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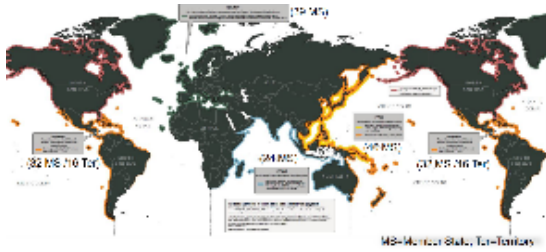
PROGRESS REPORT

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

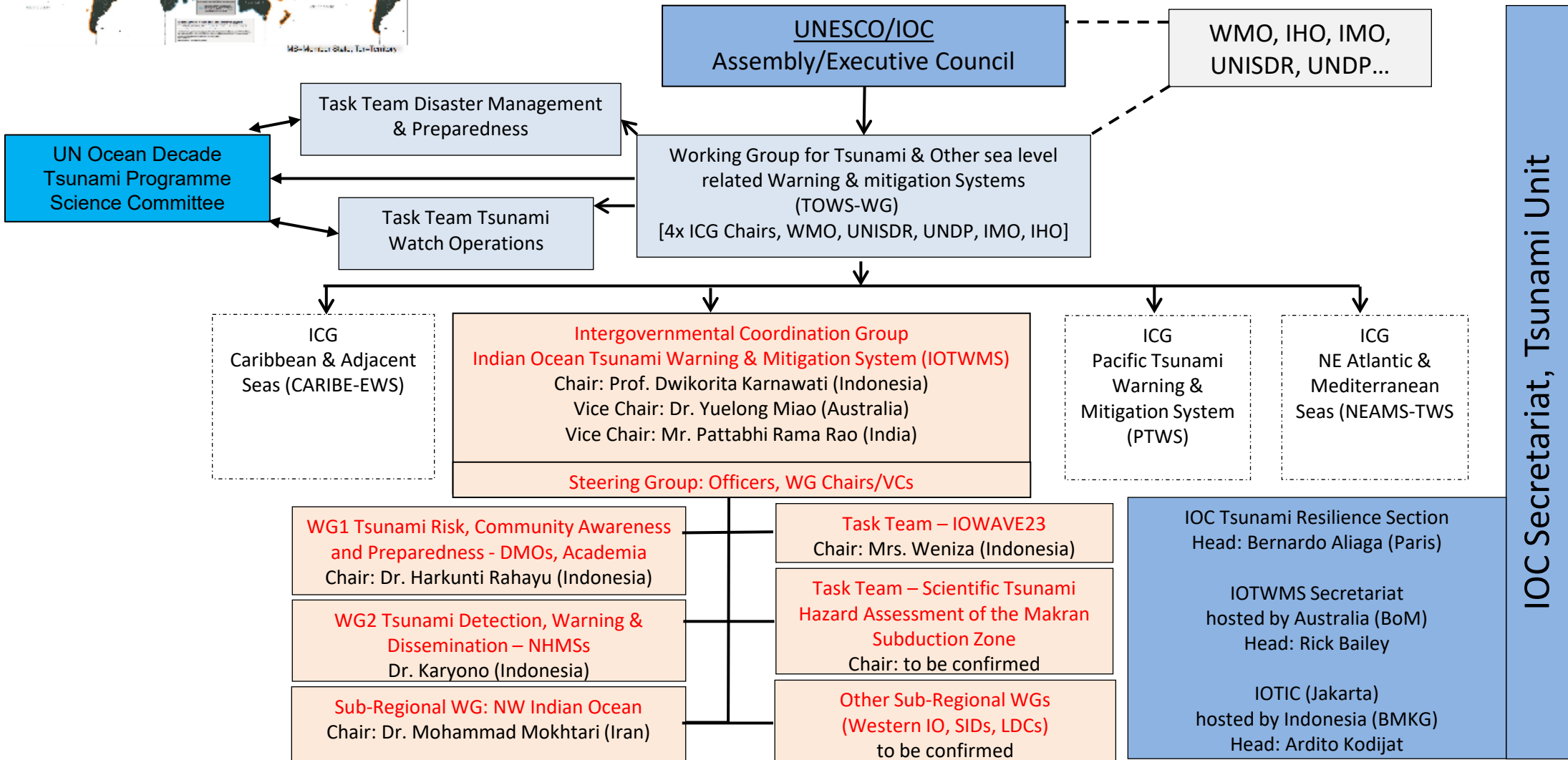
Rick Bailey
Head of Secretariat, ICG/IOTWMS



