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Thiruvananthapuram District Disaster Management Plan

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INTRODUCTION

1.1 VISION

A safer community that effectuate a pragmatic and holistic response mechanism to manage an event of disaster and consistently advance in all aspects of disaster risk reduction.

1.2 MISSION

Develop and establish a structurally and functionally competent administrative unit at district taluk and village levels, cognizant and adept in disaster management activities, which is prepared to minimize the devastating effects of a disaster, whether natural or human induced, and capable of appropriate timely deliverance of services upon an emergency.

1.3 POLICY

The Kerala State Disaster Management Policy, 2010 vide G.O (MS) No. 240/2010/DMD dated 19-06-2010 has laid down the guiding principles for the District Disaster Management Plan. The policy aims to foster a culture of prevention, mitigation and preparedness from the grass root levels of the district administration.

1.4 OBJECTIVES OF THE PLAN

The District Disaster Management Plan (DDMP) is the guide for achieving the objectives stated as follows:

- *To institutionalize disaster management in the district administration.*
- To accomplish the best disaster management mechanism at the District and taluk level to handle any unprecedented events.
- To protect and minimise the loss of life, property and infrastructure in the District.
- To document, analyse and evaluate earlier disasters and identify the vulnerable locations in the District based on the database of hazards.
- To ascertain the status of existing resources and facilities available in the District so as to make it available on requisite.
- To provide clarity on the roles and responsibilities of all the stakeholders and capacitate them for effective disaster preparedness and emergency response.
- To coordinate the activities of all governmental and nongovernmental agencies, local authorities as well as general public and bring about quick decision making on relief, recovery, reconstruction and rehabilitation in the aftermath of a disaster.

- To mainstream disaster management concerns to developmental planning process through endorsement of appropriate strategies and responses to deal with impending disasters.
- To encourage and empower the local community to adopt measures of disaster risk reduction and disaster resilience by way of capacity building.
- To envisage a culture of disaster preparedness in the District.

1.5 SCOPE OF THE PLAN

District disaster management plan abides by and integrates the directions of National DM Act 2005, the State DM Act 2007, the State DM Policy 2010, rules, regulations and other significant guidelines.

- The plan provides a necessary framework for the District administration to facilitate, coordinate and monitor disaster management tasks by mobilizing the resources and taking the expertise of relevant Governmental departments at central and state level, local self-governments, private sector, non-governmental organizations and community in every phase of disaster management.
- This plan is consistently operational at all levels of management within the geographical and jurisdictional limits of the District administration.
- This plan is apposite to the prevention of hazards, mitigation, preparedness, response and recovery from disasters listed in section 7 of State DM Policy 2010 and other events recognized as hazards or disasters by the State Executive Committee or the State Disaster Management Authority from time to time.

1.6 AUTHORITY & REFERENCE

The DDMA has the authority to conceive, test and implement a District Disaster Management Plan in accordance with the section 30 (2) I, ii & iii of the DM act 2005.

The acts, rules, policy for disaster risk reduction in the District and regulations relating to the implementation of this plan are as given below:

TABLE 1: ACTS, RULES, POLICY FOR DISASTER RISK REDUCTION IN THE DISTRICT

Sl. No.	Acts/Rules
1.	National Disaster Management Act, 2005
2.	Kerala State Disaster Management rules: Ex Extraordinary Gazette S.R.O No. 201/2007 dated 1 March 2007
3.	State DM policy, GO (Ms) No. 240/2010/DMD dated 19-06-2010
4.	Dangerous Machine (Regulation) Act, 1983
5.	The Environment Protection Act, 1986

6.	Kerala Factories (Major Accident Hazard Control) Rules, 2005
7.	Dangerous Machines (Regulation) Rules, 2011
8.	The Environment (Protection) Rules 1986
9.	The Manufacture, Storage and Import of hazardous Chemicals Rules, 1989
10.	The Chemical Accidents (Emergency Planning Preparedness and Response)
10.	Rules 1996
11.	The Boilers Act, 1923
12.	The Mines Act, 1952
13.	The Mines Rescue Rules, 1985
14.	The Petroleum Act, 1934
15.	Indian Standard Code of Practice for Protection of buildings
13.	and allied structures against lightning

1.7 PLAN DEVELOPMENT

As per section 30 (2) (i) of the National DM Act and state DM policy,2010, the District shall prepare a Disaster Management Plan including District Response Plan for the District with respect to the guidelines issued by the National and State Authority respectively. The District administration shall coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan.

The State Executive Committee of KSDMA in its meeting held on 14th June 2013 has authorized State emergency operation centre, formerly HVRA Cell (Research & Technical Laboratory of KSDMA) to revise the District DM Plans within 2 years starting January 2014. Besides District specific disaster management plan, departmental plans will also be prepared for all line departments.

1.8 PLAN REVIEW & UPDATING

The DDMA should decide on the regularity of review and revision of DDMP in the executive meeting convened by DDMA. A review of DDMP should necessarily be conducted in the aftermath of any declared disaster within the District or neighbouring Districts. Accordingly modifications should be made in DDMP. In the absence of any disaster, it is advisable to review the DDMP at least once a year, preferably in February and updated in April update of the plan should be based on inputs gained under:

- a) Mock drills
- b) Recommendations from all Departments in DDMA meeting
- c) Past disaster experiences
- d) Directions issued from State Disaster Management Authority
- e) Assesment of disaster preparedness efforts undertaken

HAZARD, VULNERABILITY AND RISK ASSESSMENT

TABLE 2: DISTRICT PROFILE

Head quarters	Thiruvananthapuram Collectorate					
Location (of the Headquaters)	Civil Station Rd, Kudappanakunnu					
Total area (district)	2189 Sq Km					
District boundaries	Kollam to the north, Tamil Nadu to the East, and Arabian Sea to its West.					

TABLE 3: ADMINISTRATIVE DIVISIONS OF THE DISTRICT

Division	No.
Revenue divisions	1
Taluks	6
Blocks	13
Villages	121
District Panchayaths	1
Gram Panchayaths	73
Municipalities	4
Corporations	1

TABLE 4: GEOGRAPHY AND TOPOGRAPHY OF THE DISTRICT

Major Rivers	4 (Neyyar, Karamanayar, Mamom, Vamanapuram)
Lakes	4
Reservoirs	3 (Neyyar, Aruvikkara, Peppara Dams)
Coastline (length in kms.)	78Km
Forest	49861 Km ²
Wetland area	102635.28 Sq Km
Settlement area	26949 Sq Km
Cultivable Area	154110 Km ²
Barren & uncultivable land	243 Sq Km

TABLE 5: WEATHER OF THE DISTRICT

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall	71.8	249.3	106.5	640.7	440	444.1	880.6	672.5	645.7	555.3	324	400
Temp.	25.68	26.81	26.05	26.32	28.94	27.06	27.38	27.35	24.05	29.15	27.17	23.65

Annexure 1

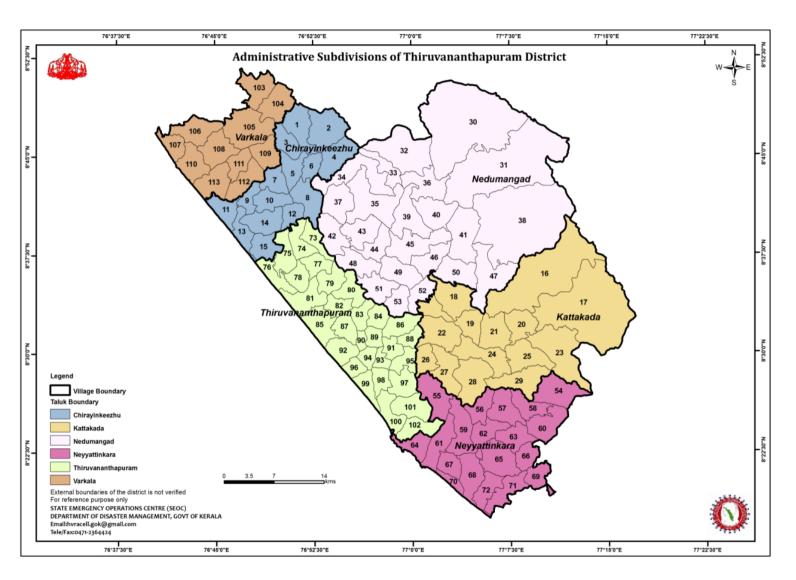


FIGURE 1: ADMINISTRATIVE DIVISIONS OF THIRUVANANTHAPURAM DISTRICT (ANNEXURE 19)

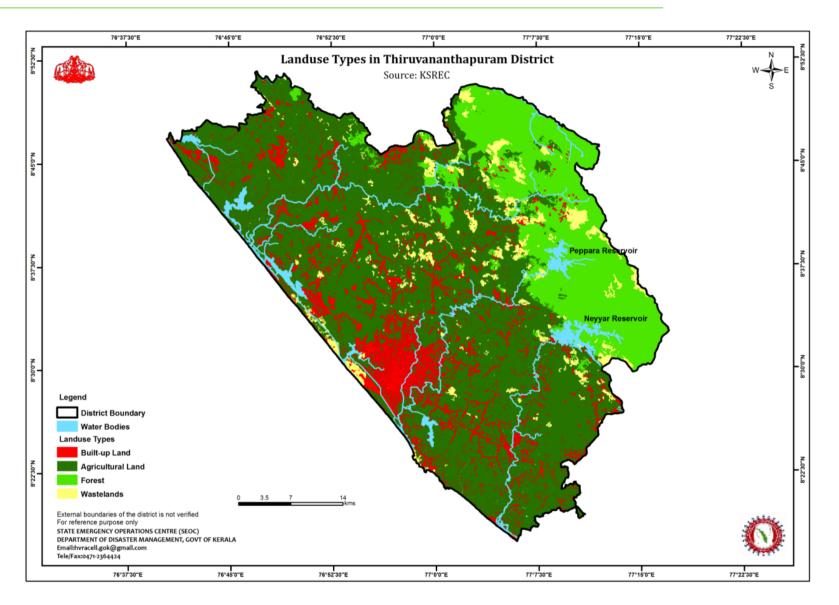


FIGURE 2: LAND USE TYPES OF THIRUVANANTHAPURAM DISTRICT

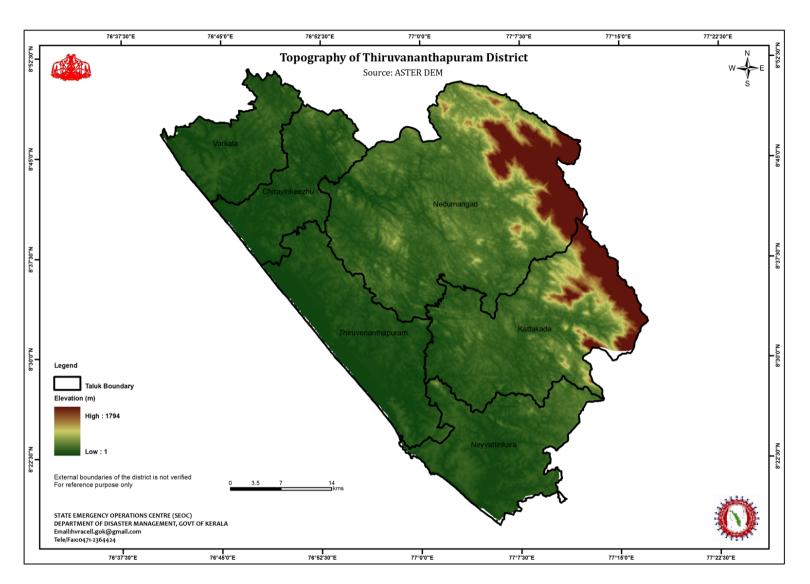


FIGURE 3: TOPOGRAPHY OF THIRUVANANTHAPURAM DISTRICT

TABLE 6: DISTRICT DEMOGRAPHY

Total population	3,307,284							
Male	15,84,200							
Female		17,23,084						
Sex ratio		1	1000:10	088 (M:F)				
Age group population	Population	Ma	ile	Female				
(0-6 years)	290661	290661 1,47,777 1,42,		1,42,884				
Population density	1508.7 Peoples per Sq km							
Rural Population	Total		Male:		Female:			
Kurai i opulation	1528030		7,25,230		8	3,02,800		
Urban Population	Total		Male:		J	Female:		
Orban ropulation	17,79,254		8,58,970		9	0,20,284		
Decadal growth rate	62.99%							
Literacy rate	Total			Male		Female		
Littlacy fate	92.66		94.6			90.89		

Source: Ecostat

TABLE 7: EDUCATION PROFILE OF THE DISTRICT

Institution			Total numbers				
	TR	СН	NY	ND	KD	VK	6
Lower Primary	107	105	166	128	0	0	506
Upper Primary	63	57	46	52	0	0	218
High Schools	91	57	80	35	0	0	263
Higher Secondary							
Vocational H.S	10	7	10	14	0	0	48
Technical High Schools	1	0	1	1	0	0	3
University	1	0	0	0	0	0	1
Arts & Science college	13	3	3	4	4	4	31
Poly Technical	2	1	1	1	0	0	5
Engineering College	7	2	1	5	2	2	19
Medical College	1	0	1	2	0	0	4
Others							

ANNEXURE 2 & 3

TABLE 8: SOCIO ECONOMIC PROFILE

Livelihood pattern	Agriculture	Industries	Service
	Population figure	(From census site)	
ST Population		189	
SC Population		1012	

Source: Ecostat

TABLE 9: AGRICULTURAL PRODUCTIVITY OF THE DISTRICT

Crops	Average Area (in Ha) 2005-2011
Staple crops	50054
Vegetable	17305
Plantation crops	185436
Oil seeds	446926
Spices	48266

TABLE 10: ANIMAL HUSBANDRY

Livestock Population	2,75,798
Milk Production	27.16 (2012-2013)
Meat production	2,51,024
Number of Cattle farms	356
Poultry Population	1007832
Number of Poultry farms	61+

ANNEXURE 4

TABLE 11: FISHERIES

Fisheries 2012	Nil
Fish Production	46875
Fishing Boats	8496

ANNEXURE 5

TABLE 12: INDUSTRIES

Type of Industry	Numbers	Total wo	rk force	Total
Type of muustry	Numbers	Male	Female	Total
Textile	40	137	36	173
Garments	444	3227	1035	4262
Glass	36	148	39	187
Ceramics	13	69	7	76
Gate, Grill	555	2238	67	2305
Steel Furniture	165	884	39	923
Laith Work	10	39	0	39
Software	456	4382	894	5276
Computer	342	1856	354	2210
Rubber	er 64 423		33	456
Plastic	54	503	64	567
Chemical	7	55	4	59
Paper	122	1071	183	1254
Services	3742	21675	4773	26448
Bricks	385	548	50	598

2.1 HAZARD PROFILE OF THE DISTRICT

Disaster subcategory definitions:

- **1. Naturally Triggered/Weather related:** Events caused by short-lived/small to meso-scale atmospheric processes (in the spectrum from minutes to days)
- **2. Geological:** Events originating from solid earth
- **3. Biological:** Disaster caused by the exposure of living organisms to germs and toxic substances
- 4. Anthropogenically /technologically triggered: Disaster triggered by human intervene

TABLE 13: HAZARD PROFILE OF THE DISTRICT

Sl.No.	Classification	Types of Disaster				
1.	Naturally triggered weather related	Flood Dam break due to exceedance of Probable Maximum Flood Coastal Tsunami Coastal erosion Kallakadal				

		Storm surge
		Thunder and lightning
		Cyclone
		Drought
		Salt water intrusion
2.	Geological	Earthquakes
		Landslides
		Dam break due to earthquakes
3.	Biological	Epidemics
		Cattle epidemics
		Food poisoning
		Pest attack
		Snake bites
4.	Anthropogenically/	Industrial explosions
-1.	Technologically triggered	Petro-chemical transportation accidents
		Oil spill
		Dam break due to structural weakness
		Fireworks accidents
		Road accidents
		Human triggered forest fire
		Stampede
		Short circuit and related fire
		Building collapse
		Boat capsizing
		Tourism related drowning
		Air and rail accidents
		Hooch accident
		Terrorism

ANNEXURE 7

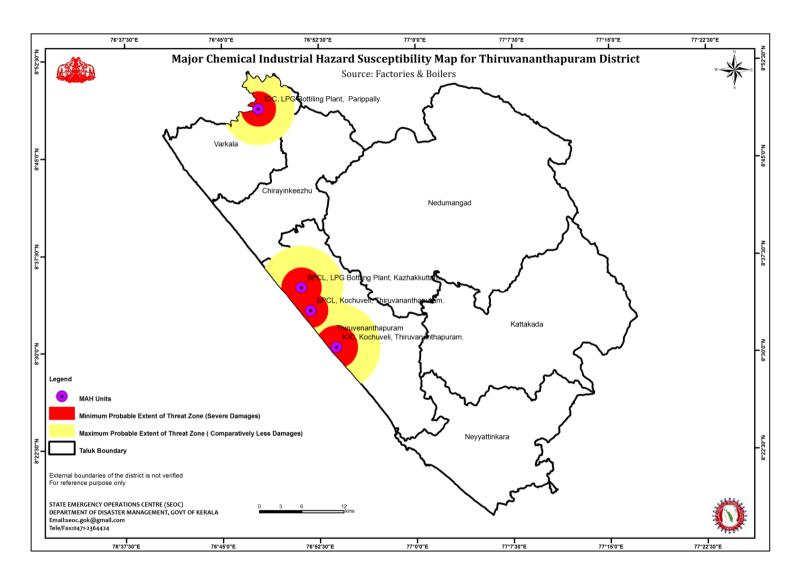


FIGURE 4: CHEMICAL HAZARD SUSCEPTIBILITY MAP OF THIRUVANANTHAPURAM DISTRICT (ANNEXURE 6)

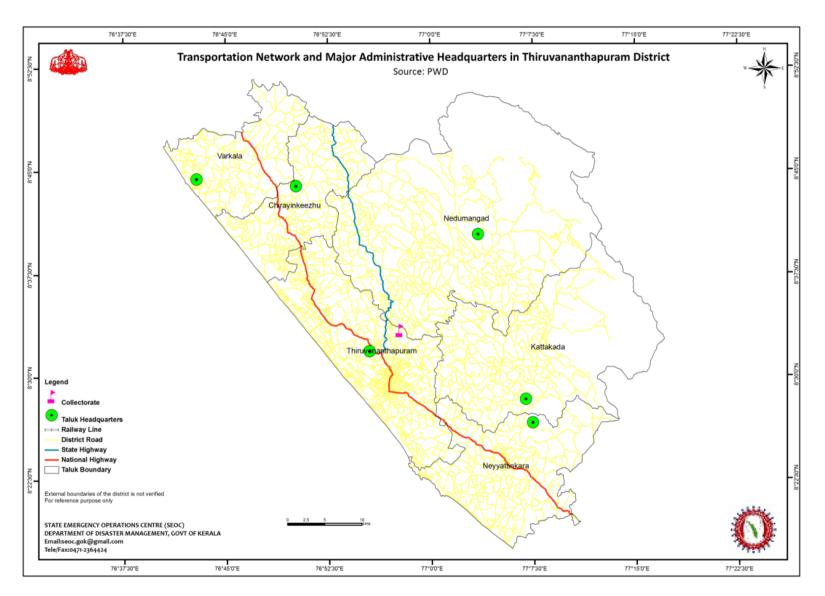


FIGURE 5: TRANSPORTATION NETWORK MAP OF THIRUVANANTHAPURAM DISTRICT

2.2 MATRIX OF PAST DISASTER (RECENT DD/MM/YY)

TABLE 14: MATRIX OF PAST DISASTERS

Disaster	Flood	Earthquake	Landslide	Wind/ Rain-fall	Storm Surge/Sea Attack	Drought	Lightning
No:of affected villages	0	0	O	23	0	0	0
Population affected	0	0	0	0	0	0	0
Cultivated area affected (in Ha)	0	0	0	0	0	0	0
Estimate cost of Crop Loss (Rs)	0	0	0	0	0	0	0
No: of House Damaged	0	0	0	453	0	0	0
Estimate cost of houses damaged	0	0	0	1,75,50,000	0	0	0
No: of Casualty	0	0	0	0	0	0	0
Month & Year of Occurrence	0	0	0	01-05-2014	0	0	0

ANNEXURE 8

2.3 HAZARD SEASONALITY MAPPING OF THE DISTRICT

TABLE 15: HAZARD SEASONALITY MAPPING OF THE DISTRICT

Disaster	J	F	M	A	M	J	J	A	S	О	N	D
Coastal erosion						•		—				
Drought			•		→							
Fire		+			→							
Storm surge						4		-				
Lightning	4					-						
Flood						←	,					
Earthquake	Ų.											-

ANNEXURE 7

2.4 CAPACITY ANALYSIS

The District possess various resources and capacities which can be utilised both in the hour of emergency as well as normal situations. List of key resources/capacities available in the district with different departments/ agencies are given in Table 16.

TABLE 16: CAPACITY ANALYSIS

Capacity/Resources	Number/Details		Further Details
District EOC	Address with number	er	
Nearest NDRF Unit	Location, address		
Nearest SDRF Unit	Location, address		
Nearest IMD regional Office	IMD, Thiruvananthapu	ram	0471- 2322894/ 2322184
Nearest Navy headquarters	Naval Base Cochin		0484-2879999
Nearest Army camp	Indian Army, Pangoo	le	0471-2352373
Nearest Air Force headquarters	Southern Air Comma	nd	0471-2551361
	HQ, SAC,Command Dis	saster	Fax :0471-2551363
	Management Cell (CM		Tele: 0471-2551376
	Contact Person: Air 1l, SAC	HQ	Tele: 0471-2551361
	Panchayath	73	Contact number in Annexure 9
PRI Representatives	Block		
1 Ki Kepresentatives	Municipal town/Municipal		
	corporation		
HR Trained in Disaster Management	NDRF officials, Home Convolunteers and NCC, N		
Road connectivity	List the major National	and	Not Provided
Railway Network	state highways in the dis	69 Km	Number and Map number – Annexure
	Stations	19	10
Seaport/Airport	Names		
Road connectivity	List the major National state highways in the dis		Not Provided
Seaport/Airport	names		
Police force	Human resource		
	Vehicles		
	Hospitals		
	Number of doctors	2255	Details of number of
Healthcare	Number of ANMs		beds, specialists in
	Blood banks		Annexure 11
	Red cross society offices		

	Primary health centres	56	
	Community health	19	
	centres	13	
	Medical dispensaries		
	Ambulance		
	Number of Asha		
	workers		
	Veterinary hospitals		
	Human resource in fire		
	and rescue department		
Rescue operations	Fire engines		
	Recovery vehicles		
	Earth moving vehicles		
	BSNL Offices in the district	92	Telephone exchange locations and numbers in Annexure 12 Details of officials in Annexure 12
	Other mobile networ	ks	
Communication	Internet service provid		
	Visual media		
	Dailies		
	Radio station	4	Contact numbers, frequency range in Annexure 13
	HAM radio		
Hand Pumps	Not Provided		
Ponds			
Reservoirs			
Bore Well			
Open wells			
Pump house	Not Provided		
Tankers	Not Provided		
Groundwater observation			
wells			
Public Distribution Shops			
NGOs			
	Internationally funded		
Major plan projects in the	projects		
district	National level		
district	projects		
	State level projects		

INSTITUTIONAL ARRANGEMENTS

3.1 DISTRICT DISASTER MANAGEMENT AUTHORITY – THIRUVANANTHAPURAM

District Disaster Management Authority (Thiruvananthapuram), is an institution constituted as per the National Disaster Management Act, 2005 at the district level to ensure effective management and response to any disaster. The DDMA (Thiruvananthapuram) has following structure:

TABLE 17: DDMA STRUCTURE

Sl. No	Organization & Designation	Designation in DDMA
1	District Collector	Chairman
2	Distric Panchayath President	Co-Chairperson
3	The Additional District Magistrate (CEO)	Member
4	The District Police Chief	Member
5	The District Medical Officer of Health	Member
6	The Divisional Officer, Fire and Rescue	Member
7	The Executive Engineer, Major Irrigation	Member

3.2. NODAL DEPARTMENTS FOR VARIOUS HAZARDS

- ♣ Revenue & Disaster Management: Hydro-meteorological & geological disasters
- ♣ Home: Road & rail accidents
- 4 Health & Family Welfare: Chemical, biological, radiological & nuclear disasters
- Factories & Boilers Dept., Dept. of Industries and the industry: Industrial accidents
- ♣ Agriculture: Pest attacks
- ♣ Animal Husbandry: Cattle epidemics
- ♣ Water resources: Dam break
- ♣ Public Works: Building collapse
- Forests: Forest Fire

♣ Airport: Air accidents

(Kerala SDM Policy, 2010)

3.3 POWERS & FUNCTIONS OF DDMA

The DDMA shall establish a proper chain of command system for planning, coordinating and implementing schemes for effective management of disasters and organize the activities of all agencies responsible for disaster management in the District. The ICS will provide information on facilities, equipment, personnel, procedures and communications operating within a common organizational structure, DDMA has the authority to make any necessary institutional

arrangements, assign responsibilities and modify any existing administrative mechanism or procedure to effectively accomplish the specified objectives pertinent to an incident.

3.4. POWERS AND FUNCTIONS OF DISTRICT AUTHORITY

- (1) The District Authority shall act as the district Planning, coordinating and implementing body for disaster management and take all measures for the purposes of disaster management in the district in accordance with the guidelines laid down by the National Authority and the State Authority.
- (2) Without prejudice to the generality of the provisions of subsection, the District Authority may
 - i. Prepare a disaster management plan including district response plan for the district;
 - ii. Coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan;
 - iii. Ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities;
 - iv. Ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments of the Government at the district level and the local authorities in the district;
 - v. Give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary
 - vi. Lay down guidelines for prevention of disaster management plans by
 - vii. The department of the Government at the districts level and local Authorities in the district;
 - viii. Monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level
 - ix. Lay down guidelines to be followed by the Departments of the Government at the district level for purposes of integration of measures for prevention of disasters and mitigation in their Development plans and projects and provides necessary technical assistance there for
 - x. Monitor the implementation of measures referred to in clause
 - xi. Review the state of capabilities for responding to any disaster or threatening disaster situation in the district and give directions to the relevant departments or authorities at the district level for their up gradation as may be necessary;
 - xii. Review the preparedness measures and give directions to the Concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation;
 - xiii. Organise and coordinate specialized training programmes for different levels of officers, employees and voluntary rescue workers in the district;

- xiv. Facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organisations;
- xv. Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
- xvi. Prepare, review and update district level response plan and guidelines;
- xvii. Coordinate response to any threatening disaster situation or disaster;
- xviii. Ensure that the Departments of the Government at the district level and the local authorities prepare their response plans in accordance with the district response plan;
- xix. Lay down guidelines for, or give direction to, the concerned Department of the Government at the district level or any other authorities within the local limits of the district to take measures to respond effectively to any threatening disaster situation or disaster:
- xx. Advise, assist and coordinate the activities of the Departments of the Government at the district level, statutory bodies and other governmental and non-governmental organisations in the district engaged in the disaster management
- xxi. Coordinate with, and give guidelines to, local authorities in the district to ensure that measures for the prevention or mitigation of threatening disaster situation or disaster in the district are carried out promptly and effectively;
- xxii. Provide necessary technical assistance or give advice to the local authorities in the district for carrying out their functions;
- xxiii. Review development plans prepared by the Departments of the Government at the district level, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation;
- xxiv. Examine the construction in any area in the district and, if it is of the opinion that the standards for the prevention of disaster or mitigation laid down for such construction is not being or has not been followed, may direct the concerned authority to take such action as may be necessary to secure compliance of such standards;
- xxv. Identify buildings and places which could, in the event of any threatening disaster situation or disaster, be used as relief centres' or camps and make arrangements for water supply and sanitation in such buildings or places;
- xxvi. Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
- xxvii. Provide information to the State Authority relating to different aspects of disaster management;
- xxviii. Encourage the involvement of non-governmental organisations and voluntary social-welfare institutions working at the grassroots level in the district for disaster management;
 - xxix. Ensure communication systems are in order, and disaster management drills are carried out periodically;
 - xxx. Perform such other functions as the State Government or State Authority may assign to it or as it deems necessary for disaster management in the District.

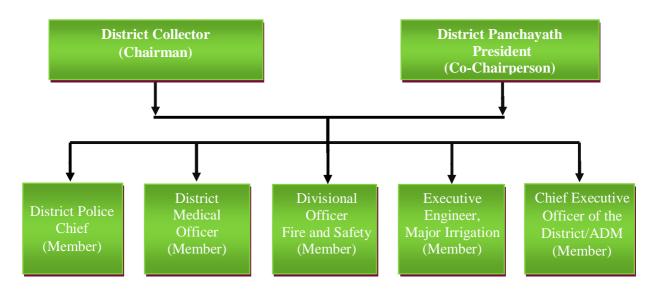
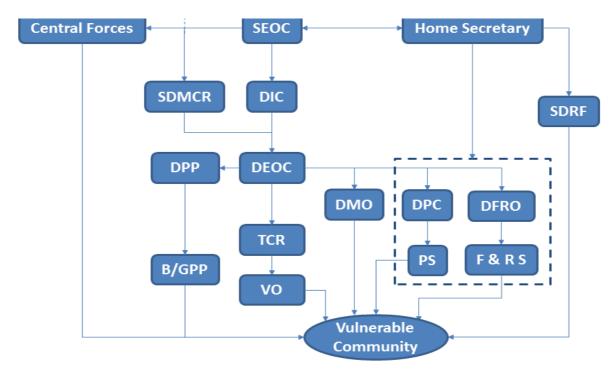


FIGURE 6: FLOW CHART ON DISASTER MANAGEMENT ORGANIZATIONAL STRUCTURE AT DISTRICT LEVEL



SIC: State Incident Commander; DIC: District Incident Commander; SDMCR: State Disaster Management Control Room; DPP: District Panchayat President; TCR: Taluk Control Room; VO: Village Officer; B/GPP: Block/Gram Panchayat President; DPC: District Police Chief; DFRO: District Fire & Rescue Officer; PS: Police Station; F & RS: Fire & Rescue Station; Central Forces: CAPF, CRPF, BSF& RPF

FIGURE 7: FLOW CHART ON EMERGENCY INTER COMMUNICATION BETWEEN DIFFERENT STAKEHOLDERS

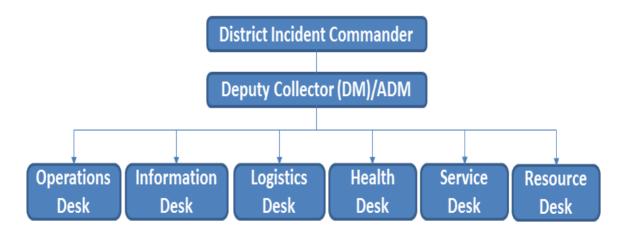


FIGURE 8: FLOW CHART ON INCIDENT COMMAND SYSTEM

TABLE 18: DIFFERENT LEVEL STAKEHOLDERS AND THEIR RESPONSES

	Primary	Secondary	Territory
Early Warning	Indian Meteorological Department (IMD): Weather Warnings, Central Water Commission (CWC): Flood Warnings, Geological Survey of India (GSI)/ National Centre for Earth Science Studies (NCESS): Landslide Warnings, Indian National Centre for Ocean Information Services (INCOIS)/ National Centre for Earth Science Studies (NCESS): Wave Height & Tsunami, National Emergency Operations Centre (NEOC)/ State Emergency Operations Centre (SEOC): Any of the above, Government: Any of the above	District Emergency Operations Centre (DEOC)/ District Collector: Events without precursors such as accidents/ earthquakes, Revenue	Fisheries, Coast Guard, Police,
Information Dissemination	PRD, BSNL, SEOC	FM radio, other mobile Network Providers	Existing wireless operators (Police, Fire Force etc).
Emergency Support Functions	Central Armed Police Force (CAPF) Refer to Annexure 18	PWD, Food & civil supplies	Animal Husbandry, KSEB, KWA
Advisory & Training	Administrative Training Institutes (ATI)	Taluk, NGO	Chemical Industries

TABLE 19: POINT OF CONTACTS FOR VARIOUS DEPARTMENTS

Departments	Officer in charge (designation)	Contact Details		
Revenue	1. Deputy Collector (General)	1. Phone No.:0471-2731210		
Department	2. Additional District Magistrate	2. Phone No.: 0471-2371062		
Fire & Rescue	Asst. Divisional Officer	Phone No.: 0471-2501255		
Police	Commissioner of Police	Phone No.: 9497996991, 9447000661 0471-2320579		
	Rural SP	N N 0405005005 0445445501		
	(Superintendent of Police)	Phone No.: 9497996985, 9447115601		
Airforce	Air ll, HQ SAC	Tele: 0471-2551361, 0471-2551376		

3.5 CRISIS MANAGEMENT GROUP TO MITIGATE THE DISASTERS IN MINES

As per G.O (Rt) No.542/14/ID dated 26th May 2014, the State Government formed a State/District level crisis management groups in the state with respect to mitigation of disasters in mines for the State of Kerala.

The crisis management groups shall meet at least once in every year or as and when required to review the preparedness of various departments for crisis in mines and to conduct surprise visits at various mines and also publish annual report on the preparedness to handle the crisis.

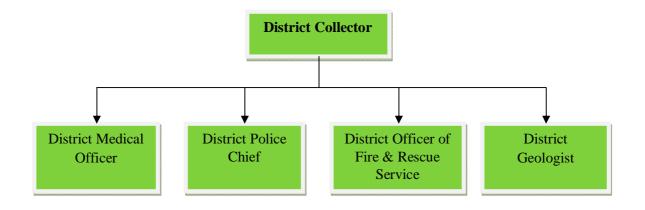


FIGURE 9: STRUCTURE OF CRISIS MANAGEMENT GROUP TO MITIGATE DISASTERS IN MINES

FINANCIAL ASSISTANCE

As per the National Disaster Management Act, 2005, various financial provisions are available at District level for implementation of the plan. Explore more about this section other than the assistance mentioned here.

