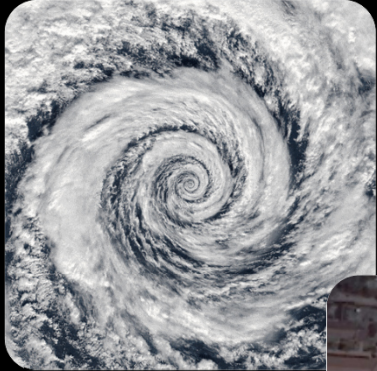


United Nations Workshop on Space-based Technologies for Disaster Risk Reduction - Assessing the Unseen Risks, 7-9 December 2022, Bangkok, Thailand.



Effective usage of open-source disaster information services for quick response in Disaster Situations- A case Study

Dr. G.P.Ganapathy,
Professor

Centre for Disaster Mitigation and Management
Vellore Institute of Technology (VIT)

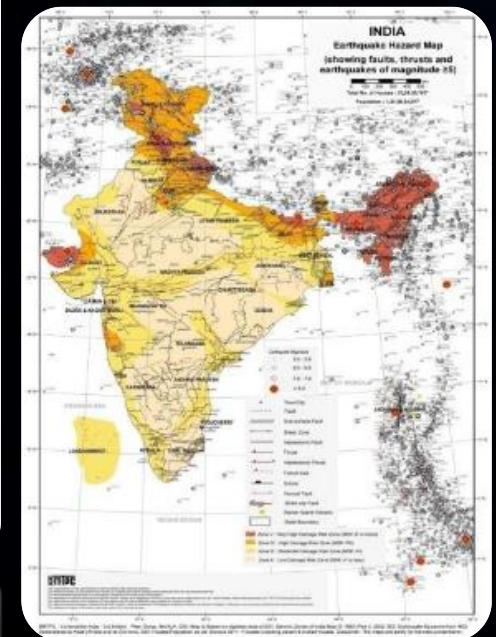
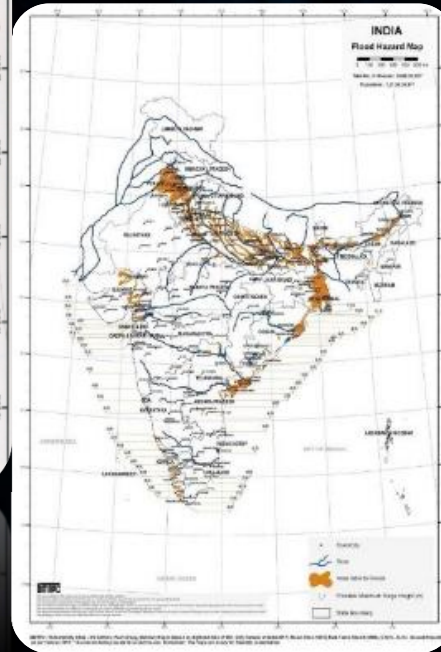
Vellore 632014, Tamil Nadu, India,

