoon 2020

#### Normal Rainfall **Deficit**/ Month **Rainfall** % % Rainfall Recorded Excess October 150.7 41.39 27 109.31 73 (D) November 184.7 255.08 138 70 38 (E) December 94 159.03 169 65 63 (E)

### Rainfall Recorded during the NEM Season:

### Losses:

			Cattle Loss				House Damage				
S1. No	Taluk	Human Loss	Cow	Bullock	Goat	Calf	Total	Partly	Fully	Total	Grand Total
1	Thoothukudi	-	2	-	13	1	16	33	5	38	54

					Cattle Loss				House Damage		
S1. No	Taluk	Human Loss	Cow	Bullock	Goat	Calf	Total	Partly	Fully	Total	Grand Total
2	Srivaikuntam	1	-	-	-	-	-	23	1	24	25
3	Tiruchendur	-	-	1	-	-	1	14	4	18	19
4	Sathankulam	-	-	-	-	-	-	1	_	1	1
5	Eral	-	-	-	-	_	-	15	-	15	15
6	Kovilpatti	-	2	-	-	-	2	9	2	11	13
7	Ottapidaram	1	1	-	-	-	1	51	_	51	53
8	Vilathikulam	-	_	-	-	-	-	37	1	38	38
9	Ettayapuram	-	-	-	-	-	-	6	_	6	6
10	Kayathar	-	1	-	4	-	5	13	_	13	18
	Total	2	6	1	17	1	25	202	13	215	242

# Functioning of Relief Shelters:

		No.of	lies	No	o of Peo	ple stay	ed		
<b>S</b> 1.	Taluk	Locations E Adult			No. of Shel	Period			
No		which evacuated	No.of	Male	Fe male	Child	l Total	al ters	
1	Thoothukudi	10	181	278	312	501	1091	10	18.11.2020 3.12.2020 4.12.2020 7.12.2020
2	Vilathikulam	1	18	18	23	46	87	2	7.12.2020
G	rand Total	11	199	296	335	547	1178	12	-

# Damages to Public properties:

S. No	Taluk	EB Poles Falling	Tree Falling	Tank / Channel Breach	Total
1	Thoothukudi	51	1	-	52
2	Eral	7	2	1	10
3	Vilathikulam	7	3	-	10
4	Ottapidaram	7	-	1	8
5	Tiruchendur	4	3	-	7
6	Srivaikuntam	4	-	2	6
7	Kayathar	3	-	1	4
8	Kovilpatti	-	1	-	1
	Total	83	10	5	98

# **Crop Damages:**

S1. No	Crop	No.of Farmers affected	Extent affected in Hectares	Relief Amount
1	Horticulture	2630	1296.621	10070818
2	Agriculture	697	510.866	4052441
	Total	3327	1807.487	14123259

# Unseasonal Rainfall during January 2021:

# Rainfall Recorded during the NEM Season:

Month	Normal Rainfall	Rainfall Recorded	Rainfall %
January	38.90	175.38	452

### Losses:

			Cattle Loss			House Damage			
S1. No	Taluk	Human Loss	Goat	Goat - Kids	Total	Partly	Fully	Total	Grand Total
1	Thoothukudi	1	-	-	0	13	9	22	23
2	Srivaikuntam	-	-	-	0	29	2	31	31
3	Tiruchendur	-	-	-	0	4	4	8	8

		-		attle Lo	oss	Ηοι	ise Da	mage	
S1. No	Taluk	Human Loss	Goat	Goat - Kids	Total	Partly	Fully	Total	Grand Total
4	Sathankulam	-	-	-	0	2	0	2	2
5	Eral	-	6	3	9	29	3	32	41
6	Kovilpatti	-	-	-	0	4	0	4	4
7	Ottapidaram	-	-	-	0	30	0	30	30
8	Vilathikulam	-	-	-	0	28	0	28	28
9	Ettayapuram	-	-	-	0	2	0	2	2
10	Kayathar	-	-	-	0	8	0	8	8
	Total	1	6	3	9	149	18	167	177

# Functioning of Relief Shelters:

					Evacı	ation			
S1.		No.Location of People	S	Α	dult	u		S	
No	Taluk	which evacuated	Families	Men	Women	Children (12 >)	Total	No.of Shelters	Period
1	Thoothukudi	8	99	130	150	65	345	8	14.1.21 - 19.1.21
2	Eral	5	99	144	185	89	418	5	14.1.21 - 16.1.21
3	Tiruchendur	2	209	399	342	181	922	4	14.1.21 - 18.1.21
4	Srivaikuntam	4	32	43	48	29	120	4	14.1.21 - 15.1.21
G	rand Total	19	439	716	725	364	1805	21	

### Damages to Public properties:

S1. No	Taluk	EB Poles Falling	Tree Falling	Tank Breach	Road Cut off	Total
1	Thoothukudi	1	2	1	-	4
2	Srivaikuntam	4	-	-	-	4
3	Ottapidaram	2	1	1	-	4
4	Vilathikulam	1	3	-	-	4
5	Eral	-	2	-	2	4
6	Tiruchendur	-	1	-	-	1
7	Sathankulam	-	1	-	-	1
	Total	8	10	2	2	22

### **Crop Damages:**

S1. No	Crop	No.of Farmers affected	Extent affected in Hectares	Relief Amount
1	Horticulture	33294	15918.978	170189271
2	Agriculture	86690	104027.010	1052541805
	Total	119984	119945.988	1222731076

### North East Monsoon 2021:-

During North East Monsoon, in November 2021, Thoothukudi District get 391.89 mm rainfall against the normal rainfall 184.70 mm and the highest rainfall on a particular day is **11.88 cm on 25.11.2021** in Thoothukudi District and **26 cm** in Thoothukudi Corporation. Due to heavy rainfall in North East Monsoon period, 659 houses damaged partly, 44 houses damaged fully and relief amount of Rs.27.37 lakhs to the 659 partly damaged houses and Rs.3.10 Lakhs to the 44 fully damaged houses were given then and there by continuously monitoring field officials. Similarly an amount of 4.02 Lakhs were given to the loss of 32 cattles and Rs.28 Lakhs were given to 7 human loss.

