



Challenges in Disaster Response

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Resources – Location of NDRF BNs, RRCs & TPLs



EXISTING RRCs

1. Aizwal- 1 BN
2. Agartala- 1 BN
3. Kolkata- 2 BN
4. Siliguri- 2 BN
5. Pakyong- 2 BN
6. Balasore- 3 BN
7. Chennai- 4 BN
8. Thrissur/ Ernakulum - 4BN
9. Port Blair- 4 BN
- 10.Mumbai- 5 BN
- 11.Gandhinagar- 6 BN
- 12.Nareli- 6 BN
- 13.Noida- 8 BN
- 14.Supaul- 9 BN
- 15.Ranchi- 9 BN
- 16.Vishakhapatnam- 10 BN
- 17.Bangalore- 10 BN
- 18.Hyderabad- 10 BN
- 19.Lucknow- 11 BN
- 20.Gorakhpur-11 BN
- 21.Bhopal- 11 BN
- 22.Dimapur/kohima- 12 BN
- 23.Srinagar-13 BN
- 24.Nalagarh- 14 BN
- 25.Nurpur- 14 BN
- 26.Jhajra- 15 BN
- 27.Dwarka- 16 BN
- 28.R K Puram- 16 BN



★ BNHQ

- 1 Bn Patgaon Assam
- 2 Bn Haringhata (WB)
- 3 Bn Mundaii Odisha
- 4 Bn Arakkonam (TN)
- 5 Bn Pune (MH)
- 6 Bn Vadodara (Guj)
- 7 Bn Bhatinda (Punjab)
- 8 Bn Ghaziabad (UP)
- 9 Bn Bihta (Bihar)
- 10 Bn Vijayawada (A.P)
- 11 Bn Varanasi(U.P)
- 12 Bn Doimukh (AP)
- 13 Bn Ladhwal (Pun)
- 14 Bn Nurpur (HP)
- 15 Bn Gadarpur (UKD)
- 16 Bn Dwarka (N/Delhi)

■ TPL

1. Guwahati (Assam)
2. Durg (Chhatisgarh)
3. Tirunelveli (TN) (NPP)
4. Nagpur (MH)
5. Palghar (MH) (NPP)
6. Surat (GJ) (NPP)
7. Kota (RJ) (NPP)
8. Rohtak (Haryana)
9. Jodhpur O. Hostel(Delhi)
10. Bulandshahr (UP) (NPP)
11. Dardaganj, Patna (Bihar)
12. Deoghar (Jharkhand)
13. Uttar Kannada (KA) (NPP)
14. Varanasi Ghat (UP)
15. Dibrugarh (Assam)
16. Imphal West (Manipur)
17. Thizama, Kohima (Nagaland)
18. Udhampur (J & K)
19. Leh (Ladakh)
20. Jammu (J & K)
21. Samba (J & K)
22. Rampur, Shimla (HP)
23. Punchkula, (HR)
24. Slapper, Mandi (HP)
25. IGI Airport (Delhi)

NDRF footprint at 69 locations (★ 16 BN HQ + ■ 28 RRCs + ■ 25 TPLs)



Core Competencies



Hydro Meteorological Disasters

Collapsed Structure Search and Rescue

CBRN Emergencies

Mountain SAR / High Rise Rescue

Forest Fires

Medical First Response

Canine and Technical Search

Animal Disaster Response



Stakeholders in Disaster Response



MAIN HADR AGENCIES



IDS HQ



INDIAN ARMY



INDIAN NAVY



INDIAN AIR FORCE



INDIAN COAST GUARD



NDRF

PMF/CAPFs



ASSAM RIFLES



BSF



CISF



ITBP



CRPF



SSB

EARLY WARNING AGENCIES



IMD



CWC



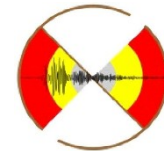
INCOIS



GSI



DGRE



NCS



FSI

Challenges in Disaster Response

- ✓ Situational Awareness
- ✓ Communication
- ✓ Mobilization
- ✓ Prioritization
- ✓ Collaboration



➤ **Problem Statement**

- ✓ Reliance on historical data & static vulnerability list
- ✓ Pre/during/post disaster input from ground zero
- ✓ Delay could impact positioning of resources and manpower

➤ **Specific Requirement**

- ✓ Direct operational access to satellite-based input through GIS Dashboard
- ✓ Actionable input – dynamic risk modelling

➤ **How it will enhance efficiency**

- ✓ Reduce travel time
- ✓ Timely evacuation, save more lives – Response in Cyclones

**Chamoli Glacial Outburst (2021) / Sikkim Glacial Outburst (2023)/
Wayanad Landslide (2024) / Thoothukudi Floods (2023)**



➤ **Problem Statement**

- ✓ Lack of knowledge on inundation, damaged/blocked routes
- ✓ No common operating picture, duplication of work

➤ **Specific Requirement**

- ✓ Integrated platform – ICR-ER/SEOC/DEOC

➤ **How it will enhance efficiency**

- ✓ Undertake dynamic tasking, close gaps, avoid over concentration of resources
- ✓ Prioritize reinforcements, air assets

**Jammu & Punjab Floods (2025)/
Vijaywada Floods (2024)/ Vadodara Floods (2024)**



➤ **Problem Statement**

- ✓ Need for Rapid Damage Assessment
- ✓ Initial input often slow, ground recce is time taking process
- ✓ Absence of full picture results in initial low priority focus

➤ **Specific Requirement**

- ✓ AI/ML tools that automatically process satellite, UAV and crowd-sourced images to classify damage
- ✓ Heat Maps

➤ **How it will enhance efficiency**

- ✓ Help to prioritize sectors for evacuation & rescue
- ✓ More life saving action and less exploratory

**Silkyara Tunnel Rescue(2023)/ Srisalem LBC Tunnel Rescue (2025)/
Vishkhatnam Styrene Gas Leak (2020)/ Kedarnath flash floods & landslides (2013)**



➤ **Problem Statement**

- ✓ Collapse of mobile network and local infrastructure
- ✓ Delayed reporting/ reinforcements/medevac

➤ **Specific Requirement**

- ✓ Layered and redundant commn
- ✓ Technical inter-operability
- ✓ IDRN - Geo tagging

➤ **How it will enhance efficiency**

- ✓ Better coordination
- ✓ Ensure safety & security

**Chasoti Cloudburst (2025)/ Dharali Flash Flood (2025)/
Mana Avalanche Rescue (2025)/ Balasore Train Accident (2023)**



➤ **Problem Statement**

- ✓ Multi-level coordination required in trans-boundary disasters
- ✓ Reactive collaboration leads to delay

➤ **Specific Requirement**

- ✓ Technology sharing arrangements as per SOP/Protocols
- ✓ Training on common tools and procedures – ICMS Dashboard

➤ **How it will enhance efficiency**

- ✓ Scaling up of Ops without chaos – Joint Planning/Resource Pooling
- ✓ Integration of external assets as force multipliers
- ✓ Inter-State Deployment - Concept

**Op Brahma – Myanmar (2025)/ Op Sagar Bandhu – Sri Lanka (2025)/
Cyclone Biparjoy (2023)**



THANKS