

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION NO. 3240
ANSWERED ON 21/08/2025

Expansion of NavIC-based Early Warning System

3240. SMT. REKHA SHARMA:

Will the Minister of **Earth Sciences** be pleased to state:

- (a) whether the Ministry has taken steps to operationalise NavIC-based early warning services for disasters such as cyclones, tsunamis and landslides;
- (b) the regions or States currently integrated with this service and plans for pan-India coverage; and
- (c) the manner in which NavIC-based alerts are being integrated into local governance and emergency response systems?

ANSWER

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)

- (a) Yes. Navigation with Indian Constellation (NavIC) based early warning services for major natural disasters like earthquakes, floods, cyclones, landslides etc has been operationalised under the “Common Alerting Protocol Based Integrated Alert System (SACHET)”, project of National Disaster Management Authority.
- (b) The coverage area for NavIC is designed to cover the Indian Territory and surrounding 1500 km of Indian borders. After a successful Pilot Project was implemented in Tamil Nadu, Pan India implementation of Phase I of the Common Alert Protocol (CAP) Project has been sanctioned by the Government.
- (c) The State Disaster Management Authority (SDMA) utilizes the NavIC system to disseminate all warnings. The NavIC Signal Structure has provision to transmit text messages besides navigation messages. These short communication messages are being used for messages related to alerts, forecast and directives on the occurrence of natural disasters like floods, earthquake, Tsunami, cyclones, landslides etc. The components of this cycle are the Alert Generating Agencies (IMD, CWC, FSI, DGRE, INCOIS etc), the warning/alert disseminating agencies (cellular network, radio, television, Internet, Satellite etc) and the recipients of this warning (general public and the responders). The efficient workflow of this chain is monitored by the Disaster Management Authorities at the National as well as State level.
