CONCEPT NOTE

Intergovernmental Coordination Group for
Indian Ocean Tsunami Warning & Mitigation System (ICG/IOTWMS)

**Eastern Indian Ocean Member States
Training Workshop:**
*Standard Operating Procedures (SOPs) for
National Tsunami Warning Centres (NTWCs) and
Disaster Management Organisations (DMOs)*

10 – 13 July 2023

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. At the 13th Session of the ICG/IOTWMS during 28th November – 2nd December 2022, in Bali, Indonesia, it was decided to hold two SOP training workshops in the inter-sessional period: one workshop for Western Indian Ocean Member States (Comoros, France Indian Ocean Territories, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa, and Tanzania) and one workshop for Eastern Indian Ocean Member States (Australia, Bangladesh, Indonesia, Malaysia, Maldives, Myanmar, Singapore, Sri Lanka, Thailand, and Timor-Leste). North-West Indian Ocean Member States (India, Iran, Pakistan, Oman, United Arab Emirates) have recently received extensive SOP training as part of the UNESCAP funded project "*Strengthening tsunami warning in the North-West Indian Ocean through regional cooperation*" and will have a separate SOP workshop to review progress.

This hybrid four-day SOP training workshop for Eastern Indian Ocean Member States during 10 - 13 July 2023 will provide an opportunity to share the latest information 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. Accordingly, **it is essential for each Member State to have representatives from the designated National Tsunami Warning Centre (NTWC) and from all the National, Provincial and Local Disaster Management Organisations (N/P/LDMOs) involved in the national tsunami warning chain**.

After the relevant authorities and national organisations have reviewed and updated their roles and responsibilities in the national tsunami warning chains, a further workshop will be held on 16th August specifically for the awareness and development of SOPs for the broadcast media, given their important role in the national tsunami warning chain. The upcoming Exercise IOWave23 in October this year will subsequently provide an excellent opportunity to test the national tsunami warning chains and their underpinning SOPs.

OBJECTIVES OF THE MEETING

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

1. Discuss the importance of national tsunami warning chains and SOPs.
2. Build common understanding on how an time-driven warning process can be made effective and operational with the support of tried and tested SOPs.
3. Share best practice, templates, and tools for SOP development.
4. 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.
5. 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 particular linkages of SOPs between the different responsible organisations in the warning chain.
6. Define how to move forward in order to improve/update SOPs and prepare for testing under Exercise IOWave23

REQUIRED PARTICIPANTS

For the workshop to be successful, the following participants are required:

– Representatives from the National Tsunami Warning Centres (NTWCs) and all the relevant National, Provincial and Local Disaster Management Organisations (N/P/LDMOs) from **Australia, Bangladesh, Indonesia, Malaysia, Maldives, Myanmar, Singapore, Sri Lanka, Thailand, and Timor-Leste**

– Representatives of UNESCO-IOC Secretariat and IOTIC and their technical consultant

– Chairs and vice-chairs of relevant ICG/IOTWMS Steering Group, working groups, and task teams

– Representatives of IOTWMS Tsunami Service Providers (TSPs) in Australia, India, and Indonesia

ORGANISERS

This workshop is being organised by ICG/IOTWMS *Working Group 3 Tsunami Ready Implementation*, 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).

MEETING FORMAT

The meeting will be held in a hybrid format using Microsoft TEAMS.

- First and Second day will be regional and held online.
- Third day Member States will be asked to gather representatives from all the relevant organisations, either face-to-face or online, to work together to review national status.
- Fourth day will again be held regionally online to hear of the results of the national gatherings.

SCHEDULE AND DURATION

Duration 3-4 hours each day, starting at 0400 UTC to recognise time zones of participants and presenters

MEETING LINK

To join the meeting, please use the following link:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_OTgwMTc5NDMtNjg3YS00ZGNkLThjOGQtMmVmN2RmNTQ3ZDEw%40thread.v2/0?context=%7b%22Tid%22%3a%221d4fae52-39b3-4bfa-b0b3-022956b11194%22%2c%22Oid%22%3a%220f298537-3d08-4fde-9bd7-c4e2e9f364e0%22%7d

Meeting ID: 324 057 278 67   Passcode: aCkhQz

MEETING WEBSITE

For further information on the event, please refer to event website: https://oceanexpert.org/event/3940

Eastern Indian Ocean Member States Training Workshop:
Standard Operating Procedures (SOPs) for
National Tsunami Warning Centres (NTWCs) and
Disaster Management Organisations (DMOs)

