

Handbook on Disaster Management
Volume 3

**MAINSTREAMING DISASTER RISK
REDUCTION
BUDGET HEADS AND ACTION POINTS
GUIDELINES**

Towards a safer state...



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BUDGET HEADS AND ACTION POINTS GUIDELINES**



सत्यमेव जयते
Government of India



Empowered lives.
Resilient nations.

Towards a Safer State...

Contributors

Dr. Sekhar L. Kuriakose
Mr. Devavrathan S
Mr. Pradeep G.S
Ms. Anupama N
Ms. Parvathy S
Ms. Anjali P
Ms. Aswathy P
Mr. Joe John George
Prof. Dr. Keshav Mohan

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State Emergency Operations Centre (SEOC), Kerala State Disaster Management Authority
Department of Revenue and Disaster Management, Govt. of Kerala

Institute of Land and Disaster Management
PTP Nagar, Thiruvananthapuram, Kerala, India. Pin – 695038
Email: seoc.gok@gmail.com; Tel/Fax: +91 (0) 471 - 2364424
Web: www.disasterlesskerala.org; sdma.kerala.gov.in

This document is for official purposes only. All reasonable precautions have been taken by the authors to verify the information and ensure stakeholder consultation and inputs prior to publication of this document. The publisher welcomes suggestions for improved future editions. District Disaster Management Authorities (DDMA) shall have the freedom to augment the document.

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This is a guideline document

Background

Risk Profile

Kerala is geographically boarded on the west by the Arabian Sea and the east by the Western Ghats. Within the graticule 8°18'N & 12°48'N and 74°52'E & 77°22'E, the total land area of state is 38,863 km². Kerala experiences humid equatorial tropic climate with an annual rainfall of 3104 m mainly contributed by the South Asian Monsoon system. The state has a coastline of about 590 km with an approximate breadth of 35 to 120 km. The state has a population of 3,33,87,677 (Census, 2011) which translates to about 860 people/km².

Kerala is a multi-hazard prone state; its geography, rainfall, population density and the high human development index favours high degree of vulnerability to a multitude of hazards. The state is frequently ravaged by the disastrous consequences of coastal erosion, lightning, landslides, floods, drought and petro-chemical transportation related accidents. Other relatively less frequent but significant phenomenon capable of causing disastrous consequences are windfall of trees, earthquakes, intense rainfall, pest attack, forest fire, chemical transportation and storage related accidents. The high density of population of 860 people/km² (2011 Census), narrow roads, high density of road network, density of coastal population and the general higher standard of living of the public as compared to the rest of the country are factors that increase the vulnerability of the population to disasters.

According to the Indian Human Development Report, 2011, Kerala has a Human Development Index of 0.79 which is the highest in the country. HDI being a composite index of consumption rate (proxy to purchasing power), education and health, is an indicator of the socio-economic vulnerability of the population. The higher the HDI, the higher is the coping capacity, but greater is the cumulative loss potential and thus a higher degree of risk.

Institutional Set Up for Disaster Management

The state constituted the Kerala State Disaster Management Authority (KSDMA) in 2007 vide Kerala Extraordinary Gazette S.R.O No. 201/2007 dated 1st March 2007 and District Disaster Management Authorities (DDMA) in 2008 Kerala Extraordinary Gazette S.R.O No. 977/2008 dated 22nd September 2008 as envisaged in the National Disaster Management Act, 2005 (NDM Act, 2005). The KSDMA has, as envisaged in the NDM Act, 2005, constituted the State Executive Committee (SEC) chaired by its Chief Executive Officer (*inter-alia* Chief Secretary) and the executive management of the authority is vested with the Principal Secretary, Revenue and Disaster Management (*inter-alia* State Relief Commissioner according to State Disaster Management Policy 2010). The SEC also functions as the Crisis Management Group for Natural Calamity Management.

The Government of Kerala vide GO (Rt) No. 7228/2012/DMD dated 24-12-2012 created the State Emergency Operations Centre (SEOC) under Kerala State Disaster

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 Fire
- Airport: Air accidents

(Kerala SDM Policy, 2010)

Levels of Disasters

- **L0: Normal times; focus on preparedness activities**
- **L1: Disasters that can be managed at the district level; state and centre in ready state**
- **L2: Disasters that require mobilization of resources at the state level**
- **L3: Disasters that require mobilization of resources at the national level**

(NDMA, 2007)

Management Authority. It is a non-autonomous entity directly under the control of Dept. of Disaster Management. The administrative and technical decision making of the SEOC is entrusted with the Research and Management Council (RMC) chaired by Principal Secretary, Revenue and Disaster Management (the State Incident Commander). The RMC reports to the State Executive Committee (SEC) of SDMA. The SEOC is under the direct supervisory control of Principal Secretary,

Revenue and Disaster Management and the day-to-day administration is entrusted upon

Director, Institute of Land and Disaster Management. It is staffed with a multi-disciplinary scientific team and is headed by a Member to the State Disaster Management Authority.

The SEOC is also the State Drought Monitoring Cell vide GO (Rt) No. 7228/2012/DMD dated 24-12-2012. The SEOC is permitted to collect any data from any government institution in the state on a no cost basis vide GO (Rt) No. 3250/2011/DMD dated 29/07/2011. Allocations have been made to Districts for setting up District Emergency Operation Centres in each district headquarters under the control of District Collectors for day to day monitoring of preparedness measures and to coordinate rescue and relief operations. Such centres have started functioning with fulltime staff from Revenue, Police and Fire & Rescue and an on-call doctor from Health Department at Alappuzha, Pathanamthitta, Malappuram and Idukki. In addition, Disaster Management Control Rooms are functional in all Taluk offices in the state. The State has constituted State Disaster Response Force for the purposes of specialized response to threatening disaster situations vide GO (Ms). No. 262/2012/Home dated 17-10-2012.

Drought and Flood Preparedness Arrangements

At present the Drought and Flood Preparedness measures are initiated by the State Disaster Management Authority and are conveyed to the District Authorities and nodal departments through the Department of Disaster Management (Revenue K) of the Government as an annual circular. Every year in the month of February a detailed circular is issued to districts with specific guidelines for drought risk reduction and management. Similarly, every year a statutory meeting for monsoon preparedness is held with all heads of departments under the chairmanship of the State Relief Commissioner (*inter alia* Principal Secretary, Revenue and Disaster Management). The recommendations of this meeting are issued as circular to all districts and departments for implementation.

Context of the Handbook

The State over the recent times has started to experience long and dry spells resulting in water scarcity. The state experiences heavy rainfall and resultant floods during the monsoon, with subsequent damage to life and property. The incidence of

floods in the State is becoming more frequent and severe. A change in the climatic regime of the State along with unscientific anthropogenic activities is suspected to be leading to increased frequency in flood and drought. Presently, disaster mitigation in the State, especially in the case of droughts and floods are limited to short term measures which focus on reactive approaches. Such approaches have its shortfalls considering the periodicity and nature of the disaster. Droughts and floods, in the context of the State could be considered as recurrent and the effective measures in managing the same dwell largely on preparedness activities.

A paradigm shift from mere relief centric approaches to a more proactive approach which considers disaster management as a solid pack of prevention, mitigation, preparedness, response and recovery could be noted in the recent years. The State has constituted State Disaster Management and District Disaster Management Authorities laying down clarity of roles and responsibilities for State and district authorities. The State has a well-knit and mutually cohesive structure of Panchayati Raj Institutions and Government Departments that can act as catalysts in disaster preparedness activities. Their close involvement will go a long way in getting people prepared for countering natural disasters. The Panchayati Raj Institutions have a vital role to play in Disaster Preparedness activities ranging from plan preparation to community empowerment and it is obligatory upon the PRIs vide Chapter VI, Section 41 of the Disaster Management Act 2005. Disaster preparedness at the community level is the prime responsibility of the District Administration, the PRIs and the nodal departments. The results however are partial taking into account the level of awareness on disaster preparedness activities, funding sources, utilization power, and convergence options and related practices.

Making disaster risk preparedness more efficient, against this backdrop, is not just a pressing concern, but a serious issue for the stakeholders especially at the district level. Many efforts in the past, both governmental and non-governmental, have been initiated in this direction. There is no dearth of material in the form of reports, books, articles and manuals on the subject. There are however, no promising guiding materials in this direction at the District or PRI level. Considering the partial

accomplishments the need to revisit the issue is still pertinent. A user friendly handbook for district administrations for monsoon and drought preparedness activities is thus brought forward.

Information on the Project

The Department of Revenue and Disaster Management, Government of Kerala had implemented GoI-UNDP ‘Disaster Risk Management Programme’ from January 2010 to December 2012. As a continuation of DRR programme and as per the overall framework of GoI-UNDP-Disaster Risk Reduction Programme, UNDP is implementing a new programme called “GoI-UNDP Project on Enhancing Institutional and Community Resilience to Disasters and Climate Change (2013 – 2017)” in Kerala. This programme provides technical support to strengthen capacities of government, communities and institutions to fast-track implementation of the planning frameworks on Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA). At national level, the project is implemented by the Ministry of Home Affairs, Government of India with technical and managerial support from UNDP. At the state level, the State Emergency Operations Centre of KSDMA is entrusted with the implementation of the project.

Purpose of the Handbook

The purpose of the handbook is to help the district administrations and the line departments in framing monsoon and drought preparedness activities. This handbook provides action points, activities, recommendations, and best practices in Disaster Preparedness and will help empower the District Administration in identifying the provisions of funds and empowering clauses in the relevant Acts for undertaking disaster preparedness activities. The handbook will help the District Disaster Management Authorities for undertaking monsoon and drought preparedness activities through various nodal departments.

Intended Audience

The hand book is meant to serve the District Administrations, various line departments including, Revenue, Home, Agriculture, Irrigation, PWD, Water

Authority, Forest, Animal Husbandry, Health, Education etc. It carefully examines the development plans of the departments budget head to budget head and prescribes methods to mainstream Disaster Risk Reduction. The handbook is also to help the local Government Institutions in familiarizing with the flood and drought preparedness activities that they have to undertake.

