GOVERNMENT OF INDIA
MINISTRY OF COMMUNICATIONS
DEPARTMENT OF TELECOMMUNICATIONS

RAJYA SABHA
UNSTARRED QUESTION NO. 3208
ANSWERED ON 21ST AUGUST, 2025

CLIMATE RESILIENCE OF DIGITAL TELECOM INFRASTRUCTURE IN DISASTER-PRONE REGIONS

3208   # SHRI DHAIRYASHIL MOHAN PATIL:

Will the Minister of Communications be pleased to state:

(a)   whether Government has developed climate-resilient standards for digital infrastructure in disaster-prone areas like Konkan, where telecommunication networks are damaged due to floods and landslides;

(b)   the steps being taken to ensure the continuity of digital services during natural disasters, particularly after the 2021 Raigad floods, which impacted 103 villages;

(c)   whether Government is planning to establish backup communication systems and emergency protocols in coastal districts; and

(d)   the coordination framework between the Ministry and disaster management authorities for the restoration of digital services after a disaster?

ANSWER

MINISTER OF STATE FOR COMMUNICATIONS AND RURAL DEVELOPMENT
(DR. PEMMASANI CHANDRA SEKHAR)

(a)   The Government, through the Telecommunication Engineering Centre (TEC), has specified environmental testing requirements for telecom equipment under the QM-333 standard, which ensures reliable operation under climatic stresses in disaster-prone regions. Further, with respect to wind velocity withstanding capacity, BIS standard IS875(Part 3) is referred in TEC Generic Requirements of towers. This standard (part 3) deals with wind loads to be considered when designing buildings, structures and components thereof.

(b)   To ensure continuity of digital services during natural disasters, Telecom Service Providers deploy Cell on Wheel (COW) BTS, Install Leased Line circuits, undertake emergency restoration of Optical Fiber Cable (OFC), and ensure uninterrupted power supply through DG sets, battery backups, and solar-powered systems. Other measures include establishment of temporary sites, activation of Intra-Circle Roaming (ICR) among TSPs, and priority call routing for Disaster Relief Agencies.

(c)   To ensure service continuity during disasters, telecom networks are built with redundant links and mesh connectivity. Intra Circle Roaming (ICR) arrangement among TSPs ensures continuity of services for all subscribers even in those cases where only one operator's service is functioning.

(d)   As per the latest Standard Operating Procedure (SOP)-2020 for Telecommunication services for Responding to Disasters, a coordination framework is in place in the form of State Telecom Disaster Co-ordination Committee, which coordinates and monitors all disaster related activities. It consists of officials from DOT, State Disaster Management Agencies and Telecom Service Providers to review preparedness, ensure information sharing and coordination, and enable quick restoration of telecom services during emergencies.

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