

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)
**Intergovernmental Coordination Group for the Pacific Tsunami Warning
and Mitigation System (ICG/PTWS)**

Steering Committee Meeting

26 March 2024 (Online)

Report

The Steering Committee Meeting of the ICG/PTWS took place online during 26 March 2024 22:00 UTC – 27 March 2023 01:30 UTC. Meeting participants were Mr Yuji Nishimae (Chair of ICG/PTWS), Mr Wilfried Strauch (Vice-Chair of the ICG/PTWS), Mr Rick Bailey (Technical Secretary of ICG/IOTWMS), Mr Öcal Necmioğlu (Technical Secretary of ICG/PTWS), Mr Michael Angove (USA), Ms Suci Anugrah (Indonesia/BMKG), Ms Patricia Arreaga (Ecuador), Ms Lara Bland (New Zealand), Mr 'Ofa Aa'anunu (Tonga), Ms Laitia Fifita (Tonga), Ms Ashleigh Fromont (New Zealand), Mr Bill Fry (New Zealand), Ms Esline Garaebiti (Vanuatu), Mr Indra Gunawan (Indonesia), Mr Yutaka Hayashi (Japan), Mr Anthony Jamelot (French Polynesia), Mr Geoff Kilgour (New Zealand), Ms Luara Kong (ITIC/USA), Mr Ching-chi Lam (China), Ms Griselda Marroguin (El Salvador), Mr Margarita Martinez (Chile), Mr Charles McCreery (USA), Mr Timothy Melbourne (USA), Mr Mathew Moihoi (Papua New Guinea), Mr Christopher Moore (USA), Ms Adrienne Moseley (Australia), Mr Carlos Perugachi Salamea (Ecuador), Mr Jonathan Tafiariki (Solomon Islands), Mr Shingo Ushida (Japan), Mr Rennie Vaiomounga (Tonga), Mr Dakui Wang (China), and Mr Zhiguo Xu (China).

The agenda of the meeting was as follows:

- 1) Welcome and Opening
- 2) IOC/UNESCAP Tsunami Capacity Assessment Project
- 3) 2nd Tsunami Global Symposium
- 4) SMART Cable
- 5) Provision for Tsunami Services for the Maritime Community
- 6) User's Guide
- 7) Tsunami Ready Recognition Program
- 8) UN Ocean Decade Tsunami Program
- 9) Organization of Member States in the WGs and TTs
- 10) Approval status of the NTCW Competency Framework
- 11) Date and Venue for the Next ICG/PTWS SC Meeting
- 12) ITIC Training Programme plans – 2024
- 13) Vanuatu – San Cristobal – New Britain Subduction Zones – Expert Meeting on Tsunami Sources, Hazards, Risk and Uncertainties
- 14) Any Other Business
- 15) Closing

1) Welcome and Opening

The Chair proposed a change in the agenda, namely, to delay the consideration of agenda items 2 (IOC/UNESCAP Tsunami Capacity Assessment Project) and 3 (2nd Tsunami Global Symposium), as the presenter (Mr Rick Bailey) will be able to join to meeting later. He suggested to start of the meeting with agenda item 4 (SMART Cable) first. For the purposes of this report, the original agenda is followed.

2) IOC/UNESCAP Tsunami Capacity Assessment Project

Mr Bailey presented [the agenda item on IOC/UNESCAP Tsunami Capacity Assessment Project](#) and explained the proposal of the Tsunami Capacity Assessment Project. He mentioned the previous comprehensive assessments from

the PTWS, ESCAP, and IOTWMS after the tsunami in 2004 which are available online as the report. In terms of the capacity assessment of tsunami preparedness, he stated that they had funding agencies through UNESCO after the 2004 tsunami. However, he raised the issue that the proposal agreement for supporting the Pacific between the UNESCAP and ADB was not submitted after the ICG, and he believed that it was a good opportunity to raise the commitment and get cooperation for the ADB and ESCAP. In addition, he pointed out the expected outputs from the IOTWMS in 2024 and the PTWS in 2025. In terms of the tsunami preparedness recommendations, he stated that IOC has done the technical capacity assessment, summary, and comparative analysis and ESCAP has done the summary for the policymakers and helped to make connections with the funding agencies.

Mr Bailey shared the timetable and mentioned the 20th commemorations events in 2024 which agreed on the last ICG in November 2023. In terms of the data collection, he mentioned that they have a good survey tool for the Indian Ocean and the Pacific for comparison. He further mentioned a project for member states who need a support to incorporate the assessment for the expert. The process in the Indian Ocean by visiting the field and investigating what needs to be done with UNESCAP will be in May for some countries including Bangladesh and Maldives, Thailand, Malaysia, Timor-Leste, Indonesia, etc. **Mr Bailey** also highlighted that all the decisions depend on the Chair. Concerning the assessment indicative budget, he mentioned it is possible and divided the needs (Staffing, Workshops, Travel).