Drought

Drought is a normal, recurrent feature of climate. It occurs in all climatic

regimes and is usually characterized in terms of its spatial extent, intensity and duration. Conditions of drought appear when the rainfall is deficient in relation to the statistical multi-year average for a region, over an extended period of a season or year, or even more. The Direct impacts of drought range from reduced agricultural production; increased fire hazard; depleted water levels; higher livestock and wildlife mortality rates; and damage to wildlife and fish habitats. Indirect impacts include a reduction in agricultural production that may result in reduced income, unemployment, reduced purchasing capacity and demand for consumption, default on agricultural loans, rural unrest, and reduction in agricultural employment

Drought in Kerala

In the period 1881 to 2000, Kerala experienced 66 drought years. Until 2012, the state had not experienced severe meteorological, hydrological or agricultural drought. A 29% deficit in the monsoon season (June to December) in 2012 lead to hydrological and agricultural drought which peaked during the period August 2012 to May 2013. Prior to this, official declaration of drought had happened in March 2010 and December 2003. In 2010, 17 taluks of the state were declared as drought affected while in 2003, 7 districts, 7 taluks and 119 villages were declared as drought hit. Other known meteorological drought years were 1983, 1986, 1987, 1992, 1997, 1998, 2002 and 2004. It is noticed that aridity index of different parts of the state has increased which is an indication of the possibility of increase in the frequency of drought years.

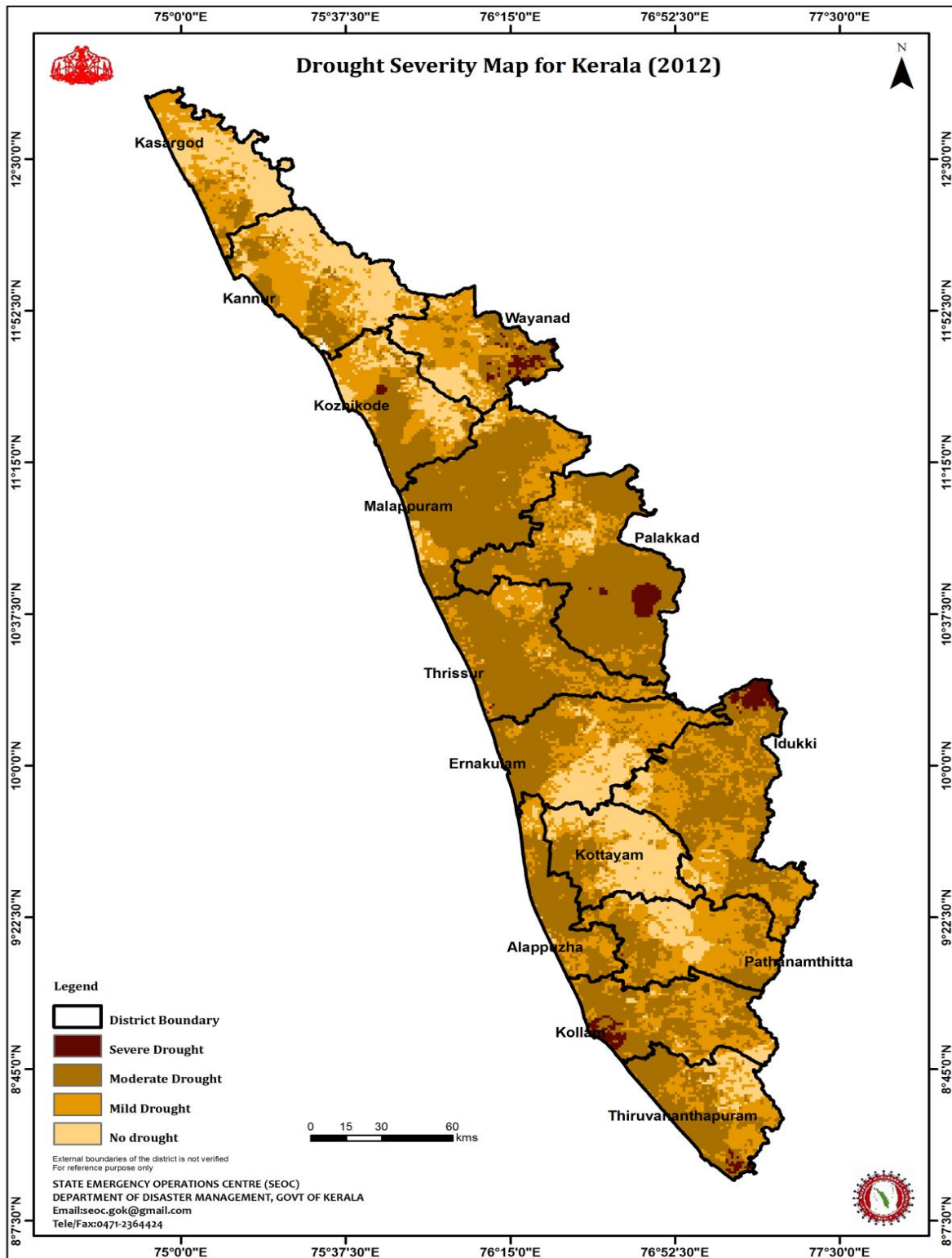
etc. Drought in the context of the State could be classified as meteorological, hydrological and agricultural according to internationally accepted

definitions. However, for pragmatic purposes in the state, drought could be defined as a situation which denotes acute potable water scarcity irrespective of the spatial patterns. The decreasing rainfall over the region, late onset of the monsoon, failure of the monsoon, and breaks in the monsoon determines the onset and persistence of drought in the state. Drought like situation summer is not uncommon in Kerala. On the basis of wide-ranging consultations with the meteorologists and agriculture scientists, rainfall deficiency, the extent of area sown, normalized difference vegetation index and moisture adequacy index are the four standard monitoring tools which are applied in combination for drought declaration. Drought was declared by the KSDMA in all districts of the state as recently as in the month of December 2012. The Line Department officials are expected to gain information on the State Disaster Management Rules, Disaster Management Policy, State Disaster Management Plan, Drought prone areas, risk profile of the region, vulnerability, drought preparedness activities, mitigation measures, their role and responsibility and various funding sources for undertaking these activities.



Anathodu Reservoir, Pathanamthitta in August 2012

Based on the assessment carried out by the State Emergency Operations Centre, which is inter-alia the State Drought Monitoring Cell the drought prone areas of the state are presented in the map given below. Major portion of the land is prone to moderate drought conditions accompanied with drinking water shortage. Severe drought



situations could be noticed in portions of Wayanad, Kozhikode, Palakkad, Idukki, Kollam and Thiruvananthapuram Districts.

PREPAREDENESS ACTIVITIES

One of the impeding factors in the drought preparedness activities is the lack of understanding of the stakeholder departments regarding the availability of funds and the general provisions under which it is obligatory upon the departments to undertake measures for disaster preparedness.

Under section 39 (C) of the Disaster Management Act, 2005 (Central Act 53) “It shall be the responsibility of every department of the Government of a State to allocate funds for prevention of disaster, mitigation, capacity building and preparedness”. Thus financial availability to undertake the preparedness activities mentioned herein is the statutory obligation of the respective department.

In addition, the District Disaster Management Authority may seek funds from the following sources for preparedness activities:

1. Plan funds of Kerala State Disaster Management Authority – Head of Account 2053-00-094-50-SDMA (Plan): Specific plans are approved by the Departmental Working Group for the plan funds. DDMAAs may submit general plans within the seven (7) sub-themes, they being:
 - I. Construction of the headquarters of SDMA – *Not available to districts*
 - II. Strengthening of Emergency Response Capabilities
 - III. Institutional strengthening of disaster management institutions
 - IV. Preparation of disaster management plans and funding mechanism for implementing these plans
 - V. Science and technology for Disaster Risk Reduction
 - VI. Natural hazard mitigation and management
 - VII. Anthropogenic hazard mitigation
2. State Disaster Mitigation Fund – Head of Account 2245-80-102-96: Requests have to be placed to the State Executive Committee of KSDMA as per the Kerala Extraordinary Gazette S.R.O No. 5/2012 dated 2 January 2012. This fund is restricted to activities for which no other sources of funds are available.

3. Flexi funds in Centrally Sponsored Schemes – Vide Letter No. 55(5)/PF.II/2011 dated 6th January 2014, the Ministry of Finance, Government of India have issued guidelines for 10% flexi-funds within the Centrally Sponsored Schemes (CSS) to be utilized inter alia for mitigation/restoration activities in the event of natural calamities in the sectors covered by the CSS. The schemes which emanate from a legislation (eg. MGNREGA) or schemes where the whole or a substantial proportion of the budgetary allocation is flexible (eg. RKVY) are not covered under this directive.

ACTIVITIES WITHIN THE PERVIEW OF DDMA/DISTRICT COLLECTOR

The district administration under the leadership of the Collector implements all the decisions related to drought management on the ground.

- Road map for preparation of Disaster Management Plan
- Review Disaster Management Plans for PRIs
- Initiating specialized Training Programmes
- Decisions for capacity building of various stakeholders
- Decisions for Holding Workshops and Seminars
- Action plans for taking up activities on a priority basis
- Adoption of latest technologies
- Monitoring all the indicators on the ground
- Directing all the line departments to participate in disaster management, prepare contingency plans and mobilize their staff and resources

The District Emergency Operations Centres at the Districts are to act as the nerve centre of these preparedness activities.

ACTIVITIES AT THE DEPARTMENT LEVEL

The preparedness activities at the department level are initiated by making use of the organizational structure and existing hierarchy of officials. The implementation takes places through a number of line departments and field agencies working on the

ground. The effectiveness of drought management is depended on the level of coordination among line departments at the district level. This coordination with departments are the responsibility of the Chairman of DDMA (*inter alia* District Collector) and the coordination with PRIs in the district is the responsibility of the Co-Chairman of DDMA (*inter alia* District Panchayath President).

