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Intergovernmental
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Commission

WG1 – Tsunami Risk. Awareness and Preparedness Progress Report

Chair
Harkunti P. Rahayu
23-24 November 2021

WG1 – 1st Intersessional Meeting

BMK Jakarta, 30 September 2019

Attendees:

1. Harkunti P. Rahayu (Indonesia) - Chair
2. Gareth Davis (Australia) – Vice Chair
3. Nora Gale (ICG/IOTWMS Secretariat)
4. Mr. Ajay Kumar Bandela (India)
5. Mmaphaka Tau (South Africa)
6. Dilanthi Amaratunga (UK)
7. Richard Haigh (UK)
8. Sunil Jayaweera (Sri Lanka)
9. Harald Spann (Germany)
10. Rick Bailey (Australia)
11. Mohammad Mokhtari (Iran)
12. Mahmood Reza Akbarpour Jannet (Iran)
13. Suci Dewi Anugrah (Indonesia)
14. Weniza (Indonesia)
15. Alyadhan Al-Siyabi (Oman)



ICG/IOTWMS WG 1 Intersessional Online Meetings
3 December 2019

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1. Progress on Activities

#	Open Action	Who	Update Dec 2020	Update Nov 2021
ICG 12.55	Requests Working Group 1 to update the Probabilistic Tsunami Hazard Assessment (PTHA) for Indian Ocean based on recent work by Geoscience Australia in collaboration with relevant experts from the Member States;	Gareth Davies	Ongoing – Makran PTHA under development as part of UNESCAP project. A natural progression would be to undertake the IO PTHA following the completion of the Makran PTHA noting lessons learnt during the initiative regarding Hazard Assessment for MSZ.	No further progress, noting Makran PTHA is ongoing
ICG 12.59	Requests Working Group 1 to prepare guidance to facilitate Member States to establish/update their national policies and plans to make tsunami preparedness mandatory for the coastal and marine private/business sector and infrastructure;	Secretariat	Ongoing – Guideline needs to be completed. IOTIC held a workshop on tsunami preparedness for critical infrastructure (Dec 2019).	Draft ToRs have been completed for discussion at SG Nov 2021 for recommendation to go to ICG XIII in May 2022
WG1 2019.01	Review the PTWS KPI framework with reference to the TT-CATP survey and provide input to a consolidated report for TOWS-WG-XIII	Chairs WG1 and WG2	Ongoing – Chairs of WG2 and WG2 (Harkunti Rahayu and Yuelong Miao) to contribute.	Comment by Secretariat: Next meeting of joint ICG team developing global KPIs to be held 16 December 2021. To be completed by January 2022.
WG1 2019.02	Conduct regular performance status assessment using Survey Monkey, once in every two years (upcoming survey in October 2020)	Secretariat	Ongoing – To be discussed further at SG meeting.	To be discussed at ICG intersessional meeting and SG meeting Nov 2021

1. Progress on Activities

#	Open Action	Who	Update Dec 2020	Update Nov 2021
WG1 2019.03	Continuous improvement on CATP questionnaires	Secretariat and Chair WG1	Ongoing – WG-1 suggested to add section on pandemic. Harkunti, Nora, Richard and Dilanthi to discuss further.	To be discussed at ICG intersessional meeting and SG meeting Nov 2021
WG1 2019.07	Develop an IOC Technical Series document on governance of the upstream-downstream interface in tsunami early warning including a national self-assessment tool	Chair WG1	Ongoing.	Comment by Secretariat: As an IOC TS document is being proposed that will benefit all ICGs, this should be a recommendation to the TOWS-WG Task Team on Disaster Management and Preparedness (Secretariat to confirm the arrangements to commence the development of the guidelines)
WG1 2019.08	Develop a concept note on mainstreaming disaster risk reduction into urban planning and resilience	Harkunti Rahayu	Ongoing – GDRC (Richard and Dilanthi) has secured funding to work with ITB on this initiative.	Concept note is done. Associated research is Ongoing. Pls see the flyer attached. Findings arising from research will be ready for may 2022 meeting. Guidelines to be developed by the WG1
WG1 2019.11	Develop tools for upstream-downstream interface assessment	Harkunti Rahayu	Ongoing – Funding has not been secured.	We are still seeking funding to complete this exercise, which would collate previous ‘interface’ work that has been published in journal articles and will develop more practical tools for use by member states.

Mainstreaming disaster risk reduction into urban planning and resilience



Urban planning and development to reduce tsunami risk

Purpose:

The main purpose of this study is to understand how urban planning and development can be used to mitigate tsunami risk and develop a set of principles that can inform urban planning and development in tsunami prone areas. The results of the study will inform a guideline on urban planning and development to address tsunami risk that is being developed by the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) of The Intergovernmental Oceanographic Commission of UNESCO (IOC/UNESCO), Working Group 1: Tsunami Risk, Community Awareness and Preparedness.