4.1 INTRODUCTION

The last few decades have shown that an increased frequency of disaster, resulting in a large number of human casualties and huge economic losses. In the sea of disaster if anyone needs to ascertain capacity building and standard operating procedures, a fleet of finance is required in varying number and order. As money and energy are assumed to be as the most fundamental and enchanting resources in the world of human being, proper regulation and stratification must be established so that we can achieve optimal utilization of our depleting resources.

4.2 A BRIEF INVESTIGATION ON VARIOUS SCHEMES ALLOTTED UNDER VARIOUS INSTITUTIONS

There are several ways and methods through which DRR (Disaster Risk Reduction) and climate change adaptation measures been integrated to reduce the risk of natural disasters.

Legal policy framework for disaster management:

The institution structure of DM is in a state of transition. The salient features of institutional mechanism at national level are as follows:

- 1. At national level, the ministry of home affairs is the nodal ministry to deal with all matters concerning with disaster management. Along with it following are NIDM (National Institute of Disaster Management), NDMA (National Disaster Management Authority) {enacted in 2005}, NDRF (National Disaster Response Fund) under section 44 of DM Act, 2005 (For strengthening response system of the county).
- 2. **NREGA** (National Rural Employment Guarantee Act) is an Indian law that aims to guarantee the right to work and ensure livelihood security in rural areas by providing at least hundred days of guaranteed wage employment. In a financial year to every household whose adult members volunteered to do unskilled manual work.

4.3 INCLUSION OF DRR INCLUDING DEVELOPMENT SCHEMES AND PROJECTS

For mitigating climatic hazards and minimizing impacts of hydro meteorological natural disasters and for improving livelihoods and overall wellbeing of the people, central and state government have implemented a number of schemes whose activities are facilitated further by the involvement of PRI's (Panchayat Raj Institutions), NGO's (Non Government Organizations) and other Non Profit Organizations. Some of the important national level programmes are:

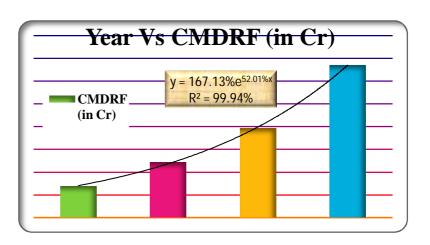
- i. RAY (Rajiv Avaz Yojna)
- ii. NRHM (National Rural Health Mission) etc...Among one of them is Indira Avaz Yojna (IAY).
 - 3. **IAY** was launched in May 1985 as a sub-scheme of Jawahar Rozgar Yojna by ministry of rural development. It is an independent scheme, since 1 January 1996, aimed to help rural people, below poverty line belonging to SC/ST, freed bonded labours, non SC/ST categories in construction of dwelling units and up-gradation of existing unserviceable kutcha houses by providing assistance in the form of full grant.

As per the National Disaster Management Act, 2005, various financial provisions are available at District level for implementation of the plan and have been collected and analysed and are here with attached along with this report.

4.4 CMDRF

TABLE 20: CMDRF

Year	CMDRF in Rs
2010-11	2,78,00,000
2011-12	4,84,30,000
2012-13	7,85,00,000
2013-14	13,40,00,000



CMDRF (Chief Minister Disaster Relief Fund) is given to victims who had suffered by/ Suffering from the following problems:

- 1. Serious Health issue.
- 2. Due to the exposure to disaster Flash flood, Lightning, Fire etc.
- 3. Belonging to the scale of below poverty, etc.

The allotments of CMDRF from 2010 to 2014 have been collected and are recorded above. From the statistical analysis it have been found that the CMDRF trend line follows an exponential curvature which in turn vividly vindicates that the problem which are listed above on the basis of which CMDRF are allotted are in an un-controllable growth.

4.5 MEMBER OF PARLIAMENT LOCAL AREA DEVELOPMENT SCHEME (MPLADS)

MPLADS is such a scheme which is sanctioned by Central finance commission in the name of MP (account of Member of Parliament) which is in turn handled by respective district collector. On each financial year two allotments will be credited in the name of MP and has the right to spent up to 5 Crore rupees for the reconstruction and repair works in his concern state. The allotments of MPLADS have been given below:

TABLE 21: MPLADS

Member of Parliament Local Area Development Scheme (MPLADS)			
Financial Year	Name of MP	Funds received from Govt. of India (Amount in Lakhs)	
2009-2010	TN.Seema (Rajya Sabha)	Nil	
2010-2011	TN.Seema (Rajya Sabha)	200	
2011-2012	TN.Seema (Rajya Sabha)	500	
2012-2013	TN.Seema (Rajya Sabha)	500	
2013-2014	TN.Seema (Rajya Sabha)	Nil	
Total		1200	

TABLE 22: MPLADS

Member of Parliament Local Area Development Scheme (MPLADS)			
Financial Year	Name of MP	Funds received from Govt. of India (Amount in Lakhs)	
2009-2010	CP. Narayanan (Rajya Sabha)	Nil	
2010-2011	CP. Narayanan (Rajya Sabha)	Nil	
2011-2012	CP. Narayanan (Rajya Sabha)	Nil	
2012-2013	CP. Narayanan (Rajya Sabha)	250	
2013-2014	CP. Narayanan (Rajya Sabha)	250	
Total		500	

TABLE 23: MPLADS

Member of Parliament Local Area Development Scheme (MPLADS)			
Financial Year	Name of MP	Funds received from Govt. of India (Amount in Lakhs)	
2009-2010	MP. Achuthan (Rajya Sabha)	200	
2010-2011	MP. Achuthan (Rajya Sabha)	200	
2011-2012	MP. Achuthan (Rajya Sabha)	500	
2012-2013	MP. Achuthan (Rajya Sabha)	250	
2013-2014	MP. Achuthan (Rajya Sabha)	Nil	
Total		1150	

TABLE 24: MPLADS

Financial Year	Name of MP	Funds received from Govt. of India (Amount in Lakhs)	
2009-2010	Sashi Tharoor (Lok Sabha)	200	
2010-2011	Sashi Tharoor (Lok Sabha)	200	
2011-2012	Sashi Tharoor (Lok Sabha)	500	
2012-2013	Sashi Tharoor (Lok Sabha)	500	
2013-2014	Sashi Tharoor (Lok Sabha)	250	
Total		1650	

TABLE 25: MPLADS

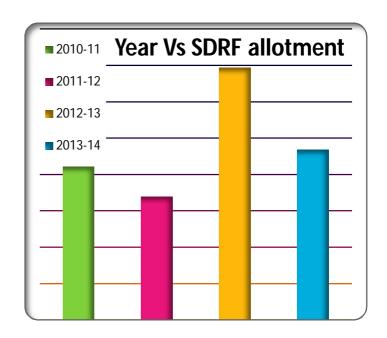
Member of Parliament Local Area Development Scheme (MPLADS)			
Financial	Name of MP	Funds received from Govt.	
Year	T (dille of 1/11	of India (Amount in Lakhs)	
2009-2010	A. Sampath (Lok Sabha)	263.82	
2010-2011	A. Sampath (Lok Sabha)	200	
2011-2012	A. Sampath (Lok Sabha)	500	
2012-2013	A. Sampath (Lok Sabha)	500	
2013-2014	A. Sampath (Lok Sabha)	500	
Total		1963.82	

4.6 SDRF (STATE DISASTER RELIEF FUND)

State Disaster Relief Fund shall be established, earmarked and apportioned based on the guidelines that will be issued by Central Finance Commission and Ministry of Home Affairs for schemes which specifically address prevention, mitigation, preparedness and response. SDRF allotted in Thiruvananthapuram district for the period of 2010-2014 are given below:

TABLE 26: SDRF

Year	(SDRF) Fund allotment
2010-11	21,10,55,754
2011-12	16,96,39,816
2012-13	34,69,61,390
2013-14	23,43,96,966



4.7 IAY - INDIRA AWAS YOJNA

IAY is a flag ship scheme of ministry of Rural development has since inception been providing assistance to BPL families who are either houseless or having inadequate housing facilities for constructing a safe and durable shelter.

Source of IAY: The cost of scheme except the component for the provision of house sites would be shared between central and state government in the ration 3:1 where the central share is 70,000 Rs. IAY allotment for Thiruvananthapuram district from the period of 2010-2015 are shown below:

TABLE 27: IAY

Year	2010-11	2011-12	2012-13	2013-14	2014-15
Thiruvananthapuram	2971.23	2862.64	2354.48	2455.60	0.00

Relation between IAY and poverty alleviation program:

Indira Awas Yojana is essentially a public housing scheme for the houseless poor families and those living in dilapidated and kutcha houses with a component for providing houses sites to the landless poor as well. The scheme is designed to enable Below Poverty Line (BPL) households identified by the community through gram sabhas.

PLANNING & RESPONSE STRUCTURE

5.1 CRISIS MANAGEMENT FRAME WORK

An effective response is the result of a comprehensive crisis management program that orchestrates well developed decision-making framework that rightly aligns various incident and site-level response activities. The ability to manage a crisis successfully is the result of understanding the risks and vulnerabilities involved, comprehensive planning, regular exercises, and a strategy for maintaining these capabilities to deal with disasters regardless of type, location and intricacy.

5.2 HAZARD SPECIFIC CRISIS MANAGEMENT PLAN FOR THE DISTRICT (HAZARD: FLOODING)

TABLE 28: CRISIS MANGEMENT PLAN - FLOODING

Source of Information- IMD: http://imdtvm.gov.in

Most Vigil - Actions to be taken and sustained till warning is withdrawn in the villages/taluks/districts predicted to be affected by rainfall

- SEOC & DEOC Keep checking the tsunami bulletins from the INCOIS site.
- State-District –Taluk Control Rooms of Revenue & Police-24hours functioning
- NDRF, SDRF and Fire and Rescue Service pre-positioned as per the direction of State Incident Commander
- BSNL and Police deploy emergency communication systems
- Air Force be intimated to standby with helicopter and transport aircraft if called upon fcr flood reiief, Search & Rescue, supply dropping, mass evacuation etc
- 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 until atleast 24 hrs of rain free situation arises in the quarry locality based on evaluation by the village officers
- Local Self Governments relocate vulnerable population to the relief camps and other safe locations
- Transport department take control of all cranes and earthmovers in the district for deployment in the event of major calamities
- KSEB & PWD Emergency repair teams to be ready for deployment
- District Officers of KSEB, PWD, Health, Irrigation & Transport to be available at the respective district collectorates
- Police Stop vehicular traffic other than that of emergency services via ghat roads prone to landslides and flash floods; ensure strict oneway

Extremely
Heavy Rainfall
(>244.4mm)

system for vehicle movement

- Declare holiday for all educational institutions
- All mass gatherings and social events to be stopped
- Public adviced to remain indoors and those in landslide/flood prone areas to move to safer locations. Voluntary evacuation warning to public living in the flood prone areas of the district (based on the list of hazard prone villages published in www.sdma.keral.gov.in; disasterlesskerala.org)
- Tourism & Forest Departments Advise tourists not to stop in the sides of streams and rivulets that intersect Ghat (Hilly) roads and take bath in streams and bathing ghats when it is raining as these are possible tracts of landslides &flashfloods; close all hill stations and resorts in coastal and low lying areas and evacuate public to safer areas
- Shall identify bottlenecks/encroachment/silt accumulation/wate
 accumulation in major drains of flood affected/to be affected areas and
 immediately take steps to remove the same under provisions of Disaster
 Management Act, 2005.Shall cut through/ open up new drains in
 puramboke/private lands, if such actions would mitigate the flooding
 situatio in flood affected/to be affected areas.

Be prepared - Actions to be taken and sustained till warning is withdrawn, in the districts predicted to be affected by rainfall

- DEOC Emergency time functions activated
- Deoc, District taluk Control Rooms of Rvenue and Police 24 hrs functioning
- SDRF and Fire and Rescue Service pre-positioned as 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 atleast 24 hrs of rain free situation arises in the quarry locality based on evaluation by the village officers
- Local Self Governments advice public to restrain from standing near and crossing streams and avoid traffic through ghat roads
- Transport department ensure that cranes and earthmovers in the district are ready for deployment in the event of major calamities
- KSEB & PWD Emergency repair teams to be ready for deployment
- Police Stop vehicular traffic other than that of emergency services via ghat roads prone to landslides and flash floods
- District Officers of KSEB, PWD, Health, Irrigation & Transport to be available on call to District Incident Commander
- Tourism & Forest Departments Advise tourists not to stop in the sides of streams and rivulets that intersect Ghat (Hilly) roads and take bath in streams and bathing ghats when it is raining as these are possible tracts of landslides & flashfloods
- Voluntary evacuation warning to public living in the flood prone areas of

Very Heavy Rainfall (124.5 to 244.4 mm)

- the district (based on the list of hazard prone villages published in www.sdma.keral.gov.in; disasterlesskerala.org)
- Shall identify bottlenecks/encroachment/silt accumulation/wate accumulation in major drains of flood affected/to be affected areas and immediately take steps to remove the same under provisions of Disaster Management Act, 2005.Shall cut through/ open up new drains in puramboke/private lands, if such actions would mitigate the flooding situatio in flood affected/to be affected areas.

Be updated - Actions to be taken and sustained till warning is withdrawn, in the villages/taluks/districts predicted to be affected by rainfall

- SEOC All state level officers of the nodal departments informed
- DEOC Emergency time functions activated
- District Control Rooms of Revenue & Police-24hours functioning
- Tahasildar 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
- Transport department take control of all cranes and earthmovers in the district for deployment in the event of major calamities
- KSEB & PWD Emergency repair teams to be ready for deployment
- Tourism & Forest Departments Advise tourists not to stop in the sides of streams and rivulets that intersect Ghat (Hilly) roads and take bath in streams and bathing ghats when it is raining as these are possible tracts of landslides
- Shall identify bottlenecks/encroachment/silt accumulation/wate accumulation in major drains of flood affected/to be affected areas and immediately take steps to remove the same under provisions of Disaster Management Act, 2005.Shall cut through/ open up new drains in puramboke/private lands, if such actions would mitigate the flooding situatio in flood affected/to be affected areas.

Heavy Rainfall (64.4 to 124.4 mm)

TABLE 29: CRISIS MANAGEMENT PLAN - LANDSLIDE

Source of information – SEOC: www.disasterlesskerala.org

Criteria:

- 1. When IMD issued very heavy rainfall warning
- 2. When two days of cumulative rainfall exceeds 8cm in a rain station, landslide warning is issued to the respective district

Land slide Alert

Be prepared – Actions to be taken and sustained till warning time limit expires/ until 2 days cumulative rainfall is below 8 cm

- SEOC-Telephonically verify the warning from INCOIS
- SEOC & DEOC-Emergency time functions activated
- State-District –Taluk Control Rooms of Revenue & Police-24hours functioning
- SDRF & Coastal Police-deployed to the coastline
- Army, Navy, Air Force & other Central Forces in the state- on high alert and standby
- Air Force be intimated to standby with helicopter and transport

- aircraft if called upon fcr flcod reiief, Search & Rescue, supply dropping, mass evacuation etc
- BSNL& Police-deploy emergency communication systems
- Hospitals and PHCs in the districts functions at full strength 24hrs
- Tahasildar- Take control of the identified relief shelters: Quarry blasting to be banned until 24 hrs of rain free situation arises in the quarry locality based on the evaluation by the village officers
- Local Self Governments: Alert public living close to small rivulets and in hilly segments with greater than 20 degree slope

TABLE 30: CRISIS MANAGEMENT PLAN - TSUNAMI

Source of Information –INCOIS: http://www.incois.gov.in/Incois/tsunami/eqevents.jsp

Most vigil- Action to be taken and sustained till warning is withdrawn in 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-24hours functioning

NDRF, SDRF& Coastal Police-deployed to the coastline

Army, Navy, Air Force & other Central Forces in the state-deployed to the coastline.

Air Force be intimated to standby with helicopter and transport aircraft if calledupon for flood reiief, Search & Rescue, supply dropping, mass evacuation etc

BSNL& Police-deploy emergency communication systems

Hospitals and PHCs in the districts functions at full strength 24hrs

Tahasildar-Evacuate public within 250m from the coastline to the relief camp and other safe higher ground and start the relief camps

Warning

Local self government – Evacuate public within 250m from the coastline to the relief camp and other safe higher ground

Department of Ports & Harbour Engineering –Move all seafaring vessels to deep ocean

KSEB & PWD-Emergency repair teams to be ready for deployment

District Officers of KSEB,PWD,health, Irrigation, transport, ports & habour 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 gatherings 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 resorts within 250m of the coastline and lowlying areas in river- mouth/coastal estuaries and evacuate public to safer areas.

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-24hours 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 24hrs
	Tahasildar-Evacuate public within 250m from the coastline to the relief camp and
Alert	other safe 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
	Department of Ports & Harbour Engineering –Move all seafaring vessels to deep
	ocean
	KSEB & PWD-Emergency repair teams to be ready for deployment
	District Officers of KSEB,PWD,health, Irrigation, transport, ports & habour
	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 gatherings 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 resorts within 250m of the coastline and lowlying areas in
	river- mouth/coastal estuaries and evacuate public to safer areas.
	Be updated - Actions to be taken and sustained till warning is withdrawn, in the
	villages/taluks/districts predicted to be affected by tsunami
Watch	SEOC & DEOC – Keep checking the tsunami bulletins from the INCOIS site.
	State-District – Taluk Control Rooms of Revenue & Police-24hours functioning
	All concerned district administrations and nodal departments listed above to be on
700	alert mode.
Threat	SEOC – cross check with INCOIS that the threat has passed
Passed	DEOC - cross check with SEOC that the threat has passed

TABLE 31: CRISIS MANAGEMENT PLAN - DROUGHT

Level	Vulnerability Magnitude	Observations	Impact	Response
1	Normal	Prepare & update resource inventory	Nil	All line Departments
2	Warning	Receiving warning information	Nil	IMD/SEOC
4	Emergency	Alert all line	Agriculture crop loss	District

		departments and	Deficit in ground water	administration
		public	recharge	
			Fall in investment	
			capacity of farmers, rise	
			in prices, reduced grain	
			trade, and	
			power supply	
			Non-availability of	
			drinking water	
			Sun burn	
		Adequate Drinking		KWA
		water supply		IXVVII
5	Recovery (Post	Assessment of		
3	Disaster)	detailed crop loss		Agriculture
		and give assistance		dept.
		to farmers		

TABLE 32: CRISIS MANAGEMENT PLAN - LIGHTNING

Level	Vulnerability Magnitude	Observations	Impact	Response
1	Normal	Prepare & update resource inventory	Nil	All line Departments
2	Warning	Receiving warning information	Nil	IMD/SEOC
4	Emergency		Loss of life & property Casualty to people Mortality to cattle Damage to power, telephone lines, cable networks	
5	Recovery (Post Disaster)			Agriculture dept.

5.3 RESPONSE MATRIX

For effective response, multiple needs must be met in a coordinated manner in short time frames. Thus, in an acute response situation, different agencies must coalesce into a matrix of linked actions that function smoothly across horizontal and vertical chains of command system regardless of department specific infrastructure, culture, area of expertise, and responsibilities.

Ultimately, the response matrix and all of its components must work in a coordinated manner toward mitigating the impacts of disasters on the public and on affected elements of the physical infrastructure.

TABLE 33: RESPONSE MATRIX

Response	Transport	Early warning Centres	PWD	Drinking Water & Water Supply	Search & rescue
Normal	Nil	Usual Monitoring process established.	Nil	Nil	To have mock drill on their own equipments. So as to more familiar to their equipments and access the quality of equipments what they have.
Prepare & update resource inventory	Nil	Nil	Nil	Nil	Nil
Warning	Preparation on Disaster (Mock drill).	Issue warnings signal the necessary line departments.	To give clearance of strength of building and bridges.	To reserve the water for the victim after the appearance of disaster.	To get prepared to face all the upcoming threats.
Track developments in regard to specific hazards	Nil	Nil	Nil	Nil	Nil
Emergency (Fill Reponses)	To transfer people and valuables from affected area.	Employ communication to necessary line departments.	To support the shelters were victims can be accommodated.	To supply water to victims.	To establish the search and rescue service when and where ever necessary.
Recovery (Fill Responses under Recovery Stage)	To transport victims to hospital/ Camp/ Shelter were victims can meet the necessity.	Continue monitoring and inform ESF (Emergency Support Function) for further appearance.	To provide shelters and accommodation to victims.	To supply water to victims.	Victims are transported to the different locations were medication, accommodation and foods are facilitated.

5.4 ACTIVITY CALENDAR

TABLE 34: ACTIVITY CALENDAR

	Pre monsoon	Monsoon	Post monsoon
Agriculture	Monitor daily report of DCR Collectorate. Coordinate with water resources departments and necessary concerned departments.	Take precautionary steps to avoid agriculture destruction that can appear during monsoon season.	Take precautionary steps as per the daily report from Collectorate or report from IMD.
Animal Husbandry	Coordinate with concerned departments and avoid all the possibilities of diseases that	avoid diseases that can	Take precautionary measures to avoid diseases during post

	can occur in animals.	monsoon period.	monsoon period. Make routine check up to access the health of animal.
Fire	To establish active participation for any situation where outbreak of fire or necessary search and rescue operations are needed. Conduct necessary exercise and mock drills. Conduct joined mock drills with concerned line departments.	To deploy forces during the eve of major disasters.	To deploy search and rescue operations if necessary (during natural and man-made disasters).
Ground Water	Coordinate with irrigation and KWA to disseminate adequate water to the necessities by understanding (grids) locations, which lakhs water.	Take initiation to preserve water resources. Steps to be adopted so as to maintain HIS (Hydrological Information System) database and monitor in a regular basis.	Steps are adopted to collect, store and disseminate hydrological data as a part of coma state and district level initiative.
Health	Supply Medicare to Diseases appearing on pre monsoon.	Supply Medicare to Diseases appearing on monsoon.	Supply Medicare to Diseases appearing on post monsoon.
IMD	To monitor and compute met parameter for the district/state. Carry over simulation and establish daily forecasting. To increase numerical modelling, precision and accuracy. To send daily report to DCR/ EOC of Collectorate and other departments.	To monitor and compute met parameter for the district/state. Give the necessary response to SEOC, DCR/EOC of respective Collectorates.	To monitor the met parameter and give daily reports to concerned departments.
Irrigation	To irrigate proper places so as to avoid extreme dryness.	To collect the water in suitable reservoirs and constructions (structures) - rain water harvesting.	Irrigate proper places so as to avoid dryness of the soil.
KSEB	Lack of rainfall leads to low productivity of power and hence regulation must be carried out in the usage of the same.	Due to rainfall, productivity seems to be very high and hence low regulation is required. Measures to be adopted to save energy.	Due to reduced pattern of rainfall, measures must be adopted as per total production and consumption.
KWA	Distribute water to necessary places or locations where it lakhs.	To promote rain water harvesting and reserve water for futuristic purpose.	Controlled or regulated usage of water. Steps to be adopted so as to maintain the source point of water. Allotment of

			water must be established in a proper hierarchy as given; 1. Human being 2. Animals 3. Agriculture Storage of water in the reservoirs
Police	Be alarming to counter the natural and manmade threats	To avoid the peoples from the exposure of sea threats and flooding, reallocate them to more safe location. To avoid ochlocratic situation at shelters and relief camps.	To be alarming to counter the natural and manmade threats.
PWD	Nil	To allot shelters for victims who are under threat due to flooding sea attack.	Nil
Revenue	Maps and Survey sketches are provided to concerned departments so as to establish easy operation and administration procedure.	Maps and survey sketches relating various disasters occurring during monsoon season are generated and are distributed to the concerned line departments.	Maps and survey sketches relating various disasters occurring during post monsoon (if necessary) are provided to concerned departments.
Transport	Nil	Shift peoples from coastal and flood prone regions to safe location.	Nil

5.5 NEED ANALYSIS FOR PRE AND POST DISASTER SCENARIOS

Find out hazard specific anticipated needs for pre and post disasters.

TABLE 35: NEED ANALYSIS FOR PRE AND POST FLOOD SCENARIOS

Sl. No	Anticipated Needs Pre- Flood		Anticipated Needs	Post – Flood
	Structural	Non – Structural	Rescue	Relief
1	Clearance of water ways	Public awareness campaigns	Boats	Food
2	Removal of encroachments	Monitoring & updating flood related parameters	Vehicles	Shelter
3	Cleaning of Sewerage	Sand bags	Helicopters	Financial aid
4	Repairing damaged	Dewatering Pumps	Rescue equipments	Cooked food

	roads			
5	Construct Water Harvesting System	Update Resource Inventories	Human resources	Safe Drinking Water
6	Construction of bunds, canals etc	Procurement of locally available boats	Mobile Clinics	Electricity
7	Maintenance and repair of Sluice gates and spill way of reservoirs	Collect details of earth movers, cutters, JCB's and other related machineries in the District	Life saving equipments	Medicines/ Vaccination
8		Generators		
		Storage of medicine		
		Mobilize the Search & Rescue Equipments		

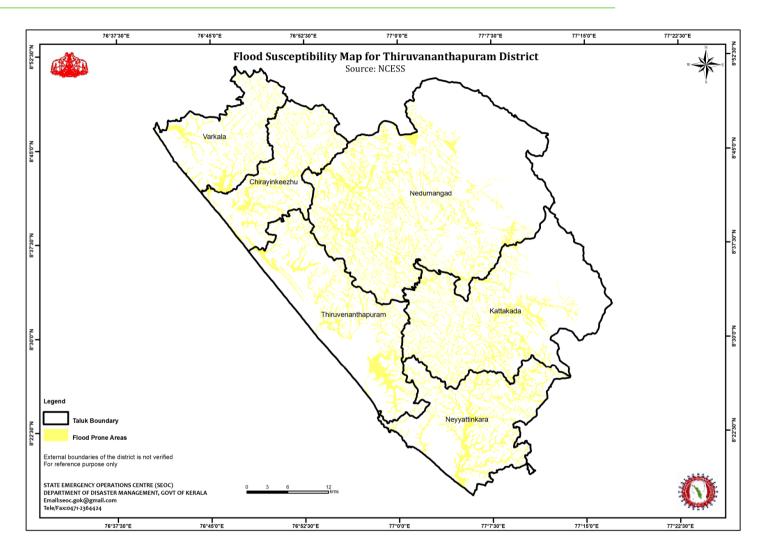


FIGURE 10: FLOOD SUSCEPTIBILITY MAP FOR THIRUVANANTHAPURAM DISTRICT (ANNEXURE 7)

TABLE 36: NEED ANALYSIS FOR PRE AND POST DROUGHT SCENARIOS

	Anticipated Needs P	re- Drought	Anticipated Needs I	Post – Drought
Sl. No	Structural	Non – Structural	Rescue	Relief
1	Renovation of existing ponds and open wells	Public Awareness Campaigns	Human Resources	Drinking Water supply
2	Construction of check dams, cleaning and protection of existing water sources	Monitoring and updating drought related parameters	Mobile Clinics	Cooked food
3	Renovation of existing lift irrigation system	Update resource inventories		Medicines/ Vaccination
4	Forestation	Storage of medicines		Financial Aid
5	Promotion of Rainwater harvesting and soil conservation measures	Water supply		
6	Watershed Management Programmes	Encourage farmers to understand crop pattern to be adopted in their area		
7	Enactment and enforcement of laws regulating ground water level and exploitation of natural resources	Disseminate drought risk to general public residing in drought prone zones. Campaign for drought tips for agriculture, general public		Medicines/ Vaccination

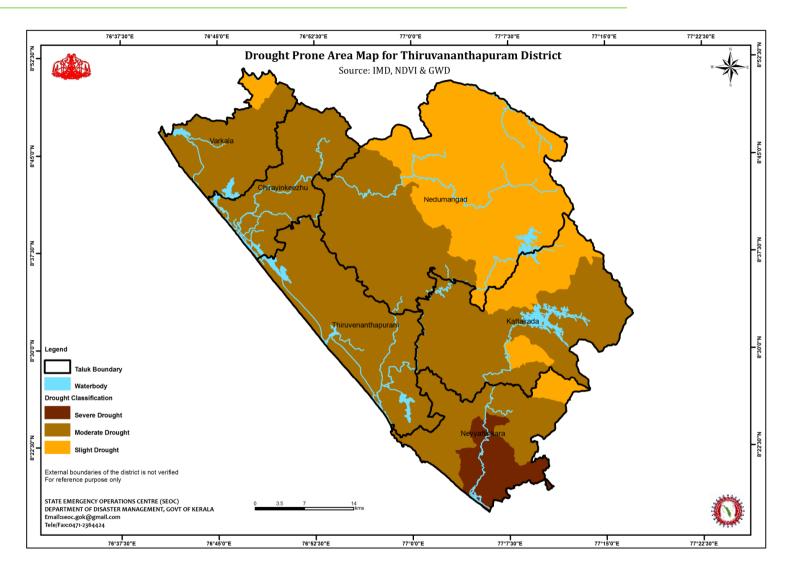


FIGURE 11: DROUGHT PRONE AREA MAP OF THIRUVANANTHAPURAM DISTRICT (ANNEXURE 14)

TABLE 37: NEED ANALYSIS FOR PRE AND POST LIGHTNING SCENARIOS

Anticipated needs Pre-Lightning			Anticipated needs	Post-Lightning
Sl. No.	Structural	Non -Structural	Rescue	Relief
1	Install lightning rod during the time of building construction	Public awareness campaigns	Human resources	Medicines/ Vaccination
2		Update Resource Inventories	Mobile Clinics	Financial aid

TABLE 38: NEED ANALYSIS FOR PRE AND POST EARTHQUAKE SCENARIOS

	Anticipated Needs Pr	e- Earthquake	Anticipated Need Earthquak	
Sl. No	Structural	Non – Structural	Rescue	Relief
1	Construction of Earthquake resistant buildings	To disseminate earthquake risk to general public residing in earthquake prone zones Campaign for earthquake safety tips	Search Equipments	Food
2	Strengthen dams, bridges	Update Resource Inventories	Vehicles	Shelter, Clothing
3	Analysis of historical seismic data and regional geology can guide people, including architects, builders, and engineers to build safer structures.	Collect details of earth movers, cutters, JCB's and other related machineries in the District	Helicopters	Financial aid
4	Earthquake safe designs and building codes for public construction.	Storage of medicine	Rescue equipments	Cooked food
5	Seismic strengthening, retrofitting of non- engineered structures.	Mobilize the Search & Rescue Equipments	Human resources	Safe Drinking Water

6	Identification and removal of unsafe buildings/structures	GIS based mapping of population vulnerability	Medicines, Mobile Clinics	Electricity, Communica tion System
7	To provide or make seismic microzonation maps	Planning logistics for response scenarios, planning of evacuation routes	Life saving equipments	Medicines/ Vaccination
8		Seismic risk assessment and mapping of seismic zones.	Earth movers, Cutters, JCB's and other related machineries	
9		Provide professional training about earthquake resistance construction to engineers and architects		

TABLE 39: HISTORY OF TREMORS IN THE DISTRICT

Sl. No.	Location	Intensity	Magnitude	Year
1	Attingal_Trivandrum	IV	3.7	1856
2	Attingal_Trivandrum	V	4.3	1856
3	Attingal	IV	3.6	1988
4	Attingal	IV	3.6	1994
5	Puvattur, Trivandrum		Minor_Tremors	2001
6	Tettikulam_Trivandrum	III	<3	2001
7	Kottukonam_Trivandrum	III	<3	2001
8	Pangode_Trivandrum	IV	<3	2001
9	Kilimanoor_Trivandrum		2.6	2006

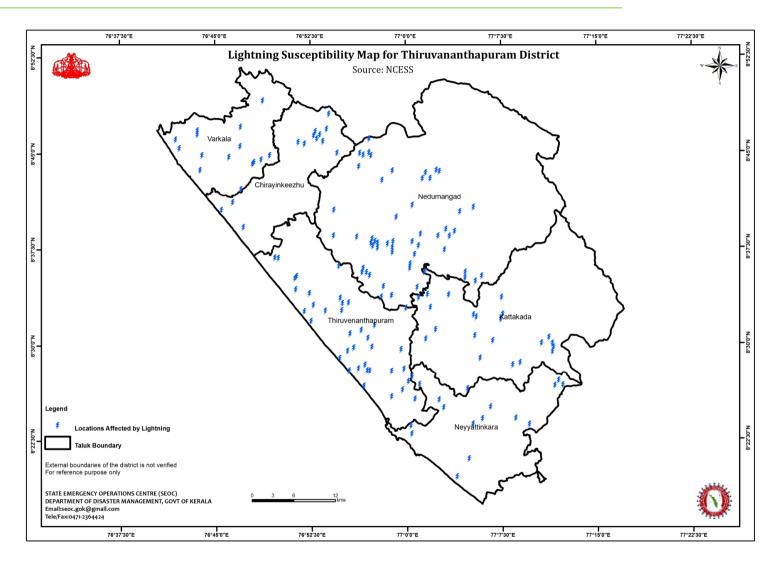


FIGURE 12: LIGHTNING SUSCEPTIBILITY MAP OF THIRUVANANTHAPURAM DISTRICT (ANNEXURE 15)

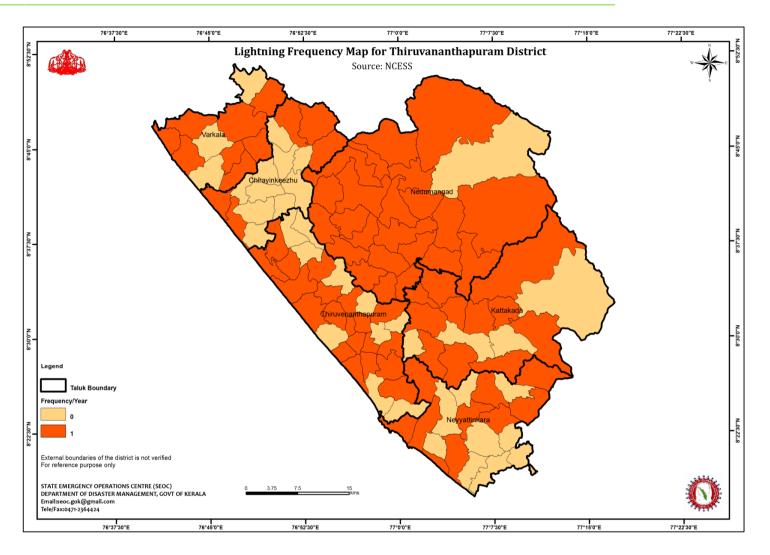


FIGURE 13: LIGHTNING FREQUENCY MAP OF THIRUVANANTHAPURAM DISTRICT (ANNEXURE 16)

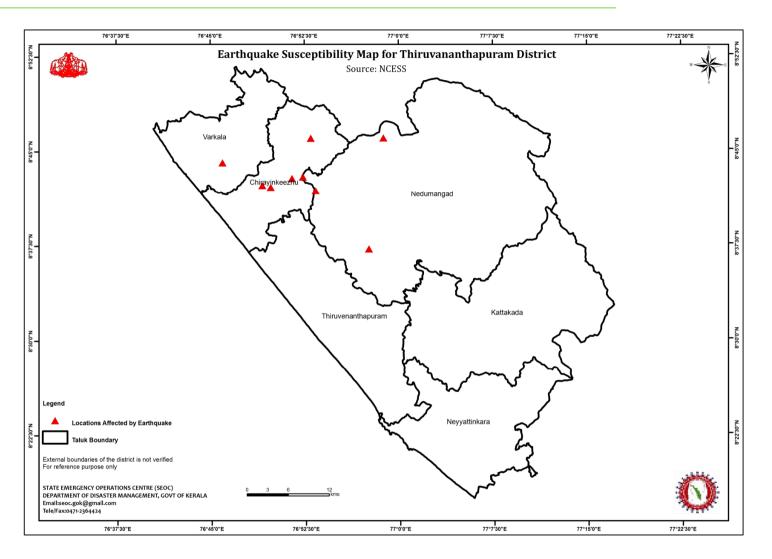


FIGURE 14: EARTHQUAKE SUSCEPTIBILITY MAP OF THIRUVANANTHAPURAM DISTRICT

TABLE 40: NEEDS DURING PRE- LANDSLIDE AND POST- LANDSLIDE

Anticipated No	eeds Pre- Landslide	Anticipated Needs l	Post – landslide
Structural	Non – Structural	Rescue	Relief
Improving surface and subsurface drainage	Identify the landslide prone areas in the district and have a close monitoring during the monsoon season	JCB, Crain	Food
Constructing piles and Retaining wall.	Monitoring & updating landslide related parameters	Vehicles ambulance	Shelter
Preserving vegetation	Public awareness campaigns	Rescue equipments	Financial aid
Rock fall protection	Update resource inventory	Human resources	Cooked food
Boulder-gathering trenches at the foot of the hillside	Collect details of earth movers, cutters, JCB's and other related machineries in the district	Mobile clinics	Safe drinking water
Lowering the slope	Storage of medicine	Life saving equipments	Electricity
	Disseminate landslide hazard mapping information to stakeholders		Medicines/ Vaccination
	At selected locations demonstrate mitigation actions through use of local resources / cost effective measures.		

