

IOC Decision A-33/3.4.1

Warning and Mitigation Systems for Ocean Hazards

The Assembly,

Having examined the executive summary reports of the recent sessions of the regional Intergovernmental Coordinating Groups of the four Tsunami Warning Systems (ICG/NEAMTWS-XIX/3s, ICG/CARIBE-EWS-XVIII/3s, ICG/PTWS-XXXI/3s, and ICG/IOTWMS-XIV/3s), and the report of the Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG-XVIII),

Accepts the reports by the IOC/ICGs and TOWS-WG;

Notes with satisfaction the progress made during the intersessional period, including:

- (i) coordination of the Wave exercises: the PacWave 24 (September to November 2024), the CARIBEWAVE 24 (21 March 2024), the NEAMWave 23 (6–7 November 2023) and the IOWave23 (4–25 October 2023);
- (ii) the continued progress in the implementation of UNESCO-IOC Tsunami Ready Recognition Programme (TRRP) in the Caribbean, Indian Ocean, Pacific region, and in the NEAM regions, with over 100 communities recognised in 31 Member States by April 2025;
- (iii) the continuous engagement of the Task Team on Tsunami Watch Operations (TT-TWO) in developing specialized Tsunami Service Providers (TSP) bulletins for the maritime community in consultation with the International Hydrographic Organisation (IHO) Sub-Committee on the World-Wide Navigational Warning Service (WWNWS-SC);
- (iv) the planned collaboration with the World Meteorological organisation (WMO) to develop a global Common Alerting Protocol (CAP) template for Tsunami Service Providers (TSP) to facilitate dissemination of bulletins from TSPs to National Tsunami Warning Centres (NTWC), between TSPs of different basins, and for public TSP bulletins, to be presented and approved by the TOWS-WG at its next meeting;
- (v) publication of the Reports Monitoring and Warning for Tsunamis Generated by Volcanoes (IOC Technical Series No.183) and Meteotsunamis: definition, detection and alerting services investigation (IOC Technical Series No.200), and the Summary Statement from the 2nd UNESCO-IOC Global Tsunami Symposium on Two Decades After 2004 Indian Ocean Tsunami: Reflection and Way Forward, Banda Aceh, 11–14 November 2024 (IOC Brochure 2025-1);
- (vi) the conduct of the Expert Meeting on Seismic Sources in the Northwest Caribbean and on Non-Seismic Sources of Tsunamis for the Caribbean and Adjacent Regions during 3–5 December 2024 in Heredia, Costa Rica;
- (vii) the Report of the Expert Meeting on Tsunami sources, hazards, risk and uncertainties associated with the Vanuatu, Solomon and New Britain Subduction Zones, Port Vila, Vanuatu, 14–17 May 2024 (IOC/2025/WR/315);

- (viii) launch of the UNESCO-IOC Tsunami Awareness and Tsunami Ready online trainings through the Ocean Teacher Global Academy (OTGA) platform;
- (ix) the exhibition prepared in partnership with the United Nations Office for Disaster Risk Reduction (UNDRR) and Nautilus, featuring portraits by Matt Porteous and inspiring stories together with the historical and contemporary artworks which commemorate the 20th anniversary of the 2004 Indian Ocean Tsunami; organization of the 20th Anniversary of the 2004 Indian Ocean Tsunami Commemoration Event at the UNESCO Headquarters on 26 November 2024 to reflect on resilience, honour those affected, and reaffirm our commitment to disaster preparedness;

Welcomes the appointment of new ICG/IOTWMS, ICG/PTWS (and ICG/CARIBE-EWS) Officers for the biennium 2025–2027;

Expresses its strong appreciation to the Government of Indonesia for having successfully co-hosted and organised the 2nd UNESCO-IOC Global Tsunami Symposium on Two Decades After 2004 Indian Ocean Tsunami: Reflection and Way Forward, Banda Aceh, 11–14 November 2024;

Approves the Tsunami Ready Coalition Implementation Plan as reviewed by the UN Ocean Decade Tsunami Programme Scientific Committee (ODTP-SC) and the Task Teams on Tsunami Disaster Management and Preparedness, and Tsunami Watch Operations (TT-DMP and TT-TWO respectively) including:

- (i) The Coalition mandate and terms of reference,
- (ii) The Coalition structure, and
- (iii) The identified key Coalition Partners;

Instructs the regional ICGs:

