



State Disaster Response Force



Odisha State Disaster Management Authority

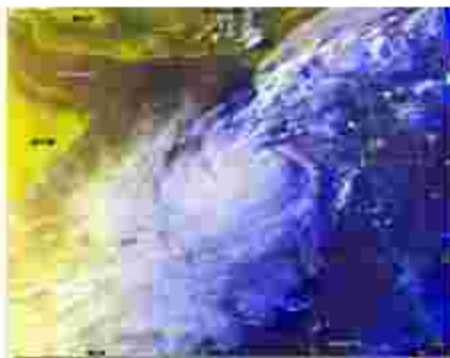
Odisha: Disaster profile

- The Odisha state is located in the eastern seaboard of India
- The geo-climatic conditions make almost the entire State vulnerable to different disasters
- The state is one of the most disaster prone states in the country
- The 480 Kms of coastline is frequently affected by tropical cyclones
- 11 major river systems create frequent floods
- About two-third of the total cultivated area being rain-dependent, drought poses a serious threat at regular intervals in the event of failure of Monsoon.
- Some parts of the state come under Earthquake Risk Zone-III (Moderate Damage Risk Zone) covering 44 out of the 106 urban local bodies
- Tsunami is also a potential hazard for the State.



Disasters threat to Odisha

- Floods
- Cyclone
- Drought
- Earthquake
- Tsunami/ Storm Surge
- Landslides
- Heat wave
- Thunderstorm/Lightning
- Chemical disasters
- Coastal Erosion
- Snakebite
- Manmade Disasters



Learning from Super Cyclone of 1999



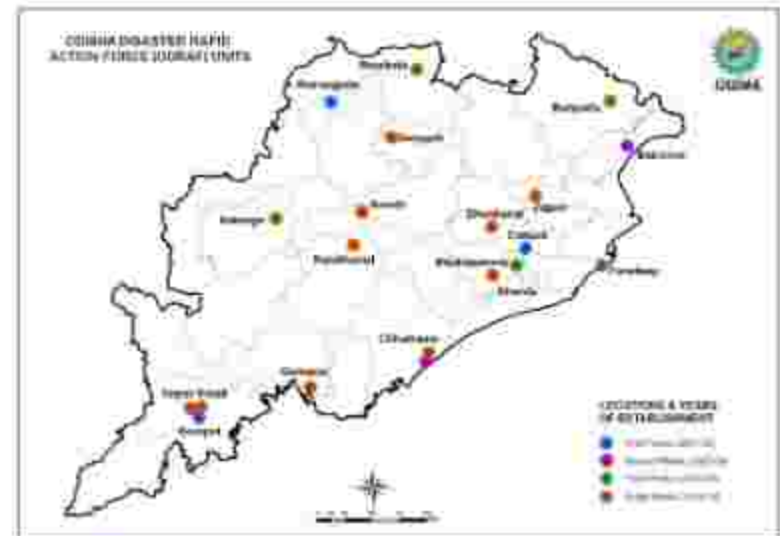
OSDMA

- A Robust Institutional Mechanism to bring GO-NGO synergy
 - Odisha Disaster Management Authority (OSDMA) set up in December 1999 to look after Disaster Mitigation activities.
- Dedicated Response force to strengthen Search & Rescue Operation
 - Odisha Disaster Rapid Action Force (ODRAF) raised in 2001 – 20 units set up so far.
 - Fire Services strengthened and converted to Fire & Disaster Response Force – 335 units across the state
- Safe shelters for the vulnerable population
 - Cyclone-proof shelter buildings along the coast constructed.
- Fail Proof Early warning system
 - Forecasting and warning dissemination systems improved; Social media used for early warning communication.
- Disaster Management Planning at all levels.
- Systemic improvement and capacity enhancement of official machinery and community taken up after super cyclone.