Meeting of the Regional Working Group for
North-West Indian Ocean
(RWG-NWIO)
Online, 30th May 2023



ICG/IOTWMS GOVERNANCE



Support for 25 IOTWMS Member States



1. Support for further two years (2023-2024)(USD\$310K per year) from Government of Australia, through Australian Bureau of Meteorology, to support ICG/IOTWMS Secretariat

2. ICG/IOTWMS Secretariat has provided support for 20+ meetings of ICG/IOTWMS & related activities in 2022, most in online or hybrid mode due to COVID.

3. Support for further five years (2022-2027) (USD\$130K per year), from Government of Indonesia, through BMKG, to support Indian Ocean Tsunami Information Centre (IOTIC), office, staffs and activities

4. Support UNESCAP Project

- a) "Strengthening tsunami warning in the North-West Indian Ocean through regional cooperation" successfully completed 30 October 2021.
- b)Funding USD\$280K secured Phase 2 of UNESCAP Project began May 2022.
- c)Funding \$240K of UNESCAP Project Start from June 2023 for the TTF Project

5. Support for competency training from BMKG through the OTGA Specialized Training Center (the Tsunami Ready (2021), Tsunami Community Preparedness (2022) Ocean Forecast System (2021 and 2022)

6. Archive and access MS NWIO PTHA from INCOIS (computing facilities and staff)

ACTIVITIES IN 2022

1. 13th Session of the ICG/IOTWMS in Bali, Indonesia in 28 Nov-1 Dec 2022
2. Indian Ocean Tsunami Ready Hybrid Workshop”, November 2022 (84 participants, 12 countries)
3. 9 Tsunami Ready Communities Recognition
4. Renewel of the partnership agreement of the IOC-BMKG for IOTIC
5. UNESCAP Project
6. Data exchange agreements



“13th Session of the ICG/IOTWMS in Bali, Indonesia 28 Nov-1 Dec 2022



“Indian Ocean Tsunami Ready Hybrid Workshop”, November 2022



9 new Tsunami Ready Communities



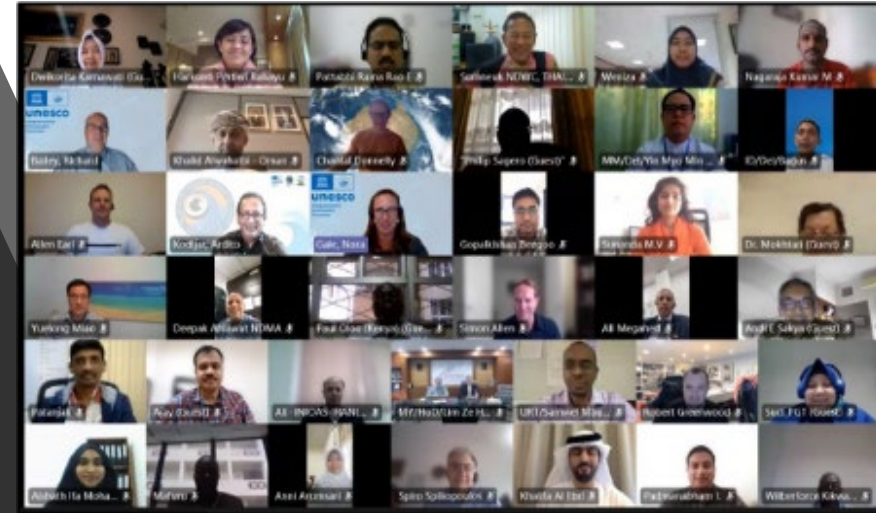
UNESCAP Project

13th Session of the ICG/IOTWMS, 28 November – 1 December 2022, Bali, Indonesia

- 75 participants of 17 Member States
- Offline: 1. Australia, 2. India, 3. Indonesia, 4. Seychelles, 5. Oman, 6. Madagascar, 7. Bangladesh,
- Online: 1. Comoros, 2. France la Reunion, 3. Iran, 4. Pakistan, 5. Kenya, 6. Malaysia, 7. Maldives, 8. Myanmar, 9. Sri Lanka, 10. UAE

