India’s Direction for Disaster Resilience

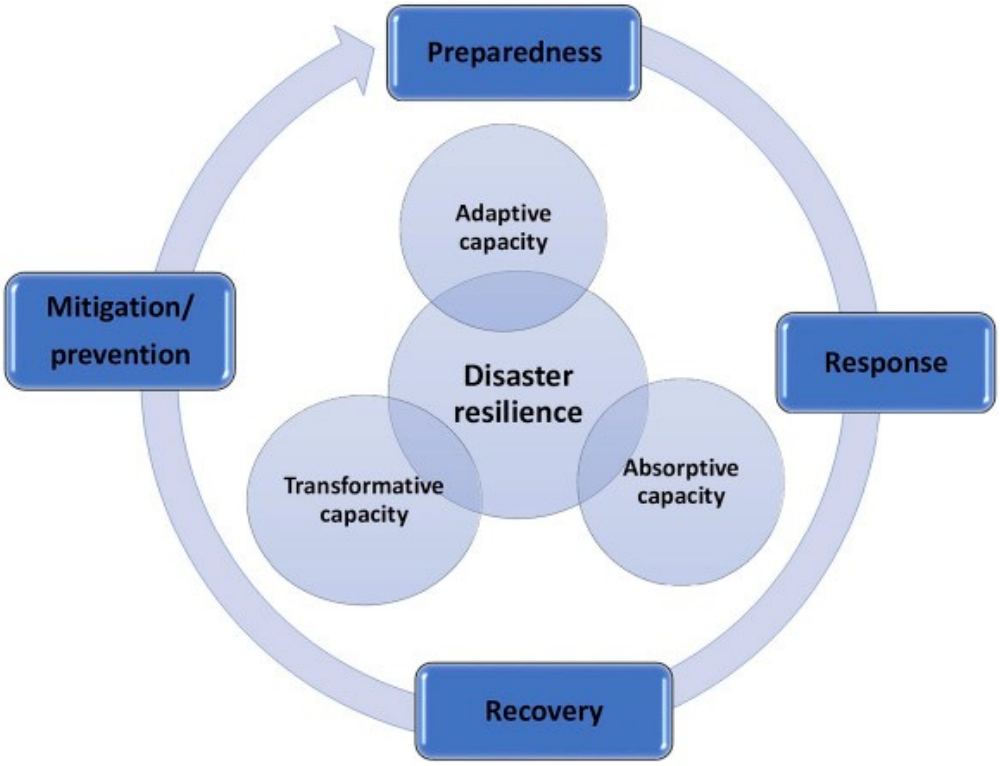
Mains: *GS III – Disaster management*

Why in News?

Recently there are series of natural and manmade disasters that stand as a test for the disaster resilience of India.

What is disaster resilience?

- **Disaster resilience** – It is the ability of communities, individuals, and systems to effectively resist, absorb, adapt to, and recover from the negative impacts of hazards and disasters, while minimizing losses and preserving essential functions.



- It is a dynamic process involving preparedness, response, and recovery efforts that builds capacity to withstand and learn from adverse events
- International coordination is crucial in shaping how much India will learn from and teach the world.
- **Need –** India, is a vast, multi-hazard country, and a multi-faceted approach is essential to deal with heat-related issues and extreme rainfall events.
- The Home Ministry (MHA) and the National Disaster Management Authority (NDMA)

oversee the post-disaster.

- **10 point agenda** – They also monitor the pre-disaster phases, using the Prime Minister's ten Point Agenda on Disaster Risk Reduction of 2016 as guiding principles.

What is the strategy of 15th FC for disaster risk reduction?