REVENUE DEPARTMENT

Organogram

District Collector-Deputy Collector (Disaster Management)/Adl. District Magistrate-Tahsildar-Village Officer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING (Head)	TIMELINE
Convene the meetings of DDMA	Deputy Collector (DM)/ADM	District Establishment	Quarterly (May, August, November, February,)
Update the District Disaster Management Plan	DDMA may delegate it to one officer in the district level (Section 33 of DM Act 2005) or hire a consultant in consultation with the SEOC (Section 34(i) of DM Act 2005)	SDMA Plan funds	Annually in December
Updated contact details of district level nodal officers for drought preparedness and management	Deputy Collector (DM)/ADM		
	Tahasildar		
	Village Officer		
Training for district nodal officers in drought preparedness at ILDM	Deputy Collector (DM)/ADM to coordinate	<ul style="list-style-type: none"> Transportation from & to ILDM to be borne by the 	Annually in December

		DDMA with SDMA plan funds • Training costs to be borne by ILDM	
Training for taluk and village nodal officers in drought preparedness at District Level	To be coordinated by respective Tahasildars and Village Officers	SDMA Plan funds	Annually in January
Update inventory for drought risk reduction & relief*	Tahsildar	Other Establishment – Taluk Office	Quarterly (May, August, November, February)

*condition of water tanks and water kiosks owned by the district; availability of water distribution tankers – public & private; status of water availability in the water dispensation points of Water Authority; identification & listing of locations suitable for drinking water distribution in panchayaths; rate contract/km for supply of drinking water to panchayaths and to water kiosks from private tanker operators

IRRIGATION DEPARTMENT

Organogram

Chief Engineer-Superintending Engineer-Executive Engineer-Assistant Executive Engineer- Assistant Engineer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING (Head)	TIMELINE
Update the departmental contingency plan	Chief Engineer	Administrative expenses	Quarterly (May, August, November, February)
Undertake channel improvement/de-silting/cleaning of <i>nullahs</i> and canals under irrigation department	Executive Engineer	• Major heads: 2700 and 4700 (Major); 2701 and 4701 (Minor) as appropriate	Annually by January
Desilting of reservoirs, ponds and tanks under irrigation department	Executive Engineer	• Major heads: 2700 and 4700 (Major); 2701 and	Annually by February

Canal irrigation need assessment in association with the staff of Revenue, Agriculture, Groundwater and Water Authority	Assistant Executive Engineer	4701 (Minor) as appropriate	Monthly from March to May
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HEALTH DEPARTMENT

Organogram

District Medical Officer (DMO)-Medical Superintendent-Medical Officer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING (Head)	TIMELINE
Preparation of LSGI wise plan for managing drought related health problems	DMO (H) & DSO (Dy. DMO) Supt/Medical Officer in-charge at institution level	Administrative expenses, maintenance head, communicable disease fund, NRHM, LSGI fund	November - December
Review and update precautionary measures and procedures with each hospital, CHC, PHC & field level			
Check stocks of equipment and drugs which are likely to be needed most		KMSCL, LSGI, Administrative Funds, maintenance head, health department fund, NRHM, HMC fund, RSBY	December – January
Strengthening the surveillance of waterborne diseases		LSGI, Health Department Fund, NRHM	February – June
Conduct regular surveillance of drinking water sources (water quality surveillance & sanitary survey)			February – June
Conduct Public Health vulnerability assessment			By the end of November
Communicate drought strategies, management guidelines for heat related health problems and recommendations including the printing &			By the end of December

dissemination of materials			
Providing necessary IEC/BCC activity			During the affected period

AGRICULTURE DEPARTMENT

Organogram

Director-Principal Agricultural Officer-Agricultural Officer

Activities	Official Responsible	Funding	Timeline
Update the departmental contingency plan	Director, Agriculture	Major head: 2401 or 4401 - Direction and administration as appropriate	Annually by December
Ensure availability of seeds & seedlings in seed banks and nurseries for contingency cropping		Major head: 2401 or 4401 - Seeds and Seed Authority and Contingency Programme to meet natural calamity	
Training on drought risk reduction methods for Agriculture Officers	Principal Agriculture Officer	Major head: 2415 - Training and 2401 Research-cum-Training as appropriate	
Crop Insurance	Agriculture Officer	Major head: 2401 or 4401 - Crop Insurance schemes and National Agriculture Insurance Scheme	Ensure registration of eligible farmers annually
Information, Education and Communication regarding drought resilient seeds and cropping methods	Agricultural Officer	Major head: 2401 - Agriculture Information, Propaganda and Publicity	Annually by December
Polder bund repair	Principal Agriculture Officer	Major head: 2415	By the end of November
Disseminating indigenous knowledge and distributing local seeds	Assistant Director/Agricultural Officer	<ul style="list-style-type: none"> Through Block Panchayat utilizing their funds 	By the end of February

WATER AUTHORITY

Organogram

Executive Engineer-Assistant Executive Engineer-Executive Engineer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Develop and quarterly update the disaster management plan	Executive Engineer	Major Head: 2215- Training, Quality Control, Research & Development (2215-01-190-99) Major Head: 2215: Documentation of Project Data. (2215-01-190-90)	Quarterly (May, August, November, February)
Estimating the demand for water	Assistant Engineer	Major Head: 2215: Survey and Investigation (2215-01-190-99)	By the end of August
Assess the availability of water, depending on various factors	Assistant Executive Engineer	Major Head: 2215: Survey and Investigation (2215-01-190-99)	By the end of September
Special measures and schemes for areas with drinking water scarcity <ul style="list-style-type: none"> • construction of temporary piped water supply • preparations for supply of water through tankers • de-silting or deepening of existing public wells • Making available private wells on 	Assistant Executive Engineer	Beneficiary contributions MGNREGS Convergence with the help of Gram Panchayats Major Head: 2215: Scaling up of Rain Water Harvesting and Ground Water Recharge Programme through KRWSA (2215-01-800-60)	By the end of October

<p>rent</p> <ul style="list-style-type: none"> Promoting rain water harvesting structures 			
Augmentation of existing water supply schemes	Executive Engineer	Major Head: 2215: Modernization of Water Supply Schemes	By the end of December
Inform people to store an emergency supply of drinking water	Assistant Engineer	Through Ward Members	By the end of November
Establish procedures for the emergency distribution of water, if existing supply is disrupted	Executive Engineer	Major Head: 2215: Accelerated Rural Water Supply Project (ARWSP) (50% State Share)	By the end of December
Investigate alternate source of water and its supply	Assistant Executive Engineer	Major Head: 2215: Survey and Investigation (2215-01-190-99)	By the end of December

FOREST

Organogram

Divisional Forest Officer – Forest Range Officer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Develop and quarterly update the disaster management plan	DFO	Major Head: 2406: Direction and Administration Major Head: 2406:	Quarterly (May, August, November, February)

		Resource Planning and Research Major Head: 2406: Intensification of Forest Management	
Identify areas that could be opened or made available for grazing or fodder collection for domestic animals of tribal and forest fringe population	Forest Range Officer	Major Head: 2406: Resource Planning and Research	July-September
Afforestation	DFO	Funds from Social Forestry Programs, IWMP Major Head: 2406: Regeneration of Denuded Forests Major Head: 2406: Compensatory afforestation in lieu of the assignment On Encroached Forest Lands Major Head: 2406: Social and Farm	Long term measure

			Forestry Major Head: 2406: Extension, Community Forestry and Agro Forestry	
Water Resource Management	DFO		Major Head: 2406: Eco Development Program	By the end of December
Cleaning and desilting of existing water sources and identification & development of alternate sites for temporary water supply for wild animals	Forest Range officer		Major Head: 2406: Forestry & wildlife (respective wildlife sanctuary)	By the end of September

ANIMAL HUSBANDRY

Organogram

Director (DAH)-District Animal Husbandry Officer (DAHO)-Deputy Director (DD)

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING (Head)	TIMELINE
Preparation and updation of Contingency Action Plan	DAH	Major Head: 2403: Veterinary Extension and training	Yearly
Publicize the information about common diseases afflicting livestock and the	DD	Through Ward Members	By the End of December

precautions that need to be taken.		Major Head: 2403: Direction and Administration Major Head: 2403: disease eradication programme with National dairy development board—state share	
Assist the Revenue Department in preparing plans for cattle camps and cattle feeding centres	DAHO	Awareness programmes, camps, exhibitions, calf rallies, study tours, awards and awareness materials Major Head: 2403: Direction and Administration	By the end of August
Stock emergency medicines for tackling drought related diseases	DAHO	Major Head: 2403: Direction and Administration	By the end of September
Make information on various disasters available to all staff of veterinary hospitals and centres	DAH	Major Head: 2403: Direction and Administration Major Head: 2403:	By the end of November

		Administrative Investigation and Statistics	
Undertake campaigns in the drought prone areas to increase the awareness of farmers about cattle health issues related to fodder and feed, vitamins and minerals, and sanitation issues		Major Head: 2403: Extension and Training Major Head: 2403: Animal Disease Control Project Awareness programmes, camps, exhibitions, calf rallies, study tours, awards and awareness materials	By the end of February

ACTIVITIES AT THE PRI LEVEL

DISTRICT PANCHAYAT

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Awareness campaign: Posters, Hoardings, Leaflets, etc.	Secretary DP	Major Head: 2515: Assistance to District Panchayats Major Head:	By the end of December

		2515: Direction and Administration Plan Fund, Donations, Sponsorships	
Holding of interagency meeting including NGOs	President DP	Major Head: 2515: Direction and Administration	By the end of December
Orientation of School and College Teachers at District Level	President DP	Major Head: 2515: Direction and Administration Plan Fund, Donations, Sponsorships	May-July
Identify NGOs useful in providing assistance during disasters	Standing Committee	Major Head: 2515: Direction and Administration	August
Check inventories of items required at short notice for rescue and relief operations	Secretary DP	Major Head: 2515: Direction and Administration	December
Identifying the resource gaps both physical and manpower and replenish the	President DP	Major Head: 2515: Direction and	August - October

same through capacity building.		Administration	
Convergence of the Disaster Management Plan with the Development Plan	Secretary DP	Major Head: 2515: Direction and Administration	At the commencement of the financial year
Sensitizing Zila Panchayat members	President DP	Major Head: 2515: Project management and capacity building under Kerala local government and Service delivery project(klgsdp) - world Bank aided	May-July

BLOCK PANCHAYAT

Activities	Official Responsible	Funding	Timeline
Formation of Block Level Disaster Management Committee	President BP	Major Head: 2515: Direction and Administration	May
Supervise preparedness of the Gram Panchayats	President BP	Major Head: 2515: Direction and Administration	Through out the year
Identification of CBOs and	President BP,	Major Head: 2515:	May-July

NGOs at Block level for awareness generation as well as Community contingency plan development	Standing Committee	Direction and Administration	
Consolidate village wise information on items listed under GP	Secretary BP, Standing Committee	Major Head: 2515: Direction and Administration	July-August
Organizing awareness campaign and promoting community education	Secretary BP, Standing Committee	Plan fund, sponsorships Major Head: 2515: Direction and Administration Major Head: 2515: assistance to block panchayats/intermediate level panchayats	September
Implementing Watershed Development Programs	Secretary BP, President BP	IWMP Fund, NABARD Major Head: 2515: NABARD assisted R.I.D.F. projects undertaken by block panchayats	May-October
Function as link between the district and village level counter disaster activities.	President BP	Major Head: 2515: Direction and Administration	Through out the year

