











Handbook on Disaster Management Volume 3

MAINSTREAMING DISASTER RISK REDUCTION BUDGET HEADS AND ACTION POINTS GUIDELINES



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

Edition

First May 2016; Pages: 96

Published by

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.

This document was prepared with the financial support of 'Govt. of India (GoI) - United Nations Development Programme (UNDP) Project on Enhancing Institutional and Community Resilience to Disasters and Climate Change (2013 – 2017)' and the staff support from National Disaster Management Authority funded project 'Strengthening SDMA & DDMA' under the Annual Working Plan of 2016-17.

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 2008Kerala 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

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 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: Hydrometeorological & 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)

Management Authority. It is a nonautonomous entity directly under the control of Dept. ofDisaster 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 Principal of 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 alia Revenue (inter Principal Secretary, 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

Drought in Kerala

In the period 1881 to 2000, Kerala experienced 66 drought years. Until 2012, the state had not experienced severe meteorological, hydrological 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, declaration of official drought 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.

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 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 reduction 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

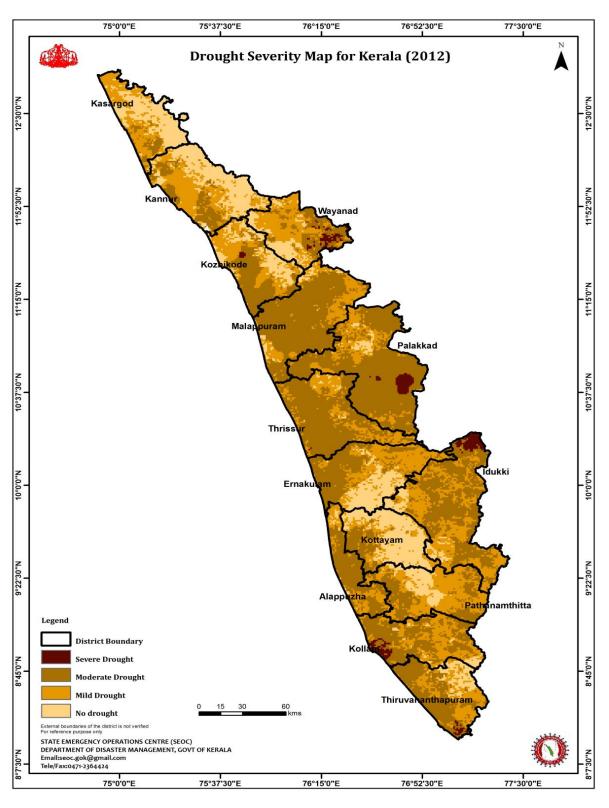
etc.Drought in the context of the State could be classified as meteorological, hydrological and agricultural according to internationally accepted

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 stateas 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



ananthapuram Dist		

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. DDMAs 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

Talishdar-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	nagement DM Act 2005) or		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	• 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 kisoks 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/desilting/cleaning of nullahs 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		4701 (Minor)	as	
assessment in association with the staff of Revenue, Agriculture, Groundwater and Water	Assistant Executive Engineer	appropriate		Monthly from March to May
Authority				

HEALTH DEPARTMENT

Organogram

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

District Medical Officer	(Divio) Wiedieur Be		
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, LGSI 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	Funding	Timeline
12002/10200	Responsible		
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	 Through Block Panchayat utilizing their funds 	By the end of February

WATER AUTHORITY

Organogram
Executive Engineer-Assistant Executive Engineer-Executive Engineer

ACTIVITIES	OFFICIAL	gineer-Executive Engineer FUNDING	TIMELINE
	RESPONSIBLE		
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 Assess the availability of water, depending on	Assistant Engineer Assistant Executive Engineer	Major Head: 2215: Survey and Investigation (2215-01- 190-99 Major Head: 2215: Survey and	By the end of August By the end of September
various factors	Executive Engineer	Investigation (2215-01- 190-99	Бериност
Special measures and schemes for areas with drinking water scarcity • 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

rent • 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

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

		Resource Planning	
		and Research	
		Major Head: 2406:	
		Intensification of	
		Forest	
		Management	
Identify areas that could be	Forest Range	Major Head: 2406:	July-
opened or made available for	Officer	Resource Planning	September
grazing or fodder collection		and Research	
for domestic animals of			
tribal and forest fringe			
population			
Afforestation	DFO	Funds from Social	Long term
		Forestry Programs,	measure
		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	

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

ANIMAL HUSBANDRY

Organogram

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

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

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

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

ACTIVITIES AT THE PRI LEVEL

DISTRICT PANCHAYAT

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

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

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

BLOCK PANCHAYAT

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

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

GRAM PANCHAYAT

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

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

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

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.