Email: seismogans@yahoo.com, gpganpathy@vit.ac.in



VIT – Recognised as Institution of Eminence (IoE) by Government of India

Hazard Zonation Maps of India



Recent Significant Hydro Met Disasters

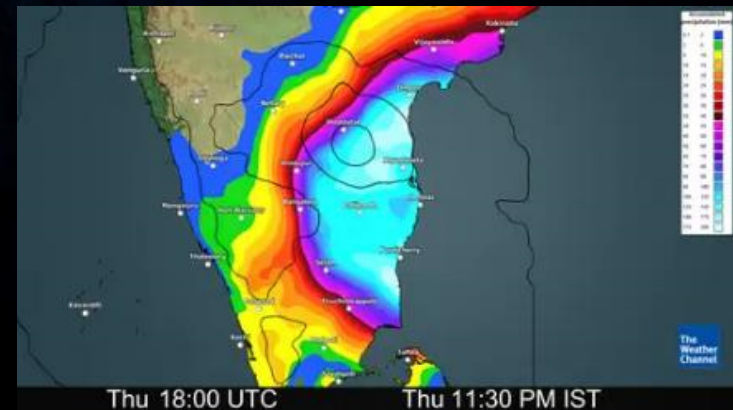
2015 Tamil Nadu Floods



2018 Kerala Floods

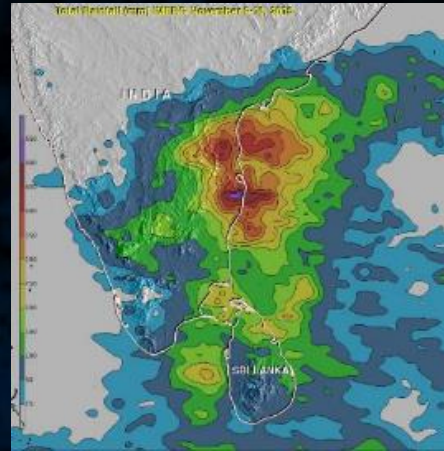


2020 Nivar Cyclone

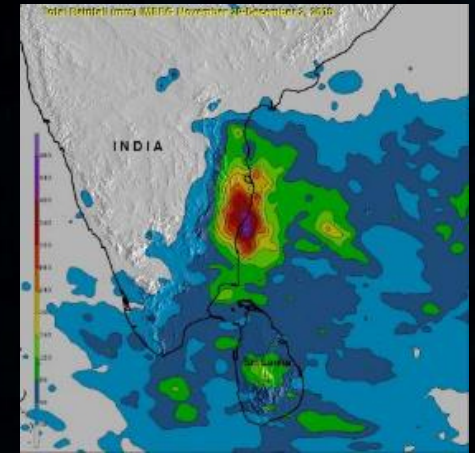


2015 South Indian floods

Source : NASA TRMM



November 9 -16, 2015
Total Rainfall (mm)



November 29 – December 2, 2015
Total Rainfall (mm)

- The 2015 South Indian floods resulted from heavy rainfall generated by the annual northeast monsoon in November–December 2015.
- More than 500 people were killed and over 1.8 million people were displaced.
- Losses ranging from nearly 200 billion (US\$3 billion) to over 1 trillion (US\$15 billion), the floods were the costliest to have occurred in 2015 in India