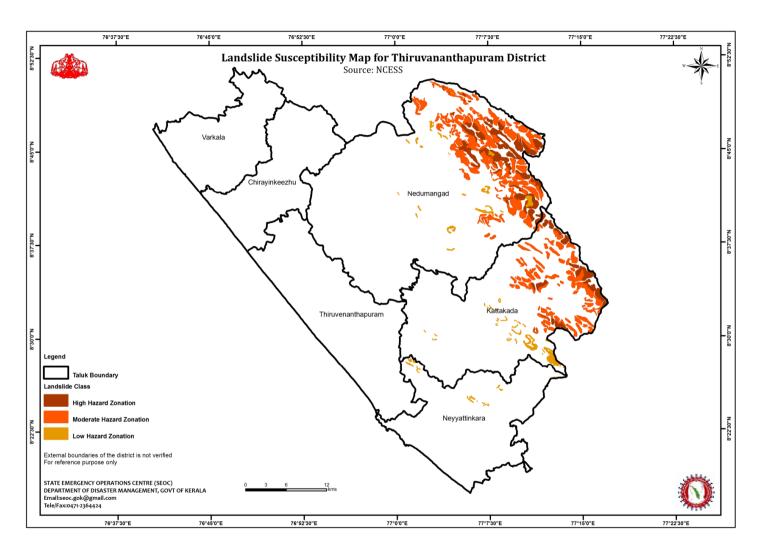


FIGURE 15: LANDSLIDE SUSCEPTIBLITY MAP OF THIRUVANANTHAPURAM DISTRICT (ANNEXURE 7)

5.6 RESPONSIBILITY MATRIX

The perils of hazard has to be negated with appropriate observation and focused activities, which necessitate the need of an ever vigilance forecasting system that will help in managing the disastrous effect of a hazard.

The structural frame work starts with identifying, evaluating and assigning well defined roles and responsibilities of various authorities in managing disasters. Experiences with previous disasters make it clear, that authorities have to be sensitized prior and subsequent to an unturned event. Thus, coordination among stakeholders for effective management of disasters is essential and to ensure this, pre-planning must be done before the onset of a disaster and specific task must be assigned to each department so as to provide training in the specific areas.

TABLE 41: RESPONSIBILITY MATRIX

Time	Task	Department/ Agency	Activity
D-72 Hr	>Effective monitoring to establish >If necessary warnings to be provided.	>SEOC, IMD, CESS >I&B, Media, Radio Station,	Effective communication to be established between scientifical and communication networks.
D-48 Hr	>Evacuation of disaster prone regions. >Arrangement of Temporary shelters	>Revenue, Police, Coast Guard >Revenue, Assistance of Health Dept. For medical aids	>Hazard prone regions are monitored by Police, Coastguards and Revenue. >Temporary shelters are prepared to accommodate the victims
D-24Hr	>Mitigational measures adopted. Air Force need to be informed to standby their helicopter and to transport aircraft	>I&B, Media, Radio Station >Fire force, Health Dept, Police, NDRF, and SDRF. >Air Force also need to be informed to standby their helicopterand transpoft aircraft.	All the respective members (Depts) are deployed.
D-0 Hr	>Activate Incident Command System+ >Emergency Communication System	Police, SDRF, NDRF, Indian Coast Guard.	Active communication, Fire & Police force, NDRF and other field staffs deployed to counter threat waves (Disaster).
D+15 Min	Search and rescue are at the frontline. Necessary medical aids are provided.	Police, F&R Supply office, DH, Public Health Engineering Dept(PHED), Air Force	Victims to be transported to shelters and necessary medical assistance are provided respective Dept's.

5.7 RECONSTRUCTION, REHABILITATION & RECOVERY MEASURES

DDMP would describe the strategy to restore normalcy to the lives and livelihoods of the affected population. Short-term reconstruction requires return of vital life support systems to minimum operating standards while long term rehabilitation will continue till complete redevelopment of the area takes place. There is a need for empowering school teachers, students etc. in the district. They had played a great role in the rescue & rehabilitation works during Tsunami, 2004. Therefore, empowerment, capacity building and synergy of teachers and students into the disaster management grid are important.

5.8 RECONSTRUCTION & REPAIR WORKS

TABLE 42: RECONSTRUCTION & REPAIR WORKS

Sl. No	Task	Department /agencies	Activities	Time Period	Cost	Source of Fund
Not						
Provided						

Standard Operating Procedures of various departments as Annexure 17

5.9 EMERGENCY SUPPORT FUNCTIONS PLAN, 2014

In the aftermath of a major natural disaster wherein State Government's assistance is required for the districts, the command, control and coordination will be carried out under the ESFs Plan. EOC shall activate the ESFs and the concerned Department/Agency of each ESFs shall identify requirements in consultation with their counterparts in affected districts, mobilize and deploy

resources to the affected areas to assist the district (s) in its/their response action. The State EOC

shall maintain a close link with the District EOCs and NEOC.

ESFs shall be responsible for the following:

 They will coordinate directly with their functional counterpart in districts to provide the state government, the assistance required. Request for assistance will be channeled from the district both through the District Incident Commander/DEOC and designated departments/agencies.
 Based on the identified requirements by the districts, appropriate assistance shall be provided by an ESF Department/Agency to the district or at the District Incident Commander's request, directly to an affected area.

- 2. The designated authorities for each of ESF shall constitute quick response teams and assign the specific task to each of the member.
- 3. The designated authorities for each of the ESF shall identify and earmark the resources i.e. Manpower and materials to be mobilized during the crisis.
- 4. An inventory of all the resources with the details shall be maintained by each of the designated authority for each of the ESF.
- 5. The designated authority for each of the ESF will also enter into pre-contracts for the supply of resources, both goods and services to meet the emergency requirements
- 6. The designated authority for each of the ESF will be delegated with adequate administrative, legal and financial powers for undertaking the tasks assigned to them.

Primary and Secondary Agencies: The designated primary agency shall be assisted by one or more support agencies (secondary agencies) and shall be responsible for managing the activities of the ESF and assisting the district in the rescue and relief activities and ensuring that the mission is accomplished. The primary and secondary agencies have the authority to execute response operations to directly support the needs of the affected districts.

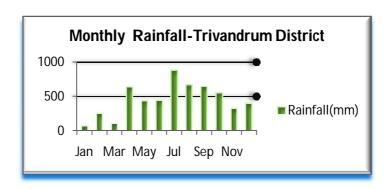
Roles and responsibilities of primary and secondary Emergency Support Agencies along with Form/Proforma are attached in Annexure 18.

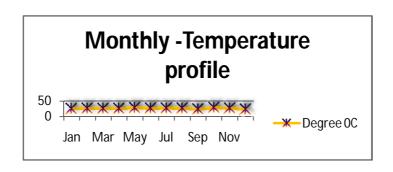
DISTRICT DISASTER MANAGEMENT PLAN THIRUVANANTHAPURAM – ANNEXURES 2015

ANNEXURE 1

WEATHER & CLIMATE

Month	Rainfall (mm)	Temperature ⁰ C
Jan	71.8	25.688
Feb	249.3	26.818
Mar	106.5	26.056
Apr	640.7	26.325
May	440	28.941
Jun	444.1	27.066
Jul	880.6	27.387
Aug	672.5	27.358
Sep	645.7	24.058
Oct	555.3	29.15
Nov	324	27.172
Dec	400	23.65





ANNEXURE 2

NUMBER OF LP/UP/HS/SPECIAL SCHOOL AS 31-03-2011

			L P Schoo	ols				U P Scho	ols			Hi	igh Schoo	ls	
Block – Panchayaths	Govt	Local Body	Aided	Un aided	Total	Govt	Local Body	Aided	Un aided	Total	Govt	Local Body	Aided	Un aided	Total
Athiyanoor	5	0	1	1	7	2	0	0	0	2	0	0	4	0	4
Kanjiramkulam	2	0	4	0	6	1	0	0	0	1	1	0	3	0	4
Karumkulam	0	0	5	0	5	0	0	1	0	1	0	0	1	0	1
Kottukal	5	0	3	0	8	0	0	2	0	2	1	0	1	0	2
Venganoor	2	0	4	1	7	0	0	3	0	3	1	0	0	0	1
Block total	14	0	17	2	33	3	0	6	0	9	3	0	9	0	12
Chirayinkeezhu	4	0	3	0	7	5	0	0	1	6	1	0	2	0	3
Kadakavoor	1	0	2	0	3	2	0	1	0	3	1	0	1	0	2
Kizhuvilam	2	0	0	0	2	2	0	1	0	3	1	0	0	1	2
Pulimath	4	0	1	0	5	0	0	4	0	4	1	0	1	0	2
Block total	22	0	10	0	32	4	0	17	2	23	8	0	7	1	16
Anad	4	0	1	0	5	1	0	2	0	3	0	0	1	0	1
Aruvikkara	6	0	1	0	7	1	0	0	0	1	1	1	1	0	1
Karakulam	4	0	3	0	7	3	0	1	0	4	1	0	1	1	3
Panavoor	2	0	0	0	2	2	0	1	0	3	0	0	1	0	1
Vembayam	2	0	0	0	2	1	0	2	1	4	2	0	0	1	3
BLock total	18	0	5	0	23	8	0	6	1	15	4	0	3	2	9
Balaramapuram	1	0	4	0	5	0	0	1	0	1	1	0	2	0	3
Kalliyoor	1	0	5	1	7	0	0	1	1	2	1	0	0	0	1
Malayinkeezhu	3	0	5	0	8	0	0	0	1	1	3	0	2	0	5

	_	_		_		_	_	_		_		_			_
Maranalloor	2	0	4	0	6	2	0	0	1	3	1	0	1	1	3
Pallichal	1	0	4	0	5	2	0	1	0	3	0	0	2	2	4
Villapil	3	0	0	0	3	1	0	0	1	2	0	0	2	2	4
Vilavoorkal	0	0	2	1	3	0	0	1	0	1	1	0	0	0	1
Block Total	11	0	24	2	37	5	0	4	4	13	7	0	9	3	19
Chenkal	2	0	4	1	7	0	0	3	0	3	1	0	1	0	2
Karode	1	0	2	0	3	0	0	1	0	1	1	0	0	0	1
Kulathoor	3	0	5	0	8	1	0	2	1	4	1	0	2	0	3
Parasala	7	0	5	0	12	0	0	2	0	2	1	0	3	0	4
Poovar	3	0	0	1	4	0	0	0	0	0	1	0	1	0	2
Thirupuram	2	0	4	0	6	0	0	0	0	0	2	0	0	0	2
Blok Total	18	0	20	2	40	1	0	8	1	10	7	0	7	0	14
Amboori	1	0	3	0	4	1	0	0	0	1	0	0	1	0	1
Aryancode	0	0	2	0	2	0	0	0	0	0	1	0	1	0	2
Kalliakdu	1	0	3	0	4	0	0	2	1	3	1	0	0	0	1
Kollayil	0	0	3	2	5	1	0	0	0	1	2	0	1	1	4
Kunatukal	1	0	4	0	3	1	0	2	0	3	1	0	2	0	3
Ottasekramglam	2	0	2	0	4	0	0	1	0	1	0	0	2	1	3
Perunkadavil	4	0	1	0	5	0	0	1	0	1	1	0	0	0	1
Vellarada	2	0	4	0	6	1	0	2	0	3	0	0	1	0	1
Blok Total	11	0	21	2	34	4	0	8	1	13	6	0	8	2	16
Andoorkonam	5	0	0	0	5	1	0	0	0	1	0	0	2	0	2
Azhoor	1	0	0	0	1	0	0	2	1	3	1	0	0	0	1
Kadinamkulam	6	0	0	0	6	0	0	3	0	3	0	0	1	2	3
Mangalapuram	6	0	1	0	7	1	0	0	0	1	1	0	1	0	2
Pothenkode	2	0	0	1	3	2	0	1	0	3	1	0	1	0	2
Block Total	20	0	1	1	22	4	0	6	1	11	3	0	5	2	10

Kallara	5	0	2	0	7	0	0	2	0	2	3	0	0	0	3
Munikal	4	0	0	0	4	2	0	0	1	3	2	0	0	0	2
Nanniyode	3	0	3	0	6	1	0	1	0	2	0	0	2	0	2
Nelanadu	2	0	1	2	5	1	0	0	0	1	1	0	0	0	1
Pangode	4	0	2	0	6	0	0	1	0	1	1	0	0	0	1
Peringamala	4	0	3	1	8	4	0	3	0	7	2	0	2	0	4
Pullampara	4	0	1	0	5	0	0	2	0	2	1	0	1	0	2
Vamanapuram	3	0	3	0	6	2	0	1	0	3	0	0	1	0	1
Block Total	29	0	15	3	47	10	0	10	1	21	10	0	6	0	16
Andoorkonam	5	0	0	0	5	1	0	0	0	1	0	0	2	0	2
Chemmaruthy	3	0	2	0	5	0	0	1	0	1	0	0	2	0	2
Cherunniyoor	2	0	0	0	2	0	0	4	0	4	1	0	0	0	1
Edava	4	0	1	0	5	1	0	0	0	1	1	0	1	0	2
Elakamon	5	0	2	0	7	1	0	3	0	4	1	0	0	0	1
Manamboor	1	0	1	1	3	1	0	1	1	3	1	0	0	0	1
Ottur	3	0	1	0	4	1	0	1	0	2	1	0	0	0	1
Vettor	2	0	3	0	5	0	0	0	0	0	1	0	1	1	3
Block Total	20	0	10	1	31	4	0	10	1	15	6	0	4	1	11
Aryanadu	4	0	0	0	4	0	0	3	0	3	3	0	0	0	3
Kattakada	6	0	4	0	10	0	0	1	0	3	1	0	2	0	3
Kuttichal	4	0	2	0	6	0	0	1	1	2	0	0	1	0	1
Poovachal	5	0	2	0	7	1	0	3	1	3	2	0	0	0	2
Tholikkode	3	0	3	0	6	1	0	1	0	4	1	0	0	0	1
Uzhamalai	3	0	2	1	6	0	0	1	1	2	0	0	1	0	1
Vellanadu	9	0	1	0	10	0	0	1	0	1	1	0	0	1	2
Vithura	4	0	1	0	5	4	0	0	1	6	2	0	0	0	2

Block Total	38	0	1	15	54	6	0	11	3	20	11	0	3	1	15
Nedumngadu	5	0	0	0	5	2	0	0	0	2	4	0	0	2	6
Neyyatinkara	4	0	7	1	12	1	0	0	0	1	4	0	2	2	8
Varkala	6	0	1		7	0	0	0	0	0	2	0	1	2	5
Attingal	4	0	1	1	6	1	0	1	0	2	3	0	3	0	6
Trivandrum	45	0	17	10	72	23	0	9	11	43	34	0	23	17	74
(Corp)															

ANNEXURE 3

LIST OF SCHOOLS AND THEIR CONTACT DETAILS

School Name	School Phone	Local Body Name	Taluk Name
Govt. Vhss (Boys) Attingal, Attingal. P. O	0470-2625799	Attingal (M)	Chirayinkeezhu
Govt. Vhss Vakkom, Vakkom. P. O	0470-2655511	Vakkom	Chirayinkeezhu
Govt. Vhss Njekkad, Vadasserikonam. P. O	0471-2695484	Ottoor	Varkala
Govt. Vhss Pakalkuri, Pakalkuri. P. O, Pallickal	0470-2682056	Pallickal	Varkala
Govt. Vhss Alamcode, Alamcode. P. O	0470-2620270	Karavaram	Varkala
Karavaram Vhss, Kallambalam	0470-2692380	Karavaram	Varkala
R R V B Vhss Kilimanoor	0470-2672485	Kilimanoor	Chirayinkeezhu
Govt. Vhss Vithura , Vithura. P. O	0472-2857102	Vithura	Nedumangad
Govt. Ths&Vhss, Mancha.P.O, Nedumangad	0472-2800038	Nedumangad (M)	Nedumangad
G. V. Raja Sports Vhss Maylom, Cheriyakonni. P. O	0472-2889200	Aruvikkara	Nedumangad
Govt. Model V&Hs School, Vellanad	0472-2882032	Vellanad	Nedumangad
Govt. Vhss Veeranakavu, Veeranakavu. P. O	0471-2290429	Poovachal	Nedumangad
Govt. Vhss Kallara,	0472-2860805	Kallara	Nedumangad
Govt. Vhss Karakulam	0471-2371822	Nedumangad (M)	Nedumangad
Govt. Vhss, Mancha, Nedumangadu. P. O	0472-2812328	Nedumangad (M)	Nedumangad

Govt. Vhss Paruthippally, Kuttichal	0472-2854265	Kuttichal	Nedumangad
Mulamana Vhss, Anakudy, Vamanapuram	0472-2835105	Vamanapuram	Nedumangad
Govt. Vhss Poovachal, Poovachal. P. O	8547375776	Poovachal	Nedumangad
Govt. Vhss Aryanad, Aryanad. P. O	0472-2851955	Aryanad	Nedumangad
Govt. Vhss Pirappancode, Pirappancode. P. O	0472-2583354	Manickal	Nedumangad
Phmkm Vhss Panavoor, Nedumangadu	0472-2865126	Panavoor	Nedumangad
Govt. Vhss Kulathur, Uchakkada. P . O, Neyyattinkara	0471-2210660	Kulathoor	Neyyattinkara
Govt. Vhss Poovar, Poovar. P. O	0471-2209290	Poovar	Neyyattinkara
Govt. Vhss Parassala, Parassala. P. O	0471-2205400	Parassala	Neyyattinkara
Govt. Vhss Malayinkeezh,	0471-2283120	Malayinkeezh	Kattakkada
Govt. Vhss Kottukal, Kottukal. P. O, Punnakulam, Balaramapuram	0471-2269208	Kottukal	Neyyattinkara
Ptm Vhss, Maruthoorkonam, Kottukal. P. O, Balaramapuram	0471-2266677	Kottukal	Neyyattinkara
Victory Vhss, Olathanni, Neyyattinkara	0471-2222748	Neyyattinkara (M)	Neyyattinkara
Pgm Vhss For Girls, Pullamala, Amaravila	0471-2220913	Neyyattinkara (M)	Neyyattinkara
Govt. Vhss Paraniyam, Poovar. P. O	0471-2261628	Thirupuram	Neyyattinkara
Victory Vhss (Boys) Nemom	0471-2392143	Pallichal	Neyyattinkara
Govt. Vhss Valiyathura, Vallakkadavu. P. O	0471-2502813	Thiruvananthapuram (C)	Thiruvananthapuram
Govt. Vhss For The Deaf, Jagathy, Thycadu . P. O	0471-2324495	Thiruvananthapuram (C)	Thiruvananthapuram
Govt. City Vhss Pmg, Vikasbhavan. P. O	0471-2303397	Thiruvananthapuram (C)	Thiruvananthapuram
Govt. V & Hss Vattiyoorkavu	0471-2360524	Thiruvananthapuram (C)	Thiruvananthapuram
Govt. Vhss (Girls) Manacaud	0471-2570068	Thiruvananthapuram (C)	Thiruvananthapuram
Vhss For Girls Thiruvallam	047-12383275	Thiruvananthapuram (C)	Thiruvananthapuram
Haji.C.H.M.K.M. V.H.S.School, Vallakkadavu	0471-2500042	Thiruvananthapuram (C)	Thiruvananthapuram
Govt Vhss For Girls Pettah, Pettah. P. O	0471-2479791	Thiruvananthapuram (C)	Thiruvananthapuram
Bnv Vhs School, Thiruvallam, Thiruvallam. P. O	0471-2381675	Thiruvananthapuram (C)	Thiruvananthapuram
Govt. Tamil Vhss Chalai, TVPM	0471-2476772	Thiruvananthapuram (C)	Thiruvananthapuram

ANNEXURE 4

ANIMAL HUSBANDRY - LIVESTOCK POPULATION

Year	Cattle	Buffalo	Goat	Pig
2007	148385	2755	188612	1528
2012	104443	3782	164479	3090

$\underline{\textbf{MILK PRODUCTION}} \hspace{0.1cm} (Lakh \hspace{0.1cm} Metric \hspace{0.1cm} Tonnes)$

2005-06	20.63
2006-07	21.18
2007-08	22.48
2008-09	24.51
2009-10	25.37
2011-12	26.43
2012-13	27.16

MEAT PRODUCTION

(Authorised Sector only in Metric Tonnes)

Year	Animal	Poultry
2006-07	60114	16184
2007-08	60193	17390
2008-09	110347	13749
2009-10	102027	15482
2011-12	108400	16153
2012-13	232663	18361

NO. OF CATTLE FARMS: 3 DEPARTMENTAL FARMS

Cattle Strength	No. of Farms
1. Farms with 50-100 cattle	8
2. Farms with 25-50 cattle	40
3. Farms with 10-25 cattle	288
4. Farms with <10cattle	numerous(unorganised)

POULTRY POPULATION

2007	1272291
2012	1007832

ANNEXURE 5

FISHERIES

Equipments

Motorised	Numbers
Thanguvallam	1
Kattamaram	10
Plywood Canoe - Om	3120
Fibre craft – OM	627
Fibre Craft	83
Traditional Canoe - OM	9
Fibre Canoe	59
Plywood Canoe	3589

Non- Motorised	Numbers
Thanguvallam	1
Fibre Craft NM	98
Plywood Canoe - NM	250
Karamodi	53
Kattamaram	350

Age of Vessels	Numbers
Up to 5 years	3669
Up to 6-10 years	2613
Up to 11-15 years	1136
Above 15 years	1078

FISH PRODUCTION IN (M.T)

Year	Marine	Inland
2000 -01	0	1689
2001-02	0	1547
2002-03	0	1514
2003-04	51022	1543
2004-05	50367	1516
2005-06	0	1605
2006-07	0	1614
2007-08	47299	1641
2008-09	47055	1693
2009-10	45930	1954
2010-11	45121	1974
2011-12	44310	2565

ANNEXURE 6

CHEMICAL INDUSTRIES

List of Chemical Industries in Thiruvananthapuram district

Sl.No	MAH Unit
1	BPCL, LPG Bottling Plant, Kazhakkuttom.
2	BPCL, Kochuveli, Thiruvananthapuram.
3	IOC, Kochuveli, Thiruvananthapuram.
4	IOC, LPG Bottiling Plant, Parippally.

Chemical Industrial Hazard Susceptibility Areas

Sl.No	Taluk	Area
1	Chirayinkeezhu	202.478
2	Thiruvenanthapuram	307.613
3	Varkala	181.333
	Total	691.424

ANNEXURE 7

NATURAL HAZARD ZONATION MAP - THIRUVANANTHAPURAM DISTRICT

Taluk	Village	Landslide	Erosion Coastal	Floods	Lightning	Earth Quake (Magnitude)
Varkala	Edava		Laterite clifferosion	Banks of Nadayara kayal, Venkulam	low	
Varkala	Ayirur			Banks of Nadayara kayal, Broad flat bottom valleys (Paddy fields) of Elakamon, Banks of Ayirur river	low	
Varkala	Varkala		Laterite clifferosion	Banks of Parvathiputhanar	low	
Varkala	Chemmaruthi			Banks of Ayirur ar	low	
Varkala	Navaikulam			Banks of Ayirur ar, Broad flat bottom valleys (Paddy fields)	low	
Varkala				of Vettiyara, Kulamada & Navaikulam		
Varkala	Pallikkal			Banks of Ithikkara ar, Broad flat bottom valleys (Paddy fields) Pakalkuri, Vilakadu, Mulabhagam	low	
Varkala	Madavoor			Banks of Madavoor todu, Broad flat bottom valleys (Paddy fields) Anakunnam, Puliyoorkonam, Chathankonam, Thumbode	low	
Chirayinkeezhu	Kilimanoor			Banks of Kilimanoor ar, Broad flat bottom valleys (Paddy fields) Ponganade, Thakaraparambu	low	
Chirayinkeezhu	Pazhyakunnummel			Banks of Kilimanoor ar, Broad flat bottom valleys (Paddy fields) Kilimanoor, Adayamon	high	<3
Chirayinkeezhu	Pulimath			Banks of Vamanapuram ar, Banks of Kilimanoor thodu	low	

Chirayinkeezhu	Koduvazhannur		Banks of Vamanapuram ar & Kilimanoor tode	low	<3
Chirayinkeezhu	Nagarur		Banks of Vamanapuram ar & Kari tode	low	
Chirayinkeezhu	Vellalloor		Banks of Kari tode, Broad flat bottom valleys (Paddy fields) Vellaloor	Low	
Varkala	Karavaram		Broad flat bottom valleys (Paddy fields) Thottakkade, Karavaram	low	
Varkala	Manamboor		Banks of Kozhithottam kayal, Broad flat bottom valleys (Paddy fields) Manamboor, Kavaloor	low	
Varkala	Ottoor		Banks of Kozhithottam kayal, Broad flat bottom valleys (Paddy fields) Ottoor, Vadasserikonam	low	
Varkala	Vettoor - Cherunniyoor	stable	Banks of Kozhithottam kayal, Broad flat bottom valleys (Paddy fields) Cherunniyoor	low	<3
Chirayinkeezhu	Kadakkavoor	low	Banks of Kozhithottam kayal, Broad flat bottom valleys (Paddy fields) Kadakkavoor	low	
Chirayinkeezhu	Sarkara- Chirayinkeezhu	Stable, up to seawall	Banks of Vamanapuram and sarkara ar	low	
Chirayinkeezhu	Keezhattingal		Banks of Vamanapuram ar , Broad flat bottom valleys (Paddy fields) Mananakke	low	
Chirayinkeezhu	Alamcode		Banks of Vamanapuram ar, Broad flat bottom valleys (Paddy fields) Vanchiyoor, Kattupuram	low	
Chirayinkeezhu	Elamba-Mudakkal		Banks of Vamanapuram and Sarkara ar, Broad flat bottom valleys (Paddy fields) Chemboor, Konattu	Low	4.3
Chirayinkeezhu	Edakode		Banks of Sarkara ar, Broad flat bottom valleys (Paddy fields) Porutti	low	
Chirayinkeezhu	Attingal- Avanavancherry		Banks of Vamanapuram ar, Broad flat bottom valleys (Paddy fields) Avanavancheri Gramam	low	3.6
Chirayinkeezhu	Kizhuvalam - Koonthalloor		Banks of Sarkara ar & Mamam ar	low	

Chirayinkeezhu	Azhoor		Banks of Kadinamkulam kayal & Mamam ar	low	
Kattakada	Vilappil		Banks of Karamana arBroad flat bottom valleys (Paddy fields) Vilappilsala	Low	
Kattakada	Vilavoorkal		Banks of Karamana ar, Broad flat bottom valleys (Paddy fields) Koothattukaldesam	low	
Kattakada	Pallichal	Low (Mukunni mala)	Banks of Karamana ar, Broad flat bottom valleys (Paddy fields) Kottoorkonam	Moderate	
Kattakada	Malayinkeezhu		Broad flat bottom valleys (Paddy fields) Vadiyanchilakonam, Edanattukonam	Low	
Kattakada	Kulathummel		Banks of Neyyar,Broad flat bottom valleys (Paddy fields) Amachal, Kulathummel	Low	
Kattakada	Maranallur		Banks of Neyyar, Broad flat bottom valleys (Paddy fields) Maranallur, Pongumoodu, Arumanallur	Low	
Kattakada	Kallikadu		Banks of Neyyar	Low	
Kattakada	Vazhichal	High (forest)		Low	
Kattakada	Amboori	High		High	
Neyyatinkara	Vellarada	Low	Broad flat bottom valleys (Paddy fields) Vellarada	Moderate	
Neyyatinkara	Anavoor	Low	Broad flat bottom valleys (Paddy fields)Kottakkal	Low	
Neyyatinkara	Kunnathukal		Broad flat bottom valleys (Paddy fields)kunnathukal, Banks of Aruvikode tode	Low	
Neyyatinkara	Kollayil		Broad flat bottom valleys (Paddy fields) Amaravila, Nadur kolla	Low	
Neyyatinkara	Parasuvaikal		Broad flat bottom valleys (Paddy fields) Parasuvaikal,Pulloorkonam	Low	
Neyyatinkara	Parasala		Broad flat bottom valleys (Paddy fields) Parasala Inchivil	Low	

Neyyatinkara	Chenkal			Broad flat bottom valleys (Paddy fields) Chenkal, Ariyoor & Banks of Neyyar	Low	
Neyyatinkara	Kanjiramkulam			Banks of Karichal tode	Low	
Neyyatinkara	Karumkulam		Stable	Banks of Karichal tode	Low	
Neyyatinkara	Thirupuram			Banks of Neyyar, Broad flat bottom valleys (Paddy fields) Arumanoor	Low	
Neyyatinkara	Perumpazhuthur			Banks of Neyyar, Broad flat bottom valleys (Paddy fields) Perumpazhuthur, Vadakkod, Manjadithala	Low	
Neyyatinkara	Perumkadavila	Low		Broad flat bottom valleys (Paddy fields) Marayamuttom, Perumkadavila, Munnur	Low	
Neyyatinkara	Neyyattinkara			Banks of Neyyar,& Mathirur tode	Low	
Neyyatinkara	Athiyannoor			Broad flat bottom valleys (Paddy fields) Vennakal, Puthuveed	Low	
Neyyatinkara	Kulathur		Low	Banks of Neyyar, Broad flat bottom valleys (Paddy fields)Kottakakam	Low	
Neyyatinkara	Karode			Broad flat bottom valleys (Paddy fields) Cherumalapazhani, Erichallur, Venkadampe	Low	
Kattakada	Keezharoor			Banks of Neyyar, Broad flat bottom valleys (Paddy fields) Mailachal, Ariyankode	Low	
Kattakada	Ottasekaramangalam			Broad flat bottom valleys (Paddy fields) Ottasekharamangalam, Puzhanadu, Banks of Neyyar	Low	
Neyyatinkara	Vizhinjam		High	Broad flat bottom valleys (Paddy fields) Karimpalli, Vizhinjam	Low	
Neyyatinkara	Kottakkal		High	Banks of Karichal tode		
Thiruvananthapuram	Kizhthonnakkal			Broad flat bottom valleys (Paddy fields) Vengode, Thachapally, Puliveedu	Low	
Thiruvananthapuram	Melthonnakkal			Broad flat bottom valleys (Paddy fields) Kudavoor, Vetampallikonam, Banks of Sarkara ar	Low	

