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Kottayam District Disaster Management Plan

2015

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Towards a Safer State...

District Disaster Management Plan 2015

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2nd Floor, Revenue Complex, Public Office Compound, Thiruvananthapuram. Pin – 695033 Email: keralasdma@gmail.com; Tel/Fax: +91 (0) 471 - 2331345 Web: sdma.kerala.gov.in

Prepared by

District Disaster Management Authority

Kottayam - Kumily Road, Collectorate, Kottayam Kerala 686001, Phone: 0481-2562201, 2563425, 1077 E-mail: dmdktm@gmail.com

District

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INTRODUCTION

1.1VISION

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 and taluk 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: 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) Mockdrills
- b) Recommendations from all Departments in DDMA meeting
- c) Past disaster experiences
- d) Directions issued from State Disaster Management Authority

HAZARD, VULNERABILITY AND RISK ASSESSMENT

TABLE 2: DISTRICT PROFILE AT A GLANCE

DISTRICT PROFILE AT A GLANCE		
Head quarters	Kottayam	
Location (of the Headquarters)	9.36 ⁰ N and 76.17 ⁰ S	
Total area(district)	2208 Km ²	
District boundaries	North-Ernakulam, South-Alappuzha & Pathanamthitta, West-Vembanad, East-Idukki.	

TABLE 3: ADMINISTRATIVE DIVISIONS OF THE DISTRICT

Divisions	Numbers
Revenue divisions	2
Taluks	5
Blocks	11
Villages	97
DistrictPanchayaths	21
Gram Panchayaths	73
Municipalities	4
Corporations	-

TABLE 4: GEOGRAPHY AND TOPOGRAPHY OF THE DISTRICT

Major Rivers	Meenachil,Muvattupuzha & Manimala/289 in Km
Lakes	Vembanad
Reservoirs	Nil
Coastline (length in Kms)	Nil
Forest	8141Ha
Wetland area	744 Ha
Cultivable Area	1,87,712 Ha
Barren & uncultivable land	2031 Ha

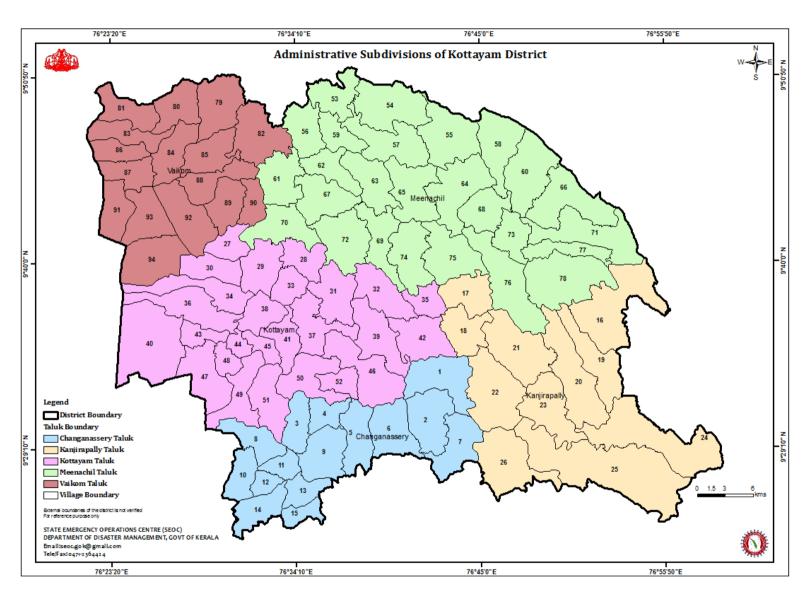


FIGURE 1: ADMINISTRATIVE SUBDIVISIONS OF KOTTAYAM DISTRICT (ANNEXURE 27)

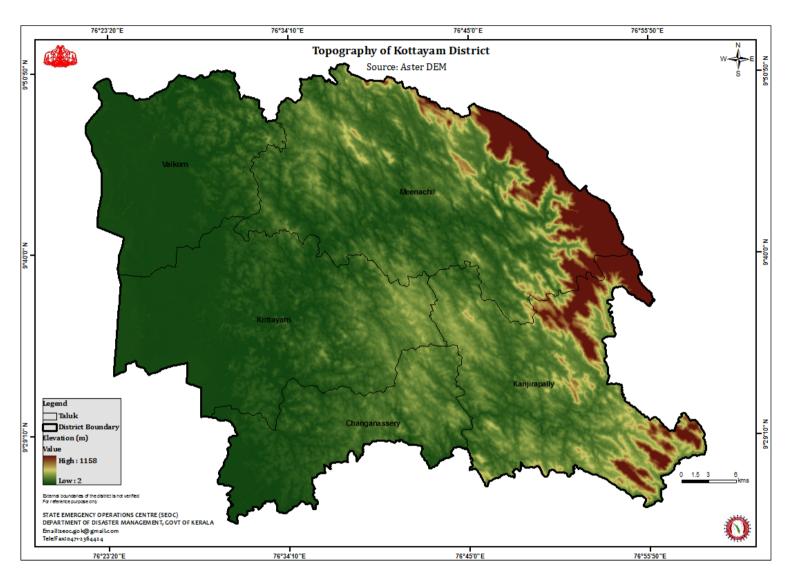


FIGURE 2: TOPOGRAPHY OF KOTTAYAM DISTRICT

TABLE 5: AVERAGE RAINFALL DATA (2000-2014)

Weather and Climate												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall	5.2	3.8	32.8	61.9	112.1	175.5	57.3	107.8	124.9	166.6	123.8	28.9

ANNEXURE 1

TABLE 6: DISTRICT DEMOGRAPHY (CENSUS DATA 2011)

Total population	19,74,551		
Male		9,68,289	
Female		10,06,262	
Sex ratio		1025	
Age group population (0-6 years)		88,823	
Population density	896 persons/sq.km		
Rural Population	Total	Male	Female
	14,09,158	6,92,673	7,16,485
Urban Population	Total	Male	Female
	5,65,393	2,75,616	2,89,777
Birth rate	15.6%		
Decadal growth rate	1.32%		
	Total	Male	Female
Literacy rate	17,49,798	8,61,592	8,88,206
	(96.40%)	(97.17%)	(95.67%)

TABLE 7: EDUCATIONAL PROFILE OF THE DISTRICT

Institution	Total numbers
Lower Primary	451
Upper Primary	212
High Schools	89
Higher Secondary	126
Vocational H.S	31
Technical High Schools	6
University	1
Arts & Science college	29
Poly Technics	3
Engineering College	9
Medical College	1

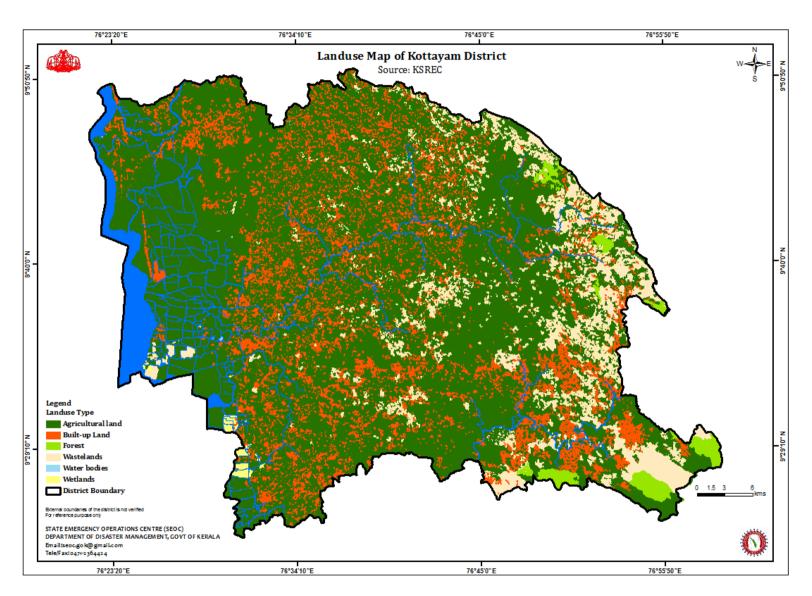


FIGURE 3: LANDUSE MAP OF KOTTAYAM DISTRICT

TABLE 8: SOCIO ECONOMIC PROFILE OF THE DISTRICT

Livelihood source	Agriculture, Industries, Service
ST Population	21972
SC Population	153909
BPL Population	136679

TABLE 9: AGRICULTURAL PROFILE OF THE DISTRICT

Crops	Area (in Ha)	Productivity(in tonnes)
Grains	17380	69,386.478
Vegetable	716	1,82,359.05
Plantation crops	119357	1,45,592.1
Oil seeds	39943	213(million nut)
Spices	11825	2,840.324
Total agricultural area	206789	4,00,391

ANNEXURE 2

TABLE 10: ANIMAL HUSBANDRY

Animal Husbandary					
Livestock Population	97,12,154				
Milk Production	2.80 lactonnes				
Meat production	167 45 tonnes				
Number of Cattle farms	136				
Poultry Population	Productivity in tonnes				
Number of Poultry farms	76				
Fish Production 1.5 lac tonnes					
Fishing Boats	48				

ANNEXURE 3

TABLE 11: INDUSTRIAL SECTORS OF THE DISTRICT

Type of Industry	Numbers
Public sector	3
Medium&Small scale	31
SIDCO(hand loom,coir etc)	48

2.1 CREATING A DISTRICT PROFILE

Oncehazard analysis process is completed, the hazard specific informationsobtained with the profile of the community in the District (Taluk level) are combined to determine community's vulnerability to the risk. The affected area, critical facilities and infrastructure are demarcated in maps. Details of area affected in the villages, socio economic data, demographic details, methodology used in HVRA is mentioned as annexures.

TABLE 12: LIST OF HAZARD VULNERABLE VILLAGES OF THE DISTRICT

Hazard	Vulnerable villages	Taluk	
	PoonjarVadakkekkara PoonjarNadubhagam		
Land slide	Poonjarthekkekkara Melukavu		
	Moonnilavu		
	Teekoy	Meenachil	
Lightning	Poonjar		
Lightning	Kondoor		
Flood	Puliyannoor		
riou	Kidangoor		
Land slide	Erumely North		
	Kottical		
	Mundakayam		
Lightning	Erumely North	Kanjirappally	
8 . 8	Erumely South	0 11 0	
	Manimala		
Flood	Koovappally		
Flood	Paippad		
11000	Vazhappaly east		
	Chethipuzha	Changanacherry	
Heavy wind & rain	Changanacherry		
	kurichy		
	Vazhappaly west		
	Chempu		
	K.S mangalam		
Flood	Naduvila	Vaikom	
	Vadakemuri		
	Vaikom		
	Vadayar Aymanam		
	Perumpaikkad		
Flood	Kumarakam	Kottayam	
	Puthuppally		
	- amappanj		

Vijayapuram	
Veloor	
Thiruvarpu	
Peroor	
Nattakom	
Panachikkadu	
Manarcad	
Ettumanoor	

2.2 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 intervention

TABLE 13: HAZARD PROFILE OF THE DISTRICT

Sl.No.	Classification	Types of Disaster
		Flood
		Thunder and lightning
1.	Naturally Triggered/Weather Related	Cyclone
1.		Drought
		Salt water intrusion
2.	Geological	Earthquakes
2.	Geological	Landslides
		Epidemics
3.	Biological	Cattle epidemics
<i>J</i> .	Diologicui	Food poisoning
		Pest attack
		Industrial explosions
		Petro-chemical transportation
		accidents
		Oil spill
		Fireworks accidents
		Road accidents
4.	Anthropogenically/ Technologically triggered	Human triggered forest fire
		Stampede
		Short circuit and related fire
		Building collapse
		Boat capsizing
		Tourism related drowning
		Rail accidents
		Hooch accident

TABLE 14: MATRIX OF PAST DISASTER

Disaster	Flood	Earthquake	Landslide	Windfall	Storm/coastal erosion surge	Drought	Lightning
No:of affected villages	29	1	9	4			8
No.of families affected	678		2				
Cultivated area affected (in Ha)	5,959.185						
Estimate cost of Crop loss (Rs)	2252,45,771						
No: of House Damaged	5592						
Estimate cost of houses damaged	364,00,349						
No: of Casualty	34		3				15
Year of Occurrence		2010 to 2013					

TABLE 15: HAZARD SEASONALITY MAPPING OF THE DISTRICT

Disaster	J	F	M	A	M	J	J	A	S	0	N	D
Earthquake	←											•
Drought			-		-							
Wild fire			←		-							
Lightning	4					-				•		•
Flood						←				•		
Cyclone				•				→				
Landslide						•		-				
Epidemics			←					-				
Road/water												
related	-											-
accidents												

2.3CAPACITY ANALYSIS

The district possess various resources and capacities which can be of utilised both in the hour of emergency as well as normal situations. The key resources/capacities available in the district with different departments/ agencies are depicted in table 12.

TABLE 16: RESOURCES/ CAPACITIES AVAILABLE IN THE DISTRICT WITH DEPARTMENS/AGENCIES

Sl.No	Capacity/Resources	Number & De	tails	Further Details
1	Power	Power grids		Annexure 20
1	rowei	Substations 17		Affiliexure 20
		BSNL office	90	Telephone exchange numbers in Annexure 5
2	Communication	Other network pro	oviders	Not provided
		mobile		
		internet		
3	Road connectivity	NH	1	Annexure 6
	•	SH	6	
4	Railway Network	Length in Kms	266.52	Annexure 7
5	Radio station	Stations Numbers and na	7	Not www.dod
6	Police force	Details in num		Not provided Annexure 8
0	Energy Dept. engineers	Details iii iiuiii	Ders	Not provided
	HR in Health			Not provided
	HR in Fire & Rescue			Annexure 9
7	Nearest NDRF Unit	4th Bn NDRF, Suraksha Cam Arrakonam, I Vellore,Tamilnadu 246269.Fax 04177 rb_6th@cisf.ga tn04_ndrf@ni mkverma97@gm	npus, Dist. 1. 04177- 2-246594 ov.in ic.in	India Meteorological Department, Thiruvananthapuram Fax.0471 232242/232294
8	Nearest IMD regional Office	India Meteorolo Departmen Thiruvananthap Fax.0471 232242	t, ouram	Ph. 0471-232214/2321253 Fax.0471 232242/232294
		Panchayath	73	
0	DDI Donnes autoti	Block	10	A 10
9	PRI Representatives	Municipal town/Municipal corporation	5	- Annexure 10
10	District EOC	District collectorate 256220		Annexure 11
11	HR Trained in Disaster Management	NDRF officials, Guards, volunteers a NYK cadets are tr different skil	and NCC, ained in	

12	Helipad Locations in villages	Numbers if any		Annexure 12
13	Relief centres in District	Identified relief cen (with facilities of drin water, toilet) in each v	nking	Annexure 13
14	Temporary Shelters	Numbers		Annexure 14
		Available		
		Functional		
		Private Boats		
15	Boats	Public Boats		Not provided
		Motor Boats		_
		Newly allotted boats		
		in current year		
	Fire Service	Fire engines	12	
		Vehicle		
16		Portable Pump		Annexure-15
		(Other equipment	25	
		if any)	25	
		PHCs	51	
		Hospitals (govt. and private)	368	
17	Health Facilities	Number of doctors		Annexure -16
1 /	Health Facilities	Number of ANM		
		Number of Asha		
		workers		
		Veterinary hospitals	161	Annexure -17
		Water and Irrigation	Resource	es
	Hand pumps	Numbers		
18	Ponds	226		
10	Irrigation tanks	77		
	Rivers	3		Annexure 13
	Bore well	531		
	Public wells	1250		
	Pump house			
	Tube well	581		
19	Public distribution shops	118		Annexure18
20	NGOs	39		Annexure 19

Contact details of various line departments are given in Annexure 20

2.4 CHEMICAL HAZARD SUSCEPTIBILITY OF THE DISTRICT

In Kottayam district, a small area, approximately 16.33 sq.km, is expected to be affected in case of an unexpected disastrous event in the Surya Petroleum Plant at Pinnakkad. The Vaikom taluk in the district is under threat zone by the chemical industries in Ernakulam District. A vast area of 487.85 sq.km is likely to be affected with reference to the hazard susceptibility studies which is mapped and presented in Figure 4.

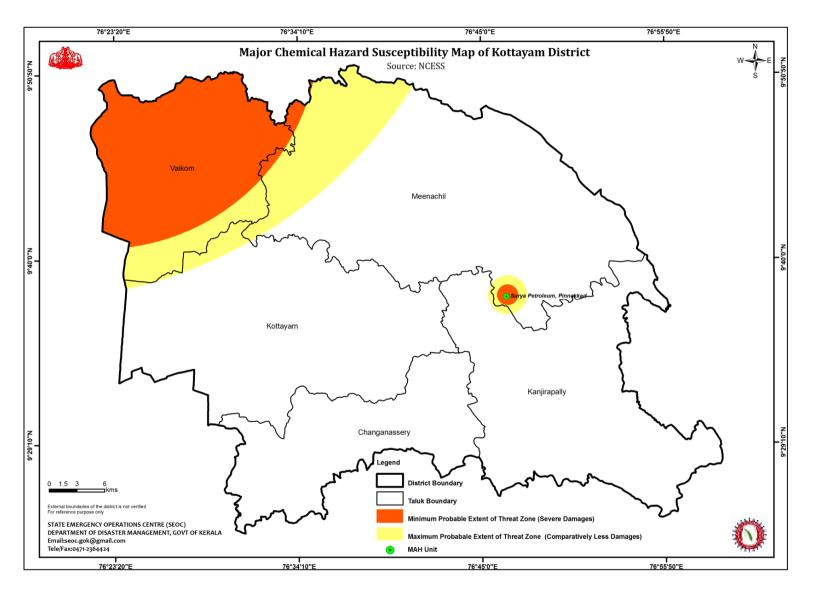


FIGURE 4: CHEMICAL HAZARD SUSCEPTIBILITY MAP OF KOTTAYAM DISTRICT (ANNEXURE 21)

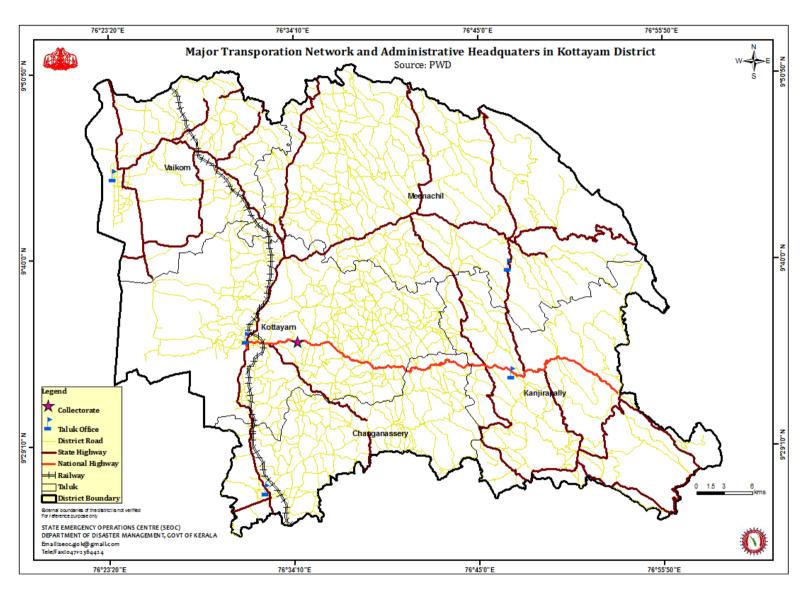


FIGURE 5: ROAD AND RAIL NETWORK OF KOTTAYAM DISTRICT

INSTITUTIONAL ARRANGEMENTS

3.1 DISTRICT DISASTER MANAGEMENT AUTHORITY – KOTTAYAM

District Disaster Management Authority, Kottayam, 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 Kottayam has following structure:

TABLE 17: STRUCTURE OF DDMA KOTTAYAM

Sl.No	Organization & Designation	Designation in DDMA
1	District Collector	Chairman
2	District Panchayath President	Co-Chairperson
3	Additional District Magistrate (ADM)	DDMA member
4	District Supply Officer (DSO)	DDMA member
5	Districts Medical Officer (DMO)	DD MA member
6	Assistant Divisional officer (Fire& Rescue)	DDMA member
7	Police	DDMA member

^{*}Refer Annexure 20 for contact details

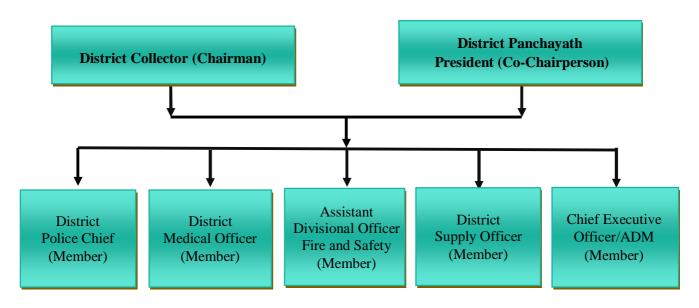


FIGURE 6: FLOW CHART ON DISASTER MANAGEMENT ORGANIZATIONAL STRUCTURE AT DISTRICT LEVEL

3.2. NODAL DEPARTMENTS FOR VARIOUS HAZARDS

♣ Revenue & Disaster Management: Hydro-meteorological & geological disasters

♣ Home: Road & rail accidents

♣ 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 FireAirport: 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 centers 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.