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- **Output:**
- **Guideline on urban design to address tsunami risk – WG1 of ICG/IOTWMS**

1. Progress on Activities

#	Open Action	Who	Update Dec 2020	Update Nov 2021
WG1 2019.12	Support IOTIC in implementation of UNESCO-IOC Tsunami Ready Program and recognition in the IOTWMS Member States	WG1	Ongoing.	Closed. Comment by Secretariat: This should be a recommendation to the ICG to change ToRs to reflect this as ongoing activity
WG1 2019.13	Support integrated capacity development training workshops (i.e. SOP, TEMPP, Media)	WG1	Ongoing – Held virtual pre-IOWave20 SOP workshop.	Closed. Comment by Secretariat: This is existing ToR#1 and not an action item. Need specific actions related to ToR#1 in future
WG1 2019.14	Explore the possibility of utilising the online training platform being developed by the Global Disaster Resilience Center and other collaborative opportunities for meeting the capacity development needs of the IOTWMS Member States;	Harkunti Rahayu, Dilanthi Amaratunga, Richard Haigh	Ongoing.	Following the UK's withdrawal from the EU Erasmus+ programme no current opportunities to pursue this development. suggestion: to be removed from the work plan. However if new funding opportunities emerge, this can be proposed again in the future.
WG1 2019.15	In conjunction with IOTIC, develop a brief note on communication plan including target audience, means to be shared at ICG-XIII	Secretariat, IOTIC	Ongoing.	To be discussed at SG Nov 2021 and developed for ICG XIII in May 2022
WG1 R2020.1	ICG/IOTWMS endorse the recommendations of the Capacity Assessment of Tsunami Preparedness [Status Report 2018] related to a) risk assessment and reduction and b) awareness, preparedness and response for consideration in the WG-1 work plan.	Secretariat	New	To be discussed at ICG intersessional meeting and SG meeting Nov 2021

1. Progress on Activities

#	Open Action	Who	Update Dec 2020	Update Nov 2021
WG1 2020.1	Noting the kind offer of WG1 to assist with the upcoming Capacity Assessment of Tsunami Preparedness, a team consisting of Harkunti Rahayu, Dilanthi Amaratunga, Richard Haigh, and Nora Gale to discuss the CAPT survey in more detail including incorporation of pandemic-related questions such as the extent to which tsunami preparedness measures have been adapted to Covid-19 conditions.	Harkunti Rahayu, Dilanthi Amaratunga, Richard Haigh, Nora Gale	New	It was later decided that this survey should focus on 'Tsunami warning services, evacuation, and sheltering during COVID-19', rather than replicate the full CAPT 2018 survey. The survey instrument was jointly developed by HUD (Richard and Dilanthi) and ITB (Harkunti). It was then refined following inputs by the Secretariat and WG1. In October 2021, the survey was issued to all IOTWMS Tsunami National Contacts. 31 responses have been received to date, covering 11 countries, mainly from NTWCs. There is still a need to increase response rates from NDMOs and sub-national response partners, which will enable us to provide a full analysis. A draft report of the findings will be shared before / during the May 2022 meeting.
WG1 2020.2	Working Group 1 to support the “developing and harmonizing local capacities for tsunami early warning project” being undertaken with ITB and University of Huddersfield with a case study taken in Indonesia funding from 2020 Newton Prize Winners (Harkunti P. Rahayu and Richard Haigh).	Harkunti Rahayu, Richard Haigh	New	Due to COVID-19 disruptions, the grant has been extended until March 2022. Desk studies and fieldwork in Indonesia are ongoing. We will be able to share findings at the May 2022 meeting. Please visit the project website for further details: http://deltaproject.info

Developing and Harmonizing Local Capacities for Tsunami Early Warning



Developing and Harmonising Local Capacities for Tsunami Early Warning

What is the nature of the research problem?

Recent studies have revealed the interconnectedness, and economic and social importance of coastal, urban populations in Indonesia and elsewhere in the region. They have also highlighted their high exposure to disaster risk and limitations in tsunami preparedness. These include capacity gaps among key agencies, including varying availability of national and sub-national standard operating procedures for tsunami early warning (TEW), as well as technical and human capacities. Recent events in Indonesia also demonstrate the challenges posed by near field tsunami events that can cause inundation within minutes.

In responding to such challenges, countries are developing more advanced systems for TEW, such as Indonesia's TEW (InaTEWS) 4.0, which will enable the rapid dissemination of data rich mapping and advisories to relevant agencies and the wider public. But, if InaTEWS 4.0 is to be effective, it is necessary to harmonise capacities for TEW at the local level. Official warning information also has to work alongside, but sometimes compete with informal communication such as social media, creating confusion.



