

Regional SDMA Conclave

Issues, Challenges and Way forward in DRR – Kerala

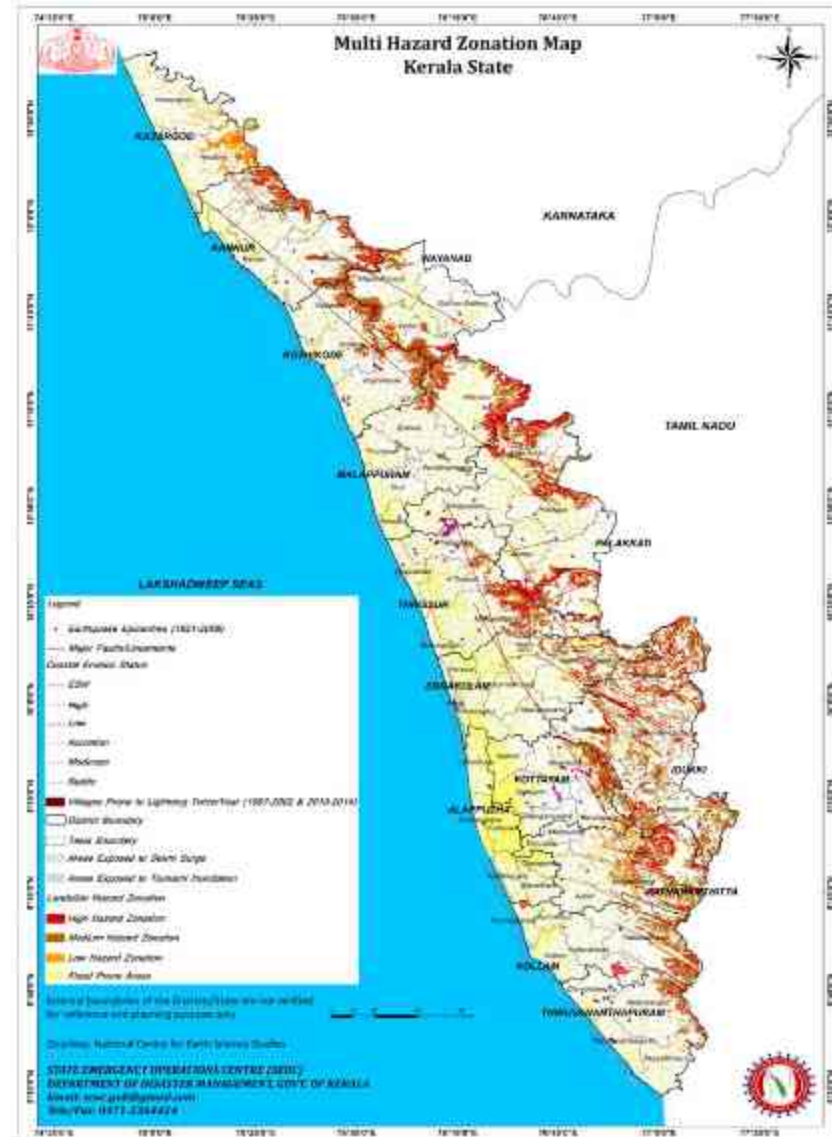
Kerala State Disaster Management Authority
Department of Disaster Management
Government of Kerala



Present and Emerging Disaster Risk Scenario in the State

Hazard Profile

- The state is multi-hazard prone.
- 8th most densely populated in the country.
- **14.5%** of the state is flood prone.
- **14.4%** of the state is landslide prone.
- **55.5%** of the coastline prone to coastal hazards.
- The state falls in zone III in the national seismic zonation map.
- About 70 people die of lightning every year.
- Several deaths due to communicable diseases.
- 65 out of 10,000 vehicles prone to accidents in the state (national average is 42.3/10,000).
- About 45% of LPG used in the state is transported via roads.



