



# **Session 10 : Safeguarding Communities in Flood Management**

*Atul Karwal, IPS  
Director General, NDRF*



# NATIONAL DISASTER RESPONSE FORCE



- Raised in **Jan 2006**
- **16 Battalions** – approx. 18000 rescuers
- Spread across **44 locations** in the country
- Mandated to respond for **all natural and manmade disasters**
- **Deployed internationally** also – Japan (2011), Nepal (2015) & Turkiye (2023)



# Specializations of NDRF



**USAR**  
*Urban Search & Rescue*



**CBRN**  
*Chemical Biological  
Radiological & Nuclear  
Emergency*



**MFR**  
*Medical First  
Responder*

**ADRC**  
*Aquatic Disaster  
Response Course*



**School Safety Programme**



*Mountain Search &  
Rescue*



**Deep Diving Search &  
Rescue**



**Avalanche  
Search & Rescue**



**Equipment &  
maintenance**



**CADRE**  
*Community Action  
for Disaster  
Response*



**Canine  
Training**





# NDRF PREPAREDNESS FOR FLOODS



## i. Coordination with flood prone States and other stakeholders.

Annual Pre-monsoon Relief Commissioners Conference  
Annual SDRF Conference

## ii. Pre-positioning Plan in consultation with the respective flood prone states.

## iii. Conduct recce of flood prone areas.







# NDRF PREPAREDNESS FOR FLOODS



iv. Training of Rescuers + Fitness.



v. Preparation of equipment.







## NDRF PREPAREDNESS FOR FLOODS



- vi. Training of Volunteers & Other stakeholders.
- vii. Conduct Community Awareness Programmes, School Safety Programmes.







# COMMUNITY AWARENESS PROGRAMME















# Mock Exercise







**DURING FLOODS**



# NDRF ACTIONS DURING FLOODS



- i. Keep close watch over the forecast.
- ii. Coordination with administration.
- iii. Conduct rescue/evacuation
- iv. Establish Medical Camps
- v. Assist in relief







# POST FLOODS ACTIVITIES



- i. Review of flood affected areas.
- ii. Conduct medical check up of rescuers
- iii. De-mobilization
- iv. Debriefing and documentation of learning
- v. Counselling of rescuers