Central Forces **SEOC Home Secretary SDMCR** DIC **SDRF DPP DEOC DMO DFRO DPC TCR** F&RS **B/GPP** ۷o **Vulnerable** Community

Emergency inter communication between different stakeholders

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

FIGURE 7: FLOW CHART ON EMERGENCY INTERCOMMUNICATION BETWEEN STAKEHOLDERS

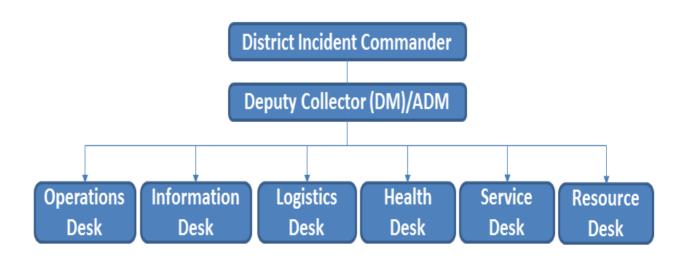


FIGURE 8: FLOW CHART ON INCIDENT COMMAND SYSTEM

Operations Desk

SEOC - Dedicated & trained staff; DEOC - Police and Fire & Rescue

- Monitoring field level rescue and evacuation operations
- Monitoring salvage operations
- Requisition of accommodation, transport and other necessary equipment for relief groups
- Maintain law and order
- Regular updates to the EOC regarding relief operations

Information Desk

SEOC – Dedicated & trained staff; DEOC – Land Revenue

- Communication of weather reports and warnings and subsequent updates
- Dissemination of information
- Keep contingency plans along with all necessary maps in ready to use condition
- Maintenance of important telephone numbers, database on available resources, list of key persons
- Send and receive messages and maintain records of the messages
- Maintain information of damage, materials sent and ongoing activities for immediate sharing with Emergency Operation Centre

Logistics Desk

SEOC – Dedicated & trained staff; DEOC – Transport Department

- Assess the need in terms of manpower and resources and ensure regular supply
- Ensure proper storage and transport facilities for relief materials
- Maintain adequate supply of necessary transport and equipment
- Coordinate with private transport associations and boat association for emergency requirement
- Organize transportation for rescue party, evacuated people medical terms and injured or sick people

Health Desk

SEOC – Dedicated & trained staff & the State Level Nodal Officer of Health Department; DEOC – Health Department

- Organize treatment of injured and sick, disposal of carcasses
- Preventive Medicine and anti-epidemic measures are taken
- Maintain record of all activities
- Assess and ensure setting up medical relief camps
- Maintain adequate supply of medicines, equipment and personnel
- Monitor maintenance of health measures in all camps and provision of safe drinking water

Service Desk

SEOC – Dedicated & trained staff; DEOC – Land Revenue

- Overall coordination of rescue and relief operations
- Assessing the relief, search and rescue and cash compensation requirements
- Organize and co-ordinate setting up of relief camps
- Ensure adequate supplies to the camps
- Coordinate identified NGO activities to ensure community participation
- Reporting the procurement and disbursement of relief material received from all sources
- Organize construction of temporary shelters, school buildings, medical facilities etc.
- Maintenance of cash and disbursements receipts, issue of relief materials, T.A & D.A of relief duty staff, daily wages, cash and credit vouchers, gratuitous and compensation paid, etc.
- Issuing of all cash and material receipts
- Reimbursement of all expenses approved
- Issue of cash vouchers for petrol and diesel

Resource Desk

This desk shall be handled by the respective department as per the ESF Plan Annexure 26.

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	Refer to Annexure 26	PWD, Food & civil supplies	Animal Husbandry, KSEB, KWA
Advisory & Training	Administrative Training Institutes (ATI)	ASHA workers	SHG, NGO & VO

TABLE 19: POINT OF CONTACTS FOR VARIOUS DEPARTMENTS

Departments	Officer in charge (designation)	Contact Details
Department of Revenue	Additional District Magistrate (ADM)	Ph:0481-2564800
& Disaster Management	,	Mob:9446564800
Fire & Rescue	Asst.Divisional Officer	Ph:0481-2567444
Police	Superintendent of Police (SP)	Ph:0481-2564700
Tonce	Superintendent of Fonce (SF)	0481-2578115

3.2CRISIS MANAGEMENT GROUP TO MITIGATE DISASTERS IN MINES

As per G.O (Rt) No. 542/14/ID, a crisis management group has been formed in the state level and district level with respect to the mitigation of disasters in mines (except coal, fuel & atomic mineral). The structure of the district crisis management group is shown in fig. 3.3

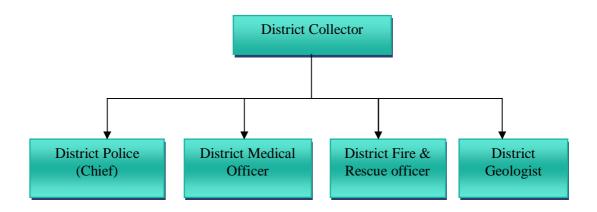


FIGURE 9: DISTRICT LEVEL CRISIS MANAGEMENT GROUP FOR THE MITIGATION OF DISASTERS IN MINES

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

FINANCIAL ASSISTANCE

As per the National Disaster Management Act, 2005, various financial provisions are available at District level for implementation of the plan.

4.1 FUNDS IN 13TH FINANCE COMMISSION

Government have sanctioned Rs.16,00,000 (Sixteen lakhs only) for the procurement of essential equipment for strengthening/setting up of the emergency operations centre functioning in the district under the head of account of '2245-80-102-97' capacity building in the administrative machinery for better handling of disaster response.

4.2 STATE DISASTER RESPONSE FUND

The Calamity Relief Funds which was in operation till March 2010 to meet the expenditure for providing immediate relief was merged in to State Disaster Response Fund vide notification G.O (P) No. 498/2010/DMD dated 03-12-2010 on the recommendation of 13th Finance Commission. The fund is maintained in the public account of the state for providing immediate relief. The State Government will also claim on the National Disaster Response Fund (previously NCCF) through memorandums for central assistance for relief and rehabilitation in the event of any calamity of a larger proportion.

TABLE 20: TOTAL ALLOCATION OF SDRF IN KOTTAYAM DISTRICT

State	2009-	2010-	2011-	2012-13	2013-14	2014-15
	2010(lakhs)	11(lakhs)	12(lakhs)	(lakhs)	(lakhs)	(lakhs)
Kottayam	821.84	896.35	1093.75	1685.14	1685.14	1558.57

Further details of fund allocated and expended are furnished in Annexure 22

4.3CMDRF (CHIEF MINISTER'S DISTRESS RELIEF FUND)

The Chief Minister's Distress Relief Fund provides financial assistance for the distressed people affected by major natural calamities like flood, drought, fire etc. It also provides financial assistance to the needy individuals for their treatment of major diseases like cancer, cardiac surgery, kidney transplant, brain tumour, liver and multi organ failures etc.

The financial assistance for the victims of lightning is also being released from the Chief Minister's distress relief fund as per GO no.223/12/Rev. A sum of Rs.1lakh is provided to the victim's family and a maximum sum of Rs. 10,000/- is provided to injured/affected.

PLANNING & RESPONSE STRUCTURE

5.1CRISIS 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 disasters regardless of type, location and intricacy.

5.2 HAZARD SPECIFIC CRISIS MANAGEMENT PLAN FOR THE DISTRICT

The district is vulnerable tonatural calamities like flood and landslide and hence a hazard specific crisis management plan is a pre-requisite. Flood crisis management plan and Landslide crisis management plan has been depicted in table 5.1 and table 5.2 respectively.

TABLE 21: FLOOD CRISIS MANAGEMENT PLAN FOR THE DISTRICT

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 • 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 **Extremely** hrs of rain free situation arises in the quarry locality based on evaluation by the **Heavy Rainfall** village officers (>244.4mm) • 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 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 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 • 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 **Very Heavy** • Local Self Governments - advice public to restrain from standing near and **Rainfall (124.5** crossing streams and avoid traffic through ghat roads to 244.4 mm) • 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 the district (based on the list of hazard prone villages published in www.sdma.keral.gov.in; disasterlesskerala.org) 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 **Heavy Rainfall** (64.4 to 124.4 • DEOC – Emergency time functions activated • District Control Rooms of Revenue & Police-24hours functioning mm) • 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

TABLE 22: LANDSLIDE CRISIS MANAGEMENT PLAN FOR THE DISTRICT

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 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 **Land slide Alert** alert and standby • 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 23: DROUGHT CRISIS MANAGEMENT PLAN FOR THE DISTRICT

Level	Vulnerability Magnitude	Observations	Impact	Response
1	Normal	Prepare & update resource inventory	Nil	All line Departments
2	Warning	Receiving warning information	Nil	IMD/SEOC
3	Emergency	Alert all line departments and public	Agriculture crop loss Deficit in ground water recharge Fall in investment capacity of farmers, rise in prices, reduced grain trade, and	District administration

			Power supply Non-availability of drinking water Sun burn	
	Recovery	Adequate Drinking water supply		KWA
4	(Post Disaster)	Assessment of detailed crop loss and give assistance to farmers		Agriculture dept.

TABLE 24: LIGHTNING CRISIS MANAGEMENT PLAN FOR THE DISTRICT

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

For effective response, multiple needs must be met in a coordinated manner in short time frames. Thus, inan 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 25: ACTIVITY CALENDAR OF VARIOUS LINE DEPARTMENTS DURING PRE-MONSOON, MONSOON & POST MONSOON

Departments	Pre - monsoon	During monsoon	Post monsoon
Health	Chlorination of Water resources/Awareness Programme/Fogging/	Proper waste management/ Fogging	Assessment of epidemics reports
Transport	Proper maintenance	Proper maintenance	Proper maintenance
Irrigation	Cleaning of water		Repair of pump &

	sources/Repair of pump & water sources		water sources
PWD	Road maintenance		Road maintenance
Revenue	Open DEOC	Co-ordination of line department	Assessment of damage
Fire	Conduct mock drill & training	Emergency operation	Conduct mock drill & training
Agriculture	-	Evaluation of crop loss	Fund allotment
Animal Husbandry	Preparation of emergency kits (Veterinary medicines)	Evaluation of loss	Fund allotment
KSEB	Repair, Trimming of trees	Dropping	Maintainers
KWA	Repair of pump & water sources		Repair of pump & water sources
SDMA/ SEOC	Risk assessment	Co –ordination	

Table 26: ANTICIPATED NEEDS DURING PRE-FLOOD AND POST-FLOOD

Anticipated Needs Pre- Flood			Anticipated No	eeds Post – Flood
Sl. No.	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 roads	Dewatering Pumps	Rescue equipments	Cooked food
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 equipment	Medicines/ Vaccination
8	Mangrove plantation	Generators		
		Storage of basic utilities	First-Aid	Supply of basic utilities
		Mobilize the Search & Rescue Equipments	Relief centres	Temporary shelters

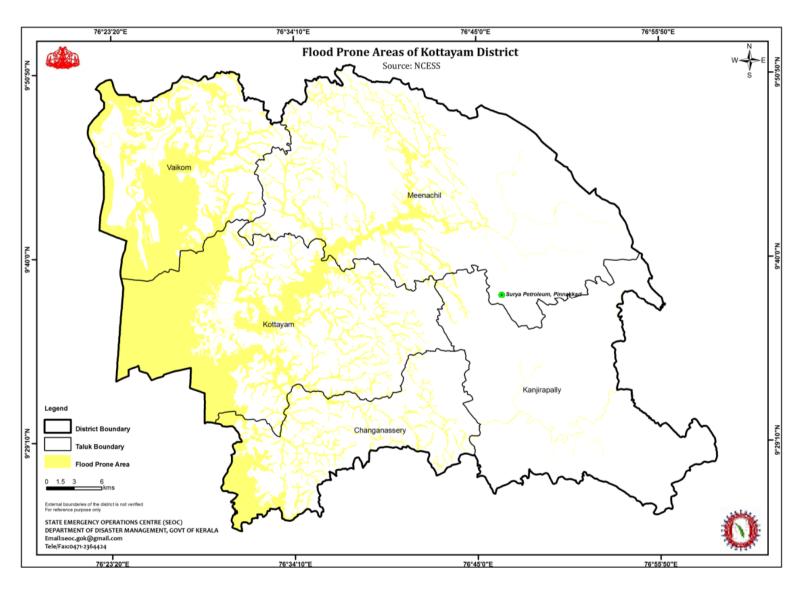


FIGURE 10: FLOOD PRONE AREA MAP OF KOTTAYAM DISTRICT (ANNEXURE 28)

TABLE 27: NEED ANALYSIS FOR PRE AND POST DROUGHT SCENARIOS

	Anticipated Needs Pre-	· Drought	Anticipated Needs 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	

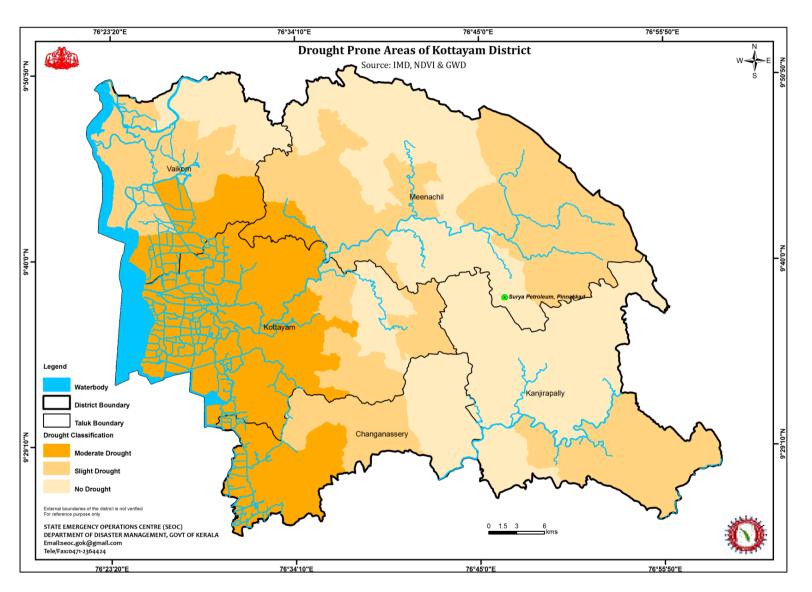


FIGURE 11: DROUGHT PRONE AREA MAP OF KOTTAYAM DISTRICT (ANNEXURE 23)

TABLE 28: NEED ANALYSIS FOR PRE AND POST LANDSLIDE SCENARIOS

	Anticipated Ne	eds Pre- Landslide	Anticipated Needs Pos	st – Landslide
Sl.No	Structural	Non – Structural	Rescue	Relief
1	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
2	Constructing piles and Retaining wall	Monitoring & updating landslide related parameters	onitoring & updating landslide related Vehicles ambulance	
3	Preserving vegetation	Public awareness campaigns	Rescue equipments	Financial aid
4	Rock fall protection	Update resource inventory	Human resources	Cooked food
5	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
6	Lowering the slope	Storage of medicine	Life savingequipments	Electricity
7		Disseminate landslide hazard mapping Information to stakeholders		Medicines/ Vaccination
8		At selected locations demonstrate mitigation actions through use of local resources/cost effective measures		

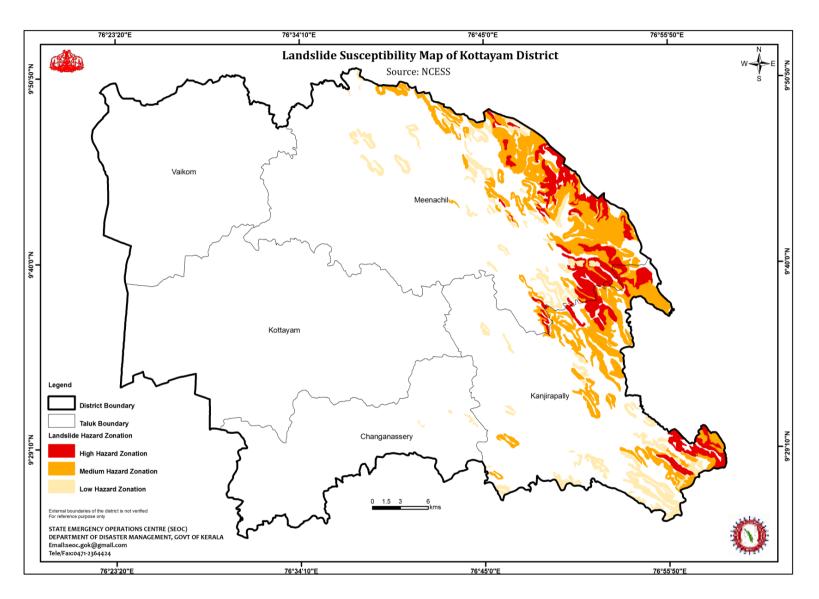


FIGURE 12: LANDSLIDE SUSCEPTIBILITY MAP OF THE DISTRICT (ANNEXURE 28)