Due to heavy rain on 25.11.2021, the flood water from jungle stream surrounded habitation in Odai street at Valasamuthiram Village in Ottapidaram Taluk and persons belonging to 9 families and cattles were safely resuced by the Fire Service personnel.

						H	ut Dama	ge		
S1.	Name of	Human	Cattle Loss		Hut					
No	No Taluk	Loss		Partly	Fully	Total	Partly	Fully	Total	Grand Total
1	Thoothukudi	1	1	69	1	70	8	0	8	78
2	Srivaikuntam	0	1	121	8	129	0	0	0	129
3	Tiruchendur	1	0	42	4	46	21	1	22	68
4	Sathankulam	0	7	23	2	25	0	0	0	25
5	Eral	1	6	85	10	95	3	0	3	98
6	Kovilpatti	0	0	5	0	5	0	0	0	5
7	Ottapidaram	2	0	134	8	142	0	0	0	142
8	Vilathikulam	2	11	62	4	66	1	0	1	67
9	Ettayapuram	0	0	35	0	35	0	0	0	35
10	Kayathar	0	6	50	6	56	0	0	0	56
	Total	7	32	626	43	669	33	1	34	703

Arrangement were made to evacuate 2184 persons of 605 families in water stagnated areas during North East Monsoon period and 34 Relief Shelters were functioned and a total of 20,260 food packets were issued.

In Thoothukudi Corporation area, arrangements were made to drain the stagnated water in 368 places by using 390 pumps through Corporation. 12 teams consisting one Deputy Collector, one Tahsildar, Rural Development and Corporation officials in each Team were formed and deputed to Thoothukudi Corporation in heavily water stagnated areas for dewatering process in their areas.

Arrangements were taken for assessment of Late kar crops and Rabi season crops damaged due to North East Monsoon 2021, jointly by Revenue and Agriculture/Horticulture officials by ensuring that the extent of crops are entered in e-adangal. An extent of 9.48 Hec of Late kar Agriculture crops, an extent of 472.5 Hec of Rabi season Agriculture crops and extent of 339.65 Hec of Horticulture crops were assessed as damaged more than 33%. An amount of Rs.6,06,278/- was given to the farmers for Agricultural crop damage and Rs.8,26,000/- was given to the farmers for Horticulture crop damages.

### North East Monsoon 2022:-

Due to heavy rainfall in North East Monsoon period, 57 houses damaged partly, 2 houses damaged fully and relief amount of Rs.2.54 lakhs to the 57 partly damaged houses and Rs.10,000 to the 2 fully damaged houses were given then and there by continuously monitoring field officials. Similarly an amount of 1.14 Lakhs were given to the loss of 20 cattles and Rs.8 Lakhs were given to 2 human loss and as the sanctioning Authority is Government for human injury due to Lightning, the proposals for sanctioning relief to the 4 persons injured due to lightning in Vilathikulam Taluk, has been sent to the Commissioner of Revenue Administration as mentioned below,

							H	ut Dar	nage		
S1.	Name of	Human	Cattle	Cattle Human – Loss Injury		Hut		Pucca			
No	Taluk	Loss			Partly	Fully	Total	Partly	Fully	Total	Grand Total
1	Thoothukudi	-	1	-	3	0	3	1	0	1	4
2	Srivaikuntam	1	-	-	2	0	2	5	0	5	7
3	Tiruchendur	-	3	-	1	0	1	0	0	0	1
4	Sathankulam	-	-	-	2	0	2	1	0	1	3
5	Eral	-	1	-	3	0	3	3	0	3	6
6	Kovilpatti	-	-	-	0	1	1	3	0	3	4
7	Ottapidaram	-	-	-	12	1	13	0	0	0	13
8	Vilathikulam	1	5	4	14	0	14	2	0	2	16
9	Ettayapuram	-	-	-	0	0	0	1	0	1	1
10	Kayathar	-	10	-	3	0	3	1	0	1	4
	Total	2	20	4	40	2	42	17	0	17	59

# **Crop Damages during North East Monsoon 2022:**

#### Relief Name of Extent No.of **S1**. Name of Amount Taluk & Damaged Farmers Reason No Sanctioned Crop Village (in Hec) affected (in Rs) Flow of surplus water from Ottapidaram Eppothum-1 Blackgram 19.495 25 144457 Veppalodai vendran Dam into Agricultural fields Kovilpatti Wind during rain 2 Maize 29.91 33 221633 Villiseri on 28.11.2022 Eral Drought 3 Kurippan Paddy 32.835 61 443327 Kulam Total 82.24 119 809417

### a) Agricultural Crop:

### b) Horticultural Crop:

S1. No	Name of Taluk & Village	Reason	Name of Crop	Extent Damaged (in Hec)	No.of Farmers affected	Relief Amount Sanctioned (in Rs)
1	Ottapidaram Veppalodai	Flow of surplus water from Eppothum- vendran Dam into Agricultural fields	Chilli and Onion	30.92.2	79	229128
			Total	30.92.2	79	229128

