Disaster Management Class 04
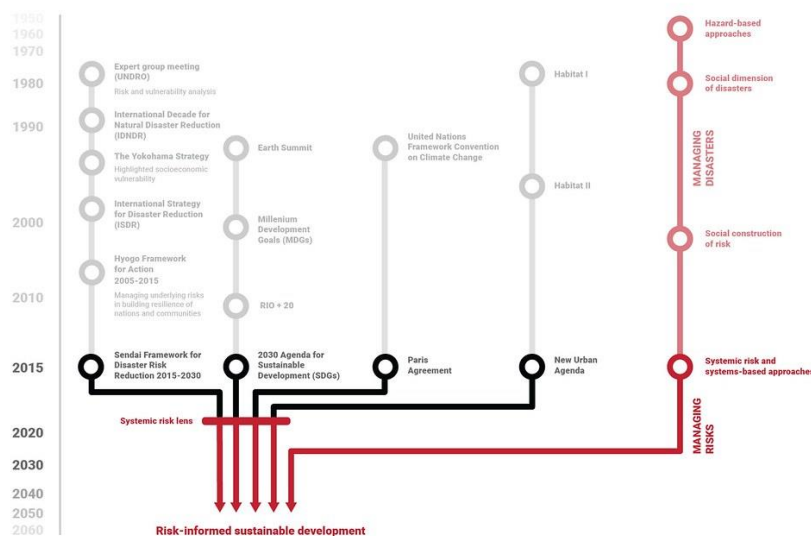## 24th July, 2024 at 9:00 AM

RECAP (9:08 AM)

- *Pre-2005 --> [CCS, CCMNC, NCMC] --> Coordinated by the MoHA <-- Paramilitary Forces <-- Control Room.*
- *Institutional Framework --> NDM Authority (headed by the PM) (it is for making decisions) --> National Executive Committee (NEC) (it is for implementation) --> NIDM (National Institute for Disaster Management) for R&D and training --> National Disaster Response Force (NDRF) (all at the Union level).*
- *At the state level: SDMA, SEC, SDRF.*
- *At district level: DDMA, DM.*
- In the pre-existing reactive disaster management structure in India, the MoHA also had a role in providing information about any disaster, calamity, hazard, etc. would first come to the control room at the **MoHA**, which is maintained by the paramilitary forces which are also under the MoHA.
- This information is passed to higher officials and the minister of MoHA who will pass it on to the PM and hence, the required activities/actions are taken thereafter like coordination of the cabinet committees.

Official beginning of proactive approach of Disaster Management in India: (9:20 AM)

- The **National Disaster Management Act 2005** is considered to be the official beginning of a proactive approach to disaster management in India.
- *National Disaster Management Act 2005: **i. Laws ii. Guiding Documents iii. Institutional Framework**.*
- ***Guiding Documents:***
- *i. NDMA 2005.*
- *ii. NPDM 2009.*
- *iii. Disaster management guidelines (in total 34) (starting from 2007 to 2023).*
- *iv. National Disaster Management Plan (published in 2016 and revised in 2019).*
- **ii. National Platform for Disaster Risk Reduction 2013:** (NPDRR 2013)
- The goal is to bring together India's disaster risk community which includes the governments, Parliamentarians, mayors, media persons, international organizations, NGOs, local community representatives, and scientific, academic, and corporate institutions.
- It helps in sharing experiences, views, ideas, and research and improves action and different opportunities in disaster risk reduction.
- *Institutional Framework --> Financial Infrastructure.*
- *Financial Infrastructure: i. Pre-Disaster Management (Disaster Mitigation Fund: NDMF (Union level) and SDMF (State level)) ii. Post-Disaster Management (Disaster Response Fund: NDRF (Union level) and SDRF (state level)).*
- The financial provisions are for the purpose of giving financial freedom to NECs, SECs, and the authorities to not depend on the government for finances.
- No money can be transferred from one fund to another (from response fund to mitigation fund or vice versa).
- The Finance Commission (national and state) is to recommend the money.