TABLE 29: NEED ANALYSIS FOR PRE AND POST EARTHQUAKE SCENARIOS

Anticipa	ated Needs Pre- Earthq	uake	Anticipated Needs Post – Earthquake		
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, Communication System	
7	To provide or make seismic micro-zonation maps	Planning logistics for response scenarios, planning of evacuation routes	Life savingequipments	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 30: HISTORY OF TREMORS IN THE DISTRICT

Sl.No	Location	Intensity	Magnitude	Year
1	Kottayam-Changanacherry	III	3	1821
2	Kottayam-Changanacherry			1823
3	Kottayam-Changanacherry	V	4.3	1823
4	Kottayam-Changanacherry	IV	3.7	1841
5	Kottayam-Changanacherry	IV	3.7	1849
6	Kottayam-Changanacherry	V	4.3	1856
7	Kottayam-Changanacherry	IV	3.7	1952
8	Kanjirappally	V	4.8	1953
9	Kanjirappally	V	4.8	1953
10	Thodupuzha-Pala	IV		1953
11	Erattupetta	VII	5	2000
12	Barananganam-Kottayam		3.6	2000
13	Pala		2.2	2000
14	Pala		1.5	2000
15	Pala		3.9	2000
16	Kottayam_ town		<3	2001
17	Pala		4.8	2001
18	Erattupetta		3.4	2001
19	Barananganam-Kottayam		3.4	2001
20	Erattupetta		<3	2001
21	Pala	III	3	2001
22	Kaduvakulam	III	3	2001
23	Erattupetta		<3	2001
24	Bharananganam		<3	2001
25	Pala		2.5	2003
26	Erattupettah		1.5	2006
27	Nedumkandam		1	2006
28	Kanjirappally		1	2007

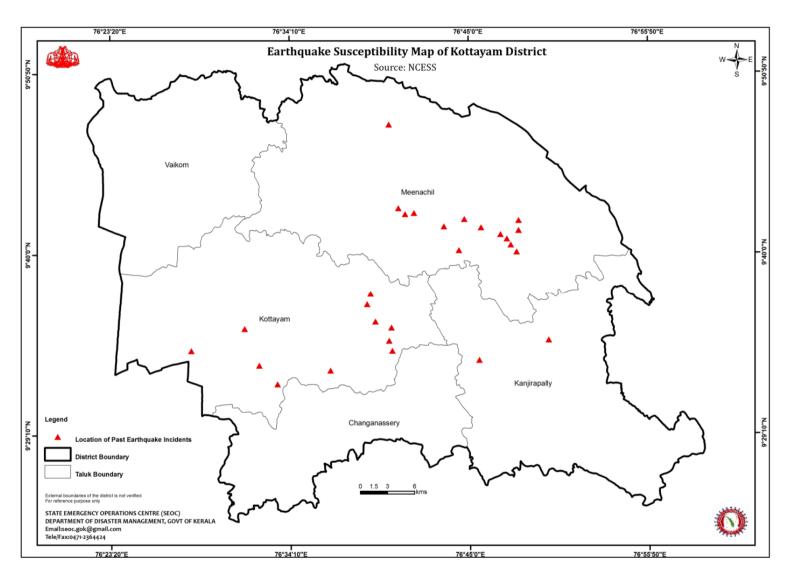


TABLE 31: EARTHQUAKE SUSCEPTIBILITY MAP OF KOTTAYAM DISTRICT

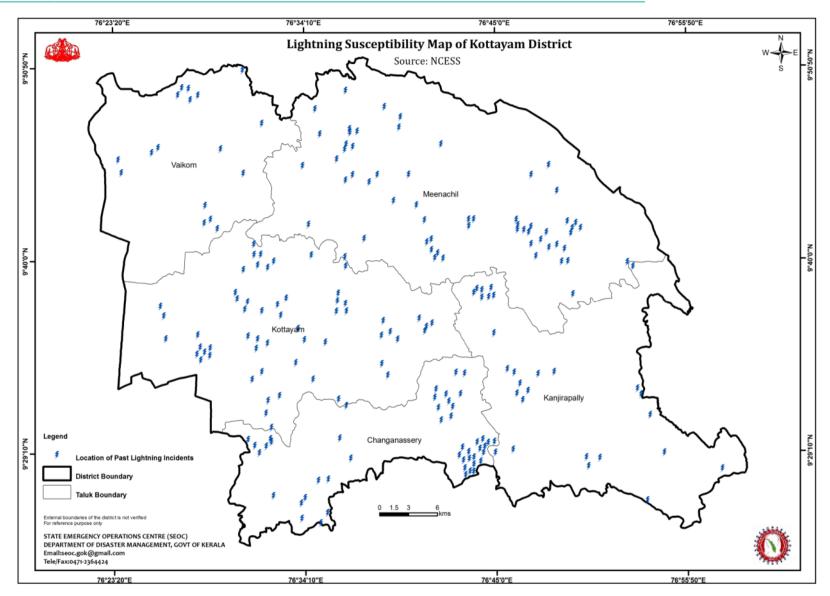


TABLE 32: LIGHTNING SUSCEPTIBILITY MAP OF KOTTAYAM DISTRICT (ANNEXURE 23)

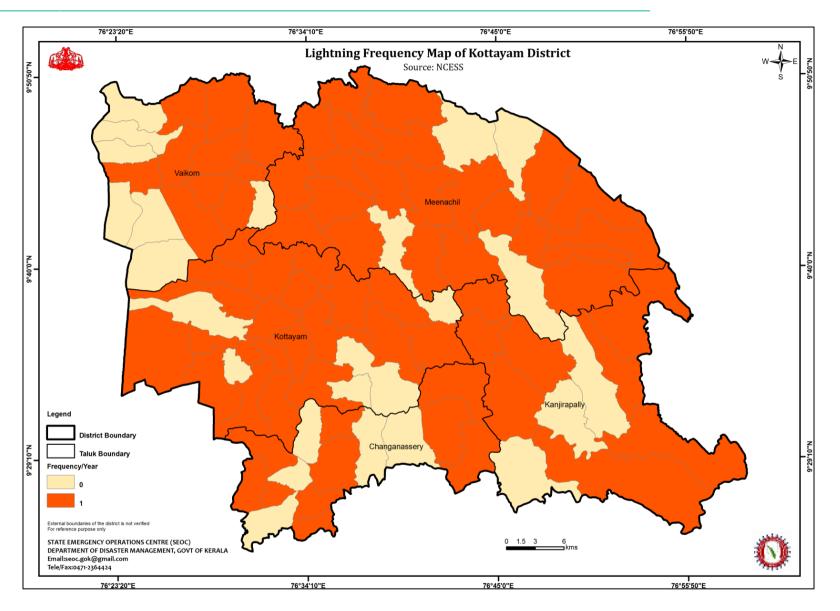


TABLE 33: LIGHTNING FREQUENCY MAP OF KOTTAYAM DISTRICT (ANNEXURE 24)

TABLE 34: NEED ANALYSIS FOR PRE AND POST LIGHTNING SCENARIOS

Anticipated Needs Pro	e- Lightning	Anticipated Needs Post – Lightning		
Structural	Non –Structural	Rescue	Relief	
Install lightning rod during the time of building construction	Public awareness campaigns	Human resources	Medicines/ Vaccination	
2	Update Resource Inventories	Mobile Clinics	Financial aid	

5.3 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 definedroles 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 35: RESPONSIBILITY MATRIX

Time	Task	Department/ Agency	Activity
D-72 Hr	Weather monitoring	IMD/INCOIS	Information Dissemination
D-48 Hr	Weather monitoring,	IMD and Revenue	Information Dissemination
	Early warning	Commissionerate	
D-24Hr	Weather monitoring,	IMD, Land revenue	Information
D-2 4 111	Early warning	Commissionerate	Dissemination/Evacuation
D-0Hr	Activate the Incident DDMA, Police, fire &		To save lives of people
D-0111	Command System	Rescue, Health	To save fives of people
D+15 Min	Rescue operations	Fire& Rescue, Police, NDRF	Search& rescue

5.4 RECONSTRUCTION, RECOVERY AND REPAIR WORKS

DDMP describes 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 re-development of the area takes place.

TABLE 36: DETAILS OF RECONSTRUCTION & REPAIR WORKS IN THE DISTRICT (2009-2013)

Sl. No	Task	Department/ agencies	Activities	Time Period	Cost	Source of Fund
1	Reconstruction	PWD/LSG	Road& bridge	2009-2010	48700000	SDRF
2	Reconstruction	PWD/LSG	Road& bridge	2010-2011	8417000	SDRF
3	Reconstruction	PWD/LSG	Road& bridge	2011-2012	64419896	SDRF
4	Reconstruction	PWD/LSG	Road& bridge	2012-2013	94414537	SDRF

Standard Operating Procedures and checklists of various departments isattached in Annexure 25

5.4 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:

- 1. They will coordinate directly with their functional counterpart in districts to provide the state government, the assistance required. Request for assistance will be channelled 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 26.

DISTRICT DISASTER MANAGEMENT PLAN KOTTAYAM – ANNEXURES 2015

ANNEXURE 1

RAIN FALL DATA

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010												
2011	1.4	2	0	4.5	15.1	38.5	69.5	12.8	49.7	38	13.4	11.9
2012	2.9	1.1	16.7	15.7	10.5	49.7	43.4	89.2	34.3	33.6	23.9	2.9
2013	0	10.8	8.7	26.2	165	128.6	59	34.9	49.5	35.6	2.3	3.3

ANNEXURE 2

AREA PRODUCTIVITY AND PRODUCTION OF IMPOTENT CROPS IN KOTTAYAM DISTRICTS

	Grains					
Sl. No	Name of Crop			Area (Ha)		Production (Tone)
1	Paddy	Virippu			7150	32432.97
		Mundakan			2230	8170.24
		Punja			8000	28783.25
	Spices					
2	Pepper		9482			1436
3	Ginger		225			682.323
4	Turmeric		160			513.671
5	Cardamom		200			26.455
6	Clove		95			8.818
7	Cinnamon		26			
8	Nutmeg		795			173.061
9	Vaillia		842			
	Plantation Crops					
10	Arecanut		2081			1195.99
11	Cashew nut		632			249.11
12	Betelvine		14			2760.15
13	Rubber		112236			157897.86
14	Cocoa		1327			995.37
15	Tea		1963			
16	Coffe		1736			
17	Coconut		39943			213 Million

					nuts
18	Tapioca	5727			44800.77
19	Pineapple	934			182359
20	Banana(Nendran)	3342			52376.88
21	Banana(Other plantains)	3884			3 8041.47
	Vegetable				
	Vegetable		Production in tone		
	Little gourd		241.56		
	Ash gourd		37.84		
	Pumpkin		39.92		
	Cucumber		57.45		
	Achinga			356.57	
	Other vegetable			168.97	

ANNEXURE 3

LIVE STOCK POPULATION IN KOTTAYAM DISTRICTS

Sl.No	Name of block	Cattle	Buffalo
1	Kanjirapally	14263	139
2	Kaduthuruthi	12836	251
3	Vaikom	5742	266
4	Erattupetta	10760	83
5	Lalam	7152	196
6	Uzavoor	14076	178
7	Eattumanoor	9608138	121
8	Pallam	6878	175
9	Pampady	12521	2157
10	Madapally	1009	44
11	Vazuoor	11314	71
12	Changanacharry Municipality	688	27
13	Kottayam	1878	101
14	Vaikom	947	143
	Total	9708202	3952

NO. OF FARMS IN KOTTAYAM

Sl.No.	Name of	Name of Panchayath	No. of Cattle farms	No. of Poultry farms
1	Block	Erumeli		
2		Kanjirapally	5	1
3	ılly	Kootickal	3	1
4	Kanjirapally	Koruthodu	1	
5	ınjir	Manimala	1	1
6	Ka	Mundakayam	1	•
7		Parathodu	2	5
8		Kaduthuruthy	4	
9	hy	Kallara	<u> </u>	1
10	ırut	Mulakkulam		
11	Kaduthuruthy	Njeezhoor	3	
12	adı	Thalayolapparambu		
13	×	Velloor	1	
14		Chempu	4	
15		Maravanthuruth	2	14
16	om	Thalayazham	5	
17	Vaikom	T.V. Puram		
18	>	Udayanapuram	6	
19		Vechoor		2
20		Erattupetta	3	
21		Thidanadu	3	1
22		Melukavu	2	
23	tupetta	Thalappalam	1	
24	tupe	Moonnilavu		1
25	Erat	Thalanadu	1	
26	Н	Poonjar	1	
27		Teekoy	3	3
28		Poonjar Thekkekkara	1	
29		Bharananganam		
30		Kadanadu	3	1
31	am	Karoor	5	6
32	Lalam	Kozhuvanal		
33		Mutholy	1	1
34		Meenachil	2	1
35		Kadaplamattom	2	5
36	oor	Marangattupally	4	2
37	Uzhavoor	Kanakkari	4	
38	Uzl	Kuravilangadu	6	
39		Ramapuram	6	6

40		Uzhavoor		
41	Veliyannoor		2	
42	Manjoor			
43		Arpookkara	2	
44		Athirampuzha	3	
45	00r	Aymanam	8	
46	nan	Ettumanoor	8	1
47	Ettumanoor	Kumarakam	1	
48	山	Neendoor		
49		Thiruvarpu	8	
50		Ayarkunnam	20	2
51	д	Panachikkadu	20	
52	Pallam	Puthuppally	12	
53	Pa	Vijayapuram	4	
54		Kurichy		1
55		Akalakkunnam	6	5
56		Kooroppada	2	6
57	>_	Manarkadu	2	1
58	Pampady	Meenadam	2	
59	ami	Pampady	10	3
60	Ğ.	Pallikkathodu	1	1
61		Elikulam		
62		Kidangoor		
63	_	Madappally	1	
64	ally	Paippadu	2	1
65	Madappally	Thrikodithanam		
66	T ad	Vakathanam	2	2
67	_	Vazhappally		
68		Kangazha	1	
69	<u>.</u>	Karukachal	2	1
70	1001	Nedumkunnam	2	5
71	Vazhoor	Vazhoor	2	2
72		Vellavoor		
73	Chirakadav			
M	Iuncipaliti	es & Corporation		
1	Chanagai	ncherry Municipality	5	1
2	Kottayan	n Municipality	1	
3	Pala Mun			1
4	Vaikom I	Municipality	11	

ANNEXURE 4

LIST OF INDUSTRIES IN KOTTAYAM DISTRICTS

Sl. No	Туре	Phone No.				
1	Govt.of India under taking Hindhustan News Print Ltd	04920257211 21				
	Vellor PO Mavelloor	04829256211-21				
2	State govt. Undertaking Travacore Cement, Nattakom Kottayam					
3	Kotayam Textiles, Vedagiri Ettumannoor					
	Co -operative Sector					
5	Kerala State Co-Operating marketing Societying					
6	Kottayam Intagrated Powerloom ICS Ltd, Amayannoor					
7	Malankara wood Ltd, Kodimatha					
8	Intermix Factory Neezhoor, Kaduthuruthy					
9	Malayalam Solvant Extraction Cattle feed					
10	Cochin Cements Mavellor					
11	MRF Ltd Vadavathoor					
12	Kerala Solvant Extraction Ltd Athirampuzha					
13	Formics Industries Ettumannor					
14	Midas Rubber Pvt Ltd					
15	Rubber wood India pvt Ltd					
	Mini Industrial					
16	Classic Lamps Vazhappally P O Changanasserry	0481-3291718,				
10	Classic Lamps Vaznappany i O Changanasserry	9846040054				
17	Chakkalayil Industries Kurichy Changanacherry	9447366474				
18	Midas 18th Mile Vazhoor	0482-2458999				
19	Anchani Plastics Vazhoor East	0482-8221527				
20	Angel Rubbers 18th Mile Vazhoor East	9447456331				
21	Indus Rubbers Nedumkunnam	9142032330				
22	Pippis Sweets Fathimapuram	9447409425				
23	Nirapara Roller Flour Mills Pvt Ltd IE Nagar Chethipuzha	0481-2727408				
24	Toms Pipes Pvt.Ltd IE Nagar	9447013000				
25	Rani Rubber Works IE Nagar	94463020955,				
23	Nam Naober Works ID Nagar	0481-2722955				
26	High Range Rubber & Coir Products IE Nagar	0481-2720496				
27	ACC Cement-mycem	04829-256755-				
	•	56-57				
28	HeaveaCrum Rubber Ltd Poovarany	04822-225250				
29	Liberty Agencies(Bricks)Cherpunkal	04822-225250				
30	Liberty Agencies(Bricks)Cherpunkal	9447227162				
31	Vazhayil V-form Rubbers Moonilavu	04822-286519				
32	Metrowood Factory Poonjar Nadubhagam	04822-286519				

33	Teekoy Tea Factory, Teekoy	04822-281047
34	Indiar Crum Rubber Factory Puliyannoor	04822205391
35	Fance Labs Kezhuvankulam	04822-268877
36	Malanadu Development SocietyEdakkunnam, Parathodu	4828-270456
37	Thomson Rubbers Koovappally	4828-201381,
31	Thomson Rubbers Roovappany	201382-83
38	Midas Polymer Compounds Pvt Ltd Cheruvally P O	04828-262051,
30	windas i orymer Compounds i vi Eld Cheruvany i O	262341

