

INDIA



Webinar:
**Lessons Learnt during
Exercise IOWave 2025**

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Scenarios Exercised



Sunda Trench (25 Sept)



Makran Trench (15 Oct)

- Conducted for West Coast of India Provinces
(organisation level participation)



Fani Maore Volcano (25 Oct)

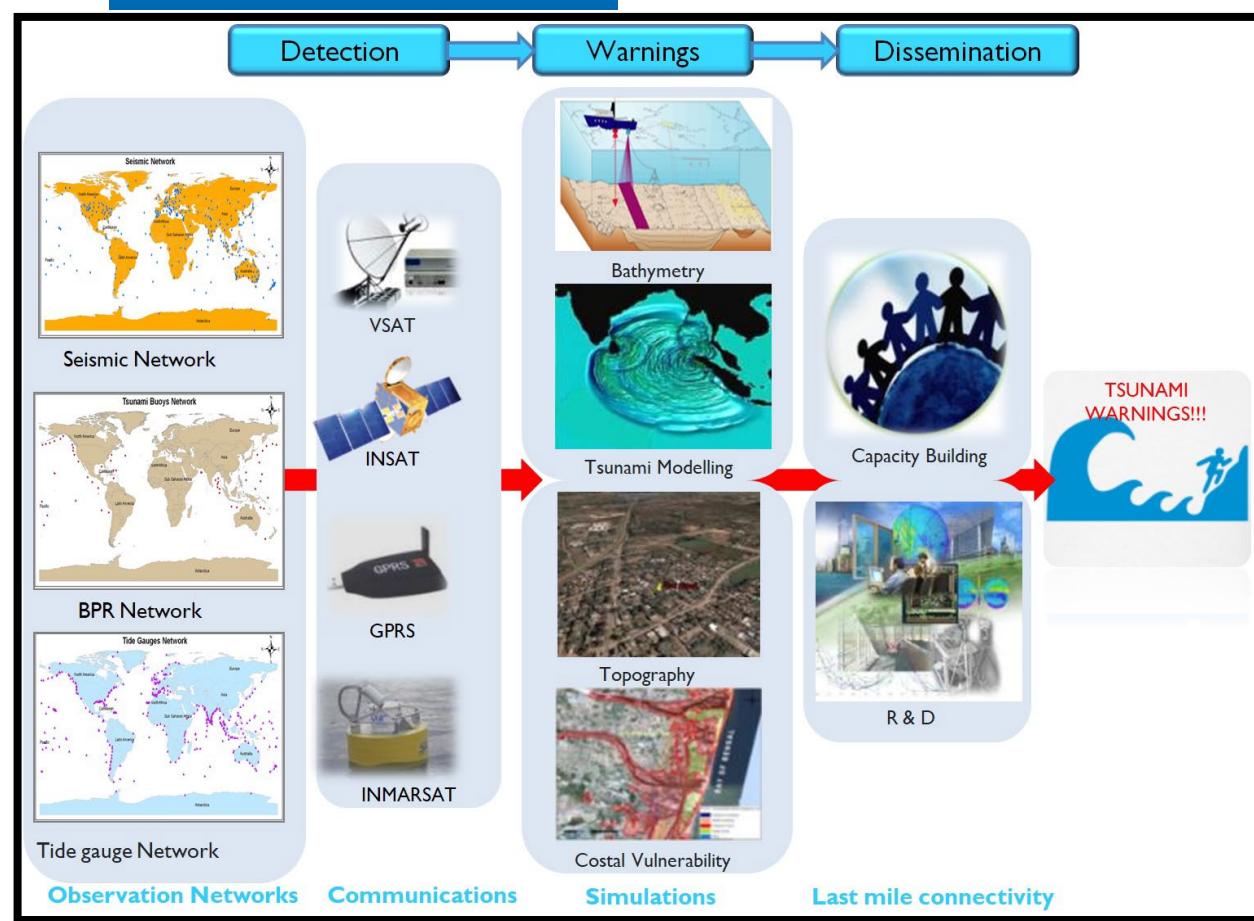


Sumatra Trench (05 Nov)