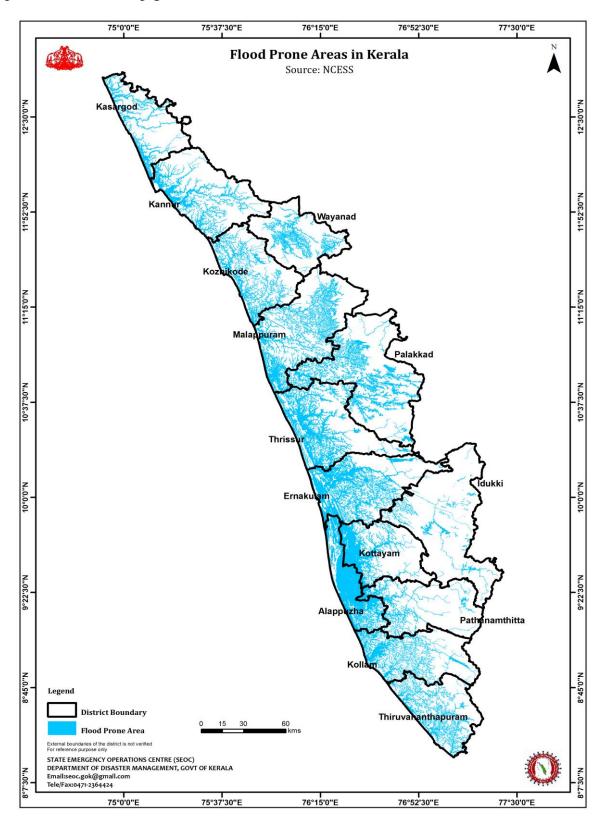


Pictures of recent

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. Theflood 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.

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

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

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

HOME DEPARTMENT (POLICE, FIRE & RESCUE)

Organogram (Police)

Superintendant of Police-Deputy Superintendant of Police- Circle Inspector-Sub Inspector

Organogram (Fire and Rescue)

Divisional Officer-Station Officer

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

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

IRRIGATION DEPARTMENT

Organogram

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

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

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

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

WATER AUTHORITY

Organogram

Executive Engineer-Assistant Executive Engineer-Executive Engineer

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

ANIMAL HUSBANDRY

Organogram

District Medical Officer- Medical Officer

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

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

PUBLIC WORKS DEPARTMENT

Organogram

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

ACTIVITIES	OFFICIAL	FUNDING	TIMELINE
	RESPONSIBLE		
Preparation and updation of	Executive	Major Head:	Quarterly
Contingency Action Plan	Engineer	2059: Direction	June,
		and	September,
		Administration	December,
			March,)
Review and update	Executive	Major Head:	Quarterly
precautionary measures and	Engineer	2059: Direction	June,
precautions that havebeen		and	September,
taken to protect equipments.		Administration	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	Executive	Major Head:	By the end of
and nominated to be	Engineer	2059: Direction	March
available foremergency		and	

duties within the affected		Administration	
district and sub-division.			
Make certain the Office In-	Superintending	Major Head:	By the end of
charge PWD (B&R) is	Engineer	2059: Training	March
familiar with predisaster			
precautions and during and			
post-disaster procedures for			
road clearing and defining			
safe evacuation routes where			
necessary.			
Clean the area beneath	Assistant	Major Head:	By the end of
bridges for smooth flow of	Engineer	2059: Maintenance and	April
excesswater.		Repairs	
Maintain all the highways	Superintending	Major Head:	By the end of
and access roads, which are	Engineer	2059: Maintenance and	March
critical from the point of		Repairs	
view of supplying relief.		Dayalanmant and	
		Development and	
		Improvement (SH and MDD)	
		(SH and MDR)	
		State Road	
		Improvement	
		Project (SRIP)	
Inspect old buildings and	Evacutiva	Major Head:	January to
suggest retrofitting of weak		2059: Public	April
buildings/demolition of	Liigineer	Works,	1 1 pm
dangerous structures and		Maintenance and	
evacuation of population.		repair of	
evacuation of population.		buildings.	
		bulluligs.	

