

## Background

IOC-UNESCO has been promoting the Tsunami Ready recognition program as an international performancebased community recognition pilot consisting of key actions that help to reduce tsunami-related risks to individuals and communities. Through the Tsunami Ready recognition program, communities become aware of the risks they face from tsunamis and take steps to address them.

The Tsunami Ready program seeks to build resilient communities through awareness and preparedness strategies that will protect life, livelihoods and property from tsunamis in different regions.

The main goal of the program is to improve coastal community preparedness for tsunamis and to minimize the loss of life, livelihoods and property. This is achieved through a collaborative effort to meet a standard level of tsunami preparedness through the fulfilment of a set of established indicators. The Tsunami Ready program is implemented as a voluntary, performance-based community recognition program that promotes an understanding of the concept of readiness as an active collaboration among national and local warning and emergency management agencies and government authorities, scientists, community leaders, and the public.

To support current and future piloting of the IOC-UNESCO tsunami ready, UNESCO/IOC commissioned the review and analysis of the Tsunami Ready Guidelines (Draft Intergovernmental Oceanographic Commission Manuals and Guides no.74: Standard Guidelines for the Tsunami Ready Recognition Program).

The Indian Ocean Tsunami Information Centre (IOTIC) in collaboration with the secretariat of the Indian Ocean Tsunami Warning and Mitigation System (ICG/

IOTWMS) have organized number of workshops on Piloting Tsunami Ready in Indian Ocean.

In 2020, two communities (Venkatraipur and Noliasahi) in Odisha, India received the IOC-UNESCO Tsunami Ready Recognition.

In compliance to the new norm and adapting to the current trend, the Indian Ocean Tsunami Information Centre (IOTIC) housed in UNESCO Office Jakarta and the Agency for Meteorology, Climatology, and Geophysics (BMKG) are organizing a series of online lecture series on IOC-UNESCO Tsunami Ready for Indian Ocean.

The objective of this lecture series is to give broad understanding of IOC-UNESCO Tsunami Ready program and motivate and encourage communities, disaster management offices, and non-governmental organization to initiate, pilot, and implement the tsunami ready indicators. The expected outcome is more Indian Ocean communities to implement the IOC-UNESCO indicators and apply for IOC-UNESCO Tsunami Ready recognition. We are expecting the audience come from Indian Ocean Member States aiming for the general public (disaster management officials, NGOs, INGOs, CSOs, university lecturer and students, communities, etc.).

The online lecture series sessions will share and explain the IOC-UNESCO Tsunami Ready program with highlights on the 12 indicators as well as guidance of how it can be piloted in tsunami prone communities in the Indian Ocean region. Invited experts from Indian Ocean will highlight each of the IOC-UNESCO Tsunami Ready indicators, and shared practical experience and examples of communities who have received the IOC-UNESCO Tsunami Ready Recognition.



## **Session style:**

Series of weekly discussion sessions with experts, moderated by IOTIC and ICG/IOTWMS secretariat, will highlight, inform and promote the IOC-UNESCO Tsunami Ready indicators. The sessions will be interactively conducted with one expert at a time. These sessions will share and discuss in a holistic view the IOC-UNESCO Tsunami Ready indicators. The lecture sessions will be held every Friday afternoon for 6 weeks. The format of the sessions will be limited to 30 minutes each, to maximize the full attention of viewers while accommodating active interactions between the speaker and viewers. The sessions will be in a form of discussion and interview with experts with an introduction by the moderator. The sessions will be broadcasted in social media and recorded.

## Lecture sessions and topics:

The lecture consists of 6 sessions and in each session, there will be two topics. The lecture session 1 would cover the introduction of IOC-UNESCO Tsunami ready and how it was piloted in Indian Ocean. The lecture sessions 2 – 5 will be discussing the 12 indicators of the IOC-UNESCO Tsunami Ready. Lecture session 6 will discuss on how to pilot the IOC-UNESCO Tsunami Ready and how to apply for IOC-UNESCO Tsunami Ready recognition in Indian Ocean.

