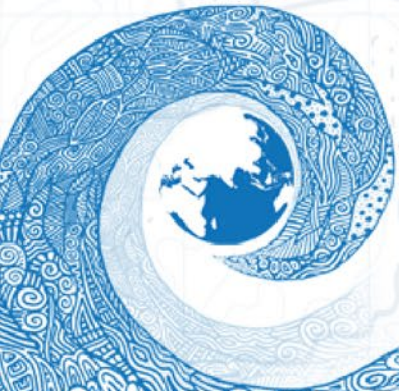


Downstream Capacity Development

Nora Gale, ICG/IOTWMS Secretariat, n.gale@unesco.org

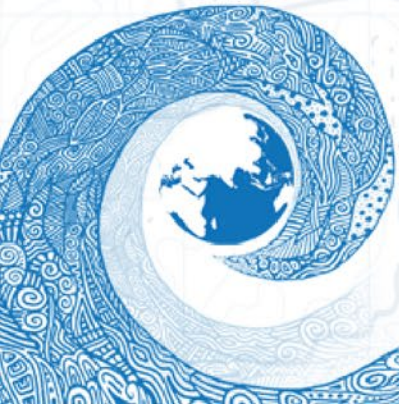
Acknowledgements:

ICG/IOTWMS Task Team on Capacity Assessment of Tsunami Preparedness

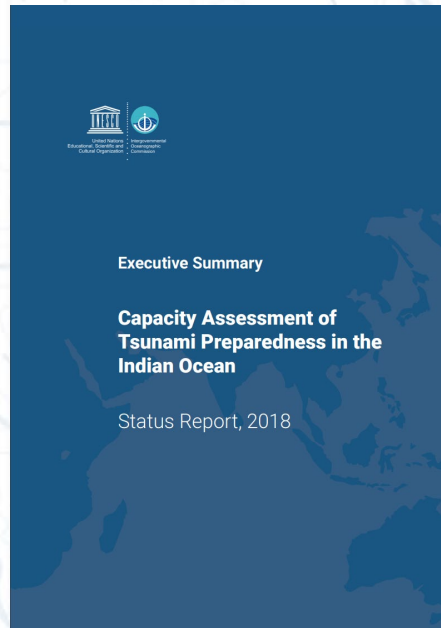
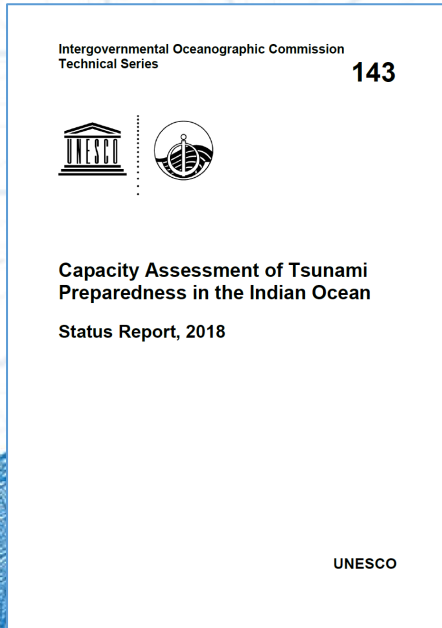


OVERVIEW of PRESENTATION

- 1. 2018 Capacity Assessment Report**
- 2. Risk Assessment & Reduction**
- 3. Awareness, Preparedness & Response**
- 4. Way Forward**



IOC TS-143: Capacity Assessment of Tsunami Preparedness in the Indian Ocean: Status Report, 2018