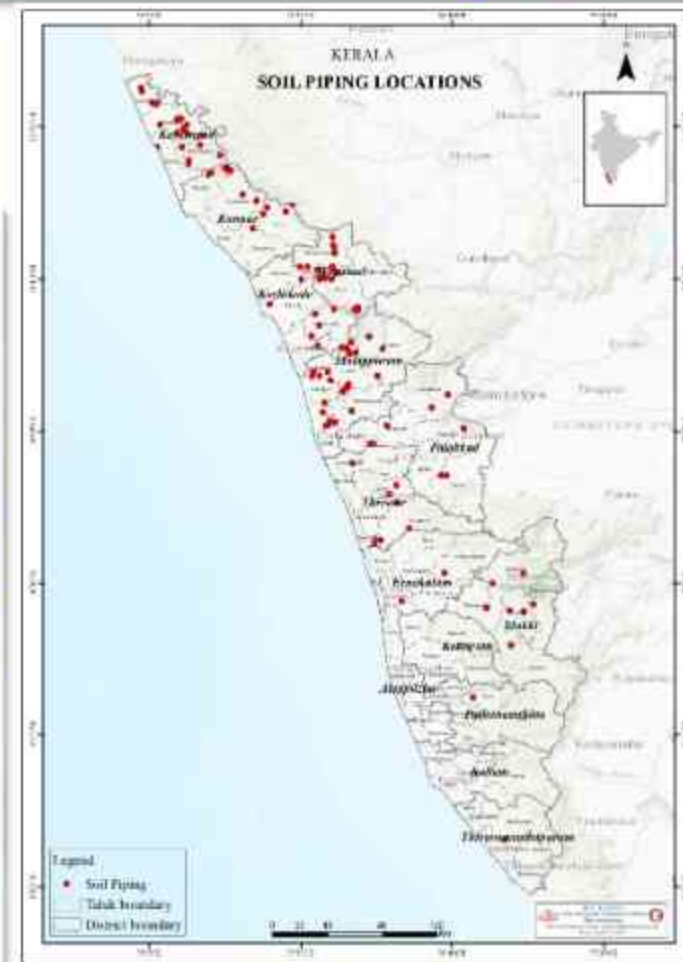
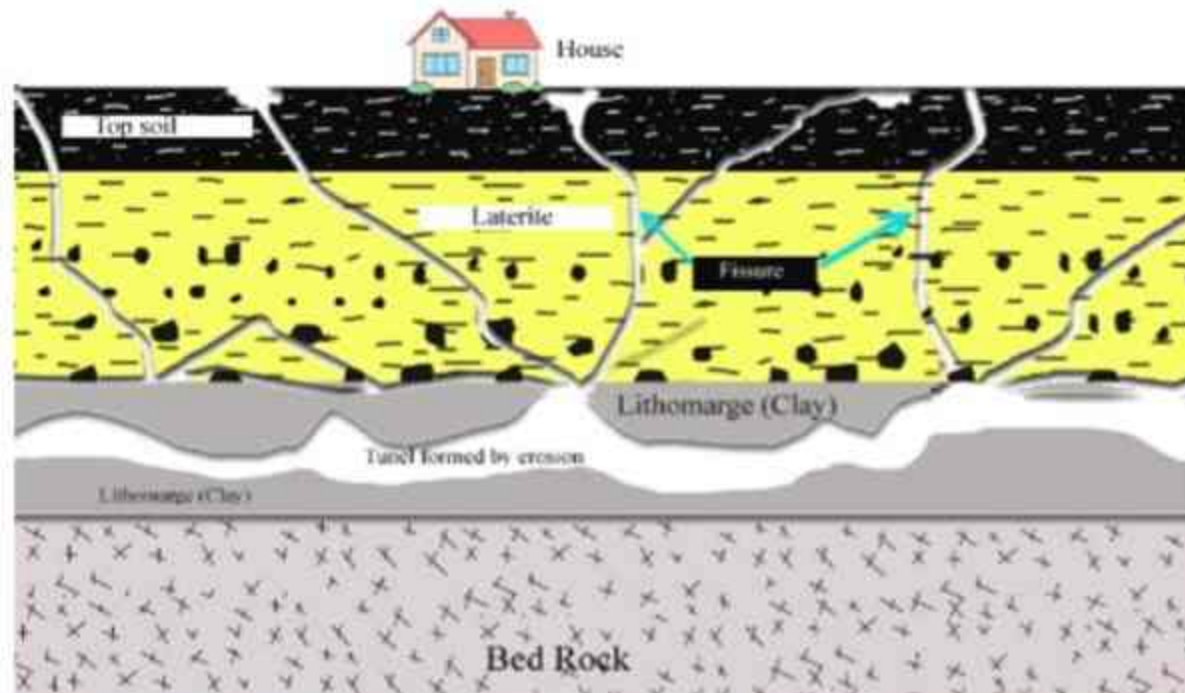
Present and Emerging Disaster Risk Scenario in the State

Approved list of disasters eligible for relief assistance from <i>National Disaster Response Fund:</i>	Cyclone, Earthquake, Tsunami, Landslides, Floods, Drought, Cold/Frost Wave, Cloud Burst, Fire, Hailstorm, Avalanche, Pest Attack on crops.
State Specific Disasters with 10% <i>State Disaster Response Fund</i>	Lightning, Soil Piping, Coastal Erosion ,‘Strong winds less than cyclone & cyclonic storm that causes damage to life and property (Gustnado), Heat wave, Sunstroke & Sunburn.