## **Lecture Sessions**

**Lecture Session 1: Introduction to IOC-UNESCO Tsunami ready** Friday, 4 September 2020 at 02:00 – 03:15 PM (Jakarta) - GMT+7 Registration: <u>http://bit.ly/Tsunami-Ready-REG1</u>

☑ Topic 1: Getting Community Tsunami Ready This session will introduce the IOC-UNESCO Tsunami Ready Program Speaker: Mr. Bernardo Aliaga, IOC- UNESCO Tsunami Unit - France

#### ☑ Topic 2: Tsunami Ready Community in India

This session will discuss on the piloting of IOC-UNESCO tsunami ready in India focusing on the recognition given to two communities in Odisha

Speaker: **Dr. Srinivasa K. Tummala**, Director of Indian National Centre for Ocean Information Services - India

### Lecture Session 2: IOC-UNESCO Tsunami Ready Indicators 1, 2 and 4.

Friday, 11 September 2020 at 02:00 – 03:15 PM (Jakarta) - GMT+7 Registration: <u>http://bit.ly/Tsunami-Ready-REG2</u>

#### ☑ Topic 1: Tsunami Hazard Map, what is it for the community?

This session will introduce indicator no.1 of the IOC-UNESCO tsunami Ready on community having designated and mapped tsunami hazard zones

Speaker: Ms. Sunanda Manneela, Indian National Centre for Ocean Information Services - India

#### $\ensuremath{\ensuremath{\boxtimes}}$ Topic 2: Knowing how exposed a community to tsunami hazard

This session will introduce indicator no.2 and 4 of the IOC-UNESCO tsunami ready on knowing initial estimate of the number of people that live in the tsunami hazard zone and the fourth indicator and having inventory of available economic, infrastructural, political and social resources to reduce tsunami risk at the community level

Speaker: **Dr. Harkunti P Rahayu**, Chair of WG-1 Indian Ocean Tsunami Warning and Mitigation System, Chair of Indonesian Disaster Expert Association, Lecturer of Bandung Technological Institute - Indonesia



## **Lecture Session 3: IOC-Tsunami Ready Indicators 3 and 5.** Friday, 18 September 2020 at 02:00 – 03:15 PM (Jakarta) - GMT+7 Registration: <u>http://bit.ly/Tsunami-Ready-REG3</u>

#### ☑ Topic 3: Public Display of Tsunami Information

This session will introduce indicator no.3 of the IOC-UNESCO tsunami ready on having tsunami information displayed in the community

Speaker: Mr. Nick Kuster NSW State Emergency Service - Australia

## ☑ Topic 4: Tsunami Evacuation Plan

This session will introduce indicator no.5 of the IOC-UNESCO tsunami ready on easily understood tsunami evacuation maps

Speaker: Mr. Harald Spahn, Tsunami Early Warning Expert - Germany

**Lecture Session 4: IOC-Tsunami Ready Indicators 6, 7 and 8.** Friday, 25 September 2020 at 02:00 – 03:15 PM (Jakarta) - GMT+7 Registration: <u>http://bit.ly/Tsunami-Ready-REG4</u>

☑ Topic 5: Community Tsunami Education and Outreach

This session will introduce indicator no.6 and 7 of the IOC-UNESCO tsunami ready on development and distribution of outreach and public education materials and organizing outreach or education activities Speaker: **Ms. Ghazala Naeem**, Tsunami Early Warning and Mitigation Expert, and Resilince Group - Pakistan

## ☑ Topic 6: Tsunami Exercise

This session will introduce indicator no.8 of the IOC-UNESCO tsunami ready on organizing and implementing community tsunami exercises

Speaker: **Mrs. Weniza**, Task Team Chair for IOWave20 of ICG/IOTWMS and The Agency for Meteorology, Climatology, and Geophysic - Indonesia