### North East Monsoon - 2023:

↓ Details of damages from the 01.10.2023 to 16.12.2023 as detailed below,

						Н	ut Dama	age		
S1.	Name of	Human	Cattle Loss					Grand		
No	Taluk	Loss		Partly	Fully	Total	Partly	Fully	Total	Total
1	Thoothukudi	0	0	3	0	3	4	0	4	7
2	Srivaikuntam	0	0	11	1	12	4	0	4	16
3	Tiruchendur	0	1	3	2	5	2	0	2	7
4	Sathankulam	0	1	17	0	17	4	0	4	21
5	Eral	0	0	3	0	3	0	0	0	3
6	Kovilpatti	0	0	7	0	7	2	0	2	9
7	Ottapidaram	0	4	26	3	29	2	0	2	31
8	Vilathikulam	1	2	32	1	33	8	0	8	41
9	Ettayapuram	0	0	11	0	11	0	0	0	11
10	Kayathar	0	0	6	0	6	1	0	1	7
	Total	1	8	119	7	126	27	0	27	153

# Unprecedented extremely heavy rainfall and Flood on 17.12.2023 and 18.12.2023:

- Thoothukudi District had faced unprecedented extremely heavy rainfall on 17.12.2023 and 18.12.2023 which in turn caused devastative flooding due to which our District's normalcy was affected.
- The unprecedented historic rainfall on 17<sup>th</sup> and 18<sup>th</sup> December 2023exceeded the Monsoon season's normal rainfall at many places. In some places, it was exceeded even the annual average rainfall for the region in a single day. For example, at Kayalpattinam in Tiruchendur Taluk 94.6 cm rainfall was registered between 08.30 Hrs of 17.12.2023 and 08.30 Hrs of 18.12.2023, which is more than the annual average rainfall for that station. Similarly, many stations in Thoothukudi District recorded more than 40 cm of rainfall within 24 Hrs.
- Due to the above, most of the places of Thoothukudi District were devastated due to the flooding, inundation and throwing the normal life out of gear. The depth of the flood water in the City Corporation limits of Thoothukudi was witnessed more than 5 to 6 feet in most of the places. The situation was

exacerbated by breach of several tanks and the continuous rainfall in the Western Ghats leads to excessive inflow and huge discharge of surplus water from the Dams of the Western Ghats.

- Due to the heavy rainfall, our District Collector's Office was also inundated by flood water and was non-operational for 5 days. It was witnessed that the depth of the flood water inside our Collector Office was 4 feet in the Ground Floor and also in outer campus -flood water depth level was more than 6 feet. So, the approach road from the Main Road to our Collector's Office campus got inundated by Flood water.
- The Officials stranded inside our Collector's Office were rescued by the NDRF personnel by boat on 18.12.2023. It is well known that due to this, all of our works got affected.
- Moreover, all the Private / Government vehicles including District Collector's InnovaCrysta Car and VIP InnovaCrysta Car parked inside the Collector's Office Campus were seriously affected by the Flood water and could not move the vehicles into safe place since the Flood water surrounded our entire Campus. Due to this, huge amount is being estimated by the Mechanics to repair the vehicles which leads to heavy financial loss to the Government. (The same situation was experienced during the Year 2015 due to heavy rainfall and floods.)
- During this Flood period, we operated our Collector Office at Thoothukudi Municipal Corporation Office for 5 Days, which gave us more hindrance to run the smooth District Administration in all aspects.
- Moreover, the unprecedented widespread heavy rainfall for two days leads to fill up of full storage capacity of dams and reservoirs which resulted in discharging of surplus water causing extensive flooding and inundation in Srivaikuntam and Eral Taluks. In Eral Taluk the depth of the flood water was measured more than 7 feet in many places.
- The extremely abnormal heavy downpour due to upper air circulation and consequent flooding had caused loss of human lives, cattle and also heavy damages to houses, huts agricultural/horticultural crops, public infrastructure like roads, bridges, power water supply etc., Lakhs of people were affected due to floods and inundation in their habitations resulting in loss of houses, clothing and utensils and affecting their livelihood. Many poor and daily wage earners have lost their livelihood completely. There has been extensive damage to micro, small and mini-industrial units in the affected areas. Further the

fishermen were offshore for more than a week which affected their livelihood badly.

- As far as Thoothukudi District is concerned, in all Fire Stations only Inflatable Rubber Boats (FRB) without motor engine are provided - which are only useful to rescue the peoples those who are having habitation in urban areas such as Colony and residential areas and not significantly helps to rescue the people those who are living in flooded area such as river bed areas and etc....since all these river bed areas are surrounded by bushes and thorns which are washed out from various areas by flood and these thorns easily cause damages the rubber boats and could not face the water current flow - which make hardship in the rescue operation.
- 4 Though our Thoothukudi District had many Fishermen Fiber Motor Boats, but during this recent flood period we borrowed such Fiber boats from the nearby Kanniyakumari District since, all the connected roads from Thoothukudi Fishermen area to Srivaikuntam, Eral and Tiruchendur Taluks were badly affected and damaged by the flood and we could not mobilized the boats from Thoothukudi Fishermen area to the affected area.

# Preventive Measures taken by the District Administration, Thoothukudi.

- Weather Bulletin from IMD forecasting heavy to very heavy rain at one or two places over Thoothukudi on 17.12.2023 and 18.12.2023 issued on 17.12.2023 at 01.15 pm received at 01.28 pm.
- Bulletin message communicated to all Line department officials with instructions to monitor the low lying areas, keep ready Emergency Inventories like Motor Pumps, Power Saws, Sand bags and Relief Shelters and take necessary preventive measures.
- ↓ The rain started around 2'o Clock.
- A CAP message for a flood over South Tamil Nadu was pushed around 09.50 pm on 17.12.2023.
- Message received from PWD Department, Tirunelveli District around 11.00 PM on 17.12.2023 regarding the expected situation for release of 15,000 Cusecs water from Papanasam, Servalaru and Manimuthar Dams in Tirunelveli Districts.