- ❖ Special Case: **Puttingal Fire Cracker Explosion** approved as a State Specific Calamity.

Present and Emerging Disaster Risk Scenario in the State – Soil Piping

❖ **Soil Piping** occurs when water erodes beneath the surface of the ground creating an underground tunnel known as soil pipe.



Institutional Arrangements in the State and Notification structure of SDMA/DDMA

SDMA

**Chief Minister
Chairman (Ex-officio)**

**Minister for Revenue
Vice Chairman (Ex-officio)**

**Minister for Agriculture
Member (Ex-officio)**

**Chief Secretary
Chief Executive Officer
(Ex-officio)**

**Additional Chief Secretary,
Revenue
Convener (Ex-officio)**

**Additional Chief
Secretary, Home,
Kerala - Member (Ex-officio)**

**Head, Kerala State Emergency
Operations Centre
Member Secretary (Ex-officio)**

State Executive Committee (SEC)

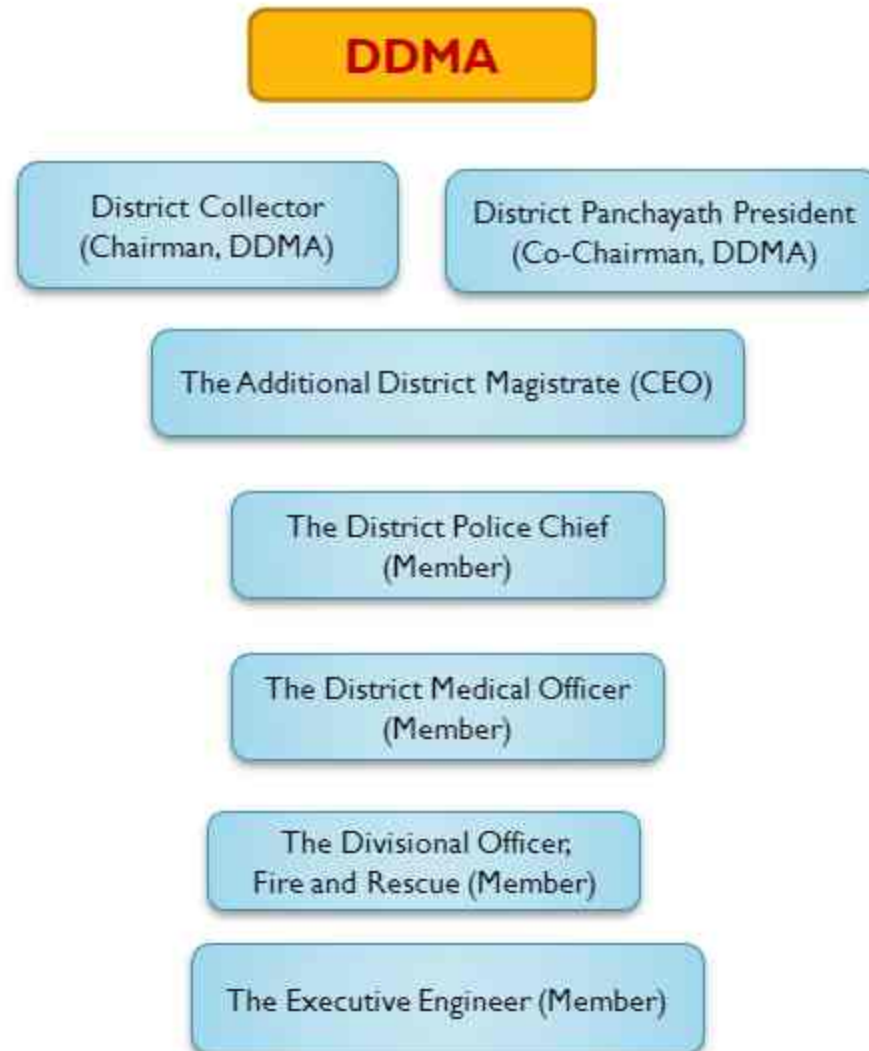
Chief Secretary, Kerala – Chief Executive Officer (Ex-officio)