### **Lecture Session 5: IOC-Tsunami Ready Indicators 9,10, 11, and 12** Friday, 2 October 2020 at 02:00 – 03:15 PM (Jakarta) - GMT+7 Registration: <u>http://bit.ly/Tsunami-Ready-REG5</u>

## ☑ Topic 7: Community Tsunami Emergency Operation Plan

This session will introduce indicator no.9 and 10 of the IOC-UNESCO tsunami ready on community tsunami emergency operation plan and supporting the EOC in emergency

Speaker Mrs. Henny Vidiarina, Tsunami Early Warning and Emergency Response Expert - Indonesia

## ☑ Topic 8: Community Tsunami Early Warning System

This session will introduce indicator no.11 and 12 of the IOC-UNESCO tsunami ready on receiving and distributing early warning system within the community

Speaker: Mr. Ajay Kumar B, Indian National Centre for Ocean Information Services - India

**Lecture Session 6:** Piloting Tsunami Ready and Applying for Recognition Friday, 9 Oktober 2020 at 02:00 – 03:15 PM (Jakarta) - GMT+7

Registration: <u>http://bit.ly/Tsunami-Ready-REG6</u>

## ☑ Topic 9: Piloting Tsunami Ready in Community

This session will introduce the steps to be taken in piloting the IOC-UNESCO Tsunami Ready in the country to prepare tsunami ready community Speaker: **Mr. Ardito M Kodijat**, Indian Ocean Tsunami Information Center of IOC-UNESCO - Indonesia

## ☑ Topic 10: Applying for IOC-UNESCO Tsunami Ready Recognition

This session will introduce the steps to apply and to get IOC-UNESCO Tsunami Ready Recognition in the Indian Ocean Region.

Speaker: Mrs. Nora Gale, Secretariat of Indian Ocean Tsunami Warning and Mitigation System - Aisrtalia







## **Speakers and Moderators**











#### **Prof Shahbaz Khan |** Director of UNESCO Regional Science Bureau for Asia and the Pacific -Indonesia

He has multidisciplinary academic background and professional experience in engineering, environmental law, economics and international diplomacy. He is a Fellow, Chartered Engineer and Engineering Executive of Engineers Australia, Hon Fellow of Institution of Engineers, Malaysia, Fellow of the ASEAN Academy of Engineers, Hon Fellow of the Myanmar Engineering Society, Founding Fellow of the Academy of Engineering and Technology of the Developing World and Fellow of the Modelling and Simulation Society of Australia and New Zealand. Shahbaz is currently Adjunct Professor at the University of Canberra and Western Sydney University, Australia, Adjunct Professor at the Lincoln University, New Zealand, Visiting Professor at Wuhan University, Distinguished Professor at the National University of Science and Technology, Pakistan and Distinguished Professor at the Capital Normal University, China.

#### Mr. Bernardo Aliaga | IOC UNESCO Tsunami Unit - France

As a Program Specialist at the Intergovernmental Oceanographic Commission of UNESCO Mr. Bernardo Aliaga has been a member of the team leading the work of UNESCO in establishing a Global Early Warning System for Tsunami. He made a valuable contribution to the urgent task of helping Member States to create a warning system for Tsunami in the Indian Ocean. He is currently Technical Secretary of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE- EWS) and the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/ PTWS). He has made significant contributions towards building capacity to respond to tsunamis in Chile, Colombia, Ecuador and Peru, Guatemala and Honduras, as well as in Haiti, Dominican Republic, Sultanate of Oman and the South China Sea region.