The Chair believed this project is important and useful to be aware of the PTWS about the Tsunami Warning System and Preparedness. He stated that ICG-PTWS should discuss the acceptance of the project, however, they don't have enough time to have it because the next ICG will be in the next year. Therefore, **the Chair** wanted to discuss this issue in this meeting and report the conclusion in the next Steering Committee Meeting and ICG Session.

Ms Kong stated that it is a good idea and raised a question about which countries are included in the funding by the UNESCAP and ASEAN. In addition, she wondered about the plan for reporting in the Pacific Forum because the Indian Ocean countries and Pacific Ocean countries are not the same.

Mr Bailey answered that UNESCAP has a certain member state and in terms of visiting fields, experts could only visit the UNESCAP countries. He added that UNESCAP and ASEAN are trying to align with countries by giving a timeline for the answer to the second question. For the final stage, the fund will be done through UNESCAP, and in terms of transferring the fund, it will take a lot of time in the UN system.

Mr Jamelot raised a question if the survey is for all member states or not, as he was concerned that they have many surveys including the PacWave 24. **Mr Bailey** mentioned that the surveys would be finalized by the time of PacWave24.

Ms Bland believed this was interesting and raised a question about the coverage of the projects, specifically, what other areas this project covered except for Tsunami Ready. **Mr Bailey** clarified that it covered the risk assessment, warning, dissemination, and response.

Ms Dewi Anugrah commented that there is more to go in the Pacific in terms of capacity assessment for example, in the Indian Ocean they put additional regional tsunami-ready focal points assessment. She suggested putting more related to the tsunami equivalency or other elements of the tsunami resilience in the Pacific region. **Mr Bailey** mentioned that in terms of the tsunami focal point, what they have done in the IOTWMS is define tsunami-ready focal points to help them coordinate and get national information because sometimes it is difficult to get through the tsunami disaster management communities, warning centers, etc.

Ms Kong raised a question on the procedural aspects, namely 1) if there is a need to have a quorum in the SC to take a decision 2) and if this effort requires a person or a country to volunteer to provide assistance. **Mr Bailey** understood that SC would make a recommendation to the Chair. In terms of the survey, all countries are part of the survey but not all countries will have an assessment team visit funded by the project. Even though some organizations such as Universities may want to be involved, it would be difficult to achieve without the direct engagement of a representative Institution to undertake the tasks involved.

The Chair stressed that the announcement of the project should be sent to the Member States and ask the Secretariat's announcement for dissemination. **Mr Bailey** mentioned the funding of this project is being approved for this phase and mentioned if they are doing the announcement, it would be complicated.

The Secretariat requested further clarifications on the process. **Mr Bailey** clarified that the first step is if the recommendation is to the Chair that the PTWS would like to proceed, then they will inform that the UNESCO, by highlighting that it would be good to mention that they need funding.

Ms Kong raised a question about whether the actual questions on the survey would be the same for the Indian Ocean and the Pacific, as she believed that the Pacific region might have specific questions that want to ask. **Mr Bailey** stated that some degree of flexibility will be available, but also noting the need for comparability of the results in both regions. **Ms Kong** expressed her concerns that if donor countries don't know how much the project costs, it would be difficult to provide the funds.

Mr Strauch wondered about whether it would also be possible to speak in the name of sub-regions as he believed Central America has a special situation as they are a group of small countries with small capabilities but with special interests. **Mr Bailey** answered that it is a good suggestion to help small countries, however, he didn't have a clear answer and took note of that. In addition, **Mr Bailey** raised a concern about re-structuring the survey.

Ms Dewi Anugrah stated that SC could decide which TT should be the coordinator for this capacity assessment of the Pacific tsunami warning. In the IOTWMS, they decided to the WG3 to coordinate the capacity assessment and collaboration with WG1. **Ms Suci** emphasized the importance of nominating the coordinator for this initiative. **The Secretariat** requested to clarify if the decision comes from the ICG, and it was confirmed by Mr Rick and Ms Suci. **The Chair** stated that he would ideally like to make a decision of acceptance of this project in the PTWS Session, but they don't have enough time. In addition, he highlighted the importance of announcing the project. **The Secretariat** brought his attention by mentioning that the decision should be communicated with UNESCO and that needs to be included as approved before the announcement.

The Secretariat asked if the connection with the Pacific University is still ongoing, and **Mr Bailey** confirmed that it remains as an option. The Secretariat mentioned when they communicate, their decision could probably be included what they expected with that decision. **Mr Bailey** suggested that the process can come from UNESCO as the first step and when UNESCO gets funds, then colleagues will start the next step.