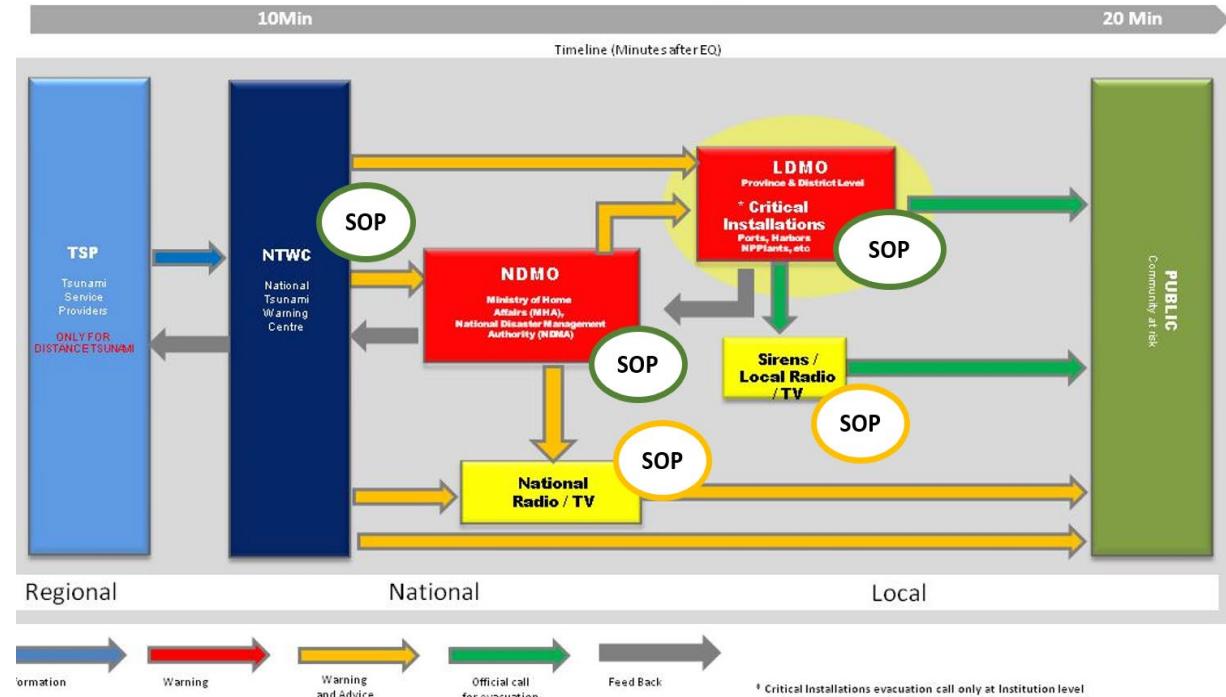
- Conducted for Andaman & Nicobar Islands
(Community Level Participation including Schools)

- As a TSP, ITEWC issued bulletins to all NTWCs in Indian Ocean Region for 4 Scenarios on 25th September, 15th October, 25th October and 05 November, 2025
- 15 bulletins issued in 12 hours duration for each scenario, and Bulletins issued through Email, SMS, GTS and Website.
- At National level, India participated the exercise for Makran & Sumatra Trench scenarios

National Tsunami Warning & Mitigation System



Tsunami Warning Chain



State/Local DMOs are responsible for public evacuations.