GRAM PANCHAYAT

Activities	Official Responsible	Funding	Timeline
Formation of Gram Panchayat Disaster Management Committee and VTF	President GP	Major Head: 2515: Direction and Administration Own Fund	May
Updating information on Civic amenities, Population, Government and Panchayat properties	President GP, Secretary	Major Head: 2515: Direction and Administration Own Fund	May-June
Regularly check inventory of resources	Secretary	Major Head: 2515: Direction and Administration Own Fund	Through out the year
Make an inventory of elements at risk	Secretary	Major Head: 2515: Direction and Administration Own Fund	June-August
Awareness generation through Hoardings, Postering, Various competitions, Leaflets, Rallies etc.	President and Secretary	Own Fund, Sponsorships Major Head: 2515: assistance to Gram Panchayats	September

Organizing Trainings on preparedness for volunteers of NGOs, CBOs, NSS, MahilaSamiti's etc.	President and Secretary	Own Fund, Sponsorships Major Head: 2515: assistance to Gram Panchayats	October
Provision of water for drinking, domestic and irrigation purpose (e.g tankers, construction of temporary shallow wells, rationing of water etc.)	President and Secretary	Collector's fund	January-April
Traditional water conservation measures could be explored and developed	President and Secretary	Through MGNREGA Convergence Major Head: 2515: Direction and Administration	September - December
Assess the change in water level in different water sources	President and Secretary	Major Head: 2515: Direction and Administration	Through out the year
Erecting water kiosks	President	Collector's fund Major Head: 2515: assistance to Gram Panchayats	During drought period
Implementing Well Recharge Programs Like Mazhapolima	President	Collector's fund, WGDP, MGNREGA	During Monsoon

		Major Head: 2515: assistance to Gram Panchayats	
Activating Community Structures, farmers groups, cooperatives, youth clubs	President	Major Head: 2515: Direction and Administration	July-August
Measures like contour trenching, rain pits, village ponds and tanks, dip irrigation systems etc	President	Through MGNREGA Convergence	August- December

FLOOD

The state experiences heavy rainfall and resultant floods during the monsoon, with subsequent damage to life and property. The incidence of floods in the State is becoming more frequent and severe. High intensity of rainfall during the monsoons causes severe floods. A study by the Centre for Earth Science Studies (CESS) shows that 5642.68 sq.km of area which accounts to about 15% of the total area in the state is prone to flood. In Allepey district more than 50% percentage of area is identified as flood prone. These are mostly confined to the Kuttanad region that host seasonally waterlogged flat lands with anatomizing waterways connected to Vembanadlake. The Kole lands of Thrissur district, the coastal tracts of Ernakulam and Malappuram districts and the western part of Kottayam district flanking Vembanadlake are other major areas prone to floods. Even though Wayanad district is located in an elevated plateau region flood prone areas are noted in the broad flat bottom valleys and flood plains adjacent to Mananthavadi River. Idukki district is the least flood prone area in Kerala owing to the rugged topography and absence of flat bottom valleys.

Monsoon rainfall in Kerala in the previous year exceeded the forecast causing landslides and floods in several districts in the State and consequently heavy loss to life and property. Coastal erosion has accentuated damages all along the coastline of the State. Floods devastated several villages leading to evacuation and dislocation of large numbers of families now sheltered in relief camps. It may be noted that almost the entire coastline of Kerala which is one of India's most densely populated belt has been affected by the severity of the on-going monsoon. The number of deaths, loss of property and infrastructure resulted on the severity of the situation.

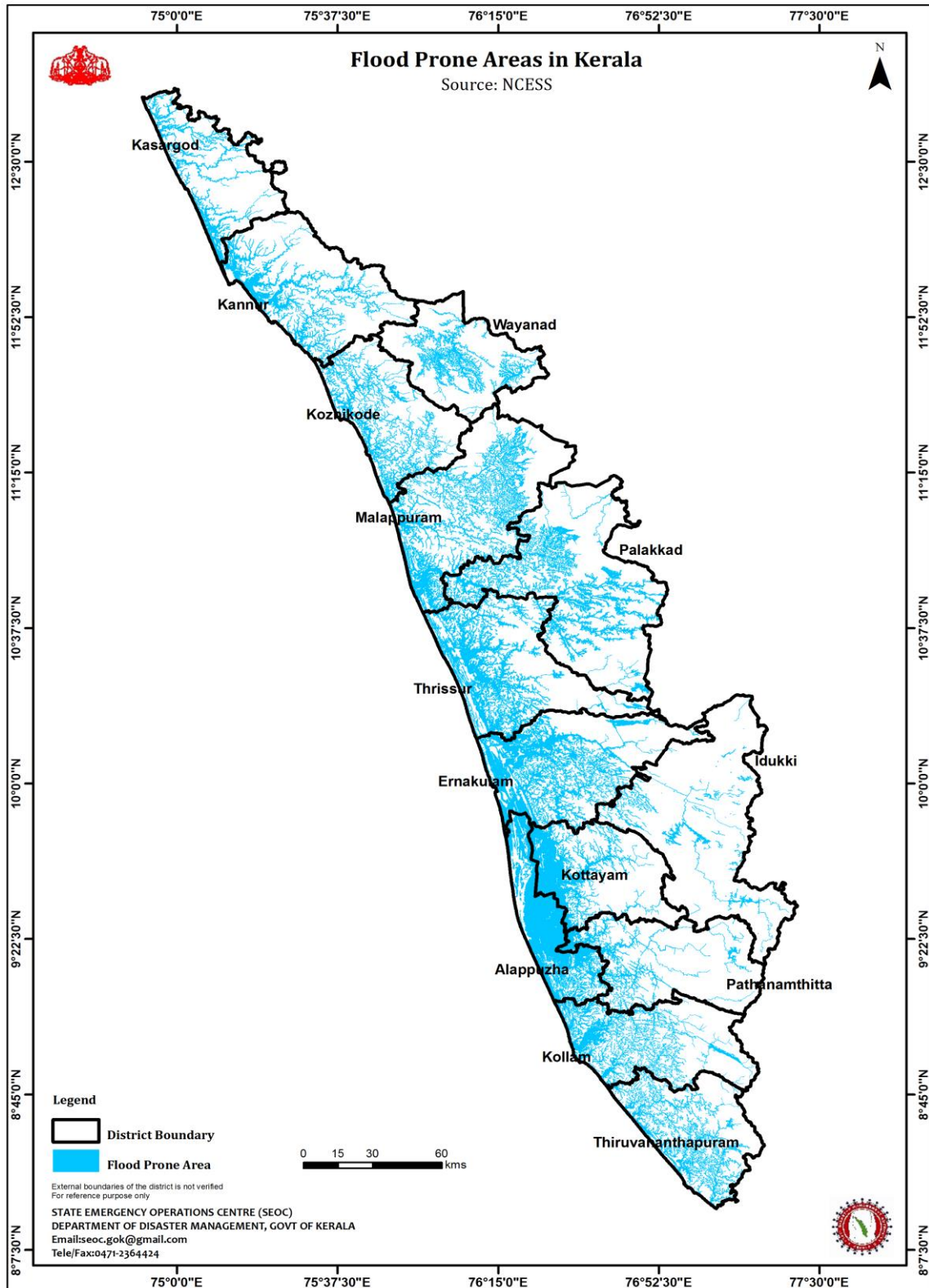


Pictures of recent

floods in Kerala

Flood in the context of the State could be defined as a situation arising from heavy monsoon rains clubbed with the failure of proper mitigation measures. Floods are

more devastative in the urban areas of the State. Riverine flooding is a recurring event consequent to heavy or continuous rainfall exceeding the absorptive capacity of soil and flow capacity of streams and rivers. The flood prone areas of the state are presented in the map given below.



The Line Department officials are expected to gain information on the State Disaster Management Rules, Disaster Management Policy, State Disaster Management Plan, flood prone areas, risk profile of the region, vulnerability, flood preparedness activities, mitigation measures, their role and responsibility and various funding sources for undertaking these activities.

PREPAREDENESS ACTIVITIES

ACTIVITIES WITHIN THE PURVIEW OF DDMA/DISTRICT COLLECTOR

The district administration under the leadership of the Collector implements all the decisions related to flood management on the ground.

- Road map for preparation of Disaster Management Plan
- Review / Updation of Disaster Management Plans for PRIs
- Initiating specialized Training Programmes
- Decisions for capacity building of various stakeholders
- Decisions for Holding Workshops and Seminars
- Action plans for taking up activities on a priority basis.
- Adoption of latest technologies
- The Collectors should monitor all the indicators on the ground
- Direct all the line departments to participate in disaster management, prepare contingency plans and mobilize their staff and resources,
- District Collectors shall keep ready the basic instruments
- Should identify temporary shelter locations

- The District Collector shall enter into rate contracts with agencies/individuals ready to provide emergency services of heavy equipment
- The District Collector shall ensure that all VHF control rooms in the districts and taluks are active before the onset of monsoon with the help of Police Telecommunications Wing.