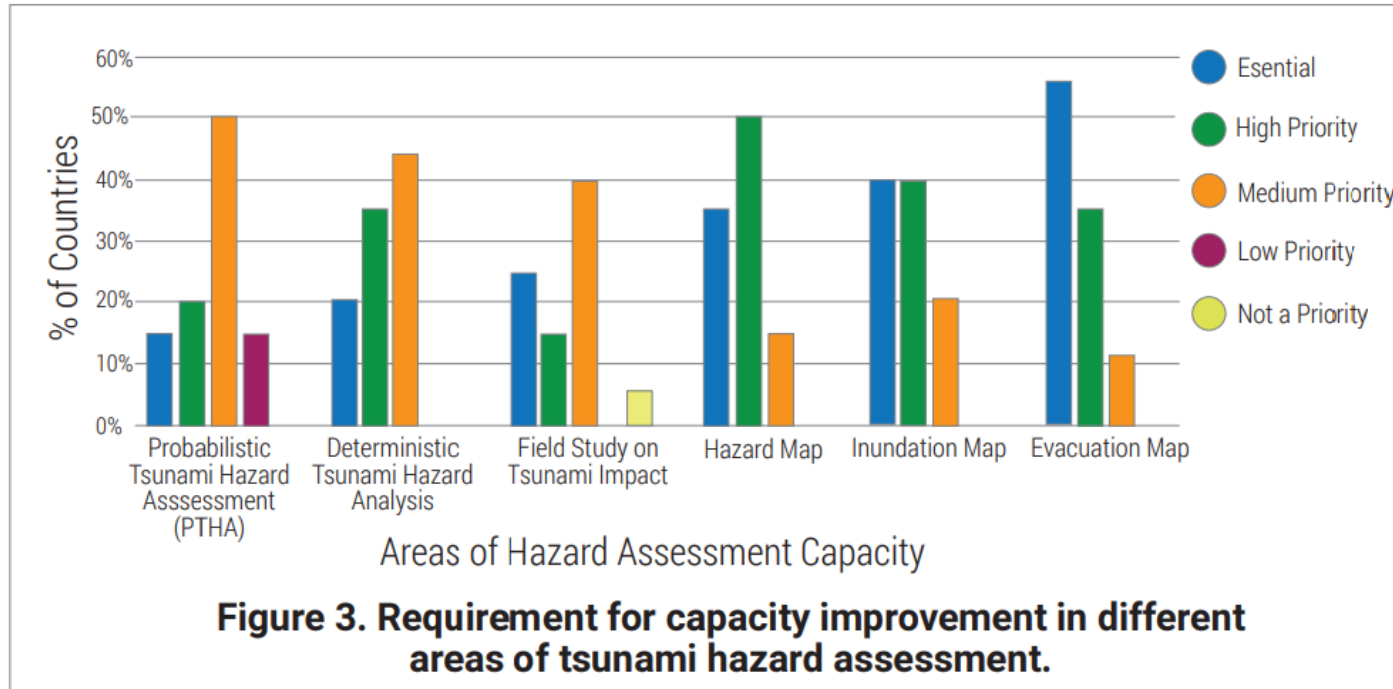
COMPARATIVE LISTS OF COUNTRIES SURVEYED
IN THE 2005 AND 2018 ASSESSMENTS
(by alphabetical order)

2005 Assessment of Capacity Building Requirements for an Effective and Durable Tsunami Warning and Mitigation System in the Indian Ocean (IOC/INF-1219) – Consolidated Report for Countries Affected by the 26 December 2004 Tsunami	2018 Capacity Assessment of Tsunami Preparedness in the Indian Ocean –Status Report (IOC Technical Series, 143)
	Australia
Bangladesh	Bangladesh
Comoros	Comoros
	Overseas France (Indian Ocean)
	India
Indonesia	Indonesia
	Iran (Islamic Republic of)
Kenya	Kenya
Madagascar	Madagascar
Malaysia	Malaysia
Mauritius	Mauritius
Mozambique	Mozambique
Myanmar	Myanmar
Oman	Oman
Pakistan	Pakistan
Seychelles	
	Singapore
Somalia	
	South Africa ¹⁶
Sri Lanka	Sri Lanka
Tanzania	Tanzania
Thailand	Thailand
	Timor-Leste