- India implemented Tsunami Ready programme, and 26 villages of Odisha recognised as Tsunami Ready communities by UNESCO
- During IOwave25, 4 communities of Andaman & Nicobar Islands exercised for Tsunami Ready implementation

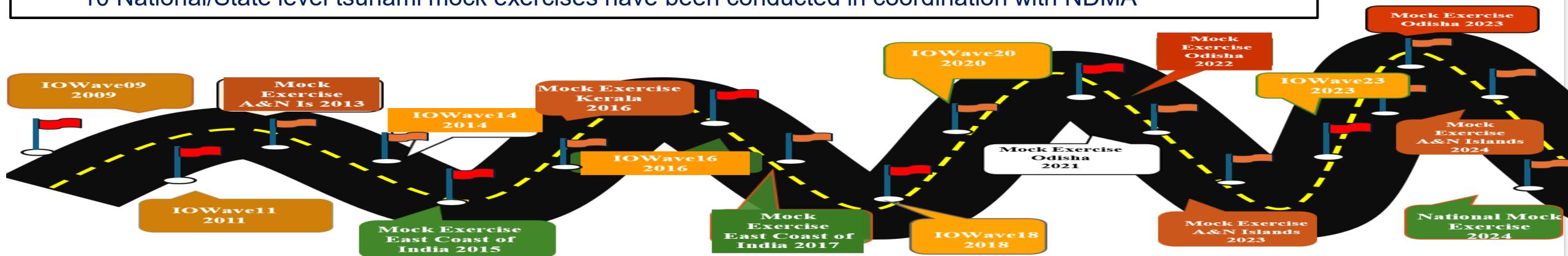
India participation in Exercise

➤ Objectives of IOWave25 Exercise:

- Validate the Warning Centre [dissemination process](#) for issuing Tsunami Bulletins to various disaster management authorities and other participating agencies.
- Validate the [reception](#) of the notification messages by DMOs and other relevant authorities.
- Validate the [access to website containing bulletins](#), threat maps and tables of arrival times and maximum wave amplitudes relating to the tsunami scenario.
- [Validate the SOPs for generating and disseminating tsunami warnings](#) to their relevant emergency response agencies, media and the public.
- [Validate the SOPs for the issuing of public safety messages](#), ordering evacuations and where possible issuing all-clear messages.
- Validate the level of [community awareness, preparedness and response](#) (including focused on Tsunami Ready Community)

