

## Release of Flood Hazard Atlas – Andhra Pradesh and West Bengal States

Flood is the one of the major natural disasters in India that causes immense damage to property and human life almost every year. Satellite remote sensing technology has made substantial contribution in every aspect of flood disaster management such as preparedness, prevention and relief. Space systems from their vantage position have unambiguously demonstrated their capability in providing vital information and services for flood management.

Flood hazard maps are one of the very important non-structural methods for flood damage mitigation. These maps are useful in planning developmental activities, construction of relief, rescue, health centers and in planning flood tolerant crops in floodplains. Under ISRO-DMS programme, National Remote Sensing Centre has been monitoring and mapping of floods in the country for more than two decades using multi mission satellite data. As part of flood mitigation measures, National Remote Sensing Centre (NRSC, ISRO has prepared first flood hazard atlases of most flood-prone states in this country. In this endeavor, flood hazard atlases of Andhra Pradesh and West Bengal are also prepared using the historical multi-temporal satellite datasets of 2000 to 2020.

All flood inundation layers corresponding to each year of these two states are aggregated and annual flood inundation layer was generated which represents maximum flooded area in that year. The annual flood layers of all the 21 years were integrated in preparing flood hazard layer representing the flood inundated areas with different frequencies. This may help in assessing the severity of flood in each district with respect to flood hazard category, hazard area and intra annual variations. This hazard zonation layer is integrated with the large scale geo-database of the corresponding states in preparing the maps. Flood hazard zonation maps of Andhra Pradesh and West Bengal are shown in the figures 1 & 2.