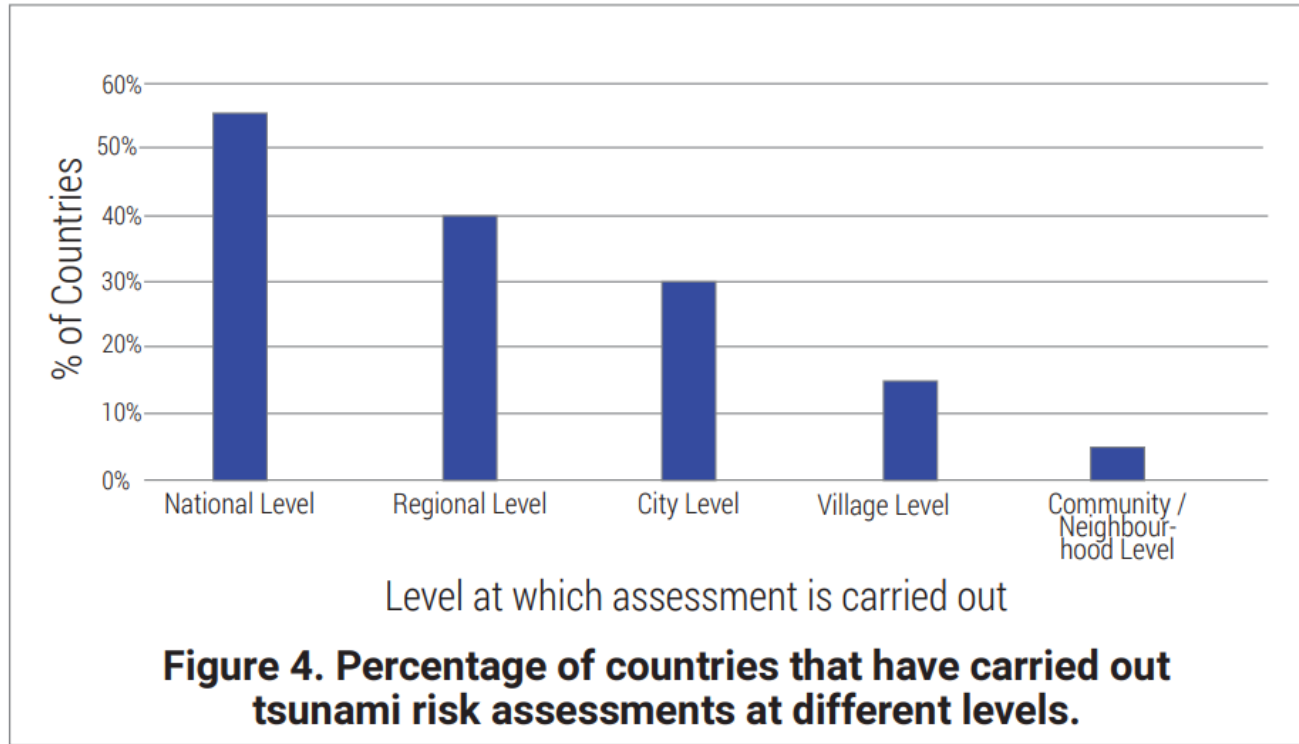
2018 CAPACITY ASSESSMENT REPORT

- The 2018 assessment provides a new baseline of the status of tsunami preparedness capacity in the region.
- The online survey include five sections: 1) basic information; policies, 2) plans and guidelines; **3) risk assessment and reduction**; 4) detection, warning and dissemination; and **5) public awareness, preparedness and response**.
- The results indicate that there has been considerable improvement across all components of the IOTWMS since 2005
- It also identifies specific gaps and prioritises capacity development requirements at both regional and national levels