PREPAREDNESS ACTIVITIES AT THE DEPARTMENT LEVEL

The preparedness activities at the Department level are initiated by making use of the organizational structure and existing hierarchy of officials

REVENUE DEPARTMENT

Organogram

District Collector-Revenue Divisional Officer-Tahsildar-Village Officer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Convene the meetings of DDMA	Deputy Collector (DM)/ADM	District Establishment - 2053-00-093-99	Quarterly (June, September, December, March,)
Prepare and quarterly update the District Disaster Management Plan	DDMA may delegate it to one officer in the district level (Section 33 of DM Act 2005) or hire a consultant in consultation with the SEOC (Section 34(i) of	SDMA Plan funds	Quarterly (June, September, December, March,)

	DM Act 2005)		
Establish communications with all stakeholders	Deputy Collector (DM)/ADM	SDMA Plan funds District Establishment - 2053-00-093-99	Starting in May to be completed by the end of August
Prepare pre-positioning of staff list for site operation	Deputy Collector (DM)/ADM	SDMA Plan funds District Establishment - 2053-00-093-99	Starting in May to be completed by the end of August
Prepare a training calendar	Deputy Collector (DM)/ADM	SDMA Plan funds District Establishment - 2053-00-093-99	To be completed by May end
Identify staff to form teams from concerned departments who would undertake damage and need assessment and provide them training.	Deputy Collector (DM)/ADM	SDMA Plan funds District Establishment - 2053-00-093-99	Starting in May to be completed by the end of August
Regularly check and update inventory of resources.	Tahsildar/Village Officer	Can be done with the help of Gram Panchayats SDMA Plan funds	Quarterly (June, September, December, March,)
Ensure capacity	Deputy Collector	SDMA Plan	Starting in

building of the community and all departmental staff	(DM)/ADM	funds District Establishment - 2053-00-093-99	August to be ended in February
Prepare a list of relief items to be distributed	Deputy Collector (DM)/ADM	Can be done with the help of Gram Panchayats, SDMA Plan funds, District Establishment - 2053-00-093-99	By the end of March

HOME DEPARTMENT (POLICE, FIRE & RESCUE)

Organogram (Police)

Superintendent of Police-Deputy Superintendent of Police- Circle Inspector-Sub Inspector

Organogram (Fire and Rescue)

Divisional Officer-Station Officer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Prepare and update disaster management plan,	SP, Divisional Officer	Major Head: 2055: Direction and Administration	Yearly
Prepare a Deployment Plan for the Police Force, based on the needs of the	S.P	Major Head: 2055: Direction and	June-September

most vulnerable areas.		Administration	
Constitute 'Search & Rescue' Teams, and arrange training for these units.	SP, Divisional Officer	Major Head: 2055: Education and Training	June-August
Review and update emergency measures and procedures,	SP, Divisional Officer	Major Head: 2055: Direction and Administration	Quarterly June, September, December, March,)
Coastal police shall ensure that livelihood gear of fishermen are not stored in the areas which are prone to coastal erosion	SP	Major Head: 2055: Direction and Administration	March

IRRIGATION DEPARTMENT

Organogram

Chief Engineer-Superintending Engineer-Executive Engineer-Assistant Executive Engineer- Assistant Engineer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Update the departmental contingency plan,	Chief Engineer	Major Head: 2700: Direction and Administration	Yearly
Undertake channel improvement for rivers and <i>nullahsto</i> the extent possible. Take up de-silting	Assistant Executive Engineer	Major Head: 2700: Maintenance and Repairs Convergence with MGNREGS through GPs	By the end of September

/ cleaning of <i>nullahs</i> and canals			
Check all the siphons and regulators on the <i>bunds</i> and canals. Clean siphons before the monsoon.	Assistant Executive Engineer	Major Head: 2700: Maintenance and Repairs Convergence with MGNREGS through GPs	February

HEALTH DEPARTMENT

Organogram

District Medical Officer (DMO)- Medical Supdt.-Medical Officer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Prepare the contingency plan in the pre-monsoon period (quarterly updation if needed)	District Level: DMO (H) & DSO (Dy. DMO) Supt./Medical Officer in-charge at institution level	Allocation from annual development plan, maintenance fund, communicable disease fund, NRHM, LSGI fund	January – March
Review and update precautionary measures and procedures with each hospital, CHC and	DMO	Administrative/office expenses, communicable disease fund, NRHM, LSGI fund	By the end of December
Strengthening the disease surveillance of waterborne diseases, vector borne diseases & other communicable diseases	DMO	Major head: 2210 or 4210 - Direction and administration, as appropriate	By the end of august

Strengthening vector surveillance	Medical Supdt	Major head: 2210 or 4210 - Direction and administration, as appropriate	December
Organize mobile response units and their deployment plans	Medical Supdt	Major head: 2210 or 4210 - Direction and administration, as appropriate	By the end of January
Ensure that local police, rescue teams and ambulance teams are aware of the resources of each hospital		Through Block and Gram Panchayats utilizing their funds Funds provided for Ward Level Health and Sanitation Committees	Quarterly June, September, December, March,)
Organizing Mobile Health teams	Medical Officer	National Rural Health Mission State Share Control of Communicable Diseases Major head: 2210 or 4210 - Direction and administration, as appropriate	By the end of December
Organizing medical camps	Medical Officer	Major head: 2210 or 4210 - Direction and administration, as appropriate	By the end of March
Shall stock enough medicines to tackle wet period epidemics	Medical Officer	Major head: 2210 or 4210 - Direction and administration, as appropriate	February-April

AGRICULTURE DEPARTMENT

Organogram

Principal Agricultural Officer-Assistant Director-Agricultural Officer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Develop and update disaster management plan	PAO	Major head: 2401 or 4401 - Direction and administration as appropriate	Yearly
Establish communication linkage between department, District Control Room and Agriculture colleges, and seed banks, nurseries	PAO	Major head: 2401 or 4401 - Direction and administration as appropriate	By the end of September
Availability of sand bags and water draining pump sets shall be ensured to tackle inundation	Agricultural Officer	Major head: 2401 or 4401 - Direction and administration as appropriate	By the end of February
Review and update precautionary measures and procedures.	Assistant Director/Agricultural Officer	Major head: 2401 or 4401 - Direction and administration as appropriate	Quarterly (May, August, November, February,)
Orientation and training for technical and managerial competence	Agricultural Officer	Major head: 2415 – Training and 2401 Research-cum-Training as appropriate	October

WATER AUTHORITY

Organogram

Executive Engineer-Assistant Executive Engineer-Executive Engineer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Develop and update the disaster management plan	Executive Engineer	Major Head: 2215- Training, Quality Control, Research & Development (2215-01-190-99)	Yearly
Ensuring availability of water supply tankers so as to provide water supply to temporary shelters arranged in case of calamities	Executive Engineer	Major Head: 2215- Training, Quality Control, Research & Development (2215-01-190-99)	By the end of February
Establish emergency work gangs for immediate and post-disaster repairs.	Executive Engineer	Major Head: 2215- Training, Quality Control, Research & Development (2215-01-190-99)	By December

ANIMAL HUSBANDRY

Organogram

District Medical Officer- Medical Officer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Preparation and updation of Contingency Action Plan	DMO	Major Head: 2403: Veterinary Extension and training	Quarterly June, September, December,

			March,)
Review and update precautionary measures and precautions that have been taken to protect equipments.	Medical Officer	Major Head: 2403: Veterinary Extension and training	Quarterly June, September, December, March,)
Stock emergency medical equipments	Medical Officer	Major Head: 2403: Direction and Administration	By the end of March
Determine the kind of injuries/ illnesses that could be expected, and the drugs and other medical items that may be required.	Medical Officer	Major Head: 2403: Veterinary Extension and training	By the end of October
Organize vaccination campaigns in hazard prone villages before disaster.	Medical Officer	Awareness programmes, camps, exhibitions, calf rallies, study tours, awards and awareness materials Major Head: 2403: Direction and Administration	By the end of April

PUBLIC WORKS DEPARTMENT

Organogram

Chief Engineer-Superintending Engineer-Executive Engineer-Assistant Executive Engineer- Assistant Engineer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Preparation and updation of Contingency Action Plan	Executive Engineer	Major Head: 2059: Direction and Administration	Quarterly June, September, December, March,)
Review and update precautionary measures and precautions that have been taken to protect equipments.	Executive Engineer	Major Head: 2059: Direction and Administration	Quarterly June, September, December, March,)
Commence timely repairs of roads and other support infrastructure	Assistant Executive Engineer	Major Head: 2059: Maintenance and Repairs Can also seek convergence with MGNREGS through GPs State Road Improvement Project (SRIP) Development and Improvement (SH and MDR)	By the end of January
Ensure personnel are aware and nominated to be available foremergency	Executive Engineer	Major Head: 2059: Direction and	By the end of March

duties within the affected district and sub-division.		Administration	
Make certain the Office In-charge PWD (B&R) is familiar with predisaster precautions and during and post-disaster procedures for road clearing and defining safe evacuation routes where necessary.	Superintending Engineer	Major Head: 2059: Training	By the end of March
Clean the area beneath bridges for smooth flow of excesswater.	Assistant Engineer	Major Head: 2059: Maintenance and Repairs	By the end of April
Maintain all the highways and access roads, which are critical from the point of view of supplying relief.	Superintending Engineer	Major Head: 2059: Maintenance and Repairs Development and Improvement (SH and MDR) State Road Improvement Project (SRIP)	By the end of March
Inspect old buildings and suggest retrofitting of weak buildings/demolition of dangerous structures and evacuation of population.	Executive Engineer	Major Head: 2059: Public Works, Maintenance and repair of buildings.	January to April

Identify, mark and designate routes strategic to evacuation and relief, in close coordination with police and District Control Room.	Executive Engineer	Major Head: 2059: Direction and Administration	September to March
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DEPARTMENT OF EDUCATION

Organogram

Deputy Director-District Education Officer-AEO-Regional Deputy Director

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
List out schools to be utilized as shelter during floods	DEO	Major Head: 2202: Direction and Administration	End of March
List out schools to be utilized as training centres	DEO	Major Head: 2202: Direction and Administration	End of January

DEPARTMENT OF CIVIL SUPPLIES

Organogram

District supply officer-Taluk Supply Officer-Rationing Inspector

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Develop and quarterly	District Supply	Major Head:	Quarterly

update the disaster management plan	Officer		3456: Direction and Administration	June, September, December, March,)
List out items to be provided by Food and Supply department.	Taluk Officer	Supply	Major Head: 3456: Direction and Administration	By the end of march
Decide upon the places where the Response Base for Food, Fuel, Raw material, etc., is to be set up.	Taluk Officer	Supply	Major Head: 3456: Direction and Administration	By the end of march
Check the inventory of resources.	Taluk Officer	Supply	Major Head: 3456: Direction and Administration	By the end of march
Check for the supplies of food grains through the Public Distribution System.	Taluk Officer	Supply	Major Head: 3456: Direction and Administration	By the end of April
List out warehouses of the State and Central Government	District Officer	Supply	Major Head: 3456: Direction and Administration	By the end of February
Prepare a list of NGOs, CBOs, NCC/NSS volunteers who can help in food distribution and other activities of the Civil Supplies department.	District Officer	Supply	Major Head: 3456: Direction and Administration	By the end of February

KERALA STATE ELECTRICITY BOARD

Organogram

Chief Engineer-Superintending Engineer-Executive Engineer-Assistant Executive Engineer- Assistant Engineer