# CASE STUDIES

## Silchar Floods - 2022

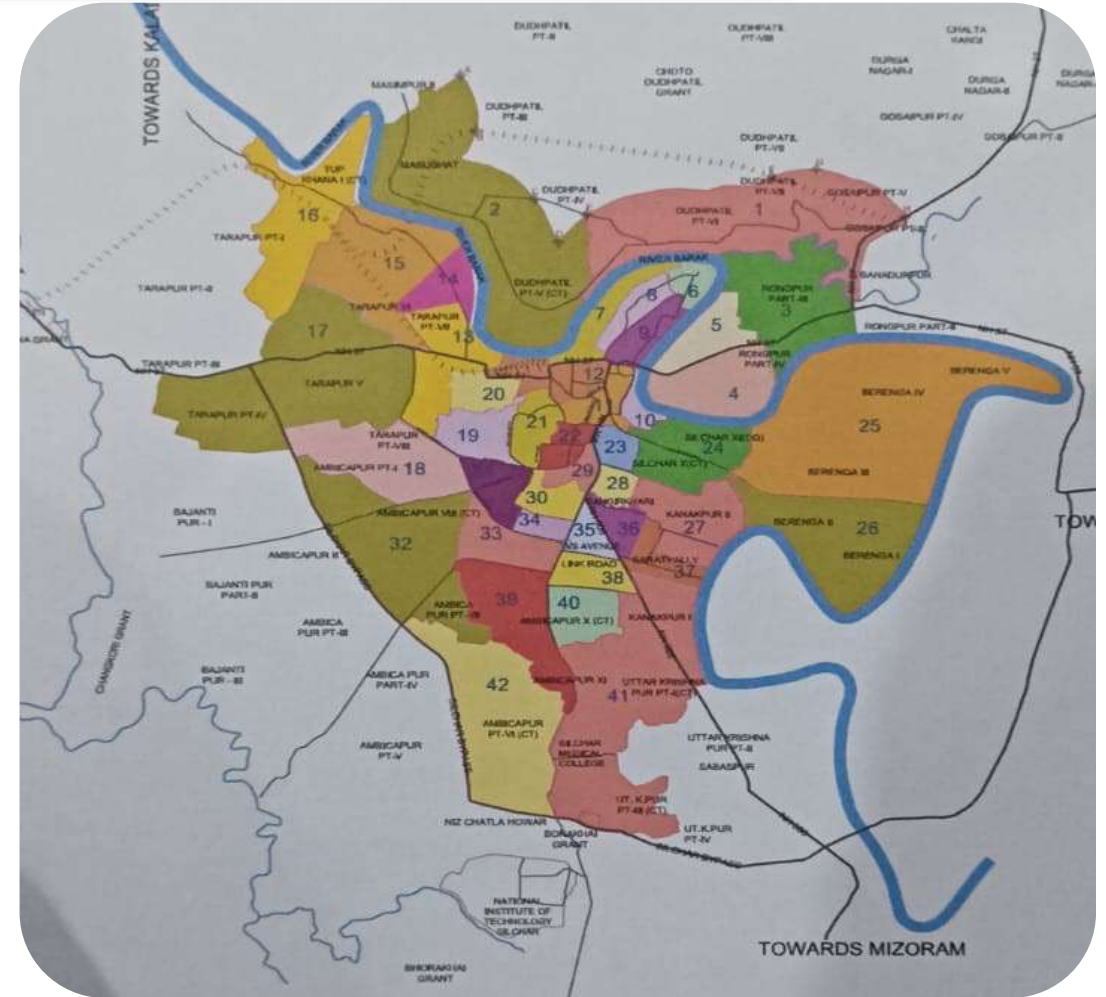




# Brief on Silchar



- **Silchar** - located 420 kms. SE of Guwahati, capital of Assam state.
- **Surrounded on three sides by Barak river** and adjoining river Ghagra, flows in the west of the city.





# Early Warnings & Advisories



1. **IMD predicted extremely** heavy rainfall
2. **Forecast of flood and landslides**
3. **Advisories issued** to public
4. **Evacuation** – from vulnerable locations to the nearest relief camps or school/community buildings for shelter.





# Pre Disaster and Post Disaster





# Reasons for Flooding

1. **Unprecedented Heavy Rainfall** : It was highest in last 10 years.
2. **Sudden Rise in Water Level**: River flowed above Danger Level for 13 days w.e.f. 19<sup>th</sup> June, 2022.
3. **Breach of dyke**
4. **Human Activities**
5. **Geographical Location**





# Preparedness

1. **State & district disaster management authorities** had made **Flood Contingency Plan / Disaster Management Plan**
2. **SDRF & NDRF** - Teams Deployed Proactively
3. **Flood Preparedness Meetings** held - Co-ordination ensured
4. **Resource Mobilisation**
5. **Whatsapp Groups** of all the stake holders – ensuring prompt response
6. **Dissemination of Weather Alerts** several times a day
7. **Evacuation** from vulnerable areas



# Response to Flood

1. **Flood Rescue Operation conducted in two phases :**
  - a) **1<sup>st</sup> Wave of Floods - 14<sup>th</sup> May to 20<sup>th</sup> May, 2022 and**
  - b) **2<sup>nd</sup> Wave of Floods - 19<sup>th</sup> June to 30<sup>th</sup> June, 2022.**
2. **District Emergency Operation Centre**
3. **Dedicated landline** and mobile numbers, along with **VHF sets** and **Satellite Phone**.
4. **Resources involved - Rescue Boats** - SDRF, NDRF, CRPF, Army + Country Boats
5. Large number of **pump sets and ambulances**
6. **292 Relief Camps and 129 Relief Centers**





# AIR LIFTING OF NDRF TEAMS



4 Teams each from Odisha and Arunanchal Pradesh air-lifted to Silchar)



# Challenges in Rescue Operation



- **Maneuvering of Boats** – narrow lanes
- **Large Scale Power Outrage** – affecting mobile communication network.
- **Huge No. of Distress Calls** – Responding was a big task. Sometimes different boats from different agencies reached the same spot.
- **Distribution of Packaged Drinking Water** - Supply of relief materials to the people sheltering in buildings by boats (24X7) was a challenge.
- **Mobilization of Resources** – delayed due to Landslides





# GLIMPSES OF OPERATIONS







# GLIMPSES OF OPERATIONS







# RELIEF DISTRIBUTION





## What was useful



- ✓ **Disaster Management Plans For State and Districts**
- ✓ **Telecommunication System** with provision of extra batteries
- ✓ **Use of SMS Gateway** system for alerts
- ✓ **Lighting Arrangements** for Prolonged Operations.
- ✓ **Dedicated Workshop** for repairing of OBMs and Rubber Boats.
- ✓ **Awareness Campaign and Training** to the vulnerable sections of society.
- ✓ **Training of volunteers** for disaster response – Aapda Mitras, E-content





# What was useful



- ✓ **Mock Exercises** - every district covered once in 3 year
- ✓ **Central Database** on resource availability – **India Disaster Response Network**
- ✓ **Planned proactive deployment + extra teams flown in**
- ✓ **Advance survey of embankments and repair works**
- ✓ **All Weather Helipads at** strategic locations
- ✓ **Incident Response System** - Unity of command at local level
- ✓ **Call Centre with web based information** on re-habilitation /re-location of relatives/family members



# Thank

# You