Odisha Disaster Rapid Action Force (ODRAF)



- First Disaster Response force of India
- Presently 20 ODRAF units operating
- Constituted out of the State Police Forces
- Approx. 1000 ODRAF personnel operating in the state
- About 120 types of emergency equipment provided
- Equipment, maintenance, running cost provided by OSDMA
- Capacity building of personnel taken up by OSDMA
- Deployment lies with Special Relief Commissioner/OSDMA/Addl. DG (Law & Order)/District Authorities



ODRAF was created vide Govt. in home Department resolution no-939/CD dated 7th June 2001

Equipped and Trained Disaster Response Force



Composition

- Each Unit- One Platoon (40 - 50 personnel)
- Platoon Commander-1 (Sub-Inspector)
- Section Commander-6 (Havildar)
- Constables -35-
- Support staff – 8



ODRAF Aims at :





ODRAF is Designed

To act
immediately

To assist district
administration

To act as first
line of support

To move before
a disaster
strikes

To locate
equipment in
strategic places

To conduct
search, rescue,
evacuation &
relief



Emergency Management Equipment - ODRAF

Relief line
clearance

Water rescue

Collapsed
Structure
Search and
Rescue (CSSR)

Rescue from
Height and
mountaineering

Transportation

Communication

Casualty
management

Night time
disaster
management

Flood Rescue Boat Operation



Medical First Responder



Collapse Structure Search & Rescue



Rope Rescue



Skill Matrix of ODRAF

Numeric identification of skill level

- 0- can not operate the equipment
 - 1-can operate with some body's assistance
 - 2-Independently operate the equipment
 - 3- operate efficiently and repair & maintain it
- Almost 90% ODRAF personnel coming under Skill Matrix 2 & 3

Skill areas divided on application protocol

- Water rescue
- CSSR
- Relief line clearance
- Transportation
- Communication
- Medical First Responder
- Logistics and maintenance

Skill of ODRAF Jawan is synonymous with the emergency equipment

LENDING A HELPING HAND



CYCLONE HUDHUD ANDHRA PRADESH 2014



KERLA FLOOD 2018



TSUNAMI 2004

ANDAMAN & NICOBAR

Sent 25 no. of 5 KVA DG Set & Relief Material to the Affected People of Andaman & Nicobar



- ▶ Total Manpower Deployed- 559
- ▶ Total no. of Power Saw Engaged- 273 Nos
- ▶ Fallen Trees Removed - 5740



- ▶ Total Manpower Deployed- 245
- ▶ Total Boat Deployed - 64
- ▶ Personnel Rescued - 4796

Support to West Bengal



10 ODRAF Teams (270 Personnel)



30 Fire Service Teams (366 Personnel)



08 Teams of NDRF, 3rd Bn. Munduli

AMPHAN - 2020

Proposal for smaller ODRAF units at Dist. Level	Procurement of more specialized Search and Rescue Equipment	Skill up- gradation	Specialized Task forces for accidents on NH	Training in Psychological First Aid
Linkages with Disaster Management Teams	Specialized Training on Chemical, Biological, Radiological & Nuclear Disasters (CBRN)	Procurement of CBRN Equipment	Making ODRAF a dedicated SAR force like NDRF	Regional/ State level Centre for Search & Rescue
Collaboration with NDRF and Military forces	Training by internationally reputed trainers and Institutions like INSARAG and FEMA		Establishment of State Institute of Disaster Management (SIDM) in the State for training & Capacity building of ODRAF on sustained basis	



ODISHA FIRE SERVICE

FIRE SERVICES



Set up in the pre-independence (1942)

Now, considered as one of the finest in the country

With 339 Fire Stations, the State can boast of the most favourable population to fire station ratio

Each Fire Station is developed as a multi-hazard & disaster response centre- unique in the country

A policy of the government that pays rich dividend during natural disasters: Odisha as a leading state in the country on disaster response

THE POLICY THAT PAYS RICH DIVIDEND



Fire Stations of the state have been provided with Power Boat, OBM, Inflatable Tower Lights, Power Saws, Combi-tools with Power Pack, SCUBA Set and other disaster related equipment.

During Cyclones Phailin (12-10-2013), Hudhud (12-10-2014), Titli (11-10-2018), Fani (03-05-2019), Bulbul (08-11-2029), Amphan (20-05-2020), Yaas (26-05-2021) Odisha Fire Service has been functioning as the backbone of the State's disaster-management plans.

