



Intergovernmental Coordination Group
Indian Ocean Tsunami Warning & Mitigation System (ICG/IOTWMS)
**Pre-IOWave25 Hybrid Workshops on Standard Operating Procedures (SOPs) for
National Tsunami Warning Centres (NTWCs) and
Disaster Management Organisations (DMOs)**

Eastern Indian Ocean Member States (EIO)
Monday-Wednesday 4-6 August 2025 at 0400-0800 UTC

Western Indian Ocean Member States (WIO)
Monday-Wednesday, 11-13 August 2025 at 0700-1100 UTC

1.0 Background

Effective tsunami warning for all in the community requires rapid and reliable processes for detection and monitoring, the decision to warn, the generation of a warning by the national warning provider, and dissemination of the warning along a functioning national tsunami warning chain to reach communities at-risk in a timely manner. Integrated and timeline driven Standard Operating Procedures (SOPs) at all levels for organisations involved are essential to achieve this.

The UNESCO-IOC Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning & Mitigation System (ICG/IOTWMS) supports Indian Ocean Member States in developing the necessary capacity to operate such warning processes in their countries by providing guidelines, training, advice, exchange of experience, and regular exercises. The IOC Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) at its 14th session (Banten, Indonesia, 17–19 November 2024), decided to organize an Indian Ocean Wave Exercise in 2025 (IOWave25) and established a Task Team to plan and conduct the exercise. At the most recent intersessional meeting and after consultation with key stakeholders, the Task Team IOWave25 decided to conduct IOWave25 with four different scenarios on 25 September, 15 October, 25 October and 5 November 2025. The four scenarios will allow individual Member States to decide the type and number of exercise scenarios to participate in.

During the ICG/IOTWMS Steering Group Meeting on 17-19 June 2025, the meeting requested the ICG/IOTWMS Secretariat, IOTIC, and the Task Team IOWave25 to consider organizing online pre-IOWave SOP workshop. During the Task Team IOWave25 coordination meeting held on 24 June 2025, the meeting decided to hold two three-day pre-IOWave25 SOP workshops in hybrid mode to suit the convenience of participants from different time zones: one workshop for Eastern Indian Ocean Member States (Recommended Countries: Australia, Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Singapore, Sri Lanka, Thailand, and Timor-Leste) to be held on 4-6 August 2025 and one workshop for Western Indian Ocean Member States (Recommended Countries: Comoros, France Indian Ocean Territories, Iran, Kenya, Madagascar, Mauritius, Mozambique, Oman, Pakistan, Seychelles, South Africa, Tanzania, United Arab Emirates and Yemen) to be held on 11-13 August 2025.

These hybrid three-day pre-IOWave25 SOP workshops will be conducted through an online regional session on day 1, an in-country coordination session with national stakeholders in each country (either

in-person or online) on day 2, and an online regional session on day 3. The workshops will provide an opportunity for experts to share best practices regarding the development and status of SOPs along the tsunami warning chain at all levels in the Member States, provide conceptual input, discuss, and exchange experiences, and identify areas where improvements are needed, and to prepare for the IOWave25. The upcoming Exercise IOWave25 this year will subsequently provide an excellent opportunity to test the national tsunami warning chains and their underpinning SOPs.

2.0 Objectives

This Regional Meeting will bring together representatives from ICG/IOTWMS Member States from the Eastern Indian Ocean (EIO) and Western Indian Ocean (WIO) to:

1. Brief on Exercise IOWave25, dates and scenarios
2. Discuss the importance of national tsunami warning chains and SOPs.
3. Build common understanding on how a time-driven warning process can be made effective and operational with the support of tried and tested SOPs.
4. Share best practice, templates, and tools for SOP development.
5. Provide training on availability and use of tsunami threat information provided by IOTWMS Tsunami Service Providers (TSPs), including new products for tsunamis generated by non-seismic sources such as volcanoes.
6. Enable joint work of the Member State teams on their tsunami warning chains in terms of further clarification of roles and responsibilities, decision making processes, status of integrated time-line driven SOPs, and the linkages of SOPs between the different responsible organisations in the warning chain.
7. Define how to move forward to improve/update SOPs and prepare for testing under Exercise IOWave25
8. Receive feedback from Member States on the extent of national participation in Exercise IOWave25 and World Tsunami Awareness Day (WTAD)

3.0 Recommended Participants from Member States

For the workshop to be successful, each Member State is requested to nominate / engage in-country representatives from the following agencies involved in the national tsunami warning chain in this workshop.