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

DEPARTMENT OF EDUCATION

Organogram

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

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

DEPARTMENT OF CIVIL SUPPLIES

Organogram

District supply officer-Taluk Supply Officer-Rationing Inspector

ACTIVIT	IES		OFFICIA RESPON		FUNDING	TIMELINE
Develop	and	quarterly	District	Supply	Major Head:	Quarterly

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

KERALA STATE ELECTRICITY BOARD

Organogram

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

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

PREPAREDENESS ACTIVITIES AT THE PRI LEVEL

DISTRICT PANCHAYAT

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

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

BLOCK PANCHAYAT

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

Standing	sponsorships	
Committee	Major Head:	
	2515: Training	
Secretary BF	, Plan fund,	October
Standing	sponsorships	
Committee		
	Major Head:	
	2515: Training	
President BP	Major Head:	Through out
	2515: Direction	the year
	and	
	Administration	
President BF	, IWMP, Plan	May-
Standing	fund	October
Committee		
	Major Head:	
	2515: Direction	
	and	
	Administration	
President BF	, Major Head:	October -
Health Standin	g 2515: Direction	December
Committee	and	
	Administration	
President an	d Major Head:	August -
Secretary	2515: Direction	October
	and	
	Administration	
	Committee Secretary BP Standing Committee President BP Standing Committee President BP Health Standing Committee President and	Committee BP, Plan fund, sponsorships Committee Major Head: 2515: Training President BP Major Head: 2515: Direction and Administration President BP, IWMP, Plan fund Committee Major Head: 2515: Direction and Administration President BP, Major Head: 2515: Direction and Administration President and Major Head: 2515: Direction and Administration

GRAM PANCHAYAT

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

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

Good Practices

1. MAZHAPOLIMA

Description: MAZHAPOLIMA is community-based and decentralized a 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 A funding agency, Arghyam resources from government. 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 siliting 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

REFERENCES

UNDP, 2008. Good Practices in Community Based Disaster Risk Management.
GOI-UNDP Disaster Risk Management Programme (2002-2009)

SEOC, 2014. Strategy Paper on improving the effectiveness of Emergency Response Facilities at the District level in Kerala

Department of Revenue and Disaster Management, 2013. Situation Assessment & Risk Reduction Measures initiated by the Government. Drought 2012-13

NDMA, 2010. National Disaster Management Guidelines: Management of Drought. Government of India

Department of Agriculture and Cooperation, 2009. Manual for Drought Management. Ministry of Agriculture. Government of India

Appendix IV of the Budget 2014-15. Government of Kerala

National Disaster Management Act. 2005. Government of India

CCDU, 2011.ജലവിജ്ഞാനം.കമ്മ്യുണികേഷൻആൻഡ് കപ്പാസിറ്റിഡെവലപ്മെന്റ്യൂണിറ്റ് മലപ്പുറംജില്ലാ പഞ്ചായത്ത് , 2013. മഹാത്മാഗാന്ധിദേശിയഗ്രാമീണതൊഴിലുറപ്പ്പദ്ധതി. വരൾ ച്ചാനിവാരണപ്രവൃത്തികൾ 2012-13.

CHECKLIST FLOOD

REVENUE DEPARTMENT

	Official		Yes/	Action
Activities	responsible	Time line	No	Taken/Remarks
	District			
Convene meetings of DDMA	Collector	June		
		September		
		December		
		March		
	District			
Prepare and quarterly update	Collector	June		
the District Disaster manage-		September		
ment Plan		December		
		March		
Establish communication with all		By the end		
stakeholders	Dy. Collector	of		
	(DM/ADM)	August		
		By the end		
Prepare pre-positioning of	Dy. Collector	of		
staff list for site operation	(DM/ADM)	August		
		By the end		
Prepare a training calendar	ILDM	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	
		To be	
		completed	
Ensure capacity building of the	ILDM	by the end	
community and all		of	
departmental staff		February	
		By the end	
Prepare a list of relief items	Dy. Collector	of	
	(DM/ADM/Tah		
to be distributed	sildar/	March	
	Village Officer		
		To be	
Create teams including trans-	Dy. Collector	completed	
		By the end	
port, relief material and equip-	(DM/ADM)	of	
ment for responding to the		December	
disaster incident			