- On receipt of above message, Press News warning was issued at 11.30 pm on 17.12.2023 to the Public living in Maruthur and Srivaikuntam Dam areas and Tamirabarani River bed villages from Kaliyavur to Punnakayal.
- 4 The above Warning message was also broadcasted through All India Radio.
- The All India Radio was requested by the District Administration to broadcast the above warning message throughout the Night on 17.12.2023 and the warning was broadcasted throughout the Night on 17.12.2023.
- District Collector, Thoothukudi fastly rushed to Srivaikuntam Taluk during the night on 17.12.2023 visited the Dam areas, River bed villages, directly instruct the public through field officials like VAO, Panchayat Secretary, Panchayat President and First Responders to evacuate the low lying areas and move to the Relief Shelters which are kept ready.
- Superintendent of Police, Thoothukudi and District Revenue Officer, Thoothukudi rushed to Eral Taluk and did the above exercise.
- Joint Director, Fisheries and Revenue Divisional Officer, Tiruchendur rushed to Sathankulam Taluk and did the above exercise.
- All the Taluk Tahsildars with their field staffs rushed to the low lying areas in their respective Taluks and did the above exercise.
- 4 All other Line departments officials rushed to their jurisdiction and take preventive measures.
- By around 12'o clock during the night on 17.12.2023, the flooding started due to heavy rain.
- A CAP message for Heavy Floods over Tamirabarani River is pushed by 12.03 am on 18.12.2023.
- By 12.05 am on 18.12.2023, the warning message to the public in low lying areas of Tamirabarani River bed to move to the Relief Shelters was communicated to the all the Tahsildars and Divisional Officers and they effectively disseminate the warning.
- The Aapda Mitra Volunteers and the First Responders were informed the warning message and instructed to move the public in low lying areas to the nearby relief shelters.
- Holiday was declared for all the Educational Institutions in the District on 18.12.2023.
- 4 Rainfall data from 17.12.2023 8.30 am to 18.12.2023 8.30 am

S1. No	Taluk	Rainguage Station	Rainfall (in mm)	Rainfall Prediction
1	Thoothukudi	Thoothukudi	378.40	Extremely Heavy Rainfall
2	Srivaikuntam	Srivaikuntam	621.50	Extremely Heavy Rainfall
3		Tiruchendur	689.00	Extremely Heavy Rainfall
4	Tiruchendur	KAYALPATTINAM	946.00	Extremely Heavy Rainfall
5		KULASEKARAPATTINAM	330.00	Extremely Heavy Rainfall
6	Sathankulam	Sathankulam	471.00	Extremely Heavy Rainfall
7	Varilaatti	Kovilpatti	525.00	Extremely Heavy Rainfall
8	Kovilpatti	Kalugumalai	187.00	Very Heavy Rainfall
9	17 +1+	Kayathar	267.00	Extremely Heavy Rainfall
10	Kayathar	Kadambur	372.00	Extremely Heavy Rainfall
11	Ettayapuram	Ettayapuram	173.10	Very Heavy Rainfall
12		Vilathikulam	262.00	Extremely Heavy Rainfall
13	Vilathikulam	Kadalkudi	132.00	Very Heavy Rainfall
14	Vilatilikulalli	Vaippar	218.00	Extremely Heavy Rainfall
15		Surangudi	162.00	Very Heavy Rainfall
16		Ottapidaram	374.00	Extremely Heavy Rainfall
17	Ottonidonom	Maniyachi	417.00	Extremely Heavy Rainfall
18	Ottapidaram	Vedanatham	302.00	Extremely Heavy Rainfall
19		Keelaarasadi	376.00	Extremely Heavy Rainfall
		TOTAL	7203.00	
	Avera	age Rainfall	379.11	Extremely Heavy Rainfall

- After the above extremely heavy rainfall rescue operations were taken by Fire and Rescue Services, Fisheries Department, Police, NDRF and Army Personnel.
- Relief materials have been received from Other District through around 300 Lorries and directly distributed to the people in the Flood affected areas.
- Helicopter had been used in rescue the people stranded in which the areas where the road transports had been cut off.
- Food packets have been issued to the inaccessible areas through Helicopters.
- 4 60 Community Kitchens have been operated and around 2 lakhs food packets have been prepared daily basis and issued to the people in the flood affected areas.
- 4 200 Medical Camps have been conducted in the Flood affected areas.
- **4** The details of relief shelters as detailed below,

S1. No	Taluk	No.of Relief Shelters	No.of families	Male	Female	Children	Total
1	Thoothukudi	41	3034	5976	4584	1685	12245
2	Srivaikuntam	2	19	21	31	11	63
3	Tiruchendur	5	105	129	168	56	353
4	Sathankulam	2	102	86	98	25	209
5	Eral	8	1057	1105	1308	868	3281
6	Kovilpatti	2	10	12	13	15	40
7	Ottapidaram	3	21	37	36	20	93
8	Vilathikulam	1	89	113	124	129	366
9	Ettayapuram	2	20	32	32	29	93
10	Kayathar	0	0	0	0	0	0
	Total	66	4457	7511	6394	2838	16743

After the rescue operations enumeration of damages have been taken by the officials from Revenue and Agriculture departments from various districts. Totally 162 Teams have been formed 740 Officials drafted for enumeration work and the details of damages are as follows