ANNEXURE 5

COMMUNICATION

1 Thirunakkara 2 Veloor 3 Aymanam 4 Kumarakom 5 Kumarakom 6 Kanjikuzhy 7 Mooledam 0481 2340000 8 Nattakom 0481 2330200 9 Panachikkad 0481 2330200 10 Kooropada 0481 2700200 11 Pampady 0481 2500500 12 Manarcad 0481 2372400 13 Chingavanam 0481 2430165 14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2505003 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
3 Aymanam 4 Kumaranalloor 0481 2310000 5 Kumarakom 6 Kanjikuzhy 7 Mooledam 0481 2340000 8 Nattakom 0481 2360000 9 Panachikkad 0481 2330200 10 Kooropada 0481 2700200 11 Pampady 0481 2500500 12 Manarcad 0481 2372400 13 Chingavanam 0481 2430165 14 Puthuppally 0481 254111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
4 Kumaranalloor 0481 2310000 5 Kumarakom 0 6 Kanjikuzhy 0481 2340000 7 Mooledam 0481 2360000 8 Nattakom 0481 2360000 9 Panachikkad 0481 2330200 10 Kooropada 0481 2700200 11 Pampady 0481 2500500 12 Manarcad 0481 2372400 13 Chingavanam 0481 2430165 14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
5 Kumarakom 6 Kanjikuzhy 7 Mooledam 0481 2340000 8 Nattakom 0481 2360000 9 Panachikkad 0481 2330200 10 Kooropada 0481 2700200 11 Pampady 0481 2500500 12 Manarcad 0481 2372400 13 Chingavanam 0481 2430165 14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
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8 Nattakom 0481 2360000 9 Panachikkad 0481 2330200 10 Kooropada 0481 2700200 11 Pampady 0481 2500500 12 Manarcad 0481 2372400 13 Chingavanam 0481 2430165 14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
9 Panachikkad 0481 2330200 10 Kooropada 0481 2700200 11 Pampady 0481 2500500 12 Manarcad 0481 2372400 13 Chingavanam 0481 2430165 14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
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11 Pampady 0481 2500500 12 Manarcad 0481 2372400 13 Chingavanam 0481 2430165 14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
12 Manarcad 0481 2372400 13 Chingavanam 0481 2430165 14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
13 Chingavanam 0481 2430165 14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
14 Puthuppally 0481 2351111 15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
15 Ayarkunnam 0481 2549000 16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
16 Thiruvanchoor 0481 2771111 17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
17 Mattakkara 0481 2541300 18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
18 Pallickathode 0481 2505003 19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
19 Meenadom 0481 2555200 ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
ETTUMANOOR TELECOM DIVISION 20 Neendoor 0481 2712100					
20 Neendoor 0481 2712100					
21 Athirampuzha 0481 2730000					
22 Thellakom 0481 2790100					
23 Gandhinagar 0481 2597299					
24 Kudamaloor 0481 2391200					
CHANGANASSERY DIVISION					
25 Kurisummood 0481 2725000					
26 Thrikkodithanam 0481 2444600					
27 Nalukody 0481 2446000					
28 Thuruthy 0481 2320320					
29 Mammod 0481 2473000					

30	Karukachal Division	0481 2487777
31	Nedumkunnam	0481 2416100
32	Vazhoor	0481 2456600
33	Kangazha	0481 2495000
34	Vakathanam	0481 2462100
J.	KANJIRAPPALLY DIVIS	
35	Pinnakkanad	04828 236200
36	Koovappally	04828 251200
37	Pampavalley	04828 214300
38	Mukkoottuthara	04828 254400
39	Erumely Sub Division	04828 210220
40	Chirakkadavu	04828 230100
41	Ponkunnam Sub division	04828 224000
42	Chengalam	04828 2704200
43	Thekkethu kavala	04828 229000
44	Panamattom	04828 226000
45	Mukkoottuthara	4828 224000
46	Manimala sub division	04828 248400
47	Chenappady	04828 262200
48	Mundakayam	04828 272200
49	Velichiyani	04828 270222
50	Punchavayal	04828 278000
51	Koottickal Sub division	04828 284400
52	Yendayar	04828 2896200
53	Parathanam	04828 287200
54	Koruthodu	04828 280299
31	PALA DIVISION	01020 200299
55	Puliyannoor	04822 205200
56	Vellavoor	04822 258120
57	Marangattupally	04822 251020
58	Kozhuvanal	04822 267020
59	Ramapuram	04822 260200
60	Poovarani	04822 225200
61	Kidangoor	04822 254120
62	Bharananganam	04822 236200
63	Kollappally	04822 221200
64	Melukavumattom	04822 219020
65	Vellikulam	04822 289100
66	Uzhavoor sub division	04822 240000
67	Veliyannoor	04822 244000
68	Kuravilangad	04822 230220
69	Monipally	04822 242200
70	Vayala	04822 228000
71	Erattupetta Sub Division	04822 273040
72	Teekoy	04822 281020
73	Kunnonni	04822 284498
13	Ramomi	UTU22 2U11/U

74	Peringulam	04822 271000
75	Moonnilavu	04822 286500
76	Pathampuzha	04822 285298
77	Chennad	04822 279298
	VAIKOM DIVISION	
78	Ayamkudi	04829 288000
79	Vaikom MBM	04829 225000
80	Chempu	04829 273299
81	Kudavechoor	04829 275199
82	TV Puram	04829 210000
83	Thalayolaparambu	04829 238000
84	Mevelloor	04829 257600
85	Njeezhoor	04829 264000
86	Peruva Sub division	04829 251000
87	Kaduthuruthy Sub division	04829 282200
88	Kuruppanthara	04829 242100
89	Kallara	04829 267201

ANNEXURE 6

ROAD

Highway	Name of the Road	Len (KMS)
SH-1	MC Road	149
SH-9	Kottayam-Kozhencherry road	126
NH-220	Kottayam-Kumali road	265
SH-32	Ettumanoor-Erattupetta road	151
SH-14	Erattupetta-Peerumade	141.78
SH-15	Ettumanoor- Ernakulam	57.3
SH-11	Changanassary-Alappuzha	24.8

ANNEXURE 7

RAIL WAY STATIONS IN KOTTAYAM

Station	Ph .No		
Kottayam	562933, 563535		
Changanassery	0481 2420108		
Chingavanam	0481 2430361		
Ettumanoor	0481 2535531		
Kuruppanthara	04829 242319		
Vaikom road	04829 2524254		
Total Length (KMS)	266.52		

ANNEXURE 8

POLICE FORCE

Kottayam Sector					
Station	Office No	Mobil NO			
DYSP,Kottayam	0481 2564103	9497990050			
Circle Inspector, Kottayam East	0481 231144	9497987071			
Circle Inspector, Kottayam Wast	0481 2301199	949798072			
Circle Inspector, Kottayam Ettumanoor	0481 2539300	9497987075			
Circle Inspector, Kottayam, Vakathanam	0481 2462296	9497987074			
Sub Inspector, Kottayam East	0481 2560333	9497980326			
Sub Inspector, Kottayam Wast	0481 2567210	9497980328			
Changanassery	Sector				
DYSP, Changanassery	0481 2422100	9497961631			
Circle Inspecto , Changanassery	0481 2400100	9497987073			
Pala sector	r				
DYSP,Pala	04822 210888	9497990051			
Circle Inspector, Pala	04822 212334	9497987080			
Circle Inspector,Ramapuram	04822 2622777	9497981116			
Circle Inspector, Erattupetta	04822 274025	9497987084			
Sub Inspector, Erattupetta	04822 272228	9497980316			
Sub Inspector,Pala	04822 212334	9497980337			
Sub Inspector, Thalayolaparambu	04829 239200	9497961438			
Vaikom					
Circle Inspector, Vaikom	04829 216170	9497987081			
Circle Inspector, Kaduthuruthy	04829 282332	9497987082			
Sub Inspector, Vaikom	04829 231330	9497980347			
Sub Inspector, Kaduthuruthy	04829 282323	9497980322			
Kanjirappa	lly				
DYSP, Kanjirappally	04828 202899	9497990052			
Circle Inspector, Manimala	04828 247141	9497987078			
Circle Inspector, Kanjirappally	04828 202800	9497987076			
Circle Inspector,Ponkunnam	04828 224640	9497987077			
Circle Inspector, Pampady	0481 2505322	9497987079			
Sub Inspector, Kanjirapally	04828 202800	9497980923			
Sub Inspector, Erumely	04828 210233	9497980317			
Sub Inspector, Manimala	04828 247141	9497980333			

POLICE STATION IN KOTTAYAM

Police station	Taluk	Phone NO
Karukachal, Police station	Changanassery	0481 2485126
Changanassery, Police station	Changanassery	0481 2420100
Changanassery, Police station	Changanassery	0481 2430587
Vakathanam, Police station	Changanassery	0481 2462296
Kanjirapally, Police station	Kanjirapally	04828 202800
Manimala, Police station	Kanjirapally	0481 247141
Mundakkayam, Police station	Kanjirapally	04828 272317
Ponkunnam, Police station	Kanjirapally	0481 221240
Erumely, Police station	Kanjirapally	04828 210233
Eattumanoor, Police station	Kottayam	0481 2535517
Gandhinagar, Police station	Kottayam	0481 2597210
Kottayam East, Police station	Kottayam	0481 2560333
Kottayam west, Police station	Kottayam	0481 2567210
Kumarakom, Police station	Kottayam	0481 2504339
Kuravilangadu, Police station	Kottayam	0481 2230323
Manarcaud, Police station	Kottayam	0481 2370288
Pallikkathode, Police station	Kottayam	0481 2551066
Pampady, Police station	Kottayam	0481 2505322
Erattupetta, Police station	Meenachil	04822 272228
Kidangoor, Police station	Meenachil	0481 254195
Marangattupally, Police station	Meenachil	0481 251065
Melukkavu, Police station	Meenachil	0481 251065
Pala, Police station	Meenachil	0482 2212334
Ramapuram, Police station	Meenachil	04822 260252
Thidaanadu, Police station	Meenachil	0482 235295
Kaduthurauthy, Police station	Vaikom	0481 282323
Vaikom, Police station	Vaikom	04829 221330

ANNEXURE 9

HR IN FIRE AND RESCUE

Sl.No	Designation	Kottayam	Changanasserry	Pala	Kanjirapally	Erattupetta	Pampady	Kaduthurathy
1	Station Officer	1	1	1	1	1	1	1
2	Asst.Station Officer	2	1	1	1	Nill	1	1
3	Leading Fire man	6	3	4	4	3	1	4
4	Driver Mechanic	2	1	1	1	1	1	1
5	Fire man driver	12	9	7	7	7	5	5
6	Fire Man	16	15	12	11	9	9	12
7	Home Guard	11	8	6	10	6	9	7
	Total	50	38	32	35	27	27	31

ANNEXURE 10

PRI REPRESENTATIVES

MUNICIPALITIES					
KOTTAYAM	0481-2566665				
Chairman	0481-2382899	9447201171			
Municipal Secretary	0481-2565788	94465061760			
PALA	04822-212130				
Chairman		9447104753			
Municipal Secretary	04822-210114	9961589889			
VAIKOM	04829-232221				
Chairperson	04829-215151	999534332			
CHANGAASSERY	0481-2423814				
Chairman		9447810071			
Municipal Secretary	0481-2429804	9447253937			

ANNEXURE 11

DISTRICT EOC

District control room						
Sate control room	0471-2333198/2331639					
District Control room	1077/0481-2562201					
Aska light	5					
Fluorescent jacket	3					
Wireless set	1					
Lap Top	1					
Camera	1					

ANNEXURE 12

HELIPAD

Sl.No.	Туре	Location
1	Ground	Govt. LPS, Velliappally
2	Ground	St. Augustines HSS, Ramapauram
3	Ground	Panchayat Ground, Ramapuram
4	Ground	Holy Cross H.S, Monippally
5	Ground	St. Ann's H.S, Kurianadu
6	Ground	Govt. LPS, Kaippally
7	Ground	St. Antony's HSS,Poonjar

8	Ground	St. John's H.S, Kurumannu
9	Ground	St. Sebastian's H.S, Kurumannu
10	Ground	St. Stephen's College Ground, Uzhavoor
11	Ground	Municipal Stadium, Pala
12	Ground	St. Thomas College Ground, Pala
13	Ground	De Paul HSS, Kuravilanga
14	Ground	St. Mary's HSS, Kuravilangad
15	Ground	St. George College, Aruvithura, Erattupetta
16	Ground	St. George HS,Manimala
17	Ground	Thazhathuvadakara
18	Ground	Municipal Stadium, Changanassery
19	Ground	NSS College, Changanassery
20	Ground	Manimala
21	Ground	Govt. HSS
22	Ground	GVHSS, Vazhappally
23	Ground	GLPS (Vivekananda
24	Ground	St. Joseph H.S Koovappally
25	Ground	Panchayat Ground, Koovappally
26	Ground	Govt. V.H.S.E, Vizhikkathodu
27	Ground	Assumption H.S, Palampra
28	Ground	J.J. M.M. HSS, Yendayar
29	Ground	Baselius College, Kottayam
31	Ground	BCM College, Kottayam
32	Ground	CMS College, Kottayam
33	Ground	St. Mary's College, Manarcad
36	Ground	Govt. Polytechnic, Kottayam
37	Ground	Nahadiumaru st
		· · · · · · · · · · · · · · · · · · ·

ANNEXURE 13

PANCHAYAT/BLOCK WISE NUMBER OF DRINKING WATER FACILITIES

Sl. No.	Name of Panchayath	Public Tubewells	Public Borewells	Public Wells	Public Tanks/Ponds	Public Taps	Others
1	2	3	4	5	6	7	8
1	Erumeli	-	13	32	13	104	
2	Kanjirapally		15	16	11	100	
3	Kootickal		18	25	17	160	
4	Koruthodu		14	5	8	113	
5	Manimala		11	18	16	20	
6	Mundakayam		13	30	16	100	
7	Parathodu		15	15	12	166	

	Kanjirappally		99	141	93	763	0
1	Kaduthuruthy			32	4	40	33
2	Kallara			66	2	41	
3	Mulakkulam	25		32		55	
4	Njeezhoor		16	13	17		1250
5	Thalayolapparambu			7	13	233	
6	Velloor	10	5	60	6	124	
	KaduthuruthyBlock	35	21	210	42	493	1283
1	Chempu			9		155	
2	Maravanthuruth					189	
3	Thalayazham				10	234	
4	T.V.Puram			40	5	43	
5	Udayanapuram			15	4	475	
6	Vechoor	1		9	8	241	1
	VaikomBlock	1	0	73	27	1337	1
1	Erattupetta	25		11	27	18	
2	Thidanadu	22		10	15	9	
3	Melukavu	22		6	8	13	
4	Thalappalam	28		4	5	12	
5	Moonnilavu	18		8	4	22	
6	Thalanadu	20		11	4	62	
7	Poonjar	12		13	8	12	
8	Teekoy	8			4	26	
9	PoonjarThekkekkara	18		8	10	38	
	ErattupettaBlock	173		71	85	212	0
Sl. No.	Name of Panchayath	Public Tubewells	Public Borewells	Public Wells	Public Tanks/Ponds	Public Taps	Others
1	2	3	4	5	6	7	8
1	Bharananganam	16		1	5	15	
2	Kadanadu	63		36	9	30	
3	Karoor	23	11	5	6	53	
4	Kozhuvanal	11	4	8	5	39	
5	Mutholy	12	4	5	2	68	
6	Meenachil	20	6	19	3	48	
	LalamBlock	145	25	74	30	253	0
1	Manjoor				40		
2	Kadaplamattom	2		71	20	15	

3	Marangattupally	12	5	2	27	16	62	
4	Kanakkari	7			5	7	28	
5	Kuravilangadu	7			8	5	34	
6	Ramapuram	23		2	21	31	56	
7	Uzhavoor	6		2	20	24	12	
8	Veliyannoor	16		1	2	12	30	0
	UzhavoorBlock	73	5	10	64	155	237	
1	Arpookkara		23	:	5	19	113	
2	Athirampuzha		14	2	20	4	85	
3	Aymanam			Ź	2	1	195	
4	Ettumanoor		23	3	86	12	49	
5	Kumarakam			1	.8	1	316	
6	Neendoor		12	1	.8	3	165	
7	Thiruvarpu			1	.4		275	
	EttumanoorBlock	0	72	1	13	40	1198	0
1	Ayarkunnam	0	28	3	35	26	200	
2	Panachikkadu		37	2	26	12	130	
3	Puthuppally		7	4	4	3	484	
4	Vijayapuram		20	,	7	4	207	
5	Kurichy	8	-	:	5	5	213	-
	Pallam	8	92	7	7	50	1234	0
Sl. No.	Name of Panchayath	Public Tubewells	Public Borewells	Public Wells	Publi Tanks Pond	S/ Public Tans	No.of houses having water connections	
1	2	3	4	5	6	7	8	9
1	Akalakkunnam		11	14	7	222	3100	
2	Kooroppada		14	4	7	50	217	
3	Manarkadu		14	9	17	246		
4	Meenadam		13	3	1	83	1152	
5	Pampady		40	22	16	114	2460	
6	Pallikkathodu		44	24	4	93		
7	Elikulam		24	26	16			
8	Kidangoor			8		17	1218	
	PampadyBlock	0	160	110	68	825	8147	
1	Madappally	9		8	3	220	313	
2	Paippadu	11	2	5	6	54	184	
	<u> </u>							

3	Thrikodithanam	8		17	5	128	224	
4	Vakathanam	10		19	4	116	229	
5	Vazhappally	4	3	8	8	210	230	
	MadappallyBlock	42	5	57	26	728	1180	0
1	Kangazha	13	7	11	4	171	320	
2	Karukachal	18	1	14	4	92	352	
3	Nedumkunnam	14		1	3	187	346	
4	Vazhoor	26	2	21	7	288	306	
5	Vellavoor	33		7	2	64	64	
6	Chirakadavu		42	92	21	101	1110	
	VazhoorBlock	104	52	160	41	903	2498	0
	Municipality							
1	Chanagancherry			13	9	385	3542	
2	Kottayam		23	32	8	947	8417	
3	Pala		13	3	6	145	3104	
4	Vaikom			15	5	400		

ANNEXURE 14

TEMPORARY SHELTERS

Taluk	Village	Type	Name Of Evacuation Centre	Phone
	Poonjar Vadakkekkara	School	GLPS, Thalanadu	944692553
	Poonjar Nadubhagam	School	GHS Adukkam	04822 280598, 9847871285
	Poonjar Thekkekkara	School	SMV HSS Panachippara	04822 273638
Meenachil	Melukavu	School	CMS HSS Melukavu	04822 220440
Wieenachn	Poonjar Thekkekkara	School	St. Antonys LPS Poonjar	9496722704
	Moonnilavu	School	School St.Pauls HS Valiyakumaramangalam	
	Teekoy	School	Vellikulam HSS	04822 289015
	Kondoor	School	GVHSS ,Thidanandu	04828 239602
	Puliyannoor	School	St.Thomas Aasramam	04822 205030
	Chempu	School	Brahmangalm HSS	
Vaikom	KS Mangalam	School	SN LPS Palamkadava	
	Naduvila	School	Govt.GHS Vaikom	

	Vadakemuri	School	SN LPS, Vykapraaaayar	
	Vadayar	School	Govt.HS Thalayolaparambu	
	Vaikom	School	SN LPS ,Vykaprayar	
	Chethipuzha	School	Govt.HSS,Vadakkekkara	
		School	St. Mary's LPS. Vadakkekkara	
		School	Govt. LPS, Cheeramchhira	
	Vazhappally	School	Anandasramam UPS,	
	East		Vazhappally Assumption college	
		College	Auditorium	
Changanacherry		Community Hall	GSV Hall,Vazhappally	
			Varrier Samajam Hall, Mathumoola	
	Paippad	School	Govt UPS, Nalukodi	
	Vazhappally west	School	Govt.VHSS	
		School	Govt. LPS,Thuruthy	
		School	Govt. LPS,Paral	
		School	Eden public school Paral	
	Aymanam	School	Kumanam LPS,	
		School	Pulikkuttissery UPS	
		School	Aymanam UPS	
	Perumpaikkad		Latin Catholic Church hall	
	Kumarakam	School	Govt. HSS, kumarakam	
	Puthupally	School	MDLPS ,Angdi	
		School	UPS, Eravinalloor	
		School	Govt .LPS,Ericadu	
			NSS Hall	
	Vijayapuram	School	EALPS, Nattassery,	
		School	Govt UPS, Nattassery,	
	Veloor	School	St.John LPS,Veloor	
Kottayam		School	St.John LPS,Pulinakkal	
	Thiruvarpu	School	Govt.School	
	Peroor	Community Hall	Sisu Vihar,Ettumanoor	
		School	Govt.LPS,Peroor	
	Nattakam	School	Govt.UPS,Chingavanam	
		School	Govt. School,Pallam	
		Community Hall	Community Hall,Sisu vihar	
	Panachikkadu	School	Govt.LPS, Channanicadu	
	Manarcad	School	Govt.LPS, Manarcad	
	Ettumanoor	School	Govt.LPS,Ettumanoor	
			Govt.HSS, Ettumanoor	

	Kottayam	School	CNI LPS,Chalukunnu	
		School	GHSS,Karapuzha	
	Chengalam South		Mahila Samajam ,Kummanam	
			GHSS Kummanam	
	Mundakayam		NIL	
	Erumely North	School	Govt .UPS,Kosady	
Vaniiwannally	Koottickal	School	Govt.LPS,Plappally	
Kanjirappally	Erumely south		Nill	
	Koovappally	School	St.Mary's UPS,Koratty	
	Manimala		Nill	

ANNEXURE 15

DETAILS OF AVAILABLE EQUIPMENT IN FIRE & RESCUE DEPT.