Thiruvananthapuram	Veilur		Banks of Kadinam kulam Kayal, Broad flat bottom valleys (Paddy fields) Murukkumpuzha, Veilur, Korani, Kurakkode	Low	
Thiruvananthapuram	Kadinamkulam	Low	Banks of Kadinamkulam kayal	Low	
Thiruvananthapuram	Pallipuram		Broad flat bottom valleys (Paddy fields) Pallipuram, Kaniyapuram, Banks of Kadinamkulam kayal	Low	
Thiruvananthapuram	Andoorkonam		Broad flat bottom valleys (Paddy fields) Thiruvelloor, Keezhavoor, Andoorkonam	Low	
Thiruvananthapuram	Kazhakutam- Menamkulam	Low	Broad flat bottom valleys (Paddy fields) Kazhakuttam, Menamkulam, Chanthavila	Low	
Thiruvananthapuram	Attipra	Low	Banks of Kulathoor tode, & Akulam Lake	Moderate	
Thiruvananthapuram	Pangapara		Broad flat bottom valleys (Paddy fields) Pangapara, Perur Kariavattom, Venchavode, kariyam	Low	
Thiruvananthapuram	Ayiroorpara		Broad flat bottom valleys (Paddy fields) Sasthavattom, Pattuvilakam	Low	
Thiruvananthapuram	Uliyazhathura		Broad flat bottom valleys (Paddy fields) Uliyazhathura, Aniyoor, Keraladithyapuram	Low	
Thiruvananthapuram	Cheruvikkal		Banks of Akkulam lake & Ulloor tode, Thuruvikkal, Cheruvikkal	Low	
Thiruvananthapuram	Ulloor		Banks of Ulloor tode, Broad flat bottom valleys (Paddy fields) Kariyam	Low	
Thiruvananthapuram	Kadagampally	High	Banks of Ulloor tode & Parvathiputhanar	Low	
Thiruvananthapuram	Pettah	High	Banks of Parvathiputhanar	Low	
Thiruvananthapuram	Pattam		Banks of Ulloor tode	Low	
Thiruvananthapuram	Kudappanakunnu		Broad flat bottom valleys (Paddy fields) Muttada, Pandirapally, Chettivilakam	Low	
Thiruvananthapuram	Kowdiar		Broad flat bottom valleys (Paddy fields) Kuravankonam,	Low	

Thiruvananthapuram			Plamood		
Thiruvananthapuram	Peroorkada		Banks of Killiyar, Broad flat bottom valleys (Paddy fields) Randamada	Low	
Thiruvananthapuram	Vanchiyoor		Banks of Ulloor tode, Broad flat bottom valleys East Fort	Low	
Thiruvananthapuram	Muttathara	Up to Sea wall	Banks of Parvathiputhanar & Karamana ar, Broad flat bottom valleys (Paddy fields) Muttathara	Moderate	
Thiruvananthapuram		High			
Thiruvananthapuram	Manacaud		Banks of Karamana & Killiyar, Broad flat bottom valleys Attakulangara	Low	
Thiruvananthapuram	Thaicaud		Banks of Killiyar, Broad flat bottom valleys Thanpanoor, Chenkalchula, Panavila	Low	
Thiruvananthapuram	Sasthamangalam		Banks of Killiyar, Broad flat bottom valleys (Paddy fields) Jawahar nagar,	Low	
Thiruvananthapuram	Vattiyoorkavu		Banks of Karamana ar, Broad flat bottom valleys (Paddy fields) Anchamada	Low	
Thiruvananthapuram	Thirumala		Banks of Karamana ar, Broad flat bottom valleys (Paddy fields) Poojappura, Chengalloor	Low	
Thiruvananthapuram	Nemam		Banks of Karamana ar & Vellayani Kayal, Broad flat bottom valleys (Paddy fields) Ponnumangalam, Nemam	Moderate	
Thiruvananthapuram	Thiruvallam	Up to Sea wall	Banks of Karamana ar, Broad flat bottom valleys (Paddy fields) Pachalloor	Low	
Thiruvananthapuram	Venganoor		Broad flat bottom valleys (Paddy fields) Vanniyoor, Banks of Vellayani Kayal	Low	
Kattakada	Kalliyoor		Banks of Vellayani kayal, Broad flat bottom valleys (Paddy fields) Kalliyoor, Punnamoode	Moderate	

Kattakada	Veerankavu		Banks of Neyyar, Broad flat bottom valleys (Paddy fields) Ariyakode, Muthiyavila	Moderate	
Kattakada	Perumkulam		Banks of Karamana & Aruvikkara Broad flat bottom valleys (Paddy fields) Perumkulam, Poovachal	Moderate	
Kattakada	Mannurkara	High	Banks of Kottur tode	Low	
Nedumangadu	Aryanad		Banks of Karamna ar, Broad flat bottom valleys (Paddy fields) Mannaram Parandode, Meenanakal	Low	
Kattakada	Vellanad		Broad flat bottom valleys (Paddy fields) vellanadu, Changa, Banks of Karamana & Aruvikkara	Low	
Nedumangadu	Uzhamalakkal		Banks of Karamana & Chittar, Broad flat bottom valleys (Paddy fields) Uzhamalakkal	Low	
Nedumangadu	Aruvikkara	Low	Banks of Karamana, Killi ar & Aruvikkara	Low	
Nedumangadu	Karakulam		Banks of Killi ar	Low	
Nedumangadu	Vattappara		Broad flat bottom valleys (Paddy fields) Maruthoor, Kazhinadu, Vattapara, Kuttiyani	Moderate	
Nedumangadu	Vembayam		Broad flat bottom valleys (Paddy fields) Vettinadu, Nannattukavu, Neduveli	Low	
Nedumangadu	Koliyakode		Banks of Sarkara ar, Broad flat bottom valleys (Paddy fields) Taikkad, Koliyakode, Mathanadu	Low	
Nedumangadu	Nellanadu		Broad flat bottom valleys (Paddy fields) Alanthara, Mudakkal, Banks of Sarkara ar & Vamanapuram	Low	<3
Nedumangadu	Vamanapuram		Banks of Vamanapuram ar, Broad flat bottom valleys (Paddy fields) Kalamachal	Low	3.7
Nedumangadu	Pullampara		Banks of Vamanapuram, Broad flat bottom valleys (Paddy fields) Pullampara, Kuthirakulam, Mithrumala	Low	
Nedumangadu	Kallara		Broad flat bottom valleys (Paddy fields) Kallara	Moderate	

Nedumangadu	Pangode	Low	Broad flat bottom valleys (Paddy fields) Pangode, Bharathannur, Oolankuzhi	Low	<3
Nedumangadu	Peringammala	High	Broad flat bottom valleys (Paddy fields) Peringamala, Manthuruthi Banks of Chittar	Low	
Nedumangadu	Palode		Banks of Vamanapuram ar, Broad flat bottom valleys (Paddy fields) Nanniyode Puliyoor Paluvalli	Moderate	
Nedumangadu	Kurupuzha		Broad flat bottom valleys (Paddy fields) Kurupuzha, Thannimoode, Pacha	Low	
Nedumangadu	Panavoor		Broad flat bottom valleys (Paddy fields) Panavoor, Aattukal	Low	
Nedumangadu	Thekkada		Broad flat bottom valleys (Paddy fields) Vembayam, Puvathur, Munnanamkuzhi	High	<3
Nedumangadu	Manikkal		Banks of Sarkara ar, Broad flat bottom valleys (Paddy fields) Pirappankode, Koppam, Amballoor	Low	
Nedumangadu	Nedumangadu		Banks of Killi ar, Broad flat bottom valleys (Paddy fields) Chellamkode, Irinchayam, Arasuparambu	Moderate	
Nedumangadu	Anad		Banks of Killiyar Broad flat bottom valleys (Paddy fields) Vettampally, Vengavila, Panayam	High	
Nedumangadu	Karipur		Broad flat bottom valleys (Paddy fields) Karippur, Irumaram, Kollamkavu, Banks of Killi ar	Low	
Nedumangadu	Tholikode	Low	Broad flat bottom valleys (Paddy fields) Tholikkode Panakkode, Chayam, Thottumukku	High	
Nedumangadu	Vidhura	High	Broad flat bottom valleys (Paddy fields) Vithura, Pannikuzhi, Maruthmala Banks of Kallar	Low	
Nedumangadu	Thennur	High	Banks of Kallar, Broad flat bottom valleys (Paddy fields) Thennur, Daivapuram	Low	

ANNEXURE 8

ESTIMATE OF HOUSE DAMAGE

Date	No. of Ho	ouse Damaged	Estimated damaged		Name of affected villages		Crop affected	
	Fully	Parti	Fully	Partially		Rainfall	Area (Hectare)	Estimated value (Lakhs)
1/5/2014	83	370	8300000	9250000	23	137	0	0
2/5/2014	0	6	0	150000	2	51.2	0	0
3/5/2014	0	19	0	475000	3	129.3	0	0
5/5/2014	0	19	0	475000	9	119.1	0	0
6/5/2014	0	30	0	750000	11	130.8	0	0
7/5/2014	0	33	0	825000	15	441.8	0	0
8/5/2014	3	54	300000	1350000	10	262.4	0	0
9/5/2014	2	59	200000	1475000	17	197.5	0	0
10/5/2014	0	1	0	0	0	40.7	0	0

11/5/2014	0	0	0	0	0	0	0	0
12/5/2014	0	0	0	0	0	0	0	0
13-05-14	0	0	0	0	0	0	0	0
14-05-14	0	0	0	0	0	0	0	0
18-05-14	0	0	0	0	0	0	0	0
19-05-14	0	0	0	25000	0	0	0	0
11/5/2014	0	0	0	0	0	0	0	0
12/5/2014	0	0	0	0	0	0	0	0
14-05-14	0	0	0	0	0	0	0	0
18-05-14	0	0	0	0	0	0	0	0
1/5/2014	0	0	0	0	0	0	0	0
29-04-14								
-18								

During the last 24 hrs

	No of House Damaged		Estimated value of houses	<u> </u>	Name of affected villages Cro		Crop affecte	ed
Date	Fully	Parti	Fully	Partially		Rainfall	Area (Hectare)	Estimated value
							(Hectare)	(Lakhs)
6/4/2014	0	0	0	0	0	0	0	0
11/4/2014	0	0	0	0	0	0	0	0
13-04-14	0	0	0	0	0	0	0	0
17-04-14	0	0	0	0	0	0	0	0
21-04-14	0	0	0	0	0	0	0	0
22-04-14	0	0	0	0	0	0	0	0

24-04-14	0	0	0	0	0	0	0	0
26-04-14	10	232	1000000	5800000	36	42.3	184.695	4.6E+07
27-04-14	0	0	0	0	0	0	128.56	4.6E+07
28-04-14	1	193	100000	4825000	5	116.2	128.56	4.6E+07
29-04-14	23	159	2300000	3975000	8	0	0	0
14-03-14	0	0	0	0	0	0	0	0
10/3/2014	0	0	0	0	0	0	0	0
9/3/2014	0	0	0	0	0	0	0	0
29-02-14	0	0	0	0	0	0	0	0
28-02-14	0	0	0	0	0	0	0	0
13-02-14	0	0	0	0	0	0	0	0
9/2/2014	0	0	0	0	0	0	0	0
26-01-14	0	0	0	0	0	0	0	0
25-01-14	0	0	0	0	0	0	0	0
19-01-14	0	0	0	0	0	0	0	0
13-01-14	0	0	0	0	0	0	0	0
10/1/2014	0	0	0	0	0	0	0	0
11/1/2014	0	0	0	0	0	0	0	0

During the last 24 hrs

	No of House Damaged		Estimated value of houses	Estimated value of damaged houses			Crop affecte	ed
Date	Fully	Parti	Fully	Partially		Rainfall	Area (Hectare)	Estimated value (Lakhs)
2/12/2013	0	0	0	0	0	0	0	0
5/12/2013	0	0	0	0	0	5.6	0	0
6/12/2013	0	0	0	0	0	5.6	0	0
5/12/2013								

7/12/2013	0	0	0	0	0	5.6	0	0
9/12/2013	0	0	0	0	0	0	0	0
#######	0	0	0	0	0	0	0	0
#######	1	2	100000	50000	2	0	0	0
#######	0	0	0	0	0	0	0	0
13-12-13	0	0	0	0	0	0	0	0
14-12-13	0	0	0	0	0	0	0	0
15-12-13	0	0	0	0	0	0	0	0
16-12-13	0	0	0	0	0	0	0	0
17-12-13	0	3	0	75000	3	0	0	0
23-12-13	0	0	0	0	0	0	0	0
25-12-13	0	0	0	0	0	0	0	0
28-12-13	0	0	0	0	0	0	0	0
29-12-13	0	0	0	0	0	0	0	0

26-12-13

	No of House Damaged		Estimated value of houses	Damaged	Name of affected villages		Crop affected		
Date	Fully	Parti	Fully	Partially		Rainfall	Area (Hectare)	Estimated value (Lakhs)	
1/11/2013	0	0	0	0	0	31.1	0	0	
2/11/2013	0	0	0	0	0	2.5	0	0	
3/11/2013	0	0	0	0	0	19.9	0	0	
5/11/2013	0	0	0	0	0	8.8	0	0	
7/11/2013	0	0	0	0	0	0	0	0	
8/11/2013	0	0	0	0	2	0	0	0	
9/11/2013	0	0	0	0	2	0	0	0	

10/11/2013	0	0	0	0	0	0	0	0
11/11/2013	0	5	0	125000	0	0	0	0
12/11/2013	0	0	0	0	0	0	0	0
13-11-13	0	0	0	0	0	404.1	0	0
14-11-13	1	0	100000	0	0	0	0	0
16-11-13	0	6	0	150000	0	0	0	0
18-11-13	0	18	0	450000	0	0	0	0
19-11-13	0	3	0	75000	2	0	0	0
21-11-13	0	0	0	0	0	0	0	0
22-11-13	0	0	0	0	0	0	0	0
23-11-13	0	0	0	0	0	29.2	0	0
24-11-13	0	0	0	0	0	0	0	0
25-11-13	0	3	0	75000	0	0	0	0
26-11-13	0	17	0	425000	0	216.7	0	0
27-11-13	0	6	0	150000	2	0	0	0
30-11-13	0	0	0	0	0	0	0	0

During the last 24 hrs

	No of House Damaged		Estimated value house		Name of affected villages	Cron affected		ed
Date	Fully	Parti	Fully	Partially		Rainfall	Area (Hectare)	Estimated value
								(Lakhs)
2/10/2013	0	0	0	0	0	0	0	0
5/10/2013	0	0	0	0	0	32.6	0	0
#######	0	0	0	0	0	31.8	0	0
#######	0	0	0	0	0	31.8	0	0
13-10-13	0	0	0	0	0	12.8	0	0

15-10-13	0	0	0	0	0	0	0	0
17-10-13	0	0	0	0	0	155.1	0	0
19-10-13	0	0	0	0	0	81.2	0	0
20-10-13	0	0	0	0	0	0	0	0
21-10-13	0	2	0	50000	1	30.9	0	0
22-10-13	0	10	0	250000	4	86.7	0	0
23-10-13	0	8	0	200000	2	0	0	0
26-10-13	0	0	0	0	0	0	0	0
28-10-13	0	0	0	0	0	0	0	0
31-10-13	0	0	0	0	0	0	0	0
2/9/2013	0	0	0	0	0	0	0	0
3/9/2013	0	0	0	0	0	52.2	0	0
4/9/2013	0	0	0	0	0	55.2	0	0
5/9/2013	0	8	0	200000	2	60.4	0	0
6/9/2013	0	8		200000	2	317.8	0	0
9/9/2013	0	0	0	0	0	0	0	0

During the last 24 hrs

No of House Damaged		e Damaged	Estimated value of Damaged houses		Name of affected villages	Crop affected		ed
Date	Fully	Parti	Fully Partially			Rainfall	Area (Hectare)	Estimated value (Lakhs)
9/9/2013	0	0	0	0	0	0	0	0
10/9/2013	0	0	0	0	0	100.88	0	0
11/9/2013	0	0	0	0	0	12.4	0	0
13-09-13	0	0	0	0	0	37.6	0	0

15-09-13	0	40	0	1000000	13	50.2	0	0
16-09-13	0	0	0	0	0	0	0	0
17-09-13	0	0	0	0	0	0	0	0
18-09-13	0	0	0	0	0	0	0	0
19-09-13	0	13	0	325000	4	29.4	0	0
20-09-13	0	0	0	0	0	0	0	0
22-09-13	0	0	0	0	0	0	0	0
2/8/2013	0	18	0	450000	0	0	0	0
3/8/2013	0	12	0	300000	3	0	0	0
4/8/2013	0	6	0	150000	2	24.2	0	0
5/8/2013	0	60	0	1750000		287.2	0	0
7/8/2013	0	0	0	0	0	0	0	0
10/8/2013	0	0	0	0	0	0	0	0
11/8/2013	0	0	0	0	0	0	0	0
12/8/2013	0	30	0	750000	6	0	0	0
13-08-13	0	9	0	225000	3	0	0	0
14-08-13	0	22	0	550000	4	0	0	0
15-08-13	0	0	0	0	0	0	0	0
16-08-13	0	14	0	350000	0	0	0	0
17-08-13	0	33	0	825000	5	0	0	0
18-08-13	0	0	0	0	0	0	0	0
20-08-13	0	0	0	0	0	0	0	0
21-08-13	0	9	0	225000	0	3.2	0	0
22-08-13	0	0	0	0	0	0	0	0
24-08-13	0	0	0	0	0	0	0	0
25-08-13	0	0	0	0	0	0	0	0
26-08-13	0	10	0	250000	0	0	0	0

30-08-13	0	0	0	0	0	0	0	0
31-08-13	0	0	0	0	0	0	0	0
2/7/2013	0	0	0	0	0	4	0	0
3/7/2013	0	27	0	675000	9	62.3	0	0
4/7/2013	0	12	0	300000	0	0	0	0
5/7/2013	0	0	0	0	0	0	0	0
6/7/2013	0	0	0	0	0	0	0	0
7/7/2013	0	0	0	0	0	0	0	0
8/7/2013	0	0	0	0	0	0	0	0
9/7/2013	0	28	0	700000	0	120.8	0	0
11/7/2013	0	17	0	425000	8	134.8	0	0
12/7/2013	0	36	0	900000	0	0	0	0
13-07-13	0	0	0	0	0	0	0	0
14-07-13	0	0	0	0	0	0	0	0
16-07-13	0	0	0	0	0	0	0	0
17-07-13	0	0	0	0	0	0	0	0

26-12-13

No of House		use Damaged Estimated value of Damaged houses			Name of affected villages	Crop affected		ed
Date	Fully	Partially	Fully	Partially		Rainfall	Area (Hectare)	Estimated value (Lakhs)
18-07-13	0	0	0	0	0	19.9	0	0
19-07-13	0	0	0	0	0	19.9	0	0
21-07-13	0	23	0	575000	20	55.6	0	0
22-07-13	0	0	0	0	0	0	0	0

23-07-13	0	0	0	0	0	0	0	0
24-07-13	0	25	0	625000	9	78.4	0	0
25-07-13	0	40	0	1000000	6	110.8	0	0
26-07-13	0	23	0	575000	4	20.7	0	0
27-07-13	0	10	0	250000	2	54.4	0	0
30-07-13	0	30	0	750000	23	0	0	0
31-07-13	0	19	0	475000	4	0	0	0
2/6/2013	1	12	100000	350000	0	214.5	0	0
3/6/2013	0	0	0	0	0	0	0	0
4/6/2013	1	8	100000	280000	0	57	0	0
5/6/2013	0	0	0	0	0	0	0	0
7/6/2013	0	0	0	0	0	0	0	0
9/6/2013	0	0	0	0	0	0	0	0
10/6/2013	0	6	0	150000	6	8.9	0	0
11/6/2013	1	13	100000	325000	3	0	0	0
12/6/2013	0	25	0	875000	9	0	0	0
13-06-13	0	61	0	2135000	8	0	0	0
14-06-13	0	19	0	350000	7	36.6	0	0
15-06-13	0	4	0	100000	0	16.3	0	0
16-06-13	4	9	400000	225000	5	12.2	0	0
17-06-13	0	36	0	900000	4	161.6	0	0
18-06-13	1	22	100000	550000	8	125.9	0	0
19-06-13	0	18	0	450000	8	55.9	0	0
20-06-13	0	27	0	675000	10	55.9	0	0
21 -06-13	1	10	100000	250000	7	22.6	0	0
22 -06-13	2	35	200000	875000	12 (3-Death)	114	0	0

23-06-13	0	40	0	450000	1(1 Death)	120	0	0
24-06-13	147	940	1470000	32900000	12	104.9	0	0
25-06-13	1	65	100000	1625000	9	17.6	0	0
26-06-13	0	8	0	200000	3	74.3	0	0
27-06-13	0	0	0	0	0	0	0	0
28-06-13	0	0	0	0	0	0	0	0
29-06-13	0	0	0	0	0	0	0	0
30-06-13	0	0	0	0	0	0	0	0
06/24-04-13	0	0	0	0	0	0	0	0
26-04-13	10	232	1000000	5800000	36	42.3	184.695	4.6E+07
27-04-13	0	0	0	0	3	0	128.56	4.6E+07
28-04-13	1	193	100000	4825000	2	116.2	128.56	4.6E+07
29-04-13	23	159	2300000	3975000	8	0	0	0

ANNEXURE 9

CONTACT DETAILS OF PRIS

Sl. No.	Name of Panchayathu (in Trivandrum District)	Contact numbers	Address
1	Parassala Grama Panchayat	Office Phone: 0471-2202033	Parassala P.O., Thiruvananthapuram – 695502
2	Karode Grama Panchayat	Office Phone: 0471-2215067	Karode P.O, Thiruvananthapuram-695506
3	Kulathur Grama Panchayat	Office Phone: 0471-2210089	Uchakada P.O., Thiruvananthapuram-695506
4	Chenkal Grama Panchayat	Office Phone: 0471-2232260	Udiyankulangara, Amaravila P.O., Thiruvananthapuram – 695122
5	Thirupuram Grama Panchayat	Office Phone: 0471-2260738	Thirupuram P.O., Pazhayakada, Thiruvananthapuram- 695133
6	Poovar Grama Panchayat	Office Phone: 0471-2210032	Poovar P.O., Thiruvananthapuram 695525
7	Vellarada Grama Panchayat	Office Phone: 0471-2242042	Panachamood P.O., Thiruvananthapuram – 695505
8	Kunnathukal Grama Panchayat	Office Phone: 0471-2250235	Karakkonam P.O, Thiruvananthapuram – 695504
9	Kollayil Grama Panchayat	Office Phone: 0471-2232383	Dhanuvachapuram P.O, Neyyattinkara, Thiruvananthapuram- 695503
10	Perumkadavila Grama Panchayat	Office Phone: 0471-2275258	Perumkadavila P.O, Thiruvananthapuram – 695124
11	Aryancode Grama Panchayat	Office Phone: 0471-2255226	Ottasekharamangalam P.O., Thiruvananthapuram- 695125
12	Ottasekharamangalam Grama Panchayat	Office Phone: 0471-2255238	Ottasekharamangalam P.O, Thiruvananthapuram – 695125
13	Kallikkad Grama Panchayat	Office Phone: 0471-2272339	Neyyardam P.O, Thiruvananthapuram – 695572
14	Amboori Grama Panchayat	Office Phone: 0471-2245242	Amboori P.O, Thiruvananthapuram – 695505
15	Athiyannoor Grama Panchayat	Office Phone: 0471-2222367	Kamukinkode, Kodangavila P.O, Thiruvananthapuram – 695123
16	Kanjiramkulam Grama Panchayat	Office Phone: 0471-2260031	Kanjiramkulam P.O, Thiruvananthapuram - 695 524

17	Karumkulam Grama	Office Phone:	Puthiyathura P.O,
1,	Panchayat	0471-2210042	Thiruvananthapuram – 695526
18	Kottukal Grama Panchayat	Office Phone:	Kottukal P.O, Thiruvananthapuram –
10	1xottukui Giuma i anemayat	0471-2268236	695501
19	Venganoor Grama	Office Phone:	Venganoor P.O, Thiruvananthapuram
1)	Panchayat	0471-2480256	- 695523
20	Maranalloor Grama	Office Phone:	Pongummoodu, Koovalassery P.O,
	Panchayat	0471-2298354	Thiruvananthapuram – 695512
21	Balaramapuram Grama	Office Phone:	Balaramapuram P.O,
21	Panchayat	0471-200342	Thiruvananthapuram – 695501
22	Pallichal Grama Panchayat	Office Phone:	Vedivechancoil P.O,
	·	0471-2400368	Thiruvananthapuram – 695501
23	Malayinkeezh Grama	Office Phone:	Malayinkeezh P.O,
23	Panchayat	0471-2282021	Thiruvananthapuram- 695571
24	Vilappil Grama Panchayat	Office Phone:	Peyad P.O, Thiruvananthapuram –
		0471-2289127	695573
25	Vilavoorkal Grama	Office Phone:	Malayinkeezh P.O,
	Panchayat	0471-2282055	Thiruvananthapuram - 695 571
26	Kalliyoor Grama Panchayat	Office Phone:	Kalliyoor P.O, Thiruvananthapuram
	Tamiyoor Grana ranchayar	0471-2400258	- 695042
27	Pothencode Grama	Office Phone:	Pothencode P.O,
	Panchayat	0471-2419238	Thiruvananthapuram – 695584
28	Mangalapuram Grama	Office Phone:	Thonnakkal P.O,
	Panchayat	0471-2420261	Thiruvananthapuram – 695333
29	Andoorkonam Grama	Office Phone:	Kaniyapuram P.O,
	Panchayat	0471-2750251	Thiruvananthapuram – 695301
30	Kadinamkulam Grama	Office Phone:	Chittattumukku P.O,
	Panchayat	0471-2750249	Thiruvananthapuram – 695588
31	Kattakkada Grama	Office Phone:	Kattakkada P.O, Thiruvananthapuram
	Panchayat	0471-2290337	- 695572
32	Vellanad Grama Panchayat	Office Phone:	Vellanad P.O, Thiruvananthapuram –
	•	0472-2882034	695543
33	Poovachal Grama	Office Phone:	Poovachal P.O, Thiruvananthapuram
	Panchayat	0472-2896338	- 695575
34	Aryanad Grama Panchayat	Office Phone:	Aryanad P.O, Thiruvananthapuram –
	J	0472-2852029	695542
35	Vithura Grama Panchayat	Office Phone:	Vithura P.O., Nedumangad,
		0472-2856221	Thiruvananthapuram – 695551
36	Kuttichal Grama Panchayat	Office Phone:	Kuttichal P.O, Thiruvananthapuram –
		0472-2852024	695574

27	Uzhamalakkal Grama	Office Phone:	Paruthikuzhy P.O., Nedumangad,
37	Panchayat	0472-2899026	Thiruvananthapuram – 695541
38	Tholianda Grama Danahayat	Office Phone:	Tholicode P.O., Nedumangad,
36	Tholicode Grama Panchayat	0472-2879374	Thiruvananthapuram – 695541
39	Karakulam Grama	Office Phone:	Karakuam P.O, Thiruvananthapuram
39	Panchayat	0471-2372046	- 695564
40	Aruvikkara Grama	Office Phone:	Aruvikkara P.O, Thiruvananthapuram
40	Panchayat	0472-2888225	- 695564
41	Vembayam Grama	Office Phone:	Konchira P.O, Thiruvananthapuram –
71	Panchayat	0472-2832025	695615
42	Anad Grama Panchayat	Office Phone:	Anad P.O., Nedumangad,
72	Aniad Grama Fanchayat	0472-2802375	Thiruvananthapuram – 695544
43	Panavoor Grama Panchayat	Office Phone:	Panavoor P.O., Nedumangad,
73	Tanavoor Grama Lanchayat	0472-2865761	Thiruvananthapuram – 695568
44	Vamanapuram Grama	Office Phone:	Vamanapuram P.O,
7-7	Panchayat	0472-2835034	Thiruvananthapuram – 695606
45	Manickal Grama Panchayat	Office Phone:	Pirappancode P.O,
43	iviamekai Grama ranchayat	0472-2582046	Thiruvananthapuram – 695607
46	Nellanad Grama Panchayat	Office Phone:	Venjaramoodu P.O,
70	Trenanad Grama Fanchayat	0472-2872031	Thiruvananthapuram – 695607
47	Pullampara Grama	Office Phone:	Pullampara P.O., Venjaramood (Via),
7/	Panchayat	0472- 2829061	Thiruvananthapuram – 695607
48	Nanniyode Grama	Office Phone:	Pacha P.O., Nedumangad,
	Panchayat	0472-2840224	Thiruvananthapuram – 695562
49	Peringammala Grama	Office Phone:	Peringanmala P.O., Nedumangad,
77	Panchayat	0472-2845532	Thiruvananthapuram – 695563
50	Kallara Grama Panchayat	Office Phone:	Kallara P.O, Thiruvananthapuram –
50	Tanara Grama ranchayat	0472-2860240	695608
51	Pangode Grama Panchayat	Office Phone:	Pangode P.O, Thiruvananthapuram –
<i>31</i>	Tungode Grama Tunenayat	0472-2869241	695609
52	Pulimath Grama Panchayat	Office Phone:	Karette, Vamanapuram P.O,
32	T difficulti Grama T anonayat	0470-2836252	Thiruvananthapuram – 695606
53	Karavaram Grama	Office Phone:	Karavaram P.O, Thiruvananthapuram
	Panchayat	0470-2692042	- 695605
54	Nagaroor Grama Panchayat	Office Phone:	Nagaroor P.O, Thiruvananthapuram –
		0470-2672242	695618
55	Pazhayakunnummel Grama	Office Phone:	Kilimanoor P.O,
	Panchayat	0470-2672335	Thiruvananthapuram – 695601
56	Kilimanoor Grama	Office Phone:	Kilimanoor P.O,
	Panchayat	0470-2672222	Thiruvananthapuram – 695601

<i>57</i>	Navaikulam Grama	Office Phone:	Navaikulam P.O,
57	Panchayat	0470-2692022	Thiruvananthapuram – 695603
58	Madayaan Chama Dan ahayat	Office Phone:	Madavoor, Pallickal P.O,
38	Madavoor Grama Panchayat	0470-2682022	Thiruvananthapuram – 695602
59	Dollielsel Crome Doneboust	Office Phone:	Pallickal, Kilimanoor P.O,
39	Pallickal Grama Panchayat	0470-2682049	Thiruvananthapuram – 695604
60	Azhoor Grama Panchayat	Office Phone:	Perunguzhy P.O,
00	Azhoof Grama Panchayat	0470-2836252	Thiruvananthapuram – 695305
61	Chirayinkeezh Grama	Office Phone:	Chirayinkeezh P.O,
01	Panchayat	0470-2640334	Thiruvananthapuram – 695304
62	Kadakkavoor Grama	Office Phone:	Kadakkavoor P.O,
02	Panchayat	0470-2656632	Thiruvananthapuram – 695306
63	Valskom Grama Danahavat	Office Phone:	Vakkom P.O, Thiruvananthapuram –
03	Vakkom Grama Panchayat	0470-2653637	695308
64	Anjuthengu Grama	Office Phone:	Anjuthengu P.O,
04	Panchayat	0470-2656652	Thiruvananthapuram – 695309
65	Kizhuvilam Grama	Office Phone:	Mudapuram P.O,
03	Panchayat	0470-2640342	Thiruvananthapuram – 695314
66	Mudakkal Grama Panchayat	Office Phone:	Mudakkal P.O, Avanavanchery (Via),
	Widdakkai Orama I anchayat	0470- 2639055	Thiruvananthapuram – 695103
67	Vettoor Grama Panchayat	Office Phone:	Mel Vettoor P.O,
07	vettoor Grama ranchayat	0470-2602380	Thiruvananthapuram – 695312
68	Cherunniyoor Grama	Office Phone:	Cherunniyoor P.O,
	Panchayat	0470- 2602365	Thiruvananthapuram – 695142
69	Edava Grama Panchayat	Office Phone:	Edava P.O, Thiruvananthapuram –
07	Baava Grama r anchayar	0470-2660083	695311
70	Ilakamon Grama Panchayat	Office Phone:	Ayiroor P.O., Varkala,
	Transaction Grana Fancia y at	0470-2667611	Thiruvananthapuram – 695310
71	Chemmaruthy Grama	Office Phone:	Panayara P.O., Sreenivasapuram,
, 1	Panchayat	0470- 2602377	Thiruvananthapuram – 695145
72	Manampore Grama	Office Phone:	Kavalayoor P.O,
, 2	Panchayat	0470- 2689044	Thiruvananthapuram – 695144
73	Ottoor Grama Panchayat	Office Phone:	Ottoor, Manampore P.O,
, 5	Olloor Orallia I anoliayar	0470- 2689061	Thiruvananthapuram – 695611