Battled 7 cyclones in last seven years including extending helping hands to neighbouring AP (Hudhud), Kerala flood (2018) & Meghalaya Mine Rescue (2018), WB (Amphan-2020)

Cyclone Hudhud











Cyclone Amphan





OPPO F11 Pro













Rescue of a Pregnant Woman - Amphan





Airlift to Kerala



Kelala Flood





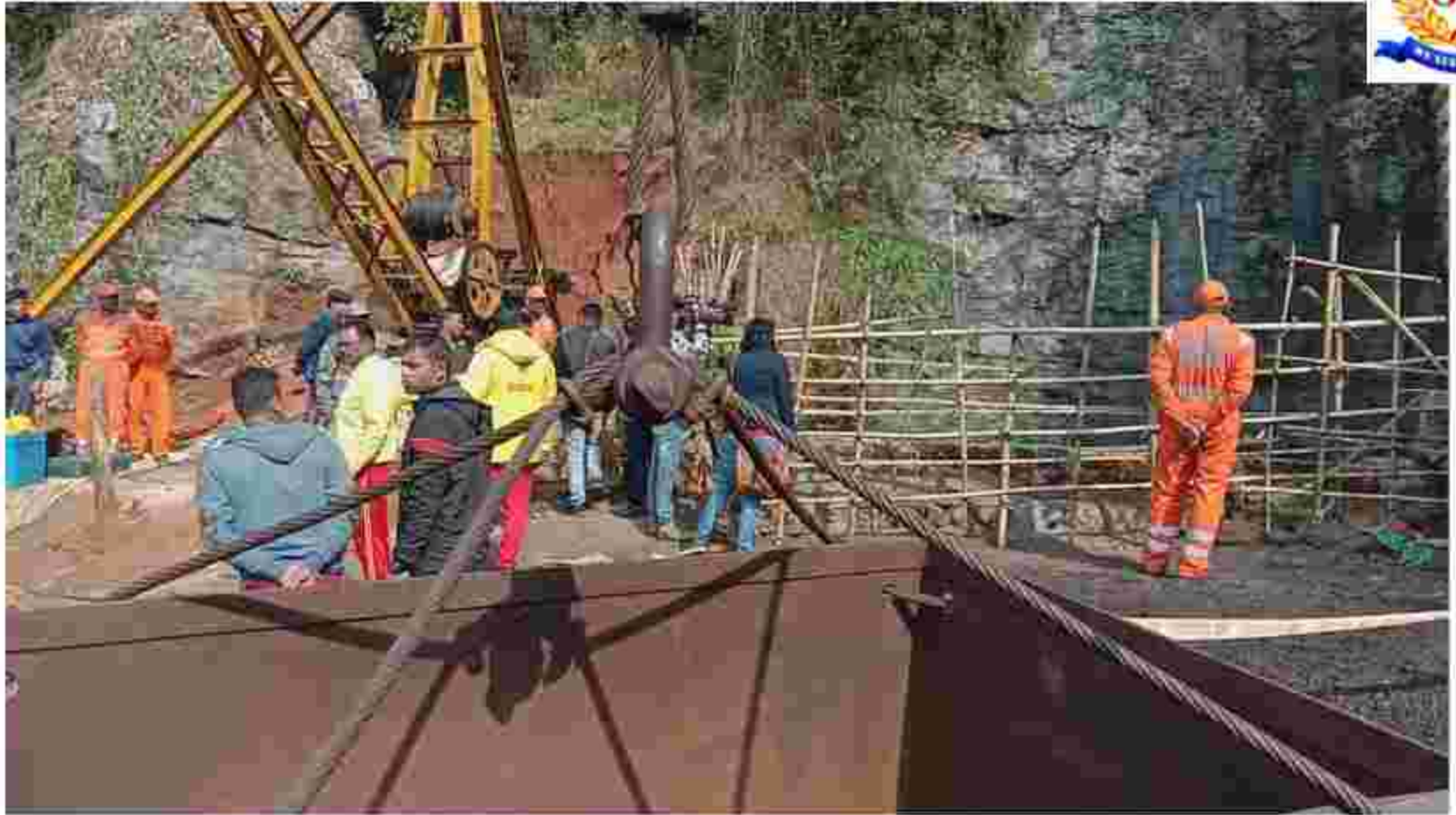








Meghalaya Mine Rescue





Victor on Redline 1















Road Accidents



Covid Warriors



Disinfection Drive of Covid Facilities; 35 Covid Hospitals, 22 Testing Centres & 16 Covid Care Centres

1 lakh ltr of Sodium Hypochlorite Solution (1:100 part ; 10 million ltrs) sprayed over 50,000 occasions



Disinfection of Covid facilities



Car Festival





Donation of Plasma; “We serve to Save”



Training & Capacity Building



3 training institutes are functioning in the state to impart training.