**Additional Chief Secretary, Home, Kerala – Member
(Ex-officio)**

**Additional Chief Secretary, Finance – Member
(Ex-officio)**

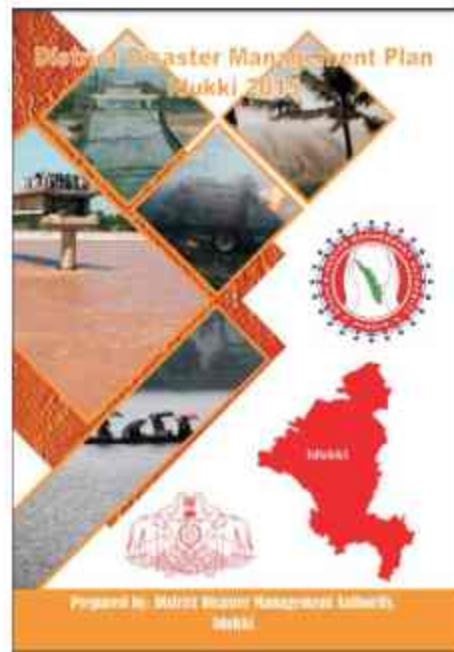
**Additional Chief Secretary, Kerala – Convener
(Ex-officio)**

**Principal Secretary, Health – Member
(Ex-officio)**



Status on SDMP/DDMP

- ❖ The State Disaster Management Plans of Kerala were approved vide GO (Rt) No. 3667/2016/DMD dated 9-9-2016 and reaffirmed vide GO (Rt) No. 399/2018/DMD dated 18-7-2018.
- ❖ The revision of SDMP is in its final stages and is expected to be published before the start of monsoon season (June 2022).
- ❖ All Districts (14) in Kerala has Prepared & Updated Until 2021. Further revision for 2022 has initiated.
- ❖ Local Self Government's DM Plan – 2020- A total of 1034 plans.



Implementation of NDMA Projects/Schemes

NDMA Projects/Schemes	Current Status
CAP	CAP SACHET System - Orientation and Hands-on training. Live access to the CAP SACHET System scheduled on 10 th March 2022
ERSS 112	Physical implementation completed on 2 nd March 2022. SOP s to be written by NDMA- Cdot and connection to Cdot Server are to be established fully.
Upscaling of Aapda Mitra	MoU Signed on 12-08-2021 Proposal and Agenda Note Submitted for reconstituting Steering Committee.
Sendai Framework	Extended Service of Sr. Consultant Programs & Project Implementation. 1-week Training webinar on Sendai framework Monitor Indicators SFDRR.

Implementation of NDMA Projects/Schemes

NDMA Projects/Schemes	Current Status
Aspirational Districts	Extended service of Consultant DM, Wayanad. Action Plan Activities Initiated.
Mitigation Projects	NCRMP, LSG DM Plans, Punargeham project, Vulnerability linked relocation, Operation break-through.
NCRMP/ EWDS	Physical Implementation completed at SEOC HQ. Tower locations are to be finalized by NCRMP. Dashboard and Citizen helpdesk work in progress.
NCRMP	Cyclone shelters – 9 out of 17 inaugurate. 2 nearing completion and rest expected to be handed over by June 2022

Status of SDRF and other Response Institutions

SDRF and other Response Institutions	Current Status
SDRF	The SDRF is stationed at Pandikkad, Malappuram district. The total strength of the force is 100.
Civil defense	KSDMA provided Rs. 30 lakhs from its own plan funds and SEC provided Rs. 2 crores for capacity building of Civil Defense.
Sannadha sena	Government created Samoohika Sannadha Sena and established a directorate for the purpose. KSDMA launched the website https://sannadham.kerala.gov.in/ The website was handed over to the Directorate of Samoohika Sannadha Sena.
Emergency Response Team	All the local self-government bodies are directed to form the emergency response teams. Four domains of emergency response teams viz. First Aid, Shelter management, Search-Rescue-Evacuation, Early Warning Dissemination. The training content was developed by KSDMA and the trainings are being carried out by KILA for those who are already inducted into these teams.
Aapda Mitra	200 young, enthusiastic and energetic volunteers were selected from Kottayam district. Intensive 12 days residential training was given to these volunteers in Thrissur Fire Academy, Viyyoor in 8 separate batches

National Cyclone Risk Mitigation Project (NCRMP)

