

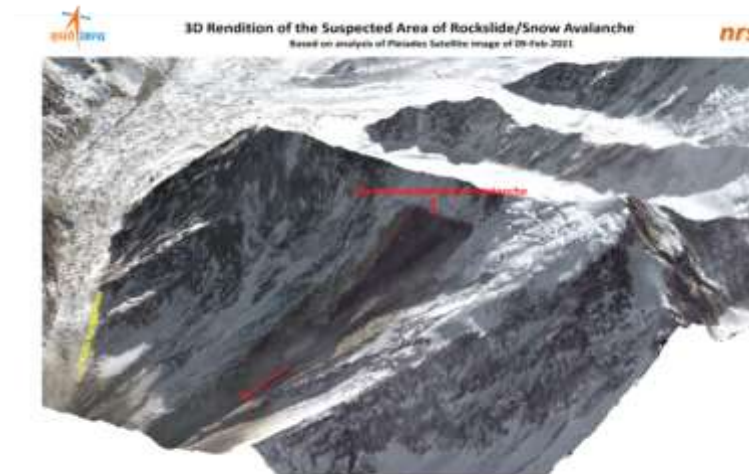
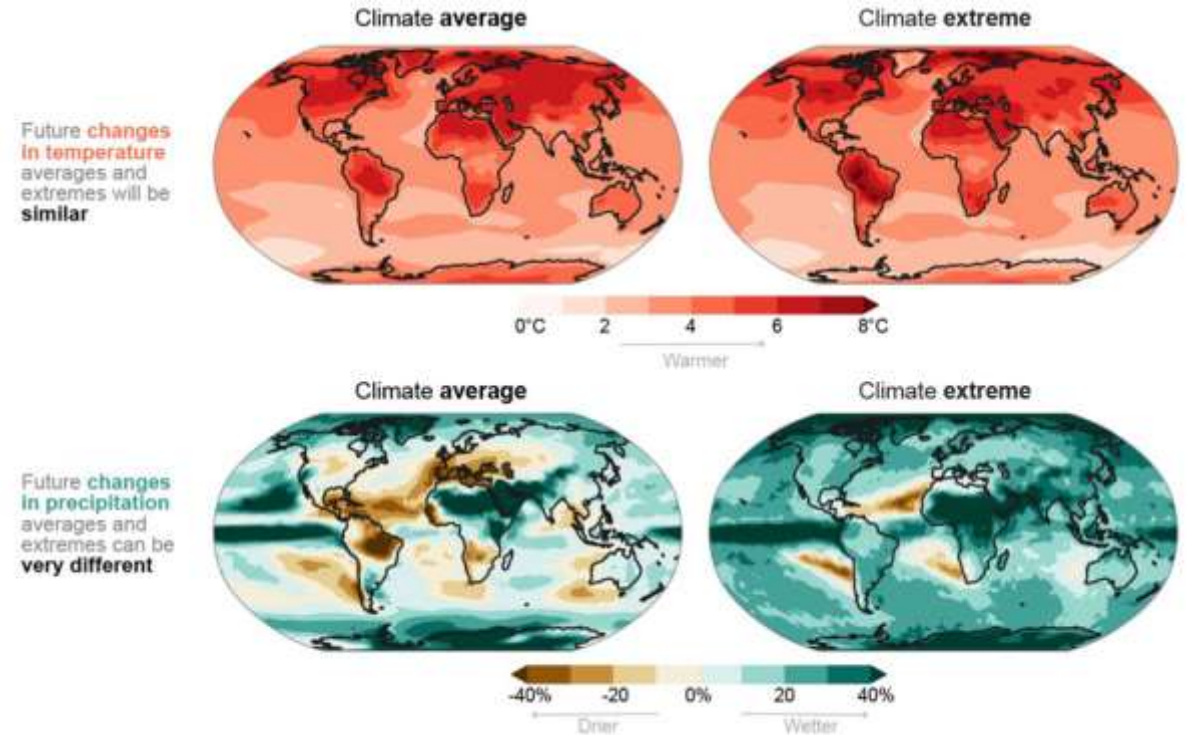
Climate Change Impact on Disasters - Need of Early Warning Studies