Ms Bland expressed that it could cover the concern raised by Laura that it would be hard to accept for countries without the expectation of how much it cost. **Mr Bailey** brought colleagues' attention to Ms Dewi Anugrah's suggestion about designating the contact person and **the Chair** confirmed it will be himself. However, after the official approval, **the Chair** didn't have an answer about who will be the contact person.

Status: The Steering Committee decided to accept the project.

3) 2nd Tsunami Global Symposium (2ndGTS-2024)

Mr Rick gave an overview of [the agenda: 2nd Tsunami Global Symposium](#), including the schedule, locations, purpose, scopes, and places for the convention. The Secretariat informed that they have a SCS meeting regarding this event.

Ms Dewi Anugrah confirmed that the WG-SCS meeting will be conducted in Jakarta in the fringes of the 2ndGTS-2024. Concerning the symposium, she raised a concern about the representatives of each region. In addition, she asked to nominate a person. Also, she raised a concern about the presenters not being identified yet, as BMKG would be providing accommodation for them. She hoped all PICTs would participate in the side events organized by BMKG.

Ms Kong requested Ms Dewi Anugrah to deliver all relevant information by email and make sure that the Secretariat is in cc. Ms Dewi Anugrah confirmed and mentioned that she will propose a meeting with the SC related to this symposium to finalize the agenda, especially the representatives. Lastly, she asked them to investigate the agenda and share their thoughts.

Mr Bailey suggested circulating all member states regarding this detailed information. **The Secretariat** agreed on that and suggested putting all information in the email and starting the coordination.

Status: The announcement was later on provided by the BMKG to the ITIC Tsunami Bulletin Board.

4) SMART Cable

Ms Kong gave a brief explanation of the SMART Cable and the CAM SMART Cable System funded by the government of Portugal. In addition, she raised another project called Smart TAM-TAM which is between New Caledonia and Vanuatu. **Ms Kong** stated that there is an article that came out in Science, and she will share the summary with colleagues. Lastly, she added that the SMART Cable was endorsed as part of the UN Ocean Decade Co-design under TRS and GOOS.

Mr Titov asked about how the data is going to be shared. **Secretariat** recalled the conversation with Mr Bruce Howe, the Chair of the SMART Cable Joint Task Force, that the data will flow to the operation centres, at least for the seismic data.

The Chair informed the Steering Committee on the comments received from the SMART Cable representatives related to the ICG/PTWS-XXX Recommendations, including proposals for updates in the ToR of regional WGs. The request from the SMART Cable representatives was to serve as a focal coordination point within the region for member states for the SMART Cables Initiative and to develop and maintain a regional science report describing the advantages of having real-time SMART data for tsunami and earthquake early warning and other purposes. However, **the Chair** and **the Secretariat** were concerned that changes without thorough consideration by the respective WGs and the ICG would not be agreeable to accept and accordingly, **the Chair** requested the regional WG to discuss the change of ToR. He further added that the evaluation of the capabilities of the SMART Cable has not been determined regarding the tsunami observation yet. Therefore, **the Chair** expected that WG 2 and TT integrate the tsunami sensor network and detection characterization could be assessed and report the result assessment until the next ICG Committee or the next ICG-PTWS session. Lastly, he opened the floor to get comments by indicating that the purpose of this agenda item is to discuss the change of the ToR.

The Secretariat recalled the conversation with Mr Bruce Howe about the level of simulation work, the initial evaluation, and the hypothetical improvements in the tsunami early warning based on these simulations. He understood that there is a basic tsunami travel time that developed in the past and suggested the Steering Committee Members to discuss and evaluate the potential advantages of using simulations. **Ms Kong** proposed that these discussions are coordinated by WG2, pointing out the need to maintain the regional science report with their capabilities, and furthermore emphasized the strong need to have access to real data collected from the SMART Cable systems

Ms Moseley supported Ms Kong's comment related to the development of maintaining the regional report and she hoped that all the WG and TT are in the right position to implement. **Ms Moseley** raised her concerns about a focal point because she didn't see the focal coordination point for single technologies as the role of the TT and WGs. She added that she would be happy to get a broader view from the Steering Committee on what the role of the WG2 in this TT.

Mr Jamelot agreed with Ms Moseley and pointed out that the selection of the locations of the cable deployments are not necessarily driven by the geo/seismo-tectonic considerations. He further added that, while it's important produce and maintain a science report, especially to look for new opportunities, the idea of a focal point could especially facilitate seeking new opportunities.