HOME DEPARTMENT

	Official		Ye	Action
	responsib	Time	s/	Taken/Re
Activities	le	line	No	marks
Prepare and quarterly update	SP,	June		
the District Disaster Manage-	Divisiona	Septe		
ment Plan	1 Officer	mber		

		Decem
		ber
		March
	SP	June-
		Septe
Prepare a deployment plant forthe Police Force,		mber
based on theneeds of the most vulnerableareas		
	SP,	
	Divisiona	June-
	1 Officer	Augus
Constitute 'Search and Rescue'teams and arrange		t
trainingfor these units		
		June-
Establish coordination with	SP	July
Defence and Home Guards		
	SP,	June
	Divisiona	Septe
Review and update emergency	1 Officer	mber
measures and procedures		Decem
		ber
		March
	SP	March
Coastal police shall ensure that livelihood gear of		
fishermenare not stored in the areas whichare prone		
to coastal erosion		

IRRIGATION DEPARTMENT

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

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

HEALTH DEPARTMENT

	Official		Ye	Action
	responsib	Time	s/N	Taken/Rem
Activities	le	line	0	arks
		June		
		Septem		
Prepare and quarterly update	DMO	ber		
health contingency plan		Decem		
		ber		
		March		

Constitute mobile response	DMO	By the
units consisting of a doctor,		end of
health workers and ANMs andprepare a		August
deployment plan		
		By the
	DMO	end of
		Decem
Review and update precautionary measures and		ber
procedureswith each hospital andmedical centre		
		By the
	Medical	end of
	Supdt.	Decem
Develop emergency admissionprocedures		ber
	Medical	
	Supdt.	
Ensure that local police, rescueteams and		Decem
ambulance teamsare aware of the resourcesat each		ber
hospital		
		By the
	Medical	end of
	Supdt.	Januar
Check stocks of equipment anddrugs which are		у
likely to beneeded most		
		June
	Medical	Septem
	Supdt.	ber
Conduct a regular surveillanceof all the drinking		Decem
watersources		ber
		March
	Medical	By the
Organizing mobile health teams	Officer	end of
		Decem
<u> </u>	1	

		ber	
Organizing medical camps	Medical Officer	By the end of	
		March	
		Februa	
	Medical	ry-	
Shall stock enough medicines totackle wet period epidemics	Officer	April	

AGRICULTURE DEPARTMENT

	Official		Ye	Action
	responsi	Time	s/	Taken/Re
Activities	ble	line	No	marks
		June		
		Septe		
		mber		
Develop and quarterly update	PAO	Dece		
disaster management plan		mber		
		Marc		
		h		
		By		
		the		
	PAO	end		
		of		
Establish communication linkagebetween department,		Septe		
District Control Room, Agriculturecolleges seed		mber		
banks andnurseries				
	Agricult	By		
Availability of sand bags and	ural	the		
water draining pump sets shallbe ensured to tackle	Officer	end		
inundation		of		

	Febru	
	ary	

KERALA WATER AUTHORITY

	Official		Ye	Action
	responsi	Time	s/	Taken/Re
Activities	ble	line	No	marks
	Executi	June		
	ve	Septe		
	Enginee	mber		
Develop and quarterly updatedisaster management	r	Dece		
plan		mber		
		Marc		
		h		
	Executi			
	ve	By		
	Enginee	the		
	r	end		
		of		
Ensuring availability of watersupply tankers so as to		Febru		
providewater supply to temporaryshelters arranged in		ary		
case ofcalamities				
	Executi			
	ve			
	Enginee	By		
	r	Dece		
Establish emergency work gangsfor immediate and		mber		
post disasterrepairs				

DEPARTMENT OF ANIMAL HUSBANDARY

				Action
		Time	Yes	Taken/Rema
Activities	Official responsible	line	/No	rks
		June		
		Septem		
Preparation and updation of	District Animal	ber		
Contingency Action Plan	Husbandry Officer	Decem		
		ber		
		March		
		June		
		Septem		
	District Animal	ber		
Review and update precautionary	Husbandry Officer	Decem		
measures		ber		
taken to protect equipments		March		
		By the		
Stock emergency medical		end of		
equipments	Veterinary Doctor	March		
		By the		
Determine the kind of injuries/		end of		
illnesses that could be expected	Veterinary Doctor	Octobe		
and the drugs and other medical		r		
items that may be required				
		By the		
		end of		
Organize vaccination campaignsin	Veterinary Doctor	April		
hazard prone villages beforedisaster				