ANNEXURE 10

RAILWAY DETAILS

Station	Station Code	Dailway	BS	SNL
Station	Station Code	Railway	STD Code	Number
Nemom	NEM	82282	0471	2393600
Neyyattinkara	NYY	82271	0471	2222341
Ochira	OCR	89399	0476	2690264
Ollur	OLR	86267	0487	2352325
Parassala	PASA	82272	0471	2205133
Paravur	PVU	89393	0474	2512221
Perinad	PRND	89396	0474	2552621
Piravam Road	PVRD	85639	04829	257138
Pudukkad	PUK	86268	0480	2751320
Punkunnam	PNQ	86264	0487	2336478
Quilon	QLN	89382	0474	2746194
Sasthankotta	STKT	89397	0476	2830240
Sengulam	SGLM	81253	0462	2484141
Shertalai	SRTL	85644	0478	2812500
Shornur	SRR	69182	04926	222422
Tirunelveli	TEN	74747	0462	2336184
Tiruvalla	TRVL	88252	0469	2601314
Trichur	TCR	86265	0487	2424148
Tripunithura	TRTR	85637	0484	2777375
Trivandrum Central	TVC	83629	0471	2323066
Trivandrum Pettah (CNC)	TVP	82193	0471	2470181
Trivandrum Divisional				2325750
Office	TVC		0471	2325791
				2325819
Turavur	TUVR	85643	0478	2562320
Vaikkam Road	VARD	88255	04829	283556
Vallathol Nagar	VTK	86261	04884	262485
Valliyur	VLY		04637	220209
Varkala	VAK	89392	0470	2602222
Wadakkancheri	WKI	86262	04884	232238

ANNEXURE 11

HEALTH CARE FACILITIES

Taluk	CHC/PHC area	Sl.No.	Name of Private institution	No. of doctors	Telephone No.
	CHC Vellanad	1	Sanjeevani Hospital	2	0472-2882955
	PHC Kuttichal		Nil	Nil	Nil
		2	PNM Kattakada	4	2290252
		3	Salvation Army, Kulathummel	3	2290485
	PHC Kattakada(NEW)	4	Sanjose Hospital, Killy	1	2290435
Nedumangadu		5	Mamal Hospital, Kattakada	11	2294544
Neuumangauu		6	Vincenza Clinic, Thoongampara	1	2291452
	PHC Uzhamalakkal		Nil	Nil	Nil
		7	Mohan Clinic Mulamood	1	2896469
	Kallikad (old)	8	Matha Hospital	1	2896469
	Veeranakavu	9	Priya Nursing Home	1	2896642
		10	S.K,Hospital	2	0471-229110
		11	Brothers Hospital, Kochupally	1	2259095, 9446967300
		12	SR Hospital, Chany	2	
	CHC Pulluvila	13	St.Joseph Hospital, Kochupally	1	9747101388
Novyvottinkovo		14	Sharon Hospital Puthiyathura	1	9539462260
Neyyattinkara		15	Matha Hospital Puthiyathura	1	9447101388
		16	Anupama Hospital Kanjiramkulam	4	
	PHC Kanjiramkulam	17	Metro Hospital Kanjiramkulam	3	
		18	Dr.Selvaraj Hospital Kanjiramkulam	1	

		19	CSI Hospital Mission Hospital Nellikkakuzhy	5	0471-2260071
	CHCH 1.1	20	K.V Hospital, Avanakuzhy	2	0471-2400361
NT	CHC Venpakal	21	Avinash hospital Nellimoodu	1	0471-2316296
Neyyattinkara	PHC Kottukal	22	Mariya Nilayam	1	
	PHC Kollukai	23	Sinhuja hospital	2	0471-2267756
		25	Parvathi Hospital,	4	0471-2400044,
	PHC Pallichal	23	Balaramapuram,Pallichal	4	9447064300
	1 TIC 1 amenai	26	Medical trust	3	0471-2399900,
		20	hospital,Balaramapuram,Pallichal	3	9495828465
Neyyattinkara	PHC Kalliyoor	27	Chithra Hospital, Pravachambalam,	3	0471-2390586,
	THE Rumyoor		Pallichal	3	9495990586
	PHC Balaramapuram	28	Revathy Hospital	1	
		29	Sneha Hospital	1	
		30	A.K Hospital	1	
	CHC Vilappil	24	Kripa clinic	1	0471- 2289184
	PHC Maranalloor		Nil	Nil	Nil
Kattakkada	PHC Malayinkeezhu		Nil	Nil	Nil
Kattakkaua	PHC Vilavoorkkal		Nil	Nil	Nil
	PHC Amboori		Nil	Nil	Nil
	PHC Kallikkad		Nil	Nil	Nil
Neyyattinkara	CHC Perumkadavila	31	J.J. Hospital, Marayamuttom	1	2278833
	CITC I Ciulikadavila	32	HI care Hospital, Marayamuttom	1	
	PHC Poozhanad		Nil	Nil	Nil
	PHC Chemboor		Nil	Nil	Nil
	PHC Kollayil	33	TRINITY Hospital, Amaravila	1	Nil

		34	V.G.Hospital, Manchavilakom	1	Nil
		35	Dr.S.M.C.S.I Karakonam Medical College & Hospital	220	0471-2250233
Neyyattinkara	CHC Vellarada	36	Rukmini Memorial Devi Hospital, Ponnambi, Vellarada	16	0471-2242027
		37	Good Samarthin Hospital, Amboori	2	0471-2245260
	PHC Kunnathukal		Nil	Nil	Nil
		38	Rohini Hospital, Tholicode	1	0472-2879970
	CHC Vithura	39	Amrutha Clinic, VinobhanikethanP.O.	1	0472-2891237
Nedumangadu	CHC Aryanad		Nil	Nil	Nil
	PHC Peringamala	40	Fathimas Hospital, Thennoor	1	
	FIIC Ferniganiaia	41	S.M.Hospital Kollayil	1	0474-2442544
	PHC Malayadi		Nil	Nil	Nil
	CHC Poovar	42	Anithara Hospital Poovar	1	
	PHC Chenkal		Nil	Nil	Nil
	PHC Kulathur		Nil	Nil	Nil
	PHC Paraniyam	43	Pallavi Hospital, Thirupuram	1	0471-2260153
Neyyattinkara		44	Joseph Nadar Memmorial Hospital, Virali	2	
	PHC Pozhiyoor	45	Thiraviyam Hospital, Uchakada	1	0471-2210669
		46	RHTC Pozhiyoor,Subcentre of SM CSI Medical College Karakonam	1	0471-2214100
	CHC Anchuthengu	47	Manoj Clinic	1	No
Chirayinkeezhu	Cric Anchumengu	48	Swamiji Hosp	2	No
	PHC Perumathura		Nil	Nil	Nil

	DUC Voorbottingel	49	Kadakavu Mission Hospital	1	No
	PHC Keezhattingal	50	Janata Hospital, Kadavoor	1	0470-2659306
	PHC Azhoor	51	Samban Hospital, Peumkuzhee	1	No
	FIIC AZIIOOI	52	Simi Hospital, Near Mosque	1	No
	CHC Kesavapuram	53	K.M. C.Hospital, Karettee	2	
	CITC Kesavapurani	54	Devi Clinic, Karette	1	0470-2836576
	PHC Pulimath				
	PHC Karavaram				
Chirayinkeezhu	PHC Kilimanoor	55	Sajan Clinic, Ponganadu, Dr.Stanley Joseph	1	0470-2652053
	THE Killinghoof	56	K.V.Clinic, Ponganadu, Dr.Vijaya Chandran Nair	1	0470-2652359
	PHCMadavoor	57	SM Hospital, Madavoor	1	0470-2684263
	1 Helviada vooi	58	Star Hospital, Madavoor	1	2685252
	CHC Pallikkal	59	A.M.Hospital, Pallickkal	1	
	CIIC I anikkai	60	R.C.Hospital, Pallickal	1	
		61	AV Clinic 28th mile Navaikulam	1	
Varkala	PHC Navaikulam	62	Malik Hospital, Kulamada,Navaikulam	1	0474-2572077
	T TIC INAVAIKUIAIII	63	Sneha Hospital, Kallambalam	2	0470-2692929
		64	Khans Memorial Hospital, Kallambalam	2	0470-2692267
Chirayinkeezhu	PHC Adayamon	65	Sarala Memorial Hospital, Kilimanoor	6	2672355 2674011
	PHC Adayamon —	66	Saji Hospital, Kilimanoor	1	989580733 0470- 2672070

		67	Suchithra Medical Centre, Kilimanoor	2	8547472633 0470- 2672633
		68	Santhwananm Health care Centre, Kallara	1	0472-3041234
	CHC V-II	69	Nisha Hospital, Kallara	2	0472-2860228
Nedumangadu	CHC Kallara	70	ASHA Hospital, Kallara	2	
		71	Sree Gokulam Rural Health Centre, Kallara	2	0472-283100
	PHC Bharathannoor		Nil	Nil	Nil
	CHC Kanyakulangara		Nil	Nil	Nil
		72	St.Winsent Hospital	1	
	PHC Anad	73	Royal clinic Hospital	1	
		74	V.J. Hospital Vattapara	2	2585497
		75	Mission Hospital, Vattapara	1	2585941
Nedumangadu	PHC Aruvikkara		Nil	Nil	Nil
ricaamangaaa	PHC Karakulam		Nil	Nil	Nil
	PHC Panavoor	76	P.R.Poly clinic	1	0472-2865545
		77	S.N.A Clinic, Pothencode	1	
	PHC Vembayam	78	Mission Hospital, Pothencode	2	
	THE Vemoayam	79	P.M.S.Dental College, Vencode, Vattappara	25	
	CHC Manamboor	80	KTCT Hiospital	20	0470-2622859
	PHC Ottoor		Nil	Nil	Nil
Varkala		81	SLAVYA Life	2	0
	PHC Chemmaruthy	82	MVM hospital	1	0
		83	Anupama	1	

	DITC CI	84	V.R.Hospital	1	2607877
	PHC Cherunniyoor	85	S.R.Super specilaity Hospital	25	2611126
	PHC Vettoor	86	OASIS Child care Hospital	2	0470-2608881
	PHC Edava	87	ANSAR Hospital	1	266057
	FIC Euava	88	S.B. Hospital	1	2661644
Chirayinkeezhu	PHC Thonippara		Nil	0	0
		89	Suja Hospital	1	
	CHC Puthenthope	90	AJ Hospital	15	2418452
		91	CSI Hospital	29	2416998
		92	Chirakkakom Clinical service	2	
	PHC Andoorkonam	93	Cemans de-adition Centre	1	
		94	Kaniyapuram Hospital	7	0471-2754211
	PHC Magalapuram	95	Gayathri Clinic, Murukumpuzha Jn.	2	0471-2420378
	PHC Puthukurichy	96	Sai Clinic Puthukurichy	1	0471-428566
		97	Shifa Clinic Puthukurichy	1	0471-2428661
Thiruvananthapuram	FIIC Fullukurichy	98	Shilajith Poly Clinic Chittattumukku	2	2.80E+07
		99	Fathima Hospital, Thumba	2	2706323
		100	Paliative Clinic, Plamoodu	3	8.60E+09
		101	SR Hospital Pothencode	1	419425/9496975152
		102	Sushrutha Medical Centre	2	9446173737
	PHC Thonnakkal	102	Sustitutiia Medicai Centre	2	9495989937
	THE HIGHHARKAI	103	Medical Mission Hospital, Vengode	1	
		104	Karuniya Hospital, Pothencode	3	0471/2410045
		105	Life care Mission Clinic,	1	
		103	Vavarambalam	1	
Chirayinkeezhu	RHC Vakkom	106	R.V.Hospital Chirayinkeezh	2	0470 – 2640232

	PHC Kizhuvilam		Nil		0
	PHC Mudakkal		Nil	0	0
		107	Leela ravi Hospital	8	0472-28720881, 9995122088
		108	Anupama Hospital	1	2870536
	PHC Vamanapuram	109	RELIEF Hospital	1	2872035
	THE Vanianapuram	110	Sree Gokulam Medical College	185	3041234
Nedumangadu		111	ANCY Hospital, Venjaramoodu	1	2874083
		112	St.Johns Health Services	17	0472-2870038
		113	St.Johns Leprosy Hospital	1	2872047
	PHC Anakudy		Nil	0	0
	PHC Pullampara	114	Medical Mission Hospital, Thembamoodu	1	0472-2828888 9447761959
Chirayinkeezhu	THQH Chirayinkeezhu				
		115	Rollands Hospital	4	2222913
		116	Emveess Hospital	1	2222686
		117	Ponnambalam Child Care	1	2222908
Neyyattinkara	GeneralHospital	118	Kids care centre	1	2222907
rcyyattiikara	Neyyattinkara	119	Karakonam CSI Medical College anex at Amaravila	1	2231233
		120	Matha Nursing Home	1	
		121	NIMS Hospital	53	2223544
	PHC perumpazhuthur		Nil	0	0
Nedumangadu	THQH Nedumangad	122	RIMS Hospital, Govt.College Road, Nedumangad	13	0472-2801396
		123	Venad Hospital, Nedumangad	9	2814444

		124	SUT Vengode, Nedumangad	133	2587676
		125	S.V Clinic & Dental Hospital, Nedumangad	3	2813488
		126	Suprabha Hospital, Nedumangad	1	2812798
		127	SAMAD Hospital, Attingal	6	2622711
		128	Attingal Multi speciality Hospital, Ltd	6	0470 - 2621538 2622084
		129	Bava Hospital, Avanavanchery P.O.	3	0470-2633132
		130	Amar Maternity and Fertility Centre, Attingal	8	2627676 9447162977
Chirayinkeezhu	eezhu TH Attingal	131	Dr.Molly.M. Das Memorial Trust (V.V.Clinic), Attingal	10	0470- 2622258 0470- 3202258
		132	R.K.Hospital	1	
		133	Roy Mayo Cllinic	1	262257
		134	PAN Hospital	1	
		135	Attingal Medical Centre & Research Centre	7	0470-268686
		136	S.S.N.M.H. Varkala	25	0470-2602228
Varkala	TH Varkala	137	Mangala Hospital	3	0470-2602676
v ai Kaia	TH Varkala	138	SUT Royal Hospital	7	0470-2607766 2607788
	Nemom Zone		Nil	Nil	Nil
Thiruvananthapuram PP Unit	PP Unit Poojappura	139	Chelsa Medical care (p) Ltd, Kunjalumoodu, Karamana, Trivandrum	18	0471-2349294 2349297
	3 11	140	Gitanjali Hospital, Vazhuthacaud, Trivandrum	10	0471-2326774

		141	S.K.Hospital, Edapazhanji	53	0471-3022222
		142	SP Fort Multi Speciality hospital	35	2450540
		143	Nirmala Hospital (Vettukadu)	5	2500525
Thiruvananthapuram	TH Fort	144	Anupama Hospital	10	2451439 2468991
		145	Ananthapuri Hospitals & Research Instutute	120	2506565
	CHC Poonthura	146	Dr.Faizy clinic	1	
	CHC Foonulura	147	Dr.Chandu Clinic	1	
Thiruvananthapuram	Kadakampally		Nil	Nil	Nil
	Chettivilakam		Nil	Nil	Nil
	Vattiyoorkavu		Nil	Nil	Nil
Thiruvananthapuram	W & C Thycaud		Nil	Nil	Nil
		148	Cosmopolitan Hospital(P)ltd	60	0471-2521452,0471- 252252,0471-2521158
		149	Gowreesa Hospital	7	0471-2449200,0471- 2449300,0471- 2449400
		150	Vasan Dental Care	7	0471-4400900
Thiruvananthapuram	SATH	151	Vasan Eye Care hospital	8	0471-3989000
Timruvanantnapuram	152	152	Yogiraj Centre for Dermatology & Cosmetology	9	0471-2554545
		153	SUT Hospital,Pattom	118	0471- 40777777,9539779009
		154	Chaithanya Eye Hospitals Research Institute, Kesavadasapuram	20	0471-2447183
		155	Credence Hospital	40	0471-

					4033333,9895770263
		156	Nirmala Hospital	8	0471- 2445320,9847061465
Thiruvananthapuram	TH Nemom		Nil	Nil	Nil
	DMH Peroorkada		Nil	Nil	Nil
	CHC Vizhinjam	157	Wills Hospital, Vizhinjam	2	2482570
		158	Chithra Hospital, Thiruvallam	2	
	Thiruvallom	159	Anju Clinic ,Thiruvallam	1	
	Timuvanom	160	Amma Hospital, Thiruvallam	1	
		161	BNV Hospital, Thiruvallam	7	381508
Neyyattinkara		162	Krishna Hospital, Mukkola	3	2481831
		163	Gitanjali Hospital,Mukkola	2	2480599
	 Mukkola	164	AR Hospital,Mukkola	2	2483466
	Mukkola	165	Upasana Hospital, Mukkola	3	2480623
		166	Gandhi Smaraha nithi Hospital , Mukkola	2	2484240
		167	SUT Royal Hospital	45	9.50E+09
		168	NINAS Hospital, Sreekariyam	1	0471-259055
	MCH Unit Pangappara	169	Chithra Dental Clinic. Sreekariyam	10	0471-244796
Thiruvananthapuram	Werr Omit i angappara	170	Chakravarthy eye care centre. Sreekariyam	3	0471-2555530
1 mruvananınapuram		171	Surya Dental Clinic. Ulloor	1	
		172	Smile dental clinic, Sreekariyam	1	
	MCH Unit Pangannara	173	Care well dental clinic, Sreekariyam	6	
	MCH Unit Pangappara —	174	Dental specilaity and smile designing centre	1	

		175	C.J Hospital, Ulloor	1	0471-2594071
		176	DM Hospital, Poudikonam	2	0471-2598622
		177	Kripa clinic Andoorkonam	1	
		178	KJK Hospital Nalanchira	21	
		179	Good Samartin Mission Medical centre, Mannanthala	3	2540581
		180	City Medical Centre	6	0471-241339
		181	Saji Hospital	1	0471-2416845 2418266
Thiruvananthapuram	PHC Veli	182	TSC Hospital	13	0471-2412127 2412128
		183	Ashirvad Hospital	1	0471-6541144
		184	Janatha Hospital	1	0471-2597085
	CWC Chalai	185	National Hospital Attakulangara, Mancaud.	1	0471-2452173
		186	KBM Hospital, Manacaud	1	0471-2454927
	Chalai	187	Kalyan Hospital	6	2460076
	Kanjiram Para	188	Sivodhaya Hospital, Kanjirampara, TVM-30	3	0471-2362584
Thiruvananthapuram		189	Geetha Hospital, Kanjirampara, Trivandrum	5	2361184
	Arannoor Ward	190	Sreekrishna Clinic, Karamana, Trivandrum	1	2644220 (9447047439)
	Nedumcaud	191	PRS Hospital, Killipalam, Karamana	120	2344443
	CWC Karamana	192	Johnson Clinic, Karamana	1	2343813
	CWC Mudavanmughal	193	Chelsa Medical care (P) Ltd., Kunjalummoodu, Karamana P.O.	15	0471-2349297 2349294

		194	Anugraha Hospital, Thirumala	2	0471-2354585
		195	Sree Krishna Hospital	1	0471-2351868
	Sreevaraham	196	SUT royal M & B	15	0471-4277777
	Punnakkamughal	197	Jyothydev, Mudavanmughal	2	2356200
	Ambalathara	198	Al-Arif Hospital	20	2381679
	Ambalamala	199	Dr.Farooqs	92	238316, 3100610
	Beemapally CWC	200	Beema Mahim SUT Hospital	10	
		201	Archana Hospital	1	
	Shangumugham	202	St/Francis	3	2502716
		203	Bernarda Nursing Home	5	0471-2500072
	Pangode	204	SK Hospital	53	3022222
	Jagathy	205	Dr.RK's Lazer Skin care centre	2	0471-2326182
		206	Health & glow poly clinic	3	0471-3049201
		207	Money Memorial Hopsital	1	
	Attukal	208	ABTH Hospital	20	0471-2459040
	Vazhuthacaud	209	Gitanjali Hospitals, Vazhuthacaud, Trivandrum	10	0471-2326774
		210	N.C.Hospital, Thycaud	2	0471-6450776
	Valiyavila			Nil	Nil
	CWC Thrikkannapuram			Nil	Nil
	Mutta ward			Nil	Nil
		211	Diabetic care centre	2	0471-2231174
	Saethamangalam	212	Paediatric care centre	1	0471-2722213
	Sasthamangalam 213	213	Suvarna Asthetic Plastic Surgery centre	1	0471-2318008

	214	SRKAC Hospital	23	0471-2722453
PTP Ward			Nil	Nil
	215	Samad IVF Hospital	8	0471-2474203
Vanchiyoor	216	Dr.Govindan's Hospital	24	0471-2472844
v anchiyoor	217	St.Antonys Nursing Home, Pallimukku	3	0471-247290
Kunnukuzhy	218	Appolo Clinic Diagnostic Evaulation & Research Centre Pvt.LTD	5	2303010 2303017
	219	Anadayil Hospital	13	2504086 2303921
Kuriyathi	220	Radhakrishna Clinic	2	2451661
CWC Peruthanni	221	Arumana Hospital Enterprises	6	2468991
CWC Ferumanin	222	Sivakripa Hospital, Peruthanni	2	2460951
	223	Indian Hospital	10	2333193
_	224	New Arogya Clinic	1	
Thampanoor	225	Valsala Nursing Home	8	2321303 2320982
	226	Jubilee Memorial Hospital	44	2334561, 2334564 6452020
CWC Beemapally		Nil	Nil	Nil
CWC Valiyathura		Nil	Nil	Nil
Kawdiar		Nil	Nil	Nil

ANNEXURE 12

BSNL OFFICES-CONTACT DETAILS

Sl No.	Exchange	STD Code	JTO	SDE
1	Ambalamukku	471	243 9999	253 9999
2	Amboori	471	224 4444	224 3333
3	Anayara	471	274 1000	274 2222
4	Aruvikkara	472	288 8000	280 3333
5	Aruvippuram	472	282 1111	282 1234
6	Aryanad	472	285 3000	285 4444
7	Attingal	470	262 7000	262 8888
8	Avanavancherry	470	263 2000	263 2222
9	Ayiroor	470	266 7000	266 2222
10	Balaramapuram	471	240 5555	240 2222
11	Bharathannoor	472	286 9999	282 1234
12	BSNL IIST	471	287 8888	285 7777
13	Central Exchange	471	233 9911	232 8000
14	Chenkal	471	223 7777	222 5555
15	Chenkottukonam	471	271 2200	259 7777
16	Chirayinkil	470	264 4444	264 2222
17	Edava	470	266 1234	266 2222
18	Kadakkavoor	470	265 7777	265 3333
19	Kaimanam	471	249 2222	249 4444
20	Kaithamukku	471	257 4000	257 4444
21	Kallambalam	470	269 5555	269 2222
22	Kallara	472	286 2222	282 1234
23	Kallikkad	471	227 2000	229 3333
24	Kaniyapuram	471	275 0400	275 0000
25	Kanjiramkulam	471	226 1234	226 2222
26	Kanyakulangara	472	283 3333	283 4444
27	Karakkonam	471	225 0000	220 3333
28	Karyavattom	471	241 6666	241 8888
29	Kattakkada	471	229 0500	229 3333
30	Kavalayoor	470	268 8888	261 2222
31	Kilimanoor	470	267 5555	267 3333
32	Kottoor	472	285 3000	285 4444
33	Kudappanakunnu	471	273 1000	273 2222
34	Kudappanamoodu	471	225 5555	224 3333

35	Madanvila-P'thura	471	242 4242	275 0000
36	Madavoor-Pallikal	470	268 4444	269 2222
37	Malayinkeezh	471	228 1111	228 0000
38	Manacaud	471	257 2000	246 8888
39	Mannoorkonam	472	287 8888	285 7777
40	Med. College	471	244 9000	244 8000
41	Menamkulam	471	270 7000	241 8888
42	Murukkumpuzha	471	242 4242	275 0000
43	Nagaroor	470	267 8888	267 3333
44	Nedumangad	472	281 2200	280 4444
45	Nemom	471	239 1234	239 3333
46	Neyyattinkara	471	222 3500	222 5555
47	Niyamasabha	471	230 9000	230 8000
48	Ottasekhara M'm	471	225 5555	224 3333
49	Pacha-Palode	472	284 0000	284 2222
50	Panavoor	472	286 5555	280 3333
51	Parandode	472	289 2000	285 4444
52	Parassala	471	220 1111	220 4444
53	Paruthippara	471	253 4000	253 4444
54	Peringammala	472	284 5000	284 2222
55	Perumkadavila	471	227 5555	222 5555
56	Perumkuzhi	470	263 5000	264 2222
57	Peyad	471	228 8888	228 0000
58	Plakkeezh	472	258 3000	283 4444
59	Plamuttukkada	471	221 5555	220 3333
60	Poikamukku	470	263 9999	263 2222
61	Ponganad	470	265 1234	267 3333
62	Pongummood	471	229 9999	229 3333
63	Ponmudi	472	285 8000	285 7777
64	Poojappura	471	234 8000	234 4444
65	Poovachal	471	288 3333	288 4444
66	Poovar	471	221 1234	226 2222
67	Pothencode	471	241 1111	241 9999
68	Pullampara	472	282 9000	287 4444
69	Punnakulam	471	226 7000	248 4444
70	Puthukulangara	472	289 8888	288 4444
71	Shanghumugham	471	250 7000	250 6666
72	Sreekaryam	471	259 9999	259 7777
73	Technopark	471	241 6666	241 8888
74	Thattathumala	470	264 8000	267 3333
75	Thirumala	471	235 8888	235 4444

76	Thiruvallom	471	238 3333	238 4444
77	Thonnackal	471	261 8000	275 0000
78	Udiyankulangara	471	223 2222	222 5555
79	Vakkom	470	265 4444	265 3333
80	Vamanapuram	472	283 5555	287 4444
81	Varkala	470	260 2200	261 2222
82	Vattappara	472	258 5858	283 4444
83	Vattiyoorkavu	471	236 9999	236 8888
84	Vazhayila	471	237 1000	273 2222
85	Vellaikadavu	471	237 8888	236 8888
86	Vellanad	472	288 3333	288 4444
87	Vellarada	471	224 4444	224 3333
88	Vellayambalam	471	272 3300	231 8000
89	Vengode	471	2429 429	241 9999
90	Venjaramood	472	287 2300	287 4444
91	Vithura	472	285 8000	285 7777
92	Vizhinjam	471	248 2222	248 4444

ANNEXURE 13

RADIO STATIONS

Sl. No.	Relay Station	Frequency	Transmitter	Time	Address	Location	Phone No
1	20 KW	1161 KHz	MW	24 Hrs	Kulathur	AIR, Transmitter Complex, kulathur, Engineering College, PO Trivandrum	0471- 2599011
2	50 KW	5010 KHz 7290 KHz	SW SW	5:50-7:45 & 17:00-23:10 8:00-15:00	Beemapally	AIR, Transmitter Complex, Beemapally, Muttathara P.O, TVM 695008	0471- 2500064
3	10 KW	101.9 MHz	FM		Kudapana- kunnu	Dooradarshan Kendra- Kudapanakunnu, TVM	0471- 2730536
4	Studio and Office Complex				Vazhutha- kadu	Bakthi Vilas, AIR, Vazhuthakadu, Thycaud, TVM	0471- 2315259

ANNEXURE 14

DROUGHT PRONE AREA

Sl.No	Village	Taluk	Classification
1	Alamcode	Chirayinkeezhu	Moderate Drought
2	Attingal-Avanancherry	Chirayinkeezhu	Moderate Drought
3	Azhrur	Chirayinkeezhu	Moderate Drought
4	Chirayinkeezhu	Chirayinkeezhu	Moderate Drought
5	Edakode	Chirayinkeezhu	Moderate Drought
6	Elamba-Mundakkal	Chirayinkeezhu	Moderate Drought
7	Kadakkavoor	Chirayinkeezhu	Moderate Drought
8	Kilimanoor	Chirayinkeezhu	Moderate Drought
9	Kizhattingal	Chirayinkeezhu	Moderate Drought
10	Kizhuvillam-Kuntallloor	Chirayinkeezhu	Moderate Drought
11	Koduvazhuniyoor	Chirayinkeezhu	Moderate Drought
12	Nagaroor	Chirayinkeezhu	Moderate Drought
13	Pazhayakunnumel	Chirayinkeezhu	Moderate Drought
14	Pulimathu	Chirayinkeezhu	Moderate Drought
15	Vellallur	Chirayinkeezhu	Moderate Drought
16	Amboori	Kattakada	Moderate Drought
17	Kallikkad	Kattakada	Moderate Drought
18	Keezharoor	Kattakada	Moderate Drought
19	Kulathummel	Kattakada	Moderate Drought
20	Malayinkizhu	Kattakada	Moderate Drought
21	Mannoorkara	Kattakada	Slight Drought
22	Ottasekharamangalam	Kattakada	Slight Drought
23	Parumkulam	Kattakada	Moderate Drought
24	Vazhichal	Kattakada	Moderate Drought
25	Velappil	Kattakada	Moderate Drought
26	Vellanad	Kattakada	Moderate Drought
27	Vilavurkkal	Kattakada	Moderate Drought
28	Anad	Nedumangad	Moderate Drought
29	Aruvikkara	Nedumangad	Moderate Drought
30	Aryanad	Nedumangad	Slight Drought
31	Kallara	Nedumangad	Moderate Drought
32	Karakulam	Nedumangad	Moderate Drought

33	Karipur	Nedumangad	Moderate Drought
34	Koliakkode	Nedumangad	Moderate Drought
35	Kurupuzha	Nedumangad	Slight Drought
36	Manikkal	Nedumangad	Moderate Drought
37	Nallanad	Nedumangad	Moderate Drought
38	Nedumangad	Nedumangad	Moderate Drought
39	Palode	Nedumangad	Slight Drought
40	Panavoor	Nedumangad	Moderate Drought
41	Pangode	Nedumangad	Slight Drought
42	Peringamala	Nedumangad	Slight Drought
43	Pullampara	Nedumangad	Moderate Drought
44	Thekkada	Nedumangad	Moderate Drought
45	Thennur	Nedumangad	Slight Drought
46	Tholicode	Nedumangad	Slight Drought
47	Uzhamalakkal	Nedumangad	Moderate Drought
48	Vamanapuram	Nedumangad	Moderate Drought
49	Vattappara	Nedumangad	Moderate Drought
50	Veerankavu	Nedumangad	Moderate Drought
51	Vembayam	Nedumangad	Moderate Drought
52	Vidura	Nedumangad	Slight Drought
53	Anavur	Neyyattinkara	Moderate Drought
54	Athiyanoor	Neyyattinkara	Moderate Drought
55	Chenkal	Neyyattinkara	Severe Drought
56	Kanjiramkulam	Neyyattinkara	Moderate Drought
57	Karode	Neyyattinkara	Severe Drought
58	Karumkulam	Neyyattinkara	Moderate Drought
59	Kollayil	Neyyattinkara	Moderate Drought
60	Kottakal	Neyyattinkara	Moderate Drought
61	Kulathur	Neyyattinkara	Severe Drought
62	Kunnathukal	Neyyattinkara	Moderate Drought
63	Maranallur	Neyyattinkara	Moderate Drought
64	Neyyattinkara	Neyyattinkara	Severe Drought
65	Pallichal	Neyyattinkara	Moderate Drought
66	Parassala	Neyyattinkara	Severe Drought
67	Parasuvaikkal	Neyyattinkara	Moderate Drought
68	Perumkadavila	Neyyattinkara	Moderate Drought
69	Perumpazhuthur	Neyyattinkara	Moderate Drought
70	Thirupuram	Neyyattinkara	Severe Drought

71	Vellarada	Neyyattinkara	Slight Drought
72	Vizhinjam	Neyyattinkara	Moderate Drought
73	Andoorkonam	Thiruvananthapuram	Moderate Drought
74	Attipra	Thiruvananthapuram	Moderate Drought
75	Ayirupara	Thiruvananthapuram	Moderate Drought
76	Cheruvaikkal	Thiruvananthapuram	Moderate Drought
77	Kadakampally	Thiruvananthapuram	Moderate Drought
78	Kadinamkulam	Thiruvananthapuram	Moderate Drought
79	Kalliyoor	Thiruvananthapuram	Moderate Drought
80	Kazhakuttom-Menamkulam	Thiruvananthapuram	Moderate Drought
81	Kizhthonnakkal	Thiruvananthapuram	Moderate Drought
82	Kowdiar	Thiruvananthapuram	Moderate Drought
83	Kudappanakunnu	Thiruvananthapuram	Moderate Drought
84	Manacaud	Thiruvananthapuram	Moderate Drought
85	Melthonnakkal	Thiruvananthapuram	Moderate Drought
86	Muttathara	Thiruvananthapuram	Moderate Drought
87	Nemom	Thiruvananthapuram	Moderate Drought
88	Pallipuram	Thiruvananthapuram	Moderate Drought
89	Pangappara	Thiruvananthapuram	Moderate Drought
90	Pattom	Thiruvananthapuram	Moderate Drought
91	Perrorkada	Thiruvananthapuram	Moderate Drought
92	Pettah	Thiruvananthapuram	Moderate Drought
93	Sasthamangalam	Thiruvananthapuram	Moderate Drought
94	Thirumala	Thiruvananthapuram	Moderate Drought
95	Thiruvallam	Thiruvananthapuram	Moderate Drought
96	Thycaud	Thiruvananthapuram	Moderate Drought
97	Uliyazhathura	Thiruvananthapuram	Moderate Drought
98	Ulloor	Thiruvananthapuram	Moderate Drought
99	Vanchiyoor	Thiruvananthapuram	Moderate Drought
100	Vattiyoorkavu	Thiruvananthapuram	Moderate Drought
101	Venganoor	Thiruvananthapuram	Moderate Drought
102	Veyilur	Thiruvananthapuram	Moderate Drought
103	Ayiroor	Varkala	Moderate Drought
104	Chammaruthy	Varkala	Moderate Drought
105	Edava	Varkala	Moderate Drought
106	Karavaram	Varkala	Moderate Drought
107	Madavoor	Varkala	Moderate Drought
108	Manamboor	Varkala	Moderate Drought