The Secretariat inquired whether the promotion of the idea in the case of the New Caledonia and Vanuatu (TAM-TAM) deployment was based on hypothetical assumption and through simulations. Ms. Kong the travel time calculations are very simple in the case of TAM-TAM, and mainly based on a comparison of early warning capability with the existing sea level stations as well as DARTs. **The Secretariat** pointed out the need to collect more scientific input regarding such aspects.

Mr Jamelot mentioned a previous report (2019-2022) about the science of the SMART Cable and its capabilities. He mentioned those cable such as TAM-TAM will be the best opportunity for the science to understand more the real capabilities of the system.

Action: The chair requested to the Chair of the WG2 continue to discuss about the SMART Cable in the Pacific region, especially the regional WG2 relevant the SMART Cable. He expressed his hopes that progress will be presented at the next PTWS Steering Committee meeting or ICG-PTWS Session.

5) Provision for Tsunami Services for the Maritime Community

The related recommendation ICG/PTWS-XXX.4 is as follows:

***Recommends** the PTWC to finalize necessary preparations to provide special tsunami maritime safety products specifically for ships for all NAVAREA Coordinators in the Pacific and in the Southwest Atlantic (e.g. NAVAREAs VI, X, XI, XII, XIII, XIV, XV, and XVI) to transmit to the NTWCs to be forwarded to the NAVAREA Coordinators of their countries, or upon their request Coordinators of their countries, or upon their request directly to the NAVAREA Coordinators in the absence of a NTWC,*

***Requests** the PTWS Steering Committee to finalize its decision at its next meeting on the provision of these products for a period of testing to be followed by a full operational implementation by the PTWC in 2024-2025.*

The Chair invited PTWC to report on the progress. **Mr McCreery** asked the Chair and the Secretariat for guidance on how to begin the testing or the implementation. What he thought is to write a small guide for the products and circulate that but not sure exactly how such note should be circulated. After that, it could go to the IHO for review before finalizing the products. He asked about the planned procedure and what contents should be included.

The Secretariat stated that it could be a good idea to have a small guide to circulate, as this could provide an opportunity for IHO or any others to modify this product, not excluding the possibility for any future changes/improvements.

As an alternative, **the Secretariat** proposed PacWave24 as a good opportunity to introduce and test the product and highlighted the need to address the expectations of the IOC Executive Council on this issue. **The Secretariat** further highlighted that the recommendations consider transmission of these products to the NAVAREA Coordinators through the NTWCs, and in the absence of a NTWC, directly to the NAVAREA Coordinators. This would be the case for Argentina, Coordinator of NAVAREA VI. This may also provide an opportunity to have them subscribed to the PTWC regular products. In response to the questions from the Chair and Mc Creery, the Secretariat that the communication between PTWC and NAVAREA Coordinator VI would be realized by the Secretariat.

Mr Jamelot asked how the dedicated maritime tsunami safety products reach out to each Member State from another region in coordinator. He wondered if they have to consider changing their SOPs, as he was curious about how it impacts them in terms of the tsunami warning chain. **The Chair** understood that the process, and procedure of finalizing is still uncertain. He hoped to make the schedule up to the finalization of the issue regarding the testing process. In addition, **the Chair** suggested incorporating it into the PacWave24. He highlighted that the process of the procedure should be clear before then.

The Secretariat pointed out to the discussions that took place at ICG/PTWS-XXX, underlining that two issued were mixed. One is how to deal with the requirements of the tsunami warning in the local/near-field at the coastal zone, the other one targeting ships in the open seas, which is what the ICG/PTWS-XXX.4 is addressing. He understood that the whole purpose of this recommendation was to guide those ships in open seas to prevent them from coming to the harbor/port rather than addressing the needs of the coastal maritime community. For coastal marine operators, on the other hand, there are different type of regulations, authorities, and communication channels in terms of the emergency and disaster operation framework. **The Chair** stated authorities for the coastal areas and open sea are different. He also stressed that this recommendation applied to the open sea and coastal areas prevention tsunami responsibilities of each country.

The Secretariat asked if they had a timeline. **Mr McCreery** mentioned that he addressed certain steps during the presentation, not the timeline. However, if they are targeting to include the PacWave 2024 as the first test, the countries around the Pacific (USA, Russian Federation, Australia, New Zealand, Chile, and Peru) are responsible for trying their procedure for forwarding coordinators, especially Argentina for making a connection. **Mr McCreery** suggested setting a timeline for this meeting, and he added he would try to draft a guide about the products and examples.

The Secretariat stated that the manual for PacWave24 will come out at the end of May. Given this, if Dr Chip would like to show them, he believed that materials would be in the Appendix. **Mr McCreery** stated that this idea is durable. While concerns were raised by the Chair and Ms Kong regarding the difficulties in finalization of this process by May, **the Secretariat** underlined the need to demonstrate solid progress at the upcoming IOC Executive Council in June 2024. **Mr Jamelot** suggested consideration of regional test during the PacWave24, instead of a PTWS-wide test, to address

concerns related to timeliness of the preparations. **The Chair** raised his concerns on the fact that there is still no coordination mechanism for this action, but agreed that testing can be executed during PacWave 24.