# **Dr. Srinivasa K Tummala** | Director of Indian National Centre for Ocean Information Services - India

Dr. Srinivasa Kumar Tummala holds a Ph D in Marine Science and made impactful contributions to the field of operational oceanography and coastal multi hazard early warning systems. Post the 2004 tsunami, he coordinated the successful establishment of the Indian Tsunami Early Warning System, based at the Indian National Centre for Ocean Information Services (INCOIS) that is identified as one of the Tsunami Service Providers under the UNESCO-IOC Indian Ocean Tsunami Warning and Mitigation System (IOTWMS). At the UNESCO-IOC, He has been instrumental in sustaining and enhancing the IOTWMS in active collaboration with 28 Member States. He has been supporting IOC's efforts towards global harmonization of tsunami watch operations and strengthening tsunami early warning system in the North West Indian Ocean region with a focus on near-field tsunamis. Dr. Tummala also contributed to the piloting of the UNESCO-IOC Tsunami Ready community recognition program in the Indian Ocean.

# **Mr. Ardito M Kodijat** | Indian Ocean Tsunami Information Centre of IOC UNESCO UNESCO Office Jakarta – Indonsia

Ardito M. Kodijat joined UNESCO Office Jakarta in 2006. He is currently posted as the professional officer for Disaster Risk Reduction and Tsunami Information unit (DRRTIU) of UNESCO Jakarta Office. Under the Intergovernmental Oceanographic Commission of UNESCO, he is coordinating the Indian Ocean Tsunami Information Centre (IOTIC) under the International Oceanographic Commission of UNESCO (UNESCO-IOC). In cooperation with BMKG he implemented the IOTIC-BMKG program on building tsunami preparedness as part of the early earning chain in the Indian Ocean countries working in building capacity of local government, Media, and the communities. He has been actively involved as trainer/facilitator for Tsunami Warning and Emergency Response SOP; Tsunami Risk Reduction Policy; Tsunami Exercises; Indian Ocean Tsunami Ready; and Tsunami Evacuation Maps, Plans, and Procedures.

#### Ms. Sunanda Manneela | Indian National Centre for Ocean Information Services - India

Sunanda Manneela joined INCOIS as Junior Research Fellow in 2007 and later selected as Scientist. Her broad research areas include Plate tectonics, Subduction zone earthquake mechanisms, Tsunami generation and propagation and Disaster Management. For her significant contributions to Indian Tsunami Early Warning System, she was awarded "National Geoscience Award" for the year 2010 and prestigious "Young Achiever Award for 2016" which is given once in every four years. She is the member of Indian Society of Remote Sensing. She has been representing INCOIS at the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS). Currently, she is vice chair of Subregional Working Group for the North West Indian Ocean of ICG/IOTWMS. She is now pursuing her PhD in Geophysics [\*Real-time estimation of earthquake source parameters using GNSS technology.] from Mangalore University of Karnataka, in India, is a versatile person with a notable career and proven track record of 12 years at Indian National Centre for Ocean Information Services (INCOIS).













# **Dr. Harkunti P Rahayu |** Indian Ocean Tsunami Warning and Mitigation System, Chair of Indonesian Disaster Expert Association, Lecturer of Bandung Technological Institute - Indonesia

Dr. Harkunti is affiliated as Faculty Member of Urban and regional Planning Department – School of Architecture, Planning and Policy and Development – The Institute of Technology Bandung. Currently active as Chair of Indonesian Disaster Expert Association (IABI); Member of National Research Council and as the chair of Technical Committee for Environment and Disaster; Chair of Working Group 1 of Intergovernmental Coordination Group on Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) focusing on Tsunami Risk, Community Awareness and Preparedness; and member of Technical Committee of ISO/TC 292 Trans-Disciplinary Approach, Japan Society of Civil Engineers. Having experiences over twenty years in teaching, conducting researches, trainings, workshops, national guideline and policy development in the Disaster Mitigation and Management especially on tsunami, Early Warning System, Disaster Risk Assessment, Mainstreaming Disaster Risk Reduction into Policy Planning, and Behavioral Science in Disaster Risk Reduction field. She received Newton Prize Award, as appreciation on her works on coastal resilience.