# Human Loss:

S1. No	Name of Taluk	Male	Female	Child	Total
1	Thoothukudi	15	10	1	26
2	Srivaikuntam	2	0	0	2
3	Tiruchendur	3	0	0	3
4	Eral	10	6	0	16
5	Sathankulam	0	0	0	0
6	Kovilpatti	0	0	0	0
7	Ottapidaram	1	1	0	2
8	Vilathikulam	0	0	0	0
9	Ettayapuram	0	0	0	0
10	Kayathar	0	0	0	0
	Total	31	17	1	49

# Cattle Loss:

S1. No	Name of Taluk	Cow	Calf	Goat/ Sheep	Poultry	Pig	Donkey	Buffalow	Bullock	Total
1	Thoothukudi	442	288	4319	17569	37	0	10	6	22671
2	Srivaikuntam	271	157	3343	21309	117	6	5	4	25212
3	Tiruchendur	328	189	1772	3021	39	16	7	8	5380
4	Eral	615	276	4520	9189	111	6	21	12	14750
5	Sathankulam	44	65	1045	1367	0	0	0	1	2522
6	Kovilpatti	0	0	13	0	0	0	0	0	13
7	Ottapidaram	73	35	3843	26753	34	0	0	0	30738
8	Vilathikulam	38	7	920	212	0	0	2	4	1183
9	Ettayapuram	0	0	105	6000	0	0	1	0	6106
10	Kayathar	1	9	63	180	0	0	0	0	253
	Total	1812	1026	19943	85600	338	28	46	35	108828

# House Damage:

S1.			Puc	Pucca Houses			Total			
No	Taluk	Partly	Fully	Total	Partly	Fully	Total	Partly	Fully	Grand Total
1	Thoothukudi	770	423	1193	27	0	27	797	423	1220
2	Srivaikuntam	775	684	1459	187	0	187	962	684	1646
3	Tiruchendur	555	407	962	134	0	134	689	407	1096
4	Eral	1242	997	2239	54	11	65	1296	1008	2304
5	Sathankulam	222	22	244	13	0	13	235	22	257
6	Kovilpatti	70	0	70	5	0	5	75	0	75
7	Ottapidaram	405	190	595	49	5	54	454	195	649
8	Vilathikulam	211	22	233	33	0	33	244	22	266
9	Ettayapuram	99	9	108	4	0	4	103	9	112
10	Kayathar	166	0	166	0	0	0	166	0	166
	Total	4515	2754	7269	506	16	522	5021	2770	7791

# **Crop Damages:**

S1. No	Type of Crop	No.of Farmers	Damages Extent (in Hec)	Relief Amount (in Rupees)
1	Agriculture	128205	107320.592	975997148
2	Horticulture	41498	23401.76	258863790
	Total	1,69,703	1,30,722.352	123,48,60,938

In view of the devastations, State Government announced Relief Assistance through various departments and the details of the assistance is given below

## 1. Revenue and Disaster Management Department :

## a) Human Loss:

No.of cases	Male	Female	Child	No.of cases relief given to beneficiary	Balance	Relief Amount (in Rupees)
49	31	17	1	47	2	2,35,00,000

In the above, relief amount of Rs.5 lakhs given to the legal heirs of the deceased. Relief amount not given for the 2 cases, i.e., 1 case due to legal heir not available in Thoothukudi Taluk and another due to Unidentified body from Eral Taluk.

### b) Cattle Loss:

S1. No	Name of Cattle	No.of lossed	Relief Amount per case (as per G.O.Ms.No.579, dated: 15.12.2023) (Amount in Rs)
1	Cow	1812	37500
2	Calf	1026	20000
3	Goat/ Sheep	19943	4000
4	Horse	0	0
5	Poultry	85600	100
6	Pig	338	4000
7	Donkey	28	20000
8	Buffalow	46	37500
9	Bullock	35	32000
	Total	108828	18,15,59,000

In the above, relief amount of Rs.18,15,59,000/- given to the owner of the 1,08,828 cattles.

### c) House Damage:

Category	Partly	Fully	Total	Relief Amount (in Rs)
Hut	4515	2754	7269	Rs.10,000/- for each damaged huts

Category	Partly	Fully	Total	Relief Amount (in Rs)
Pucca	506	16	522	Rs.6,500/- for each partly damaged pucca house and Rs.1,20,000/- for each damaged fully pucca house
Total	5021	2770	7791	7,78,99,000

In the above a total relief amount of Rs.7,78,99,000/- was given for the damaged houses to the affected families.

### 2. Co-operative Department:-

### a) Relief Assessment to the affected families:

As per G.O.(Ms).No. 600, Revenue and Disaster Management Department dated : 26.12.2023 Relief amount of **Rs.6000** were given to the 310930 Ration card Holders in Heavily Flood affected areas in Thoothukudi District Such as Eral, Sathankulam, Srivaikuntam, Tiruchendur and Thoothukudi Taluks. Total assistance of Rs.183.55 crore has been given to the affected families. Similarly, Relief amount of **Rs.1000/-** was given to the 509538 Ration card holders in Less flood affected areas in Thoothukudi District namely Kovilpatti, Ottapidaram, Ettayapuram, Vilathikulam and Kayathar taluks. A total amount of Rs.50.95 crore has been given to the affected families.

