



unesco

Intergovernmental
Oceanographic
Commission

Country *Iran* Report

Majid Noranian

*Iranian National Institute for Oceanography and
Atmospheric Sciences*

majid.noranian@gmail.com

Observing networks

❑ **Detecting systems:**

- HF (High Frequency) Radar (in progress): Used to measure near-shore and offshore sea surface conditions (Shahid Beheshti Port, Chabahar),
- Tide gauges: tracking continuously sea level changes (Jask, Galak, Darak, Konarak, Chabahar, Beris, Pasa Bandar),
- Seismic stations

❑ **Functions:**

- Detecting rapid changes in sea surface conditions and sea level.
- Supporting real-time modeling (under negotiation for tsunami and early warning purpose).
- Providing critical input for decision-making and emergency response.
- Enhancing situational awareness through integrated multi-sensor data.

❑ **Institutions involved:**

- Port and Maritime Organization (PMO),
- Institute of Geophysics, University of Tehran,
- Iran Meteorological Organization,
- Iranian National Institute for Oceanography and Atmospheric Sciences

Data sharing

❑ National Data Exchange:

- Data collected from HF Radar, tide gauges, and seismic stations (*with challenging*),
- Shared among: PMO, Institute of Geophysics (UT), IRIMO, INIOAS,

❑ Integrated Multi-Sensor Framework:

- Radar, tide gauge, and seismic data combined for operational analysis,
- Supports real-time modeling and forecasting,

❑ Communication Channels:

- Secure data transmission (dedicated lines & web services),
- Aligning with IOC/UNESCO data standards,

❑ Regional & International Cooperation (*in progress*):

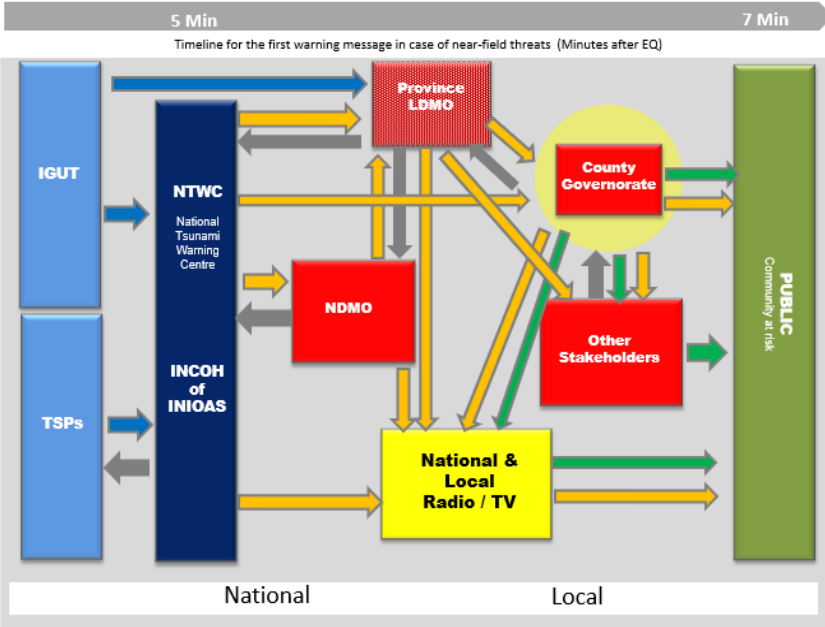
- Strengthening exchange with regional tsunami service providers and IOC-UNESCO (*with challenging*),

❑ Applications:

- Early warning & decision support,
- IOWave25 exercises and scenario testing,
- Long-term monitoring & hazard assessment

© 2010 Blackwell Publishing Ltd *Journal of Internal Medicine* 267: 251–260

TWC of IRAN



1. Key Agencies / Priority 1 (Decision-Making & Early Warning)

☐ Tsunami Service Providers (TSPs)

TSP Australia, TSP India, TSP Indonesia,

☐ **National Institute for Oceanography and Atmospheric Sciences (INIOAS)**

Data analysis and predictive modeling,

☐ **National Disaster Management Organization (NDMO)**

Responsible for national coordination and tsunami alert issuance

❑ Ports and Maritime Organization (PMO)

Collecting marine data and monitoring waves

☐ **Seismic and HF Radar Stations / Supporting Agencies** (if be operational)

2. Operational Agencies / Priority 2 (Emergency Response & Field Support)

☐ **Red Crescent Society**

- Rescue operations and community education

☐ **Emergency Medical Services (EMS)**

- Immediate medical care

□ Municipality

- Evacuation management and urban coordination

☐ **Iranian Fisheries Organization**

- Informing fishers and coastal users

3. Local / Priority 3 (Coordination & Community Outreach)

☐ Governorate / Provincial Government

- Provincial coordination and support for national decision-making

☐ **General Directorate of Crisis Management**

- Implementing crisis plans at the provincial level

☐ **County / District Governor's Office**

- Coordination at county level and local monitoring

☐ Ministry of Education

- Education and preparedness drills in schools

Exercise Plan at IOWave25

Fault earthquake info

Parameter	Value
Earthquake Magnitude	9.0 Mw
Earthquake Depth	10 km
Date	15/10/2025
Time of Occurrence	09:30
Latitude	24.8° N
Longitude	62.2° E
Location	Gulf of Oman

Period of exercise

Bulletin	Time(Local)
Start of Exercise(Earthquake)	9:30
Issuing the Bulletin 1	9:35
Issuing the Bulletin 2	9:40
Issuing the Bulletin 3	9:45
Issuing the Bulletin 4-End of the Exercise	10:15

Tsunami Drill Timeline: Chabahar Port

Pre-Drill (07:30 AM)

- Activation of the National Oceanic and Atmospheric Research Institute's (INCO) operations center.
- Final checks on communication systems with the National Disaster Management Organization, regional centers, and media.