Mr McCreery stated that what they could announce at the PacWave 24 is the special dummy messages at the same time. In addition, he added if end-users received the email with certain headings from the *PTWS (title to be decided)*, that would facilitate the forwarding of the product to the NAVAREA Coordinator. **Mr McCreery** reminded that the dummy messages of the PacWave exercises does not include earthquake or tsunami information and added that due to the timeline, it would be the easiest way to indicate them in the manual. **The Secretariat** mentioned that a separate appendix would be good, and it should not be complicated to develop the manual. **Mr McCreery** confirmed that it would be a couple of paragraphs.

Action: Dissemination of the tsunami maritime safety products to the NAVAREA Coordinators will be tested during PacWave 24.

6) Users' Guide

The Chair explained that it confirmed the common structures for the TSP User's Guide. He noted the schedule for editing the user's guide which will be discussed according to the schedule asked for the report of the status and progress revision or editing of the Users' Guide. **Mr Wang** stated that they will be working closely with the Chair and Mr McCreery.

Action: The Chair requested to each TSP to edit and revise their own user's guide and finalize them in the next PTWS Session in Beijing.

7) UN Ocean Decade Tsunami Program (UN ODTP)

Mr Hayashi as the member of the ODTP-SC presented the [Agenda: UN Ocean Decade Tsunami Program \(UN ODTP\)](#) Ocean Decade Tsunami Programme Research, Development & Implementation Plan.

Mr Hayashi gave the overview of the 4th meeting of SC-ODTP in 25-26 Jan 2024 in Paris and the progress in the development of the UN Decade of Oceans Tsunami Plan. The final version of the 10-Year Research, Development and Implementation Plan for the ODTP the Endorsement was reported to the TOWS-WG XVI on 2-3 Mar 2023 and was endorsed in June 2023 at the IOC Assembly. He stated that the objectives of ODTP-RDIP and key elements of ODTP-RDIP. He explained that Ms Maria Ana Baptista (Portugal) and Ms Helene Hebert (France) are the new members of the UN ODTP-SC. Concerning the Governance of ODTP-RDIP, he recommended finding the summary report for the meeting if they are looking for the details. In addition, he stated that the committee presented by the UN Capacity Development Facility and decided to share capacity-building efforts within the IOC's Tsunami Programme. He added that the committee needs to identify gaps and work closely with the IOC/DCU for future calls to encourage national projects relevant to the IOC's tsunami programme to be submitted and endorsed. He raised the issue that there are some missing important initiatives which made it difficult to carry out their role, monitor, advise, and implement the tsunami programme.

Mr Hayashi stated that the goals of ODT are described in the appendix of the RDIP. SC noted that progress that each ICGs need to have a mechanism related to the progress related to the tsunami programme. ODTP-SC decided to recommend TOWS-WG to request ICGs (through Member States) to report with respect to ODTP Appendices through an online interface.

Mr Hayashi mentioned that the committee decided to involve 2 events: 1) 2nd UNESCO IOC Global Tsunami Symposium, 11-14 November 2024, Banda Aceh 2) 2nd UN Ocean Decade Conference, 10-12 April 2024, Barcelona.

Lastly, **Mr Hayashi** highlighted 2 points: 1) *SC encouraged national projects relevant to the IOC Tsunami Programme to be submitted and endorsed at the UN ODTP* 2) *SC recommended to the TOWS-WG to request to the ICGs and member states to report with respect to ODTP appendix.*

The Secretariat recalled the email which send out on 18th March to WGs and TTs, and it addressed these issues. **The Chair** raised the endorsed decade actions which presented by the IOC Secretariat in the last TOWS-WG meeting. It indicated the actions that are relevant to the ODTP. The number of actions related to the ODTP is not large, therefore, the last TOWS-WG meeting recommended encouraging ICGs, Secretariat, and Member States to consider submitting coordinated Ocean Decade actions in future calls that contribute to the goals of the ODTP, including identification of and submission of existing projects that may align with the ODTP.

Therefore, **the Chair** encouraged Member States, regional WG, and WGs to submit actions related to the ODTP and propose the specific actions of the ICG/PTWS toward the achievement of goals of UNODTP like below:

- To increase UNODTP actions submitted by member states
- To increase communicates with the certification of Tsunami Ready Recognition Programme
- To develop guidelines on SOPs to monitor, detect, warn, and prepare for any volcano-induced tsunami waves in TT on Tsunami Generated by Volcanoes
- To develop guidelines following the 'Tsunami Ready Equivalency Approach' in TT on Tsunami Ready

The progress status will be reported and reviewed in the PTWS-SC and PTWS sessions.