RISK ASSESSMENT AND REDUCTION

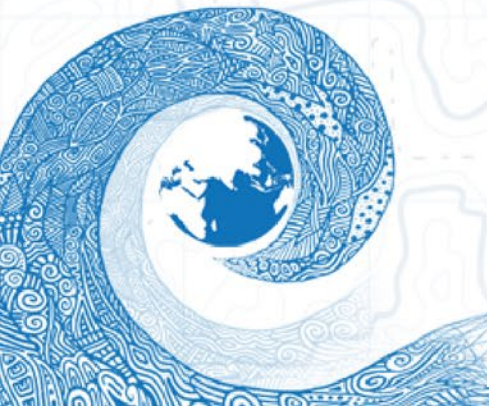


RISK ASSESSMENT AND REDUCTION

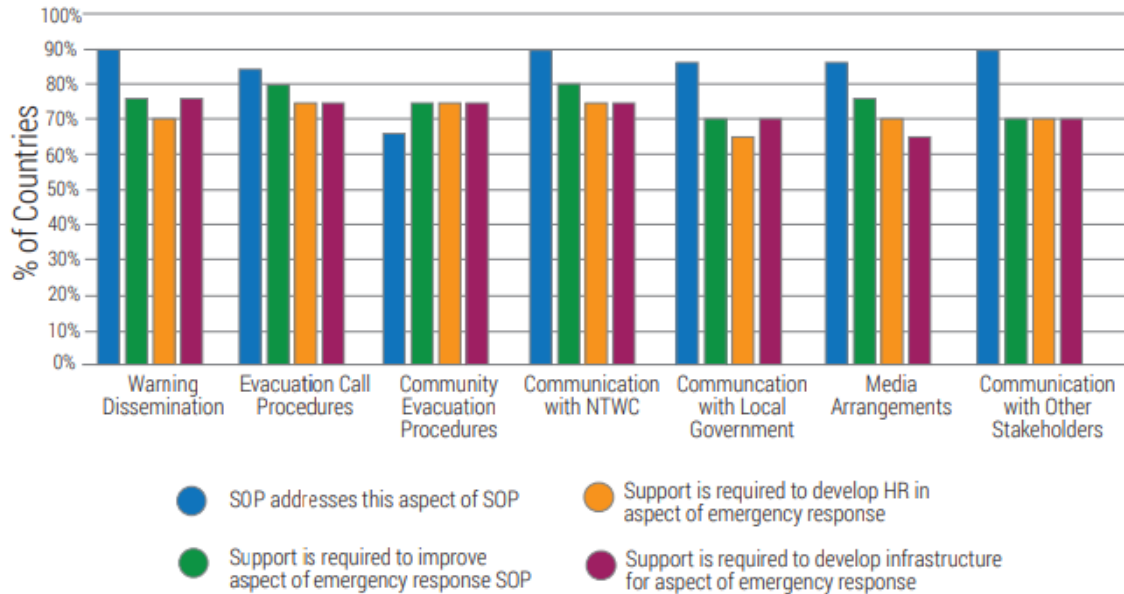


Recommendations (Risk Assessment and Reduction)

- Increase engagement of other national, regional or international actors in the carrying out of tsunami hazard and risk assessments
- Increase the availability of publicly accessible data for tsunami hazard and risk assessments
- Increase the capacity for tsunami hazard assessment, especially in the areas of evacuation mapping, hazard mapping and inundation mapping
- Capitalise on the existing capacity in Member States for delivering training on hazard mapping and inundation mapping
- Increase the capacity for city, village and community level tsunami risk assessments
- Increase the capacity for developing products from tsunami risk assessments, such as risk maps, evacuation maps, guidelines and action plans

