ICG/IOTWMS Working Group-2 Tsunami Detection, Warning and Dissemination *Term of Reference and Membership*

Agenda item 1.4

Dr. Karyono (Indonesia, Chair of WG2) Mr Padmanabham Jijjavarapu (India, Vice-Chair of WG2) Dr. Robert Greenwood (Australia, Vice-Chair of WG2)





Terms-of-Reference WG2

Liaise with other working group(s) and task team(s) within the ICG/IOTWMS and with working groups from the other ocean basins through the TOWS-WG to:

- 1. Coordinate and strengthen the operational implementation of tsunami detection, warning and dissemination, including for tsunamis generated by non-seismic and complex sources.
- 2. Support the Tsunami Service Providers (TSPs) delivery of interoperable regional tsunami threat information products to Member States.
- 3. Support Member States in the development of their national tsunami warning capabilities.
- 4. Monitor the performance of key observational, warning and communication system components.
- 5. Support implementation of IOWave Exercises.



Terms-of-Reference WG2 (cont.)

- 6. Identify areas of priority for action following assessments, communications tests, exercises, and real tsunami events.
- 7. Provide advice on further development of IOC-UNESCO TRRP.
- 8. Provide advice to the Indian Ocean Tsunami Information Centre (IOTIC) on educational materials about the warning systems and services.
- 9. In collaboration with IOC-UNESCO IOTIC and IOC-UNESCO Secretariat for ICG/IOTWMS, help strengthen the capacity and capability of Member States.



Activities may include:

- 1. Help coordinate and facilitate the development and operational implementation of tsunami detection, warning and dissemination systems and procedures within Multi-Hazard Early Warning System (MHEWS) frameworks and systems.
- 2. Monitor, assess and routinely report to the Steering Group and ICG on the performance of Tsunami Service Providers (TSPs), observational seismic and sea level monitoring networks, communication systems and procedures.
- 3. Consult with Working Group 1 "Tsunami Risk, Community Awareness and Preparedness" on the requirements and suitability of threat information and warning products.
- 4. Work closely with Working Group 1 "Tsunami Risk, Community Awareness and Preparedness", Working Group 3 "Tsunami Ready Implementation", IOC-UNESCO IOTIC and IOC-UNESCO Secretariat for ICG/IOTWMS, to help develop the capacity of Member States across the Indian Ocean to implement the IOC-UNESCO Tsunami Ready Recognition Programme (TRRP) or similar initiatives.
- 5. Work closely with Working Group 1 "Tsunami Risk, Community Awareness and Preparedness", Working Group 3 "Tsunami Ready Implementation", IOC-UNESCO IOTIC and IOC-UNESCO Secretariat for ICG/IOTWMS, to develop effective national tsunami warning chains, warning products, services, Standing Operating Procedures, and warning chains.

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Activities may include: (cont.)

- 6. Monitor existing international and national arrangements and provision of real-time data required for tsunami monitoring and warning with regards to seismic, GNSS, sea level and other kinds of measurements and data exchange.
- 7. Undertake studies to determine warning requirements for seismic and sea level data.
- 8. Facilitate the ongoing development and benchmarking of tsunami modelling, forecast and verification systems.
- 9. Contribute to the conduct of regular exercises and communication tests of the IOTWMS.
- 10. In collaboration with Working Group 1 " Tsunami Risk, Community Awareness and Preparedness ", Working Group 3 "Tsunami Ready Implementation", IOC-UNESCO IOTIC and IOC-UNESCO Secretariat for ICG/IOTWMS, help to develop, coordinate, and implement training and capacity building programmes for NTWCs, DMOs and Broadcast Media in the Tsunami Warning Services.
- 11. Develop and maintain relevant documentation, such as the IOTWMS Service Definition and IOTWMS NTWC Users Guide

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Rules and Conditions for ICG/IOTWMS WG

• Working language: English

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- Frequency of meetings: During inter-sessional period of the ICG/IOTWMS
- Coordination and elections: Following the rules of procedures applying to IOC subsidiary bodies, unless elected by the ICG/IOTWMS, a chair and at least one vice-chair will be elected by the members of the working group or task team for two years with possible re-election of one term in the same position
- Members and appointment: Nominated by Heads of ICG/IOTWMS National Delegations and/or Tsunami National Contacts of Member States in accordance with the rules of procedures applying to IOC subsidiary bodies. Technical experts and observers can be invited at the discretion of the chair
 - Duration of the working group and task teams: **Two years**, renewable subject to review by the ICG/IOTWMS

Rules and Conditions for ICG/IOTWMS WG (cont.)

- Programme of inter-sessional work is guided by its Terms-of-Reference decided by the ICG/IOTWMS and actions requested by the ICG/IOTWMS
- Inter-sessional work is generally conducted by email and teleconference, in addition to at least one face-to-face meeting subject to availability of members and budget
- Reports: A progress report must be submitted to the Secretariat two months before each ICG session and within two months of each working group or task team meeting with the assistance of the Secretariat.
- Financial resources: Participation in the working groups and task teams, including attendance at meetings, will be at national expense.

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Members of WG-2

Dr. Karyono (Indonesia) Mr J Padmanabham (India) Dr Robert Greenwood (Australia) Ms Adrienne Moseley (Australia) Mr M Nagaraja Kumar (India) Dr Chai Mui Fatt (Malaysia) Jean Bernardo ANDRIANAIVOARISOA (Madagascar) Mr Jaifar Al-Busaidi (Oman) Mr Malik Al-Ghafri (Oman) Mr Ameer Hyder (Pakistan) Mr Tariq Ibrahim (Pakistan) **Rina Ramarolahy ANDRIANASOLO** (Madagascar) Iman Fatchurachman (Indonesia) Urip Setiyono (Indonesia) Yedi Dermadi (Indonesia)

karyonosu@gmail.com (Chair) padmanabham@incois.gov.in (Vice Chair) robert.greenwood@bom.gov.au (Vice Chair) adrienne.moseley@ga.gov.au raja@incois.gov.in chai@met.gov.my andrijb08@gmail.com J.albusaidi@met.gov.om m.alghafri@met.gov.om free2hyder@yahoo.com t jaan1@hotmail.com rinaranamana@gmail.com imangeo@gmail.com usetiyono08@gmail.com ydermadi@yahoo.com