- i. OFDRA (Odisha Fire and Disaster Response Academy), Bhubaneswar/RTC Bhubaneswar.
- ii. OFDRI (Odisha Fire and Disaster Response Institute), Naraj, Cuttack.
- iii. OSWALI (Odisha State Watermanship and Life Guard Institute) Ramchandi, Puri



Odisha State Watermanship and Life Guard Institute (OSWALI),
Ramchandi, Puri.



Fire Evacuation / Mock Drill



Fire Park









Striking Force





Decentralized Disaster Management

Post Super Cyclone Interventions



The 1st Disaster Management authority of the Country was set up in December 1999 to look after Disaster preparedness activities

Change in the Governance policy

Systemic improvement and capacity enhancement of official machinery and community taken up after super cyclone



Cyclone-proof multipurpose shelter buildings along the coast constructed



Rapid Action Force (DRAF) raised in 2001 to deal with the task of search & rescue



Disaster Management Planning at all levels



Massive awareness raising activities taken up

Robust Disaster Early warning system



Fall safe communication network

Country's 1st dedicated civil VHF network covering 314 blocks and 30 districts

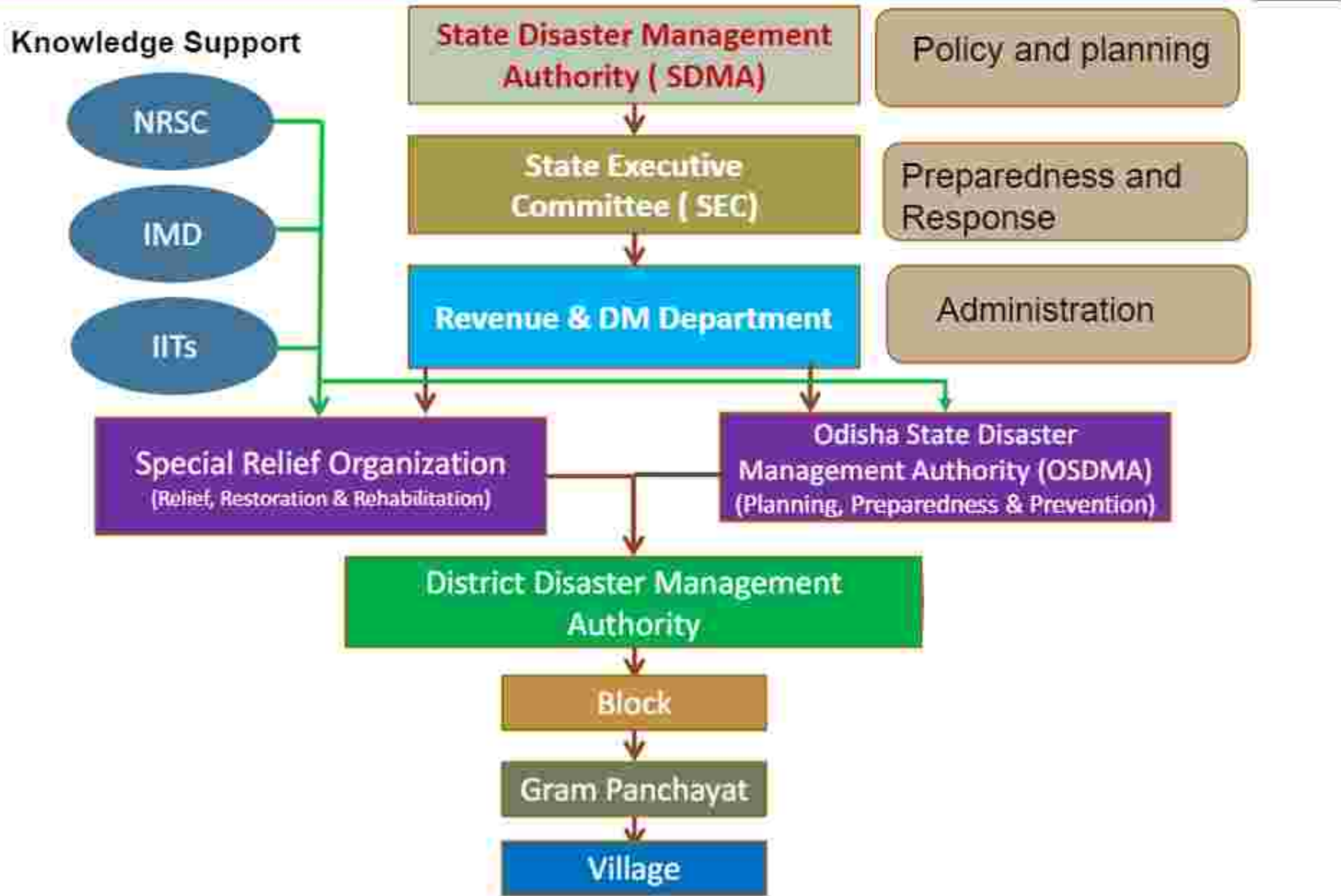
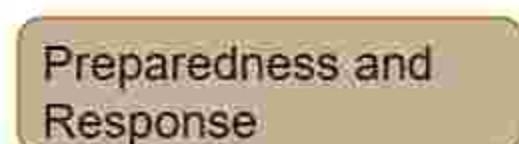