### b) Loan Assistance to Small & Petty Traders:

S1. No	Category	No.of Applications received	No.of Applications received in which amount sanctioned	Total Relief Amount (in Lakhs)
1	Amount upto 10000	1065	1065	106.50
2	Amount 10,001 to 1 Lakh	3016	3016	662.33
3	1 lakh and above	5	5	5
	Total	4086	4086	773.83

# 3. Agriculture & Horticulture Department:

### a) Crop Damages:

S1. No	Type of Crop	No.of Farmers	Damages Extent (in Hec)	Relief Amount (in Rupees)
1	Agriculture	128205	107320.592	975997148
2	Horticulture	41498	23401.76	258863790
	Total	1,69,703	1,30,722.352	123,48,60,938

The relief amount sanctioned from the Government and the relief amount have been disbursed to the farmers during February 2024.

### b) Removal of Sand Casting:

Agricultural fields have been affected due to sand casting in floods. Agricultural Engineering department deployed 98 machineries brought from other Districts such as Bulldozer, Backhoe, Tractor with Tipping Trailer, etc., and 788.96 Hectares of Sandcasting have been removed so far out of 1178 hectares, benefiting 1,627 farmers.

### 4. Labour Welfare Department:

# Additional Livelihood Relief Assistance to Registered Salt Pan Workers

Due to Unprecedented heavy Rainfall and flood on 17.12.2023 and 18.12.2023, as per G.O.(Ms). No.6 dated: 06.01.2024, Relief amount of Rs.3000 were given to the 5300 registered Salt Pan workers and totally an amount of Rs.159 Lakhs have been through ECS. This was sanctioned by Government in addition to Rs.5,000/- for each registered worker given during non-season as relief assistance

S1. No	Taluk	No.of Registered Workers	Total No.of Disbuter	Unprecedented heavy Rainfall fund Amount (in Rs.)
1	Eral	413	413	1239000
2	Ettayapuram	3	3	9000
3	Kovilpatti	3	3	9000
4	Ottapidaram	697	697	2091000
5	Sathankulam	1	1	3000
6	Srivaikuntam	8	8	24000

S1. No	Taluk	No.of Registered Workers	Total No.of Disbuter	Unprecedented heavy Rainfall fund Amount (in Rs.)
7	Thoothukudi	3025	3025	9075000
8	Tiruchendur	140	140	420000
9	Vilathikulam	1010	1010	3030000
10	Kayathar	0	0	0
	Total	5300	5300	15900000

# 5. Fisheries and Fishermen Welfare Department:

S1. No	Description of Damage	Extent of damages	Total Nos / Ha	Total Eligible Relief as per SDRF norms ( Rs. in lakh)
1	Partially damaged Mechanised Fishing Boats	Partial	347	161.415
2	Fully damaged / Lost Wooden / FRP Vallam	Fully	4	4
3	Partially damaged FRP Vallam	Partial	402	119.07
4	Gill nets for catamaran	Nets	3515	527.25
5	OBM / IBE Engines	Engine	3902	292.65
7	Desilting / Restoration/ Repair of Fish farms	Partial	24.75	2.475
8	Loss of Inland Fishermen Fishing nets	Nets	850	85
	Total			1191.86

The relief assistance was released to the affected fishermen in February 2024.

### 6. Municipal Administration and Water Supply Department:

In G.O.Ms.No.32 MAWS (MC&) Department dated: 04.03.2024, sanction was accorded for carrying out repairs and reconstructions in flood affected 7 Districts including Thoothukudi District. An amount upto Rs.2 Lakhs for repairs and Rs.4 Lakhs for reconstructions was provided in the G.O. As per the guidelines issued, the requirement shall be finalised based on enumerations done, though sanction was done in G.O. based on relief assistance given by Revenue Department for partially / fully damaged houses. Hence, work order was issued during the Second week of March 2024 for the beneficiaries who had clear title as given below,

Local Boder	Approv	ed in G.O	Work Or	rder Issued
Local Body	Repair	Reconstruction	Repair	Reconstruction
Corporation	286	171	100	26
Municipality	113	51	77	44
Town Panchayat	-	248	-	142

### 7. Rural Development & Panchayat Raj Department:

In respect of rural areas Sanction given vide G.O(Ms) No.25, Rural Development & Panchayat Raj Department, dated: 15.02.2024 for Repair / Reconstruction for housed damaged in floods. The details as given below:

	Category				
	Repair	Reconstruction	Total		
Total No. of houses as per G.O	2089	3816	5905		
Ineligible	320	645	965		
Work Order Issued	490	2544	3034		

In respect of affected families having patta work orders were given and all works are under progress. In respect of families with Joint Patta also work orders were given after obtaining NOC from Joint Pattadars. In respect of eligible families lining in poramboke areas, Patta will be issued shortly. In respect of damages to Infrastructure, temporary restoration have been done immediately and the following is the progress in respect of permanent restoration.

### 8. Water Resources Department:

Tamirabarani, Korampallam and Vaippar Basin Division Tanks, River Bund Breaches

S1. No	Name of Division	No.of Works	Estimate Amount (Rs. in Lakhs)
1	Korampallam Aru Basin Division	51	426.30
2	Tamirabarani Basin Division, Tirunelveli	236	6219.96
3	Vaippar Basin Division, Virudhunagar	10	128.00
	Total	297	6774.26

### a) Temporary Restoration:-

### b) Permanent Restoration:-

S1. No	Name of Division	No.of Works	Estimate Amount (Rs. in Lakhs)
1	Korampallam Aru Basin Division	91	12419
2	Tamirabarani Basin Division, Tirunelveli	54	2140.1
3	Vaippar Basin Division, Virudhunagar	10	647
	Total	155	15206.1

The proposals for the permanent / temporary restoration works have been sent to Additional Chief Secretary / Commissioner of Revenue Administration, Chennai through this office Lr.No:I4/1339295/23, dated: 14.02.2024 for fund allotment.