Sl. No	Equipment	Kottayam (KTYM)	Changanasserry (Chry)	Pala	Pmpy	Kanjirapally (Kply)	Erattupetta (Etpa)	Kaduthurathy (Kdthy)
1	Fire Enginemobil Turbo Unit (Mtu)	5	1	3	1	1	2	
2	Rubber Dinky	1	1	1				
3	Chainsaw	1(Petro) 3(Electrical)	2	2	1	1	1	1
4	Scuba	2	1			1		
5	Lifebuoy	5	2	2	2	2	6	2
6	Life Jacket	3	1	2	2		6	2
7	Ambulance	1			1		1	1

ANNEXURE 16

HEALTH DEPARTMENTS

District Medical Officer	0481 2562923,	9605408756
Bindhu Kumara (Health)	2304110, 2562778	
DY.DMOH , N.Priya (rural)		9447414097
T.A Gri.l K.R rajan		9495088518
JDy.DMO Domi		9447675594
DEMO ,K.Dev		9446458424
T.A Gr II,K.N Jayaprakash		9447355305
T.A Gr II,Baburaj		9446075229
Distric Programme Manager NRHM	0481 2304844	9946108480

GOVT.HOSPITALS

Superintendent, Medical Collage Kottayam	0481 2597311	9447054440
Dy. Superintendent Medical Collage Kottayam	0481 2597311	9447251614
Superintendent Districts hospital kottayam	04812563611	9447370455
Medical officer Community health centre Erumely	04828210454	9495102623
Superintendent Taluk hospital Kajirappally	04828 2022927	9446552524
Superintendent Taluk hospital Vaikom	04829 231261	9447289680
Superintendent General hospital Pala	04822 212302	9020139190
Superintendent Taluk hospital Changanassery	0481 2402349	9446152898
Superintendent Govt. Hospital Mundakayam	04828 272572	9495458522
Superintendent Govt. Hospital	0481 2507866	9447288212

Name of CHC	Ph. No
Sachivothampuram	0481 2431700
Thottakkadu	0481 2462370
Kumarakam	0481 2524310
Ettumanoor	0481 2535573
Aymanam	0481 2516149
Parampuzha	0481 2770829
Athirampuzha	0481 2730095
Kooropada	0481 2701435
Meenadam	0481 2556648
Onamtherthu	0481 2712511
Ayrkunnam	0481 2545950
Thiruvarpu	0481 2382066
Panachikkadu	0481 2433604
Nattakom	0481 2362299
Madapally	0481 2472745
Thrikodithanam	0481 2445470
Vakathanam	0481 2461889
Vazhoor	0481 2454888
Nedunkunnam	0481 2417534
Vazhapally	0481 2726531
Ullanadu	04822 247343
Thalayoraparampu	04829 237403
Arunoottimangalam	04829 252376
Mundakunnu	0481 2551201

Ettumanaar	0481 2535573
Ettumanoor	
Athirampuzha	0481 2730095
Aymanam	0481 2516149
Parampuzha	0481 2770829
Brahmamangalam	04829 274427
Erattupetta	04822 277425
Poonjar	04822 274994
Manimala	04828 247031
Marangattupally	04822 250400
Madapally	0481 2472745
Thrikodithanam	0481 2445470
Vakathanam	0481 2461889
kooropada	04821 2701435
Meenadam	0481 2556648
Onamamtherth	0481 2712511
Ayrkunnam	0481 2545950
Thiruvarppu	0481 2382066
Panachikkadu	0481 2433604
Nattakom	0481 2362299
Kadanadu	04822 247747
Karoor	04822 2622893
Meenachl	04822 233036
Mutholi	04822 206346
Kozhuvanal	04822 269367
Maravanthuruth	04829 236756
Udayanapuram	04829 225213
TV puram	04829 225213
Thalayazham	04829 224814
Vazoor	0481 2454888
Vellavor	0481 2496789
Nedunkunnam	0481 2417534
G.V Raja Poojar	04822 273638
Thalanadu	04828 239602
Moonilavu	04822 207106
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PRIVATE HOSPITALS IN KOTTAYAM

Sl. No.	Name of Hospitals	Phone Numbers	
1	Alphonsa hospital, Changanassery	0481 2420103	
2	Amala Medical Centre, Kottayam	9495264479	
3	Amans Carewell Hospital, Erattupetta	048222274573	
4	Anugraha Hospital, Karapuzha	0481 2583060	
5	Aradhana Hospital, Vaikom	04829 275583	
6	Arunodya Puthupally	0481 2352207	
7	Asha Hospital Veloor	0481 2373304	
8	Assumption Hospital, Melukavumattom	04822 219036	

9	Athira Nursing Home ,Mukoottuthara	04828 254945	
10	Ayurgram Hospital Vaikom 04829 3268		
11	Ayurlakshmi Kumarakom	0481 2523313	
12	B.J Clinic,Erattupetta	04822273045	
13	Base hospital ,Manarkadu	0481 2371213	
14	Bhavana Hospital ,Athirampuzha	9495445725	
15	Bhavana Children Hospital, Kottayam	0481 2552920	
16	CMM Hospital ,Karukachal	0481 2485127	
17	C . N Hospital, Changanacharry	0481 2722888	
18	Cardinal Speciality Hospital, Monipally	048222 243099	
19	Carewell Hospital, Kallara	04829 267473	
20	Carithas Hospital ,Thellokom	0481 2790025	
21	Cherupushpam Hospital ,Mukoottutha	04828 254980	
22	Cherupushpam Hospital,Pala	04822 213309	
23	Chiithra Hospital, Ayarkunnam	0481 2542270	
24	Chiithra Hospital, Manimala	048228 247454	
25	Christ Raj Hospital,Pala	04822 212760	
26	CKC Smaraka, Erattupetta	9947804854	
27	CMC Hospital,Kottayam	0481 2597177	
28	Co Operative Hospital Kaduthuruthy	04829 282574	
29	Devi Hospital, Mundakkayam	04828 280545	
30	Devine Hospital, Kuruppamthara	04829242897	
31	Elite Hospital, Chingavanam	0481 6524371	
32	Fathima Mission Hospital, Kozhuvanal	04822 267027	
33	Goods Samarian Hospital,Ponkunnam	04828 221218	
34	Goutham Hospital Thaiayolaparampu	04829 237749	
35	Grace Hospital ,Changanacherry	0481 2421914	
36	Grace Medical Centre, Aimanam	0481 2517676	
37	HNL Hospital ,Perunna	04829 256211	
38	HDP Hospital,Kottayam	0481 2711418	
39	High Range Hospital, Erumely	04828 212927	
40	High Range Hospital,Parathodu	04828 270578	
41	Holly Cross,Koovapally	04828 251164	
42	Holly Family Hospitals,Bharanaganam	04822 277329	
43	Holy Ghost Hospital, Muttichira	04829 282224	
44	Holy Sprit Hospital Thangana	0481 2720813	
45	Hosanna mount Hospital,Poovathodu	04822 236226	
46	I.H.M .Hospital, Bharanaganam	04822 236228	
47	Indo American brain &spinal Centre ,Vaikom	04829 273281	
48	Jacob Memorial Hospital ,Kottayam	0481 24301707	
49	Janatha Hospital,Pala	04822 212132	
50	Jaya nursing home, Thalayolaparambu	04829 238188	

51	Jijo Hospital,Poonjar	04822 272530	
52	K.V.M Hospital, Ponnkunnam 04828 221713		
53	Kadampuzha Hospital,Kanjirapally 04828 2028		
54	KM Hospital ,Nedumkunnam	0481 2415281	
55	M.G.D.M Hospital, Kanghazha	0481 2494478	
56	Little Lurde Hospital, Kidangoor	04822 254156	
57	MAM Hospital, Kajirally	04828 329235	
58	Mandiram Hospital, Manganam	0481 2578393	
59	Manimala Medical centre ,Manimala	0481 04828 247021	
60	Mar Dionysius Hospital, Kottayam	0481 2566588	
61	Mariyan Clinic, Hospital	9497667353	
62	Mariyan Hospital, Changanassrery	0481 2422017	
63	Mariyan Medical centre Arunapuram	04822 214219	
64	Mary Matha Hospital, Kajirapally	04828 201015	
65	Mary Qeen Hospital, Kanjirapally	04828 202460	
66	Mary Qeen's Mission Hospital Kanjirapally,	04828 201300	
67	Matha Hospital, Thellakom	0481 2790920	
68	Medical centre, Manimala	04828 247027	
69	Medical centre, Kottayam	0481 2562860	
70	Medical Mission Hospital, Vazhoor	0481 2456322	
71	Medicare Children Hospital, Erattupetta	04822 272485	
72	Medicare Hospital, Kottayam	0481 2516377	
73	Mercy Hospital, Chengalam	0481 2704226	
74	Mercy Hospital, Thalayolaparampu	04829 236131	
75	Mercy Nursing Home ,Karukachal	0481 2485135	
76	Mercy Nursing Home, Thengana	0481 2474070	
77	Mithranikethan Hospital ,Vagamon	048228 274667	
78	MMT Hospital, Mundakayam	04828 320800	
79	Mother Mary Hospita, Mundakayam	04828 274667	
80	N.S.S Hospital, Kummannoor	04822 255104	
81	N.S.SMedical mission Hospital, Changanassrery	0481 2420018	
82	N.S.SMedical mission Hospital, Karukachal	0481 2485222	
83	Paret Mar Evanious, Hospital, Puthupally	0481 2352873	
84	People Hospital, Mundakayam	04828 272526	
85	Salvation Army Hospital Medical Hospital Parathodu	0481 3494607	
86	Santo Hospital ,Vaikom	04829 275109	
87	St. Augustines Hospital, Ramapuram	04822 260367	
88	St.George Hospital,Menvettom	04829 249103	
89	St.George Mount Hospital, Vayala	04822 228246	

90	ST.Mary's Hospital,Poovarani	04822 225294
91	ST.Thomas Hospital ,Chethipuzha	0481 2721797
92	ST.Thomas Hospital, Vadayar	04829 236140
93	ST.Vincent Hospital, Kuravilangadu	04822 231636
94	ST.Thomas Hospital, Kuruppumthara	04829 242726
95	Susrusha Hospital, Kottayam	0481 2391826
96	Thekkedathu Medical Centre, Kuravilangadu	04822 230421
97	Thengana Medical Mission Hospital	0481 2473237
98	Udayagriy Hospital, Chananassery	0481 2421250
99	Vaikom Sathyagraja Memorial Hospital,	04829 221701
77	Vaikom	04029 221701
100	VMC Hospital, Kaduthuruthy	09388627471
101	VSM Hospital, Vaikom	04829 221701

ANNEXURE 17

VETERINARY HOSPITALS

Sl.No	Panchayath	Hospital	Dispensaries	Poly clinic	Sub centers
1	Chempu	1			1
2	Thalayazham	1			2
3	Maraventhuruth		1		1
4	T.V puram		1		1
5	Udayanapuram		1		1
6	Vaikom	1			
7	Vechoor		1		1
8	Kaduthurathy		1		5
9	Kallara		1		1
10	Mulakkulam		1		2
11	Njeezhoor		1		1
12	Thalayolaparampu	1			1
13	Vellor		1		1
14	Arpookara		1		1
15	Athirampuzha		1		1
16	Aymanam		1		1
17	Ettumanoor	1			1
18	Thiruvarppu		1		1
19	Kumarakam		1		1
20	Neendoor		1		1
21	Uzhavoor		1		1
22	Velizanoor		1		1

23	Kadplamattom		1		
24	Ramapuram	1			1
25	Kuravilgadu	1			1
26	Maragattupally	1	1		
27	Majoor		1		1
28	Kanakkary	1			1
29	Bharananganam		1		2
30	Kadanad		1		2
31	Karoor		1		3
32	Mutholy			1	1
33	Kozuvanal		1		1
34	Meenachil		2		
35	Akalakkunnam	1	1		1
36	Kooropada		2		1
37	Pallickathodu		1		1
38	Pampady	1			1
39	Kidagoor	1			2
40	elikkulam		1		2
41	Manarkadu	1			1
42	Meenadam		1		1
43	Melukadavu		1		
44	Moonilavu		1		
45	Teekoye		1		
46	Thalanadu		1		
47	Erattupetta	1			
48	Thalappalam		1		
49	Thidanadu		1		1
50	Poonjar		1		
51	Poonjar Thekakkara		1		
52	Ayarkunnam		1		1
53	Panachikkad		1		1
54	puthupally			1	
55	Vijiapuram		1		1
56	Kottayam	1	2		2
57	Kurichi		1		1
58	Madapaally		1		1
59	Paippad		1		1
60	Thrikkodthyamagalam		1		1
61	Vakathanam	1			1
62	vazhapally		1		2
63	Changanacherry			1	
64	Vazhoor	1			1
65	Vellavoor		1		1

66	Kangazha		1		1
67	Nedukunnam	1			
68	Chirakadavu	1	1		1
69	karukachal		1		1
70	Erumely	1			2
71	Kanjirapally			1	1
72	koottickal		1		1
73	koruthodu		1		1
74	Manimala		1		1
75	Mundakayam		1		1
76	parathodu		1		2

ANNEXURE 18

PUBLIC DISTRIBUTION SHOPS/SUPPLY-CO

Sl.No	Name of Block	PDS	Mavali store	Neethi & Haritha store
1	Kanjirapally	106	11	5
2	Kaduthuruthi	77	6	1
3	Vaikom	71	8	0
4	Erattupetta	67	10	7
5	Lalam	53	5	5
6	Uzavoor	77	9	5
7	Eattumanoor	102	6	6
8	Pallam	77	8	8
9	Pampady	101	5	9
10	Madapally	69	8	0
11	Vazuoor	74	4	6
12	Changanacharry Municipality	27	3	0
13	Kottayam	53	2	2
14	Vaikom	13	2	0
15	Pala	13	4	0
	Totel	984	80	54

ANNEXURE 19

NGO

Sl.No	Name & Address	Phone No
1	Public Library, Thalanadu	9947956901
2	Aravinda Youth Club, Panachippara	9447808429
3	Udaya Frarmers Society	9495510045
4	Maravikkallu Trust	9447900910

5	KYCM Thidanadu	04822 272150
6	Lions club	
7	JCI	9447258315
8	Read cross India, Vaikom Taluk	9446343278
9	Lions club	9495444084
10	Rotary Club, Changanacherry	
11	Sethu ParvathibhaiGranthasala, Kudamalloor	9495328285
12	Friends Club Kadaplamattom, Meenachil	9496302418
13	Kottayam Social service Society, Malam. P.O, Kottayam	9446859101
14	swabhrama Charitable society Ayarkunnam, kottayam	0481-2544830
15	Bharathiya Artisans Labour & Arkitechture	9447567794
13	vicas kendra ,Jetty road Kottayam	9447307794
16	Sahodhara Seva Samithi Mariyathuruthu Kottayam	9446409321
17	I.R.D.S	0481-2430704
18	People Union for Civil Rights Kanjirapally	04822-251588
19	Snehalya Charitable Society Thiruvarppu Kottayam	9895045213
20	Siyon Ministrees Eravinelloor Puthuppally Kottayam	0481-2464583
21	Morargi Desai Charitable Society Malam P.O Kottayam	9446859101
22	Dr.Ambetkar Sevak Samaj Pampady P.O Kottayam	9447006275
24	Jeeva Karunya Samithi ,Ponpuzha Ithithanam Changanachery	9249499724
23	Santhipuram Charitable society Santhipuram, Peruva	9446112901
24	Atma Kendram Pastaral center Changanacherry	0481-2411819
25	Roopa Rekha Kadaplamattom	9446862439
26	SEM Field Out Reach Servises Erumely	04828-255316
27	Javaharlal Memorial Social Welfare & Public Co-Operation	04829-236175
21	Center Thalayolaparampu kottayam	04027-230173
28	Maharaja Cheraman Perumal Mission Kaippuzha Kottayam	9495131824
29	Vivekanadha Sevasamithy Vadakkenada Vaikom Kottayam	9744022391
30	Jenaseva Charitable Society Peruva Kottayaam	9847161241
31	Suhrath Bhavan Charitable Society Kurissummoodu	0481-2726690
31	Chethippuzha, Changanacherry	0481-2720070
32	Sooryanagar Residence Association Alaompally Pampady	9447506278
33	District Residence Association Apax Council	9447463922
34	International Organization for Human rights Protection,	9447463876
	Taluk Office Pala	
35	Santhi Nagar Residence Association, Velloor P.O Kottayam	9447660323

ANNEXURE 20

CONTACT DETAILS OF LINE DEPARTMENTS

D.M Control Room Number				
Sate control room	0471-2333198 /2331639			
District Control room	1077/0481-2562201			