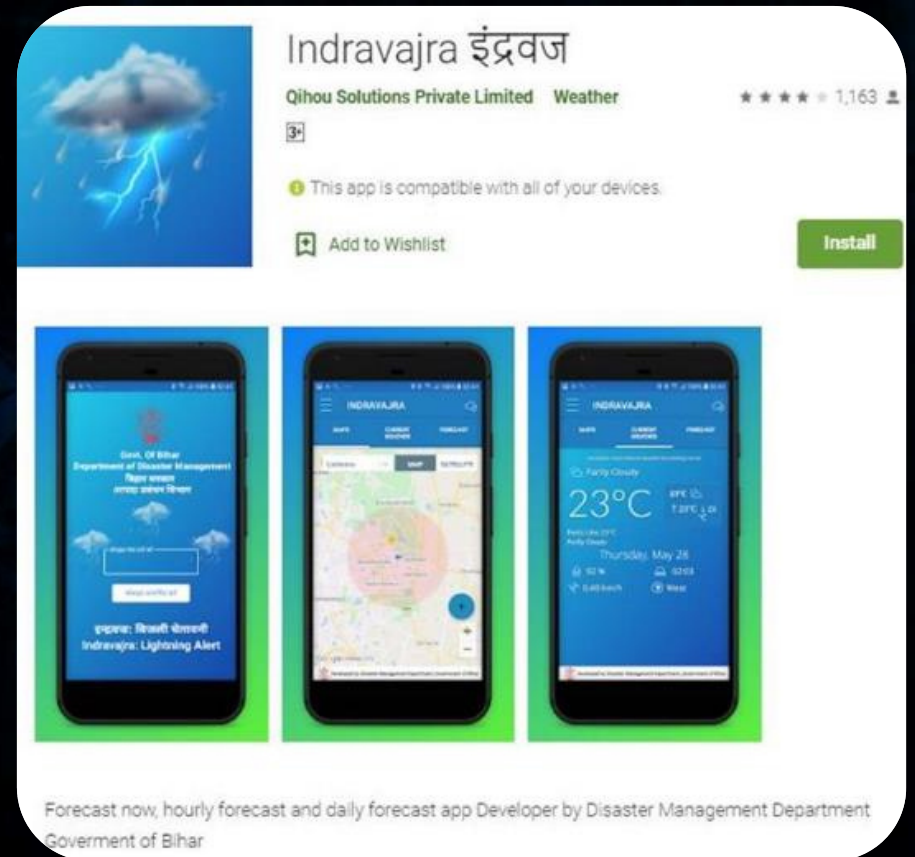
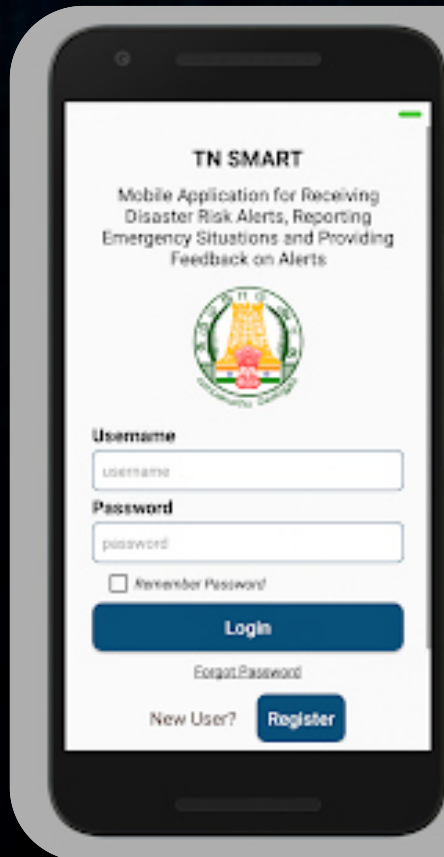
National Database for Emergency Management