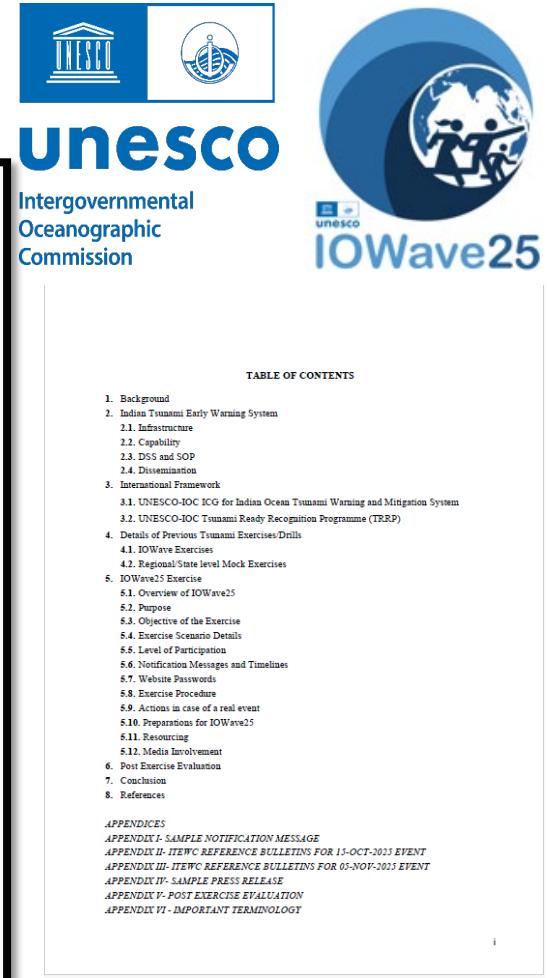
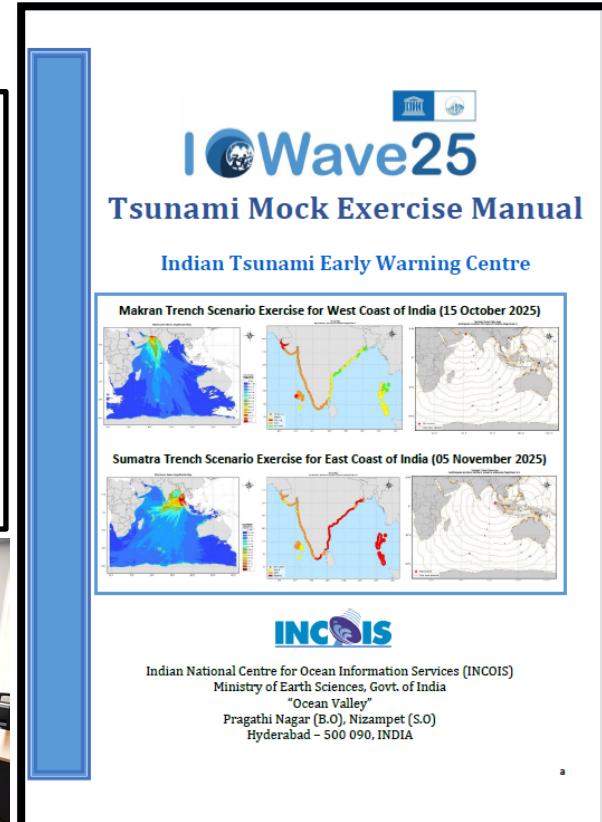
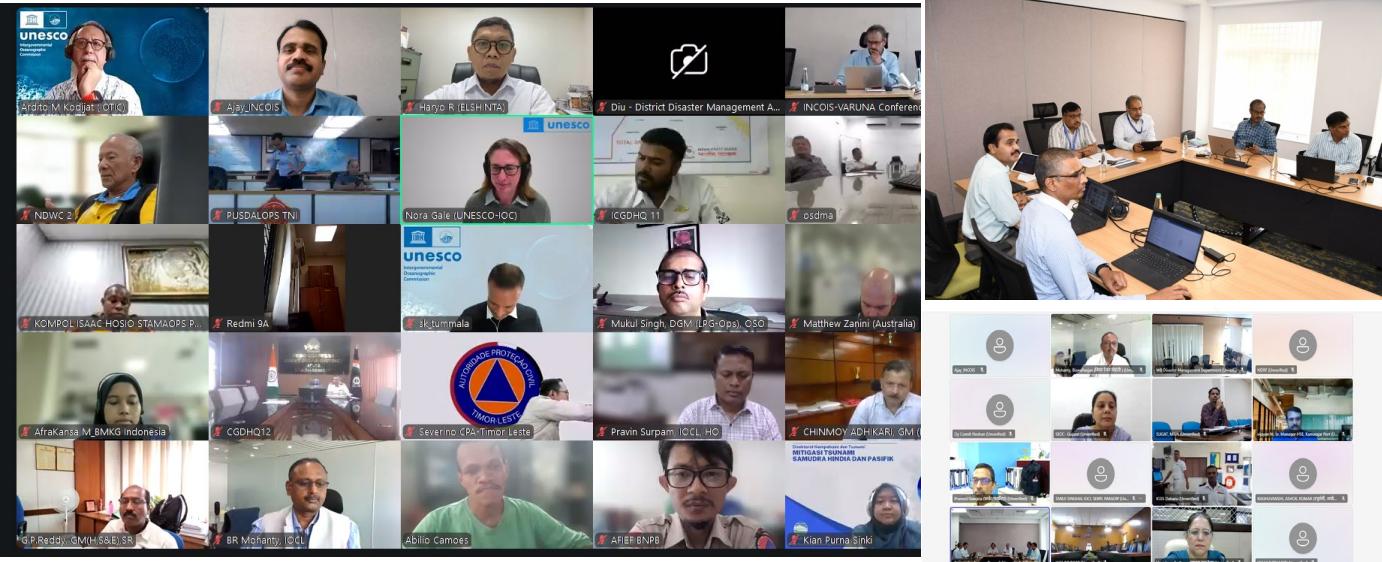
➤ Previous Exercises Participation