Health Department				
District Medical officer,	0481 2562923,	9605408756		
Bindhu kumara (Health)	2304110,2562778			
DY.DMOH , N.Priya(rural)		9447414097		
T.A Gri.l K.R rajan		9495088518		
JDy.DMO Domi		9447675594		
DEMO ,K.Dev		9446458424		
T.A Gr II,K.N Jayaprakash		9447355305		
T.A Gr II,Baburaj		9446075229		
Distric programme manager NRHM	0481 2304844	9946108480		

GOVT.HOSPITALS

Superintendent,	0481 2597311	9447054440
Medical Collage Kottayam		
Dy. Superintendent,	0481 2597311	9447251614
Medical Collage Kottayam		
Superintendent	04812563611	9447370455
Districts Hospital Kottayam		
Medical Officer	0482 8210454	9495102623
Community Health Centre Erumely		
Superintendent	04828 2022927	9446552524
Taluk Hospital Kajirappally		
Superintendent	04829 231261	9447289680
Taluk Hospital Vaikom		
Superintendent	04822 212302	9020139190
General Hospital Pala		
Superintendent	0481 2402349	9446152898
Taluk Hospital Changanassery		
Superintendent	04828 272572	9495458522
Govt. Hospital Mundakayam		
Superintendent Govt. Hospital	0481 2507866	9447288212

Ayurveda & Homoeo				
District Medical officer Ayurveda	0481 2568118	9446395008		
Senior Superintendent		949781906		
District Medical officer (Homoeo)	04812583516	9495496852		
Senior Superintendent (Homoeo)				

Food& Civil supplies Department			
District Supply office	0481 2560371		
District Supply officer		9447301303	
Taluk Supply Officer Kottayam	0481 2560494	9497329297	
Taluk Supply Officer Vaikom	04829 231269	9497415149	
Taluk Supply Officer Kanjirappally	04828 202543	9495264432	
Taluk Supply Officer ,Meenachil	04822 212438	9495300410	
Taluk Supply Officer, Changanassery	0481 2421660	9496858775	

Kerala Water Authority			
P H Division, Kottayam	0481-2563711		
Eva Engineer		8547638555,	
Exe .Engineer		9446019267	
Exe .Engineer,WSP,Pala	04822- 212630	8547638562	
Asst .Engineer,Pala	04822- 212630	8547638553	
Asst .Engineer, PH Section, Kottayam	0481-2563701	8547638560	
Asst .Engineer,Ponkunnam	04822-212630	854763554	
Asst .Engineer,Ponkunnam		9446123343	

Major Irrigation				
Office	0481-2576694			
Exe .Engineer		9447223070		
Asst.Exe.Engineer, Sub division ,Changanassery		9447431646		
Asst.Engineer,,Changanassery		9495640735		
Asst .Engineer, Kanjirapplly		9495063784		
Asst .Exe.Engineer,Kaduthuruthy		9400300911		
Asst .Engineer, Kaduthuruthy		9446989495		
Asst . Exe.Engineer,Vaikom		9447473729		

Minor Irrigation						
Office 0481 -2562662						
Exe .Engineer	0481-2562662	9447527361				
Asst . Exe.Engineer		9446363302				
Asst . Exe.Engineer		9447396043				

Animal Husbandry						
District office 0481-2563726						
Animal Husbandry officer		9447279781				
Deputy Director		9447208496				
Chief Veterinary officer		9495850745				

Forest Department					
Divisional Forest officer, Kottayam	0481-2562276	9447979043			
Forest Range officer, Erumely	04828-212230	9446225462			

Industries Department				
Kottayam	0481- 2570042	9497585992		

Factories & Boilers Department				
Kottayam	0481-2562131			
Senior Inspector		9846039951		

Fire& Rescue services				
Emergency services	101			
Divisional officer	0481-2567444	9447956271		
Asst. Divisional officer	0481-2567444	949720113		
Station officer	0481-2567444	9497920064		
Station officer(Changanassery)	0481-2420101	9495071096		
Station officer(Pala)	04822-212484	9497920071		
Station officer(Erattupetta)	04822-274700	949720073		
Station officer(Kanjirappally)	04828-202777	9497920067		
Station officer(Kaduthuruthy)	04829-285151	9497920284		
Station officer(Pampady)	0481-2506600	9847123648		

KSEB-Electrical Circle ,Kottayam						
Office 0481-2362159						
Deputy Chief Engineer, Electrical Circle ,Kottayam		9446008279				
Executive Engineer, Electrical Circle, Kottayam		9496008062				
Electrical division, Pallom						
Exective Engineer 0481-2360323 944620539						

Asst.Exe.Engineer,	0.404.07.500.70	0.40.50001.0.4				
Electrical Subdivision kottayam	0481-2568050	9496008124				
Asst.Exe.Engineer,	0401 2260257	0.446000200				
Electrical Subdivision, Pallom	0481-2360357	9446008280				
Asst.Exe.Engineer, Electrical	0491 2507259	0406000110				
Subdivision, Gandhi Nagar	0481-2597358	9496008110				
Asst.Exe.Engineer,	0481-2370728	9496008145				
Electrical Subdivision, Manarcad	0401-2370720	3430008143				
Electrical div	ision,Vailom					
Executive Engineer	04829-231396	9496008167				
Asst.Exe.Engineer,	04829-231337	9496008217				
Electrical Subdivision, Vaikom	04027 231331) 1 70000217				
Asst.Exe.Engineer, Electrical		9496008188				
Subdivision, Kuravilangad		7170000100				
Asst.Exe.Engineer,		9496008172				
Electrical Subdivision, Ettumanoor		3 13 00 00 17 2				
Electrical division						
Executive Engineer	0481-2420369	9496008067				
Asst.Exe.Engineer, Electrical	0481-2420093	9496008069				
Subdivision, Changanassery	0.00 =					
Asst.Exe.Engineer,	0481- 2471841	9496008092				
Electrical Subdivision, Thengana						
Asst.Exe.Engineer, Electrical		9496008078				
Subdivision,,Karukachal						
KSEB-Electric						
Office	04822- 212772	0.4.5.4.5.0.0.0				
Deputy Chief Engineer,		9447452883				
Executive Engineer		9496008229				
Electrical division		0.4.4.5000.504				
Executive Engineer	04828-221380	9446008304				
Asst.Exe.Engineer, Electrical	04828-	9496008299				
Subdivision, Kanjirappally	2022308					
Asst.Exe.Engineer, Electrical	04828-221358	9496008300				
Subdivision, Ponkunnam						
Asst.Engineer, Electrical Section,	04828-210398	9496008295				
Erumaly						
Electrical di	· · · · · · · · · · · · · · · · · · ·	0.4460000000				
Executive Engineer	04822-212802	9446008303				
Asst.Exe.Engineer, Electrical	04822-212477	9447140251				
Subdivision, Pala						
Asst.Exe.Engineer, Electrical	04822260254	9496008277				
Subdivision, Ramapuram						
Asst.Exe.Engineer, Electrical	048222-72448	9496008244				
Subdivision, Erattupetta						

Municipalities				
KOTTAYAM	0481-2566665			
Chairman	0481-2382899	9447201171		
Municipal Secretary	0481-2565788	94465061760		
PALA	04822-212130			
Chairman		9447104753		
Municipal Secretary	04822-210114	9961589889		
VAIKOM	04829-232221			
Chairperson	04829-215151	999534332		
CHANGAASSERY	0481-2423814			
Chairman		9447810071		
Municipal Secretary	0481-2429804	9447253937		

ANNEXURE 22

FUND ALLOCATION AND EXPENDITURE OF VARIOUS DEPARTMENTS

Sl.No	Head of Account	2009-2010	2010-2011	2011-2012	2012-2013
1	Drought- Drinking Water Supply	22379293	9525000	11900000	52968400
2	Flood-Food&Clothing	194861	10,00,000	2,000000	4,00,000
3	Flood-Supply of Medicine	50,000			200,000
4	Flood-Other items	31985	7,00,000	5,09000	10,00,000
5	Flood-Vetenary Care	49,500	1,50,000	210000	3,00,000
6	Flood-Repair&Restration of damaged water supply	2,40,000			3,00,000
7	Flood-Exgratia to Bereaved Families	7,00,000	36,00,000	1700,000	15,00,000
8	Flood-Evacuation of Population	50,000			100000
9	Flood-Repair to houses	48,50,000	80,00,000	1,20,00,000	12000000
10	Flood-Exgratia to injured persons	3500		50,000	2,00,000
11	Flood-Agriculture crop loss	4683710	16450000	120,00,000	50,00,000
12	Repair & Restoration of damaged roads & bridges	48700000	84,17,000	64419896	94414537
13	Flood-Assistance to farmers to clear sand/slit salinity from sand	251151			131040
14	Capacity building for disaster response-Strenthing/setting up Emergency operation centre	Nil			
15	Other miscellaneous relief expenditure	Nill	11,21,500	4586200	

EXPENDITURE

Sl.No	Head of Account	2009-2010	2010-2011	2011-2012	2012-2013
1	Drought- Drinking Water Supply	15252329	9163617	10730961	300000
2	Flood-Food&Clothing	194861	801448	682879	4,00,000
3	Flood-Supply of Medicine	50,000			200,000
4	Flood-Other items	31985	2,000	2000	816436
5	Flood-Vetenary Care	49,500	1,50,000	207430	46500
6	Flood-Repair&Restration of damaged water supply	2,40,000			
7	Flood-Exgratia to Bereaved Families	5,00,000	8,00,000	11,00,000	1500000
8	Flood-Evacuation of Population	50,000			100000
9	Flood-Repair to houses	44,640,94	70,80 713	11999151	
10	Flood-Exgratia to injured persons	3500		500	
11	Flood-Agriculture crop loss	4683710	7142072	11997535	4998604
12	Repair&Restration of damaged roads& bridges	48609929	7485203	64278344	96030937
13	Flood-Assistance to farmers to clear sand/slit salinity from sand	251151			
15	Other miscellaneous relief expenditure	Nill	11,21,500	2601200	

TALUK (2009-2010)

Sl.No	Head Of Account	KTM	CHRY	KPLY	MNC	Vaikom
1	Drought- Drinking Water Supply	5300,000	10,00,000	10,00,000	17,03,400	32,06,160
2	Flood-Food&Clothing	25,000	25,000	25,000	25,000	25,000
3	Flood-Supply of Medicine	50,000	Nil	Nil	Nil	Nil
4	Flood-Other items	25,000	25,000	25,000	25,000	25,000
5	Flood-Vetenary Care	Di	strict Animal	husbandry 0	fficer -50,00	0
6	Flood-Repair&Restration of damaged water supply	Nil	5000	Nil	Nil	Nil
7	Flood-Exgratia to Bereaved Families	1,00,000	2,00,000	Nil	1,00,000	Nil
8	Flood-Evacuation of Population	10,000	10,000	10,000	10,000	10,000
9	Flood-Repair to houses	12,45,000	8,45,000	9,70,000	5,95,000	4,45,000
10	Flood-Exgratia to injured persons	10,000	10,000	10,000	10,000	10,000
11	Flood-Agriculture crop loss	Principal agricultural officer Kottayam - 60,00,000				
12	Repair&Restration of damaged roads& bridges					
13	Flood-Assistance to farmers to clear sand/slit salinity from sand	Principal agricultural officer Kottayam –3,34000				

TALUK (2012-2013)

Sl.No	Head of Account	KTM	CHRY	KPLY	MNC	Vaikom
1	Drought- Drinking Water Supply	10500000	1040000	350200	2326100	5550000
2	Flood-Food&Clothing	1098				
3	Flood-Supply of Medicine	200000				
4	Flood-Other items	10000/10802 (DY)	6609	6004	6200	
			District soil	conservation	n) -568138	
5	Flood-Vetenary Care	Anin	nal Husband	ry officer,K	ottayam-4650	00
6	Flood-Repair&Restration of damaged water supply	Allotment for Kottayam district - 300000)	
7	Flood-Exgratia to Bereaved Families					
8	Flood-Evacuation of Population			100000		
9	Flood-Repair to houses					
10	Flood-Exgratia to injured persons					
11	Flood-Agriculture crop loss					
12	Repair&Restration of damaged roads& bridges	Dy.Collector Kottayam- 94414537				
13	Flood-Assistance to farmers to clear sand/slit salinity from sand	I	Principal Agr	ricultural offi	ce -131040	

ANNEXURE 23

DROUGHT PRONE AREA

Sl.No	Village	Taluk	Class
1	Veliyannur	Meenachil	No Drought
2	Mulakulam	Vaikom	No Drought
3	Velloor	Vaikom	No Drought
4	Ramapuram	Meenachil	No Drought
5	Chempu	Vaikom	Slight Drought
6	Kadanad	Meenachil	No Drought
7	Monippally	Meenachil	No Drought
8	Neezhoor	Vaikom	No Drought
9	Vellilappally	Meenachil	No Drought
10	melukavu	Meenachil	Slight Drought
11	Uzhavoor	Meenachil	Slight Drought
12	Kulasekharamangalam	Vaikom	Slight Drought

13	Vadayar	Vaikom	Slight Drought
14	Kadudhurudhy	Vaikom	Slight Drought
15	munnilavu	Meenachil	Slight Drought
16	Vadakkemuri	Vaikom	Slight Drought
17	Kuravilangadu	Meenachil	Slight Drought
18	Kurichithanam	Meenachil	Slight Drought
19	Vallichira	Meenachil	No Drought
20	Bharananganam	Meenachil	No Drought
21	Naduvila	Vaikom	Slight Drought
22	Lalam	Meenachil	Slight Drought
23	Muttuchira	Vaikom	Slight Drought
24	poonjar Vadakkekara	Meenachil	Slight Drought
25	Elackad	Meenachil	Slight Drought
26	Manjoor	Vaikom	Moderate Drought
27	Kodhanalloor	Vaikom	Moderate Drought
28	Vaikom	Vaikom	Slight Drought
29	Kallara	Vaikom	Moderate Drought
30	Thalayazham	Vaikom	Slight Drought
31	Thulappalam	Meenachil	Slight Drought
32	Puliyannur	Meenachil	Slight Drought
33	Kanakkari	Meenachil	Moderate Drought
34	thekkoy	Meenachil	Slight Drought
35	Kidingoor	Meenachil	Slight Drought
36	erattupettah	Meenachil	Slight Drought
37	Meenachil	Meenachil	No Drought
38	Poovarani	Meenachil	No Drought
39	Onamdhuruthu	Kottayam	Moderate Drought
40	k0ndoor	Meenachil	No Drought
41	Vechoor	Vaikom	Moderate Drought
42	Ettumanur	Kottayam	Moderate Drought
43	Athirampuzha	Kottayam	Moderate Drought
44	poonjar nadubhagam	Meenachil	Slight Drought
45	poonjar thekkkara	Meenachil	Slight Drought
46	Kaipuzha	Kottayam	Moderate Drought
47	koottickal	Kanjirapally	No Drought
48	Ayarkunnam	Kottayam	Slight Drought
49	Akalakunnam	Kottayam	No Drought
50	Peroor	Kottayam	Moderate Drought
51	Elikulam	Kanjirapally	No Drought
52	Arpookara	Kottayam	Moderate Drought
53	Chengalam East	Kottayam	Slight Drought
54	Ayimanam	Kottayam	Moderate Drought

55	Manarcad	Kottayam	Moderate Drought
56	Perembaikad	Kottayam	Moderate Drought
57	Kooropada	Kottayam	No Drought
58	Kumarakom	Kottayam	Moderate Drought
59	Elamkulam	Kanjirapally	No Drought
60	Mundakayam	Kanjirapally	No Drought
61	Muttambalam	Kottayam	Moderate Drought
62	edakunnam	Kanjirapally	No Drought
63	kanjirapally	Kanjirapally	No Drought
64	Anikad	Kottayam	Slight Drought
65	Chengalam	Kottayam	Moderate Drought
66	Kottayam	Kottayam	Moderate Drought
67	Muttambalam	Kottayam	Moderate Drought
68	Pampady	Kottayam	Slight Drought
69	Thiruvarppu	Kottayam	Moderate Drought
70	Veloor	Kottayam	Moderate Drought
71	chirakadavu	Kanjirapally	No Drought
72	Nattakom	Kottayam	Moderate Drought
73	Puthupally	Kottayam	Moderate Drought
74	Vazhur	Changanassery	No Drought
75	Panchikad	Kottayam	Moderate Drought
76	Meenadom	Kottayam	Slight Drought
77	koovapally	Kanjirapally	No Drought
78	Kangazhu	Changanassery	No Drought
79	Vakdhanam	Changanassery	Slight Drought
80	Erumeli North	Kanjirapally	Slight Drought
81	Thottakkadu	Changanassery	Slight Drought
82	Karukachal	Changanassery	Slight Drought
83	Nedumkunnam	Changanassery	Slight Drought
84	Vellayur	Changanassery	No Drought
85	Kurichi	Changanassery	Moderate Drought
86	Erumeli south	Kanjirapally	Slight Drought
87	Madappalli	Changanassery	Moderate Drought
88	Manimala	Kanjirapally	No Drought
89	Vazhapalli West	Changanassery	Moderate Drought
90	Chettiruzha	Changanassery	Moderate Drought
91	Vazhapalli Eest	Changanassery	Moderate Drought
92	Thrikodathanam	Changanassery	Moderate Drought
93	Changanassary	Changanassery	Moderate Drought
94	Paippad	Changanassery	Moderate Drought

ANNEXURE 23

DATABASE OF OCCURRENCE OF LIGHTNING IN THE DISTRICT

Sl.No	Village	Taluk	Year
1	Koruthodu, (near Mundakkayam)	Kanjirappalli	2003
2	Kangazha	Changanassery	2002
3	Madappally	Changanassery	2002
4	Paipadu	Changanassery	2002
5	Ramapuram (pala)	Pala	2002
6	Ramapuram, Vellilapali.	Pala	2002
7	Vael Kanam Para (Erattupetta)	Pala	2002
8	Kangazha	Changanassery	2001
9	Kangazha	Changanassery	2001
10	Kangazha	Changanassery	2001
11	Kangazha	Changanassery	2001
12	Thottakad	Changanassery	2001
13	Thottakad	Changanassery	2001
14	Trikodithanam	Changanassery	2001
15	Vellavoor	Changanassery	2001
16	Vellavoor	Changanassery	2001
17	Vellavoor	Changanassery	2001
18	Vellavoor	Changanassery	2001
19	Vellavoor	Changanassery	2001
20	Vellavoor	Changanassery	2001
21	Chirakadavu	Kanjirappalli	2001
22	Chirakadavu	Kanjirappalli	2001
23	Erumeli	Kanjirappalli	2001
24	Manimala	Kanjirappalli	2001
25	Manimala	Kanjirappalli	2001
26	Manimala	Kanjirappalli	2001
27	Manimala	Kanjirappalli	2001
28	Mundakayam	Kanjirappalli	2001
29	Koorappada	Kottayam	2001
30	Thiruvarppu	Kottayam	2001
31	Bharananganam	Meenachil	2001
32	Erattupetta	Meenachil	2001
33	Meenachil	Meenachil	2001
34	Meenachil	Meenachil	2001
35	Poojar thekkakkara	Meenachil	2001
36	Poovarany	Meenachil	2001
37	Poovarany	Meenachil	2001
38	Poovarany	Meenachil	2001