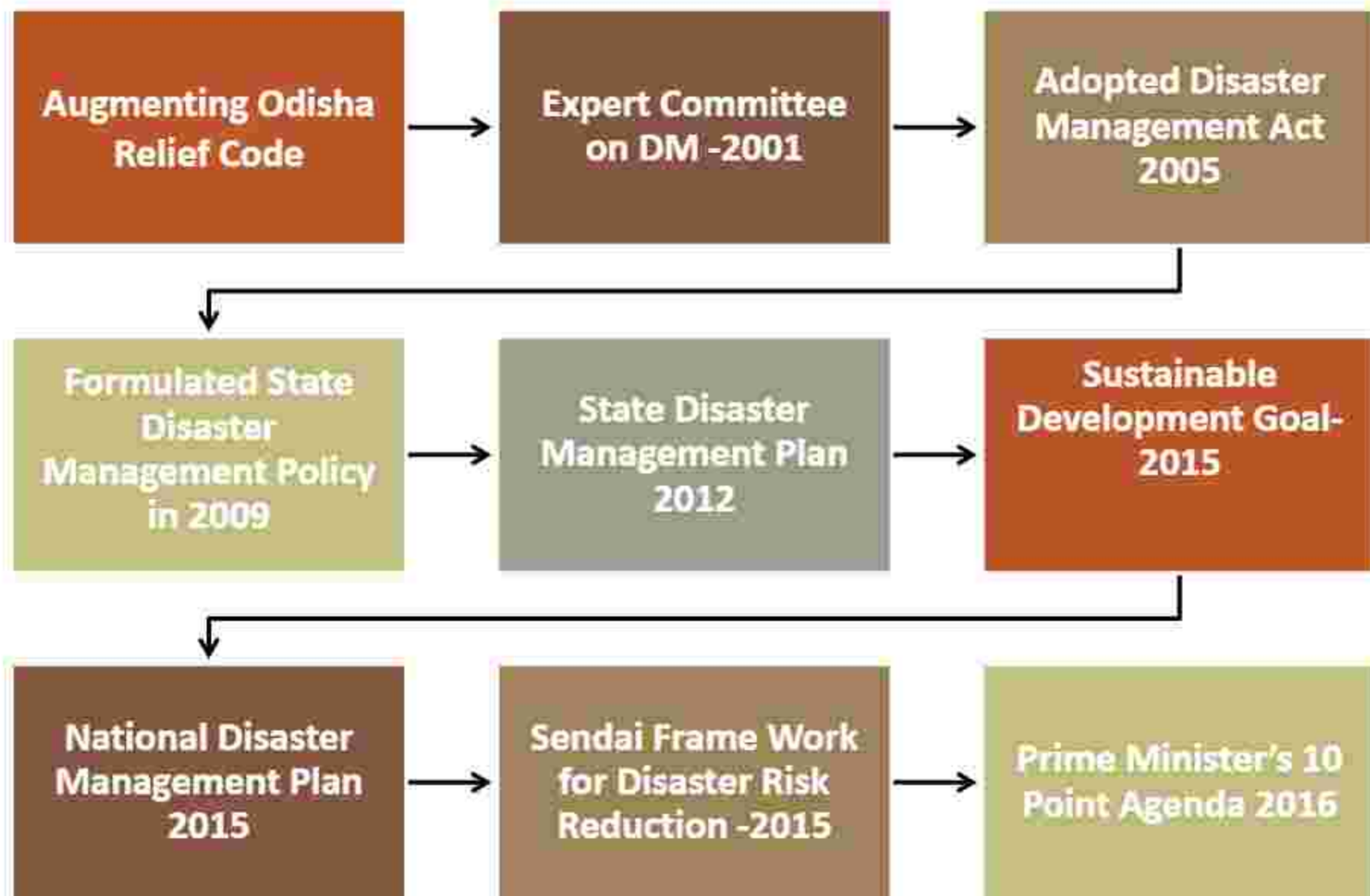
Community mobilization taken up in large scale with provision of training on key aspects in more than 23000 villages under Disaster Risk Management programme