- Representatives from the National Tsunami Warning Centres (NTWCs)
- Representatives of National, Provincial and Local Disaster Management Organisations (N/P/LDMOs) from each country
- Relevant line ministries (e.g., education, health, transport)
- Local authorities, media, and community representatives (where applicable)

4.0 Organizers & Experts

This workshop is being organized by the Task Team IOWave25, with the support of:

- UNESCO-IOC Secretariat of Intergovernmental Coordination Group for Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS)
- UNESCO-IOC Indian Ocean Tsunami Information Centre (IOTIC)
- Invited Technical experts,
- Chairs and vice-chairs of ICG/IOTWMS Steering Group, Working Groups, and Task Teams, as well as Representatives of IOTWMS Tsunami Service Providers (TSPs) Australia, India, and Indonesia

5.0 Format of the Workshop/s

Two workshops will be organised in hybrid mode to suit the convenience of participants from different time zones. Each workshop will be held over a 3-day period with a duration of approximately 4 hours each day covering the following aspects:

- **Day 1:** Regional Online to cover the scope of IOWave25, timeline driven SOPs, Early Warning Chains, etc.
- **Day 2:** National In-person or Online for Member States to convene representatives from the relevant organisations involved in the end-to-end tsunami early warning and mitigation (National / Provincial / Local DMOs, Media, Community representatives, etc) to review national SOPs, Early Warning Chains and discuss plans for participation in IOWave25.
- **Day 3:** Regional Online to share the results of the national meetings held on second day and inform national participation plans in Exercise IOWave25 and WTAD.

5.1 Workshop 1: Eastern Indian Ocean Member States (EIO)

- **Date and Time:** Monday-Wednesday 4-6 August 2025 at 0400-0800 UTC
- **Recommended Country Participation:** Australia, Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Singapore, Sri Lanka, Thailand, and Timor Leste
- **Zoom Link:** [EIO Pre-IOWave25 SOP Zoom](#) (Meeting ID: 878 5196 3044 Passcode: 074359)
- **Detailed Timing and Agenda:** Annex 1

5.2 Workshop 2: Western Indian Ocean Member States (WIO)

- **Date and Time:** Monday-Wednesday 11-13 August 2025 at 0700-1100 UTC
- **Recommended Country Participation:** Comoros, France Indian Ocean Territories, Iran, Kenya, Madagascar, Mauritius, Mozambique, Oman, Pakistan, Seychelles, South Africa, Tanzania, United Arab Emirates and Yemen
- **Zoom Link;** [WIO Pre-IOWave25 SOP Zoom](#) (Meeting ID: 875 6131 1357 Passcode: 880157)
- **Detailed Timing and Agenda:** Annex 2

6.0 Workshop Website

For further information on the event, please refer to the event website:

<https://oceanexpert.org/event/4807>

Annex 1

Workshop 1 – Detailed Timing & Agenda for Eastern Indian Ocean Member States

Recommended Country Participation: Australia, Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Singapore, Sri Lanka, Thailand, and Timor Leste

Day 1, Monday 4 August 2025 (0400 – 0830 UTC)

Start UTC	End UTC	Topic	Presenters/moderator
1. Opening Session (Plenary)			
0400	0430	a. Opening - UNESCO-IOC Secretariat welcome - Chair / Vice-Chair ICG/IOTWMS - Chair Task-Team IOWave25 welcome - Introductions and objectives of the Workshop - Workshop logistics	
0430	0515	b. Background - Overview of the IOTWMS (15mins) - Exercise IOWave25 and scenarios (15mins) - ODTF & TRRP (15mins)	
0515	0545	Tsunami warning chains and SOPs: Roles and responsibilities (30mins)	
0545	0600	Break and Group Photo	
0600	0640	c. Near and Distant Tsunamis (40 minutes): • Timeline driven SOPs • Warning Levels • Critical issues in the Warning Chain for disseminating warnings down to the community • SOP considerations for non-seismic events (HTTH, Anak Krakatau experiences)	
0640	0700	d. SOP Templates to Develop General Roles and Responsibilities and Timeline of Processes and Actions (Criteria for Action, Evacuation Checklists, Information Dissemination, Media Information)	
2. Standard Operating Procedures for Tsunami Early Warning (Break Out Group)			
1. NTWC (75 minutes)			
0700	0745	a. Introduction to TSP Services and Products, including Tsunamis generated by non-seismic and complex sources and NAVAREA products	
0745	0800	b. Utilizing TSP Threat Information products in NTWC SOP and reporting back mechanism	
0800	0815	c. Discussions	
2. DMOs (75 minutes)			
07:00	0730	a. DMO SOPs – Concept of Operations, Overview of Routine and Event operation and decision-making timelines.	
0730	0800	b. Utilizing NTWC Product in DMO SOPs	
0800	0815	c. Discussion	
3. National SOP Coordination Meeting (Plenary) 15 minutes			
0815	0830	Briefing for Day 2: National Coordination Meeting	
0830		End of Day 1	

Day-2, Tuesday, 5 August 2025 **

Member State Individual Workshops: Suggested agenda.