- **Approach** – In 2021, the 15th Finance Commission adopted a nuanced approach to disaster risk reduction (DRR).
- **Fund allocation** – It aligned public finances with technological and practical advances, and allocated ₹2.28 lakh crore ($30 billion) over its five-year term.
- **Widened focus** – It broadened the focus from just post-disaster relief to include *prevention, mitigation, preparedness, capacity building, and post-disaster reconstruction*.
- Previously, the financial gap for reconstruction was filled through multilateral debt instruments.
- **Break up of allocation** – The Commission allocated
    - 30% for the first segment, divided between
        - Preparedness and capacity building (10%)
        - Mitigation (20%).
    - 70% was assigned to the post-disaster phase, split into
        - Response (40%)
        - Reconstruction (30%).
- **5 priority areas** – In establishing the process chain from budget-to-project for nature-based DRR, five priority areas were identified
    - Evaluating the scale of and prioritising India's multi-hazard challenges
    - Integrating scientific concepts of mitigation and reconstruction into public finance
    - Avoiding duplication with existing programmes
    - Synergizing inter-ministerial, institutional, and Centre-State relationships in developing such programmes
    - Establishing processes for light-touch regulation.

- Last year, the procedures and standards for design and the manner of expense for such programmes have been established.
- **Coordination** – Inter-ministerial, cross-institutional and Centre-State appraisal committees are in place for all hazard- or region-specific projects.
- **Reconstruction** – Over the past two years, the MHA has approved the first five reconstruction project packages worth about ₹5,000 crore for Uttarakhand, Himachal Pradesh, Sikkim, Assam and Kerala.
- Work is underway to conduct scientific assessments of damage and loss caused by extreme precipitation in the current monsoon.
- **Pre-disaster phase** – For this much of the preparedness and capacity-building funds were allocated to modernising fire safety (₹5,000 crore).
- **Specialised group** – Additionally, two specialised groups of 2.5 lakh volunteers, *Apda Mitra* and *Yuva Apda Mitra*, were created.
- **Capacity building** – Some of the capacity-building funds will now be directed towards establishing geo-spatial training labs and expanding faculty-led, action-based research at the National Institute of Disaster Management (NIDM).
- Strengthening NIDM's three core objectives of training, research, and documentation, a standard course covering 36 streams of disaster management has been initiated.
- The aim of capacity building is to mainstream the subject and its practical application to each panchayat.
- **Mitigation** – For the 20% window allocated for mitigation, the best scientists, academicians, and numerous public servants were consulted to develop innovative projects.
- In the past year, projects worth ₹10,000 crore ($1.2 billion) have been approved and are being implemented across States.
- They aim to prioritise neglected nature-based solutions as long-term responses to climate change and extreme weather events.
- **Cyclone mitigation** – As precursor to these forward-looking mitigation programmes, the National Cyclone Mitigation Programme (2011-22) worth ₹5,000 crore had already succeeded in *reducing vulnerability of coastal communities to cyclones across eight States.*
- **Key infrastructure built** – It included seven-day early warning systems, cyclone shelters, and embankments.
- **Plans of NDMA** – Under these mitigation programmes, the NDMA urges States and urban authorities to
    - Revitalise water bodies and green spaces to mitigate urban floods.
    - Use remote sensing and site-specific automated weather stations to assess the size of at-risk glacial lakes continually.
    - Stress bio-engineering solutions for slope-stabilisation in landslide prevention in high-risk zones.
    - Rejuvenate water bodies called beels along the Brahmaputra.
    - Focus on break lines, water body rejuvenation and fuel evacuation to prevent forest fires.
- **Early warning systems** – Over the years, the government has also developed advanced early warning systems for various hazards, which have significantly reduced casualties.
- The multi-media Common Alerting Protocol ensures timely alerts in regional

languages.

- **Support from universities and institutions** – To enhance community capacities, initiatives such as a 327-member network of universities and institutional support from the NIDM are crucial.
- The NDRF Academy, the National Fire Service College, and NIDM train hundreds of public servants annually, in the science of hazards and policy.
- **Mock exercises** – These are carried out to promote hazard- and region-specific awareness, while school safety programmes educate children and distribute resources.

What lies ahead?

- International coordination is crucial in shaping how much India will learn from and teach the world.
- In the face of unrelenting climate change, India created the Coalition for Disaster Resilient Infrastructure and leads DRR-related initiatives at the G-20, SCO, BIMSTEC, and IORA.
- On advice from public and private entities, and academic and scientific institutions, India is successfully preparing to de-risk its complex hazard profile through innovative and sustainable nature-based solutions.

Reference

[The Hindu| Disaster Resilience of India]