- As of now, 8 IOWave – Indian Ocean wide exercises have been participated in coordination with IOTWMS.
- 10 National/State level tsunami mock exercises have been conducted in coordination with NDMA



Exercise Participation

- India participated in IOTWMS pre-IOWave25 online workshop held on 4–6 August 2025, with over 150 participants from DMOs, Indian Coast Guard, Navy, NDRF, ports, shipping, oil & gas, and other sectors
- INCOIS also conducted two conclaves for east and west coasts and discussed IOWave25 planning.
- **Prepared National Tsunami Exercise manual for IOWave25**
- Coastal authorities conducted local training and coordination meetings.



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Exercise Participation

Scenario-1 (Makran Region)

Date: 15 October 2025 (Wednesday)

Time: 11:30 IST (6:00 UTC)

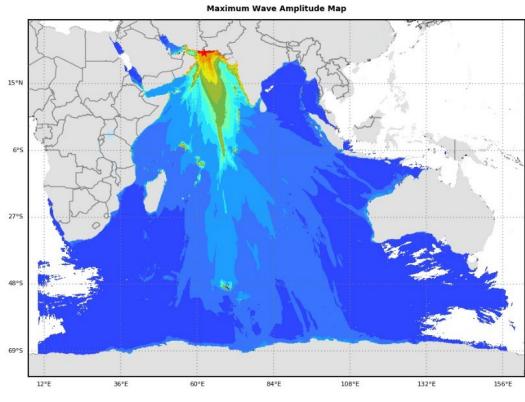
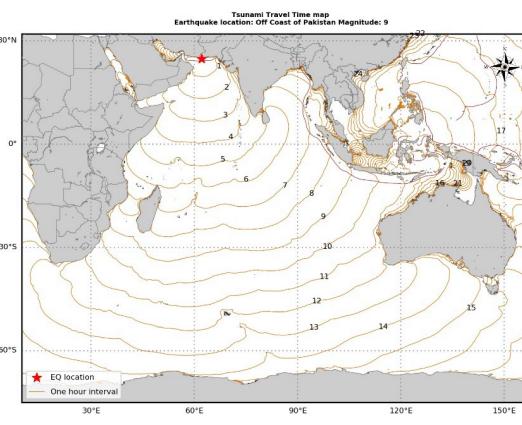
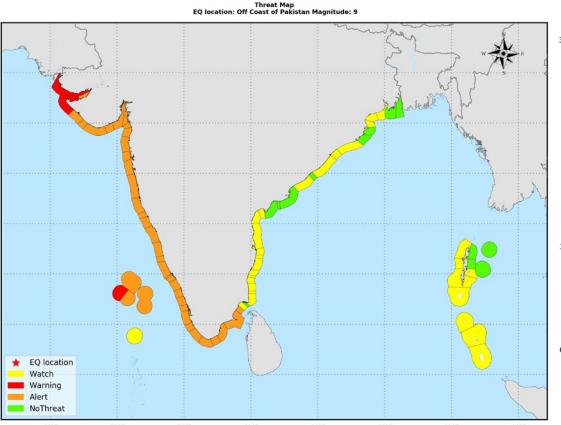
Magnitude: 9.0 Mw

Depth : 10 km

Latitude : 24.80 N

Longitude : 62.20 E

Region: Off Coast of Pakistan



Scenario-2 (Sumatra Trench)

Date: 05 November 2025

(Wednesday)

Time: 8:30 IST (3:00 UTC)