39	Poovarany	Meenachil	2001
40	Teekoy	Meenachil	2001
41	Teekoy	Meenachil	2001
42	Kaduvamuzhi, Erattupetta	Pala	2001
43	Vadayar	Vaikkom	2001
44	Vadayar	Vaikkom	2001
45	Changanassery	Changanassery	2000
46	Kurichy	Changanassery	2000
47	Kurichy	Changanassery	2000
48	Vellavoor	Changanassery	2000
49	Manimala	Kanjirappalli	2000
50	Manimala	Kanjirappalli	2000
51	Mundakayam	Kanjirappalli	2000
52	Koorappada	Kottayam	2000
53	Kumarakom	Kottayam	2000
54	Bharananganam	Meenachil	2000
55	Bharananganam	Meenachil	2000
56	Kurichithanam	Meenachil	2000
57	Kurichithanam	Meenachil	2000
58	Teekoy	Meenachil	2000
59	Veliyannoor	Meenachil	2000
60	Kaduthuruthy	Vaikkom	2000
61	Naduvila	Vaikkom	2000
62	Njeezhoor	Vaikkom	2000
63	Vaikam	Vaikkom	2000
64	Madappally	Changanassery	1999
65	Mammoodu	Changanassery	1999
66	Vazhoor	Changanassery	1999
67	Kanakappalam,Erumeli.	Kanjirappalli	1999
68	Mundakkayam boy's Estate.	Kanjirappalli	1999
69	Anicadu	Kottayam	1999
70	Anicadu	Kottayam	1999
71	Anicadu	Kottayam	1999
72	Kumarakom	Kottayam	1999
73	Erattupetta	Meenachil	1999
74	Kurichithanam	Meenachil	1999
75	Kurichithanam	Meenachil	1999
76	Kurichithanam	Meenachil	1999
77	Kurichithanam	Meenachil	1999
78	Melukavu	Meenachil	1999
79	Teekoy	Meenachil	1999
80	Thalappalam	Meenachil	1999
81	Ambara	Pala	1999

82	Valavoor	Pala	1999
83	Velloor	Vaikkom	1999
84	Velloor	Vaikkom	1999
85	Velloor	Vaikkom	1999
86	Velloor	Vaikkom	1999
87	Kurrumannu		1999
88	Kurichi, Thakidiel.	Changanassery	1998
89	Vellavoor	Changanassery	1998
90	Vellavoor	Changanassery	1998
91	Vellavoor	Changanassery	1998
92	Vellavoor	Changanassery	1998
93	Kaipuzha	Ettumanur	1998
94	Chirakadavu	Kanjirappalli	1998
95	Kanjirapalli	Kanjirappalli	1998
96	Pavathu kavala	Kanjirappalli	1998
97	Anikad	Kottayam	1998
98	Kumaranallur	Kottayam	1998
99	Erattupetta	Meenachil	1998
100	Erattupetta	Meenachil	1998
101	Thekakara, Erattupetta.	Meenachil	1998
102	Uzhavoor	Meenachil	1998
103	Aikombu, Maragad	Pala	1998
104	Kallara, Mundar	Vaikkom	1998
105	Chingavanam, Umacherri.		1998
106	Kurichi	Changanassery	1997
107	Kurichy	Changanassery	1997
108	Vellavoor	Changanassery	1997
109	Vellavoor	Changanassery	1997
110	Elikkulam	Kanjirappalli	1997
111	Elikkulam	Kanjirappalli	1997
112	Elikkulam	Kanjirappalli	1997
113	Elikkulam	Kanjirappalli	1997
114	Elikkulam	Kanjirappalli	1997
115	Elikkulam	Kanjirappalli	1997
116	Manimala	Kanjirappalli	1997
117	Manimala	Kanjirappalli	1997
118	Pakkanam, Erumeli	Kanjirappalli	1997
119	Pananelave, Erumeli	Kanjirappalli	1997
120	Adithrapuzha	Kottayam	1997
121	Adithrapuzha,Nalpathimala	Kottayam	1997
122	Ayarkunnam (Vadaka Mutha pally)	Kottayam	1997
123	Govt:Model H S	Kottayam	1997
124	Kottayam Town	Kottayam	1997

125	Kumarakom,Cheppukal.	Kottayam	1997
126	Kumaranallur, Nelemangalam	Kottayam	1997
127	Manganam (near MarThoma church)	Kottayam	1997
128	Puthupally, Manganam	Kottayam	1997
129	Thiruvarppu	Kottayam	1997
130	Vadavathoor,Peruvakarikotu.	Kottayam	1997
131	Mannarkadu,Kumanam	Kottayam	1997
132	Panachikadu	Kottayam	1997
133	Adithrapuzha	Manganam	1997
134	Kuruvelangad, Kurianadu	Meenachil	1997
135	Monippally	Meenachil	1997
136	Poonjar Vadakkekara	Meenachil	1997
137	Ramapuram, Murikanad, Kuzivilla, Meenachal	Meenachil	1997
138	Erattupetta	Pala	1997
139	Theekoyi	Pala	1997
140	Vazhamattam,Kaduvamuzhi	Pala	1997
141	Vellavoor	Changanassery	1996
142	Elikkulam	Kanjirappalli	1996
143	Manimala, Karikkattoor	Kanjirappalli	1996
144	Aarppukara	Kottayam	1996
145	Athirapuzha (Near I T I)	Kottayam	1996
146	Thiruvarppu	Kottayam	1996
147	Moolavattom (Nattakam)	Kunnampalli	1996
148	Amayannoor	Neerikkade	1996
149	Amayannoor	Neerikkade	1996
150	Kurichy	Changanassery	1995
151	Mundakkayam	Kanjirappalli	1995
152	Mundakkayam, Poovanchi (Kokkayar)	Kanjirappalli	1995
153	Ponkunnam	Kanjirappalli	1995
154	Kidangoor	Kattachira (Marangattichira)	1995
155	Ettumanur, Kadapur, puthuparamb	Kottayam	1995
156	Pampady	Kottayam	1995
157	Thiruvarppu	Kottayam	1995
158	Kuravilangad	Meenachil	1995
159	Melukavu	Meenachil	1995
160	Poonjar Vadakkekara	Meenachil	1995
161	Thalanadu Chonamala, Erattupetta	Pala	1995
162	Amayannoor	Parappuram	1995
163	Ettumanoor	Vettimucal (Maragadichira)	1995
164	Kangazha	Changanassery	1994
165	Vandanpathal, Mundakayam	Kanjirappalli	1994

166	Kanjiram (vattikadu.)	Kottayam	1994
167	Thiruvarppu	Kottayam	1994
168	Amayannoor	Kottayam	1994
169	kallara	Vaikkom	1994
170	Kurichy	Changanassery	1993
171	Kuvapalli, kanjaar	Kanjirapallii	1993
172	Ponkunnam, Chennakunnu	Kanjirappalli	1993
173	Channanicade	Kottayam	1993
174	Kottayam Town	Kottayam	1993
175	Thiruvarppu	Kottayam	1993
176	Kuropada , Madappad	Kottayam	1993
177	Earattupetta, Nadayakal	Meenachil	1993
178	Adivaram	Pala	1993
179	Adivaram,Perigalam.	Pala	1993
180	pala, Mankombu.	Pala	1993
181	kallara	Vaikkom	1993
182	kallara	Vaikkom	1993
183	Thiruvarppu	Kottayam	1992
184	Arppukara	Kottayam	1992
185	Panachi kadu, Mullavattam	Kottayam	1992
186	Chennad, Erattupetta	Meenachil	1992
187	Poojar thekkakkara	Meenachil	1992
188	Uzhavoor	Meenachil	1992
189	Vallichera	Pala	1992
190	Nadugolam(near post-office)		1992
191	Pallika thodu (ward -7)	Kottayam	1992
192	Payippadu	Changanassery	1991
193	Arppukara	Kottayam	1991
194	Arppukara(Varimuttom)	Kottayam	1991
195	Athirapuzha (Amalagiri)	Kottayam	1991
196	Kottayam Town	Kottayam	1991
197	Parapuzha	Kottayam	1991
198	South Pampadi	Kottayam	1991
199	Valliya paara (near vada vathoor)	Kottayam	1991
200	Mundka padam		1991
201	Thiruvarppu	Kottayam	1990
202	Moonnilave	Meenachil	1990
203	Velloor(Angadi vayial)	Vaikkom	1990
204	Pattimattum	Kanjirappalli	1989
205	Chamampathal	Kottayam	1989
206	Kuropada (Ekattoor)	Kottayam	1988
207	Kangazha, Pathanadu	Changanassery	1987
208	Thrikodithanam	Changanassery	1987

209	Vazhoor	Changanassery	1987
210	Chirakadavu	Kanjirappalli	1987
211	Athirapuzha (Amalagiri)	Kottayam	1987
212	Chengalam (parathanam)	Kottayam	1987
213	Kidangoor, Maykattil		1987
214	Kottamurri, Arakkal.	Changanassery	1986
215	Nedipuzhoor	Pala	1986
216	Muttuchira, Eravimangalam.	Vaikkom	1986
217	Lalam	Meenachil	1983
218	Lalam	Meenachil	1980

ANNEXURE 24

DETAILS OF LIGHTNING FREQUENCY IN THE DISTRICT

Sl.No	Village	Taluk	District	Frequency/ year
1	Veliyannur	Meenachil	Kottayam	1
2	Mulakulam	Vaikom	Kottayam	1
3	Velloor	Vaikom	Kottayam	1
4	Ramapuram	Meenachil	Kottayam	1
5	Chempu	Vaikom	Kottayam	0
6	Kadanad	Meenachil	Kottayam	0
7	Monippally	Meenachil	Kottayam	1
8	Neezhoor	Vaikom	Kottayam	1
9	Vellilappally	Meenachil	Kottayam	1
10	melukavu	Meenachil	Kottayam	0
11	Uzhavoor	Meenachil	Kottayam	1
12	Kulasekharamangalam	Vaikom	Kottayam	0
13	Vadayar	Vaikom	Kottayam	1
14	Kadudhurudhy	Vaikom	Kottayam	1
15	munnilavu	Meenachil	Kottayam	1
16	Vadakkemuri	Vaikom	Kottayam	0
17	Kuravilangadu	Meenachil	Kottayam	1
18	Kurichithanam	Meenachil	Kottayam	1
19	Vallichira	Meenachil	Kottayam	1
20	Bharananganam	Meenachil	Kottayam	1
21	Naduvila	Vaikom	Kottayam	1
22	Lalam	Meenachil	Kottayam	1
23	Muttuchira	Vaikom	Kottayam	1
24	poonjar Vadakkekara	Meenachil	Kottayam	1
25	Elackad	Meenachil	Kottayam	1
26	Manjoor	Vaikom	Kottayam	1
27	Kodhanalloor	Vaikom	Kottayam	0
28	Vaikom	Vaikom	Kottayam	0

29	Kallara	Vaikom	Kottayam	1
30	Thalayazham	Vaikom	Kottayam	0
31	Thulappalam	Meenachil	Kottayam	1
32	Puliyannur	Meenachil	Kottayam	0
33	Kanakkari	Meenachil	Kottayam	1
34	thekkoy	Meenachil	Kottayam	1
35	Kidingoor	Meenachil	Kottayam	1
36	erattupettah	Meenachil	Kottayam	1
37	Meenachil	Meenachil	Kottayam	1
38	Poovarani	Meenachil	Kottayam	1
39	Onamdhuruthu	Kottayam	Kottayam	1
40	k0ndoor	Meenachil	Kottayam	0
41	Vechoor	Vaikom	Kottayam	0
42	Ettumanur	Kottayam	Kottayam	1
43	Athirampuzha	Kottayam	Kottayam	1
44	poonjar nadubhagam	Meenachil	Kottayam	1
45	poonjar thekkkara	Meenachil	Kottayam	1
46	Kaipuzha	Kottayam	Kottayam	1
47	koottickal	Kanjirapally	Kottayam	1
48	Ayarkunnam	Kottayam	Kottayam	1
49	Akalakunnam	Kottayam	Kottayam	1
50	Peroor	Kottayam	Kottayam	1
51	Elikulam	Kanjirapally	Kottayam	1
52	Arpookara	Kottayam	Kottayam	1
53	Chengalam East	Kottayam	Kottayam	0
54	Ayimanam	Kottayam	Kottayam	0
55	Manarcad	Kottayam	Kottayam	1
56	Perembaikad	Kottayam	Kottayam	1
57	Kooropada	Kottayam	Kottayam	1
58	Kumarakom	Kottayam	Kottayam	1
59	Elamkulam	Kanjirapally	Kottayam	1
60	Mundakayam	Kanjirapally	Kottayam	1
61	Muttambalam	Kottayam	Kottayam	1
62	edakunnam	Kanjirapally	Kottayam	0
63	kanjirapally	Kanjirapally	Kottayam	1
64	Anikad	Kottayam	Kottayam	1
65	Chengalam	Kottayam	Kottayam	1
66	KOttayam	Kottayam	Kottayam	1
67	Muttambalam	Kottayam	Kottayam	1
68	Pampady	Kottayam	Kottayam	0
69	Thiruvarppu	Kottayam	Kottayam	1
70	Veloor	Kottayam	Kottayam	0
71	chirakadavu	Kanjirapally	Kottayam	1
72	Nattakom	Kottayam	Kottayam	1
73	Puthupally	Kottayam	Kottayam	1

75	Panchikad	Kottayam	Kottayam	1
76	Meenadom	Kottayam	Kottayam	0
77	koovapally	Kanjirapally	Kottayam	0
78	Kangazhu	Changanassery	Kottayam	1
79	Vakdhanam	Changanassery	Kottayam	0
80	Erumeli North	Kanjirapally	Kottayam	1
81	Thottakkadu	Changanassery	Kottayam	1
82	Karukachal	Changanassery	Kottayam	0
83	Nedumkunnam	Changanassery	Kottayam	0
84	Vellayur	Changanassery	Kottayam	1
85	Kurichi	Changanassery	Kottayam	1
86	Erumeli south	Kanjirapally	Kottayam	1
87	Madappalli	Changanassery	Kottayam	1
88	Manimala	Kanjirapally	Kottayam	0
89	Vazhapalli West	Changanassery	Kottayam	1
90	Chettiruzha	Changanassery	Kottayam	0
91	Vazhapalli Eest	Changanassery	Kottayam	1
92	Thrikodathanam	Changanassery	Kottayam	1
93	Changanassary	Changanassery	Kottayam	0
94	Paippad	Changanassery	Kottayam	1

ANNEXURE 25

STANDARD OPERATING PROCEDURES & CHECKLISTS 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	
7	Convene meetings of District Disaster Management Authority	
8	Convene NGOs, PRIs and ULBs meeting; prepare a list of NGOs, and PRIs with their Functional Specialization and Geographical coverage	
9	Check the availability of Food Grains in PDSs shops and other stockings and distributors in the district	
10	Prepare a list of Relief Items for distribution in the height of local habits, cutoms etc.	
11	Determine quantity, quality of relief items as per minimum standards, and expenditure to be Incurred on it.	
12	Prepare a transport and alternate transport plan For evacuation and distribution of relief.	
13	Prepare a media plan for dissemination of information to the people of the district; local newspapers, radio, TV and cable, etc.	
14	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 life-threatening 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.	Coordinate 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
- 21. Check all the rain-gauge stations and ensure that they are function properly. Check that the readings from these stations are available immediately to the Irrigation Department. Prescribe a register for recording of rainfall.
- 22. Check all the rain-gauge stations and ensure that they are function properly. Check that the readings from these stations are available immediately to the Irrigation Department. Prescribe a register for recording of rainfall.

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.

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 that the seepage and rat holes, etc. havebeen 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	
9	Check that all rain gauge stations are functional, and arrangements have been made to report the readings. Check the regulators and siphons. Check that they have been repaired and cleaned, increasing the flow of water.	
10	Check all the anti-erosion works	

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. rganize 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	
-	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	
/	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.
- 16. Provision of agricultural services should be coordinated with irrigation department, DRDO, District EOC, SITE OPERATIONS CENTREs.
- 17. 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.
- 18. 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.
- 19. Suggest variety of seeds and cropping pattern, which can reduce losses and reduce the risks to farmers.
 - ➤ Develop a pest and disease monitoring system so that timely steps can be taken to reduce damage to corps.
 - ➤ Recall important functionaries from leave; communicate to the staff to man their places of duties like the ward and divisional offices and respective departments.
 - ➤ Call for emergency meeting to take stock of the situation. Develop a strategy and objectives.
- 20. Organize transport, storage and distribution of the above with adequate record keeping procedures.
- 21. Ensure that adequate conditions through cleaning operations are maintained to avoid water logging and salinity.
- 22. A pests and disease monitoring system should be developed to ensure that a full picture or risks is maintained.
- 23. Plan for emergency accommodations for agriculture staff from outside the area.
- 24. 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.
- 25. Assist farmers to re-establish their contacts with agriculture produce market and ensure that appropriate prices be offered to them.

Checklist:

		Action Taken/
Sl. No.	Preparedness Measures	Remarks
	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,	

	alternative crops, pests, and application of fertilizers	
	Prepare a program for spray of pesticides and insecticides	
3	after the disaster	

1.6. Standard Operating Procedures for Animal Husbandry

In-Charge Officer: District Animal Husbandry Officer

- 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 installation/	
3	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 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) Central Circle

- 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 (Distribution)

- 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 26

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 	 Documentation of response/ relief and recovery measures Situation reports to be prepared and completed every 3-4 hours 	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 	 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 	 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

				 To provide for mass decontamination Check stocks of equipment and drugs Assess damage for national assistance 	 In the vent of CNBR disaster to provide for the mass decontamination of the affected population Maintain record of dead and arrange for their post mortem 	
4	Sanitation/Se werage Disposal	 Urban Affairs Rural Development Local Self Governments 	IrrigationPublic HealthNon- 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 	Make arrangement for and to provide the alternative sources of lighting and heating to the affected populations and for the relief camps

					food • Hire casual labour for the clearing of damaged poles etc.	
F6	Transport	Dept. of Transport	 KSRTC Airport Authority Air Force Navy KSWTC All other Government Departments with fleets of vehicles All private vehicle owners 	 Overall coordination of the requirement of the transport Make an inventory of vehicles available for various purposes Coordinate and implement emergency related response and recovery functions, search and rescue and damage assessment 	 Coordinate arrangement of vehicles for transportation of relief supplies from helipads/airports to the designated places Coordinate arrangement of vehicles for transportation of search and rescue related activities 	 Make available its fleet for the purpose of Search & Rescue, transportation of supplies, victims etc. 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 services etc. required for transportation of injured, search & rescue team, relief and emergency supplies etc. with SEOC of KSDMA

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 Response Units of concerned industry SEOC 	 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 danger to health and others transported to safer areas	 Health & Family Welfare Dept. and Red Cross to make available ambulances as per requirements SDRF, and Volunteers to assist the primary agency in SAR NDRF, Central Para 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 	 Establish a priority list of 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 	Making machinery and manpower available to the PWD and to keep national highways and other facilities in functional State

				 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. 	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	
9	Relief supplies	District Administration	Dept. of Food and Civil supplies	 To collect, process and disseminate information about 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 	 Support to local administration Allocate and specify type of requirements depending on need Organize donation (material) for easy distribution before entering disaster site 	 To assist the primary agency in arranging and supplying relief supplies To assist the primary agency in running the relief camps

				 In some instances, services also may be provided to disaster workers To coordinate damage assessment and post disaster need assessment 		
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 Ensure that all food that is distributed is fit for human consumption 	 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.
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	 Provide adequate and appropriate shelter to affected population 	Support to local administrationLocate adequate relief	• The General Education and Higher Education

			• Dept. of Higher Education • Local Self Governments	 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 	camps based on survey of affected population • Develop alternative arrangements for population living in structures that might be affected even after the disaster	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 audio-visual 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 	 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 	To assist the primary agency in discharge of its role.