### **Details of Work Progress:-**

# **Temporary Restoration**

Name of Division	Total No. of Works	Estimate Amount (in Lakhs)	Work Completed	Work is in progress	Work order issued (to be started)	Remarks
PWD Lower Tamirabarani and Korampallam	254	6296.26	254	0	0	
PWD Upper Tamirabarani	33	350	33	0	0	
PWD Vaippar	10	128	10	0	0	
Total	297	6774.26	297	0	0	

An amount of Rs.1071.86 Lakhs have been sanctioned for 297 works. All the temporary restoration works have been completed. Remaining an amount of Rs.5702.4 Lakhs of fund awaited from Government.

### **Permanent Restoration**

Name of Division	Total No. of Works	Estimate Amount (in Lakhs)	Work Completed	Work is in progress	Work order issued (to be started)	Remarks
PWD Lower Tamirabarani and Korampallam	91	12419	0	14	77	-
PWD Upper Tamirabarani	54	2140.1	0	8	46	-
PWD Vaippar	10	647	0	10	0	-
Total	155	15206.1	0	32	123	-

Out of 155 Permanent restoration works, 32 works being executed. 77 works not started in Lower Thamirabarani and Korampallam division due to water

stagnation in the tanks / channels. 46 works not started in Upper Tamirabarani division due to the Election Model code of Conduct.

# 9. Energy Department:

# **TANGEDCO:**

In flood affected areas the damaged EB line length of 600 Kms, 501 Damaged EB Transformer and 8465 no of Damaged EB Poles have been replaced by the TANGEDCO department on war footing basis.

S1. No	Туре	Damages	Repaired
1.	EB Lines ( in Km)	600	600
2.	EB Transformers	501	501
3.	EB Poles	8465	8465

# **10. Highways Department:**

During this unprecedented extremely heavy rainfall and flood on 17.12.2023 and 18.12.2023, the 112 nos of roads were severely affected due to breach of Tanks and overflow of flood water and the 42 nos of roads were fully damaged. The damaged roads were immediately restored by the Highways department. Hence, the transportation has been restored within 2 days of flood.

The details of the Permanent and temporary restoration works as detailed below,

Flood	Total No. of Works	Estimate Amount (in Lakhs)	Work Completed	Work is in progress	Work order issued	Tender Stage
Temporary Restoration	163	11742.45	139	22	0	2
Permanent Restoration	83	10000.00	2	65	15	1
Total	246	21742.45	141	87	15	3

An amount of Rs.21742.45 Lakhs have been sanctioned for 246 works. Out of 246 works, 141 works have been completed, 87 works are in progress and tender has been finalized and work to be started for 15 works and tender yet to be called for for 3 works because of Election Model code of Conduct is in effect.

# General:

Further, the damages from the all the other departments have been collected and the proposals have been sent to Additional Chief Secretary / Commissioner of Revenue Administration, Chennai through this office Lr.No:I4/1339295/23, dated: 09.02.2024 for fund allotment as mentioned below

S1. No	Department	Details of Damages	Amount ( in lakhs)
1.	Thoothukudi Corporation	Construction of Pump room and collection tank with vertical turbine pump and providing of DI pipe arrangements for disposal for flood water stagnant in low level areas in various locations of Thoothukudi city Municipal corporation	12100.31
2.	Kayalpattinam Municipality	Damages to Water Supply and Road works	595.50
3.	Tiruchendur Municipality	Damages to Water Supply and Road works	251.00
4.	Kovilpatti Municipality	Damages to Water Supply	177.43
5.	Town Panchayat	Damages to Roads, Bridges / culverts, causeways/SWD, water supply, Street Lights, Hiring of JCBs / other vehicles, supply of food packets, disinfectants and clearance of debris in Public places and draining of flood water in affected areas in Town Panchayats	10466.76
6.	PWD Buildings	Repair Works in Government Buildings	5102.00
7.	Fisheries	Damages to Fisheries College	1438.00
8.	Medical & Rural Health Services	DamagestoMedicalCollegeHospital,Thoothukudi,GovernmentHospitals,PHCsandHSCsandJDHSofficeHSCsAnd	8970.79
9.	TWAD	Damages to 17 CWSS (Water Supply)	1072.00
10.	TNSTC	Damages to Buses, Buildings, Machineries and Other Office Equipments	783.00
11.	Fire & Rescue Service	Damages to Special Equipments, Vehicle, Uniform, Tools and Small gears, Furniture and Computer Accessories, Library and replacement of PPE Suit	295.16
12.	Revenue	Damages to Taluk Office Eral and Other Revenue Offices in Eral Taluk and Other Revenue Buildings	236.86

S1. No	Department	Details of Damages	Amount ( in lakhs)
13.	Education	Damages to Hi Tech Lab and Computer Accessories	127.96
14.	Forest	Removal of Prosopis Juliflora in Tamirabarani River Side	102.18
15.	PWD - Special Project Division	Kannadian Flood Carrier Canal Additional Pond (Right Side Bund) breached	57.00
16.	Transport	Damages to RTO Office, Thoothukudi	40.90
17.	Vigilance and Anti Corruption	Damages to Vigilance and Anti Corruption office, Thoothukudi	1.86
	Total		41818.71

Moreover, **517.46 lakhs** of amount of expenditure incurred to drain the inundated flood water in the panchayats areas, in this regard a proposal have been sent to Additional Chief Secretary / Commissioner of Revenue Administration, Chennai through this office Lr.No:I4/1339295/23, dated: 15.05.2024 for fund allotment.

