

Telecom Towers and Disaster Resilience in India

Prelims: *Current events national and International importance | Environment*

Why in News?

A CDRI study found telecom towers in Assam and Tamil Nadu highly vulnerable to cyclones and floods, assessing infrastructure resilience across five disaster-prone States.

Key Findings of the Study

- **Assessment framework** – CDRI, assessed telecom infrastructure in Assam, Gujarat, Odisha, Tamil Nadu and Uttarakhand.
- **In collaboration with** –
 - Department of Telecommunications (DoT)
 - National Disaster Management Authority (NDMA).
- **Tamil Nadu** – Of 48,416 mapped towers, 57% face high or very high cyclonic wind risk, while 33% face flood exposure. About 14% are exposed to storm surges exceeding six metres.
- **Assam** – Of 18,388 mapped towers, 83% are located in very high cyclonic wind zones, 43% face high flood exposure and 5% face high landslide exposure.
- **Other States** –
 - **Odisha** – 57% of towers face high or very high cyclonic wind risk.
 - **Gujarat** – 28% face very high cyclonic wind risk.
 - **Uttarakhand** – 25% face very high cyclonic wind risk, while 10% are in areas with high landslide susceptibility.
- **Multiple hazards** – All telecom towers in Assam and Uttarakhand are located in high or very high seismic zones (Zones IV and V).
- **Important observation** – Tower exposure to hazards does not necessarily mean that every tower will be damaged.
 - Power outages, fibre cuts, road damage and fuel shortages can also disrupt telecom services.

Significance of Telecom Resilience

- **Disaster management** – Supports early warnings, emergency response and coordination among rescue agencies.
- **Essential services** – Enables access to healthcare, digital payments, education and government services.
- **Economic growth** – Reliable connectivity supports businesses, livelihoods and digital inclusion.

- **National security** - Maintains communication during disasters and other emergencies.

Reference

[The Hindu| Cyclonic winds, flooding are common threats to telecom towers](#)

