

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE**

**LOK SABHA**

**UNSTARRED QUESTION NO. 4308**

**TO BE ANSWERED ON WEDNESDAY, MARCH 18, 2026**

**SATELLITE-BASED DISASTER MONITORING MECHANISMS**

**4308. SHRI TARIQ ANWAR:**

**Will the PRIME MINISTER be pleased to state:**

- (a) the details of the satellite-based monitoring mechanisms immediately activated by the Indian Space Research Organisation (ISRO) during natural disasters like floods, droughts and cyclones in the country along with the protocol under which the information obtained from them is disseminated;**
- (b) the mechanism in place for the utilization of data obtained from the Earth Observation satellites of ISRO in the formulation of national level policies pertaining to agriculture, water resources and forest cover in the country; and**
- (c) whether there is any time-bound plan for the upgradation of space technology for the continuous surveillance of the borders and maritime areas of the country, so as to further strengthen national security and resource management?**

**ANSWER**

**MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC  
GRIEVANCES & PENSIONS AND IN THE PRIME MINISTER'S OFFICE**

**(DR. JITENDRA SINGH):**

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- (a) ISRO/ DoS initiates tasking of Indian Earth Observation Satellites to capture data over the area affected or anticipated to be affected by the disaster. In addition to this, depending on the expected severity of the disaster, ISRO/DoS activates the International Charter for Space & Major Disasters, for satellite data support from its 17 member agencies and 16 data contributors, towards managing disaster including floods & cyclones. On the possible formation of depression & cyclones in Indian Ocean, India Meteorological Department (IMD) requests rapid scan from the INSAT-3DR, which continues till the cyclone persists over region. The INSAT-3DR, INSAT-3DS and Oceansat-3 satellites are also used for cyclogenesis prediction, cyclone detection, monitoring of storm evolution, track prediction and landfall assessment. Near-real time inundation maps are generated for riverine & cyclonic floods and the maps are disseminated to MHA, NDMA and concerned State Disaster Management Authorities. Triggers and indicators of drought are generated using satellite data inputs and ancillary data through the National Geospatial Drought portal implemented on ISRO's Vedas Geoportal. Rapid damage assessment is also carried out using satellite data for disasters such as Earthquakes and Landslides. The satellite data and value added products are**

**disseminated to the users through ISRO's Geoportals such as Bhoonidhi, MOSDAC, Bhuvan and NDEM, as per the Indian Space Policy 2023 and National Geospatial Policy.**

- (b) Government has implemented the Space Application Management System (SAMS) in 2021 for assessing the need aspects of Earth observation satellites, recommending its cost share by the user segment and ensuring effective utilisation of its data in addressing national development imperatives & policy formulations across thematic domains such as Agriculture, Water, and Forests;**
- (c) Yes. A host of satellites and associated ground systems are approved by the Government, which are to be realised in the next five years as part of the Disaster Monitoring mechanism which strengthens the resource management and serves national security purposes enabling continuous surveillance of borders and maritime areas of the country.**

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