



*Training/Workshop on
Tsunami Evacuation Maps, Plans, and Procedures and
the UNESCO-IOC Tsunami Ready Recognition Programme for the Indian Ocean Member States
Hyderabad - India, 15-23 April 2025*

Tsunami Evacuation Maps, Plans, and Procedures

TEMPP 15: Principles in Regular Exercises and Improvements of the TEP

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Acknowledgement:

- Ardito M Kodijat, IOTIC IOC-UNESCO
- Harald Spahn, UNESCO-IOC UNESCAP Consultant

Background

- **Exercises** are activities that simulate a real-life situation.
- Tsunami exercises provide an opportunity to review and **test evacuation plans and standard operating procedures** and reduce complacency when a real tsunami has occurred recently.
- Key players, such as agencies and communities, can review or test procedures and **practice participation within defined roles**.
- Exercise **benefits** include improved coordination with and between agencies, operational readiness, better response times, clarification of roles and responsibilities, and increased public awareness.



- In the Indian Ocean, seven (7) regional exercises have been conducted since 2009 with the most recent exercise, **IOWave23**, held in 2023.

- All North-west Indian Ocean countries participated in Exercise IOWave23.



IOWave23



ESCAP
Economic and Social Commission
for Asia and the Pacific

INCOIS



Conduct evacuation exercises regularly!

- UNESCO-IOC **Tsunami Ready** preparedness indicator: “A community tsunami exercise is conducted **at least every 2 years**”.
- Exercises provide an **opportunity to train communities, the public, and institutions** for responding to emergencies.
- Evacuation exercises **test the capability of the communities to evacuate tsunami risk areas** in a timely manner.
- They also provide momentum to **increase overall tsunami awareness, preparedness, and education**.
- Regular exercises have been shown to **empower communities** respond better during emergency situations.



Preparation of exercises

- **Establish a team** to prepare and conduct the exercise
- Decide on the exercise **aims** and its **objectives**.
- Define clear **key performance indicators and success criteria**.
- Determine the **scope** (i.e. what the exercise will test, who will be involved, scenario, location, date, and time).
- Exercises should be **realistic** and test procedures and communication technology that are already in place with the option of additional complexity and time pressure.
- It is important to provide clear **information to the public and stakeholder** before and after large-scale exercises.
- Prepare **written documentation**, such as an exercise manual, including the scope, implementation and evaluation procedures.
- Hold a **community briefing** to familiarise people with existing tsunami evacuation maps and procedures for evacuating and sheltering.



Scale of exercises

- The **scale or type of exercise** is determined by its objectives and resources.

Below are some different exercise types with increasing complexity:

- **Community exercise** are aimed to familiarise people with evacuation procedures and to raise awareness. These should be simple and may also be fun.
- **Evacuation drills** are small exercises that can be regularly run in schools and other vulnerable institutions to practice internal procedures.
- **Tabletop exercises** can be held in a conference room environment. They are designed to promote constructive discussion among participants from different organisations in the tsunami warning chain.
- **Full scale exercise** test end-to-end warning and evacuation procedures. They require extensive preparation and coordination. Good opportunities are the regular IOWave exercises.



During the exercise

Follow pre-agreed procedures:

- Following your country's tsunami warning chain, standard operating procedures and evacuation plan.
- Try not to make up procedures on the day, but rather follow what has already been agreed on.
- Pre-prepared operational checklists and flowcharts can be useful to refer to during the exercise.

Other things to note:

- Any changes to your tsunami evacuation plan can be made after the exercise.
- Have observers on hand to capture and document what happens during the exercise.



Evaluate the exercise!

- Exercises must be followed up by an **evaluation** and the **development and implementation of improvement measures** to be effective.
- Do **not expect perfect results** and **evaluate thoroughly**. A tsunami exercise is to test what works and what does not.
- **Define evaluation criteria** in line with the exercise objectives and use observation sheets or checklists to **document observations** .
- You may involve internal as well as external **observers**. Make sure that results are well documented.
- “**Hot debriefs**” can be done directly after the exercise to capture fresh impressions and experiences from participants and stakeholder.
- “**Cold debriefs**” are typically held within 4-weeks of the exercise once participants have had time to reflect on what went well and what needs improvement.