Summary:

- To continue WG 1, WG 2, RWG North-West Indian Ocean,
- and established new WG 3 on Tsunami Ready Implementation
- To continue TT Scientific Tsunami Hazard Assessment of the Makran Subduction Zone, and established new TT on IOWave 2023
- Decided to establish Tsunami Ready Focal Points to be nominated by each Member State
- Decided to conduct 2 training workshops on SOPs in the intersessional period
- Decided to continue to hold intersessional activities as integrated meeting where possible
- To hold 14th session in late 2024 in Indonesia in Jakarta to coincide with the Symposium for 20th commemoration of the Indian Ocean Tsunami of 2004 in Indonesia in Banda Aceh



SOP Training Workshops in 2023

1. Eastern Indian Ocean Member State Preparation Meeting For Standard Operating Procedure (SOP) Workshop, 1 June 2023
2. Western Indian Ocean Member State Preparation Meeting For Standard Operating Procedure (SOP) Workshop, 1 June 2023
3. Eastern Indian Ocean TRAINING WORKSHOP:STANDARD OPERATING PROCEDURES (SOPs) for National Tsunami Warning Centres (NTWCs) and Disaster Management Organisations (DMOs), 10-13 July 2023
4. Western Indian Ocean TRAINING WORKSHOP:STANDARD OPERATING PROCEDURES (SOPs) for National Tsunami Warning Centres (NTWCs) and Disaster Management Organisations (DMOs), 3-6 July 2023
5. **NWIO TRAINING WORKSHOP: STANDARD OPERATING PROCEDURES (SOPs) for National Tsunami Warning Centres (NTWCs) and Disaster Management Organisations (DMOs), 17-19 or 24-26 July 2023**
6. **Media SOP Training Workshop, 16 August 2023**
7. **Exercise IOWAVE23 October 2023**



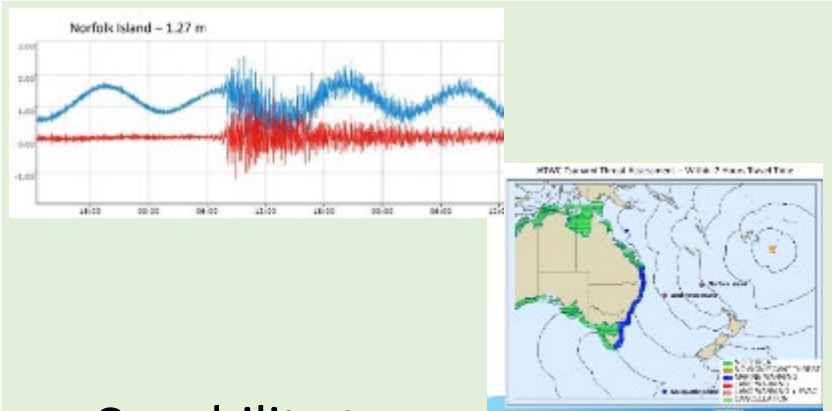
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TSP PROGRESS REPORT