Ms Kong recalled the conversation with the TSR section at the IOC. UNESCO field office in different regions currently takes the lead on behalf of the countries to submit the actions and proposals about the potential for tsunami-ready efforts, especially SIDS and LDCs. She raised a difficulty about submitting another report or plans due to the heavy workload.

Ms Bland raised a question about whether there are any ways to leverage the information that members can put the information to bring the information related to the UNODTP and tsunami actions because they are preparing the report for the ICGs. The Secretariat answered that it would be a great idea.

Ms Kong raised a survey few years ago which indicated the KPIs related to the whole activities. She suggested to have this platform for getting information. **The Secretariat** suggested having a place such as a webinar for getting information to colleagues who do not have complete understanding. **Mr Jamelot** strongly agreed with the Secretariat and Laura.

Ms Dewi Anugrah commented that if they have capacity development activities conducted in regional WGs, they could also be reported to the ODTP in terms of the specific actions that should be reported.

Mr Wang recalled the conversation related to the tsunami-ready equivalency process and stated that there are diverse committees in many regions in the Pacific that are affected easily by the disaster. Therefore, the role of PTWS is important because the Pacific region contributed to the reach of the gap between the goals of the ODTP and the current situation for other regions as well.

The Chair mentioned that there are 3 VCs in the ICG-PTWS, therefore, he believed that the workload is heavy for him as he has his work in JMA including the Chair's responsibilities. Therefore, this initiative could be responsible for the other VCs who take the initiatives for the UNODTP because the UNODTP is important in the Pacific region. **The Secretariat** raised the argument in the ICG-PTWS 30th meeting which is a decision to increase the number of the VCs because of the workloads and recognition of the tasks and scale.

The Secretariat clarified that the chair requested SCs to endorse their proposal and assign one of the VCs who lead the effort, follow up, and coordinate to be the principal point of contact. **The Chair** agreed on that and would like to discuss it with the VCs, including the IOC Secretariat. **Mr Strauch** stated that it depends on what the VCs are expected to do. **The Secretariat** raised a concern that even though there was a dedicated Officers Meeting on this, no conclusion was reached.

Action: The Chair emphasized the need for the development of guidelines and better understanding of associated procedures and requested the Secretariat to inform the Steering Committee accordingly.

8) Tsunami Ready Recognition Program

Ms Kong mentioned the goal of the UN Ocean Decade that make 100% of at-risk communities tsunami-ready by 2030 with 12 indicators and guidelines. At the global level, there are 50 tsunami-ready communities (11 in IOTWMS, 19 in PTWS, 18 in CARIBE-EWS, and 2 in NEAMTWS) She indicated that the ITIC got funds from the USA to do recognition in the Pacific, including Fiji, Palau, Federated States of Micronesia, and Republic of Marshall Islands. In addition, there will be a renewal in Honduras and a new implementation in Kiribati, Samoa, Solomon Islands, and Vanuatu from 2024 to 2026. Concerning the PTWS TR Details regarding 14 countries Planning or Done/Renewing. There are 12 TR recognition valid and 7 are waiting for the TR renewal.

The Secretariat asked the fund from the USA about whether it will be continued as it is, increase or decrease in the future. **Ms Kong** answered that she didn't have a clear answer.

Ms Kong then presented the TOWS considerations at its meeting in February 2024, as below:

- Appreciation of progress made by PTWS on ways to recognize 'tsunami readiness' outside of the programme (TT TR established)
- Request PTWS TR TT to share back on the development of guidance
- TT-Disaster Preparedness and Management – Actions
 - TR Toolkit to be developed to assist in implementation/submission
 - Tsunami Ready Signage – take into account distant tsunami wording (will not feel shaking), and local tsunami (will likely feel strong or long shaking)
 - OTGA Tsunami Awareness and Tsunami Ready to be completed Summer 2024

Ms Fromont added that there was lots of discussion about how to approach while not diluting the impact of the TRRP. She highlighted the guidance that can be applied to all their diverse communities. She mentioned that they will be reaching out to the regional WGs to make sure that they are making an approach that can be picked up anywhere across the Pacific.

Mr Moore mentioned they still need bathymetry surveys for the member states to support the TRRP even though a lot improvements have been achieved in terms of global coverage and satellite.