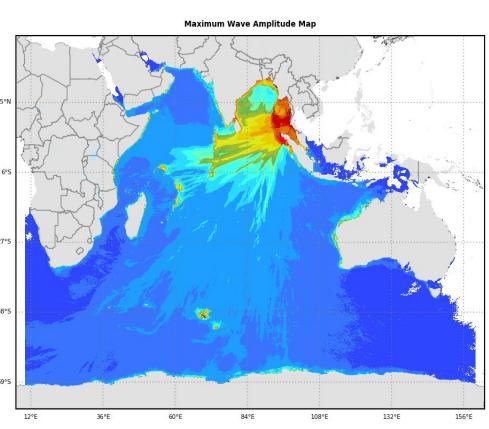
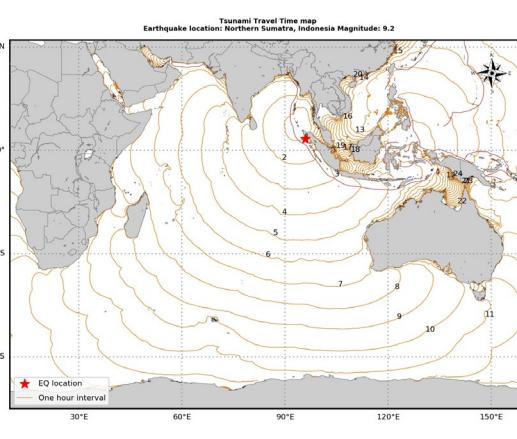
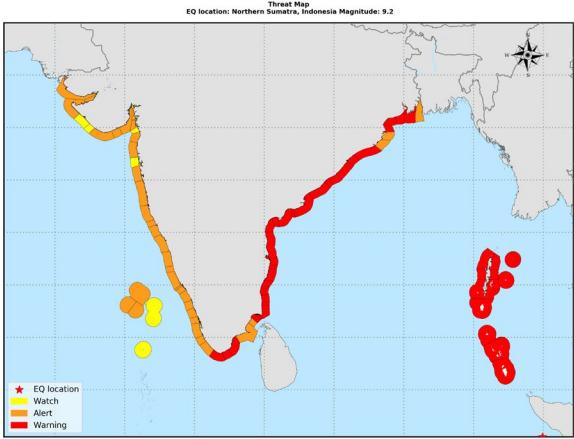
Magnitude: 9.2 Mw

Depth : 10 km

Latitude : 3.30 N

Longitude : 95.96 E

Region: Northern Sumatra, Indonesia



Andaman & Nicobar Islands Participation

Exercise Participants

- West coast of India participated up to SEOC/institute level on 15 October.
- East coast of India, except for A & N Islands, could not participate in exercise due to Cyclonic Storm Montha.
- On 4 November, Andaman & Nicobar Islands conducted tsunami exercise up to community level with support of NDMA and Andaman administration. **A total of 16 villages and 381 schools** across three districts were involved and successfully evacuated. In all, **52,103 school students and teachers** (tsunami walk) and **59,601 community members** including disabilities, elderly, youth involved in evacuation, **111,704 participants in total.**
- Key agencies involved included NDMA, State/District DMOs, Indian Navy, Coast Guard, NDRF, Army, Port & Harbour, Power, Water, Fuel, Telecom, Shipping, Health, Fire & Rescue, Fisheries, and Petroleum sectors.

Sub-Division/Tehsils	Island/ Villages
South Andaman District	
	1. Flag Point and adjoining area (Girls School and JNRM College) 2. Bambooflat Jetty to Old Surya Chakra Power House 3. Junglighat Area
Swaraj Dweep	4. Swaraj Dweep
Little Andaman	5. Little Andaman
North & Middle Andaman District	
Rangat	1. Nimbutala Jetty 2. Nilambar Jetty, Baratang 3. Pokhadera Jetty 4. Karmatang Village
Diglipur	5. Arial Bay Jetty 6. LCT Jetty, Durgapur
Nicobar District	
Nancowry	1. Mus Village 2. Kamorta 3. Chowra 4. Bengali Village, Teressa
Great Nicobar	5. Campbell Bay Village

District: North & Middle Andaman District	
Category	No. of Participants
Community Members	13837
Volunteers	280
Govt. Officials (ESFs)	2808
If any others	12
TOTAL	16925