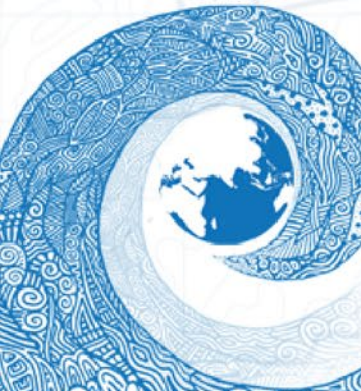


AWARENESS, PREPAREDNESS & RESPONSE

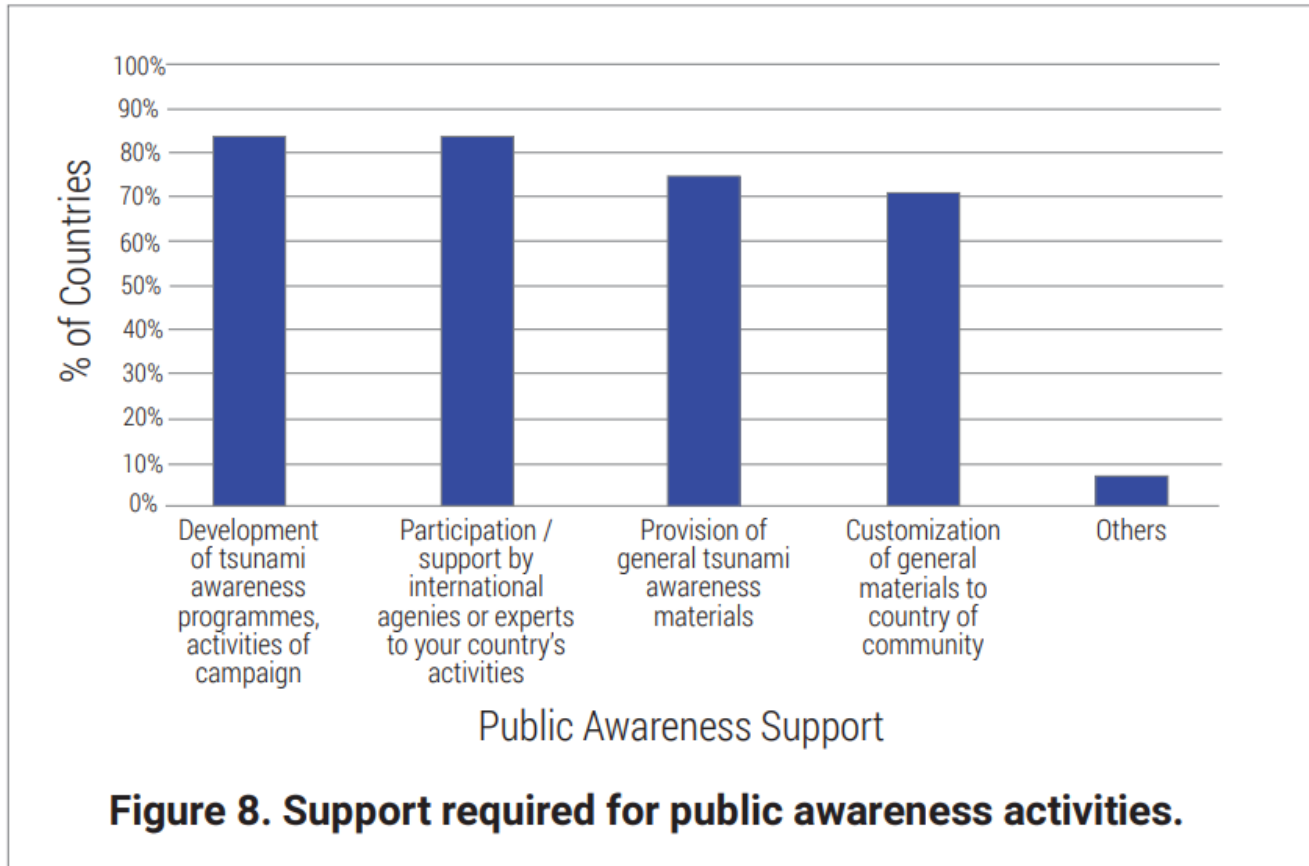


Areas of downstream emergency response SOP

Figure 7. Support required to develop downstream emergency response standard operating procedures.