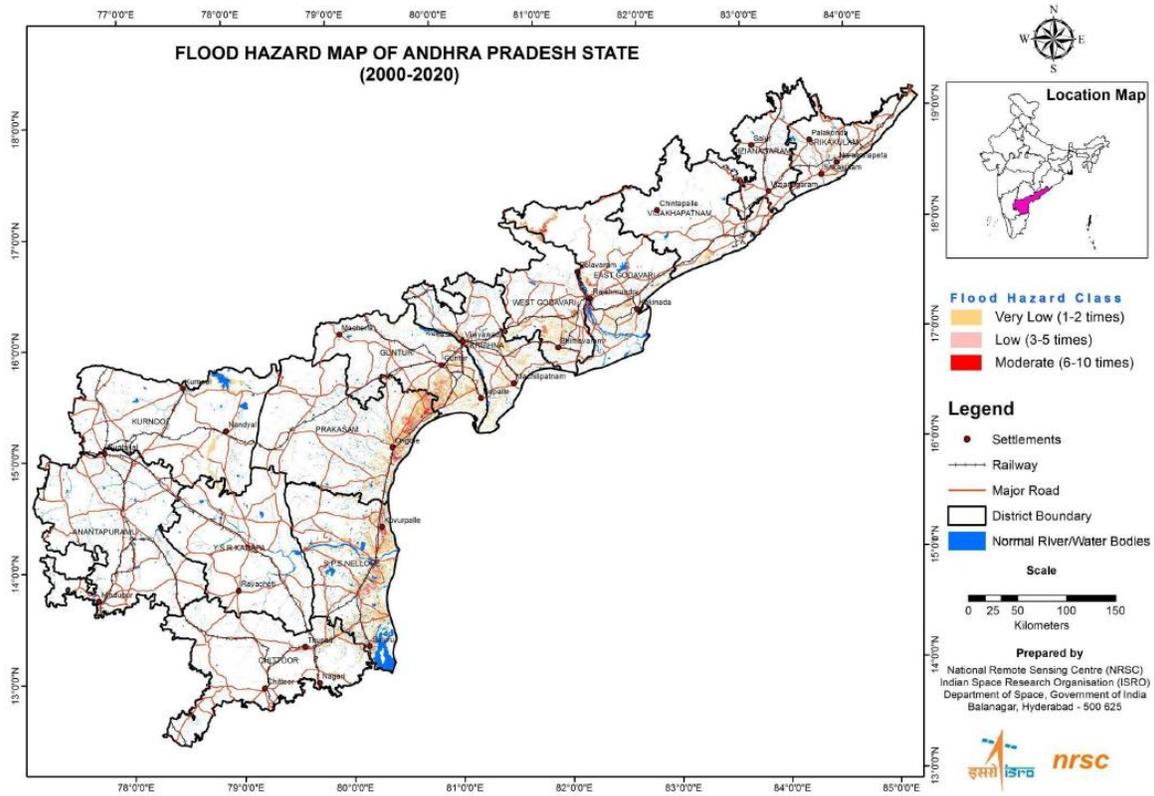


Figure 1. Flood Hazard Zonation Map of Andhra Pradesh State

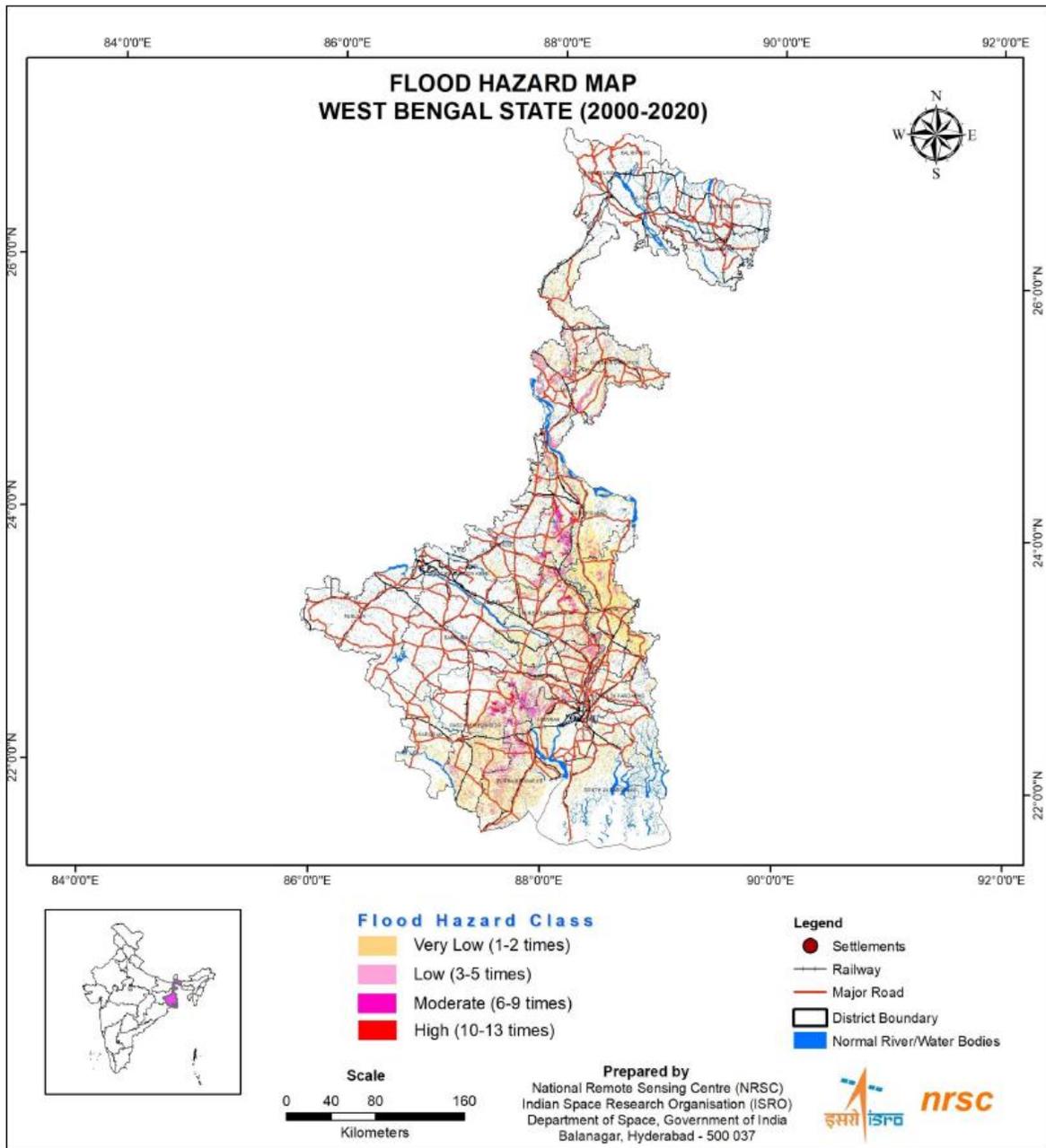


Figure 2. Flood Hazard Zonation Map of West Bengal State

The atlas would serve as a major resource for the states to identify chronically flood prone areas of the state and to regulate the developmental activities in flood hazard zones. This atlas would serve the decision makers and policy makers in making disaster management action plans for an affective disaster risk reduction in the country. The flood hazard atlas thus prepared is released by Hon'ble Ministers of State, Ministry of Home Affairs Sri Nityanand Rai and Sri Ajay