## Mr. Nick Kuster | NSW State Emergency Service - Australia

Nick has held a diverse mix of roles in all levels of Australian government in the environment and emergency management portfolio. He has extensive experience in flood, coastal and tsunami emergency risk management and capability building, principally in ways humans can adapt and increase their resilience to natural and climate change hazards, particularly coastal processes. Nick was Chair and NSW jurisdictional representative of the Australian Tsunami Advisory Group (ATAG). He was Chair of the NSW SES Tsunami Capability Development Group, a cross-section of multi-skilled volunteers and members formed to address tsunami preparedness in NSW and determine plans of action to increase awareness and capability in the Service. Nick is currently the founder of Ecoastal, a consultancy specialising in training, building capability and emergency risk management solutions for communities subject to coastal zone hazards.

## Mr. Harald Spahn | Tsunami Early Warning Expert - Germany

Geologist, with more than 25-year experience in international technical cooperation in the fields of natural resources and environmental management, disaster risk management and early warning. After several long-time assignments in Latin America and Asia as team leader and project manager for various German development institutions he is working as a freelance consultant since 2014. In addition to advisory services on a broader spectrum of technical topics in his various fields of expertise, the accompaniment of processes, multi-stakeholder approaches, organizational consulting, capacity development, training and moderation play an important role in his work. One main key area of consulting is the provision of customized support and advisory in the design, implementation and further development of effective and people-centred early warning systems based on a broad range of experiences acquired through more than 14 years of committed and successful engagement in the development and promotion of early warning systems for tsunamis and hydro-meteorological hazards worldwide.

# **Ms. Ghazala Naeem** | Tsunami Early Warning and Mitigation Expert, and Resilience Group - Pakistan

Ghazala Naeem is a disaster risk management practitioner and specializes in tsunami preparedness and early warning dissemination. Ms. Naeem has been leading the Resilience Group; an independent consultancy house, since 2012. She holds a Master degree in Disaster management and bachelors in Architecture. With more than two decades of experience, she has been providing services to national and international organizations on various aspects of community resilience. She has also been involved in emergency response and rehabilitation phases after major disasters in Pakistan, 2005 Kashmir Earthquake, Flood in 2010 and 2011, and Earthquake 2015. Ms. Naeem has also contributed in several research projects and capacity building initiatives at national and international levels.

#### Mrs. Weniza | The Agency for Meteorology, Climatology, and Geophysics - Indonesia

Weniza is the chair of Task Team IOWave20 (Indian Ocean Wave Exercise 2020) under ICG/IOTWMS (Intergovernmental Coordination Group for Indian Ocean Tsunami Warning and Mitigation System) and the head of tsunami mitigation subdivision of The Meteorology Climatology and Geophysics (BMKG) Indonesia. In 2010 she received her master degree of Tsunami Disaster Mitigation, National Graduate Institute for Policy Study (GRIPS), Tokyo Japan. With more than 15 years experience, she has been working in the Indonesia Tsunami Early Warning System (InaTEWS) that is assigned as one of the Tsunami Service Provider under the ICG/IOTWMS and actively involved in developing concept of ISO/TC 292, ISO 22328-3: Guideline for the Implementation of a Community-based Tsunami Early Warning System and National Standard for Tsunami Early Warning System.









#### Mrs. Henny Vidiarina | Tsunami Early Warning and Emergency Response Expert - Indonesia

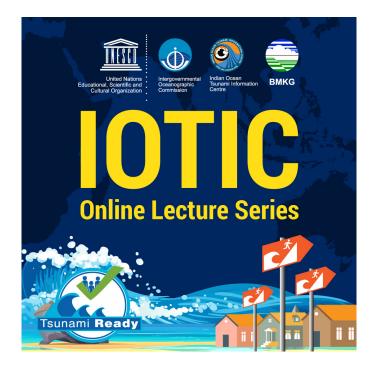
Ms. Vidiarina' s expertise are programs strategies development and management, technical and managerial advisory, stakeholder's liaison and networking, public awareness design and programs, on topics of DRR, EWS, and Gender related issues. She has been working for nearly twenty years in the field of post-Conflict and Disaster management, include disaster risk reduction, and early warning system. She was involved in the Indonesian disaster management law development processes, while working with CARE on post-conflict in Central Kalimantan and Madura, Forest and Peat Land Fire Disaster Preparedness in Kalimantan, and in the Emergency Response and Recovery shortly after Tsunami hits Aceh in 2004. She worked in several international and national organizations, such as Peace Wind Japan, Action Contre La Faim, and CARE International in the field of post-conflict management. She also worked with GIZ in the large-scale working development of Tsunami early warning system in Indonesia, under the project GITEWS and PROTECTS, and continue to work with GIZ to work for the Global Initiative for Disaster Risk Management.