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Develop and quarterly update the disaster management plan	Chief Engineer	Major Head: 2801: Assistance to Electricity Board	Quarterly June, September, December, March,)
Establish communications with State Emergency Operation Centre and the District Collector	Superintending Engineer	Major Head: 2801: Assistance to Electricity Board	At the onset of monsoon
Review and update precautionary measures and procedures, and review with staff the precautions that have been taken to protect equipment.	Superintending Engineer	Major Head: 2801: Assistance to Electricity Board	Quarterly June, September, December, March,)
Protect Power Stations from disaster. Raise the height of compound walls. Arrange gunny bags.	Executive Engineer	Major Head: 2810: Infrastructural Development and Institutional Strengthening	By the end of march
Install pump sets for draining water in case of Disaster/ Cyclone/ Tsunami, etc.	Executive Engineer	Major Head: 2810: Infrastructural Development and Institutional Strengthening	By the end of April

PREPAREDENESS ACTIVITIES AT THE PRI LEVEL

DISTRICT PANCHAYAT

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Organizing Task Forces at the District Level	President DP	Major Head: 2515: Direction and Administration	By the end of March
Awareness campaign: Posters, Hoardings, Leaflets, etc.	Secretary DP	Major Head: 2515: Direction and Administration Plan Fund, Donations, Sponsorships	By the end of December
Holding of interagency meeting including NGOs	President DP	Major Head: 2515: Direction and Administration	By the end of December
Mock Drill at District Level	Secretary DP	Major Head: 2515: Training	By the end of March
Check inventories of items required at short notice for rescue and relief operations	Secretary DP	Major Head: 2515: Direction and Administration	By the end of January
Orientation of School and College Teachers at District Level	President DP	Plan Fund, Donations, Sponsorships Major Head: 2515: Training	December-March

Identify NGOs useful in providing assistance during disasters	Standing Committee	Major Head: 2515: Direction and Administration	August
Convergence of the Disaster Management Plan with the Development Plan	Secretary DP	Major Head: 2515: Direction and Administration	At the commencement of the financial year

BLOCK PANCHAYAT

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Formation of Block Level Disaster Management Committee	President BP	Major Head: 2515: Direction and Administration	At the start of the financial year
Supervise preparedness of the Gram Panchayats	President BP	Major Head: 2515: Direction and Administration	Through out the year
Identification of CBOs and NGOs at Block level for awareness generation as well as Community contingency plan development	President BP, Standing Committee	Major Head: 2515: Direction and Administration	May-September
Consolidate village wise information on items listed under GP	Secretary BP, Standing Committee	Major Head: 2515: Direction and Administration	July-August

Organizing awareness campaign and promoting community education	Secretary BP, Standing Committee	Plan fund, sponsorships Major Head: 2515: Training	September
Block Level awareness programme through mass meetings, Cycle rally, PadaYatra, Poster / Leaflet distribution.	Secretary BP, Standing Committee	Plan fund, sponsorships Major Head: 2515: Training	October
Function as link between the district and village level counter disaster activities.	President BP	Major Head: 2515: Direction and Administration	Through out the year
Block Disaster Preparedness and Mitigation Plan preparation, Resource Mapping	President BP, Standing Committee	IWMP, Plan fund Major Head: 2515: Direction and Administration	May-October
Assessing preparedness of primary health centres/evacuation arrangements, etc.	President BP, Health Standing Committee	Major Head: 2515: Direction and Administration	October - December
Contacting Ex-army/Security forces personal / volunteers to organize a taskforce to assist people in emergency.	President and Secretary	Major Head: 2515: Direction and Administration	August - October

GRAM PANCHAYAT

ACTIVITIES	OFFICIAL RESPONSIBLE	FUNDING	TIMELINE
Formation of Gram Panchayat Disaster Management Committee and VTF	President GP	Own Fund	May
Updating information on Civic amenities, Population, Government and Panchayat properties	President GP, Secretary	Own Fund Major Head: 2515: Direction and Administration	May-June
Regularly check inventory of resources	Secretary	Own Fund	Through out the year
Make an inventory of elements at risk	Secretary	Own Fund	June-August
Awareness generation through Hoardings, Postering, Various competitions, Leaflets, Rallies etc.	President and Secretary	Own Fund, Sponsorships Major Head: 2515: Training	September
Organizing Trainings on preparedness for volunteers of NGOs, CBOs, NSS, MahilaSamiti's etc.	President and Secretary	Own Fund, Sponsorships Major Head: 2515: Training	October
Provision of water for drinking, domestic and	President and Secretary	Collector's fund	January-April

irrigation purpose (e.g tankers, construction of temporary shallow wells, rationing of water etc.)			
Activating Community Structures, farmers groups, cooperatives, youth clubs	President	Major Head: 2515: Direction and Administration	July-August

Good Practices

1. MAZHAPOLIMA

Description: MAZHAPOLIMA is a community-based and decentralized well recharge programme. Mazhapolima is a ground water recharge programme, feeding homestead open wells through roof water harvesting. Though watershed activities and soil conservation measures are considered under Mazhapolima, the prime technique made use for the said project is recharging the ground water table by open well recharging with roof water harvesting. The goal of Mazhapolima program is to “contribute towards enhanced health and welfare of the community through improved access to drinking water”. The program reaches this goal by satisfying a number of objects including, recharging ground water, improving drinking water availability and service level throughout the year, significantly reducing the impact that drought has and the costs associated with trucking in drinking water to satisfy demand, and improve agricultural production and productivity. The program is supported by funds from private organizations working in the water and sanitation sector, private individuals that pay for the system at their home, banks, as well as resources from government. A funding agency, Arghyam supported the implementation of a project management unit which helps to implement Mazhapolima’s scheme. The Mazhapolima program has been a big success throughout Kerala and is on its way towards meeting the goal of recharging 450,000 wells. Mazhapolima could be replicated by the Gram Panchayats, making use of Own Funds, Beneficiary Contribution, Western Ghat Development Program, MGNREGA Convergence etc.

Implementing Agency: Mazhapolima Monitoring and Coordination Unit (MMCU), Thrissur



Visuals of Mazhapolima Unit

2. WATER KIOSKS

Description: WATER KIOSKS were opened in areas experiencing acute water scarcity in Kannur district as part of the district administration's preparations for managing the anticipated drought situation in summer months. 'Water kiosks are basically tanks with a capacity to store 5,000 to 10,000 litres of potable water. After consultations with village panchayat representatives, 55 locations in the district which face acute water shortage were identified. The Kerala Water Authority provided water to these kiosks on a periodic basis and the cost was borne from the drought relief fund of the district administration. Grama panchayat members and secretaries were entrusted with the task of maintaining these kiosks.

Implementing Agency: Kannur District Administration



Water Kiosk erected at Kodiyeri Gram Panchayat, Kannur

3. PREPAREDNESS MINIMIZING THE LOSS: FLOOD 2008, SAMBALPUR

Description:Due to low pressure in the Bay of Bengal that was subsequently intensified to a deep depression there was very heavy rain in the upper and lower catchments of Mahanadi System in September, 2008 that resulted in flood. Due to local rain in the district and water discharge from the Hirakud dam, the low lying areas and the back water forced the urban areas in flood like situation. Poor drainage

system in the district caused water logging in many wards of the municipality and flash flood mainly in two blocks i.e. Dhakauda and Maneswar basically affected the people.

Effectiveness of DRM Programme.

GOI-UNDP DRM Programme helped the district in many ways such as: DRM approach enhanced the level of preparedness at the administrative level as well community level. District Natural Calamity Committee (DNCC) meeting held in the month of March 2008 (Heat wave) and May 2008 (Pre Flood) to take stock of the situation prior to the emergency season. All the concerned line departments were instructed to take necessary preparedness & precautionary measures to tackle the situation. The EOC is operational and equipped with Telephone, Internet, VHF facilities, Fax, Rescue equipments, power boats, Search lights, Generator and most important is District Disaster Management Plant (DDMP). During emergency this center acts as a nodal point for receiving messages and transmits to different quarters. Deputy Collector (Emergency) along with the District Project Officer, DRM monitored the whole situation from the EOC and acted as the information hub of the District. All the grass root level officers were alerted and instructed to keep close watch on the situation and report from time to time to the EOC for better monitoring.

The trained volunteers of the Disaster Management Teams (VDMTs) were kept in readiness to handle the emergency situations. Three DMT members from the Dhanakauda and Maneswar blocks who rescued 4 people in a boat mishap (HarodjarNalla) were awarded by the hon'ble Chief Minister of Orissa on October 29, 2008 to promote volunteerism on the eve of Orissa Disaster Preparedness Day. Formation of DMTs and DMCs – Different Teams and committees at all levels are being formed for the purpose of monitoring and taking decisions related to disaster preparedness, managements and disaster recovery. At District, block, GP and village levels such committees are formed. These committees include decision makers, opinion leaders, traditional leaders, SHG members, village youths, teachers, line department officials etc. The approach of Community based disaster preparedness is the best form of disaster preparedness as this advocates for a bottom up approach for disaster management. It is an acknowledged fact that whatever be the preparedness at

top level it takes some time to reach the community in the normal condition. In the case of severe scenario, this time span definitely increases because of various obstacles. Hence, the wise approach is to train the community for self-reliance, self-help, and self-protection. It is realized from the past experience that community needs support in specialized training in Search and Rescue, First Aid and Psychological counseling in the post disaster situation.

Everyone is aware about the fact that awareness has made a lot of difference in our lives. In the DRM Programme, everyone has been sensitized and made aware right from community level to the administration level, which has helped considerably to reduce the losses by taking up prompt preparedness measures well before time. PRIs have taken a lead role in communicating to the community and acted as the viable communication channel for dissemination and warning with the help of warning group. NGOs with support of trained volunteers helped the District administration to provide free kitchen to the affected people of urban areas. DMT training at the urban areas were organized in which 250 volunteers were trained. As the blocks of the district were not much affected by the flood this year, but the level of preparedness at all levels shows a positive sign towards the effectiveness of the Disaster Risk Management Programme and acceptance of the same by the community and the administration.

4. DROUGHT PREPAREDNESS ACTIVITIES UTILIZING MGNREGA

Description: Malappuram District is bestowed with rivers such as Bharathapuzha, Chaliyar and Kadalundi Rivers and its numerous tributaries. Rich monsoon rain and prolonged severity of drought during the summer months are characteristics of the districts as elsewhere in the State. Water scarcity is considered as one of the most prominent reasons behind the agricultural loss in the District. The District Administration has utilized the scope and potential of Mahathma Gandhi National Rural Employment Guarantee Scheme in bringing out a feasible solution to the issue of drought. Every Gram Panchayat in the District has prepared watershed development master plan and rearranged the possibilities of MGNREGS according to

the necessity and suitability. Various measures such as contour bunding, rain water pits, de silting of canals, canal restoration etc is undertaken under MGNREGS activities. Water is stored and allowed to seep during the monsoon period. A number of such drought and flood prevention activities are undertaken under MGNREGS in the District. These activities proved to be successful and are considered to be the most important preparedness activities undertaken in the District. The activities under MGNREGS have empowered the rural folk towards mitigation of drought.