Windy with Hazard Layers

ISRO Bhuvan Data Portal

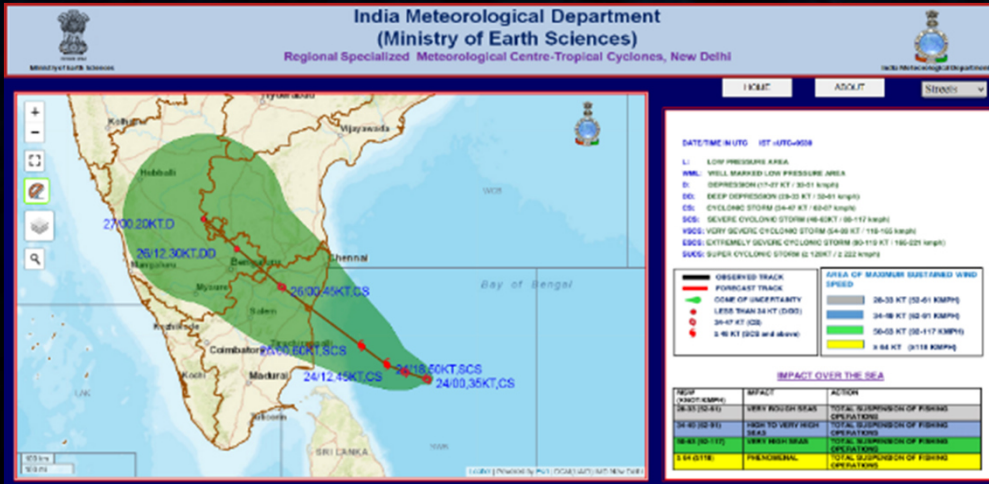
International Disaster Charter

Emergency management Apps

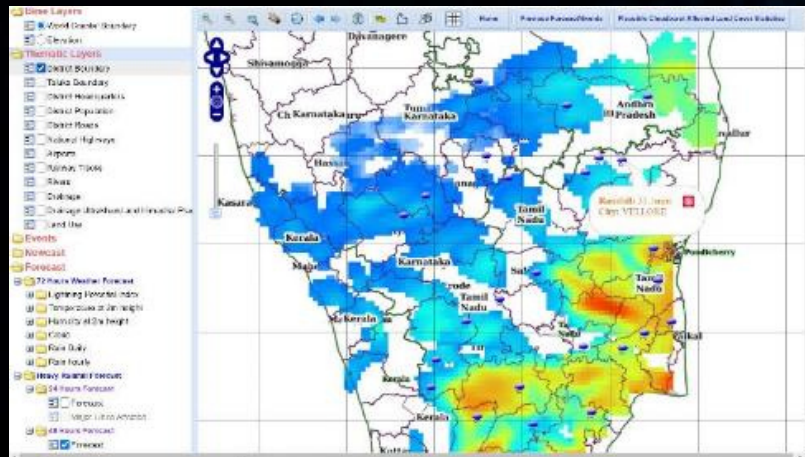
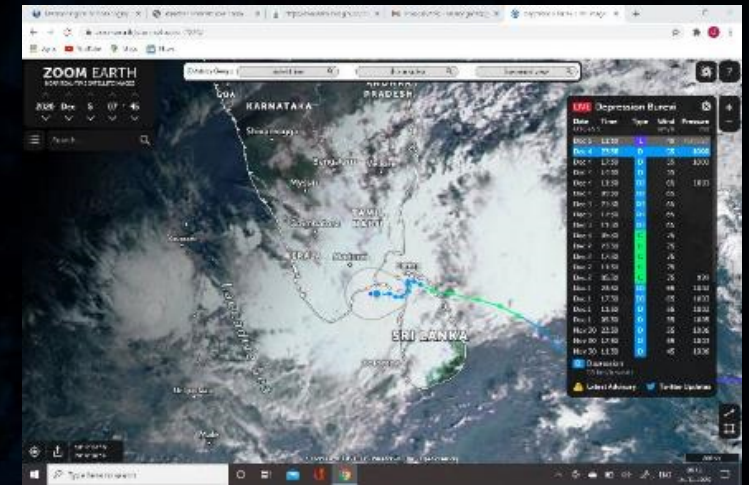


Forecast now, hourly forecast and daily forecast app Developer by Disaster Management Department Government of Bihar

