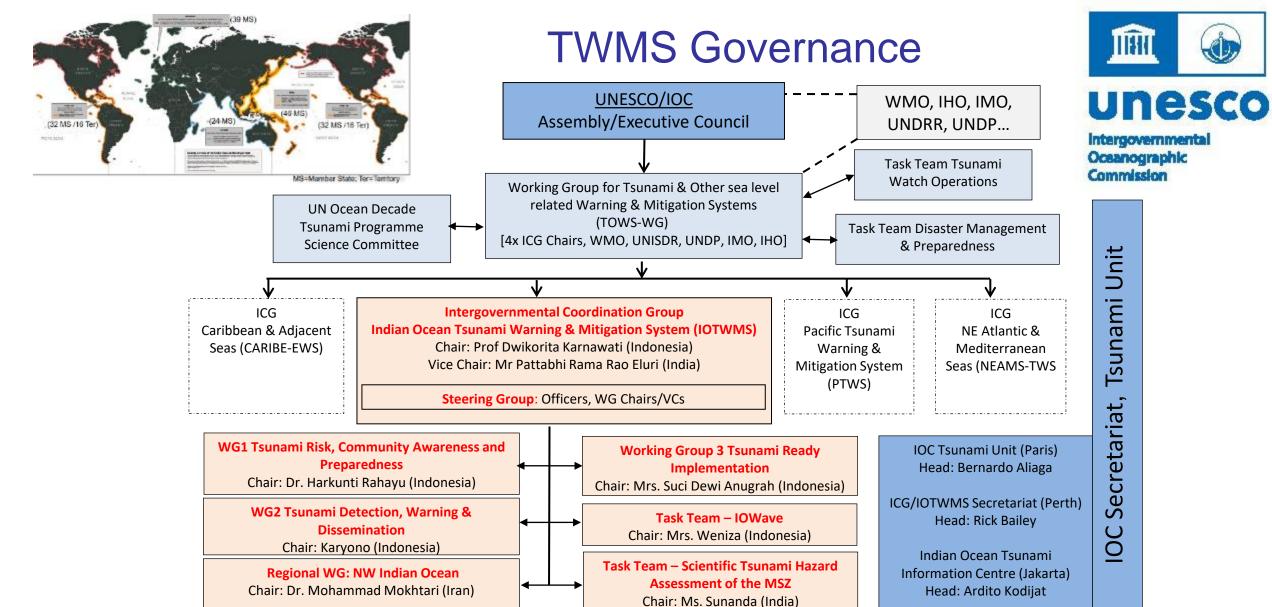


# Indian Ocean Tsunami Warning & Mitigation System (IOTWMS)



#### Past ICG/IOTWMS Chairs

2017 - 2019: Dr Andi Eka Sayka (Indonesia)

2015 – 2017: Srinivasa Kumar Tummala (India)

2010 - 2015: Rick Bailey (Australia)

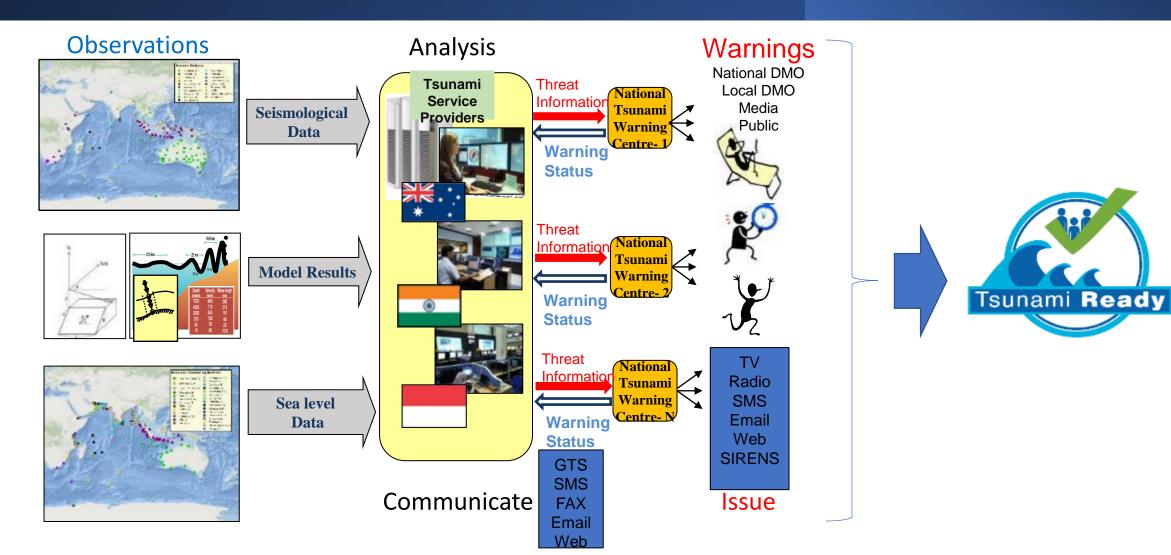
2007 – 2010: Jan Sopaheluwakan (Indonesia)

2005 - 2007: P. S. Goel (India)



## Modus Operandum Tsunami Detection, Warning and Dissemination IOTWMS





## Support for 25 IOTWMS Member States



1. Two years support (2022-2023 of USD\$310K per year) from Government of Australia, through Australian Bureau of Meteorology, to support ICG/IOTWMS Secretariat

