

NATIONAL DATABASE FOR EMERGENCY MANAGEMENT

A state-of-the-art infrastructure established by ISRO at NRSC, Hyderabad

National Database for Emergency Management (NDEM) is a unique Geoportal, disseminating space-based inputs by addressing all natural disasters at Pan India level. It consists of multi-scale geospatial database coupled with decision support system tools and mobile apps to aid Disaster Management officials of the country in disaster risk management. NDEM also synergizes alerts and warnings issued by forecasting organizations like IMD, CWC, DGRE, NCS, INCOIS etc., with structured multi scale geospatial database elements on a single platform.

NDEM will function as Disaster Recovery (DR) site and near real time data/service provider to the Integrated Control Room for Emergency Response (ICR-ER) at MHA, New



Delhi.

Indian Space Research Organization

National Remote Sensing Centre Balanagar, Hyderabad 500037 For more information, visit/scan: ndem.nrsc.gov.in



National Remote Sensing Centre NDEM Unique Geo-portal for Disaster Risk Management





CURRENT SCENARIO (RESPONSE)

Alerts and Warnings issued by nodal organizations and space based inputs generated by ISRO are integrated and served in near real time through this module. It comprises of near real time flood maps, forest fire alerts, landslides, and lightning from ISRO; river water levels from CWC; nowcast warnings from IMD; tsunami alerts and storm surge from INCOIS.



EARLY WARNINGS (PREPAREDNESS)

Spatial flood early warning of Godavari and Tapi Rivers, Pan India runoff forecast, landslide forecast services by ISRO; 7 day flood forecast by CWC; cyclone and weather forecast by IMD; avalanche alerts by DGRE, etc are integrated in this module. This information is very useful in disaster damage mitigation and in preparedness.



HISTORICAL (MITIGATION)

The historical data is useful for understanding the temporal variations of a disaster which is useful for planning mitigating measures. The services include historical data on floods, landslides, forest fires and derived products like flood hazard, flood risk vulnerability, landslide susceptibility, forest fire vulnerability and lightning vulnerability.





DECISION SUPPORT SYSTEM TOOLS

ALL DEL SAL

Decision Support System (DSS) tools developed under NDEM aid in situational assessment, decision making by disaster management authorities for screening nearest emergency facilities and optimal route for planning during relief and rescue operations



IDRN DATA

India Disaster Resource Network (IDRN) data assists in identifying the relief and rescue equipment in and around disaster site within a variable buffer zones. The resource locations are georeferenced and can be visualized on a map viewer for necessary planning.

NDEM also equipped with incident reporting mechanism, Post Disaster Needs Assessment (PDNA) Tools, resource management, interaction tools such as SMS, Email, Broadcast service and mobile applications.