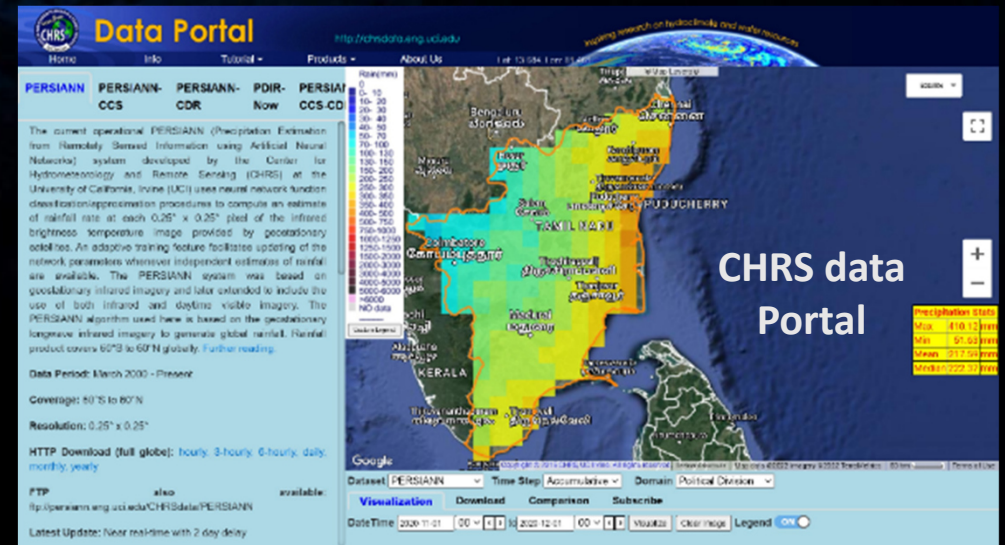
IMD Cyclone Tracker



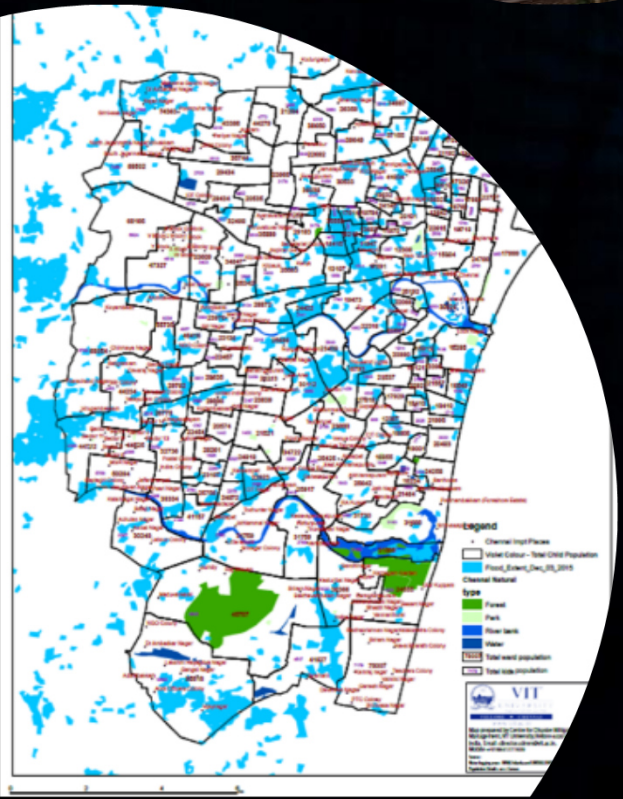
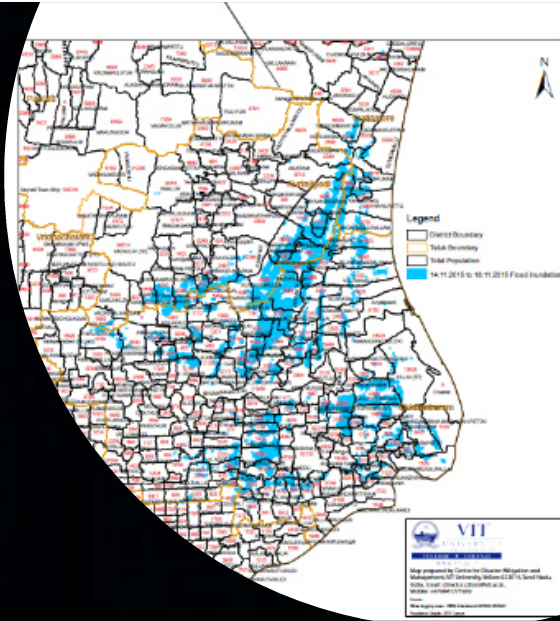
Zoom Earth Live