1. Map and measure the relationships and flows between downstream actors in the dissemination of TEW
2. Develop a framework to increase and harmonise the capacity of downstream actors in TEW
3. Understand the barriers and enablers for the next generation of TEW dissemination (such as InaTEWS 4.0), and its ability to deal with emerging challenges identified in the last newton project, such as near field tsunamis and socialmedia
4. Build researcher capacity to address disaster risk, including improved disaster risk reduction and early warning at the local level

1. Progress on Activities

#	Open Action	Who	Update Dec 2020	Update Nov 2021
WG1 2020.3	Working Group 1 to support the integration of pandemic, tsunami and other multi-hazard preparedness into Early Warning and Urban Planning project with improved systems being undertaken in 2021-2021 by ITB and University of Huddersfield, with a major survey to be undertaken in the Indian Ocean and case studies to be undertaken in Indonesia and Sri Lanka.	Harkunti Rahayu, Dilanthi Amaratunga Richard Haigh	New	<p>The regional survey is a duplicate of WG1 2020.1.</p> <p>Study findings on “integration of pandemic, tsunami and other multi-hazard preparedness into Early Warning and Urban Planning” will be presented in May 2022 meeting with an update to be provided for the November 2021. Project flyer is attached herewith</p> <p>Another project closely linked to above, also supported by the ITOWMS secretariat and WG1 was commenced in 2020, entitled: “Improving COVID-19 and pandemic preparedness and response through the downstream of multi-hazard early warning systems”, also with amalgamating downstream responses including for tsunamis. Findings to be ready for May 2022 with options to provide a short update for November 2021 meeting. Project flyer is attached . project web address is:</p> <p>http://www.pandemic-mhew.org/</p>

Improving COVID-19 and pandemic preparedness and response through the downstream of multi-hazard early warning systems

Improving COVID-19 and pandemic preparedness and response through the downstream of multi-hazard early warning systems



Problem being addressed

Many countries now recognise the need for improved pandemic preparedness. The WHO has declared COVID-19 a pandemic, but its underlying factors, vulnerabilities and impacts go far beyond the health sector. COVID-19 has overwhelmed health systems and caused widespread social & economic disruption in Sri Lanka, including an estimated Rs 900billion / 6% GDP to the economy, especially the tourism, agriculture, garment and service sectors.

By putting societies and economies on hold, Sri Lanka has curtailed the virus' spread. These defensive measures have helped to limit the short-term impacts of the virus, but also resulted in a shift of priorities that disproportionately affect disadvantaged groups, including people in poverty, displaced people and refugees, who most often live in overcrowded and under resourced settings.

Current COVID-19 measures have also exposed gaps in the country's DRR (disaster risk reduction) strategies, which have failed to address pandemics and other biological hazards. Government agencies are already stretched trying to manage the COVID-19 response, but how would they cope if another natural hazard occurred concurrently, such as the seasonal Southwest Monsoon which is expected to increase dengue cases? COVID-19 protocols may create ambiguity or confusion with regards to other hazard warning services, as well as with response actions like evacuation for tsunamis.

There are also opportunities for pandemic preparedness and response to make better use of the existing infrastructure, including other hazards' early warning protocols. Addressing these will require the integration of pandemics into a multi-hazard, national and local strategy for DRR, advocated in SFDRR, but not implemented. It will also necessitate a multi-stakeholder approach to collectively examine impacts, coordinate fiscal, monetary, and social measures, share practices and lessons learned.

1. To identify the key actors and what are the processes involved in the preparation of COVID-19 and other pandemic warning and dissemination processes
2. To propose recommendations to mainstream COVID-19 and other pandemic threats to be integrated within national and local disaster risk reduction strategies
3. To explore the impact of COVID-19 on the response capabilities for other hazards, either multiple simultaneous events, or cascading impacts and to understand what components of early warning system are greatly affected due to dual challenges associated with COVID-19
4. Develop and implement a synergised COVID-19 and public health surveillance system with “the last mile” of MHEW.
5. To identify how would pandemic response measures impact the downstream response to other hazards, including mass evacuations with increased capacity of shelters, camps and to identify measures to overcome these tensions in an emergency situation
6. To propose how the COVID-19 and public health surveillance system can be synergised with “the last mile” of multi-hazard early warning systems, where community networks, communication systems, and citizen behaviours can be utilised for pandemic EWS at the community level

Additional Activities

1. 13 October 2020 WG1 with BNPB (NDMA) co-hosted International Webinar attended by IOTWS, PTWS, UN-DRR and many experts from the globe.
2. 13 October 2021 WG1 was invited at Sri Lanka Disaster Risk Reduction Day

2. Challenges

- Due to Covid19: several intersessional WG1 meeting were conducted online with the support from ICG IOTWMS Secretariat
- Due to Covid19 restriction regulation, several activities with field works component have been delayed. They are:
 - WG1 2019.08 - mainstreaming disaster risk reduction into urban planning and resilience
 - WG1 2020.2 - developing and harmonizing local capacities for tsunami early warning project
 - WG1 2020.3 - the integration of pandemic, tsunami and other multi-hazard preparedness into Early Warning and Urban Planning project with improved systems being undertaken in 2021-2021
- Due to Covid19 many program in Member States have been refocussed for Covid19 response
- UK's withdrawal from the EU Erasmus+ programme have affected to lack of funding opportunity, i.e. WG1 2019.14 – development online training platform

3. Pathways Forward & Opportunities

- Seeking potential funding for several WG1 activities
- Several activities conducted by