Expert group meeting (UNDRO)
Risk and suberability analysis

International Decade for Natural Disaster Reduction (IDNDR)

The Yokohama Strategy
Highlighted socioeconomic vulnerability

International Strategy for Disaster Reduction (ISDR)

Hyogo Framework for Action 2005-2015
Managing underlying risks in building resilience of nations and communities

Sendai Framework for Disaster Risk Reduction 2015-2030

Earth Summit

Millenium Development Goals (MDGs)

RIO + 20

2030 Agenda for Sustainable Development (SDGs)

United Nations Framework Convention on Climate Change

Paris Agreement

Habitat I

Habitat II

New Urban Agenda

Hazard-based approaches

Social dimension of disasters

MANAGING DISASTERS

Social construction of risk

Systemic risk and systems-based approaches

MANAGING RISKS

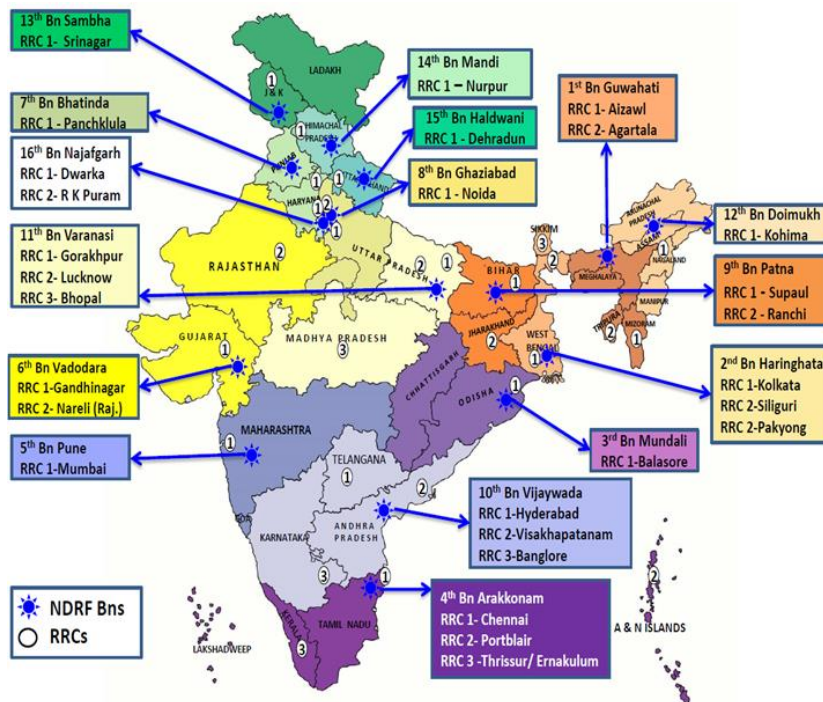Systemic risk lens

Risk-informed sustainable development

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- The National Disaster Management Plan 2019 talks of coherence and mutual reinforcement in our **national efforts** with respect to the **post-2015 global framework** as India is a signatory and a participant in all these global frameworks.
  The post-2015 global frameworks are:
- i. Sendai Framework for Disaster Risk Reduction.
- ii. The Paris COP21 Actions.
- iii. The SDGs.
- The national efforts with respect to these global frameworks respectively are:
- i. National Plan on Disaster Risk Reduction.
- ii. National Action Plan on Climate Change INDCs.
- iii. National Development Initiatives.
- Hence, the goal is:
- a. To bring coherence between national efforts and global frameworks.
- b. Establish mutual reinforcement.
- ***Kindly refer to the handout* *for* *Institutional Framework* *and* *nodal ministries* *dealing with the different kinds of disasters.***
  National Disaster Response Force: (10:26 AM)
- NDRF is one of its kind in the world and the first one to be created globally.
- It is a dedicated response force only for disaster management which has taken personnel from the CAPFs which include BSF, CISF, CRPF, ITBP, SSB, and Assam Rifles.
- There are a total of 16 such battalions of 1149 personnel in each battalion.
- Each battalion has 18 self-sufficient search and rescue teams.
- All the battalions are located at different locations in the country. (location is in map below)

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- Despite the strength of the NDRF, the limitation is that we have only 16 such battalions in the whole country.

- Hence, not enough dedicated force is available at short notice.

- Most of the states do have a state disaster response force but they are not as efficient as the NDRF.

Main Pillars of National Disaster Management Plan: (10:36 AM)

- The other documented part with respect to disaster management in India includes the five main pillars of the National Disaster Management Plan.

- i. Conforming to the national legal mandates - the DM Act 2005 and the NPDM 2009.

- ii. Proactively take action towards Sendai, SDGs, and the Paris Agreement so as to bring coherence and mutual reinforcement to our national efforts.