MOSDAC Forecast Data



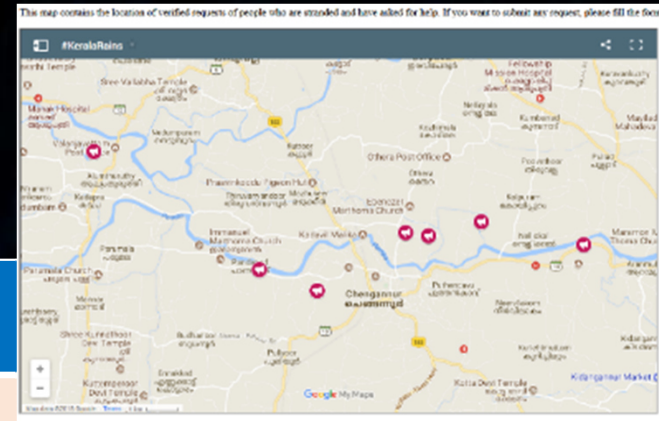
CHRS data Portal



Chennai Floods- 2015

Social Media Listening for Kerala Floods 2018

Data Sources : Twitter | Period : 16th and 17th August



Key Influencers

Jitesh Pillai (@jiteshpillai)

Nirmala Sitharaman (@nsitharaman)

Shashi Tharoor (@ShashiTharoor)

Tinu Cherian (@tinucherian)

Shiv Aroor (@ShivAroor)

Virender Sehwal (@virendersehwal)

Top Mentions

CMO Kerala (@CMOKerala)

PMO Kerala (@PMOIndia)

Nirmala Sitharaman (@nsitharaman)

ADG PI Indian Army (@adgpi)

Dhanya Rajendran (@dhanyarajendran)

Indian Navy (@indiannavy)