Paradigm shift in approach to disaster management helped overcome latest disaster with minimal casualty and damage

Institutional Mechanism for DM

Knowledge Support







Mainstreaming DRR in the Governance framework of all the Departments



OSDMA



Every Life Counts Approach



DRR incorporated to

1. Infrastructure
2. Livelihoods
3. Social Development

Benchmarks in DRR

1. Evacuation
2. Relief administration
3. Early Warning
- 4 Recovery

Strengthened Preparedness (Restoration)

1. District & Block: 24 hours
2. GP & Villages: 72 hours
3. Most difficult areas: 3-5 days



NGOs are the
intellectual Face of
Government



- DM plans at village, Gram Panchayat, Block, District and State levels
- Village DM Plan prepared and Village DM Committees formed
- Community Based Disaster Preparedness approach
- Taskforce teams constituted at shelter level
- Training of Taskforce teams on shelter management and use of equipment
- Hands on training by ODRAF to community members to use the equipment
- Training of 50 volunteers per shelter within age group of 18-35
 - 25 on Search and Rescue by Civil Defence
 - 25 on First Aid skills through St John Ambulance

Strengthening Volunteerism



16450 Members & Task force of CS/FSMMC Trained on Shelter Management



66 units of Civil Defense Trained on Disaster & Tsunami Management



90,000 Community volunteers created



400 Aapada Mitra Volunteers Trained on First Aid and Search & Rescue



2700 students, YRC, NSS & NCC trained on basic Disaster Management



81 Govt. officials trained on basic Disaster Management



714 Response Force trained on Disaster Management



2642 Masons trained on Disaster resilient construction



- Creating Communication Infrastructure
- Setting up Emergency Operation Centre
- Implementing Decision Support System

122 Alert Siren Towers across the coastline

58 Satellite phones to DMs, Response force & key stakeholders

14 Early Warning Dissemination System/ Satellite Based Mobile Data Voice Terminal

Quick Deployment Antenna (QDA)

Alert Mass Messaging System (Group/Location)

168 Digital Mobile Radio

Decision Support System

Disaster Preparedness Day & National Day for Disaster Risk Reduction.

Video films Short films

IEC with information & safety tips

School safety programme

Disaster Management themes in the school curricula.

NGO coordination for improvising preparedness & awareness on disaster management.