				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	• Disseminate instructions to all stakeholders	
14	Help lines	• SEOC • DEOC • Police Control Rooms	 Department of Public relations HAM Radio Operators 	 To receive distress calls from the affected people and coordinate with the control room 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 	 One of the most critical needs will be having a simplified way of identifying and tracking 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 	To assist the primary agency in performing its job effectively and provide its manpower and resources for the purpose.

				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	about the numbers	
15	Animal care	Department of Animal Husbandry	LSGs	 Treatment of animals Provision of vaccination Disposal 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 water to animals Establish animal shelters 	To assist the primary agency in performing its role
16	Law and order	Police	Home Guards	 Having sound communication and security plan in place to coordinate law and order issues Training to security 	 To maintain law and order To ensure that at least 500 m surrounding a calamity affected area 	To assist the primary agency by making available manpower

				personnel in handling disaster situations and issues related to them	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	
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		
C	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.

Human Resource - Nodal Officers in districts

Name and Designation	Contact Details including Mobile No. & Email
	Name and Designation

The nodal officers shall identify local field officers for the field level quick response and ensure that the details of these officers are kept readily at hand.

A. Materials and Machinery

District	Materials	Quantity	Machinery	Type	Location including contact details
Thiruvananthapuram					
Kollam					
Pathanamthitta					
Alappuzha					
Kottayam					
Idukki					

District Disaster Management Plan - KOTTAYAM 2015								
Ernakulam								
Thrissur								
Palakkad								
Malappuram								
Kozhikode								
Wayanad								
Kannur								
Kasargod								
Materials: Sand bags.	rock l	oulders,	food grains	, fu	el, coal t	ar, cemen	t, agr	riculture seed stock,
fodder stock, Drinkii								
boats, water transport								
on need.						•		
Add contact of	details o	of the con	trol officer	or o	wner (in	case of pr	ivate	machinery)
B. Financial Allocati	on							
District		Amount	(in lakhs)	I	Iead of A	Account		Permissible use
Thiruvananthapuram								
Kollam								
Pathanamthitta								
Pathanamthitta Alappuzha								
Alappuzha								
Alappuzha Kottayam Idukki Ernakulam								
Alappuzha Kottayam Idukki								
Alappuzha Kottayam Idukki Ernakulam								
Alappuzha Kottayam Idukki Ernakulam Thrissur Palakkad Malappuram								
Alappuzha Kottayam Idukki Ernakulam Thrissur Palakkad								
Alappuzha Kottayam Idukki Ernakulam Thrissur Palakkad Malappuram								
Alappuzha Kottayam Idukki Ernakulam Thrissur Palakkad Malappuram Kozhikode								
Alappuzha Kottayam Idukki Ernakulam Thrissur Palakkad Malappuram Kozhikode Wayanad								

- 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:		

Date:

Designation:

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

Government of Kerala

Sl. No.	Material/equipment/Services Description/specification	Qty. in Nos.	Qty. in Wt/Vol	Rate contract Location	Rate contract approved & validity period
1	Services				
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	ation:
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 27

ADMINISTRATIVE SUBDIVISIONS

No. Code	Village	Taluk
1	Vazhur	Changanassery
2	Kangazhu	Changanassery
3	Vakdhanam	Changanassery
4	Thottakkadu	Changanassery
5	Karukachal	Changanassery
6	Nedumkunnam	Changanassery
7	Vellayur	Changanassery
8	Kurichi	Changanassery
9	Madappalli	Changanassery
10	Vazhapalli West	Changanassery
11	Chettiruzha	Changanassery
12	Vazhapalli East	Changanassery
13	Thrikodathanam	Changanassery
14	Changanassary	Changanassery
15	Paippad	Changanassery
16	Koottickal	Kanjirapally
17	Elikulam	Kanjirapally
18	Elamkulam	Kanjirapally
19	Mundakayam	Kanjirapally
20	Edakunnam	Kanjirapally
21	Kanjirapally	Kanjirapally
22	Chirakadavu	Kanjirapally
23	Koovapally	Kanjirapally
24	Erumeli North	Kanjirapally
25	Erumeli South	Kanjirapally
26	Manimala	Kanjirapally
27	Onamdhuruthu	Kottayam
28	Ettumanur	Kottayam
29	Athirampuzha	Kottayam
30	Kaipuzha	Kottayam
31	Ayarkunnam	Kottayam
32	Akalakunnam	Kottayam
33	Peroor	Kottayam
34	Arpookara	Kottayam
35	Chengalam East	Kottayam
36	Ayimanam	Kottayam
37	Manarcad	Kottayam
38	Perembaikad	Kottayam

39	Kooropada	Kottayam
40	Kumarakom	Kottayam
41	Muttambalam	Kottayam
42	Anikad	Kottayam
43	Chengalam	Kottayam
44	Kottayam	Kottayam
45	Muttambalam	Kottayam
46	Pampady	Kottayam
47	Thiruvarppu	Kottayam
48	Veloor	Kottayam
49	Nattakom	Kottayam
50	Puthupally	Kottayam
	Panchikad	•
51	Meenadom	Kottayam
52		Kottayam
53	Veliyannur	Meenachil
54	Ramapuram	Meenachil
55	Kadanad	Meenachil
56	Monippally	Meenachil
57	Vellilappally	Meenachil
58	Melukavu	Meenachil
59	Uzhavoor	Meenachil
60	Munnilavu	Meenachil
61	Kuravilangadu	Meenachil
62	Kurichithanam	Meenachil
63	Vallichira	Meenachil
64	Bharananganam	Meenachil
65	Lalam	Meenachil
66	Poonjar Vadakkekara	Meenachil
67	Elackad	Meenachil
68	Thulappalam	Meenachil
69	Puliyannur	Meenachil
70	Kanakkari	Meenachil
71	Thekkoy	Meenachil
72	Kidingoor	Meenachil
73	Irattupettah	Meenachil
74	Meenachil	Meenachil
75	Poovarani	Meenachil
76	Kondoor	Meenachil
77	Poonjar Nadubhagam	Meenachil
78	Poonjar Thekkkara	Meenachil
79	Mulakulam	Vaikom
80	Velloor	Vaikom
81	Chempu	Vaikom
01	Chempu	v aikuiii

82	Neezhoor	Vaikom
83	Kulasekharamangalam	Vaikom
84	Vadayar	Vaikom
85	Kadudhurudhy	Vaikom
86	Vadakkemuri	Vaikom
87	Naduvila	Vaikom
88	Muttuchira	Vaikom
89	Manjoor	Vaikom
90	Kodhanalloor	Vaikom
91	Vaikom	Vaikom
92	Kallara	Vaikom
93	Thalayazham	Vaikom
94	Vechoor	Vaikom

ANNEXURE 28

NATURAL HAZARD ZONATION MAP

TALUK	VILLAGE	LANDSLIDE	COASTAL	FLOODS	LIGHTNING	EARTH OUAKE (Magnitude)
	Veliyannoor	Low (Tani mala)		Broad flat bottom valleys (Paddy fields) Puvakulam, Puduveli & Veliyannur	Low	
	Monipally			Broad flat bottom valleys (Paddy fields) Kurianad, Monipally	Low	
	Uzhavoor	Low (W of Uzhavoor)		Broad flat bottom valleys (Paddy fields) Arikara	Moderate	
	Vellilampally	Low (S of Kudappalam, Kuriyanad mala)		Banks of Payappara thodu & Broad flat bottom valleys (Paddy fields) Kudappalam, Vellilampally	Low	< 3
⊭	Ramapuram	Low (Matathipara, Nof Kurinji & Niratanam)		Banks of Payappara thodu & Broad flat bottom valleys (Paddy fields) Amarakara,Niratanam KIzhathiri, Ramapuram	Low	
MEENACHIL	Kadanad	Low (Perumkunnu, Nilur, Kurumannu)		Broad flat bottom valleys (Paddy fields) Pizhku & Kadanad	Low	
M	Melukavu	High (Kanjiramkavala, Knippadu) Low (N of Melukavu, Chemmala)			Low	
	Moonilavu	High (Mankombu, Pirakkadu,Chovur) Low (Cherippadu, Kuttankallu, Mechchal)			Moderate	

Poonjar	High (Talanad, Meladukkam Marmala) Low(Mararikallu,			Moderate	
Vadakkekara	Kizhadukkam, Karikode)				
	High (N of Kankanikuzhi)				
Teekoy	Low (Orappurakkadu			Moderate	
reckby	Vellikulam, Kallam,			Moderate	
	Vellattuchira, Kurisumala)				
	High (N of Puvathani,) Low				
Thalappalam	(Anjuttimangalam,		Banks of Meenachil Ar	Low	3.6
	Kalekandam, Chitanapara)				
	High (Kizhakumala)				<3,
Erattupetta	Low (Kondurmala,		Banks of Meenachil Ar	Moderate	4.8
	Kalattukadavu)				
Bharananganam	Low (Tevarmala,		Banks of Meenachil Ar & Parayi thodu	Moderate	< 3
	Bharananganam)				
Lalam	Low (Poyappara)	Banks of Meenachil Ar & Payappara thodu		Low	< 3, 4.8
Vallichira	Low (E of Kudakkachira)		Broad flat bottom valleys (Paddy fields) Vallichira & Idanad	Low	
Kurichithanam			Broad flat bottom valleys (Paddy fields) Mannarkad & Nellithanam	Moderate	
Kuravilangad			Banks of Kottachira thodu & Broad flat bottom valleys (Paddy fields)	Low	
Karavnangaa			Kuruvilangad, Kazha	LOVV	
Kanakkari			Banks of Kottachira thodu & Broad flat bottom valleys (Paddy fields)	Low	
Kariakkari			Karumallur, Vemballybhagam	LOVV	
Elakad			Banks of Kottachira thodu & Broad flat bottom valleys (Paddy fields)	Low	
Elakau			Andur, Marangattupally, Vayala	LOVV	
Kidangoor			Banks of Meenachil Ar, Pannagan thodu & Kotachira thodu	Low	
Puliyannoor			Banks of Meenachil Ar	Low	

	Meenachil		Banks of Meenachil Ar & Mangani thodu		Moderate	3
	Poovarany			Banks of Meenachil Ar, Mangani thodu & Ponnozhukkum thodu		
	Kondoor	Low (Vattapparamala, Pulikkamala)		Banks of Meenachil Ar & Chittar Ar	Low	3.4
	Poonjar Nadubhagam	High (Kallelikulam,Perumkulam)			Moderate	<3, 5
	Poonjar Thekkekara	High (Kunnam,Adivaram) Low (Uppukulam,Chenad)		Banks of Meenachil Ar	Low	
	Chempu			Banks of Vembanad Lake & Muvattupuzha River	Low	
	Kulasekharaman galam			Banks of Vembanad Lake & Muvattupuzha River	Low	
	Velloor			Banks of Muvattupuzha River	Moderate	
	Mulakulam			Banks of Muvattupuzha River & Perumbadavam thodu	Low	
	Njeezhoor			Banks of Valitya thodu	Low	
Σ	Kaduthuruthy			Banks of Valiya thodu & Muvattupuzha River	Low	
	Vadayar			Banks of Muvattupuzha River	Low	
VAIKOM	Vadakkemuri			Banks of Vembanad Lake & Muvattupuzha River	Low	
\$	Naduvile			Banks of Vembanad Lake & Kari Ar	Low	
	Vaikom			Banks of Vembanad Lake & Kari Ar	Low	
	Thalayazham			Banks of Vembanad Lake & Reclaimed land	Low	
	Vechoor			Banks of Vembanad Lake & Reclaimed land	Low	
	Kallara			Reclaimed land onthe banks of Ullala thodu & Puttar thodu	Moderate	
	Muttuchira			Banks of Kala thodu	Low	
	Manjoor			Banks of Kurukkumchurathu thodu & Kuruppumthara thodu	Low	
	Kothanalloor			Banks of Kurukkumchurathu thodu	Low	

	Onamthuruth		Banks of Kurukkumchurathu thodu	Low	
	Kaipuzha		Broad flat bottom valleys (Paddy fields) on the Banks of Puttar thodu	Low	
	Athirampuzha	Banks of Athirampuzha thodu		Moderate	
	Peroor		Banks of Meenachil Ar	Low	
	Ettumanoor		Banks of Meenachil Ar & Broad flat bottom valleys (Paddy fields) Ettumanoor, Kizhakkumbahgam	Low	
	Ayarkunnam		Banks of Meenachil Ar, Pannagan thodu,Puttachira thodu & Munnurchira thodu	Moderate	
	Akalakunnam		Banks of Pannagan thodu	Low	4.3
	Chengalam E		Banks of Thennagonal thodu	Low	
	Annikkad		Banks of Pannagan thodu & MUkkani thodu	Moderate	>3
KOTTAYAM	Kooroppada		Banks of Kakkathodu		3,3.7 3.7 4.3
OT	Manarcad		Banks of Meenachil Ar, Minadam Ar & Velloor thodu	Low	
¥	Perembaikad		Banks of Meenachil Ar	Moderate	
	Arpookara		Reclaimed land on the banks of Vembanad Lake, Kaipuzha Ar & Pennar thodu	Low	
	Aimanam		Banks of Vembanad Lake & Meenachil Ar	Low	
	Kumarakam		Reclaimed land on the banks of Vembanad Lake	Low	
	Chengalam S		Reclaimed land on the Banks of Meenachil Ar	Low	
	Kottayam		Banks of Meenachil Ar	Moderate	
	Veloor		Banks of Meenachil Ar & Koduvan Ar	Low	
	Thiruvarpu		Reclaimed land on the Banks of Koduvan Ar	Moderate	
	Nattakom		Banks of Koduvan Ar	Low	
	Panachikkad		Banks of Vettickal Ar	Moderate	3,3.7
	Muttapalam		Banks of Meenachil Ar & Vettickal Ar	Moderate	<3

	Puthupally			Banks of Vettickal Ar & Valiya thodu	Low	
	Pampady			Banks of Velloor thodu, Porattu thodu & Kurattu thodu		
	Menadam			Banks of Porattu thodu & Kurattu thodu		
	Vakathanam			Banks of Vettickal Ar & Broad flat bottom valleys (Paddy fields) Vakathanam, Vallikkadu	Low	
	Kurichy			Banks of Vettickal Ar & Broad flat bottom valleys (Paddy fields) Kalambukattuchira, Chalachira, Kuruchi	Moderate	
	Chethipuzha			Banks of Vettickal Ar & Broad flat bottom valleys (Paddy fields) Kunandanam,Chiranchira,Chalachira	Low	
	Vazhapally Eest			Broad flat bottom valleys (Paddy fields) Changanassery		
	Vazhapally West			Reclaimed land in Paral, Thuruthi, Kumarankari, Vettithuruth	Low	
	Changanassery			Banks of Manimala Ar & Parakkal thodu	Low	
ξ	Paippad			Broad flat bottom valleys (Paddy fields) Vellapalli, Nalukodi	Moderate	
NASSEI	Thrikodithanam			Banks of Vettickal Ar & Broad flat bottom valleys (Paddy fields) Kurisummud, Thrikkodithanam	Moderate	
CHANGANASSERY	Madapally			Banks of Vettickal Ar & Broad flat bottom valleys (Paddy fields) Palamattom, Tengadu, Perumbanachi, Kurumbanadam	Moderate	
S	Thottackad			Banks of Valiya thodu,Kurattu thodu & Nettur thodu	Low	
	Karukachal			Banks of Kurattu thodu, Nettur thodu & Broad flat bottom valleys (Paddy fields) Kutirapally, Kallurkadu	Low	
	Nedumkunnam			Banks of Nedumani thodu & Broad flat bottom valleys (Paddy fields) Valpur, Panayampara, Nettallur	Low	
	Kangazha	Low (Uppanamala, Kanu mala)		Banks of Nedumani thodu	Moderate	
	Vazhoor				Moderate	
	Vellavoor	Low (Kunnumbhagam, Kadayanikkad)		Banks of Manimala Ar	Moderate	

	Koottickal	High(Elankad,Melethadam,		Low	
		Around chakiparamudi)		LOVV	
	Mundakayam	High(Anangum padi)		Low	
		Low(Mundakayam)		LOVV	
	Kanjirapally	Low(Tambalakad)		Low	
	Elikkulam		Banks of Ponnozhukkum thodu	Moderate	
	Elamgulam	Low (Vanji mala)		Low	
	Chirakkadavu	Low (Valakayam)	Banks of Manimala Ar	Moderate	
KANJIRAPALLY	Cheruvally				
RA	Koovapally		Banks of Manimala Ar	Low	
Z	Edakunnam	Low (Cherumala, Injiyani		Low	
\$	Laakamam	Chotti, Pazhamala, Palapara)		LOW	
		High (forest) Low			
	Erumeli N	(Koratodu,Pulikunnu,		Low	
		Vandanpatal)			
	Erumeli S	Low (Erumeli, Muttapalli,	Banks of Manimala Ar	Moderate	
	Li dilloli 3	Kaikkalkavu) High (forest)	Dariks of Warminata / ti	Ivioderate	
	Manimala	Low (Pavatholimala,	Banks of Manimala Ar	Low	
	Mariniala	Vazhiyakunnu, forest)	Danks of Warming A	LOW	



GOVERNMENT OF KERALA

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						
Sl No	District	DDMA meeting held	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			
1	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

Copy to:-

PS to Minister (Revenue & Housing

PS_to Principal Secretary (Revenue & DM)

The Information Officer, Web & New Media, I&PRD

Forwarded/By Order,

Section Officer