2. Five years (2022-2027 of USD\$80K per year) from Government of Indonesia, through BMKG, to support Indian Ocean Tsunami Information Centre (IOTIC)

3. ICG/IOTWMS Secretariat and IOTIC support for meetings / workshops & related activities in online or hybrid mode.



4. UNESCAP Project
"Strengthening tsunami warning
in the North-West Indian Ocean
through regional cooperation"
Phase 1 and 2 (a&b) and 2c in
2023

5. IOTIC and IOC Secretariat supported Member States in the Implementation of IOC-UNESCO Tsunami Ready Recognition Programme

5. IOTIC and IOC Secretariat supported IOTWMS World Tsunami Awareness Day (WTAD) activities



## INDIAN OCEAN TSUNAMI INFORMATION CENTRE

- **UNESCO IOC Tsunami Unit**
- **UNESCO-IOC ICG/IOTWMS Secretariat**
- UNESCO-IOC ICG/IOTWMS SG / WGs / TTs **UNESCO-IOC TOWS Task Team for Tsunami Disaster**
- **Management and Preparedness** UNESCO IOC Tsunami Information Centers (CTIC, ITIC,
  - **NEAMTIC)**
  - UNESCO-IOC Ocean Teacher Global Academy Secretariat



- BMKG Geophysics
- BMKG InaTEWS
- BMKG Training Centre (STC OTGA)



Australia Bangladesh Comoros French Reunion

India Indonesia Iran Kenya

Madagascar Malavsia Maldives Mauritius

Mozambique Mvanmar Oman **Pakistan** 

Seychelles Singapore South Arfica Sri Lanka

Tanzania Thailand Timor Leste **United Arab Emirates** Yemen

## IOTIC AUSTRALIA ICG/IOTWMS Secretariat

## **Working with Tsunami Service Providers**

- Bureau of Meteorology (BOM) and Geoscience Australia (GA), Australia
- Indian National Centre for Ocean Information Services (INCOIS), India
- Agency for Meteorology, Climatology, and Geophysics (BMKG), Indonesia

### **Past Tsunamis** Information preserved:

- 1945 Makran Tsunami
- 1950 Ambon Tsunami
- Central Sulawesi Tsunamis (1938, 1968, and 2018)
- 1992 Flores Tsunami
- 1994 Banyuwangi Tsunami
- 1996 Biak Tsunami
- 2000 Bangai Tsunami

**Projects** 

(2012-2022)**IFIT (1); MFIT (1); UNESCAP (3); Charles Englehart Foundation (1)**  **IOYVC Indian Ocean Youth Video Competition** 

**Past Tsunamis Eyewitness Stories** 



Support 2009 **Indian Ocean** 2011 **Tsunami Wave** 2016 **Exercises** 2018 (IOWave)

**Tsunami** Ready **Posters** 

**Tsunami Ready Animation** Video

Tsunami Ready **Boardgame** 

(Webinars)

**Indian Ocean Capacity Building Training** 

**Indian Ocean Regional** Workshops

> **Indian Ocean Lecture** Series during COVID-19



iowave.org

2 in India and 9 in Indonesia

**World Tsunami Awareness Day Videos** 







## **Tsunami Ready "Community"**

## Community → an ecosystem of society



## **UNESCO/IOC Tsunami Ready Indicators**

#### **TSUNAMI READY INDICATORS**

#### I ASSESSMENT (ASSESS)

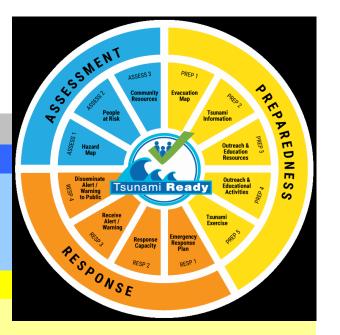
- 1 ASSESS-1. Tsunami hazard zones are mapped and designated
- 2 **ASSESS-2**. The number of people at risk in the tsunami hazard zone is estimated
- 3 ASSESS-3. Economic, infrastructural, political, and social resources are identified

### II PREPAREDNESS (PREP)

- 4 **PREP-1**. Easily understood tsunami evacuation maps are approved.
- 5 **PREP-2**. Tsunami information including signage is publicly displayed.
- 6 PREP-3. Outreach and public awareness and education resources are available and distributed.
- 7 **PREP-4**. Outreach or educational activities are held at least 3 times a year.
- 8 PREP-5: A community tsunami exercise is conducted at least every two years

#### **III RESPONSE (RESP)**

- <sup>9</sup> **RESP-1**. A community tsunami emergency response plan is approved.
- 10 **RESP-2**. The capacity to manage emergency response operations during a tsunami is in place.
- 11 **RESP-3**. Redundant and reliable means to timely receive 24-hour official tsunami alerts are in place.
- RESP-4. Redundant and reliable means to timely disseminate 24-hour official tsunami alerts to the public are in place.













Centre



## **TSUNAMI READY RECOGNITION IN THE INDIAN OCEAN**



- Noliasahi
- Venkatraipur
- Tanjung Benoa
- Tambakrejo
- Kemadang
- Glagah
- Pangandaran
- Panggarangan
- Kuta Mandalika
- Purus
- **Lolong Belanti**



Ardito M. KODIJAT

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UNESCO-IOC Indian Ocean Tsunami Information Centre
IOTIC-BMKG Programme Office

Disaster Risk Reduction and Tsunami Information Unit
UNESCO Jakarta Office

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