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TOWS WG TASK TEAM ON DISASTER MANAGEMENT AND PREPAREDNESS REPORT AND RECOMMENDATION

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Chair of TOWS WG Task Team on DMP (2022 – 2024)

Chair of WG1 ICG/IOC IOTWMS

1. Wave exercises

ICGs reported on Wave exercise in 2020, and the TTDMP:

- **Noted** that due to the COVID-19 pandemic the planned WAVE exercises workshop has not yet convened, and that CARIBEWAVE, PACWAVE, IOWAVE, and NEAMWAVE exercises did take place in 2020; and *planning for future exercise to adjust with Covid19 pandemic situation*;
- **Requests** the Secretariat to organize a virtual meeting on WAVE exercises to coordinate so as to minimize date conflicts and share best practices for exercise evaluation and the use of online tools, and
- **Agreed** to share outcomes, lessons learned of regional exercises with relevant ICG Working Groups.

2. Performance Indicators

The Task Team discussed KPIs across the ICGs and noted that work has stalled with regards to the consolidation of KPIs across ICGs. Also noting that the theme of the World Tsunami Awareness Day 2021 will link with the target F of the Sendai Framework for DRR 2015-2030 on International Cooperation by developing countries;

- **Recommends** that the CARIBE-EWS, IOTWMS, and NEAMTWS strongly consider including International Cooperation in their KPIs,
- **Requests** that the Task Team on KPIs complete work on a harmonized performance monitoring framework including data collection tools/questionnaire and reporting formats for presentation to the next TOWS meeting, and
- **Requests** the Secretariat to arrange a virtual meeting of the Task Team on KPIs in the near future to discuss a work plan.

3. Local source tsunami SOPs

TTDMP noted:

- The importance of the SOP for local source tsunamis, especially in regards to building preparedness through *natural warning signs*, as well as taking into consideration *atypical tsunamis*. The local source tsunami SOP would also be a good reference for UNESCO-IOC Tsunami Ready.
- The IOC Tsunami Glossary is being updated to include new information on volcanic and landslides sources.
- ICGs / Working Groups are encouraged to further advance the discussion on local source tsunami SOPs

4. NTWC Competency Framework

The TTDMP **noted**:

- The ITIC report on the NTWC Competency Framework to the TT-TWO regarding progressing on finalizing the PTWS Framework, and piloting training according to the Framework in Tonga in 2019,
- That ITIC and the Indonesia BMKG have been designated as **Ocean Teacher Global Academy Specialized Training Centres (OTGA STC)** in 2020
- The confirmation by ITIC that it will take the lead to develop such training under the OTGA, in collaboration with the IOC, TICs, practitioner experts, and Indonesia BMKG, and

Requested the ITIC to report to the TT on the progress at the next TOWS meeting.

5. Tsunami Evacuation Mapping

The TTDMP:

- **Noted** with appreciation the development of community evacuation exercise guidance by the CARIBE-EWS through a draft *IOC MG 86*, and
- **Noted** that community exercises are an Tsunami Ready indicator,
- Encouraged the CARIBE-EWS to finalize and published IOC MG 86, and
- Agreed that the TOWS TT-DMP consider IOC MG 86 for global applicability

6. Structural Design Guidance

The TTDMP:

- **Noted** with appreciation the completion by ITIC of the compilation of international structural design guidance for buildings used as evacuation shelters, and its sharing through the ITIC web site, per the request of the PTWS and TOWS TT-DMP

7. Schools Programmes

The TTDMP:

- **Noted** with appreciation the completion by IOTIC of the compilation of school DRR and preparedness materials, and
- **Recommended** its inclusion as a resource by Member States, and especially as part of Tsunami Ready pilots that include schools.

8. WTAD 2021 and WTAD 2022

The TTDMP:

- **Noted** with appreciation the UNDRR IOC 2020 campaign consisting of high-level events, regional webinars, social media visuals, videos, and eyewitness accounts, and the creation of 15 videos highlighting countries joining the global Tsunami Ready community, and
- **Noted** that the 2021 WTAD highlighted Target 6 on *International Cooperation in developing countries as complement to their national actions*, and
- **Recommends** the continued strong collaboration between the IOC and UNDRR for the 2021 WTAD, highlighting the UN Decade for Ocean Science for Sustainable Development Tsunami Program transformative goals for 100% Global Tsunami Ready for communities at risk of tsunami and deployment of SMART undersea cables for disaster warning.

9. Tsunami Glossary

The TTDMP:

- **Noted** the ITIC report on Tsunami Glossary to the TT-TWO regarding the 3-year update cycle, Member State requests to date, and the planned IUGG Tsunami Commission Working Group on Terminology input, and
- **Recommended** that the ITIC compiles proposed updates for vetting by the TT-TWO and TT-DMP and approval at the next TOWS meeting in 2022.

10. Tsunami Guidance for Maritime and Ports

The TTDMP appreciated the completion by ITIC of the compilation of international guidance for maritime and ports, and its sharing through the ITIC web site per request of the PTWS and TOWS TT-DMP,

- **Noted** the pending TOWS WG request to Japan to assist in the translation of Japan best practices,
- **Requests** the IOC to report on the progress at the next TOWS TT-DMP, and
- **Agreed** that the TT-DMP considers the development of guidelines at its next meeting.