AWARENESS, PREPAREDNESS & RESPONSE



AWARENESS, PREPAREDNESS & RESPONSE

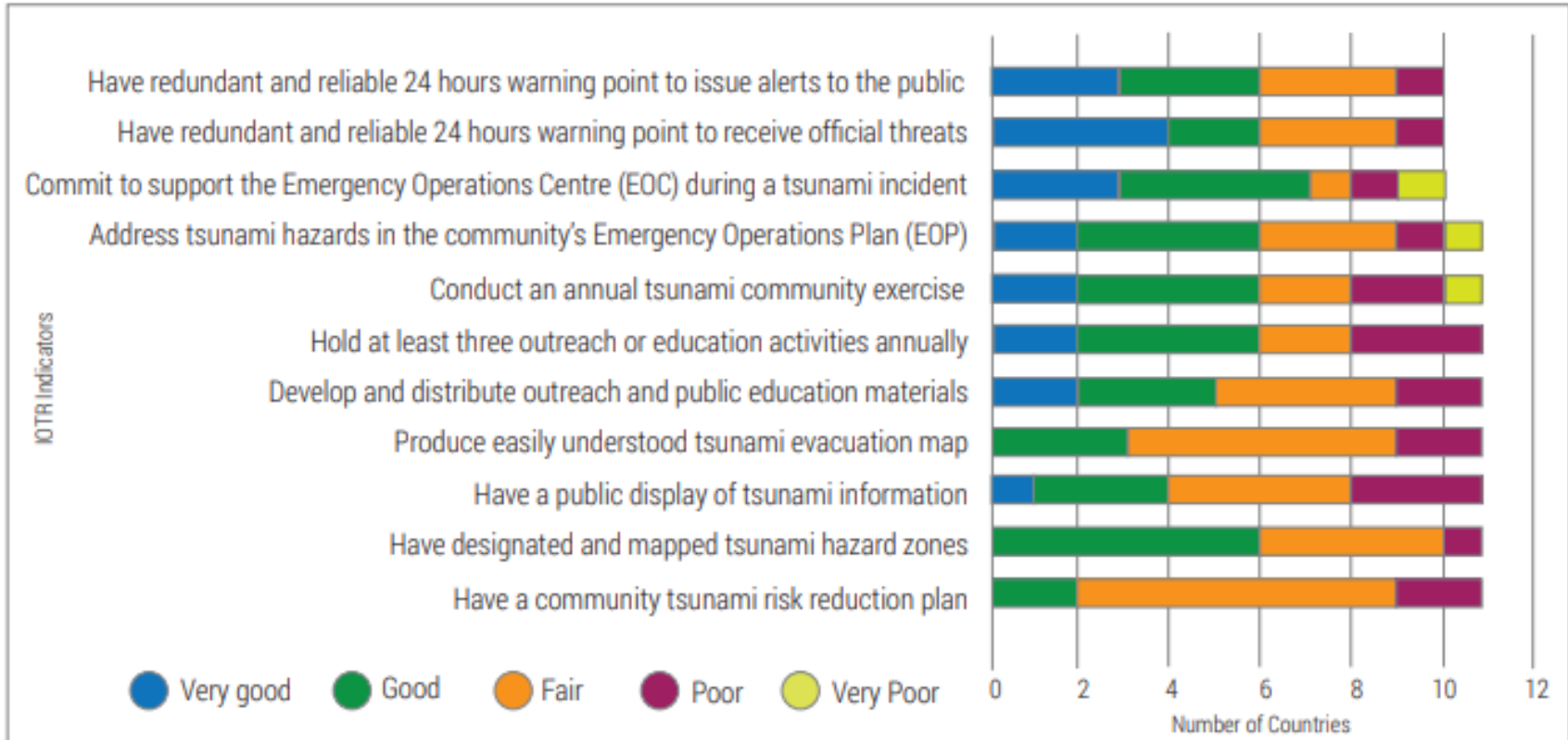


Figure 9. Status of Indian Ocean Tsunami Ready Indicators.

Recommendations (Awareness, Preparedness and Response)

- Provide support for countries to improve their SOPs at the interface between upstream and downstream, including the operation of a 24/7 emergency operation centre, receiving information from the NTWC, and response criteria and decision-making, as well as the associated human resources and infrastructure.
- Provide support for countries to improve their SOPs to address warning dissemination, communication with the NTWC, communication with other stakeholders, evacuation call procedures, communication with local government and media arrangements, as well as the associated human resources and infrastructure.
- Provide support for the development of community level evacuation SOPs.
- Capitalise on the willingness of countries to share their SOPs to share good practices across Member States.
- Provide training and share Member States' experience of different types of evacuation infrastructure.
- Provide support to incorporate tsunami exercises into cities, villages, communities and schools.
- Provide training and share Member States' experience of different public engagement materials.
- Develop educational materials such as teaching kits, and encourage the incorporation of tsunami awareness into the school curricula.
- Raise awareness of the Global Disaster Risk Reduction Day (13 October) and World Tsunami Awareness Day (5 November).

WAY FORWARD (1)

- Capacity building in **tsunami hazard and risk assessment** should continue to be a key activity of WG-1.
- **Inundation modelling** has been identified as a priority capacity development area that is required as input to evacuation planning.
- **Probabilistic Tsunami Hazard Assessments** (PTHAs) should continue to be advanced in the Indian Ocean region as they provide estimates of uncertainties.
- The 2018 tsunamis in Palu and Sunda Strait demonstrated that *tsunami hazard assessments* need to be conducted at the **local level** to facilitate detailed local planning.

WAY FORWARD (2)

- WG-1 with the support of ICG/IOTWMS Secretariat and IOTIC should continue to support downstream activities such as the **UNESCO-IOC Tsunami Ready** programme.
- It is important to conduct tsunami **exercises** and drills to test SOPs and maintain public awareness.
- WG-1 should continue to support the **interface between the upstream** tsunami warning **and downstream** emergency management operations, especially SOP development.
- Workshops and **training on tsunami awareness, education and preparedness** should continue as an activity of WG-1 with the support of ICG/IOTWMS Secretariat and IOTIC.

Thank you.

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Acknowledgements:

ICG/IOTWMS Task Team on Capacity Assessment of Tsunami Preparedness