109	Navikulam	Varkala	Moderate Drought
110	Ottur	Varkala	Moderate Drought
111	Pallickal	Varkala	Slight Drought
112	Varkala	Varkala	Moderate Drought
113	Vettoor-Cherunniyur	Varkala	Moderate Drought

ANNEXURE 15

DATABASE OF OCCURRENCE OF LIGHTNING IN THE DISTRICT

Sl. No.	Village	Taluk	District	Year
1	Kadakkavur,Mananakku.	Chirayinkizhu	Trivandrum	1986
2	Kaniapuram	Trivandrum	Trivandrum	1987
3	Karayaram	Varkala	Trivandrum	2001
4	Kilimanoor	Chirayinkizhu	Trivandrum	1987
5	Kilimanoor	Chirayinkizhu	Trivandrum	1987
6	Kilimanoor	Chirayinkizhu	Trivandrum	1987
7	Kilimanoor (majappara)Kochuvila	Nedumangad	Trivandrum	1996
8	Kilimanoor, chutta	Chirayinkizhu	Trivandrum	1995
9	Kunnummel,Kilimanoor	Chirayinkizhu	Trivandrum	1992
10	Manaboor	Varkala	Trivandrum	1997
11	Manaboor	Varkala	Trivandrum	2001
12	Mananakku Varkala	Varkala	Trivandrum	1986
13	Mullaramkode, Kallambalam	Varkala	Trivandrum	1995
14	NavayikulamVarkkala (Kallambalam)	Varkala	Trivandrum	1997
15	Neduganda, Varkala	Varkala	Trivandrum	1993
16	Pallikkal, Kilimanoor	Nedumangad	Trivandrum	1996
17	Pazhayakunnumel	Chirayinkizhu	Trivandrum	1996
18	Sarkara, Chirayinkeezhu	Chirayinkizhu	Trivandrum	1997
19	Thumboad(Kilimanoor)	Chirayinkizhu	Trivandrum	1987
20	Varkkala ,Vadasserikonam,Karathala	Varkala	Trivandrum	1999
21	Vellalloor	Varkala	Trivandrum	1999
22	Vellaloor (Kilimanoor)	Chirayinkizhu	Trivandrum	2002
23	Muthuvila	Nedumangad	Trivandrum	1993
24	Keezhar	Nedumangad	Trivandrum	1986
25	Aryanad (Kattakada)Kottakkakam	Nedumangad	Trivandrum	1996
26	Anad, Palod.	Nedumangad	Trivandrum	2002
27	Aruvikkara	Nedumangad	Trivandrum	2000
28	Aryanad	Nedumangad	Trivandrum	1986
29	Cheruvaalam, Kallara	Nedumangad	Trivandrum	1993
30	Chullimanoor, Panavoor	Nedumangad	Trivandrum	1996
31	Chullimanoor, Kannaramkode	Nedumangad	Trivandrum	1996

32	Kallara	Nedumangad	Trivandrum	1987
33	Kallara	Nedumangad	Trivandrum	1990
34	Kallara, Pangode.	Nedumangad	Trivandrum	2003
35	Kallayam (Vattappara)	Trivandrum	Trivandrum	1997
36	Kalliode	Nedumangad	Trivandrum	1997
37	Karakulam	Nedumangad	Trivandrum	2003
38	Koliyakode.	Nedumangad	Trivandrum	2001
39	Kollakavu	Nedumangad	Trivandrum	1987
40	Kullathoor, Arasum moodu, Karakulam	Nedumangad	Trivandrum	1990
41	Kuttichal, Mukatumala Estate	Nedumangad	Trivandrum	1988
42	Malayadi, Thayyankode, Vithura	Nedumangad	Trivandrum	1992
43	Manaboor, Cheriya konni	Varkala	Trivandrum	1993
44	Palode	Nedumangad	Trivandrum	1994
45	Palode	Nedumangad	Trivandrum	1999
46	Palode	Nedumangad	Trivandrum	2001
47	Panakode	Nedumangad	Trivandrum	2002
48	Panayamuttam, Vadakkekara (chayam)	Nedumangad	Trivandrum	1993
49	Pangode	Nedumangad	Trivandrum	1987
50	Peringamala,palod	Nedumangad	Trivandrum	2002
51	Poonkavanam, Anad	Nedumangad	Trivandrum	2002
52	Thannimoode	Nedumangad	Trivandrum	1996
53	Thannimoode(Ottakkampu)	Nedumangad	Trivandrum	1998
54	Thannimoodu, Kuvakadu.	Trivandrum	Trivandrum	1995
55	Thannimoodu,Parayankave(Koovakkade)	Nedumangad	Trivandrum	1995
56	Thekkada	Trivandrum	Trivandrum	1995
57	Thekkada	Trivandrum	Trivandrum	1997
58	Thekkada	Trivandrum	Trivandrum	1997
59	Thekkada	Trivandrum	Trivandrum	1997
60	Thekkada	Trivandrum	Trivandrum	1998
61	Thekkada	Trivandrum	Trivandrum	1998
62	Tholicode	Nedumangad	Trivandrum	1998
63	Tholicode	Nedumangad	Trivandrum	2001
64	Tholikode (Pulimoode),Theepachanmukal	Nedumangad	Trivandrum	1997
65	Uzhamalakkal	Nedumangad	Trivandrum	1996
66	Uzhamalakkal	Nedumangad	Trivandrum	1996
67	Vadakakara, Chayam, Vithura	Nedumangad	Trivandrum	1993
68	Vattapara (Charu virra)	Trivandrum	Trivandrum	1987
69	Vattappara	Trivandrum	Trivandrum	2001
70	Vellanadu	Kattakada	Trivandrum	1989
71	Vembayam	Nedumangad	Trivandrum	1990
72	Vembayam, Tannimoodu,	Nedumangad	Trivandrum	2002
73	(Venjaramoode)Kallara (Bharathannoor)	Nedumangad	Trivandrum	1998
74	Nedumangad	Nedumangad	Trivandrum	2002
75	Nedumangad, Mudipurra	Nedumangad	Trivandrum	2000

76	Adayaka kuzhi U P S	Neyyattinkara	Trivandrum	1996
77	Ambadi	Neyyattinkara	Trivandrum	2002
78	Amboori	Kattakada	Trivandrum	1990
79	Amboori	Kattakada	Trivandrum	1998
80	Amboori	Kattakada	Trivandrum	1999
81	Amboori	Kattakada	Trivandrum	2001
82	Amboori	Kattakada	Trivandrum	2001
83	Balarampuram (Pallichal)	Neyyattinkara	Trivandrum	1986
84	Chempoor Kalluvila	Neyyattinkara	Trivandrum	1995
85	Kudayal, Vellarada	Neyyattinkara	Trivandrum	1995
86	Kunnathukal	Neyyattinkara	Trivandrum	2001
87	Marayamuttam	Neyyattinkara	Trivandrum	1997
88	Neyyattinkara	Neyyattinkara	Trivandrum	2001
89	Neyyattinkara, Puvar, Kochupalli Beach	Neyyattinkara	Trivandrum	1995
90	Ottasekharamangalam	Kattakada	Trivandrum	2002
91	Parassala,Poovathur(Kollail)	Neyyattinkara	Trivandrum	1998
92	Perinjukadvu,Kallikadu	Kattakada	Trivandrum	2002
93	Thirupuram	Neyyattinkara	Trivandrum	1991
94	Velapil chalai	Neyyattinkara	Trivandrum	2003
95	Vilavoorkal	Kattakada	Trivandrum	1998
96	Nedumagadu	Nedumangad	Trivandrum	1993
97	Amachall (Kattakkada)	Kattakada	Trivandrum	2002
98	Aruvikkara	Nedumangad	Trivandrum	2000
99	Attipra	Trivandrum	Trivandrum	2001
100	Balaramapuram	Neyyattinkara	Trivandrum	1987
101	Balarampuram	Neyyattinkara	Trivandrum	1987
102	Chackai (Near I T I)	Trivandrum	Trivandrum	2003
103	Charupara, Kattakkada	Kattakada	Trivandrum	1992
104	Elluvila	Neyyattinkara	Trivandrum	1995
105	Gowreeshapattom	Trivandrum	Trivandrum	2003
106	Kalliyoor	Neyyattinkara	Trivandrum	1988
107	Kamalaeswarm	Trivandrum	Trivandrum	2002
108	Kamalaeswarm, Manacaud	Trivandrum	Trivandrum	2003
109	Kamaleswarm, Mukkola .	Trivandrum	Trivandrum	1988
110	Karimadom colony.	Trivandrum	Trivandrum	1993
111	Kattakada,Kattichira (Kallikad)	Kattakada	Trivandrum	1999
112	Kattakkada	Kattakada	Trivandrum	1986
113	Kattakkada (Kulathottumala)Vazhavila	Kattakada	Trivandrum	1997
114	Kazhakuttam, Airupara.	Trivandrum	Trivandrum	2002
115	Kazhakuttam, Venjavood	Trivandrum	Trivandrum	1993
116	Kazhakuttam, Menamkulam, Attingal.	Trivandrum	Trivandrum	1994
117	Kazhakuttom, Thumba,Pallithura	Trivandrum	Trivandrum	1999
118	Kumarapuram	Trivandrum	Trivandrum	1988
119	Kunnapuzha, Thirumala	Trivandrum	Trivandrum	2002

121Mukkolakkal ,PattomTrivandrumTrivandrum1993122MurukkumpuzhaTrivandrumTrivandrum1988123Murukumpuzha. KadinamkulamTrivandrumTrivandrum1988124Muttathara. (TC 48 /295)TrivandrumTrivandrum1994125NemamNeyyattinkaraTrivandrum1995126Nettayam , Malamugal.TrivandrumTrivandrum2001127Panachumudu, Poovachal.KattakadaTrivandrum1990128Pandit colony KowdiarTrivandrumTrivandrum1990129PappanamcodeTrivandrumTrivandrum1993130Pappanamcode NemomNeyyattinkaraTrivandrum1991131PettahTrivandrumTrivandrum1998132PoonthuraNeyyattinkaraTrivandrum1996133Poovachal (Kattakada)PayikulamKattakadaTrivandrum1996134SreekariyamTrivandrumTrivandrum1993135Sreekariyam, GandhipuramNedumangadTrivandrum1993136ThumbaTrivandrumTrivandrum1997137Trivandrum cityTrivandrumTrivandrum1997138ValiyathuraTrivandrumTrivandrum1993139Vallarada (Dhanuvachapuram)NedumangadTrivandrum1993140Vattapara, charuvilla.TrivandrumTrivandrum1987141Vellayani, NemomNeyyattinkaraT	120	Mukkola,Paruthikuzhi	Neyyattinkara	Trivandrum	1994
123 Murukumpuzha. Kadinamkulam 124 Muttathara. (TC 48 /295) 125 Nemam 126 Nettayam , Malamugal. 127 Panachumudu, Poovachal. 128 Pandit colony Kowdiar 129 Pappanamcode 129 Pappanamcode 130 Pappanamcode Nemom 131 Pettah 132 Poonthura 132 Poothura 133 Poovachal (Kattakada) Payikulam 134 Sreekariyam, Gandhipuram 135 Sreekariyam, Gandhipuram 136 Thumba 137 Trivandrum 138 Valiyathura 139 Vallarada (Dhanuvachapuram) 139 Vallarada (Dhanuvachapuram) 140 Vattapara, charuvilla 141 Venjaramoodu. 140 Kaniyapuram (Kazhakkutam) 140 Kaniyapuram (Kazhakkutam) 140 Katnadrum 140 Vatuapara (Kannathura. 141 Kaniyapuram (Kazhakkutam) 140 Katnadrum 140 Vatuapara (Kannathura. 141 Kaniyapuram (Kazhakkutam) 140 Katnadrum 140 Vatuapara (Kannathura. 141 Kaniyapuram (Kazhakkutam) 144 Kaniyapuram (Kazhakkutam) 145 SreeKariyam, Gandhinager 146 Sankumughom, Kannathura. 159 Trivandrum 170 Trivand	121	Mukkolakkal ,Pattom	Trivandrum	Trivandrum	1993
124 Muttathara. (TC 48/295) 125 Nemam 126 Nettayam, Malamugal. 127 Panachumudu, Poovachal. 128 Pandit colony Kowdiar 129 Pappanamcode 129 Pappanamcode 130 Pappanamcode Nemom 131 Pettah 132 Poonthura 132 Poovachal (Kattakada) Payikulam 133 Poovachal (Kattakada) Payikulam 134 Sreekariyam, Gandhipuram 135 Sreekariyam, Gandhipuram 136 Thumba 137 Trivandrum 138 Valiyathura 139 Vallarada (Dhanuvachapuram) 139 Vallarada (Dhanuvachapuram) 140 Vetlayani, Nemom 141 Vellayani, Nemom 142 Neyyattinkara 143 Venganoor 144 Venjaramoodu. 145 Nemom (Santhi villa) 146 Sankumughom, Kannathura. 1590 17rivandrum 1993 17rivandrum 17rivandrum 17rivandrum 17rivandrum 17rivandrum 1993 17rivandrum 17rivandrum 1993 17rivandrum 17rivandrum 17rivandrum 1987 17rivandrum 1987 17rivandrum 1988 17rivandrum 1988 17rivandrum 1987 17rivandrum 1988 17rivandrum 1988 17rivandrum 1988 17rivandrum 1987 17rivandrum 1988 17rivandrum 1987 17rivandrum 1988 17rivandrum 1994 17rivandrum 1995 17rivandrum 1994 17rivandrum 1994 17rivandrum 1995 17rivandrum 1994 17rivandrum 1995 17rivandrum 1994 17rivandrum 1995 17rivandrum 1994 17rivandrum 1995 17rivandrum 1995 17rivandrum 1995 17rivandrum 1994 17rivandrum 1994 17rivandrum 1994 17rivandrum 199	122	Murukkumpuzha	Trivandrum	Trivandrum	1988
125NemamNeyyattinkaraTrivandrum1995126Nettayam , Malamugal.TrivandrumTrivandrum2001127Panachumudu, Poovachal.KattakadaTrivandrum1990128Pandit colony KowdiarTrivandrumTrivandrum1990129PappanamcodeTrivandrumTrivandrum1993130Pappanamcode NemomNeyyattinkaraTrivandrum1991131PettahTrivandrumTrivandrum1988132PoonthuraNeyyattinkaraTrivandrum2002133Poovachal (Kattakada)PayikulamKattakadaTrivandrum1996134SreekariyamTrivandrumTrivandrum1993135Sreekariyam, GandhipuramNedumangadTrivandrum1998136ThumbaTrivandrumTrivandrum1997137Trivandrum cityTrivandrumTrivandrum1997138ValiyathuraTrivandrumTrivandrum1993139Vallarada (Dhanuvachapuram)NedumangadTrivandrum1987140Vattapara, charuvilla.TrivandrumTrivandrum1987141Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum<	123	Murukumpuzha. Kadinamkulam	Trivandrum	Trivandrum	1988
126 Nettayam , Malamugal. Trivandrum Trivandrum 2001 127 Panachumudu, Poovachal. Kattakada Trivandrum 1990 128 Pandit colony Kowdiar Trivandrum Trivandrum 1990 129 Pappanamcode Trivandrum Trivandrum 1993 130 Pappanamcode Nemom Neyyattinkara Trivandrum 1991 131 Pettah Trivandrum Trivandrum 1988 132 Poonthura Neyyattinkara Trivandrum 1996 133 Poovachal (Kattakada)Payikulam Kattakada Trivandrum 1996 134 Sreekariyam Trivandrum Trivandrum 1993 135 Sreekariyam, Gandhipuram Nedumangad Trivandrum 1998 136 Thumba Trivandrum Trivandrum 1997 137 Trivandrum city Trivandrum Trivandrum 1997 138 Valiyathura Trivandrum Trivandrum 1993 139 Vallarada (Dhanuvachapuram) Nedumangad Trivandrum 1993 140 Vattapara, charuvilla. Trivandrum Trivandrum 1987 141 Vellayani Nemom Neyyattinkara Trivandrum 1987 142 Vellayani, Nemom Neyyattinkara Trivandrum 1992 143 Venganoor Neyyattinkara Trivandrum 1992 144 Venjaramoodu. Chirayinkizhu Trivandrum 1987 145 Nemom (Santhi villa) Neyyattinkara Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 1988 148 SreeKariyam,GandhiNager Nedumangad Trivandrum 1993	124	Muttathara. (TC 48 /295)	Trivandrum	Trivandrum	1994
127Panachumudu, Poovachal.KattakadaTrivandrum1990128Pandit colony KowdiarTrivandrumTrivandrum1990129PappanamcodeTrivandrumTrivandrum1993130Pappanamcode NemomNeyyattinkaraTrivandrum1991131PettahTrivandrumTrivandrum1988132PoonthuraNeyyattinkaraTrivandrum2002133Poovachal (Kattakada)PayikulamKattakadaTrivandrum1996134SreekariyamTrivandrumTrivandrum1993135Sreekariyam, GandhipuramNedumangadTrivandrum1998136ThumbaTrivandrumTrivandrum1997137Trivandrum cityTrivandrumTrivandrum2002138ValiyathuraTrivandrumTrivandrum1993139Vallarada (Dhanuvachapuram)NedumangadTrivandrum1987140Vattapara, charuvilla.TrivandrumTrivandrum1987141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum1987144Venjaramoodu.ChirayinkizhuTrivandrum1988145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum1987148SreeKariyam, GandhiNagerNedumangad <td>125</td> <td>Nemam</td> <td>Neyyattinkara</td> <td>Trivandrum</td> <td>1995</td>	125	Nemam	Neyyattinkara	Trivandrum	1995
128Pandit colony KowdiarTrivandrumTrivandrum1990129PappanamcodeTrivandrum1993130Pappanamcode NemomNeyyattinkaraTrivandrum1991131PettahTrivandrumTrivandrum1988132PoonthuraNeyyattinkaraTrivandrum2002133Poovachal (Kattakada)PayikulamKattakadaTrivandrum1996134SreekariyamTrivandrumTrivandrum1993135Sreekariyam, GandhipuramNedumangadTrivandrum1998136ThumbaTrivandrumTrivandrum1997137Trivandrum cityTrivandrumTrivandrum2002138ValiyathuraTrivandrumTrivandrum1993139Vallarada (Dhanuvachapuram)NedumangadTrivandrum1993140Vattapara, charuvilla.TrivandrumTrivandrum1987141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum2001143VenganoorNeyyattinkaraTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum1987148SreeKariyam, GandhiNagerNedumangadTrivandrum1987	126	Nettayam, Malamugal.	Trivandrum	Trivandrum	2001
129PappanamcodeTrivandrumTrivandrum1993130Pappanamcode NemomNeyyattinkaraTrivandrum1991131PettahTrivandrumTrivandrum1988132PoonthuraNeyyattinkaraTrivandrum2002133Poovachal (Kattakada)PayikulamKattakadaTrivandrum1996134SreekariyamTrivandrumTrivandrum1993135Sreekariyam, GandhipuramNedumangadTrivandrum1998136ThumbaTrivandrumTrivandrum1997137Trivandrum cityTrivandrumTrivandrum2002138ValiyathuraTrivandrumTrivandrum1993139Vallarada (Dhanuvachapuram)NedumangadTrivandrum2002140Vattapara, charuvilla.Trivandrum1987141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum2001143VenganoorNeyyattinkaraTrivandrum1987144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum1987148SreeKariyam, GandhiNagerNedumangadTrivandrum1983	127	Panachumudu, Poovachal.	Kattakada	Trivandrum	1990
130 Pappanamcode Nemom Neyyattinkara Trivandrum 1991 131 Pettah Trivandrum Trivandrum 1988 132 Poonthura Neyyattinkara Trivandrum 2002 133 Poovachal (Kattakada)Payikulam Kattakada Trivandrum 1996 134 Sreekariyam Trivandrum Trivandrum 1993 135 Sreekariyam, Gandhipuram Nedumangad Trivandrum 1998 136 Thumba Trivandrum Trivandrum 1997 137 Trivandrum city Trivandrum Trivandrum 2002 138 Valiyathura Trivandrum Trivandrum 1993 139 Vallarada (Dhanuvachapuram) Nedumangad Trivandrum 2002 140 Vattapara, charuvilla. Trivandrum Trivandrum 1987 141 Vellayani Nemom Neyyattinkara Trivandrum 1987 142 Vellayani, Nemom Neyyattinkara Trivandrum 1992 143 Venganoor Neyyattinkara Trivandrum 1992 144 Venjaramoodu. Chirayinkizhu Trivandrum 1987 145 Nemom (Santhi villa) Neyyattinkara Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 1987 148 SreeKariyam,GandhiNager Nedumangad Trivandrum 1987	128	Pandit colony Kowdiar	Trivandrum	Trivandrum	1990
131PettahTrivandrumTrivandrum1988132PoonthuraNeyyattinkaraTrivandrum2002133Poovachal (Kattakada)PayikulamKattakadaTrivandrum1996134SreekariyamTrivandrumTrivandrum1993135Sreekariyam, GandhipuramNedumangadTrivandrum1998136ThumbaTrivandrumTrivandrum1997137Trivandrum cityTrivandrumTrivandrum2002138ValiyathuraTrivandrumTrivandrum1993139Vallarada (Dhanuvachapuram)NedumangadTrivandrum1993140Vattapara, charuvilla.TrivandrumTrivandrum1987141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum2001144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	129	Pappanamcode	Trivandrum	Trivandrum	1993
132 Poonthura Neyyattinkara Trivandrum 2002 133 Poovachal (Kattakada)Payikulam Kattakada Trivandrum 1996 134 Sreekariyam Trivandrum Trivandrum 1993 135 Sreekariyam, Gandhipuram Nedumangad Trivandrum 1998 136 Thumba Trivandrum Trivandrum 1997 137 Trivandrum city Trivandrum Trivandrum 2002 138 Valiyathura Trivandrum Trivandrum 1993 139 Vallarada (Dhanuvachapuram) Nedumangad Trivandrum 1993 139 Vattapara, charuvilla. Trivandrum Trivandrum 1987 140 Vattapara, charuvilla. Trivandrum Trivandrum 1987 141 Vellayani Nemom Neyyattinkara Trivandrum 1987 142 Vellayani, Nemom Neyyattinkara Trivandrum 1992 143 Venganoor Neyyattinkara Trivandrum 1992 144 Venjaramoodu. Chirayinkizhu Trivandrum 1987 145 Nemom (Santhi villa) Neyyattinkara Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 1987 148 SreeKariyam,GandhiNager Nedumangad Trivandrum 1993	130	Pappanamcode Nemom	Neyyattinkara	Trivandrum	1991
133 Poovachal (Kattakada)Payikulam Kattakada Trivandrum 1996 134 Sreekariyam Trivandrum Trivandrum 1993 135 Sreekariyam, Gandhipuram Nedumangad Trivandrum 1998 136 Thumba Trivandrum Trivandrum 1997 137 Trivandrum city Trivandrum Trivandrum 2002 138 Valiyathura Trivandrum Trivandrum 1993 139 Vallarada (Dhanuvachapuram) Nedumangad Trivandrum 2002 140 Vattapara, charuvilla. Trivandrum Trivandrum 1987 141 Vellayani Nemom Neyyattinkara Trivandrum 1987 142 Vellayani, Nemom Neyyattinkara Trivandrum 1992 143 Venganoor Neyyattinkara Trivandrum 1997 144 Venjaramoodu. Chirayinkizhu Trivandrum 1987 145 Nemom (Santhi villa) Neyyattinkara Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 1988 147 Kaniyapuram (kazhakkutam) Trivandrum Trivandrum 1987 148 SreeKariyam, GandhiNager Nedumangad Trivandrum 1993	131	Pettah	Trivandrum	Trivandrum	1988
134 Sreekariyam Trivandrum 1993 135 Sreekariyam, Gandhipuram Nedumangad Trivandrum 1998 136 Thumba Trivandrum Trivandrum 1997 137 Trivandrum city Trivandrum Trivandrum 2002 138 Valiyathura Trivandrum Trivandrum 1993 139 Vallarada (Dhanuvachapuram) Nedumangad Trivandrum 2002 140 Vattapara, charuvilla. Trivandrum Trivandrum 1987 141 Vellayani Nemom Neyyattinkara Trivandrum 1987 142 Vellayani, Nemom Neyyattinkara Trivandrum 1992 143 Venganoor Neyyattinkara Trivandrum 1992 144 Venjaramoodu. Chirayinkizhu Trivandrum 1987 145 Nemom (Santhi villa) Neyyattinkara Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 1988 147 Kaniyapuram (kazhakkutam) Trivandrum Trivandrum 1987 148 SreeKariyam,GandhiNager Nedumangad Trivandrum 1993	132	Poonthura	Neyyattinkara	Trivandrum	2002
135 Sreekariyam, Gandhipuram Nedumangad Trivandrum 1998 136 Thumba Trivandrum Trivandrum 1997 137 Trivandrum city Trivandrum Trivandrum 2002 138 Valiyathura Trivandrum Trivandrum 1993 139 Vallarada (Dhanuvachapuram) Nedumangad Trivandrum 2002 140 Vattapara, charuvilla. Trivandrum Trivandrum 1987 141 Vellayani Nemom Neyyattinkara Trivandrum 1987 142 Vellayani, Nemom Neyyattinkara Trivandrum 1992 143 Venganoor Neyyattinkara Trivandrum 2001 144 Venjaramoodu. Chirayinkizhu Trivandrum 1987 145 Nemom (Santhi villa) Neyyattinkara Trivandrum 1988 146 Sankumughom, Kannathura. Trivandrum Trivandrum 2001 147 Kaniyapuram (kazhakkutam) Trivandrum Trivandrum 1987 148 SreeKariyam, GandhiNager Nedumangad Trivandrum 1993	133	Poovachal (Kattakada)Payikulam	Kattakada	Trivandrum	1996
Trivandrum Trivandrum 1997 Trivandrum city Trivandrum Trivandrum 2002 Trivandrum Trivandrum 1993 Trivandrum Trivandrum 1993 Trivandrum Trivandrum 1993 Trivandrum Trivandrum 1993 Trivandrum 1993 Trivandrum Trivandrum 1987 Trivandrum Trivandrum 1987 Trivandrum Trivandrum 1987 Trivandrum Trivandrum 1987 Trivandrum 1987 Trivandrum 1992 Trivandrum 1992 Trivandrum 1992 Trivandrum 1992 Trivandrum 1993 Trivandrum 1994 Trivandrum 1987 Trivandrum 1987 Trivandrum 1988 Trivandrum 1988 Trivandrum 1988 Trivandrum 1988 Trivandrum Trivandrum 1988 Trivandrum Trivandrum 1988 Trivandrum Trivandrum 1988 Trivandrum Trivandrum 1987	134	Sreekariyam	Trivandrum	Trivandrum	1993
137Trivandrum cityTrivandrumTrivandrum2002138ValiyathuraTrivandrumTrivandrum1993139Vallarada (Dhanuvachapuram)NedumangadTrivandrum2002140Vattapara, charuvilla.TrivandrumTrivandrum1987141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum2001144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam, GandhiNagerNedumangadTrivandrum1993	135	Sreekariyam, Gandhipuram	Nedumangad	Trivandrum	1998
138ValiyathuraTrivandrumTrivandrum1993139Vallarada (Dhanuvachapuram)NedumangadTrivandrum2002140Vattapara, charuvilla.Trivandrum1987141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum2001144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	136	Thumba	Trivandrum	Trivandrum	1997
139Vallarada (Dhanuvachapuram)NedumangadTrivandrum2002140Vattapara, charuvilla.TrivandrumTrivandrum1987141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum2001144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	137	Trivandrum city	Trivandrum	Trivandrum	2002
140Vattapara, charuvilla.TrivandrumTrivandrum1987141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum2001144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	138	Valiyathura	Trivandrum	Trivandrum	1993
141Vellayani NemomNeyyattinkaraTrivandrum1987142Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum2001144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	139	Vallarada (Dhanuvachapuram)	Nedumangad	Trivandrum	2002
142Vellayani, NemomNeyyattinkaraTrivandrum1992143VenganoorNeyyattinkaraTrivandrum2001144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	140	Vattapara, charuvilla.	Trivandrum	Trivandrum	1987
143VenganoorNeyyattinkaraTrivandrum2001144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	141	Vellayani Nemom	Neyyattinkara	Trivandrum	1987
144Venjaramoodu.ChirayinkizhuTrivandrum1987145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	142	Vellayani, Nemom	Neyyattinkara	Trivandrum	1992
145Nemom (Santhi villa)NeyyattinkaraTrivandrum1988146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	143	Venganoor	Neyyattinkara	Trivandrum	2001
146Sankumughom, Kannathura.TrivandrumTrivandrum2001147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	144	Venjaramoodu.	Chirayinkizhu	Trivandrum	1987
147Kaniyapuram (kazhakkutam)TrivandrumTrivandrum1987148SreeKariyam,GandhiNagerNedumangadTrivandrum1993	145	Nemom (Santhi villa)		Trivandrum	1988
148 SreeKariyam,GandhiNager Nedumangad Trivandrum 1993	146	Sankumughom, Kannathura.	Trivandrum	Trivandrum	2001
	147	Kaniyapuram (kazhakkutam)	Trivandrum	Trivandrum	1987
149 Ayiroor Chirayinkizhu Trivandrum 1995	148	SreeKariyam,GandhiNager	Nedumangad	Trivandrum	1993
	149	Ayiroor	Chirayinkizhu	Trivandrum	1995

ANNEXURE 16

LIGHTNING FREQUENCY IN THE DISTRICT

Sl.No	Village	Taluk	Frequency/year
1	Alamcode	Chirayinkeezhu	None
2	Amboori	Kattakada	Once
3	Anad	Nedumangad	Once
4	Anavur	Neyyattinkara	None
5	Andoorkonam	Thiruvenanthapuram	None
6	Aruvikkara	Nedumangad	Once
7	Aryanad	Nedumangad	Once
8	Athiyanoor	Neyyattinkara	None

9	Attingal-Avanancherry	Chirayinkeezhu	None
10	Attipra	Thiruvenanthapuram	Once
11	Ayiroor	Varkala	Once
12	Ayirupara	Thiruvenanthapuram	Once
13	Azhrur	Chirayinkeezhu	None
14	Chammaruthy	Varkala	None
15	Chenkal	Neyyattinkara	None
16	Cheruvaikkal	Thiruvenanthapuram	Once
17	Chirayinkeezhu	Chirayinkeezhu	Once
18	Edakode	Chirayinkeezhu	None
19	Edava	Varkala	Once
20	Elamba-Mundakkal	Chirayinkeezhu	None
21	Kadakampally	Thiruvenanthapuram	None
22	Kadakkavoor	Chirayinkeezhu	Once
23	Kadinamkulam	Thiruvenanthapuram	Once
24	Kallara	Nedumangad	Once
25	Kallikkad	Kattakada	Once
26	Kalliyoor	Thiruvenanthapuram	Once
27	Kanjiramkulam	Neyyattinkara	None
28	Karakulam	Nedumangad	Once
29	Karavaram	Varkala	Once
30	Karipur	Nedumangad	Once
31	Karode	Neyyattinkara	None
32	Karumkulam	Neyyattinkara	Once
33	Kazhakuttom- Menamkulam	Thiruvenanthapuram	Once
34	Keezharoor	Kattakada	Once
35	Kilimanoor	Chirayinkeezhu	Once
36	Kizhattingal	Chirayinkeezhu	None
37	Kizhthonnakkal	Thiruvenanthapuram	None
38	Kizhuvillam-Kuntallloor	Chirayinkeezhu	None
39	Koduvazhuniyoor	Chirayinkeezhu	None
40	Koliakkode	Nedumangad	Once
41	Kollayil	Neyyattinkara	Once
42	Kottakal	Neyyattinkara	Once
43	Kowdiar	Thiruvenanthapuram	Once
44	Kudappanakunnu	Thiruvenanthapuram	Once
45	Kulathummel	Kattakada	None
46	Kulathur	Neyyattinkara	None
47	Kunnathukal	Neyyattinkara	Once
48	Kurupuzha	Nedumangad	Once
49	Madavoor	Varkala	Once
50	Malayinkizhu	Kattakada	Once
51	Manacaud	Thiruvenanthapuram	Once
52	Manamboor	Varkala	Once

53	Manikkal	Nedumangad	Once
54	Mannoorkara	Kattakada	Once
55	Maranallur	Neyyattinkara	Once
56	Melthonnakkal	Thiruvenanthapuram	None
57	Muttathara	Thiruvenanthapuram	Once
58	Nagaroor	Chirayinkeezhu	None
59	Nallanad	Nedumangad	Once
60	Navikulam	Varkala	Once
61	Nedumangad	Nedumangad	Once
62	Nemom	Thiruvenanthapuram	Once
63	Neyyattinkara	Neyyattinkara	Once
64	Ottasekharamangalam	Kattakada	None
65	Ottur	Varkala	Once
66	Pallichal	Neyyattinkara	Once
67	Pallickal	Varkala	None
68	Pallipuram	Thiruvenanthapuram	Once
69	Palode	Nedumangad	Once
70	Panavoor	Nedumangad	Once
71	Pangappara	Thiruvenanthapuram	Once
72	Pangode	Nedumangad	Once
73	Parassala	Neyyattinkara	None
74	Parasuvaikkal	Neyyattinkara	None
75	Parumkulam	Kattakada	Once
76	Pattom	Thiruvenanthapuram	Once
77	Pazhayakunnumel	Chirayinkeezhu	Once
78	Peringamala	Nedumangad	Once
79	Perrorkada	Thiruvenanthapuram	Once
80	Perumkadavila	Neyyattinkara	Once
81	Perumpazhuthur	Neyyattinkara	None
82	Pettah	Thiruvenanthapuram	Once
83	Pulimathu	Chirayinkeezhu	Once
84	Pullampara	Nedumangad	Once
85	Sasthamangalam	Thiruvenanthapuram	None
86	Thekkada	Nedumangad	Once
87	Thennur	Nedumangad	None
88	Thirumala	Thiruvenanthapuram	Once
89	Thirupuram	Neyyattinkara	Once
90	Thiruvallam	Thiruvenanthapuram	None
91	Tholicode	Nedumangad	Once
92	Thycaud	Thiruvenanthapuram	Once
93	Uliyazhathura	Thiruvenanthapuram	None
94	Ulloor	Thiruvenanthapuram	None
95	Uzhamalakkal	Nedumangad	Once
96	Vamanapuram	Nedumangad	Once
97	Vanchiyoor	Thiruvenanthapuram	Once

98	Varkala	Varkala	Once
99	Vattappara	Nedumangad	Once
100	Vattiyoorkavu	Thiruvenanthapuram	None
101	Vazhichal	Kattakada	None
102	Veerankavu	Nedumangad	Once
103	Velappil	Kattakada	Once
104	Vellallur	Chirayinkeezhu	None
105	Vellanad	Kattakada	Once
106	Vellarada	Neyyattinkara	Once
107	Vembayam	Nedumangad	Once
108	Venganoor	Thiruvenanthapuram	None
109	Vettoor-Cherunniyur	Varkala	None
110	Veyilur	Thiruvenanthapuram	Once
111	Vidura	Nedumangad	Once
112	Vilavurkkal	Kattakada	None
113	Vizhinjam	Neyyattinkara	Once

ANNEXURE 17

SOPS OF VARIOUS LINE DEPARTMENTS

1. Standard Operating Procedures and Preparedness Checklist for various Departments

It is necessary that all the departments have well defined standard operating procedures and preparedness checklists.