Day-1 **10th JULY: *Introduction and driving forces*** *(Moderator Rick Bailey)*

Start UTC	End UTC	Topic	Presenters/ moderator
		1.1 Plenary	
0400	0430	a. Opening	
		- UNESCO-IOC Secretariat welcome	Rick Bailey
		- Vice-Chair ICG/IOTWMS	Yuelong Miao
		- Chair WG3 welcome	Suci Anugrah
		- Objectives of the Workshop	Rick Bailey
		- Introductions	All
		- Workshop logistics	Nora Gale
0430	0515	b. Background	
		- Overview of the IOTWMS (15mins)	Rick Bailey
		- Results from IOTWMS Capacity Assessment (15mins)	Nora Gale
		- Exercise IOWave23 and scenarios (15mins)	Weniza
0515	0545	Tsunami warning chains and SOPs: Roles and responsibilities	Harald Spahn
0545	0600	***Break***	
		1.2 NTWC Breakout Session *(Moderator: Rick Bailey)*	
0600	0615	a. Introduction to TSP Services	Sunanda Manneela
0615	0700	b. TSP Product Demonstration	Robert Greenwood
0700	0730	c. New TSP Product – Tsunamis generated by non-seismic and complex sources	Rick Bailey Robert Greenwood
0730	0800	d. Accessing products on TSP web sites, etc	Padmanabham J. Yedi Dermadi Robert Greenwood
0800	0815	e. Discuss Exercise IOWave23 scenarios	Rick Bailey
		1.3 DMO Breakout Session *(Moderator: Nora Gale)*	
0600	0630	a. Findings from the 2018 IOTWMS Capacity Assessment regarding the downstream process	Nora Gale
0630	0700	b. Implementing Tsunami Ready in the Indian Ocean	Suci Anugrah
0700	0730	c. Tsunami Ready Response Indicators in relation to SOP development	Ardito Kodijat
0730	0800	d. Discuss outcomes and participation of DMOs and communities in Exercise IOWave23	Nora Gale

Day-2   11th JULY: The role and function of SOPs in tsunami warning chains *(Moderator Rick Bailey)*

Start UTC	End UTC	Topic	Presenters/ (moderator)
2.1 Plenary			
0400	0415	a. Discuss Day-3 national plans	Rick Bailey
0415	0445	b. Near and Distant Tsunamis: Timeline driven SOPs	Harald Spahn
0445	0500	c. Warning Levels	Harald Spahn
0500	0530	d. Critical issues in the Warning Chain for disseminating warnings down to the community	Harald Spahn
0530	0545	e. Using SOP Templates to Develop General Roles and Responsibilities and Timeline of Processes and Actions (Criteria for Action, Evacuation Checklists, Information Dissemination, Media Information)	Rick Bailey
0545	0600	**Break**	
2.2 NTWC Breakout Session *(Moderator: Rick Bailey)*			
0600	0630	a. NTWC SOPs - Concept of Operations, Overview of Routine and Event Operations	Rick Bailey
0630	0700	b. Examples NTWC SOPs (Distant and local source threat)	Yuelong Miao Yedi Dermadi
0700	0730	c. Utilising TSP Threat Information products in NTWC SOPs	Padmanabham J.
0730	0745	d. New InaTNT sea level data displays and analysis	Iman Fatchurochman
0745	0800	e. General Discussion	Rick Bailey
2.3 DMO Breakout Session *(Moderator: Nora Gale)*			
0600	0645	a. DMO SOPs - Concept of Operations, Overview of Routine and Event Operations	Harald Spahn
0645	0700	b. Example DMO SOPs	Ardito Kodijat
0700	0730	c. Utilising NTWC products in DMO SOPs	Ardito Kodijat
0730	0745	d. Decision to call for evacuation	Harald Spahn
0745	0800	e. General Discussion:	All

Day-3 12th JULY: Member State Individual Workshops:
***Times and presenters/moderators to be determined by each Member State**

Time (mins)	Start	End	Topic	Presenters/ (moderator)
			3.1 National Workshops	
10			a. Introduction	
20			b. Discuss findings and conclusions from Workshop Day - 1 and Day-2	
30			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*	
15			e. Examine and coordinate linkages across NTWC, N/P/LDMO, and Media SOPs, especially with regards to timelines (including call for evacuation decision)	
15			f. Identify work on further SOP development, including Media SOPs	
20			g. Discuss how to move forward after the workshop to resolve identified issues	
20			h. Discuss mechanisms and opportunities to routinely exercise NTWC, DMO and Media SOPs individually and jointly going forward, including scenario choice and participation in Exercise IOWave23 in October 2023	
20			i. Agree on the Member State report back to the workshop on Day-4	

Day-4 13th JULY: Feedback from Member State Workshops and Forward Plans *(Moderator Rick Bailey)*

Start	End	Topic	Presenters/ (moderator)
		4.1 Plenary	
0400	0545	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 - Exercise plans	Rick Bailey
0545	0600	*Break*	
0600	0630	b. Discussion on identified joint challenges	Harald Spahn
0630	0645	c. Broadcast Media SOP workshop plans	Rick Bailey
0645	0700	d. Example Broadcast Media SOPs	Ardito Kodijat
0700	0730	e. How to plan, conduct and evaluate exercises	Nora Gale
0730	0745	f. Workshop Feedback	All
0745	0800	g. Closing remarks	Suci Anugrah Rick Bailey
0800		*CLOSE*	