11. Training

- ITIC and IOTIC presented the plan and progress of the training activities and programme under the Ocean Teacher Global Academy.
- ITIC and BMKG Indonesia have received the status of Specialized Training Centre for Tsunamis.
- Under the coordination of the Tsunami Unit in UNESCO IOC and in collaboration with the Tsunami Information Centres (CTIC, ITIC, IOTIC, NEAMTIC) 7 planned courses will be developed until 2023.
- The training programmes consist of Tsunami Awareness, Tsunami Ready, Tsunami Early Warning Systems, Tsunami Warning and Emergency Response SOPs, TEMPP, and Tsunami Warning Centre Competencies. These training courses will be developed based on the related IOC Manual Guides and training that have been implemented by the TICs. Some courses have been developed with hybrid delivery in mind.

12. Tsunami Ready Pilot Programme

The Task Team:

- **Noted** the significant progress achieved by NEAMTIC/NEAMTWS, CTIC, IOTIC, PTWS in piloting Tsunami Ready in each basin. There is a strong link observed between TR and WTAD efforts.
- ITIC proposed to add definitions for the next update of Tsunami Glossary (expected in 2022) on:
 - Ready Community (UTsunami Ready)
 - Tsunami Ready Programme (UNESCO IOC)
 - Tsunami NESCO IOC)

13. Tsunami Ready Pilot Programme - Recommendation

The TTDMP:

- **Appreciates** the growing interest and excellent progress by MS in all ICGs in piloting UNESCO IOC Tsunami Ready,
- **Notes** the challenges of upscaling required to achieve 100% Tsunami Ready in highly vulnerable communities as one of the transformative goals of the UN Decade for Ocean Science for Sustainable Development Tsunami Programme,
- **Notes** the progress by Indonesia in their application for ISO certification of a Community Based Early Warning System,
- **Appreciates** the continued support from USAID/OFDA and DIPECHO and Member States to provide funding support to Tsunami Ready pilots and invites contributions from other agencies,
- **Recommends** the urgent completion of the IOC TS 74 Tsunami Ready Guidelines for widespread distribution to Member States, and
- **Recommends** the IOC to finalize and provide guidance for a Tsunami Ready logo.

14. UN Ocean Decade

The TT:

- **Noted** the significant advancements in the implementation of Tsunami Ready with pilots in all regions, and that that the proposed goal of *100% of communities at risk of tsunamis being Tsunami Ready by 2030* is an audacious and transformative goal in line with the vision of the UN Decade of Ocean Science for Sustainable Development.

Some of the challenges that will need to be addressed include:

- defining the number of target tsunami ready communities
- human resources for administration and facilitation
- acquiring data related to coastal bathymetry and topography and tsunami sources for inundation modeling and mapping
- implementation at regional, national local levels
- guidelines and tools/training for each of the indicators
- inclusion of countries that have their own 'tsunami ready' programmes
- need for local/national TR champions and funding.

14. UN Ocean Decade

- Opportunities to accelerate the implementation of the program include virtual/blended training like OTGA, regional modeling and training hubs with a special focus on universities and optimization of the regional and national exercises for community exercises.
- Other opportunities noted were the synergies with the Sendai Framework (local and national disaster risk reduction strategies) and WMO efforts in Multi Hazard efforts. It was noted that it will be critical to establish alliances with other stakeholders such as WMO and those working in community-based disaster risk reduction like Red Crescent and Red Cross. This also includes partnering with NGOs, establishing community champions, creating regional and national bathymetry grids, and online/blended training.

14. UN Ocean Decade - Recommendation

The TTDMP:

- **Considering** the high numbers of population living along the coastlines that are at risk of tsunamis, the strong interest from Member States across all ICGs in implementing Tsunami Ready, and the opportunity for transformational and bold actions as part of the UN Decade of Ocean Science for Sustainable Development (2021-2030),
- **Recommends** that the TOWS WG proposes a Comprehensive Tsunami Programme under the UN Decade dedicated to achieving the societal outcome of A Safe Ocean with the aim of making *100% of communities at risk of tsunami prepared for and resilient to tsunamis by 2030* through the implementation of the UNESCO/IOC Tsunami Ready Programme and other initiatives.
- **Further recommends** that this Comprehensive Decade Tsunami Programme should focus on inclusiveness and delivery through:
 - The adoption and continued implementation of the UNESCO IOC Tsunami Ready Guidelines and Indicators as the international standard for evidence-based community preparedness for tsunamis.

14. UN Ocean Decade – Recommendation (cont'd)

- Enhanced access and capacity development for high-resolution near shore bathymetry and topography data and tsunami source identification for accurate and improved inundation modelling and evacuation mapping and planning in support of Tsunami Ready communities.
- Enhanced integration to minimize tsunami disaster impacts and to enable rapid restoration of socio-economic activities and critical infrastructure services post tsunami impacts.
- The establishment of a Tsunami Ready Coalition of stakeholders charged with delivering a strategic plan for consideration at TOWS WG XV to facilitate the implementation of the Comprehensive Decade Tsunami Programme through the UNESCO/IOC Tsunami Ready Programme and other initiatives.

Thank you ...