- iii. PM's 10-point agenda on DRR fixing national priorities.

- iv. Social inclusion of all affected.

- v. Integrating DRR in various developmental programs.

PM's 10-point Agenda for Disaster Risk Reduction 2016: (10:43 AM)

- i. Integrating development programs with disaster risk management.

- ii. All-inclusive approach from the poorest people to the largest institutions.

- iii. Women's leadership/involvement on a larger scale.

- iv. Investing in risk mapping.

- v. Use of modern technologies.

- vi. Develop a network of R&D (universities).

- vii. Use of social media and mobile technologies.

- viii. Utilise the local capacity.

- ix. Learn the lessons to build back better. (development)

- x. International cohesion for disaster response.

Role of Technology in DRM and DRR: (11:15 AM)

- Role of technology: **i. Networking ii. Early Warning**.
- **i. Resource coordination network:**
- a. IDRN (Indian Disaster Resource Network):
- Nationwide <mark>electronic inventory</mark> of <mark>resources</mark> at different levels of government.
- b. IDKN (Indian Disaster Knowledge Network):
- This is a SAARC-India Disaster Knowledge Network offering a range of resources and services, knowledge collaborations, and emergency contacts.
- c. CDRN (Corporate Disaster Resource Network):
- This helps the corporates to coordinate and facilitate resource help during disasters in line with the government departments.
- d. NDCN (National Disaster Communication Network):
- It is a network of various communication channels including satellite phones, cell phones, landlines, LAN, etc.
- Other management and technology initiatives include earthquake disaster risk indexing, land use zonation mapping, national disaster management services, and technological inputs from BMTPC (Building Material and Technology Promotion Council).

ii. Early Warning System:

- It includes GIS, GPS, weather balloons, radiosonde stations, different radars like the S-band radar, doppler radar, and satellite technologies used by area cyclone warning centers, water flow gauges, and floating buoys, flood marks.
- For landslide regions, we have soil pressure sensors and movement sensors.
- In tsunami regions, we have deep ocean assessment and reporting systems.
- Automatic position reporting systems.

The gaps in disaster management system in India: (11:31 AM)

- **At national level:**
- **i. Institutional Mechanism:**
- Though NDMA is functional,it does not have the manpower and resources at its disposal for pre-disaster activities. *but*
- The NIDM R&D and training program efficiency is affected for similar reasons.
- The NEC becomes more active mostly in the post-disaster phase and hence, less focussed on pre-disaster.
- The NDRF has less manpower and less technological resources and hence, no major role in pre-disaster management activities.

ii. Finances:

- At the national or state levels the mitigation funds are still not created and hence, effective allocation is done only to response funds.
- The government says that the mitigation activities have to be integrated with the development activities and there is already enough development funding or development budgetary allocation.
- Hence, no need for separate mitigation funding but rather a need for technologically aligning mitigation with development.
- However, the ground reality is that mitigation activities are affected adversely.
- Hence, though we officially have a pre-disaster approach, practically, the focus is on post-disaster because of the lack of cohesion and mutual reinforcement between development and mitigation.

At the State level:

- Similar challenges are faced by the states.
- SDMF is missing at the state level
- R&D and training infrastructure are missing.
- NIDM lacks efficiency with respect to states.

At the district level:

- Similar challenges are percolated to the district level as well.

Role of a District Magistrate during a disaster as per the Crisis Management Report of 2nd ARC: (11:50 AM)

- Engagement and coordination with state and central levels.
- Proper understanding of policy, guidelines, and plans.
- Proper understanding of Standard Operating Procedures (SOPs) during any disaster.
- Sensitizing stakeholders.
- With respect to **preparedness**, the District Magistrate should:
- a. Create rescue shelters.
- b. Ensure public awareness messages.
- c. Community engagement and mobilisation.
- d. Effective early warning system.
- e. Efficient communication systems.
- f. Pre-planned response mechanisms.
- g. Timely mock drills and exercises.

Natural and Man-Made Hazards in India: (11:54 AM)

- **Refer to the handout.*
- *It includes:*
- *Various types of disasters.*
- *Zonation.*
- *Vulnerabilities.*
- *Guidelines.*
- *Management strategies.*
- *Dos and Don'ts.*

NOTE: The **syllabus of Disaster Management concludes** with this class.