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# Tsunami Ready & Critical Infrastructure

ICG/IOTWMS WG-1 Meeting  
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## ICG/IOTWMS Regional Workshop Strengthening Tsunami Warning Chain to Critical Infrastructure

25 - 27 November 2019  
BMKG - Jakarta, Indonesia

### The Background

In line with the World Tsunami Awareness Day and in Commemoration of 15 Year of the 2004 Indian Ocean tsunami the Coordinating Ministry for Maritime Affairs, the Agency for Meteorology, Climatology, and Geophysics (BMKG) jointly with the Indian Ocean Tsunami Information Centre (IOTIC) of UNESCO IOC and the Indonesian Tsunami Experts Association (IATS) will hold a regional workshop on "Strengthening Tsunami Warning Chain to Critical Infrastructure Facilities" on 5-7 November 2019 in Indonesia.

### The aim of this workshop:

- Impact of tsunamis to critical infrastructure Facilities (lessons learnt from Japan and Indonesia)
- Assessing tsunami risk of critical infrastructure (for near shore and distant tsunamis)
- Building and strengthening warning chain to the critical infrastructures.
- Mitigation and tsunami preparedness in the critical infrastructures.

### Critical Infrastructures topics:

- Warning Chain to Harbors, Ports and Airports
- Warning Chain to Power-plant, Industries and Communication infrastructures
- Warning Chain to Education Facilities (Schools and Universities)
- Warning Chain to Health Facilities (Hospitals and Clinics)

### Participants:

- Critical Infrastructure Managers and Owners
- National Tsunami Warning Centres
- Disaster Management Organizations / Agencies
- Academician
- Civil Society and NGOs
- Media



# Indian Ocean Regional Workshop on Strengthening Warning Chain to Critical Infrastructure (Ports, Coastal Airports, and Harbours), Jakarta, Indonesia 25 - 27 November 2019

40 participants representing ports, harbours, coastal airports, NTWCs and Special Economic Zones of 14 countries

(Bangladesh, Comoros, India, Indonesia, Iran, Japan, Malaysia, Maldives, Mozambique, Myanmar, Oman, Sri Lanka, Timor Leste and Tanzania)





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- Media

The workshop highlighted the urgent need for critical infrastructure facilities to work closely with relevant experts and authorities to bridge these gaps:

- Many ports, harbors and coastal airports bordering the Indian Ocean do not understand the tsunami hazard and risk of their coastline.
- Lack / limited of knowledge of official warning products and direct access to official tsunami warning information from the National Tsunami Warning Centres (NTWCs).
- There is a need for guidance and capacity enhancement to develop tsunami standard operating procedures and emergency response plans, actionable response for key stakeholders, as well as preparedness and awareness.

*The workshop provided an opportunity for the participants to work on time-line driven Standard Operating Procedures (SOPs), stakeholder roles and responsibilities for ports, harbors and coastal airports, which were tested through a table-top exercise at the end of the workshop.*



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The workshop discussed the critical nature of sea-level data for tsunami early warning, enhancing safety of life and efficiency of maritime operations at critical infrastructure facilities, and **requested ports, harbors and coastal airports** to strengthen tide gauge networks in their facilities and to enable “real-time” data sharing with tsunami early warning centers.

The workshop participants requested UNESCO-IOC through its Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) Secretariat and Indian Ocean Tsunami Information Centre (IOTIC) to

- Continue to provide tsunami capacity development for critical infrastructure facilities along the coast (**ports, harbors and coastal airports**).
- Develop a regional guidelines for tsunami hazard and risk assessment, mitigation, emergency response, evacuation, recovery, and business continuity for critical infrastructure facilities along the coast.



# Thank you



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**UNESCO-IOC Indian Ocean Tsunami Information Centre**  
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