The District magistrate must circulate the standard operating procedure among the departments, and ask for compliance of the preparedness measures in the District Disaster management authority meeting. It is absolutely important that all the departments are very familiar with the overall plan and the procedures specifically applicable to them and report diligently upon their implementation.

Standard Operating Procedures should be modified and improved upon in light of changing circumstances. The District Magistrate should encourage all the departments to suggest changes in these procedures with a view to enhance the effectiveness of the District Disaster Management Plan. The Standard Operating Procedures (SOPs) of various departments at district level and given as under:

1.1 Standard Operating Procedures for Revenue Department:

In-charge Officer: District Magistrate/ ADM

- 1. Convene the meetings of District Disaster Management Authority.
- 2. Update the District Disaster Management Plan Quarterly.
- 3. Maintain and activate the District and Sub-divisional Control Rooms.

- 4. Establish communications with all stakeholders for purpose of receiving and sending warning and information exchange through district control room.
- 5. Establish warning systems between the local to district level and with media.
- 6. Ensure laying down construction norms for all types of buildings and infrastructure.
- 7. Ensure identification of safe places for establishment of relief camps and confirming their suitability.
- 8. Appoint In-charge Officers of Response base
- 9. Ensure damage and need assessment through teams formed through concerned departments.
- 10. Check upon inventory of resources
- 11. Ensure capacity building of the community and all departmental staff.
- 12. Ensure to establish and manage relief camps through life line departments.
- 13. Call for emergency meeting to take stock of the situation. Develop a strategy and objectives.
- 14. Check the supplied of food grains through the Public Distribution System.
- 15. Prepare a list of relief items to be distributed
- 16. Seek tenders / quotations for all the relief items and fix the rates and suppliers
- 17. Ensuring to create and pre-dominate teams, transport, material and equipment for responding to the disaster incident.
- 18. Prepare a transportation plan for supply of relief items
- 19. Convene meetings of NGOs, Youth Clubs, Self Help Groups, etc. in the district, and assign them specific responsibilities for relief, recovery and rehabilitation
- 20. Constitute / activate Village Level Preparedness Teams with the help of PRIs, local NGOs, and revenue officials
- 21. Prepare an evacuation plan for the villages which devastated
- 22. Prepare a list of temporary shelters, and check upon their suitability for accommodating people.
- 23. Ensure disposal of dead bodies and carcasses through Police, Medical, NGOs, Public Health and Forest Department.
- 24. Ensure general cleaning of the entire city area through water and sanitation, Municipal Corporation, Public Health Department, etc.
- 25. Ensure collation of expense accounts for sanctions and audits.
- 26. Activation of help lines through police and health departments and district public relations office.
- 27. Ensure preparation of rehabilitation plan for displaced population through Town and Country Planning, ULBs/PRIs, etc.
- 28. Ensure disbursal of Compensation.
- 29. If any warning gets from central agencies or their advice, prepare for evacuation plan for population from dangerous place.

- 32. Coordinate with Army, Indian Air Force, and Navy for support towards recue, evacuation and relief.
- 33. Commence functioning of IRS and ESF systems.
- 34. Recall important functionaries from leave; communicate to the staff to man their places of duties like the ward and divisional offices and respective departments.
- 35. Ensure that panic does not occur.
- 36. Activate all emergency communications.
- 37. Ensure Provision of Nutritional aspects of food for disaster victims.

Checklist:

Sl. No	Preparedness Measures	Action Taken / Remarks
1.	Update District Disaster Management Plan twice a year containing Phone numbers, officials, details of offices and facilities	
2.	Check upon communication network; phones, wireless, fax, internet, HAM, etc.	
3.	Identify by Hazard, Vulnerability and risk and prepare road maps of the district.	
4.	Activate District and Sub-divisional Control Rooms. Assign employees to the Control Rooms	
5.	Fix the location of Response Base	
6.	Designate In-charge officials of the Response base	
8.	Convene meetings of District Disaster Management Authority	
9.	Convene NGOs, PRIs and ULBs meeting; prepare a list of NGOs, and PRIs with their Functional Geographical coverage	
10.	Check the availability of Food Grains in PDSs shops and other stockings and distributors in the district	
11.	Prepare a list of Relief Items for distribution in the height of local habits, cutoms etc.	
12.	Determine quantity, quality of relief items as per minimum standards, and expenditure to be Incurred on it.	
13.	Prepare a transport and alternate transport plan For evacuation and distribution of relief.	
15.	Prepare a media plan for dissemination of information to the people of the district; local newspapers, radio, TV and cable, etc.	
16.	Ensure appropriate stocking of relief material received from outside.	

1.2. Standard Operating Procedures for the Police

In-charge Officer: Superintend of Police

- 1. Identify Disaster Prone area in the district
- 2. Prepare a Deployment Plan for the Police force, based on the needs of the most vulnerable areas.
- 3. Ensure that a sufficient number of police force is available for responding to the disaster situation.
- 4. Within the affected sub-division, all available personnel will be made available to the Deputy Commissioner. If more personnel are required, the out of station officers or those on leave may be recalled.
- 5. All district level officials of the Police Department must be asked to report to the Deputy Commissioner.
- 6. Constitute 'Search & Rescue' Teams from the Police force, and arrange training for these units. There should be at least one Search and Rescue Team for every district. However some of the district may have more than one 'Search and Rescue Team' depending upon the area and magnitude of disaster.
- 7. Establish coordination with the State Armed Police and Defence and Home Guards.
- 8. Check the wireless communication network, and secure additional wireless sets for deployment during a disaster.
- 9. Installation of radio communications at
 - ➤ District Control Room, Deputy Commissioner and SP Office
 - > Control room at affected site.
 - > Departmental Offices within the District & Division
- 10. Keep the police vehicles and other modest transport in readiness for deployment of the police.
- 11. Call for emergency meeting to take stock of the situation. Develop a strategy and objectives.
- 12. The SP will ensure that all field staff and stationed officers submit the necessary action reports to control room.
- 13. Review and update precautionary measures and procedures and review with staff the precautions that have been taken to protect equipment.
- 14. Provide guards wherever needed particularly for staging area of cooperative food etc stores and distribution centres.
- 15. Evacuation will be ordered by Deputy Commissioner, Addl. Commissioner and Superintendent of Police.
- 16. Under appropriate security, Law and Order, the evacuation of community and livestock should be undertaken with assistance from community leaders.
- 17. All evacuation must be reported to District Magistrate/ Deputy Commissioner and Senior Superintendent of Police immediately.

- 18. Evacuation will be ordered by District Magistrate/Deputy Commissioner, and Superintendent of Police.
- 20. Dispatch Police to systematically identity and assist people and communities in lifethreatening situation.
- 21. Designate an area, within Police Station to be used as help line centre for public.
- 22. With the assistance of health professional, help injured people and assist the community in organizing emergency transport of seriously injured to medical treatment centers.
- 23. Ensure that the police stations with staff are functioning in disaster situation.
- 24. Assist and encourage the community in road-cleaning operation.
- 25. Assess and Identify road for following conditions.
 - > One Way
 - Blocked
 - > Alternate route
 - Overall Traffic Management
 - > Other access roads
- 26. Organize training and mock-drill for police officer to handle disaster/crisis situation.
- 27. Provide security in transit and relief camps, affected villages, hospitals, and medical centers and identify areas to be cordoned off.
- 28. Transport carrying transit passengers (that is, passengers travelling through trains or buses and passing through the district) should be diverted away from the affected area.
- 29. Ensure security of installations.
- 30. Provide security arrangements for visiting VVIPs and VIPs.
- 31. Assist district authorities to take necessary action against Hoarders, Black Marketers and those found manipulating relief material.
- 32. In conjunction with other government offices, activate a public help-line to:
 - Respond to personal inquiries about the safety of relatives in the affected areas;
 - Respond to the many specific needs that will be given.
 - > Serve as a rumor control centre.
 - Confidence building among the public.
- 33. Make officers available to inquire into and record deaths, as there is not likely to be time or personal available, to carry out Standard Post-mortem Procedures.
- 34. Monitor the needs and welfare of people sheltered in relief camps.
- 35. Establish coordination with the Fire Services.
- 36. Coordinate with military service personnel in the area.
- 37. Adequate Security to International Agencies/Countries personnel for Search & Rescue, Medical Assistance and Security for their relief material and equipments etc.
- 38. Manage Traffic/Crowd. Recall important functionaries from leave; communicate to the staff to man their places of duties like the ward and divisional offices and respective departments.

Checklist:

Sl. No	Preparedness Measures	Action Taken / Remarks
1.	Prepare a deployment plan for police forces	
2.	Check the availability and readiness of the search and rescue teams from within the District Police	
3.	Check wireless communication network and setup links with the District Control Room and Sub-divisional Control Rooms; Make additional wireless sets available, if required	
4.	Develop a traffic plan for contingencies arising out of disasters – one way blocked ways, alternate routes and traffic diversion	
5.	Develop a patrolling plan for critical infrastructure and affected villages/locality.	
6.	Keep the vehicles and other modes of transport available with the Police in readiness	
7.	Prepare a Plan for VIP visits to disaster affected areas	
8.	Identify anti social elements that could create nuisance and take suitable preventive action.	
9.	Co-ordinate with International Teams and provide them with adequate security	

1.3. Standard Operating Procedures for Irrigation Department

In-charge Officer: Superintendent Engineer, Irrigation

- 1. Prepare and update the disaster risk map of the district. The map should show the vulnerability and risks of the critical infrastructure related to irrigation and also whether alternate source of water within the district.
- 2. Prepare a contingency plan for the maintenance and repairs of Bundhs and embankments.
- 3. Officials of the department at district level would be asked to report as per IRS plan.
- 4. All personnel required for IRS and other activities should work under the overall supervision and guidance of Deputy Commissioner.
- 5. Review and update precautionary measures and procedures.
- 6. Recall important functionaries from leave; communicate to the staff to man their places of duties like the ward and divisional offices and respective departments.
- 7. Check the wireless network connecting flood stations and undertake necessary repairs.
- 8. Set up the protocol for exchange of information with Flood Control Rooms at State, National levels.
- 9. Set up the protocol for reporting of flood situation to the District Magistrate / District Control Room.

- 10. Establish radio communications with District Control Room, Department offices.
- 11. Identify Bundhs, which are critical for disaster protection and control.
- 12. Prepare a list of critical Bundhs, which need repairs and reinforcement after the last floods. Submit a list of these Bundhs to the District Magistrate and the state government, and ask for necessary financial allocation.
- 13. Commence repairs of critical Bundhs in the month of January every year after surveying the damages of floods/disaster last year, and ensure that all the repairs are completed in the month of May.
- 14. Provide special attention to those places where the Bundhs were breached and repaired during the last floods/disaster last year. These are the Bundhs, which will be threatened first, when the floods approach.
- 15. Undertake channel improvement for rivers and canalas to the extent possible. Undertake de-silting / cleaning of channels and canals to improve the flow of water.
- 16. Check all the channels and regulators on the Bundhs and canals. Clean siphons before the monsoon. Increase their capacity or replace them if the size of siphons and regulators is too small to prevent water from flowing in.
- 17. Keep in readiness essential tool kits and protection material at critical places for emergency deployment. These may include:
 - > Empty Cement Bags
 - **>** Boulders
 - > Ropes
 - > Sand
 - ➤ Wire mesh
 - > Shovels
 - Baskets
 - > Lights
 - First Aid Kit
- 14. Organize round the clock inspection and repair of:
 - **▶** Bunds
 - **▶** Dams
 - Irrigation channel
 - Bridges
 - Outlets
 - Control gates
 - Overflow channels
- 15. The emergency tool kits with each technical assistant should be checked.
- 16. Organize round the clock inspection and repair of:
 - > Pumps
 - Generators

- ➤ Motor equipment
- > Station building
- 17. Designate one officer posted at exposed areas as an Emergency Officer subject to the condition that he is well aware of Floods/Disaster, and its effects
- 18. The inlet and outlet of lakes & reservoirs should be inspected to ensure that waterways are unobstructed by trees or vegetation
- 19. Any repairs/under construction activity should be well secured with sand bags, rock falls, etc.
- 20. Materials likely to be damaged by rains, such as concrete in bags, electric motors, office records, etc should be covered with plastic and well secured, even through stored inside

Checklist

Sl. No	Preparedness Measures	Action Taken / Remarks
1.	Check the wireless network and ensure that all the flood stations are connected.	
2.	Establish mechanisms for exchange of information with irrigation divisions at State/National levels	
3.	Inspect all the Bunds, and check their height and slope	
4.	Check the top of the Bunds, and if they have been cleared of encumbrances / encroachments and if they are motorable	
5.	Check that all the Bunds have been repaired/ reinforced, in particular those Bunds which were damaged during the last floods	
6.	Check the drainage system of the Bunds and ensure the seepage and rate holes etc. have been closed	
7.	Check that all the materials required for protecting Bunds have been stored at different places, and a list of these places has been furnished to the district administration.	
8.	Check that the Junior engineers and other staff have been assigned their beats, and all the arrangements for continuous vigilance over these Bundhs have been made	

Field Office Priorities:

Continue round the clock inspection and repair of bunds, dams, and irrigation channels bridges culverts, control gates and overflow channels etc.

Continue round the clock inspection and repair of pumps, generators, motor equipment and station buildings.

- > Clearing the inlet and outlet to lake or reservoirs to ensure that waterways are unobstructed by trees or vegetation on an on-going basis.
- ➤ Information formats and monitoring checklist should be used for programme monitoring and development and for reporting to Emergency Operations Centre (EOC). This is in addition to existing reporting system in the department.

1.4. Standard Operating Procedures for Health Department

In-charge officer: Chief Medical Officer

- 1. Prepare Hazard Vulnerability and Risk Map of the District.
- 2. Prepare a health contingency plan for the district. It should include a list of government hospitals, primary health centers and sub-centers, and medical personnel. The contingency plan should also include the details of hospitals and medical practitioners in the private sector.
- 3. All personnel required for management of disaster should work under the overall supervision and guidance of District magistrate/Additional. District magistrate
- 4. Based on HVR analyses, obtain a list of Response Base from the District magistrate's office, and assign the medical personnel to each of these Response Bases to the extent possible. Keep essential medicines and first aid facilities with each Response Base.
- 5. Constitute mobile response units consisting of a doctor, health workers and ANMs, and prepare a deployment plan. Each mobile health unit will cover at least one Response Base in a day.
- 6. Review and update precautionary measures and procedures,
- 7. Review with staff, the precautions that have been taken to protect equipments.
- 8. Determine type of injuries/illness expected and drugs and other medical items required and accordingly ensure that extra supplies of medical items are obtained quickly.
- 9. Provide information to all health staff about the disaster, likely damages and effects and information about way to protect life, equipment and property.
- 10. Non ambulatory patients should be relocated to the safest areas within the hospital. The safest rooms are likely to be:
 - On ground floor.
 - Rooms in the Centre of the building away from windows.
 - ➤ Rooms with concrete ceilings.
 - > Dressing pads should be assembled sterilized.
- 11. A large enough number should be sterilized to last for four to five days.
- 12. Secure medical supplies in adequate quantity for dealing with these situations, which may include:

- Oral Rehydration Solutions
- ➤ Chlorine Tablets
- Bleaching Powder
- > Anti diarrheal and Anti emetic medicines
- > Intravenous fluids
- > Sutur materials
- Surgical Dressings
- > Splints
- ➤ Plaster Rolls
- Disposable Needles and Syringes
- Local Antiseptics
- 13. All valuable instruments such as surgical tools, ophthalmoscopes, portable sterilizers, ECG machine, dental equipments, Ultra sound machine, analyzer, invertors, computer hardware etc should be packed in protective coverings and stored in rooms considered to be the most damage proof.
- 14. Protect all immovable equipment such as X-ray machines, Sterilizer, Dental chair by covering them with tarpaulins or polythene.
- 15. Ensure adequate supplies of blood in the district through District Red cross society and other prominent agencies.
- 16. Keeps one operating facility in each Response Base in readiness. Maintain all the equipment necessary for operations.
- 17. Prepare a maternity facility for pregnant women in every Response Base/ Advance Medical Post.
- 18. Check stocks of equipments and drugs which are likely to be most needed in disaster management. These can be categorized generally as:
- 19. Drugs used in treatment of wounds and fractures such as tetanus toxoid analgesics, antibiotics, Dressing material, and Splint.
- 20. Drugs used for treatment of diaorrhoea, water borne diseases influenza malaria, infective hepatitis.
- 21. Drugs required treating snake bite and fighting infection.
- 22. Drugs needed for detoxication including breathing equipments.
- 23. Intravenous fluids.
- 24. Check the emergency electrical generator to ensure that it is operational and that buffer stock of fuel exists. If an emergency generator is not available at the hospital, arrange for one.
- 25. Request central warehouse immediately to dispatch supplies likely to be needed in hospitals, on an emergency priority basis.

- 26. Fill hospital water storage tanks, if no storage tanks exists; water for drinking should be drawn in clean containers and protected.
- 27. Prepare an area of the hospital for receiving casualties.
- 28. Develop emergency admission procedures.
- 29. Orient field staff with standards of services, procedures including tagging;
- 30. Hospital administration should:
- 31. Establish work schedules to ensure that adequate staff is available for in patients needs.
- 32. Organize in house emergency medical teams to ensure that adequate staff is available at all times to handle emergency causalities.
- 33. Set up teams of doctors, nurses and paramedical staff as per IRS.

Field Office Priorities:

- > Transport will be arranged for transfer of seriously injured/ill patients from villages and peripheral hospital to general hospitals. If roads are blocked helicopter should arranged by Nodal Officer.
- Establish health facilities and treatment centres at disaster affected site.
- ➤ Procedures should be clarified between Health Services of Govt., private and other established at transit camps, relief camps and affected site/villages. PHCs CHCs, Civil Hospital, Private Hospitals Blood Banks
- Maintain check posts and surveillance at each railway stations, Bus Stands depots and all entry and exit points of the affected area, especially during the threat or existence of an epidemic.
- An injury and disease monitoring system should be developed to ensure that a full picture of health risk is maintained. Monitoring should be carried out for potable water and quality of food and disposal of waste in transit and relief camps, feeding centres and affected villages.
- > Plan for emergency accommodations for auxiliary staff from outside the area.
- Information formats and monitoring checklist must be used for programme monitoring and development and for reporting to emergency operation centre at state level. This is in addition to existing reporting system in the department.
- Establishment of a "Health Helpline" with means of communication to assist in providing an organized source of information. The hospital is responsible for keeping the community informed of its potential and limitations in disaster situations, list of admitted patients and dead persons etc.
- ➤ The local police, rescue teams and ambulance teams should be aware of the resources of each hospital.

Checklist:

Sl. No	Preparedness Measures	Action Taken / Remarks
1.	Prepare a Health Contingency Plan for deployment of health	
1.	and medical personnel	
	Obtain a list of Respondent Base from district administration	
2.	and assign mobile health units and medical staff to each	
	Response Base	
3.	Organize vaccination in Disaster affected area	
4.	Ensure necessary stock of medical supplies and blood	
5.	Organize maternity care centers in every Advance Medical	
3.	Post	
6.	Keep operative facilities in readiness	
7.	Seek mutual aid arrangement with hospitals/dispensaries in the	
7.	area	

1.5. Standard Operating Procedures for Agriculture Department

In-charge Officer: Principal Agriculture officer

- 1. Prepare HRV Analysis of the district.
- 2. Develop Contingency Action Plan based on HRV analysis.
- 3. Within the affected sub-division/Tehsil all available personnel will be made available to the District Magistrate/Deputy Commissioner. If more personnel are required then, out of station officer or those on leave may be recalled.
- 4. All personnel required for Disaster/Flood Management should work under the overall supervision and guidance of the District Magistrate.
- 5. Establish communications with District Magistrate/Deputy Commissioner, District Control Room and Agriculture colleges, seed banks, nurseries (private and public) within the division.
- 6. Review and update precautionary measures and procedures.
- 7. Check available stocks of equipments and materials which are likely to be most needed during and after flood/disaster.
- 8. Stock agricultural equipments which may be required during and after flood.
- 9. Determine what damage, pests or disease may be expected, and what drugs and other insecticide items will be required, in addition to requirements of setting up extension teams for crop protection, and accordingly ensure that extra supplies and materials, be obtained quickly.
- 10. All valuable equipments and instruments should be packed in protective coverings and stored in room the most damage-proof.

- 11. All electrical equipments should be unplugged when flood/disaster warning is received.
- 12. Extension Officers should be unplugged when flood/disaster warning is received.
- 13. Extension Officers should be assisted to
 - a. Establish work schedules to ensure that adequate are available.
 - b. Set up teams of extension personnel and assistants for visiting disaster/flood affected sites.
- 14. Assess the extent of damage to soil, crop, plantation, micro-irrigation systems and storage facilities and the requirements to salvage or replantation.
- 15. Provision of agricultural services should be coordinated with irrigation department, DRDO, District EOC, SITE OPERATIONS CENTREs.
- 16. Ensure that certified seeds of required varieties are available in adequate quantities. The Agriculture Department should work with National Seeds Corporation and other suppliers and ensure availability at their depots or have agents appointed for the same.
- 17. Print and widely distribute the list of points where certified seeds are available along with names of varieties and rates. Notices may be affixed at public places such as bus stands, on buses themselves, PHCs, Block headquarters, Tehsils, etc.
- 18. Suggest variety of seeds and cropping pattern, which can reduce losses and reduce the risks to farmers.
- 19. Develop a pest and disease monitoring system so that timely steps can be taken to reduce damage to corps.
- 20. Recall important functionaries from leave; communicate to the staff to man their places of duties like the ward and divisional offices and respective departments.
- 21. Call for emergency meeting to take stock of the situation. Develop a strategy and objectives.
- 22. Organize transport, storage and distribution of the above with adequate record keeping procedures.
- 23. Ensure that adequate conditions through cleaning operations are maintained to avoid water logging and salinity.
- 24. A pests and disease monitoring system should be developed to ensure that a full picture or risks is maintained.
- 25. Plan for emergency accommodations for agriculture staff from outside the area.
- 26. Establishment of a public information centre with a means of communication, to assist in providing an organized source of information. The department is responsible for keeping the community informed of its potential and limitations in flood situation.
- 27. Assist farmers to re-establish their contacts with agriculture produce market and ensure that appropriate prices be offered to them.

Checklist:

Sl. No	Preparedness Measures	Action Taken / Remarks
1.	Check the availability of seeds, and disseminate information	
1.	about the outlets where seeds can be made available	
2.	Set up a public information system regarding sowing of crops,	
۷.	alternative crops, pests, and application of fertilizers	
2	Prepare a program for spray of pesticides and insecticides after	
3.	the disaster	

1.6. Standard Operating Procedures for Animal Husbandry

In-Charge Officer: District Animal Husbandry Officer - Phone: 0471-2330736

- 1. Prepare HRV Analysis of Animal Husbandry Department of the District.
- 2. Based on HRV Analysis, prepare Contingency Action Plan of the District.
- 3. All personnel required for Disaster/Flood Management should work under supervision and guidelines of District Magistrate/ADM.
- 4. Within the affected district and Sub-division, all available personnel will be made available .If more personnel are required, then out of station officers or those on leave may be recalled.
- 5. Call for emergency meeting to take stock of the situation. Develop a strategy and objectives.
- 6. Establish radio communications with
 - District Control Room
 - ➤ Veterinary aid centres and hospitals (including private practitioners) within the division.
- 7. Prepare a list of water borne diseases that are preventable by vaccination. Publicize the information about common diseases afflicting livestock and the precautions that need to be taken.
- 8. Assist the Revenue Department in preparing plans for cattle camps and cattle feeding centers.
- 9. Stock emergency medical equipments which may be required during and post disaster
- 10. Determine what injuries/ illnesses may be expected, and what drugs and other medical items will be required, in addition to requirements of setting up cattle camps, and accordingly ensure that extra supplies of medical items and materials be obtained quickly.
- 11. Provide information to all staff of veterinary hospitals and centres about the floods, likely damages and effects, and information about ways to protect life, equipments and property.

- 12. Surgical packs should be assembled and sterilized.
- 13. Enough stock of surgical packs should be sterilized to last for four to five days.
- 14. The sterilized surgical packs must be stored in protective cabinets to ensure that they do not get wet. Covering the stock with polythene is recommended as an added safety measure.
- 15. All valuable equipments and instruments should be packed in protective coverings and stored in room the most damage-proof.
- 16. Organize vaccination campaigns in disaster prone villages before, during and after the disaster.
- 17. Prepare kits for veterinary diseases, which could be provided to veterinary doctors at the block level and officers at the village level. Kits can also be provided to the private veterinary doctors.
- 18. Check the emergency electrical generator, to ensure that it is operational, and that a buffer stock of fuel exists. If an emergency generator is not available at the hospital, arrange for one on loan.
- 19. Check stocks of equipments and drugs which are likely to be most needed during and after disaster.
- 20. Request from central warehouses, on an emergency priority basis, that those supplies likely to be needed be dispatched to the hospital immediately.
- 21. Fill department vehicles with fuel and park them in a protected area.
- 22. Prepare an area of the hospital for receiving large number of livestock.
- 23. Develop emergency admission procedures (with adequate record keeping).
- 24. Cattle camps and hospitals administrators should.
- 25. Establish work schedules to ensure that adequate staff are available.
- 26. Set up teams of veterinary doctors, and assistants for visiting flood affected sites.
- 27. Organize transfer of seriously injured livestock from villages to veterinary aid centres wherever possible.
- 28. The provision of medical services should be coordinated by the District Animal Husbandry Officer with District Control Room, and cattle camps.
- 29. Establish cattle camps and additional veterinary aid centres at affected sites and designate an Officer In-charge for the camp.
- 30. Estimate the requirement of water, fodder and animal feed, for cattle camps and organize the same.
- 31. Ensure that adequate sanitary conditions through cleaning operations are maintained in order to avoid outbreak of any epidemic.
- 32. An injury and disease monitoring system should be developed, to ensure that a full picture of risk is maintained.
- 33. Standard for Cattle Camps
 - The minimum number of cattle in the camp should be about 100 and the maximum 500.

- The cattle camps should be located at suitable sites bearing in mind, that adequate supply of water and shade are most essential for the well being of the cattle.
- ➤ Cattle sheds constructed should not exceed 20 sq. feet per animal.

 The feeding centres for cattle should be located in such a manner that.
- ➤ There is adequate supply of drinking water.
- ➤ There is sufficient shade for cattle to rest during the afternoon.
- > They are located as near the rail head as possible.
- ➤ They are conveniently located, not beyond a radius of 8 Km from the affected villages.

Preparedness Checklist for Animal Husbandry

Sl. No	Preparedness Measures	Action Taken / Remarks
1.	Publicize the list of common ailments in disaster and possible precautions	
2.	Organisation of vaccination for cattle in disaster villages	
3.	Prepare a plan for setting up cattle camps and cattle feeding centers	
4.	Prepare kits which could be given to Veterinary doctors and Animal Husbandry workers	

1.7. Standard Operating Procedure for Water Authority

In-Charge Officer : KWA

- 1. Conduct HRV analysis of the department.
- 2. Based on HRV analysis, prepared Contingency Action Plan for the Department.
- 3. All personnel required for disaster management should work under the overall supervision and guidance of District Magistrate/ Deputy Commissioner of the district.
- 4. Review and update precautionary measures and procedures and review with staff the precautions that have been taken to protect equipment.
- 5. Within the affected tehsil, all available personnel will be made available to the Concerned officer. If more personnel are required then out of station official or those on leave may be recalled.
- 6. Inform people to store an emergency supply of drinking water.
- 7. A standby water supply should be available in the event of damage, saline intrusion or other pollution of the regular supply.
- 8. Establish procedures for the emergency distribution of water if existing supply is disrupted.

- 9. Make provisions to acquire tankers and establish other temporary means of distributing water on an emergency basis.
- 10. Prepare plans for water distribution to all transit and relief camps, affected villages and cattle camps and ensure proper execution of these plans.
- 11. A minimum level of stock should be maintained for emergencies, and should include extra lengths of pipe connections, joints, hydrants and bleaching powder. Adequate tools should be on hand to carry out emergency repairs.
- 12. Protect pumps and motors with adequate protection (if the building is not flood-proof) to prevent damage.
- 13. Make sure auxiliary generators and standby engines are in good working order.
- 14. Establish emergency work gangs for immediate during post-disaster repairs.
- 15. Investigation of alternate of water and its supply.
- 16. After any repair on the distribution system, the required main should be flushed and disinfected with a chlorine solution of 50 mg/litre for a contact period of 24 hours, after which the main is emptied and flushed again with potable water.
- 17. If the demand for water is urgent, or the repaired main cannot be isolated, the concentration of the disinfecting solution may be increased to 100 mg/litre and the contact period reduced to 1 hour.
- 18. At the end of disinfection operations, but before the main is put back into services, samples should be taken for bacteriological analysis and determination of chlorine residue.
- 19. Protect pump stations from water logging.
- 20. Repair sewage lines where damage is detected.
- 21. Repair water pipelines wherever damaged.
- 22. Recall important functionaries from leave; communicate to the staff to man their places of duties like the ward and divisional offices and respective departments.
- 23. Call for emergency meeting to take stock of the situation. Develop a strategy and objectives.
- 24. When a water treatment plant, pumping station, of distribution system is so badly damaged that operation cannot be restored for some time, other methods described in the following paragraphs must be used.
- 25. Water from these sources, with adequate chlorination as necessary, can be connected to a distribution system or hauled to the points of consumption.
- 26. Identify unacceptable water sources and take necessary precautions to ensure that no water is accessed from such sources, either by sealing such arrangements or by posting the department guards.
- 27. Ensure that potable water supply is restored as per the standards and procedures laid down in "Standards for Potable Water".
- 28. Plan for emergency accommodations for staff from outside the area.
- 29. To take special measures and schemes for areas with Drinking Water Supply.

Checklist:

Sl. No	Preparedness Measures	Action Taken / Remarks
1.	Check the condition of pumps for draining floodwater. Ensure	
1.	pumps are in working condition.	
2.	Protect water supply pumps from water logging	
3.	Keep hand pumps, pipes and sockets in readiness for	
3.	installation/ increasing the height of pipes	
	Obtain a list of temporary shelters/ Bundhs where people took	
4.	shelter during last disaster. Prepare for installation of hand	
	pumps at all such locations	
5	Maintain adequate stock of chlorine tables and bleaching	
5.	powder	

1.8. Standard Operating Procedures for Forest Department

In-Charge Officer: Divisional Forest officer

- 1. Conduct HRV analysis of Forest of the district.
- 2. Based on HRV analysis, prepared Contingency Action Plan for the Department.
- 3. All personnel required for disaster management should work under the overall supervision and guidance of Deputy Commissioner.
- 4. All district level officials of the department would be asked to report to the Deputy Commissioner when disaster occurs.
- 5. Open the forest land for free grazing when flood waters enter villages, and there is not enough fodder available.
- 6. Allow the transportation of fodder from forest areas, when the fodder is not freely available.
- 7. Provide wooden poles and bamboo for relief and reconstruction at subsidized rate. Provide these materials to all the technical departments, which need them.
- 8. Ensure Plantation to maximum possible extent.
- 9. Ensure supply of wood for disposal of dead bodies.
- 10. Recall important functionaries from leave; communicate to the staff to man their places of duties like the ward and divisional offices and respective departments.
- 11. Call for emergency meeting to take stock of the situation. Develop a strategy and objectives.