# XXIII. Mock Drill Schedules

Regular mock drills are conducted by Fire Service department at schools, colleges, public places, government building and private companies. The number of mock drills conducted from January 2024 to June 2024 furnished below.

Month	Public places	Govt. Buildings	Private company	Schools	Colleges	Total
January-24	1	3	1	1	0	6
February-24	5	6	0	1	3	15
March-24	1	6	3	0	3	13
April-24	0	10	7	0	0	17
May-24	3	20	5	0	0	28
June-24	0	7	1	1	1	10
Total	10	52	17	3	7	89

The Anna Institute of Management is being conducting Capacity Building Training on Disaster Management to Tahsildars/ Deputy Tahsildars.

Nodal Officers have attended the familiarization exercise on Disaster Management conducted by NDRF from 9.10.2017 to 15.10.2017 and Disaster Management training being given by Satya Sai Disaster Management Trust in 2017.

A Mock Exercise on Tsunami in conjunction with INCOIS was conducted on 04.09.2018 at Inigo Nagar at Thoothukudi, Vembar and Periyathalai villages.

HADR Mock exercise was conducted on 04.08.2019 from 10.00am to 11.25 am at Kombudurai hamlet in Kayalpattinam South Village in Tiruchendur Taluk. The details is as follows

Message Sent Time	Message	Reached time	Mode of received	Comments
1000	Power supply and telephone connectivity to Kayalpattinam village in Thoothukudi district cut off. Heavy flooding reported in village.	10.06	Mail, Whats app, Phone call, VHF	Power supply and telephone connection resumed. 423 (Male-125, Female-205 Child 95) people evacuated and accommodated in relief shelter.
1015	Overhead water tank at Maattukulam road collapsed. Many casualties expected.	10.22	Mail, Whats app, Phone call, VHF	5 Male, 3 Female were rescued and admitted in hospital.
1020	Mohamodbuilding,AkbarShahstreetcollapsed.Manycasualtiesexpected.10needimmediatemedicalhelp.	10.28	Mail, Whats app, Phone call, VHF	7 Male, 5 Female and children rescued and admitte in hospital.
1035	30 people trapped at LK Matriculation Girls higher sec school due to flood waters. Fallen trees blocking approach path to village. 05 inflatable boats required for evacuation.	10.45	Mail, Whats app, Phone call, VHF	Fallen trees and EB poles wer removed by Fire and rescu department. Coast Guar officials rescued 30 people b inflatable boats.
1045	10 patients admitted in KTM hospital and 12 in Razhak hospital, Kayalpattinam require urgent medical attention. No power supply or backup power supply in both hospitals.	10.56	Mail, Whats app, Phone call, VHF	9 private 13 Govt ambulance arranged. 24 patients wer given first aid and taken to G Tiruchendur.

Message Sent Time	Message	Reached time	Mode of received	Comments
1110	Cattle carcasses reported adrift in flood waters near Kayalpattinam. Rumours of cyclone making landfall and further devastation in the village are being spread.	11.17	Mail, Whats app, Phone call, VHF	Cattle carcasses disposed off by Local Body. The real situation was announced to public by Revenue and Police through megaphone
1125	Flood waters receded. Dead animals causing health hazard to residents.	11.35	Mail, Whats app, Phone call, VHF	Chlorination done and checked by Health department officials. Necessary sanitary actions taken by Local body.

The Mock Exercise on Flood scenario is conducted in the following five places on 01.09.2022.

- 1) Sankaraperi, Thoothukudi Taluk.
- 2) Kongarakurichi, Srivaikundam Taluk.
- 3) Authoor, Tiruchendur Taluk.
- 4) Punnakayal, Tiruchendur Taluk.
- 5) Valasamuthiram, Ottapidaram Taluk.

On receipt of flood situation alert from State Emergency Operation Centre, Chennai, the Nodal Officers / Observers for the above five places were informed immediately about the alert.

Immediately flood warning message were communicated through mike in low lying areas to evacuate the people to the nearby shelter in Sankaraperi Village, 65 persons evacuate through a bus to a nearby shelter, Thangammal School, Polepettai, Thoothukudi. 10 persons were rescued through fire services boats and first aid given and sent to relief shelter. Out of the rescued persons, 4 persons in two Ambulances were sent to Thoothukudi Medical College Hospital, Thoothukudi and treated. 10 persons in the roof top of inundated houses were rescued by the fire service personnels. In the relief shelter, food pockets were given and a health camp was conducted by the Medical team.

Similar exercise was done in all other four locations.

S1. No	Village	Evacuated Persons	Rescued Persons from flood	Rescued Persons sent to Hospital
1.	Sankaraperi	65	10	4
2.	Kongarakurichi	40	3	2
3.	Authoor	20	12	2
4.	Punnakayal	10	8	1
5.	Valasamuthiram	21	5	2

Tsunami mock exercise was conducted at the following three places on 04.10.2023.

S1. No	Location	Taluk
1.	Siluvaipatti, Mappillaiyurani Village	Thoothukudi
2.	Kombudurai, Kayalpattinam South Village	Tiruchendur
3.	Tharuvaikulam Village	Ottapidaram

After the evacuation of people they were accommodated in the Multi Purpose Evacuation Shelters as detailed below,

Area Evacuated	No. of People Evacuated		
Siluvaipatti (Mappillaiyurani)	210		
Singithurai (Kayalpattinam South)	110		
Tharuvaikulam	120		

In the relief shelter, food pockets were given and a health camp was conducted by the Medical team.

# XXIV. DATE OF APPROVAL OF DDMP BY DDMA

Date of approval of the plan	:	05.09.2024
Next date of review	:	01.07.2025