Dr. K H V Durga Rao

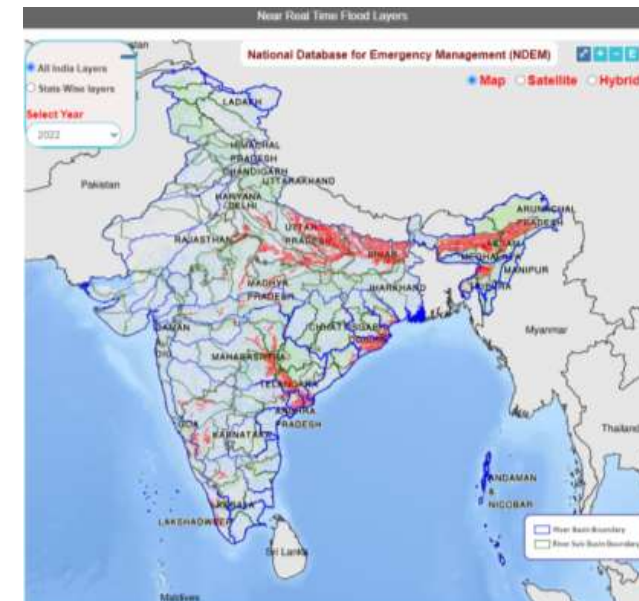
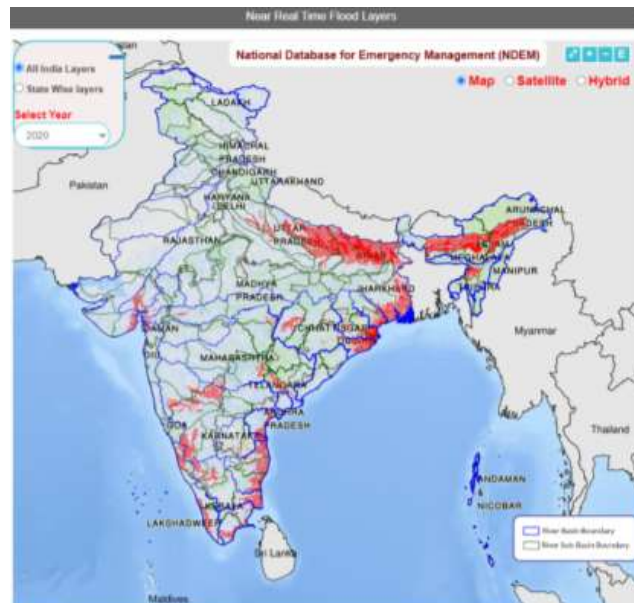
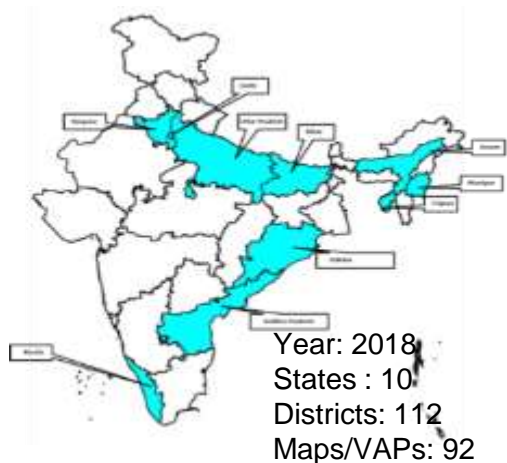
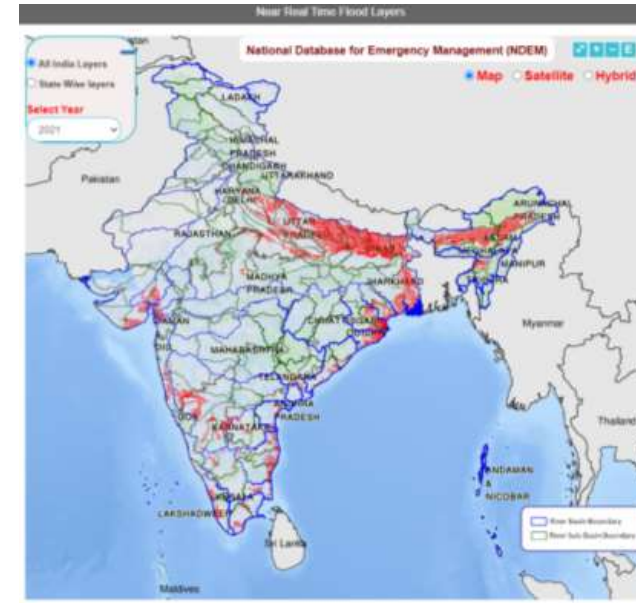
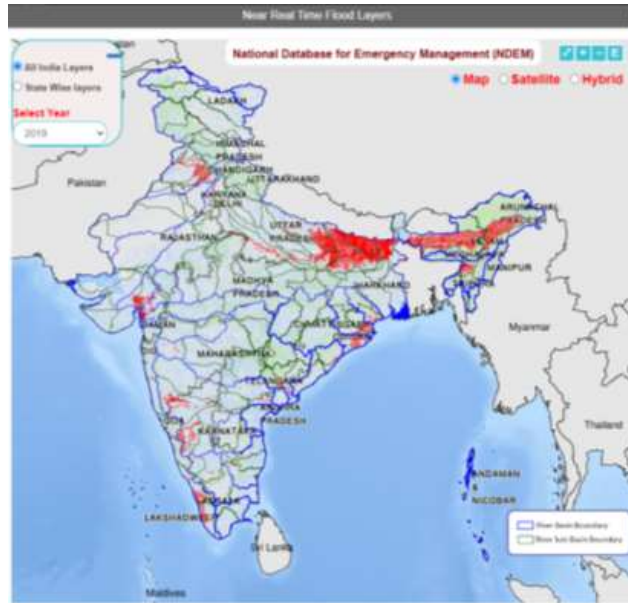
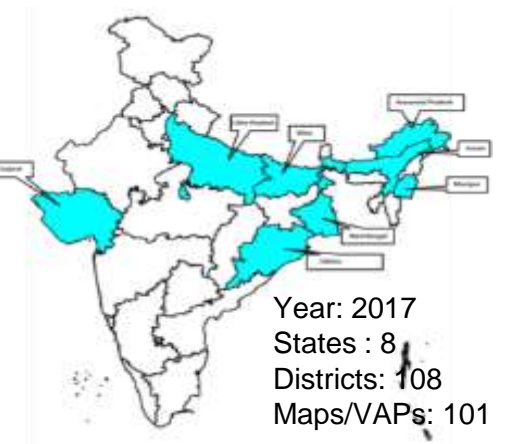
Group Director, Disaster Management Support Group
National Remote Sensing Centre, ISRO
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Impact of Climate Change on Disasters