PUBLIC WORKS DEPARTMENT

Activities	Offici	Time	Y	Action
11001 / 1010 0			_	11001011

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

	Supdt		
	g.		
	Engin		
	eer	Ву	
		the	
		end	
Make certain the Office in-		of	
charge PWD (B&R) is familiar with pre-disaster precautions		Marc	
and during and post-disasterprocedures for road clearingand		h	
defining safe evacuationroutes where necessary			
		By	
	Asst.	the	
	Engin	end	
Clean the areas beneath bridgesfor smooth flow of excess	eer	of	
water		April	
	Supdt	By	
	g.	the	
	Engin	end	
	eer	of	
		Marc	
Maintain all the highways andaccess roads, which are		h	
criticalfrom the point of view of supplying relief			
	Execut		
	ive		
	Engin		
	eer		
Inspect all buildings and structures of the state			
government(including hospital buildings)by a senior		Janua	
engineer and identify structures which are endangered by		ry to	
the Impending		April	
Disaster.			

	Execut		
	ive		
	Engin		
Inspect old buildings and	eer		
suggest retrofitting of weak		Janua	
buildings/demolition of		ry to	
dangerous structures and		April	
evacuation of population			
	Execut		
	ive		
	Engin	Septe	
	eer	mber	
Identify, mark and designate		to	
routes strategic to evacuation		Marc	
and relief, in close Coordinationwith police and District		h	
ControlRoom			

DEPARTMENT OF EDUCATION

	Official		Yes/N	Action
Activities	responsible	Time line	О	Taken/Remarks
List out schools to be				
utilized	DEO	End of March		
as shelter during floods				
List out schools to be		End of		
utilized	DEO	January		
as training centres				
Establishing links with		End of		
Water	DEO	February		
Authority, Civil supplies				
and				
Revenue administration				

DEPARTMENT OF CIVIL SUPPLIES

				Action
	Official	Time	Yes	Taken/Rem
Activities	responsible	line	/No	arks
		June		
	District	Septe		
Develop and quarterly updatedisaster	Supply	mber		
management plan	Officer	Decem		
		ber		
		March		
	Taluk			
	Supply	By the		
List out items to be provided byFood and	Officer	end of		
Supply department		March		
	Taluk			
	Supply			
	Officer	By the		
Decide upon the place where		end of		
the Response Base for Food,		March		
Fuel, Raw material etc. is to beset up				
	Taluk			
	Supply	By the		
Check the inventory of	Officer	end of		
resources		March		
	Taluk			
	Supply	By the		
Check the supplies of food	Officer	end of		
grains through the Public		April		
Distribution System				
		By the		
	District	end of		
List out warehouses of the	Supply	Februa		
State and Central Govt.	Officer	ry		

	District		
	Supply	By the	
Prepare a list of NGOs, CBOs,NCC,NSS	Officer	end of	
volunteers who canhelp in food distribution and		Februa	
other activities of the Civil		ry	
Supplies Department			

DEPARTMENT OF CIVIL SUPPLIES

	Official		Yes/N	Action
Activities	responsible	Time line	0	Taken/Remarks
Develop and quarterly		June		
update	Chief Engineer	September		
disaster management plan		December		
		March		
Establish communication				
with	Supdtg.	At the onset		
State Emergency Operation	Engineer	of		
Centre and the District		monsoon		
Collector				
	Supdtg.	June		
Review and update	Engineer	September		
Precautions		December		
that have been taken to				
protect equipments		March		
Protect power stations from	Executive	By the end		
disaster. Raise the height of	Engineer	of		
compound walls. Arrange		March		
gunny				
bags. Install pump sets for				
draining water in case of				
disaster/cyclone/tsunami				

etc.		