Kumar Mishra during the 18<sup>th</sup> formation day (28 Sep 2022) of NDMA at Vignan Bhavan, New Delhi. Glimpses of the release function are shown in the figures 3 to 5.

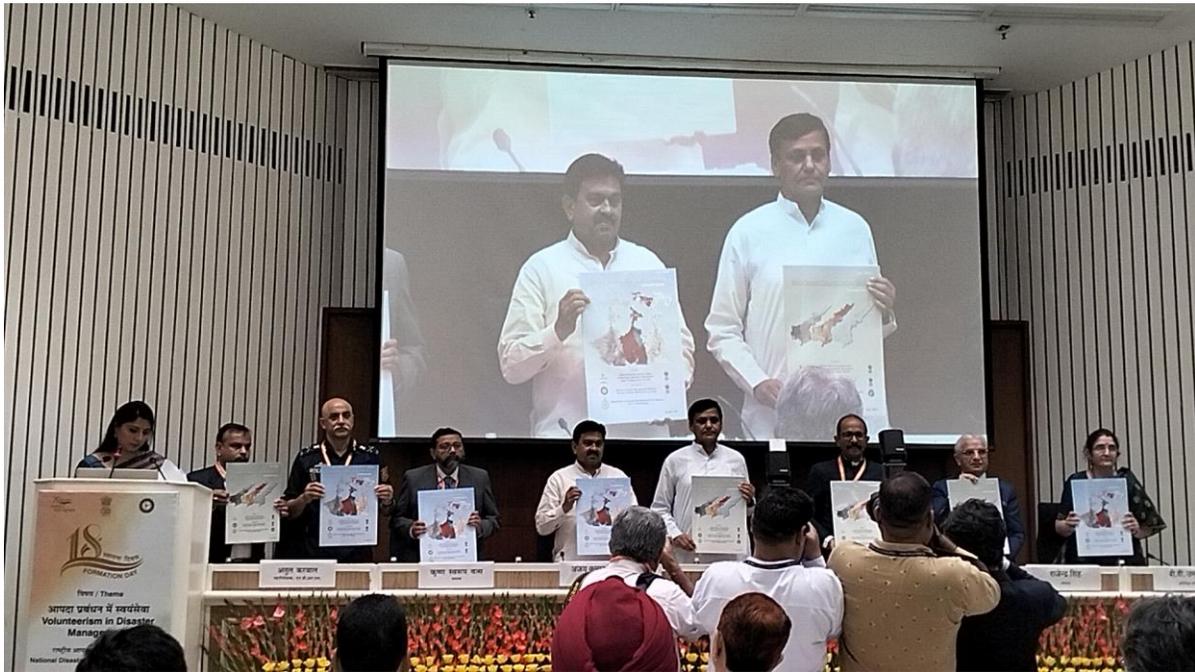


Fig 3 Release of AP & WB by Hon'ble Ministers of State, Ministry of Home Affairs, Sri Nityanand Rai and Sri Ajay Kumar Mishra



Fig 4. Video screened during release of the atlases highlighting the technical aspects in preparing the flood hazard atlases.



Fig. 5 Other dignitaries present during the release occasion on NDMA formation day