Implementing Agency: Malappuram District Administration and MGNREGA

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CHECKLIST FLOOD

REVENUE DEPARTMENT

Activities	Official responsible	Time line	Yes/ No	Action Taken/Remarks
Convene meetings of DDMA	District Collector	June		
		September		
		December		
		March		
Prepare and quarterly update the District Disaster management Plan	District Collector	June		
		September		
		December		
		March		
Establish communication with all stakeholders	Dy. Collector (DM/ADM)	By the end of August		
Prepare pre-positioning of staff list for site operation	Dy. Collector (DM/ADM)	By the end of August		
Prepare a training calendar	ILDm	By the end of May		
Identify staff to form teams	Tahsildar,	By the end		

		of		
from concerned departments	ILDm	August		
who would undertake damage				
and need assessment and				
provide them training				
Regularly check and update	Tahsildar,	June		
inventory of resources	Village Officer	September		
		December		
		March		
Ensure capacity building of the community and all	ILDm	To be completed by the end of		
departmental staff		February		
Prepare a list of relief items	Dy. Collector	By the end of		
to be distributed	(DM/ADM/Tahsildar/	March		
	Village Officer			
Create teams including trans-	Dy. Collector	To be completed		
port, relief material and equip-	(DM/ADM)	By the end of		
ment for responding to the		December		
disaster incident				

HOME DEPARTMENT

Activities	Official responsible	Time line	Ye s/ No	Action Taken/Remarks
Prepare and quarterly update the District Disaster Management Plan	SP, Divisional Officer	June		
		September		

		Decem ber		
		March		
Prepare a deployment plant forthe Police Force, based on theneeds of the most vulnerableareas	SP	June- Septe mber		
Constitute 'Search and Rescue'teams and arrange trainingfor these units	SP, Divisiona l Officer	June- Augus t		
Establish coordination with Defence and Home Guards	SP	June- July		
Review and update emergency measures and procedures	SP, Divisiona l Officer	June Septe mber Decem ber March		
Coastal police shall ensure thatlivelihood gear of fishermenare not stored in the areas whichare prone to coastal erosion	SP	March		

IRRIGATION DEPARTMENT

Activities	Official responsible	Time line	Yes/N o	Action Taken/Remarks
Quarterly update the depart- mental contingency plan	Chief Engineer	June September		

		December		
		March		
Commence timely repairs of critical bunds	Asst. Executive Engineer	By the end of January		
Undertake channel improvement for rivers and nullahs to the extent possible. Take up desilting/cleaning of nullahs and canals	Asst. Executive Engineer	By the end of September		
Check all the siphons and Regulators on the bunds and canals. Clean siphons before the monsoon	Asst. Executive Engineer	February		

HEALTH DEPARTMENT

Activities	Official responsible	Time line	Ye s/N o	Action Taken/Remarks
Prepare and quarterly update health contingency plan	DMO	June		
		September		
		December		
		March		

Constitute mobile response units consisting of a doctor, health workers and ANMs and prepare a deployment plan	DMO	By the end of August		
Review and update precautionary measures and procedures with each hospital and medical centre	DMO	By the end of December		
Develop emergency admission procedures	Medical Supdt.	By the end of December		
Ensure that local police, rescue teams and ambulance teams are aware of the resources at each hospital	Medical Supdt.	December		
Check stocks of equipment and drugs which are likely to be needed most	Medical Supdt.	By the end of January		
Conduct a regular surveillance of all the drinking water sources	Medical Supdt.	June		
		September		
		December		
		March		
Organizing mobile health teams	Medical Officer	By the end of December		

		ber		
Organizing medical camps	Medical Officer	By the end of March		
Shall stock enough medicines to tackle wet period epidemics	Medical Officer	February-April		

AGRICULTURE DEPARTMENT

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
Develop and quarterly update disaster management plan	PAO	June		
		September		
		December		
		March		
Establish communication linkage between department, District Control Room, Agriculture colleges seed banks and nurseries	PAO	By the end of September		
Availability of sand bags and water draining pump sets shall be ensured to tackle inundation	Agricultural Officer	By the end of		

		February		
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KERALA WATER AUTHORITY

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
Develop and quarterly updated disaster management plan	Executive Engineer	June		
		September		
		December		
		March		
Ensuring availability of water supply tankers so as to provide water supply to temporary shelters arranged in case of calamities	Executive Engineer	By the end of February		
Establish emergency work gangs for immediate and post disaster repairs	Executive Engineer	By December		

DEPARTMENT OF ANIMAL HUSBANDARY

Activities	Official responsible	Time line	Yes /No	Action Taken/Remarks
Preparation and updation of Contingency Action Plan	District Animal Husbandry Officer	June		
		September		
		December		
		March		
Review and update precautionary measures taken to protect equipments	District Animal Husbandry Officer	June		
		September		
		December		
		March		
Stock emergency medical equipments	Veterinary Doctor	By the end of March		
Determine the kind of injuries/ illnesses that could be expected and the drugs and other medical items that may be required	Veterinary Doctor	By the end of October		
Organize vaccination campaigns in hazard prone villages before disaster	Veterinary Doctor	By the end of April		

PUBLIC WORKS DEPARTMENT

Activities	Offici	Time	Y	Action
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	al respon sible	line	es /N o	Taken/ Remark s
Preparation and updation of Contingency Action Plan	Execut ive Engin eer	June Septe mber Dece mber Marc h		
Review and update precautionary measures taken to protect equipments	Execut ive Engin eer	June Septe mber Dece mber Marc h		
Commence timely repairs of roads and other support infrastructure	Assst. Execut ive Engin eer	By the end of Janua ry		
Ensure personnel are aware and nominated to be available for emergency duties within the affected district and sub-divn.	Execut ive Engin eer	By the end of Marc h		

<p>Make certain the Office in-charge PWD (B&R) is familiar with pre-disaster precautions and during and post-disaster procedures for road clearing and defining safe evacuation routes where necessary</p>	<p>Supdt g. Engin eer</p>	<p>By the end of Marc h</p>		
<p>Clean the areas beneath bridges for smooth flow of excess water</p>	<p>Asst. Engin eer</p>	<p>By the end of April</p>		
<p>Maintain all the highways and access roads, which are critical from the point of view of supplying relief</p>	<p>Supdt g. Engin eer</p>	<p>By the end of Marc h</p>		
<p>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.</p>	<p>Execut ive Engin eer</p>	<p>Janua ry to April</p>		

Inspect old buildings and suggest retrofitting of weak buildings/demolition of dangerous structures and evacuation of population	Executive Engineer	January to April		
Identify, mark and designate routes strategic to evacuation and relief, in close Coordinationwith police and District ControlRoom	Executive Engineer	September to March		

DEPARTMENT OF EDUCATION

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
List out schools to be utilized as shelter during floods	DEO	End of March		
List out schools to be utilized as training centres	DEO	End of January		
Establishing links with Water Authority, Civil supplies and Revenue administration	DEO	End of February		

DEPARTMENT OF CIVIL SUPPLIES

Activities	Official responsible	Time line	Yes /No	Action Taken/Remarks
Develop and quarterly updated disaster management plan	District Supply Officer	June		
		September		
		December		
		March		
List out items to be provided by Food and Supply department	Taluk Supply Officer	By the end of March		
Decide upon the place where the Response Base for Food, Fuel, Raw material etc. is to be set up	Taluk Supply Officer	By the end of March		
Check the inventory of resources	Taluk Supply Officer	By the end of March		
Check the supplies of food grains through the Public Distribution System	Taluk Supply Officer	By the end of April		
List out warehouses of the State and Central Govt.	District Supply Officer	By the end of February		

Prepare a list of NGOs, CBOs, NCC, NSS volunteers who can help in food distribution and other activities of the Civil Supplies Department	District Supply Officer	By the end of February		
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DEPARTMENT OF CIVIL SUPPLIES

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
Develop and quarterly update disaster management plan	Chief Engineer	June		
		September		
		December		
		March		
Establish communication with State Emergency Operation Centre and the District Collector	Supdtg. Engineer	At the onset of monsoon		
Review and update Precautions that have been taken to protect equipments	Supdtg. Engineer	June		
		September		
		December		
		March		
Protect power stations from disaster. Raise the height of compound walls. Arrange gunny bags. Install pump sets for draining water in case of disaster/cyclone/tsunami	Executive Engineer	By the end of March		

etc.				
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DISTRICT PANCHAYAT

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
Organizing task forces at the District level	President DP	By the end of March		
Awareness campaigns, postersHoardings, leaflets etc.	Secretary DP	By the end of december		
Holding of interagency meeting including NGOs	President DP	By the end of December		
Mock drill at district level	Secretary DP	By the end of March		
Check inventories of items required at short notice for rescue and relief operations	Secretary DP	By the end of January		
Orientation of school and college teachers at district level	President DP	December - March		

Admin. Support to District Administration	President DP	Throughout the year		
Identify NGOs useful in providing assistance during disasters	Standing committee	August		
Check inventories of items required at short notice for rescue and relief operations	Secretary DP	February		
Identifying the resource gaps both physical and manpower and replenish the same through capacity building	President DP	August-December		
Convergence of the Disaster Management Plan with the Development Plan	Secretary DP	Commencement of Financial year		
Sensitizing Zila Panchayat members	President DP	January-March		

BLOCK PANCHAYAT

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
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Formation of Block level Disaster Management Committee	President, BP	At the start of the financial year		
Supervise preparedness of the Gram Panchayats	President, BP	Throughout the year		
Identification of CBOs and NGOs at Block level for awareness generation as well as community contingency plan development	President, BP Standing Committee	May-September		
Consolidate village wise information on items listed under GP	Secretary BP, Standing Committee	July-August		
Organizing awareness campaign and promoting community education	Secretary BP, Standing Committee	September		