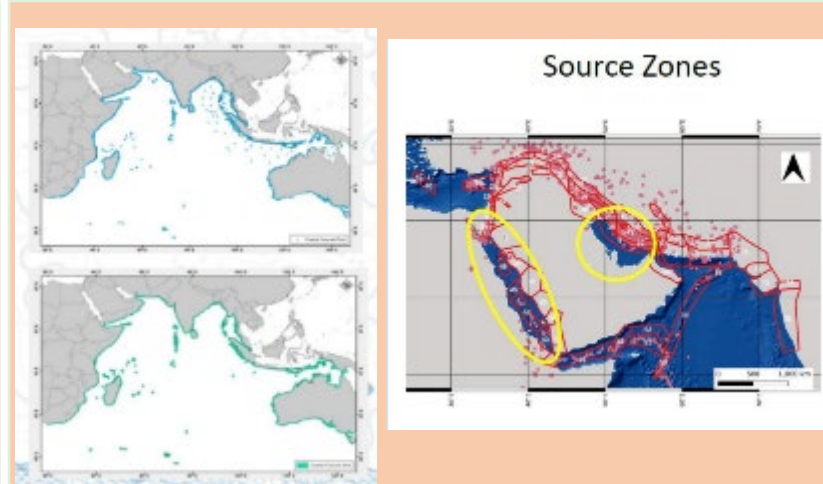


TSP Australia



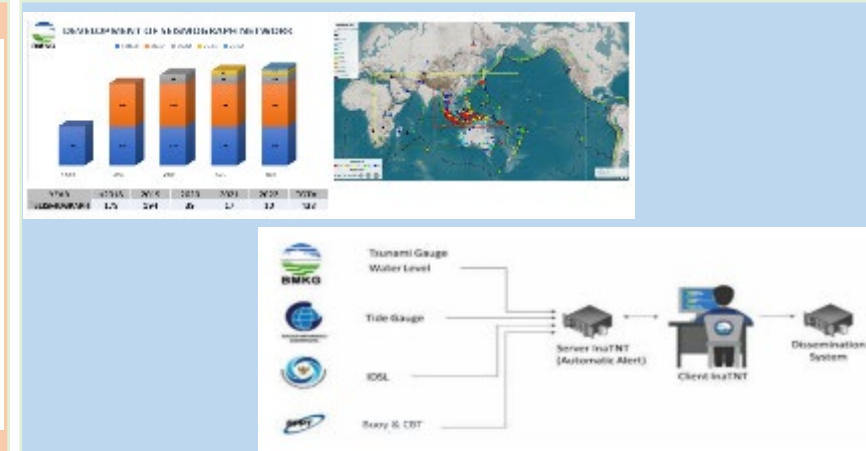
- Capability to produce products for Non-Seismic event
- Capability to deliver Navarea maritime product
- Bureau-JATWC developing a new tsunami decision support tool
- Non-seismic tsunami source SOPs worked well in the HTHH Tonga event

TSP India



- Updated the CFZs of India
- Participating in UNESCAP project of PTHA for Makran Subduction Zone, resulted million tsunami propagation simulations
- Development of web application for KPI

TSP Indonesia



- Progressive deployment of the seismometers (438 in 2022)
- Developing Indonesia Tsunami
- Non-Tectonic monitoring system
- Establishment of the National Consortium of the EQ and Tsunami
- Development impact based real time system of InaTEWS by National Consortium
- Development of new processing system supported by national consortium of expert

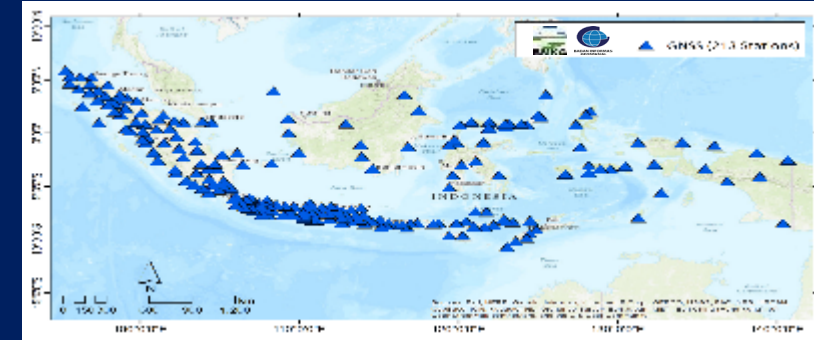
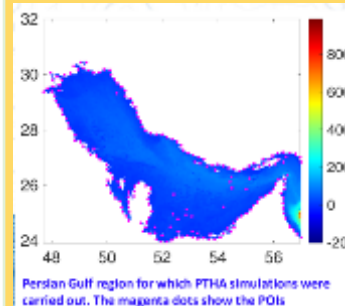
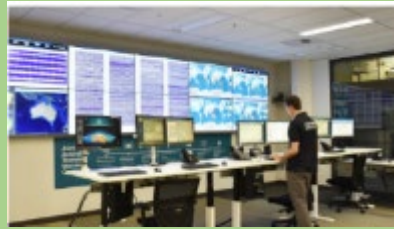
TSP FUTURE PLAN



TSP Australia

TSP India

TSP Indonesia



- GA-JATWC will integrate, test and operationalise seismic array processing as input to rapid earthquake detection and characterization.
- GA-JATWC will commence work towards ISO 9001:2015 accreditation for GA-JATWC systems
- Bureau-JATWC to replace the current tsunami Decision Support Tool with TOAST'.