DISTRICT PANCHAYAT

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

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

BLOCK PANCHAYAT

	Official		Ye	Action
	responsi	Time	s/	Taken/Re
Activities	ble	line	No	marks

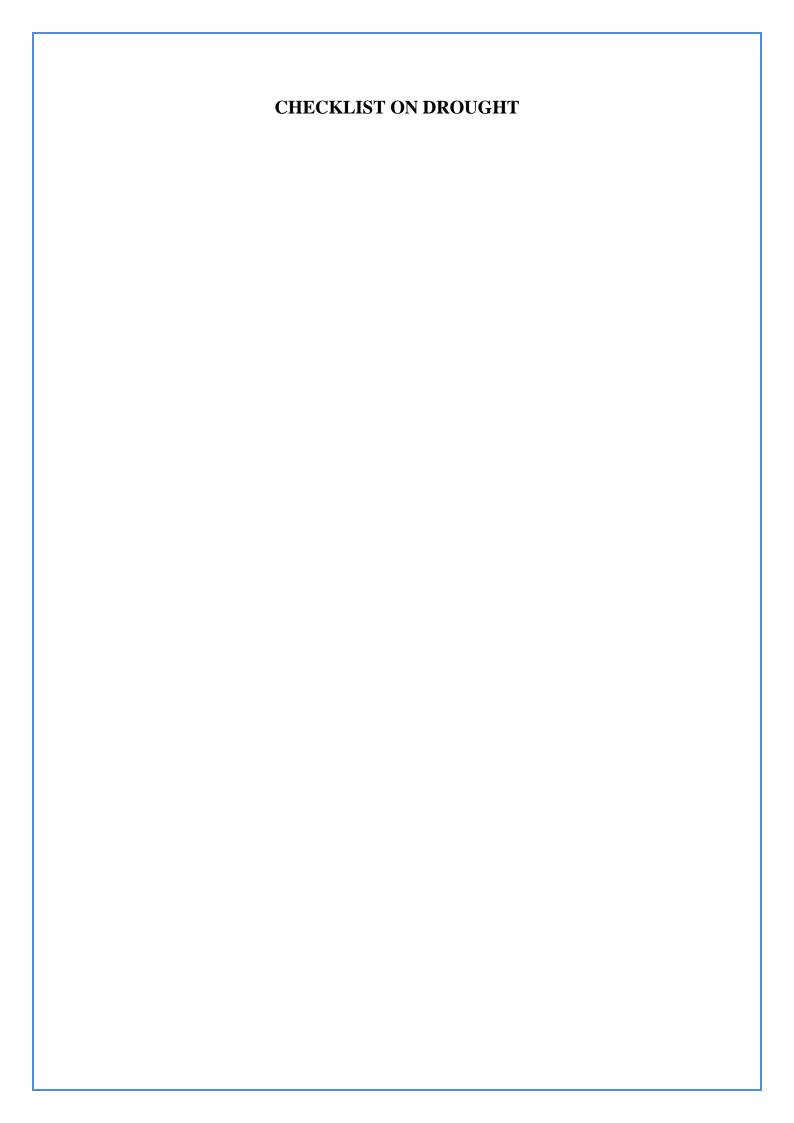
		At the
		start of
	Presiden	the
Formation of Block level	t, BP	financia
Disaster Management		1
Committee		year
	Presiden	Throug
	t, BP	hout
Supervise preparedness of the Gram Panchayats		theyear
	Presiden	
	t, BP	
	Standin	
	g	
	Commit	
	tee	May-
Identification of CBOs and NGOsat Block level for		Septem
awareness generation as well as community		ber
contingency plandevelopment		
	Secretar	
	y BP,	
	Standin	
	g	July-
Consolidate village wise infor-	Commit	August
mation on items listed under GP	tee	
	Secretar	
	y BP,	
	Standin	
	g	
Organizing awareness campaignand promoting	Commit	Septem
community	tee	ber
education		

	Secretar	
	y BP,	
	Standin	
	g	
Block level awareness programthrough mass	Commit	
meetings, cycle	tee	
rally, padayathra/leaflet		
distribution		October
	Presiden	
	t BP,	
	Health	
	Standin	October
	g	-
Assessing preparedness of	Commit	Decemb
primary health centres/	tee	er
evacuation arrangements etc.		
	Presiden	Throug
Function as link between the	t, BP	hout the
district and village level		year
counter disaster activities		
	Presiden	
	t, BP	
	Standin	
	g	
	Commit	May-
Block disaster preparedness	tee	October
and mitigation plan preparation,resource mapping		
	Presiden	
	t and	
	Secretar	
Contacting Ex army/Security	у	August-
forces personnel/volunteers toorganize a taskforce to		October
assistpeople in emergency		

GRAM PANCHAYAT

	Official			Action
	responsib		Yes	Taken/Rem
Activities	le	Time line	/No	arks
	President			
	GP			
Formation of Gram PanchayatDisaster		May		
ManagementCommittee and VTF				
	President			
Updating information on civic	GP			
amenities, Population, Govern-	Secretary	May-June		
ment and Panchayat properties				
Regularly check inventory of	Secretary	Througho		
resources		ut theyear		
		June-		
	Secretary	August		
Make an inventory of elementsat risk				
	President			
	and	Septembe		
Awareness generation throughhoardings,	Secretary	r		
posters, variouscompetitions, leaflets, rallies				
	President			
Organizing training on preparedness for	and			
volunteers of NGOs, CBOs, NSS, MahilaSamiti	Secretary	October		
etc.				
	President			
	and			
Provision of water for drinking,domestic and	Secretary			
irrigation purpose(e.g. tankers, construction of		January -		
temporary shallow wells,		April		
rationing of water etc.				