- (i) to establish arrangements among Tsunami Service Providers (TSP) within each ICG to ensure that service provision is ensured at all times for the full Area of Service of the ICG;
- (ii) to develop SOPs for any volcanoes with a tsunamigenic potential affecting the Area of Service of Tsunami Service Providers within the ICGs;
- (iii) that dissemination of the specialized TSP bulletins for the maritime community is tested in CARIBE-EWS, IOTWMS and NEAMTWS by at least one TSP either through the planned communication tests or tsunami exercises;
- (iv) that full operational implementation of TSP bulletins for the maritime community by at least one TSP in each ICG takes place in 2025;

Requests the ICG/PTWS to invite Argentina, as well as the ICG/CARIBE-EWS, to actively participate in all organizational and implementation stages of any scientific workshop carried out to assess the potential tsunamigenic risk of the Scotia Arc;

Recommends the regional ICGs:

- (i) to create relationships between National Meteorological and Hydrological Services (NMHS) and TSPs/NTWCs in order to ensure that tsunami-specific instrumentation including Tsunameters/DART® and ocean cable systems are correctly monitored and utilized for detection of meteotsunami;
- (ii) continuation of the investigation and the possibility to adopt tsunami forecasting methods, including probabilistic methodologies, toward impact-based forecasting,

that could also assist post-disaster response, recovery and needs assessment processes;

- (iii) to prioritize regional Tsunami Ready workshops or summits in 2025 and conduct further workshops or summits before 2030;

Requests the IOC Member States to prioritize installation/deployment of additional coastal tide gauges and tsunami detection/observation systems in regions under high tsunami risk with priority areas with known coverage gaps (in alphabetical order: Aegean Sea, Caribbean Sea (West, North and South-East), Indian Ocean (East and North), North Africa, Philippine Sea, Solomon Sea, South China Sea, Timor Sea, and Yellow Sea), to ensure tsunami detection and verification as early as possible;

Encourages Member States to provide voluntary financial contributions to the IOC special account and in-kind contributions to support the Ocean Decade Tsunami Programme, the IOC Tsunami Ready Recognition Programme and the Tsunami Ready Coalition;

Requests the IOC Secretariat to:

- (i) inform Member States of the availability of the Tsunami Ready Toolkit through an IOC circular letter addressed to the Tsunami National Contacts, National Tsunami Ready Boards, and more widely by the attaching it as an appendix to the UNESCO-IOC Standard Guidelines for the Tsunami Ready Recognition Programme (IOC Manuals and guides, 74);
- (ii) disseminate the final version of the basic tsunami warning product/template for use by the radio amateurs, as a guidance;
- (iii) finalize the Tsunami Ready Coalition Implementation Plan in consultation with the Tsunami Ready Coalition Chair the Coalition Partners, 'Ambassadors' or similar namesake, and Coalition Co-Chair;
- (iv) extend invitations to the proposed Coalition Partners and 'Ambassadors' or similar namesake, and a Coalition Co-chair, and urgently address needed resources;

Decides to extend the tenure of the Inter-ICG TT-DMP and TT-TWO and with updated Terms of Reference for the Task Team on Tsunami Disaster Management and Preparedness as included in Annex 1.

Annex 1 to Decision A-33/3.4.1

Task Team on Tsunami Disaster Management and Preparedness (TT DMP)

Revised Terms of Reference

Facilitate in collaboration with key international stakeholders and organizations (such as UNDRR, IFRC, UNDP, WMO, etc.), or initiatives (such as the Tsunami Ready Coalition, Coastal Inundation Forecasting Initiative etc.) the exchange of experiences and information on preparedness and mitigation actions, education/awareness, and other matters related to disaster management and preparedness for tsunamis and other coastal sea level related hazards;

Promote and facilitate the implementation of Tsunami Ready Recognition Programme, and similar initiatives, as well as related capacity development efforts, specifically targeting SIDS and LDCs;

Promote preparedness to build resilient coastal communities through education and awareness products and campaigns;

Facilitate capacity development and training across ICGs to strengthen emergency response capabilities of Member States and their Disaster Management Offices;

Promote existing and encourage the development of preparedness programmes and assessment tools, and synergies with other initiatives (e.g. resilient cities, safe schools etc) that have been successful in one regional Tsunami Warning and Mitigation Systems as appropriate;

Facilitate the coordination of the TICs of the ICGs and reinforce their ability to serve as a clearinghouse for the development of educational and preparedness products, and capacity development and training;

Report to the TOWS–WG.

The representatives to the Inter-ICG Task Team on Disaster Management and Preparedness shall be nominated by their respective ICG Chairpersons. The membership shall consist of two representatives from each ICG, one of which may represent the ICG's Tsunami Information Centre. The IOC Chair will appoint the Chair of the Task Team.