1.9. Standard Operating Procedures for Public Works Department

In-Charge Officer: Chief Engineer PWD (R &B)

- 1. Conduct HRV analysis of PWD of the district.
- 2. Based on HRV analysis, prepared Contingency Action Plan for the Department.
- 3. All personnel required for disaster management should work under the overall supervision and guidance of District Magistrate/Additional District Magistrate.
- 4. Within the affected Sub-division, all available personnel will be made available to the District Magistrate/Deputy Commissioner. If more personnel are required then out of station officers or those on leave may be recalled.
- 5. Establish radio communications with State Emergency Operations Centre, Divisional Commissioner, District Control Room and departmental offices within the division.
- 6. The Officer-in-Charge-PW (B&R)" will be responsible for mobilizing staff and volunteers to clear the roads in his section.
- 7. The Office Incharge PW (B&R) should be familiar with pre-disaster precautions and during and post-disaster procedures for road clearing and for defining safe evacuation routes where necessary.
- 8. All officers (technical officers) should be notified and should meet the staff to review emergency procedures.
- 9. Review and update precautionary measures and procedures, and review with staff the precautions that have been taken to protect equipment.
- 10. Vehicles should be inspected, fuel tanks filled and batteries and electrical wiring covered as necessary.
- 11. Extra transport vehicles should be dispatched from headquarters and stationed at safe strategic spots along routes likely to be affected.
- 12. Heavy equipments, such as front-end loaders, should be moved to areas likely to be damaged and secured in a safe place.
- 13. Clean the area beneath bridges regularly for smooth flow of water excess.
- 14. Maintain all the highways and access roads, which are critical from the point of view of supplying relief.
- 15. Inspect all buildings and structures of the state government (including hospital buildings.) by a senior engineer and identify structures which are endangered by the impending disaster.
- 16. Emergency tools kits should be assembled for each division, and should include:
 - Crosscut saws
 - > Axes
 - ➤ Power chain saw with extra fuel, oil
 - > Sharpening files
 - Chains and tightening wrenches
 - > Pulley block with chain and rope

- 17. The designation of routes strategic to evacuation and relief should be identified and marked, in close coordination with police and District Control Room.
- 18. Establish a priority listing of roads which will be opened first. Among the most important are the roads to hospitals and main trunk routes.
- 19. Give priority attention to urgent repair works that need to be undertaken in disaster affected areas
- 20. Work under construction should be secured with ropes, sandbags and covered with tarpaulins if necessary.
- 21. Emergency inspection by mechanical engineer of all plant and equipment in the district workshops.
- 22. If people are evacuating an area, the evacuation routes should be checked and people assisted.
- 23. Construct/ reinforce the connecting roads from villages to roads, canals and Bundhs and raise their level so that people can access the high ground.
- 24. Laying down layout of roads, gardens and other response facilities from the view point of prevention of congestions, quicker response and facilities alternative routing.
- 25. Inspection of old buildings and suggesting retrofitting of weak buildings/ demolition of dangerous structures and evacuation of population.
- 26. Carry out route opening by removing debris on the road.
- 27. Identify locations for setting up transit and relief camps, feeding centres and quantity of construction materials and inform DCR accordingly.
- 28. All work teams should be issued two-way communication Link.
- 29. Provide a work team carrying emergency tool kits, depending on the nature and extent of the disaster, essential equipments such as.
 - > Towing vehicles
 - > Earth moving equipments
 - Cranes etc.
- 30. Each unit should mobilize a farm tractor with chain, and a buffer stock of fuel.
- 31. Adequate road signs should be installed to guide and assist the drivers.
- 32. Begin clearing roads. Assemble casual labourers to work with experienced staff and divide them into work gangs.
- 33. Coordinate with Building and Construction Department of Zila Parishad/ADC Office.
- 34. Mobilize community assistance for road clearing by contacting community organizations.
- 35. Undertake clearing of ditches, grass cutting, burning or removal of debris, and the cutting of dangerous trees along the roadside in the affected area through maintenance engineer's staff.
- 36. Undertake repair of all paved and unpaved road surfaces including edge metalling, pothole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keep monitoring their conditions.

- 37. Undertake construction of temporary roads to serve as access to temporary transit and relief camps, and medical facilities for flood victims.
- 38. As per the decisions of the District Control Room, undertake construction of temporary structures required, for organizing relief work and construction of relief camps, feeding centres, medical facilities, cattle camps and SITE OPERATIONS CENTREs.
- 39. An up-to-date report of all damage and repairs should be kept in the district office report book and communicate the same to the District Control Room.
- 40. If possible, a review of the extent of damage (by helicopter) should be arranged for the field Officer-in-Charge, in order to dispatch most efficiently road clearing crews, and determine the equipments needed.

1.10. Standard Operating Procedures for KSEB

In-charge officer: Chief Engineer

- 1. Conduct HRV analysis for the department of the district.
- 2. Based on HRV analysis, prepare Contingency Action Plan of department of Power Supply.
- 3. All personnel required for disaster management with work under the overall supervision and guidance of responsible officer.
- 4. Within the affected sub-division all available personal will be made available as per IRS plan. If more personnel are required, then out of station officers and by those on leave may be recalled.
- 5. Establish radio communications with State Emergency Operation Centre, District Control Room and your departmental offices within /Division.
- 6. All district level officials of the department would be asked to report District Magistrate.
- 7. Ensure that the Power Supply department to make alternate arrangements of emergency supply for the following offices from time of receipt of districts:
 - > Hospitals
 - Public Health Departments
 - Deputy Commissioner Office,
 - ➤ District EOC, Sub-Divisional EOC, site Operation Centres.
 - ➤ Police Stations
 - Telecommunications buildings
 - Irrigation Office
 - > Any other place if required.
- 8. Check emergency tool kits, assembling any additional equipment needed.
- 9. After receiving alert warning, immediately undertake following inspection:
 - ➤ High tension lines
 - > Towers
 - > Sub-stations
 - > Transformers

- Insulators
- ➤ Poles and
- Other equipments
- 10. Review the total extent of the damage to power supply installations.
- 11. Instruct staff to disconnect the main electricity supply for the affected area.
- 12. Protect Power Stations from disaster. Raise the height of compound walls. Install pump sets for draining water in case of Flood/ Cyclone/ Tsunami, etc.
- 13. Provide information to the people about the state of power supply. It is one of the most important sources of information.
- 14. Call for emergency meeting to take stock of the situation. Develop a strategy and objectives.
- 15. Hire casual labourers on an emergency basis for clearing of damaged poles and salvage of conductors and insulators.
- 16. Begin repair/reconstruction
- 17. Assist hospitals in establishing an emergency supply by assembling generators and other emergency equipments if necessary.
- 18. Establish temporary electric supplies to other key public facilities, public water system etc. to support emergency relief.
- 19. Establish temporary electric supplies to transit camps feeding centres, relief camps and Site Operation Centre, District EOC and on access roads to the same.
- 20. Compile an itemized assessment of damage, from reports made by various electrical receiving centres and sub-centres.
- 21. Report all activities to the head office and district EOC.
- 22. Plan for emergency accommodations for staff from outside the area.

1.11. Standard Operating Procedure for Transport department

In-Charge Officer: Head, Transport Department at the district

Activities

- 1. Prepare a list of vehicles- trucks, buses, jeeps, tractors, etc of government and private agencies in the district and provide the list to the District control room.
- 2. Provide requires vans and ambulances for mobile health and animal husbandry teams.
- 3. Provide trucks, buses, jeeps, tractors, etc for evacuation and supply chain management
- 4. Recall important functionaries from leave; communicate to the staff to man their places of duties like the ward and divisional offices and respective departments.
- 5. Call for emergency meeting to take stock of the situation. Develop a strategy and objective.

ANNEXURE 18

EMERGENCY SUPPORT FUNCTIONS

Roles and responsibilities of primary and secondary Emergency Support Agencies

ESF No	ESF	Primary agency	Secondary agency	Responsibilities of Primary agency	Activities for Response	Role of Secondary agency
1	Command and Control	• SEOC • DEOC	 Dept. of IT National Informatics Centre 	 Act as the headquarters of Emergency Operations Issue directions on-behalf of the State Incident Commander Issue status update of weather and other relevant environmental parameters Operate a Disaster Welfare Information (DWI) System to collect, receive and report and status of victims and assist family reunification Apply GIS to speed other facilities of relief and search and rescue Enable local authorities to establish contact with the State authorities Coordinate planning procedures between district, State and the centre Provide ready formats for all reporting procedures as a standby 	response/ relief and recovery measures	Ensure perennial and uninterrupted communication facilities for the SEOC/DEOC

2	Communication	BSNL	 Police Central and State Armed Forces HAM Radio Operators 	 Coordination of actions to assure the provision of telecommunication support in the state and district Coordinate the requirement of temporary telecommunication in the affected area 	 Responsible actions to assure the provision of telecommunication support to the State and district response elements Coordinate the requirement of temporary telecommunication in the affected areas 	 Make available Police and Disaster Management wireless network at the affected locations Coordinate for the other networks available such as HAM Radios and community radios The units of armed forces in the area would provide communication network on the request of the competent authority
3	Public health	Dept. of Health and Family Welfare	 Dept. of Indian Systems of Medicine Dept. of Homeopathy Dept. of Social Justice Non-Governmental Organizations 	 To coordinate, direct and integrate State level response Direct activation of medical personnel, supplies and equipment Coordinate the evacuation of patients Provide human services under the Dept. of Health To prepare and keep ready Mobile Hospitals and stocks To network with private health service providers To provide for mass decontamination Check stocks of equipment and drugs 	 Provide systematic approach to patient care Perform medical evaluation and treatment as needed Maintain patient tracking system to keep record of all patients treated Mobilization of the private health service providers for emergency response In the vent of CNBR disaster to provide for the mass decontamination of the affected population Maintain record of dead 	 To perform the same functions as assigned to the primary agency Provide manpower to the primary agency wherever available and needed Make available its resources to the primary agency wherever needed and available

				• Assess damage for national assistance	and arrange for their post mortem	
4	Sanitation/ Sewerage Disposal	 Urban Affairs Rural Development Local Self Governments 	 Irrigation Public Health Non-Governmental Organizations 	 Make arrangement for disposal of waste in their respective areas Arrange adequate material and man power to maintain cleanliness and hygiene Assess damage for national assistance 	 Ensure cleanliness and hygiene in their respective areas To arrange for the disposal of unclaimed bodies and record keeping thereof Hygiene promotion with the availability of mobile toilets 	 Repair the sewer leakages immediately Provide bleaching powder to the primary agencies to check, maintain sanitation
5	Power	KSEB	 Dept. of Revenue & Disaster Management Police 	 Provide and coordinate State support until the local authorities are prepared to handle all power related problems Identify requirements of external equipment required such as Generators Assess damage for national assistance 	 Support to local Administration Review the total extent of damage to the power supply installations by a reconnaissance survey To provide alternative means of power supply for emergency purposes Dispatch emergency repair teams equipped with tools, tents and food Hire casual labour for the clearing of damaged poles etc. 	Make arrangement for and to provide the alternative sources of lighting and heating to the affected populations and for the relief camps
6	Transport	Dept. of Transport	 KSRTC Airport Authority Air Force Navy	 Overall coordination of the requirement of the transport Make an inventory of vehicles available for various purposes 	• Coordinate arrangement of vehicles for transportation of relief supplies from	• Make available its fleet for the purpose of Search & Rescue, transportation of supplies, victims etc.

			KSWTC All other Government Departments with fleets of vehicles All private vehicle owners	Coordinate and implement emergency related response and recovery functions, search and rescue and damage assessment	helipads/airports to the designated places • Coordinate arrangement of vehicles for transportation of search and rescue related activities	 Act as stocking place for fuel for emergency operations Making available any vehicle to the District Administration Make available Ambulances to the District Administration Airport authority will coordinate for Helicopter and Passenger/Cargo transport aircraft services from civil and Air Force etc. required for transportation of injured, Search & Rescue team, relief and conveying supplies etc. with SEOC
7	Search and Rescue (SAR)	 Fire & Rescue Services Police SDRF Civil Defence Home guards 	 NDRF Air Force Navy Army Central Para military forces Red Cross Trained Volunteers Emergency 	 Establish maintain and manage State search and rescue response system Coordinate search and rescue logistics during field operations Provide status reports of SAR updates throughout the affected areas 	• GIS to be used by SEOC to make an estimate of the damaged area and the deployment of the SAR team in the area according to the priority • Discharge all ambulatory patients for the first aid which has the least	· ·

			Response Units of concerned industry • SEOC		danger to health and others transported to safer areas • Establish a priority list of	military forces to provide assistance to civil authorities on demand • Police to arrange for the transportation and post mortem of the dead
8	Public Works and Engineering	• PWD • Water Resources	 CPWD National Highways Authority of India Military Engineering Services 	 Emergency clearing of debris to enable reconnaissance Clearing of roads Assemble casual labour Provide a work team carrying emergency tool kits, depending on the nature of disaster, essential equipment such as Towing vehicles Earth moving equipment Cranes etc Construct temporary roads Keep national and other main highways clear from disaster effects such as debris etc. Networking with private service providers for supply of earth moving equipment etc. 	roads which will be opened first Constructing major temporary shelters Connecting locations of transit/relief camps Adequate road signs should be installed to guide and assist the relief work Clearing the roads connecting helipads and airports Restoring the helipads and making them functional Rope in the services of private services providers and secondary services if the department is unable to bear the load of the work	Making machinery and manpower available to the PWD and to keep national highways and other facilities in functional State
9	Relief supplies	District Administration	Dept. of Food and Civil supplies	• To collect, process and disseminate information about	• Support to local administration	• To assist the primary agency in arranging and

				an actual or potential disaster situation to facilitate the overall activities of all responders in providing assistance to an affected area in consultation Coordinate activities involved with the emergency provisions Temporary shelters Emergency mass feeding To coordinate bulk distribution of emergency supplies To provide logistical and resource support to local entities In some instances, services also may be provided to disaster workers To coordinate damage	 Allocate and specify type of requirements depending on need Organize donation (material) for easy distribution before entering disaster site 	supplying relief supplies • To assist the primary agency in running the relief camps
10	Food and supplies	 Dept. of Food and Civil Supplies Horticulture Corporation 	 Dept. of Cooperation Non-Governmental Organizations 	 Requirement of food and clothing for affected population Control the quality and quantity of food, clothing and basic medicines Ensure the timely distribution of food and clothing to the people 	 Make emergency food and clothing supplies available to population Ensure the provision of specific nutrients and supplementary diet for the lactating, pregnant women and infants. 	Ensuring the distribution of food supplies to the affected population through the PDS network etc.

_			ı		I		
					• Ensure that all food that is distributed is fit for human consumption		
	11	Drinking water	 Kerala Water Authority District Administration 	 Local Self Governments (LSG) Non-Governmental Organizations 	 Procurement of clean drinking water Transportation of water with minimum wastage Special care for women with infants and pregnant women Ensure that sewer pipes and drainage are kept separate from drinking water facilities 	Support LSGsWater purification	To assist the primary agency wherever LSG is associated in the distribution of potable water
	12	Relief Camps & Grovel Centres	District Administration	 Dept. of General Education Dept. of Higher Education Local Self Governments 	 Provide adequate and appropriate shelter to affected population Quick assessment and identifying the area for the establishment of the relief camps Identification of public buildings as possible shelters Identifying the population which can be provided with support in their own place and need not be shifted, relocated Locate relief camps close to open traffic and transport links 	 Support to local administration Locate adequate relief camps based on survey of affected population Develop alternative arrangements for population living in structures that might be affected even after the disaster 	 The General Education and Higher Education Department shall assist the primary agency in establishing temporary shelters of larger dimensions particularly in schools and higher education institutions in unaffected areas immediately close to the affected area LSGs would assist the primary agency in establishing shelters of smaller dimensions Provide temporary LPG cylinders and stoves for cooking

13	Media	Information and Public Relations Department	 All India Radio Doordarshan All private audiovisual media All print media 	 To provide and collect reliable information on the status of the disaster and disaster victims for effective coordination of relief work at State level Not to intrude on the privacy of individuals and families while collecting information Acquire accurate scientific information from the SEOC regarding possible continuity of the disaster situation/early warning Coordinate with SEOC at the airport and railways for required information for international and national relief workers Coordinate with all TV and radio networks to send news flashes for specific needs & warnings Respect the socio-cultural and emotional state of the disaster victims while collecting information for dissemination 	 Use and place geographical Information to guide people towards relief operations Use appropriate means of disseminating information to victims of affected area Curb the spread of rumours Disseminate instructions to all stakeholders 	To assist the primary agency in discharge of its role.
1.4		• SEOC • DEOC	• Department of Public relations	• To receive distress calls from the affected people and	• One of the most critical needs will be having a	To assist the primary agency in performing its
14	Help lines	• Police Control	• HAM Radio	coordinate with the control	simplified way of	job effectively and provide
		Rooms	Operators	room	identifying and tracking	1 1

				 To facilitate the optimization of donations received in kind Coordinate, collect, process, report and display essential elements of information and to facilitate support for planning efforts in response operations Coordinate pre-planned and event- specific aerial reconnaissance operations to assess the overall disaster situation Pre-positioning assessment teams headed by the State coordinating officer and deployment of other advance elements Emergency clearing of debris to enable reconnaissance of the damaged areas and passage of emergency personnel and equipment for life saving property protection and health and safety 	victims and providing assistance • Identify locations for setting up transit and relief camps, feeding centres and setting up of the help lines at the nodal points in the State and providing the people the information about the numbers	for the purpose.
15	Animal care	Department of Animal Husbandry	LSGs	Treatment of animalsProvision of vaccinationDisposal of dead animals	 To arrange for timely care and treatment of animals in distress Removal dead animals to avoid outbreak of epidemics Ensure adequate food and 	To assist the primary agency in performing its role

					water to animals	
					Establish animal shelters	
16	Law and order	Police	Home Guards	 Having sound communication and security plan in place to coordinate law and order issues Training to security personnel in handling disaster situations and issues related to them 	 To maintain law and order To ensure that at least 500 m surrounding a calamity affected area is cleared off civilian unskilled onlookers To take measure against looting and rioting To ensure the safety and security of relief workers and material To take specific measure for the protection of weaker and vulnerable sections of the society To provide safety and security at relief camps and temporary shelters 	To assist the primary agency by making available manpower
17	Removal of trees	 Forest LSG Fire & Rescue Services PWD National Highways Authority 	Indian Railways	• Removal of fallen trees	 Arrange for timely removal of trees obstructing the movement of traffic Arrange for timely removal of trees which have become dangerous 	Ensure that railway network is uninterrupted and fallen trees are removed immediately

Form No. ESF-1

To be filled by all State Heads of Primary ESF Departments and submitted to Dept. of Revenue and Disaster Management in the period between March-May every year.

Government of Kerala	
Department of	

Subject: EMERGENCY SUPPORT FUNCTIONS (ESF) PLAN 2014

In compliance with the National Disaster Management Act, 2005, Section 40 (3), the following report is submitted to the State Executive Committee of KSDMA.

	Item	Available	Not Available
A	Human Resource		
В	Materials & machinery		
С	Financial Allocation		
D	Departmental Plan		

^{*}Under Section 39 and 40 of the NDM Act, 2005, it is mandatory for all state government departments to ensure a set of disaster risk reduction/response plans including financial arrangements. Please tick the applicable.

A. Human Resource - Nodal Officers in districts

District	Name and Designation	Contact Details including Mobile No. & Email
Thiruvananthapuram		
Kollam		
Pathanamthitta		
Alappuzha		
Kottayam		
Idukki		
Ernakulam		
Thrissur		
Palakkad		
Malappuram		
Kozhikode		

Wayanad		
Kannur		
Kasargod		
	identify local field officers for the field are kept readily at hand.	level quick response and ensure that the

B. Materials and Machinery

b. Waterials and Wa	<u> </u>				Location
District	Materials	Quantity	Machinery	Туре	including contact details
Thiruvananthapuram					
Kollam					
Pathanamthitta					
Alappuzha					
Kottayam					
Idukki					
Ernakulam					
Thrissur					
Palakkad					
Malappuram					
Kozhikode					
Wayanad					
Kannur					
Kasargod					

Materials: Sand bags, rock boulders, food grains, fuel, coal tar, cement, agriculture seed stock, fodder stock, Drinking water etc.; Machinery: Earthmovers, tractors, electric cutters, pumps, boats, water transport tanks, water tanker lorries, etc. Other items may be added to this depending on need.

Add contact details of the control officer or owner (in case of private machinery)

C. Financial Allocation

District	Amount (in lakhs)	Head of Account	Permissible use
Thiruvananthapuram			
Kollam			
Pathanamthitta			
Alappuzha			
Kottayam			
Idukki			
Ernakulam			
Thrissur			
Palakkad			
Malappuram			
Kozhikode			
Wayanad			
Kannur			
Kasargod			

- It is certified that in addition to above resources this department has entered in to pre-contracts for supply of resources are given in the attached Form No. ESF-02
- This department has issued authorization vide Order No.______dated_____, as at Form No. ESF-03 in favour of the nodal officers and the designated officers to deploy the resources in the event of disasters and in accordance with the requests received from the SEOC/DEOC
- The Departmental Disaster Management Plan has been last updated on ------(dd/mm/yy)

Authorized	signatory

Name:

Designation:

Date:

Form No. ESF-2: Rate-contract fixation form

	Government of Kerala
Dept. of	

Sl. No.	Material/equipment/Services Description/specification	Qty. in Nos.	Qty. in Wt/Vol	Rate contract Location	Rate contract approved & validity period
1	Services				, 1
2	Material				
3	Equipment				

To be filled by all District Heads of Primary ESF Departments and submitted to District Emergency Operations Centre in the period between March-May every year. Note that rate contract is mandatory for material & machinery. Materials: Sand bags, rock boulders, food grains, fuel, coal tar, cement, agriculture seed stock, fodder stock, drinking water (if not from Kerala Water Authority) etc.; Machinery: Earthmovers, tractors, electric cutters, pumps, boats, water transport tanks, water tanker lorries, etc. Other items may be added to this depending on local need.

	Authorized signatory
Name:	
Designa	tion:
Date:	

Form No. ESF-3

To be issued by all departments listed in ESF Plan, 2014

Subject: Deployment of resources in the event of disasters - authorization thereof as per the ESF Plan-2014

1. GO (Ms) 240/2010/DMD dtd 19/06/2010

The Department of Revenue and Disaster Management is the nodal department for coordinating relief and response in the event of both natural and manmade disasters, as per the State Disaster Management Policy, 2010 approved vide GO cited as 1st paper above.

In the event of a disaster, this department is required to provide emergency support to the Department of Revenue and Disaster Management in regard to the functions listed in the ESF Plan, 2014.

It has accordingly been decided, with the approval of the competent authority, to authorize the nodal officers and the designated officers in the field offices of this department to deploy resources in the events of disasters and in accordance with the requests received from the State Emergency Operations Centre or District Emergency Operations Centres under Department of Revenue and Disaster Management.

In case the resources are likely to be deployed for a period exceeding 72 hours, the officers concerned shall obtain necessary approvals of the competent authority for continued deployment. In such a situation necessary approvals may also be obtained for procurement and deployment of pre-contract resources, as the need may be.

Name & Designation of the officer

Copy to:

- 1. Principal Secretary, Revenue and Disaster Management, Govt. of Kerala
- 2. SEOC, ILDM, PTP Nagar, Thiruvananthapuram, Kerala
- 3. Nodal Officers
- 4. All District Collectors

ANNEXURE 19

ADMINISTRATIVE DIVISIONS

Sl.No	Village	Taluk	District
1	Kilimanoor	Chirayinkeezhu	Thiruvananthapuram
2	Pazhayakunnummel	Chirayinkeezhu	Thiruvananthapuram
3	Vellalloor	Chirayinkeezhu	Thiruvananthapuram
4	Pulimath	Chirayinkeezhu	Thiruvananthapuram
5	Nagaroor	Chirayinkeezhu	Thiruvananthapuram
6	Koduvazhannoor	Chirayinkeezhu	Thiruvananthapuram
7	Alamcode	Chirayinkeezhu	Thiruvananthapuram
8	Elamba-Mudakkal	Chirayinkeezhu	Thiruvananthapuram
9	Keezhattingal	Chirayinkeezhu	Thiruvananthapuram
10	Attingal-Avanavachery	Chirayinkeezhu	Thiruvananthapuram
11	Kadakkavoor	Chirayinkeezhu	Thiruvananthapuram
12	Edakkode	Chirayinkeezhu	Thiruvananthapuram
13	Chirayinkeezhu	Chirayinkeezhu	Thiruvananthapuram
14	Kizhuvalam-Koonthalloor (CT)	Chirayinkeezhu	Thiruvananthapuram
15	Azhoor	Chirayinkeezhu	Thiruvananthapuram
16	Mannoorkara	Kattakada	Thiruvananthapuram
17	Vazhichal	Kattakada	Thiruvananthapuram
18	Vellanad	Kattakada	Thiruvananthapuram
19	Parakulam	Kattakada	Thiruvananthapuram
20	Kallikkad	Kattakada	Thiruvananthapuram
21	Veeranakavu	Kattakada	Thiruvananthapuram
22	Velappil	Kattakada	Thiruvananthapuram
23	Amboori	Kattakada	Thiruvananthapuram
24	Kulathummal	Kattakada	Thiruvananthapuram
25	Ottasekharamangalam	Kattakada	Thiruvananthapuram
26	Vilavoorkkal	Kattakada	Thiruvananthapuram
27	Malayinkeezhu	Kattakada	Thiruvananthapuram
28	Maranallur	Kattakada	Thiruvananthapuram
29	Keezharoor	Kattakada	Thiruvananthapuram
30	Peringamala	Nedumangad	Thiruvananthapuram
31	Thennoor	Nedumangad	Thiruvananthapuram
32	Pangode	Nedumangad	Thiruvananthapuram
33	Kallara	Nedumangad	Thiruvananthapuram
34	Vamanapuram	Nedumangad	Thiruvananthapuram

35	Pullampara	Nedumangad	Thiruvananthapuram
36	Palode	Nedumangad	Thiruvananthapuram
37	Nellanad	Nedumangad	Thiruvananthapuram
38	Vithura	Nedumangad	Thiruvananthapuram
39	Panavoor	Nedumangad	Thiruvananthapuram
40	Kurupuzha	Nedumangad	Thiruvananthapuram
41	Tholicode	Nedumangad	Thiruvananthapuram
42	Koliyakode	Nedumangad	Thiruvananthapuram
43	Manikkal	Nedumangad	Thiruvananthapuram
44	Theakada	Nedumangad	Thiruvananthapuram
45	Anad	Nedumangad	Thiruvananthapuram
46	Karipur	Nedumangad	Thiruvananthapuram
47	Aryanad	Nedumangad	Thiruvananthapuram
48	Vembayam	Nedumangad	Thiruvananthapuram
49	Nedumangad	Nedumangad	Thiruvananthapuram
50	Uzhamalackal	Nedumangad	Thiruvananthapuram
51	Vattappara	Nedumangad	Thiruvananthapuram
52	Aruvikkara	Nedumangad	Thiruvananthapuram
53	Karakulam	Nedumangad	Thiruvananthapuram
54	Vellarada	Neyyattinkara	Thiruvananthapuram
55	Pallichal	Neyyattinkara	Thiruvananthapuram
56	Perumpazhuthur	Neyyattinkara	Thiruvananthapuram
57	Perumkadavila	Neyyattinkara	Thiruvananthapuram
58	Anavoor	Neyyattinkara	Thiruvananthapuram
59	Athiyannur	Neyyattinkara	Thiruvananthapuram
60	Kunnathukal	Neyyattinkara	Thiruvananthapuram
61	Kottukal	Neyyattinkara	Thiruvananthapuram
62	Neyyattinkara	Neyyattinkara	Thiruvananthapuram
63	Kollayil	Neyyattinkara	Thiruvananthapuram
64	Vizhinjam	Neyyattinkara	Thiruvananthapuram
65	Chenkal	Neyyattinkara	Thiruvananthapuram
66	Parasuvaikkal	Neyyattinkara	Thiruvananthapuram
67	Kanjiramkulam	Neyyattinkara	Thiruvananthapuram
68	Thirupuram	Neyyattinkara	Thiruvananthapuram
69	Parassala	Neyyattinkara	Thiruvananthapuram
70	Karumkulam	Neyyattinkara	Thiruvananthapuram
71	Karode	Neyyattinkara	Thiruvananthapuram
72	Kulathoor	Neyyattinkara	Thiruvananthapuram
73	Keezhthonnakkal	Thiruvananthapuram	Thiruvananthapuram
74	Melthonnakkal	Thiruvananthapuram	Thiruvananthapuram
75	Veiloor	Thiruvananthapuram	Thiruvananthapuram

76	Kadinamkulam	Thiruvananthapuram	Thiruvananthapuram
77	Andoorkonam	Thiruvananthapuram	Thiruvananthapuram
78	Pallipuram	Thiruvananthapuram	Thiruvananthapuram
79	Ayirupara	Thiruvananthapuram	Thiruvananthapuram
80	Uliyazhathura	Thiruvananthapuram	Thiruvananthapuram
81	Kazhakoottom	Thiruvananthapuram	Thiruvananthapuram
82	Pangappara	Thiruvananthapuram	Thiruvananthapuram
83	Kudappanakunnu	Thiruvananthapuram	Thiruvananthapuram
84	Ulloor	Thiruvananthapuram	Thiruvananthapuram
85	Attipra	Thiruvananthapuram	Thiruvananthapuram
86	Peroorkada	Thiruvananthapuram	Thiruvananthapuram
87	Cheruvikkal	Thiruvananthapuram	Thiruvananthapuram
88	Vattiyoorkavu	Thiruvananthapuram	Thiruvananthapuram
89	Kowdiar	Thiruvananthapuram	Thiruvananthapuram
90	Pattom	Thiruvananthapuram	Thiruvananthapuram
91	Sasthamangalam	Thiruvananthapuram	Thiruvananthapuram
92	Kadakampally	Thiruvananthapuram	Thiruvananthapuram
93	Thaikkad	Thiruvananthapuram	Thiruvananthapuram
94	Vanchiyoor	Thiruvananthapuram	Thiruvananthapuram
95	Thirumala	Thiruvananthapuram	Thiruvananthapuram
96	Pettah	Thiruvananthapuram	Thiruvananthapuram
97	Nemom	Thiruvananthapuram	Thiruvananthapuram
98	Manacaud	Thiruvananthapuram	Thiruvananthapuram
99	Muttathara	Thiruvananthapuram	Thiruvananthapuram
100	Thiruvallam	Thiruvananthapuram	Thiruvananthapuram
101	Kallaiyar	Thiruvananthapuram	Thiruvananthapuram
102	Venganoor	Thiruvananthapuram	Thiruvananthapuram
103	Pallickal	Varkala	Thiruvananthapuram
104	Madavoor	Varkala	Thiruvananthapuram
105	Navaikulam	Varkala	Thiruvananthapuram
106	Ayiroor	Varkala	Thiruvananthapuram
107	Edava	Varkala	Thiruvananthapuram
108	Chemmaruthy	Varkala	Thiruvananthapuram
109	Karavaram	Varkala	Thiruvananthapuram
110	Varkala	Varkala	Thiruvananthapuram
111	Ottoor	Varkala	Thiruvananthapuram
112	Manamboor	Varkala	Thiruvananthapuram
113	Vettoor-Cherunniyoor	Varkala	Thiruvananthapuram



Abstract

Disaster Management Department – District Disaster Management Authority (DDMA) plan of all Districts - Approved – Orders issued.

DISASTER MANAGEMENT (REVENUE-K) DEPARTMENT G.O(Rt)No.3104/2016/DMD Dated, Thiruvananthapuram, 30th July, 2016

Read:- Kerala State Disaster Management Authority (KSDMA) meeting held on 05.10.2015.

ORDER

Government are pleased to approve the District Disaster Management Authority (DDMA) plan for all districts as detailed below.

District Disaster Management Authority (DDMA) plans					
S1 No	1		eting Approved date and number		
1	Thiruvananthapuram	06/06/15	H1-61143/13 dated 10/06/15		
2	Kollam	13/07/15	N3/43962/2014 dated 08/09/15		
3	Pathanamthitta	18/02/15	DM 5-31232/ 2014 dated 09/03/2015		
4	Alappuzha	03/02/15	DMC4-36601/13 dated 27/02/15		
5	Kottayam	17/04/15	H8-2015/15202/5 dated 06/04/15		
6	Idukki	13/03/15	E6-38176/07 dated 28/03/2015		
7	Ernakulam	15/05/15	D1-19839/11 dated 10/07/15		
8	Thrissur	04/02/15	K1-4574413 dated 02/03/15		
9	Palakkad	30/12/14	J5-2014/20799/9 dated 20/02/15		
10	Malappuram	20/02/15	DM1-42817/2014 dated 13/05/15		
11	Kozhikkode	20/04/15	F3/56353/2014 dated 20/04/15		

12	Wayanad	21/02/15	H3-2014/21178/12 dated 25/02/15
13	Kannur	12/02/15	M1/39606/2014 dated 21/02/15
14	Kasargode	24/04/15	K1/61131/2010 (2) dated 28/04/15

(By Order of the Governor) Praveen S. Deputy Secretary to Government.

To

All Chairmen, DDMA (inter alia District Collectors)

Thiruvananthapuram / Kollam / Pathanamthitta / Alappuzha / Kottayam / Idukki / Ernakulam / Thrissur / Palakkad / Malappuram/ Kozhikode/ Wayanad/ Kannur/Kasargode

The Commissioner of Land Revenue, Thiruvananthapuram

The Member Secretary, Kerala State Disaster Management Authority, Revenue Complex, Public Office Building, Thiruvananthapuram.

The Head, State Emergency Operations Center, ILDM, PTP Nagar, Thiruvananthapuram.

The Principal Accountant General (Audit) Kerala, Thiruvananthapuram

The Accountant General (A&E) Kerala, Thiruvananthapuram Stock File/Office Copy

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PS to Principal Secretary (Revenue & DM)
The Information Officer, Web & New Media, I&PRD

Forwarded/By Order,