- Extreme precipitation
- Extreme floods
- Frequent Floods
- Flash floods
- Severe cyclones
- Heat waves
- Increase in landslides
- Increase in forest fires
- Increase in drought
- Impact on lightening
- Impact on storm surge



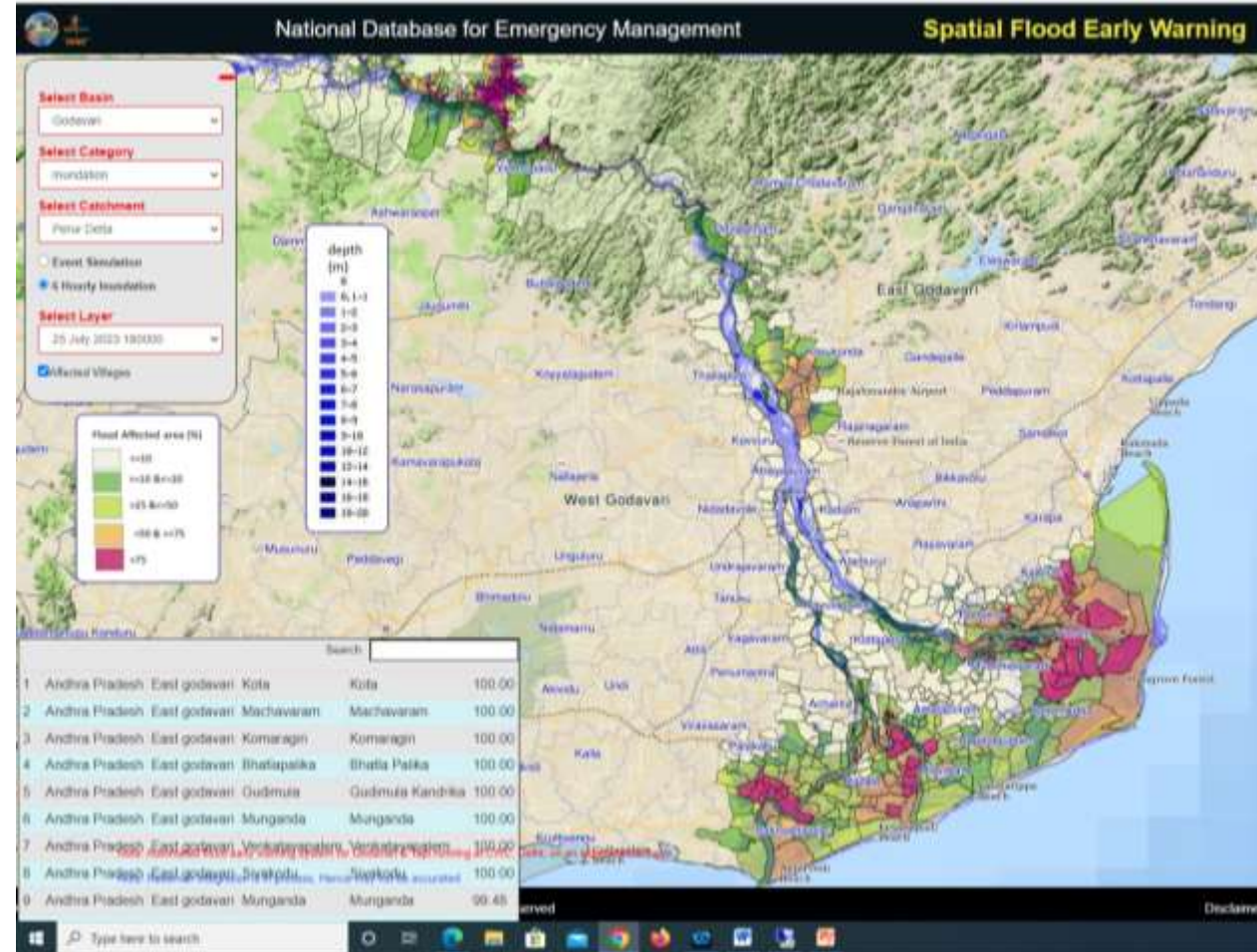
Spread of Major Floods in the Country as Mapped using Space Data in Recent Years



- Web-enabled fully automated operational spatial flood early warning systems for Godavari and Tapi Rivers are developed (under NHP)
- Spatial flood advisories to nodal organisations with more than 85% accuracy in 2 days lead time to aid in DRR



Flood Forecast Hydrographs in the Tapi and Godavari Rivers



Spatial flood early warning and villages affected (25 Jul 2023)

Way forward

- Forecasting extreme precipitation
- More accurate rainfall forecast during cyclones
- Developing flash flood early warning systems
- Use of advance technologies (Artificial Intelligence, etc..)
- Virtual Reality
- Smart Sensors
- Etc...

For Details...

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Thank You