		July-	
		August	
	President	Decembe	
Activating Community structures,farmer		r	
groups, cooperativesyouth clubs			



REVENUE DEPARTMENT

Activities	Officia	Time	Ye	Action
	1	line	s/	Taken/R
	respons		N	emarks
	ible		О	
Convene the meeting of DDMA	District	May		
	Collect	Augu		
	or	st		
		Nove		
		mber		
		Febru		
		ary		
Prepare and quarterly updatethe District Disaster	District	May		
Management plant	Collect	Augu		
	or	st		
		Nove		
		mber		
		Febru		
		ary		
Establish communication withall stakeholders	Deputy	to be		
	Collect	compl		
	or	eted		
	(DM/A	by		
	DM)	July		
Prepare pre-positioning ofstaff list for site operation	Deputy	to be		
	Collect	compl		
	or	eted		
	(DM/A	by		
	DM)	July		

Prepare a training calendar	ILDM	to be	
		compl	
		eted	
		by	
		May	
Identify staff to form teams from concerned	Tahsild	to be	
departments who would undertake damageand need	ar,	compl	
assessment andprovide them training	ILDM	eted	
		by the	
		end	
		of	
		Augu	
		st	
Regularly check and update	Tahsild	May	
inventory of resources	ar/Villa	Augu	
	ge	st	
	Officer	Nove	
		mber	
		Febru	
		ary	
Ensure capacity building	ILDM	to be	
of the community and all		compl	
departmental staff		eted	
		by the	
		end	
		of	
		Nove	
		mber	
Prepare a list of relief items	Dy.	to be	
to be distributed	Collect	compl	

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

IRRIGATION DEPARTMENT

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

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

HEALTH DEPARTMENT

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

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

AGRICULTURE DEPARTMENT

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

		By	
		the	
		end	
Suggest of variety of seeds and	AO	of	
		Augu	
cropping pattern		st	
		Ву	
		the	
		end	
		of	
		Augu	
Make the NGOs and other		st	
organizations aware of the		Octo	
resources of the department	AO	ber	
		By	
		the	
Researching into sustainable		end	
resilience building potential of	Asst.	of	
high-yield varieties of seeds	Director	Nove	
use in communities	/AO	mber	
		Ву	
		the	
		end	
Indigenous		of	
knowledge dissemination and		Febr	
distributing local seeds	AO	uary	

KERALA WATER AUTHORITY

Activities	Official responsible	Time line	Yes/N	0
Develop and quarterly updatethe disaster	Executive Engineer	May		

management plan		August	
		November	
		February	
Estimating the demand for	Asst. Engineer	By the end of	
water	Tissu Ziigiieei	August	
, and a second s		Tagust	
	Asst. Executive		
Assess the availability of waterdepending	Engineer		
on various factorssuch as railfall, the			
extent ofpercolation and ground		By the end of	
waterrecharge, water storageand water		September	
usage			
	Asst. Executive		
Formulate a plan for managingthe water	Engineer		
situation in a drought-affected area			
through augmentation of existing water			
supplyschemes.			
Special measures and schemes			
* 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		By the end of	
* Promoting rain water		October	
harvesting structures			