Block level awareness program through mass meetings, cycle rally, padayathra/leaflet distribution	Secretary BP, Standing Committee	October		
Assessing preparedness of primary health centres/ evacuation arrangements etc.	President BP, Health Standing Committee	October - December		
Function as link between the district and village level counter disaster activities	President, BP	Throughout the year		
Block disaster preparedness and mitigation plan preparation, resource mapping	President, BP Standing Committee	May-October		
Contacting Ex army/Security forces personnel/volunteers to organize a taskforce to assist people in emergency	President and Secretary	August-October		

GRAM PANCHAYAT

Activities	Official responsible	Time line	Yes /No	Action Taken/Remarks
Formation of Gram Panchayat Disaster Management Committee and VTF	President GP	May		
Updating information on civic amenities, Population, Government and Panchayat properties	President GP Secretary	May-June		
Regularly check inventory of resources	Secretary	Throughout the year		
Make an inventory of elements at risk	Secretary	June-August		
Awareness generation through hoardings, posters, various competitions, leaflets, rallies	President and Secretary	September		
Organizing training on preparedness for volunteers of NGOs, CBOs, NSS, Mahila Samiti etc.	President and Secretary	October		
Provision of water for drinking, domestic and irrigation purpose (e.g. tankers, construction of temporary shallow wells, rationing of water etc.	President and Secretary	January - April		

Activating Community structures, farmer groups, cooperatives youth clubs	President	July- August December		
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CHECKLIST ON DROUGHT

REVENUE DEPARTMENT

Activities	Official responsible	Timeline	Year	Action Taken/Remarks
Convene the meeting of DDMA	District Collector	May		
		August		
		November		
		February		
Prepare and quarterly update the District Disaster Management plan	District Collector	May		
		August		
		November		
		February		
Establish communication with all stakeholders	Deputy Collector (DM/A DM)	to be completed by July		
Prepare pre-positioning of staff list for site operation	Deputy Collector (DM/A DM)	to be completed by		
		July		

Prepare a training calendar	ILDm	to be completed by May		
Identify staff to form teams from concerned departments who would undertake damage and need assessment and provide them training	Tahsildar, ILDM	to be completed by the end of August		
Regularly check and update inventory of resources	Tahsildar/Village Officer	May August November February		
Ensure capacity building of the community and all departmental staff	ILDm	to be completed by the end of November		
Prepare a list of relief items to be distributed	Dy. Collect	to be compl		

	or (DM/ ADM/ Tahsild ar/ Village Officer)	eted by the end of Febru ary		
Create teams including transport, relief material and equipment for responding to the disaster incident	Dy. Collect or (DM/ ADM)			

IRRIGATION DEPARTMENT

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
Quarterly update the departmental contingency plan	Chief Engineer	May		
		August		
		November		
		February		
Commence timely repairs of critical bunds	Assistant Executive Engineer	By the end of August		
Undertake channel improvement for rivers and nullahstothe extent possible. Take up desilting/cleaning of	Assistant Executive Engineer	By the end of September		

nullahs and canals				
Provide all necessary help for promoting fodder cultivation by providing water for irrigation on a priority basis. It could be provided to the farmers at a cheaper rate	Superintending Engineer	By the end of August		
Allow reservoir and tank beds under its control, to be leased out for cultivating short duration grass or seasonal fodder crops	Superintending Engineer	By the end of July		
Promotion of effective irrigation technologies and strategies. Improve Services to farmers	Superintending Engineer	By the end of December		

HEALTH DEPARTMENT

Activities	Official responsible	Time line	Yes/ No	Action Taken/Remarks
Prtepare and quarterly update health contingency plan	DMO	May		
		August		
		November		
		February		

Constitute mobile response units consisting of a doctor, health workers and ANMs and prepare a deployment plan	DMO	By the end of August		
Review and update precautionary measures and procedures with each hospital and medical centre	DMO	By the end of December		
Check stocks of equipments and drugs which are likely to be needed most	Medical Supdt.	By the end of January		
Conduct a regular surveillance of all the drinking water sources	Medical Supdt.	By the end of January		
Organizing mobile health teams	Medical Officer	By the end of December		
Organizing medical camps	Medical Officer	By the end of March		

AGRICULTURE DEPARTMENT

Activities	Official responsi ble	Time line	Ye s/ No	Action Taken/Re marks
Develop and quarterly update disaster management plan	PAO	May		
		Augu st		
		Nove mber		
		Febr uary		
Establish communication linkbetween department. DistrictControl room and AgricultureCollege, seed banks,nurseries	PAO	By the end of Septe mber		
Review and update precaution ary measures and procedures	Asst. Director /AO	May		
		Augu st		
		Nove mber		
		Febr uary		
Check and stock equipments, if possible agricultural materials which are likely to be needed most	AO	By the end of Septe mber		

Suggest of variety of seeds and	AO	By the end of		
cropping pattern		August		
Make the NGOs and other organizations aware of the resources of the department	AO	By the end of August		
Researching into sustainable resilience building potential of high-yield varieties of seeds use in communities	Asst. Director /AO	October		
Indigenous knowledge dissemination and distributing local seeds	AO	By the end of November		
		February		

KERALA WATER AUTHORITY

Activities	Official responsible	Time line	Yes/No
Develop and quarterly update the disaster	Executive Engineer	May	

management plan		August		
		November		
		February		
Estimating the demand for water	Asst. Engineer	By the end of August		
Assess the availability of water depending on various factors such as rainfall, the extent of percolation and ground water recharge, water storage and water usage	Asst. Executive Engineer	By the end of September		
<p>Formulate a plan for managing the water situation in a drought-affected area through augmentation of existing water supply schemes.</p> <p>Special measures and schemes</p> <ul style="list-style-type: none"> * Construction of temporarily piped water supply * construction of borewells * supply of water through tankers * de-silting or deepening of existing public wells * Making available private wells on rent * Water Kiosks * Promoting rain water harvesting structures 	Asst. Executive Engineer	By the end of October		

Inform people to store an emergency supply of drinking water	Asst. Engineer	By the end of November	
Establish procedures for the emergency distribution of water, if existing supply is disrupted	Executive Engineer	By the end of December	
Investigate alternate sources of water and its supply	Asst. Executive Engineer	By the end of December	

FOREST DEPARTMENT

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
Develop and quarterly update the disaster management plan	DFO	May		
		August		
		November		
		February		
Identify areas that could be opened or made available for grazing or fodder collection Afforestation	Forest Range Officer DFO			

DEPARTMENT OF ANIMAL HUSBANDARY

Activities	Official responsible	Time line	Yes / No	Action Taken/Remarks
Develop and quarterly update		Ma		

the disaster management plan	District Animal Husbandr y Officer	y Au gus t No ve mb er Feb ruar y		
Review and update precautionary measures and precautionsthat have been taken to Publicize the information aboutcommon diseases afflicting livestock and the precautionsthat need to be taken	District Animal Husbandr y Officer	Ma y Au gus t No ve mb er Feb ruar y By the end of Dec em ber		
Assist the Revenue departmentin preparing plans for cattle camps and cattle feeding centres	District Animal Husbandr y Officer	By the end of Au gus t		
Stock emergency medical equipment	Veterinar y doctor	By the end of Sep tem ber		

Determine the kind of injuries/illnesses that could be expected and the drugs and other medical items that may be required	Veterinary doctor	By the end of October		
Make information on disasters available to all staff of veterinary hospitals and centres	Veterinary doctor	By the end of November		
Organize vaccination campaigns in hazard prone villages before disaster	Veterinary doctor	By the end of January		
Undertake campaigns in the drought affected areas to increase the awareness of farmers about cattle health issues related to fodder and feed, vitamins and minerals and sanitation issues	Veterinary doctor	By the end of February		

DISTRICT PANCHAYAT

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
Awareness Campaign: Posters, Hoardings, Leaflets etc.	Secretary, DP	By the end of December		
Holding of interagency	President, DP	By the end of		

meeting including NGOs		December		
Mock drill at district level	Secretary, DP	By the end of January		
Orientation of school and college teachers at district level	President, DP	May-July		
Admin. Support to District Administration	President, DP	Throughout the year		
Identify NGOs useful in providing assistance during disasters	Standing committee	August		
Check inventories of items required at short notice for rescue and relief operations	Secretary, DP	December		
Identifying the resource gap both physical and manpower and replenish the same through capacity building	President, DP	August-October		
Convergence of the disaster management plan with the development plan	Secretary, DP	At the commencement of the Financial year		
Sensitizing Zila Panchayat members	President, DP	May-July		

BLOCK PANCHAYAT

Activities	Official responsible	Time line	Yes/No	Action Taken/Remarks
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Formation of Block level Disaster Management Committee	President, BP	May		
Supervise preparedness of the Gram Panchayats	President, BP	Throughout the year		
Identification of CBOs and NGOs at Block level for awareness generation as well as community contingency plan development	President, BP Standing Committee	May-July		
Consolidate village wise information on items listed under GP	Secretary BP, Standing Committee	July-August		
Organizing awareness campaign and promoting community education	Secretary BP, Standing Committee	September		
Block level awareness program through mass meetings, cycle rally, padayathra/leaflet distribution	Secretary BP, Standing Committee	October		
Implementing watershed development programs	Secretary BP, President, BP	May-October		
Function as link between the district and village level counter disaster activities	President, BP	Throughout the year		
Block disaster preparedness and mitigation plan preparation, resource mapping	President, BP Standing Committee	May-October		

GRAM PANCHAYAT

Activities	Official responsible	Time line	Yes /No	Action Taken/Remarks
Formation of Gram Panchayat Disaster Management Committee and VTF	President GP	May		
Updating information on civic amenities, Population, Government and Panchayat properties	President GP Secretary	May-June		
Regularly check inventory of resources	Secretary	Throughout the year		
Make an inventory of elements at risk	Secretary	June-August		
Awareness generation through hoardings, posters, various competitions, leaflets, rallies	President and Secretary	September		
Organizing training on preparedness for volunteers of NGOs, CBOs, NSS, Mahila Samiti etc.	President and Secretary	October		
Provision of water for drinking, domestic and irrigation purpose (e.g. tankers, construction of temporary shallow wells, rationing of water etc.	President and Secretary	January - April		
Traditional water conservation measures could be explored and developed	President and Secretary	September-December		
Assess the change in water level in different water sources	President and Secretary	Throughout the year		
Erecting water kiosks	President	During drought period		
Implementing Well Recharge Programs Like <i>Mazhapolima</i>	President	July-August		

Activating Community structures, farmers groups, co-operatives, youth clubs	President	July-August		
Measures like contour trenching rain pits, village ponds and tanks, dip irrigation systems etc	President	August-December		