Drill Start & Initial Warnings (09:30 - 09:40)

- **09:30:** Start of Exercise. Simulated tsunami alert received from international partners (India, Australia, Indonesia).
- **09:35: Bulletin 1 Issued.** Initial tsunami warning and alert status disseminated by INCO.
- **09:40: Bulletin 2 Issued.** Updated earthquake parameters, predicted wave height (2-3m), and estimated arrival time (09:50) provided.
 - **Operational Phase Begins:**
 - Activation of sirens and loudspeakers for coastal evacuation.
 - Mobilization of Red Crescent, police, and fire departments.
 - Evacuation of schools and low-lying areas initiated.
 - Hospitals put on high alert; buses dispatched to assist evacuation.

Confirmed Impact & Response (09:45)

- **09:45: Bulletin 3 Issued.** Tsunami confirmation based on "simulated field reports."
- **Simulated Impact & Rescue Operations (09:50):**
 - Search and rescue for casualties in collapsed structures and floodwaters.
 - Deployment of rapid assessment teams on motorcycles.
 - Site selection and planning for an emergency shelter camp.
 - Re-dispatch of firefighting teams.

Drill Conclusion & Evaluation (10:15 - 11:15)

- **10:15: Bulletin 4 Issued.** End of tsunami threat announced.
- **11:15:** After-action review meeting with all involved agencies to evaluate performance and identify improvements.

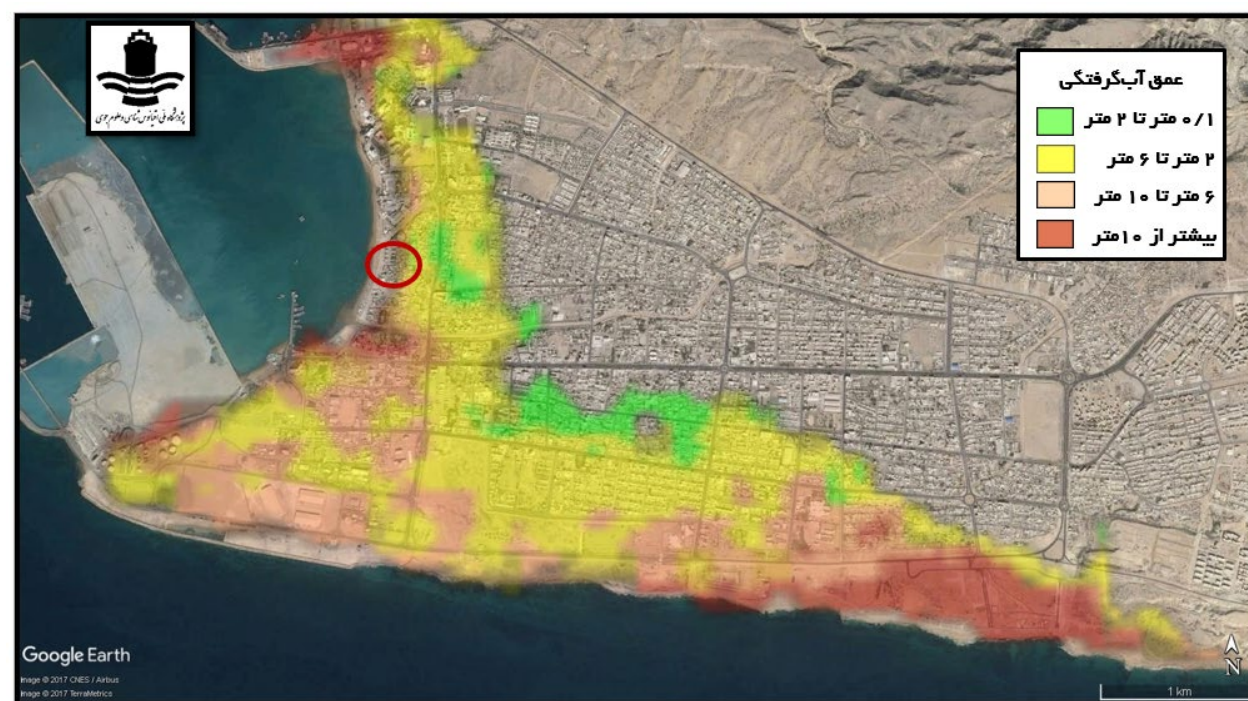
Inundation and evacuation maps for Exercise IOWave25



Evacuation Map at Chabahar



Inundation Map for 9Mw Earthquake at Chabahar



Tsunami Ready implementation in pilot communities

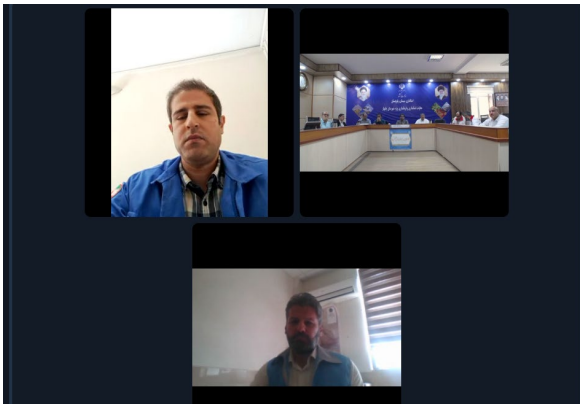
- Meeting



- Education



- Implementation





unesco

Intergovernmental
Oceanographic
Commission

THANK YOU