9) Organization of Member States in the WGs and TTs

The Chair indicated the current SC TT and Technical WG as of 17 March and indicated to ask or email the IOC Secretariat and the Chair if the Member States are willing to join TT or WG. In terms of the regional WG as of 17 March 2024, the Pacific area has small group members, especially Regional WG Central American Pacific Coast which has no members. **Mr Strauch stated that each meeting in the Regional WG Central American Pacific Coast has different representatives because participants are attending as the representatives of their scientific institution. The Secretariat** thanked for the additional clarifications and expressed gratitude to all who provided update. He also emphasized the importance for all experts to have an Ocean Expert profile.

10) Approval status of the NTWC Competency

The Chair recalled ICG/PTWS-XXX.7:

***Recommends** the approval of the PTWS National Tsunami Warning Centre competencies, framework, and training requirements, as described in IOC ICG/PTWS-XXX Working Document (Agenda 4.5) Report from the Task Team on the Minimum Competency Levels for National Tsunami Warning Centre (NTWC) Operational Staff.*

There was a request for clarification of the approval process after the finalization the ICG/PTWS-XXX recommendations, as this recommendation was not reflected as a decision of approval in the ICG/PTWS-XXX.1 **The Chair** believed that the NTWC Framework was perfectly approved in the Pacific PTWS and there were consultations on this with the Secretariat which verified this status.

Action: The Chair requested to the Secretariat to prepare the Executive Summary of the ICG/PTWS-XXX and ensure that this approval is correctly reflected therein. The Secretariat reported back that the Executive Summary of the ICG/PTWS-XXX will be ready at least one month before the 57th Session of the IOC Executive Council.

11) Date and Venue for the Next ICG/PTWS SC Meeting

The Chair informed that an in-person SC meeting is foreseen in September 2024 in Hawaii to be hosted by ITIC between the date of 9th-13rd Sep and 16th-20th Sep. **The Chair** raised a question about they should have WG and TT meeting in person prior to the PTWS-SC meeting in the same week. In addition, **the Chair** asked how many WG and TT meetings could be held at the same time. **Ms Kong** answered that the ITIC is contacting to the accommodation, but PTWC is also in the same which means they can use their facilities if it is necessary.

Ms Kong mentioned that in ITIC, there are several public meeting spaces, and they also have their own office. She assumed that they could have meetings for 4-5 groups, but some people are involved in the different groups, so she was uncertain about that.

Ms Kong raised the limitations if they have a meeting in the ITIC. One is given that the ITIC is included in military base, colleagues have to submit the facility access before 30 days at least. Another is that the ITIC takes 30 mins from Waikiki and there is no transportation. So, colleagues must take their own transportation without Uber and Taxi with the same reason of the first limitation. She recalls that some member states support them and had a meeting nearby hotel.

Draft Agenda for the next PTWS-SC was presented as follows:

1. Welcome and Opening (Chair and Secretariat)
2. Adoption of Agenda
3. Review of Action Items from the ICG/PTWS-XXX session
4. Report on the TOWS-WG XVII session and the IOC 57th EC from the Chair
5. Report of Tsunami Service Providers
6. Report of WGs
7. Report of the ITIC
8. Pacific Wave 2024
9. SMART Cable
10. Provision for Tsunami Services for the Maritime Community
11. Users' Guide
12. Tsunami Ready Recognition Program
13. UN Ocean Decade Tsunami Program
14. Common format for Tsunami products from TSPs
15. 2nd Tsunami Global Symposium
16. Expected Date of the ICG/PTWS-XXXI session
17. Draft Agenda of the ICG/PTWS-XXXI session
18. Any Other Business
19. Closing

Action: The Chair encourage the Chair of WG and TT to progress their assignment and report on the next PTWS-SC Meeting. The Chair asked to the Secretariat about the vote for deciding the date.

12) ITIC Training Programme plans – 2024

Ms Kong explained that ITP-2024 is planned to take in place in Chile this year to highlight the status of the TEWS in Chile, hoping that there would be wide participation from the Central and South America. A CL will be issued by the Secretariat. She further informed about the plans for the Central America Tsunami Evacuation Workshop in San Jose April 22-24 by inviting 2 representatives from the NTWC and DRR from 11 countries (Mexico, Latin America, and South America), and Tsunami Ready Workshop one day after the ICG/CARIBE-EWS XVII.

13) Vanuatu – San Cristobal – New Britain Subduction Zones – Expert Meeting on Tsunami Sources, Hazards, Risk and Uncertainties (Secretariat)

The Secretariat briefly explained about the Vanuatu Expert Meeting.

The Expert Meeting will take place from 14th-17th May in Vanuatu, kindly hosted by the Vanuatu Meteorology and Geo-Hazards Department (VMGD). This provides an opportunity to have a half-day meeting focusing on the Tsunami Ready Recognition Programme on the first day (14 May 2024) and a half-day meeting on the implementation of the SMART Cables initiative (17 May 2024). The selection of the subject matter experts for this meeting is finalized and the logistic arrangements will be finalized soon. The Secretariat prepared the invitation which will be sent to the experts who are already aware of their selection.