- Developing SOP for Non-Seismic Tsunami Sources
- Utilization of GNSS & SMA for rupture characterization
- Adopting the multi-hazard approach
- Archive the Makran source PTHA results to provide access to member states
- Mounting efforts on Integrated inversions for tsunami source characterization

- Utilization of GNSS for earthquake parameter calculation
- Research on non seismic tsunami
- Provide sea level observation portal for the Indian Ocean area
- Support the On Job Training for the IO member states
- Development of processing system for Earthquake Early Warning

TSUNAMI READY RECOGNITION IN THE INDIAN OCEAN

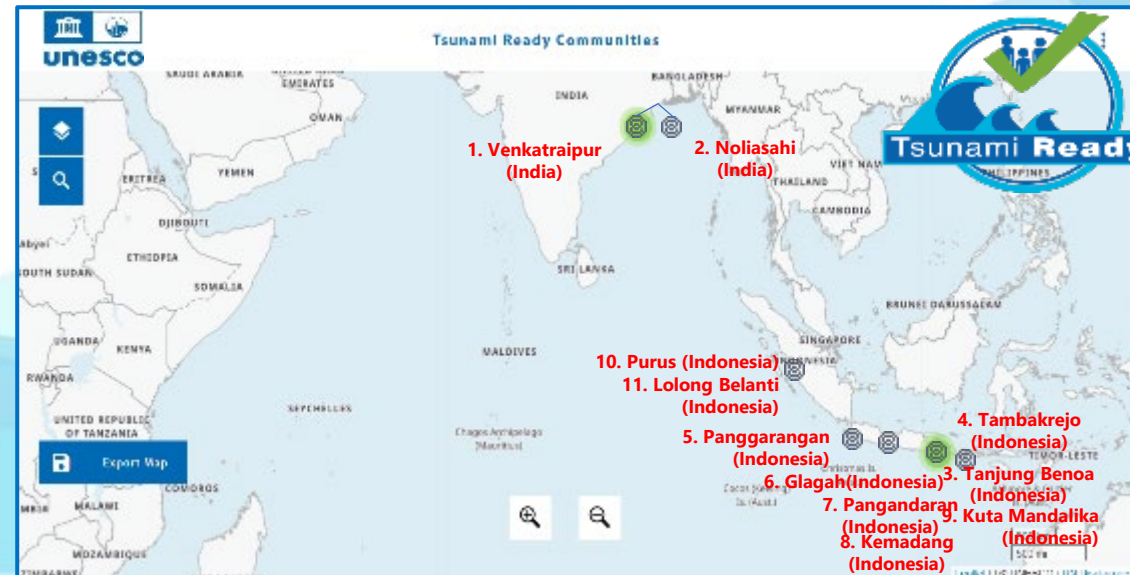
- **11 communities have been recognized as UNESCO-IOC Tsunami Ready, Noliasahi and Venkatraipur (India), and Tanjung Benoa, Panggarangan, Glagah, Tambakrejo, Pangandaran, Kemadang, Kuta Mandalika, Purus and Lolong Belanti (Indonesia).**
- Other countries looking to implement include **Oman, Sri Lanka, Australia, Thailand and Timor Leste**
- **Non-seismic generated tsunami should be considered in the 12 indicators for Tsunami Ready**
- Need to consider **Tsunami Ready Implementation for critical infrastructure**



The Inauguration of 2 Tsunami Ready Communities in India in 2020



The Inauguration of 9 Tsunami Ready Communities in Indonesia in 2022





ICG/IOTWMS FUTURE PLAN



- by UN Ocean Decade Tsunami Programme Science Committee
2. Implement outcomes from Multi-Hazard Early Warning Conference (MHEWC) in Indonesia, May22 and translate Words-into-Action in support of UN Sec General call for all communities to have access to early warning systems by 2027.
 3. Next IOWAVE Exercise to be held in Sep-Oct23
 4. Focus on helping NTWCs develop SOPs for non-seismic and complex source tsunamis
 5. Implement IOC-UNESCO Tsunami Ready Recognition Programme (TRRP)
 6. Pilot Training for Indonesian Facilitators (Jan-Feb 2023) and for Indian Ocean Facilitators (April 2023) for the Conduct UNESCAP funded NWIO Project Phase 2c
 7. The 20th Commemoration of the Indian Ocean Tsunami



The Multi-Hazard Early Warning Conference (MHEWC) in Indonesia, May22