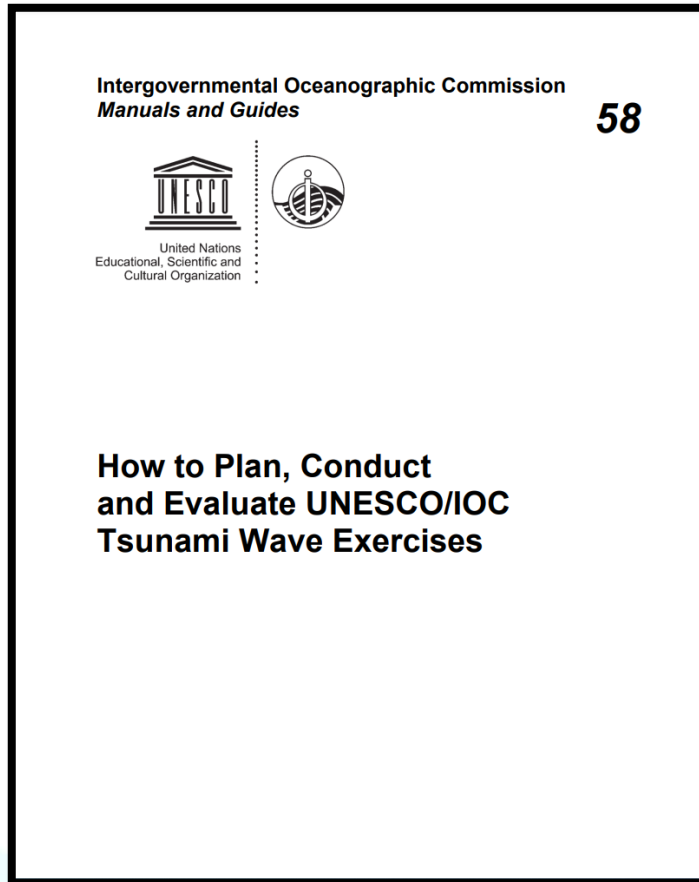


From learning to action

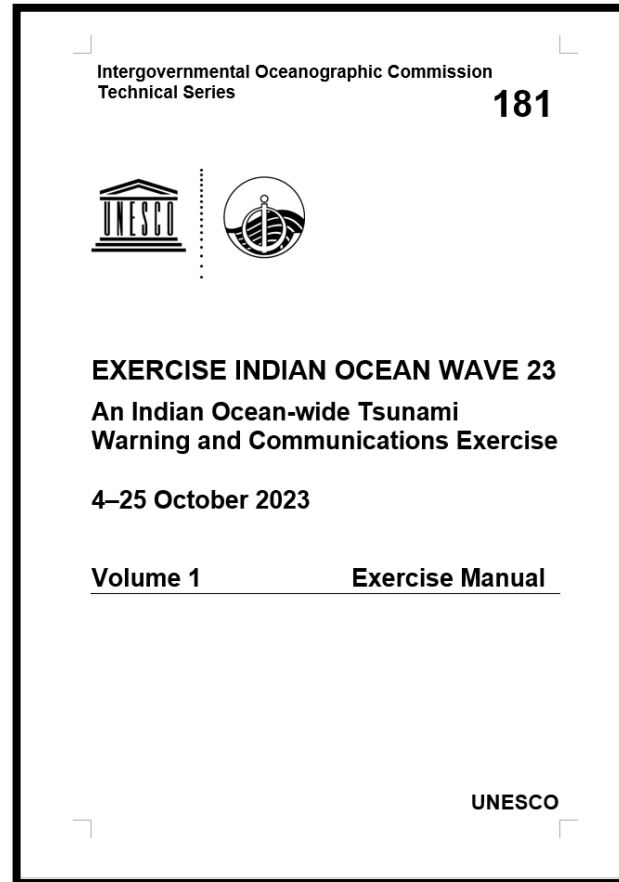
- The **evaluation report** should be **presented** and **discussed** in a stakeholder meeting and must be **accepted** by the **local authority**.
- The final report should outline **measures** and **actions for improvements** with clear assignments of responsibilities, timelines and reporting requirements.
- If improvements require **changes in the evacuation maps or the strategy**, this must be followed up accordingly and stakeholders and community must be informed!
- Check that all improvement **measures have been implemented before initiating the next exercise**.



Further information



<https://oceanexpert.net/document/10003>



<https://oceanexpert.net/document/32932>



<https://www.ecomagazine.com/in-depth/featured-stories/evolution-of-ocean-wide-exercises-in-the-indian-ocean>

Thank you



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