On 17 March 2024, TNCs of the PICT and neighbouring Member States have been invited to nominate until 22 March 2024 a representative from their disaster/emergency management authority with responsibilities closely connected to tsunami risk mitigation in their country to participate in this meeting as an Observer. The Secretariat mentioned they have only one nomination has been received from New Caledonia. Concerning this, the Secretariat requested Mr. Korovulavula to facilitate this process and showed the final expert list of who will be attending. Lastly, he thanked Mr Moore and Mr Ken Gledhill who prepared the list of potential experts. Ms Bland inquired about the possibility to remotely participate in this meeting as an Observer and the Secretariat confirmed this possibility.

14) Any Other Business

The Secretariat reported on the “On-Site Satellite Event on Coastal Cities and Communities Joining Tsunami Ready” at the 2024 Ocean Decade Conference which will held on 11 April 2024 focuses on increasing the readiness of coastal communities through initiatives like the UNESCO-IOC Tsunami Ready Recognition Programme (TRRP).

The UNESCO-IOC Tsunami Resilience Section satellite event on Coastal Cities and Communities Joining Tsunami Ready aims to:

- i. Showcase the benefits and opportunities of UNESCO-IOC Tsunami Ready Recognition Programme (TRRP) and similar initiatives in contributing to the Ocean Decade challenge 6 on increasing resilience to coastal hazards.
- ii. Promote partnerships, collaboration and understanding on how to co-design actions to enhance the readiness of coastal communities to tsunamis in a multi-hazard context.
- iii. Acknowledge new coastal cities and communities recognized as TRRP or close to completion.
- iv. Call for new countries and coastal communities to join UNESCO-IOC TRRP.
- v. Encourage international partners to join and engage in the newly established Tsunami Ready Coalition.

The Secretariat stated that there will be a presentation by Ms Kong (ITIC) and Mr Edwin Pinto (Director of Scientific Affairs and Fisheries Resources of the Permanent Commission of the South Pacific (CPPS)). The Secretariat mentioned that he is still waiting for the confirmation of Mr Vatia Vasuca, Provincial Administrator of Nadroga Province, Fiji for his participation.

Concerning PACWAVE 2024, the Secretariat mentioned the failure to issue the CL with the timeline. He added that a single CL for PacWave24 is to be issued on 30 May 2024 including the Exercise Manual and an advance “heads-up” notification by the Secretariat via mail because of the discussion about reducing the number of CLs in the UNESCO-IOC. Lastly, he added work on the questionnaire needs to be completed.

15) Closing

Given that they don't have enough time to summarize, the Chair will disseminate the summary to member states. He commented the coordinators make an effort, including maritime products to the coordinators in PacWave 24 in the task for the testing. He mentioned the next SC Meeting will be in September in ITIC Hawaii. Regarding the UN Decade Tsunami Programme,

The Chair thanked all participants and encouraged the Member States and regional Working Groups to submit actions related to the Tsunami Programme.

Below are the draft decisions and recommendations in the ICG/PTWS SC on 26 March 2024.

The ICG/PTWS-SC

- **Agrees** with acceptance of the IOC/UNESCAP Tsunami Capacity Assessment Project and **decides** to appoint the ICG/PTWS Chair as the Point of Contact,
- **Recommends** that **the Regional WGs** consider changing the ToR related to the SMART Cable and **recommends** that **the WG2** research capability of the SMART Cable for observation of tsunamis,
- **Decides** to provide special tsunami maritime safety products to NAVAREA coordinators through the NTWC from the PTWC and **requests the PTWC** to finalize preparation for providing special tsunami maritime safety products and **decides** to conduct the trial dissemination of the dummy message from the PTWC to the NAVAREA coordinators through the NTWCs during the Pacific Wave 24,
- **Requests the TSPs** to begin to edit/revise the Users' Guide according to the common structure,
- **Confirms** membership of WGs and TTs in the ICG/PWS and **requests the Regional WG Chairs** to identify the contact information of the member states and to inform the IOC secretariat,
- **Encourages the Member States and the Regional WGs** to submit actions related to the UNODTP and **recommends that** the Chair convenes the ICG/PTWS Officers meeting to discuss the allocation for the UNODTP among the Officers,
- **Reconfirms** approval of the NTWC Competency Framework in the ICG/PTWS XXX and **requests the Secretariat** to describe approval of the NTWC Competency Framework in the Executive Summary and the Summary Report of the ICG/PTWS-XXX Session,
- **Appreciates** the offer from the ITIC to host the next PTWS-SC and **decides** to hold the next meeting including some WG and TT meetings in Hawaii in September 2024.