No.	Description	Progress
1	<p>Component-A:- Component A is implemented in all 14 Districts of the state.</p>	<ul style="list-style-type: none"> ➤ The work for EWDS is awarded to the firm M/s CMS Computers Limited for an amount of Rs 78,59,89,615/- ➤ Official inauguration of EWDS project is done by Hon. Chief Minister of Kerala on 15th Feb'21. ➤ Physical progress is 72% and the financial progress is 42% as on Feb 2021. ➤ Out of 126 locations installation work completed in 83 locations and the consultant M/s TCIL has been requested conduct quality inspection in these locations.
2	<p>Component-B:- The original proposal was for the Construction of 27 Multi- Purpose Cyclone Shelter in nine coastal districts. The numbers of sites were later pruned to 17 nos. due to technical & site issues.</p>	<ul style="list-style-type: none"> ➤ State PWD is appointed as the line department and AFC India Ltd is appointed as "the Third Party Quality Auditor". ➤ SPIU awarded all 17 works in nine coastal district of Kerala. ➤ 11 works are already inaugurated and other works are in progress. ➤ Another 2 works are nearing completion and can be handed over by end of March, 2021. <p>Next 4 works completion will be by end of July 2022.</p>

MPCS –Photos of Completed Work



Azhikode- Thrissur



Cheruthana-Alappuzha



Kathiroom- Kannur



**Palappetty-
Malappuram**



Kudlu- Kasargod



Thazhava- Kollam



Kumbla- Kasargod



Paravanna- Malappuram



**Thuruthippuram-
Ernakulam**



Pullur- Kasaragod



**Mararikulam-
Alappuzha**

Status of Incident Response System (IRS) Notification

- ❖ The State has notified incident response system up to Taluk level vide GO (Rt) No. 442/2021/DMD dated 27-5-2021 and has been laid in the Orange Book of Disaster Management 2 – Monsoon Preparedness and Response Guidelines.
- ❖ Every district has notified IRS designated officers at District level and Taluk level

Officers with designated functions for IRS at the State and District Level

		State Level
Sl. No	IRS Designation	Officer
1	Responsible Officer (RO)	Chief Executive Officer of SDMA (Chief Secretary)
2	Incident Commander (IC)	State Relief Commissioner (Principal Secretary, DM)
3	Alternate Incident Commander (AIC)	One of the members of the State Executive Committee as decided by the RO to replace IC after 8 hours of continuous work
4	Deputy Incident Commander (DIC)	Commissioner Land Revenue or Secretary level officer nominated by IC based on need from time to time
5	Operations Section Chief (OSC)	Additional Director General of Police nominated by State Police Chief
6	Logistics Section Chief (LSC)	Additional Transport Commissioner nominated by Transport Commissioner
7	Planning Section Chief (PSC)	Director, Fire and Rescue Services nominated by Director General, Fire & Rescue Services
8	Liaison Officer (LO)	Head, State EOC (Alternated by the Chief Manager, SDMA after 8 hours of continuous work)
9	Safety Officer (SO)	Additional Director, Health Services nominated by Director, Health Services
10	Media Officer (MO)	Additional Director, I & PRD nominated by Director, I & PRD
District Level		
1	Responsible Officer (RO)	Chairperson, DDMA (District Collector)
2	Incident Commander (IC)	Chief Executive Officer, DDMA (Deputy Collector, DM/ADM)
3	Deputy Incident Commander (DIC)	Assistant Development Commissioner (General) or District Planning Officer
4	Operations Section Chief (OSC)	A Dy. SP nominated by District Police Chief
5	Logistics Section Chief (LSC)	Regional Transport Officer nominated by RO
6	Planning Section Chief (PSC)	Assistant Divisional Fire Officer nominated by District Fire Officer
7	Safety Officer (SO)	A Medical Officer nominated by District Medical Officer
8	Media Officer (MO)	Information Officer (I & PRD) nominated by District Information Officer
9	Liaison Officer (LO)	Junior Superintendent, Natural Calamity
10	Information Officer (IO)	Hazard Analyst, DEOC
Taluk Level		
1	Responsible Officer (RO)	Deputy Collector or equivalent nominated by Chairperson, DDMA
2	Incident Commander (IC)	Tahasildar of the Taluk
3	Deputy Incident Commander (DIC)	Block Development Officer nominated by Assistant Development Commissioner
4	Operations Section Chief (OSC)	A Circle Inspector of Police nominated by District Police Chief
5	Logistics Section Chief (LSC)	Motor Vehicles Inspector nominated by Regional Transport Officer
6	Planning Section Chief (PSC)	Station Officer, Fire and Rescue Services nominated by District Fire Officer
7	Safety Officer (SO)	A Medical Officer nominated by District Medical Officer
8	Media Officer (MO)	Information Officer nominated by District Information Officer (I & PRD)
9	Liaison Officer (LO)	A suitable Village Officer equivalent from the Taluk Office nominated by Tahasildar
10	Information Officer (IO)	A suitable Village Officer equivalent from the Taluk Office nominated by Tahasildar