Community level volunteers have been trained

Mock Drill & simulation exercises

Managing Super Cyclone AMPHAN

-a case study-

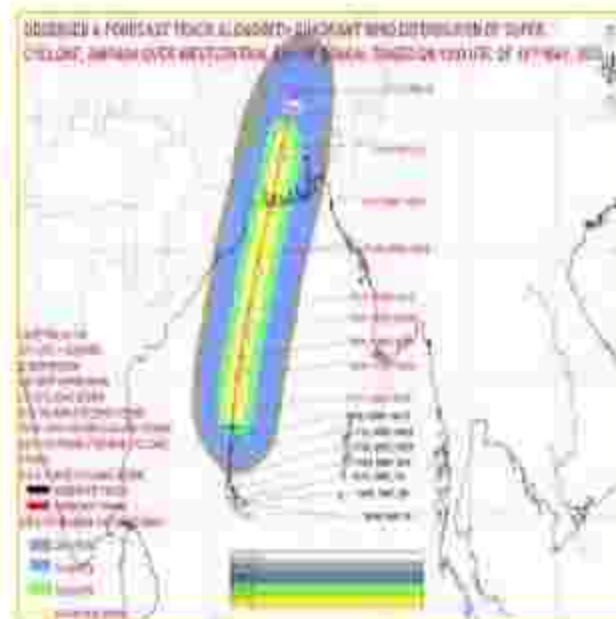


OSDMA

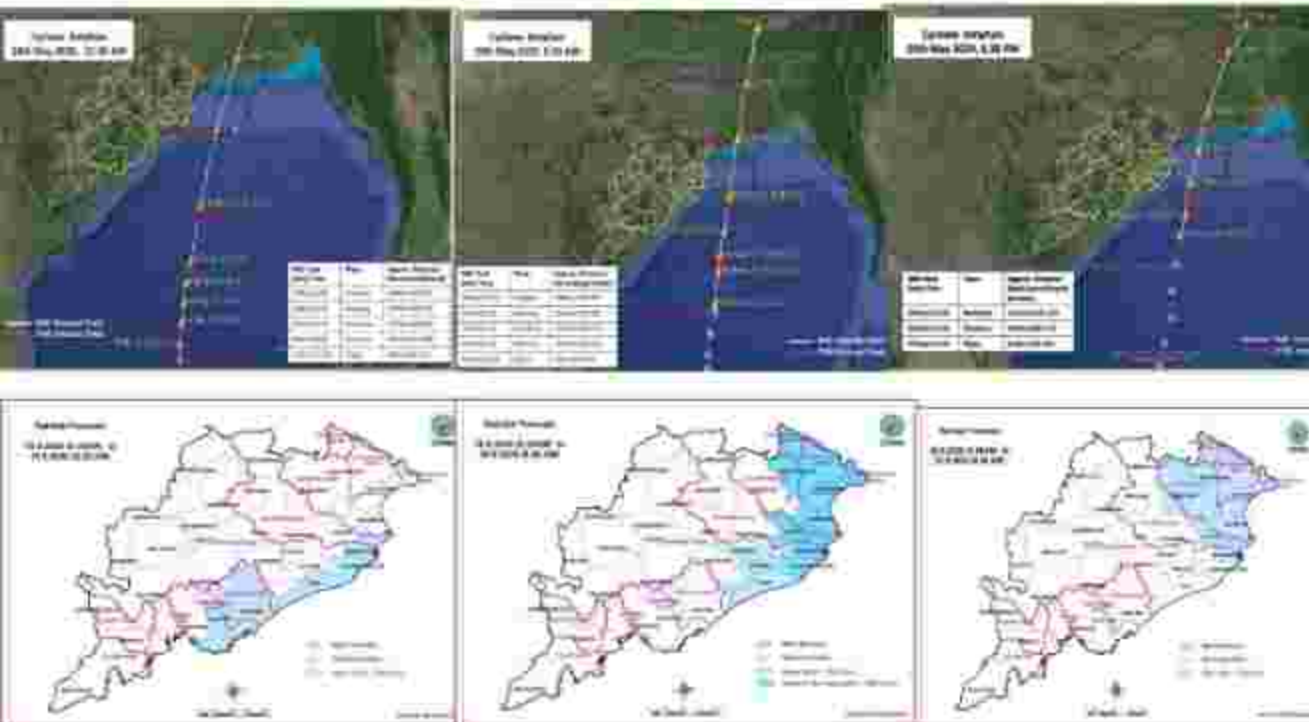
- 5:30 AM – 6:30 PM: Along Odisha coast severely affecting 5 districts
- Wind speed: 110-115 KMPH with gusting of 125 KMPH

Affected Areas and Population

- 10 Districts
- 92 Blocks
- 22 ULBs
- 1830 GPs & Wards
- 44,44,896 Population
- 8,72,049 Livestock
- 15500 Houses Damaged:
 - Fully damaged: 500
 - Partially Damaged: 15,000
- 1 Lakh Ha of Agriculture Crop



Cyclone Tracking



Observed Rainfall

Landfall:

- **Category: Extremely Severe Cyclonic Storm**
- **PLACE:** Between Digha (West Bengal) and Hatiya Islands (Bangladesh) Near Sundarban
- **TIME:** 04.00 PM of 20.05, 2020
- **WIND SPEED:** Maximum 155-165 kmph gusting to 185 kmph
- **GIS based Analysis**
- **Information Used**
 - India Meteorological Department
 - Joint Typhoon Warning Center, USA
 - Regional Integrated Multi Hazard Early Warning System (RIMES), Thailand

Preparing for the Impact



Review by Hon'ble Chief Minister

Review by Hon'ble Minister, R&DM

Review by Chief Secretary

Inter Departmental Coordination Meeting

NGO Coordination Meeting

Senior IAS, IPS Officers deputed to 4 districts e.g. Balasore, Bhadrak, Kendrapara, Jagatsinghpur



AMPHAN Readiness.....