****Times and presenters/moderators to be determined by each Member State**

Time (mins)	Start	End	Topic	Presenters/ (moderator)
4. National Coordination Meeting on Warning Chain and SOP				
15			a. Opening and Introduction	
15			b. Discuss findings and conclusions from Workshop Day-1	
45			c. Review national tsunami warning chain and status of SOPs	
30			d. Review/update NTWC products and timelines, including warning levels, advice and dissemination channels	
15			Break	
20			e. Examine and coordinate SOP linkages across NTWC, N/P/LDMO, and Media SOPs, especially with regards to timelines (including call for evacuation decision)	
20			f. Identify work on further SOP development, (NTWC, N/P/LDMO, Media SOPs, and community)	
20			g. Discuss how to move forward after the workshop to resolve identified issues	
30			h. Discuss mechanisms and opportunities to participate in IOWave25, including scenario choice and type or Exercise.	
20			i. Preparation for Member State report back to the Workshop on Day-3	

Day-3, Wednesday, 6 August 2025 (0400 – 0800 UTC)

Start	End	Topic	Presenters/ (moderator)
5. Feedback from Member State Workshops and Forward Plans (Plenary)			
0400	0600	a. Member State reports from national workshops (10mins each): - National tsunami warning chain status update (using template) - SOP status report (using template) - Issues to be further pursued - IOWave25 plans	
0600	0615	Break	
0615	0645	b. How to plan, conduct and evaluate exercises	
0645	0715	c. Preparation and Guide for IOWave25	
0715	0745	d. UNDRR World Tsunami Awareness Day and IOWave25	
0745	0800	e. Workshop Feedback	
0800	0815	f. Closing remarks	
0800		CLOSE	

Annex 2

Workshop 2 – Detailed Timing & Agenda for Western Indian Ocean Member States

Recommended Country Participation: Comoros, France Indian Ocean Territories, Iran, Kenya, Madagascar, Mauritius, Mozambique, Oman, Pakistan, Seychelles, South Africa, Tanzania, United Arab Emirates and Yemen

Day 1, Monday 11 August 2025 (0700 – 1130 UTC)

Start UTC	End UTC	Topic	Presenters/moderator
1. Opening Session (Plenary)			
0700	0730	e. Opening - UNESCO-IOC Secretariat welcome - Chair / Vice-Chair ICG/IOTWMS - Chair Task-Team IOWave25 welcome - Introductions and objectives of the Workshop - Workshop logistics	
0730	0815	f. Background - Overview of the IOTWMS (15mins) - Exercise IOWave25 and scenarios (15mins) - ODTF & TRRP (15mins)	
0815	0845	Tsunami warning chains and SOPs: Roles and responsibilities (30mins)	
0845	0900	Break and Group Photo	
0900	0940	g. Near and Distant Tsunamis (40 minutes): • Timeline driven SOPs • Warning Levels • Critical issues in the Warning Chain for disseminating warnings down to the community • SOP considerations for non-seismic events (HTTH, Anak Krakatau experiences)	
0940	1000	h. SOP Templates to Develop General Roles and Responsibilities and Timeline of Processes and Actions (Criteria for Action, Evacuation Checklists, Information Dissemination, Media Information)	
2. Standard Operating Procedures for Tsunami Early Warning (Break Out Group)			
1. NTWC (75 minutes)			
1000	1045	a. Introduction to TSP Services and Products, including Tsunamis generated by non-seismic and complex sources and NAVAREA Products	
1045	1100	b. Utilizing TSP Threat Information products in NTWC SOP and reporting back mechanism	
1100	0815	c. Discussions	
2. DMOs (75 minutes)			
1000	1030	d. DMO SOPs – Concept of Operations, Overview of Routine and Event operation.	
1030	1100	e. Utilizing NTWC Product in DMO SOPs	
1100	1115	f. Discussion	
3. National SOP Coordination Meeting (Plenary) 15 minutes			
1115	1130	Briefing for Day 2: National Coordination Meeting	
1130		End of Day 1	

Day-2, Tuesday, 12 August 2025 **

Member State Individual Workshops: Suggested agenda.

****Times and presenters/moderators to be determined by each Member State**

Time (mins)	Start	End	Topic	Presenters/ (moderator)
4. National Coordination Meeting on Warning Chain and SOP				
15			j. Opening and Introduction	
15			k. Discuss findings and conclusions from Workshop Day-1	
45			l. Review national tsunami warning chain and status of SOPs	
30			m. Review/update NTWC products and timelines, including warning levels, advice and dissemination channels	
15			Break	
20			n. Examine and coordinate linkages across NTWC, N/P/LDMO, and Media SOPs, especially with regards to timelines (including call for evacuation decision)	
20			o. Identify work on further SOP development, (NTWC, N/P/LDMO, Media SOPs, and community)	
20			p. Discuss how to move forward after the workshop to resolve identified issues	
30			q. Discuss mechanisms and opportunities to participate in IOWave25, including scenario choice and type or Exercise.	
20			r. Preparation for Member State report back to the Workshop on Day-3	

Day-3, Wednesday, 13 August 2025 (0700 – 1100 UTC)

Start	End	Topic	Presenters/ (moderator)
5. Feedback from Member State Workshops and Forward Plans (Plenary)			
0700	0900	g. Member State reports from national workshops (10mins each): - National tsunami warning chain status update (using template) - SOP status report (using template) - Issues to be further pursued - IOWave25 plans	
0900	0915	Break	
0915	0945	h. How to plan, conduct and evaluate exercises	
0945	1015	i. Preparation and Guide for IOWave25	
1015	1045	j. UNDRR World Tsunami Awareness Day and IOWave25	
1045	1100	k. Workshop Feedback	
1100	1115	l. Closing remarks	
1115		CLOSE	