DRR initiatives by State

- ❖ **Local Self Government institution DM plans** are prepared for entire state covering 1034 LSGIs (6 corporations, 87 municipalities and 941 panchayaths). ERT training for the LSGIs are ongoing.
- ❖ **DM literacy programme** is being planned as an extended activity in a campaign mode to educate the public about early warning system(EWS) and nurturing disaster resilience.
- ❖ **Disability Inclusive DRR project** is being implemented by KSDMA since 2016. 3000 persons with disabilities were trained. First of its kind in the country. Developed various materials like Braille, sign language, etc. Mainstreamed in social justice department.
- ❖ **Transgender inclusive project** is also being implemented in the state since 2021. the state has 25000 plus Transgenders. Inclusive trainings are being organized
- ❖ **Virtual cadre training** is being organized by KSDMA since 2018. 26 nodal departments are being identified. 15 departments received first level of training and the remaining 11 will be trained this year.

DRR initiatives by State

- ❖ **Hospital safety programme** has been implemented in the state in partnership with Health department. Health department has prepared departmental DM plan and model hospital plans were prepared in all the districts. Hospital safety audit was conducted in all the covid hospitals in the state
- ❖ **School safety programmes** are being conducted in the state from 2013 onwards. In the past year trainings are being conducted for the teachers at the DDMA level for 10 districts in collaboration with DDEs of the respective districts. Various training programmes were also conducted in association with State Institute for Education Management and Training (SIEMAT) for head teachers. As per the last report from Education department out of 12896 schools in Kerala 11305 schools have prepared School DM plans.
- ❖ **GO-NGO coordination** is active in the state from 2019 onwards since Inter Agency Groups (IAGs) are being formed and active at the district level and their involvement and voluntary activities were commendable during COVID 19.
- ❖ Collaborative initiatives in association with UNICEF for mainstreaming disaster risk and resilience.

DRR initiatives by State

- ❖ **Sectoral Magistrates** : In order to ensure the COVID-19 protocol issued by central and state governments.
- ❖ **Rule Curve Monitoring Committee**: To ensure the safety of people in the state in relation to opening of DAM shutters in high flood level (during NE monsoon).
- ❖ **KWRIS** : Kerala Water Resources Information System – Rainfall, CWC, Water level information etc. through online portal.
- ❖ **Relief Portal (Direct Benefit Transfer)**
- ❖ **Using Telecom Towers for Sirens and Strobe lights - best practice :**
 - ❖ **Less Capital Investment.**
 - ❖ **No land acquisition issues.**
 - ❖ **Benefit for tower operators.**
 - ❖ **Less installation time.**
 - ❖ **Lightning arrester fitted.**
 - ❖ **No residents in the base of towers.**
 - ❖ **Back up DG sets.**
 - ❖ **Greater visibility .**

- ❖ 12th FY - Setting up of State Emergency Operation Centre and District Emergency Operations centres.
- ❖ 13th FY - Setting up of Taluk Emergency Operation Centres (TEOC) and LSG DM Plans.
- ❖ 14th FY - Strengthening Disaster Risk Reduction at grassroot level : Community and Household level Disaster Management Plans.
- ❖ Strengthening EWDS.

Thank You

Contact Us

- Office of KSDMA - 0471 2331345
- State Emergency Operations Centre – 0471 2364424, 9446568222
- SEOC, Emergency SMS & Calls - 9446568222, 9446580222
- State Control Room - 0471 2331639
- SEOC Email: seoc.gok@gmail.com
- DM Dept. (Revenue K)
Email: revenueadm@gmail.com
- SDMA Email:
keralasdma@gmail.com,
commissionerdmkerala@gmail.com
- Websites: sdma.kerala.gov.in
- Toll free: 1077, 1070, 1079



Address: Observatory Hills, Vikas Bhavan P.O. Thiruvananthapuram, Kerala, India - 695033