#### Mr. Ajay Kumar B | Indian National Centre for Ocean Information Services - India

Mr. Ajay Kumar Bandela is working as Scientist in Indian Tsunami Early Warning Centre at Indian National Centre for Ocean Information Services (INCOIS), Ministry of Earth Sciences, Govt. of India, Hyderabad since April 2007. He has obtained his master's degree (M.Sc. (Tech)) in Geophysics from Osmania University. Mr. Ajay actively involved in establishment of Tsunami buoys and Tide gauges networks for Indian tsunami warning system to provide timely tsunami advisories to stake holders. He is In-charge for tsunami capacity development program for creating awareness and preparedness. He is one of the key members in implementing the UNESCO-IOC Tsunami Ready program in India. He is also actively involved in the Intergovernmental Coordination Group for Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) of IOC/UNESCO activities as a Member of its Working Groups and Task teams

## **Mrs. Nora Gale** | Secretariat of Intergovernmental Coordination Group of the Indian Ocean Tsunami Warning and Mitigation System - Australia

Mrs. Nora Gale is a member of the Secretariat to the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS). In this role she provides technical and administrative support on tsunami disaster risk reduction to the 28 countries bordering the Indian Ocean. Mrs. Gale has been involved with UNESCO-IOC Tsunami Ready since it was first piloted in the Indian Ocean region and is passionate about the expansion of the programme. Mrs. Gale was previously employed by GNS Science where she contributed GeoNet, New Zealand's integrated geological hazard monitoring system. In particular, she coordinated the establishment of the New Zealand tsunami monitoring network and contributed towards real-time tsunami threat evaluation and response planning. Mrs. Gale has a Master of Science in Geology from Victoria University of Wellington, New Zealand.





## **Attendance and Certificate:**

## **Registration and Attendance**

There will be registration to the lectures, those who registered will received the link to the lecture. On the day of the lecture, there will be attendance form. The link to the form will be informed in chat box and facebook live 5 minutes before the lecture starts.

## Certificates:

- Participants interested to get certificate of participation of each lecture session will have to answer questionnaires. The link to the questionnaires will be posted after each session.
- Participants attending all 6 lecture sessions and receive all 6 certificates of participation will receive special Certificate of Completion of the IOTIC Online Lecture Series.

## **The Tsunami Ready Indicators**

- 1. Have designated and mapped tsunami hazard zones.
- 2. To develop an initial estimate of the number of people that live in the tsunami hazard zone.
- 3. Have a public display of tsunami information.
- 4. Develop an inventory of available economic, infrastructural, political and social resources to reduce tsunami risk at the community level.
- 5. Produce easily understood tsunami evacuation maps as determined to be appropriate by local authorities in collaboration with communities.
- 6. Development and distribution of outreach and public education materials.
- 7. Hold at least three outreach or education activities annually
- 8. Conduct a biennial tsunami community exercise.
- 9. Have a tsunami emergency operations plan (EOP) for the community.
- 10. Have the capacity to manage emergency response operations during a tsunami.
- 11. Have redundant and reliable means to receive 24-hour official tsunami alerts
- 12. Have redundant and reliable means to disseminate 24-hour official tsunami alerts to the public.



#### For more information:

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Tsunami Ready