OSDMA



4,316 Shelters used



2,00,348 people evacuated



3 Lakh messages on early crop harvesting safe storage



Free Kitchens at the Shelters



20 NDRF units deployed



210 Mobile Medical Teams & 78 Veterinary Teams



100 Special Tree-cutting units



200 road clearance units



1000+ standalone water tankers and 164 mobile tankers



279 DG Sets for drinking water



16 ODRAF units and 231 State Fire & Rescue units deployed



210 Mobile Medical Teams & 79 Veterinary Teams



1000+ standalone water tankers and 164 mobile tankers



279 DG Sets for drinking water



200 road clearance units



374 Power restoration gangs

Preparedness of Key Departments

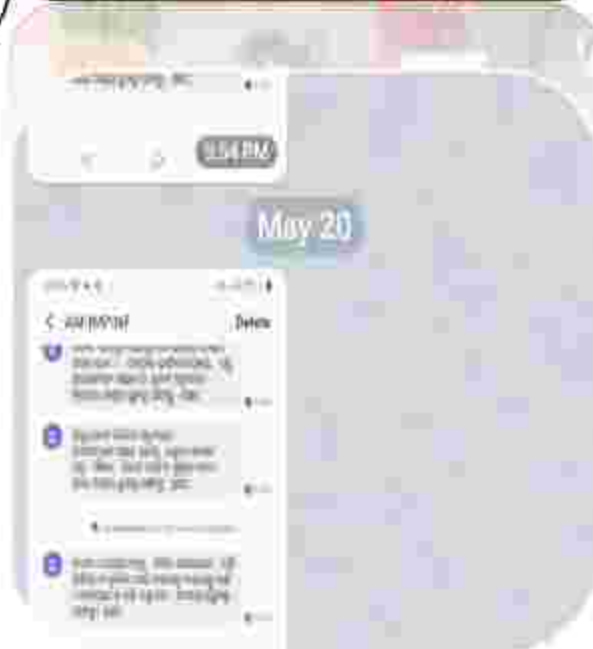
Health & Family Welfare

- 1855 Pregnant Women shifted to hospitals
- Mobile Health Teams organized for deployment
- Power back up arranged in all hospitals with fuel
- Essential medicines, anti snake venom made available



Housing & Urban Development

- 113 DG sets and 341 PVC water tankers were in readiness for deployment in 5 districts
- 20 storage reservoirs were filled to ensure post cyclone availability of adequate stock



Energy

- 340 (10 work men each) technical gangs were kept in readiness
- Materials (4305 poles, 3850 insulators & 365 KM conductors) were kept ready

Telecommunication

- TSPs arranged DG sets with fuel
- Cell-on- Wheels were in readiness for deployment, if required
- Early warning messaging through SMS to people of likely affected areas

Preparedness of Key Departments

Fishery & ARD

All 4115 number of boats went to sea for fishing were returned.

22050 number of boats in coastal districts berthed in safe places



Rural Development

- Executive Engineers were alerted.
- Men, machine, roller etc. in vulnerable locations of different roads of vulnerable districts deployed.

Water Resources

- 12 senior level Engineers were deputed to each of the identified 12 districts since 17.05.2020.
- Vulnerable locations of embankments restored
- Major and medium reservoirs depleted to 60% capacity.



Panchayat Raj & Drinking Water

- 276 DG sets in 12 districts for rural PWS
- 805 PVC tanks, 74 water tankers deployed
- 199 mobile repair units and 106 electricians kept on wheel.
- 2724 overhead tanks kept loaded
- 1828 bags of bleaching powder

Bounce Back to Normalcy (24 - 48 Hours)



Pre Positioning of Man,
Machine & Material



100% achieved



90 -100%



98% Cleared



Relief to the affected

END OF PRESENTATION