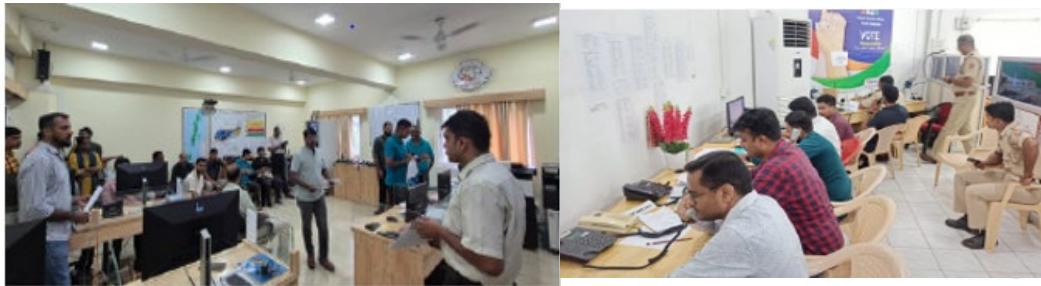
District: South Andaman District	
Category	No. of Participants
Community Members	29238
Volunteers	1118
Govt. Officials (ESFs)	4525
If any others	-
TOTAL	34881

District: Nicobar District	
Category	No. of Participants
Community Members	5073
Volunteers	131
Govt. Officials (ESFs)	1206
If any others	1385
TOTAL	7795

Educational Zones of Island	No. of Schools participated	No. of Students participated	No. of Teachers participated
South Andaman	85	22638	2890
Wimberlygunj	53	4236	572
Little Andaman	16	2124	287
Rangat	74	6414	949
Mayabunder	37	2342	342
Diglipur	67	4290	663
Car Nicobar	14	1923	171
Nancowrie	24	1207	173
Campbell Bay	11	743	139
Total	381	45917	6186

National Organisation of Exercise IOWave25

- The IOWave25 exercise organized well at each level such as NTWC, SDMO and LDMO level
- The objectives were exercised, and performance evaluated.
- Trainings and awareness campaigns conducted prior to exercise
- On 15 October 2025 for Makran scenario, West coast of India participated in IOWave25 exercise up to SEOC/institute level
- Andaman & Nicobar Islands participated up to community level for Sumatra scenario, with about 112,000 people from 16 coastal villages and 381 schools (tsunami walk) involved and evacuated to shelters. Overall public notification time was less than 10 minutes
- All line departments were involved participated in A & N Islands
- Overall, different modes of communications used such as SMS, email, mobile app, social media, sirens, VHF, etc.
- Tsunami Ready indicators were also tested for 4 Tsunami Ready implementing villages i.e. Aerial Bay, Karmatang (Mayabunder), Mus, and Campbell Bay.



State and District EOC Operations



Public and coastal operational staff evacuations



Rescue, Medical and Relief operations



School Students participation and Tsunami Walk

Lessons Learnt

- Overall, **IOwave25 tsunami exercise was a major success**, significantly **strengthening awareness and preparedness** among coastal communities, especially in Andaman & Nicobar Islands.
- **Response time** to notify the public was **about 10 minutes**. Various modes of communications were used to notify.
- Continued efforts are essential, including **regular volunteer training, drills, and coordination meetings**.
- **SOPs should be updated by DMOs**, with clear post-disaster reporting systems.
- **Communication networks must be strengthened**, supported by a unified communication plan & real-time GIS dashboards.
- **Community outreach to be expanded**, particularly in remote and island regions, with active involvement of schools & NGOs
- Regular mock exercises, training, and awareness programmes at community level are vital.
- **Tsunami Ready programme** should be scaled up in **vulnerable coastal villages**.

Future exercises:

- Regular mock exercises are essential especially for near source regions.
- Exercise duration can be reduced to 3- 4 hours to involve more communities.
- Exercise can be conducted non monsoon season.

Images of Exercise Participation



Issuing IOWave25 Bulletins at ITEWC, INCOIS



State and District Disaster Management and line departments coordination meetings



Multi-stakeholders approach for Rescue, Medical and Relief operations during exercise



School Students and teachers' participation in the tsunami exercise

THANK YOU