

ENVIRONMENTAL STUDIES

LECTURE-34

Disaster Prevention and Mitigation

Proper planning and mitigation measures can play a leading role in risk-prone areas to minimize the worst effects of hazards such as earthquakes, floods, and cyclones. These are the key areas which should be addressed to achieve this objective:

- **Risk Assessment and Vulnerability Mapping:** Mapping and vulnerability analysis in a multi-risk structure will be conducted utilizing Geographic Information System (GIS) based databases like the National Database for Emergency Management (NDEM) and National Spatial Data Infrastructure (NSDI).
- **Increasing Trend of Disasters in Urban Areas:-** Steps to prevent unplanned urbanization must be undertaken, with the plan of action formulated being given the highest priority. State Governments/UTs concerned on the other hand focus on urban drainage systems with special attention on non-obstruction of natural drainage systems.
- **Critical Infrastructure:-** Critical infrastructure like roads, dams, bridges, irrigation canals, bridges, power stations, railway lines, delta water distribution networks, ports and river, and coastal embankments should be continuously checked for safety standards concerning worldwide safety benchmarks and fortified if the current measures prove to be inadequate.
- **Environmentally Sustainable Development:-** Environmental considerations and developmental efforts, should be handled simultaneously for ensuring sustainability.
- **Climate Change Adaptation:-** The challenges of the increase in the frequency and intensity of natural disasters like cyclones, floods, and droughts should be tackled in a sustained and effective manner with the promotion of strategies for climate change adaptation and disaster risk reduction.