Top Hashtags

#KeralaFloods

#KeralaFloodRelief

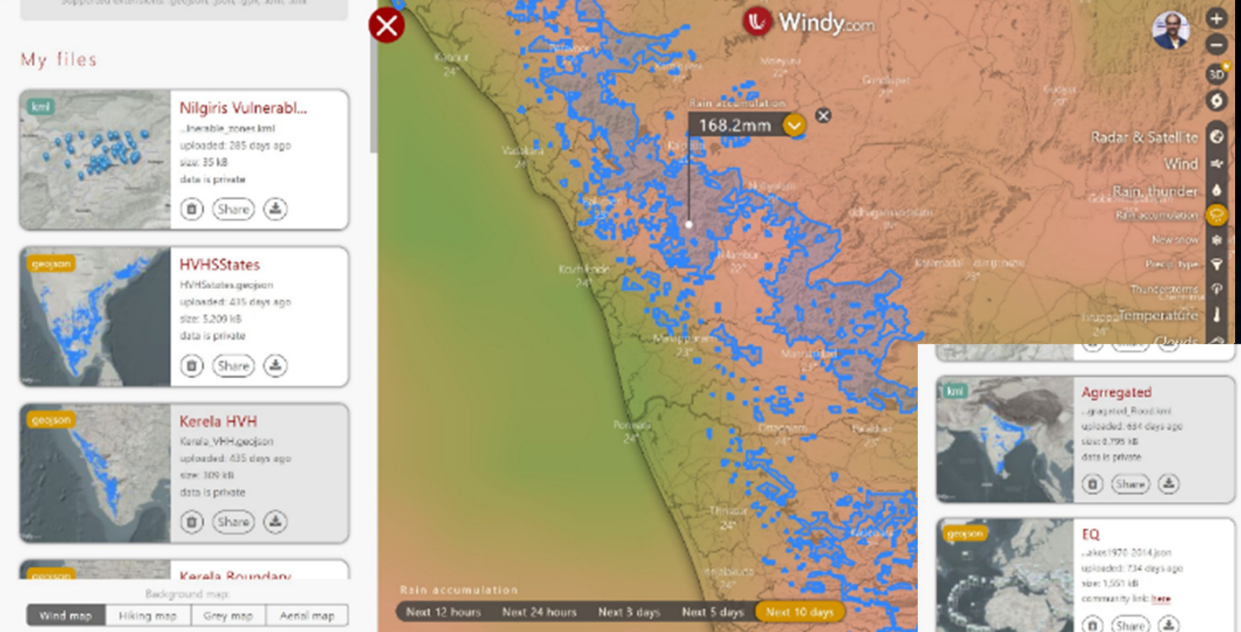
#KeralaSOS

#KeralaFloods2018

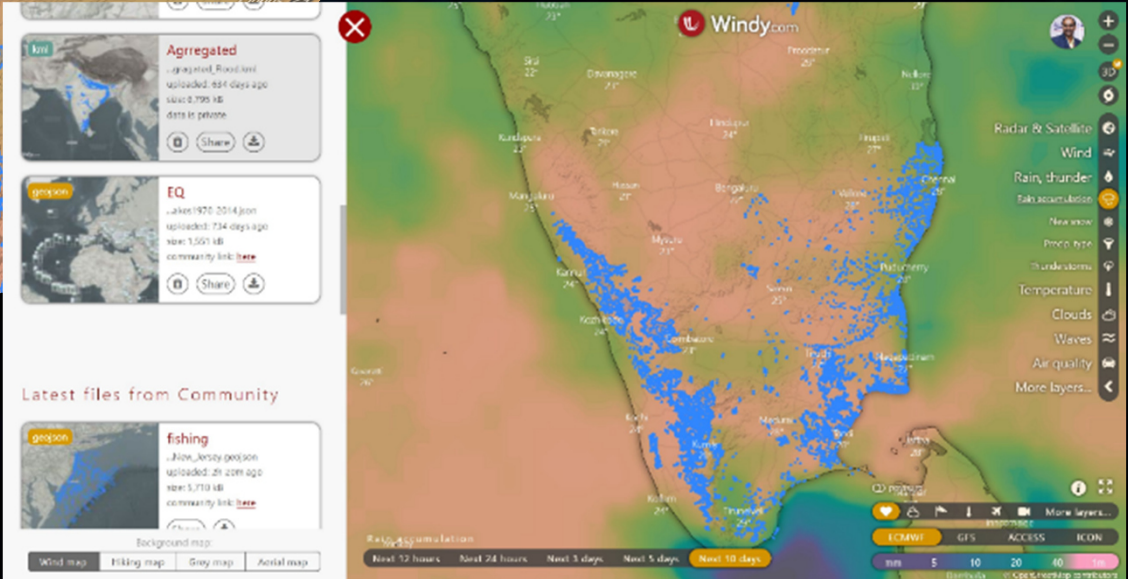
#KeralaFlood

#StandWithKerala

High and Very High Landslide Prone Areas in 10days expected Rain fall Accumulation