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

FOREST DEPARTMENT

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

DEPARTMENT OF ANIMAL HUSBANDARY

			Y	
			es	Action
	Official	Ti	/	Taken/
	responsibl	me	N	Remar
Activities	e	line	О	ks
Develop and quarterly update		Ma		

the disaster management plan	District	V	
the disaster management plan	Animal	Au	
	Husbandr		
	y Officer	gus t	
	y Officer	No	
		ve	
		mb	
		er	
		Feb	
		ruar	
		Ma Ma	
		y Au	
		gus	
		t	
		No	
		ve	
		mb	
		er	
		Feb	
		ruar	
		y	
		By	
	District	the	
	Animal	end	
Review and update precautionary measures and	Husbandr	of	
precautionsthat have been taken to	y Officer	Dec	
Publicize the information aboutcommon diseases		em	
afflicting livestock and the precautionsthat need to be		ber	
taken			
		By	
	District	the	
	Animal	end	
	Husbandr	of	
	y Officer	Au	
		gus	
Assist the Revenue departmentin preparing plans for		t	
cattlecamps and cattle feeding centres			
F		By	
		the	
		end	
		of	
	Veterinar	Sep	
Stock emergency medical	y doctor	tem	
equipment		ber	
oquipinoni	L	501	1

		By	
		the	
		end	
		of	
	Veterinar	Oct	
Determine the kind of injuriesillnesses that could be	y doctor	obe	
expected and the drugs and other medi-	y doctor		
		r	
cal items that may be required		D	
		By	
		the	
		end	
		of	
		No	
		ve	
		mb	
Make information on disasters available to all staff of	Veterinar	er	
veterinary hospitals and centres	y doctor		
•		By	
		the	
		end	
	Veterinar	of	
	y doctor	Jan	
	y doctor	uar	
Organize vaccination campaignsin hazard prone		y	
villages beforedisaster		y	
vinages octoredisaster			
	Veterinar	By	
		the	
	y doctor		
		end	
The desired and the state of th		of	
Undertake campaigns in thedrought affected areas to		Feb	
increase the awareness offarmers about cattle		ruar	
healthissues related to fodder andfeed, vitamins and		У	
mineralsand sanitation issues			

DISTRICT PANCHAYAT

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

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

BLOCK PANCHAYAT

	Official		Yes/	Action
Activities	responsible	Time line	No	Taken/Remarks

E (CDI 1		
Formation of Block	D 11 DD	
level	President, BP	
Disaster Management		May
Committee		
Supervise preparedness		Throughout
of the	President, BP	the
Gram Panchayats		year
Identification of CBOs		
and NGOs		
at Block level for	President, BP	
awareness	Standing	
generation as well as	Committee	
commu-		
nity contingency plan		May-July
development		Way-July
Consolidate village wise infor-	Sagratary DD	
	Secretary BP,	Tuly Avend
mation on items listed	Standing	July-August
under GP	Committee	
Organizing awareness	g , DD	
campaign	Secretary BP,	
and promoting	Standing	
community	Committee	September
education		
Block level awareness		
program	Secretary BP,	
through mass meetings,	Standing	
cycle	Committee	
rally, padayathra/leaflet		October
distribution		
Implementing watershed	Secretary BP,	May-October
development programs	President, BP	
Function as link between		
the		
district and village level	President, BP	Throughout
counter disaster	,	theyear
activities		
Block disaster		
preparedness	President, BP	
and mitigation plan	Standing Standing	
preparation,	Committee	May-October
resource mapping		Trialy October
resource mapping		

GRAM PANCHAYAT

				Action
	Official		Yes	Taken/Remar
Activities	responsible	Time line	/No	ks
	President			
Formation of Gram Panchayat	GP	Mary		
Disaster Management Committee and VTF		May		
Committee and VII	President			
Updating information on	GP			
civicamenities, Population, Govern-	Secretary	May-June		
ment and Panchayat properties				
		Throughou		
Regularly check inventory of	Secretary	t the		
resources		year		
		June-		
Make an inventory of lements	Secretary	August		
at risk	D 11			
A 1-	President			
Awareness generation through	and	Cantambar		
hoardings, posters, various competitions, leaflets, rallies	Secretary	September		
competitions, learnets, rames	President			
Organizing training on prepared-	and			
ness for volunteers of NGOs,	Secretary	October		
CBOs, NSS, MahilaSamiti etc.				
	President			
Provision of water for drinking,	and			
domestic and irrigation purpose	Secretary			
(e.g. tankers, construction of		January -		
temporary shallow wells,		April		
rationing of water etc.	President			
Traditional water conservation	and	September-		
measures could be explored	Secretary	December		
and developed				
	President			
Assess the change in water	and	Throughou		
level in different water sources	Secretary	t theyear		
		During		
Erecting water kiosks	President	drought		
		period		
Implementing Wall Decharge	President	July-		
Implementing Well Recharge Programs Like <i>Mazhapolima</i>	1 Testuelli	August		
Trograms Likentalnaponna				

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