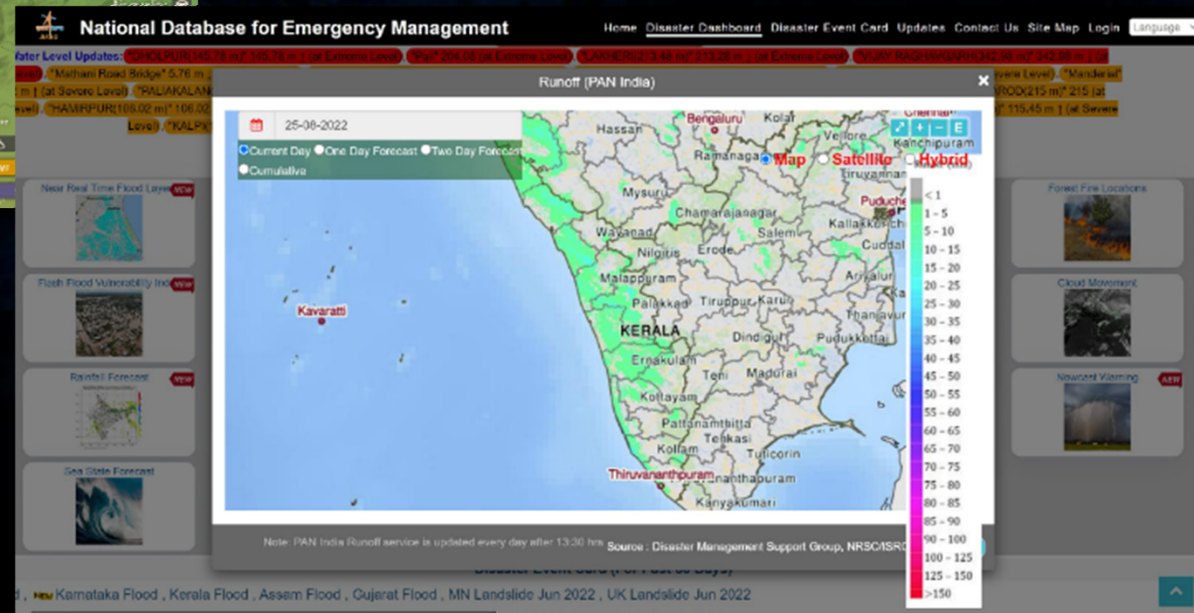
100 Years Aggregated Flood Prone Areas in 10days expected Rain fall Accumulation

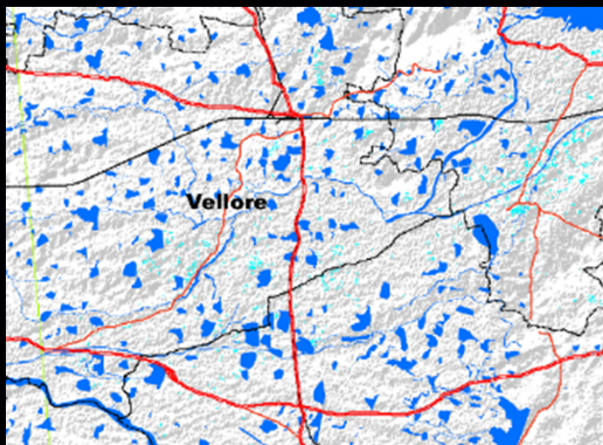
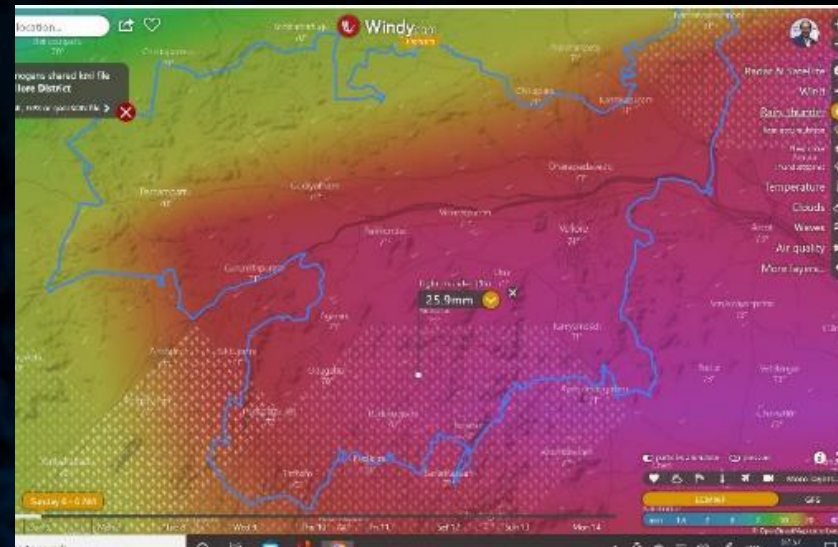


Landslide Vulnerable locations and 5 days expected Rainfall Accumulation



Runoff from NDEM Database





Hourly Rainfall Forecasting for District Level Windy, IMD and Disaster Charter

