INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

Fourteenth Session of the Intergovernmental Coordination Group
for the Indian Ocean Tsunami Warning and Mitigation System
(ICG/IOTWMS-XIV)

Jakarta, Indonesia, 17-19 November 2024

National Report of Indonesia

Page 1: Overview

Q1

Consent: I have read the above information and wish to proceed.

Confirm by clicking the checkbox

Q2

Please select your country from the list below:

Indonesia

Page 2: PART I: Basic Information

Q3

TNC Name:

Hanif Andi Nugraha

Q4

Position:

Acting Deputy of Geophysics

Q5

Organisation:

BMKG

Q6

Telephone Number:

Q7

E-mail Address:

hanif.andi@bmkg.go.id

Q8 **Respondent skipped this question**

Fax Number:

Q9

Postal Address:

Jl. Angkasa I, No.2 Kemayoran, Jakarta Pusat 10610
Call Center : (021) 196

Page 3: PART I: Basic Information

Q10

NTWC Agency Name:

Agency for Meterorology Climatology and Geophyiscs (BMKG)

Q11

NTWC URL (web link) for tsunami warnings:

https://inatews.bmkg.go.id/wrs/index.html

Q12

NTWC Agency Contact or Officer in Charge (person):

Daryono

Q13

Position:

Director of Center for Earthquake and Tsunami

Q14

Telephone Number:

Q15

E-mail Address:

daryonobmkg@gmail.com

Q16

Postal Address:

Jl. Angkasa I, No.2 Kemayoran, Jakarta Pusat 10610

Q17

3a) Is your Tsunami Warning Focal Point (TWFP) the same as your National Tsunami Warning Centre (NTWC) agency?The TWFP is the 24 x 7 point of contact (office, operational unit or position, not a person) officially designated by the NTWC or the government to receive and disseminate tsunami information from an ICG Tsunami Service Provider according to established national Standard Operating Procedures. The TWFP may or not be the NTWC.

Yes

Page 4: PART I: Basic Information

Q18

TWFP Agency Name (if different from the NTWC Agency):

Respondent skipped this question

Q19

Name:

Respondent skipped this question

Q20

Position:

Respondent skipped this question

Q21

Telephone Number:

Respondent skipped this question

Q22

E-mail Address:

Respondent skipped this question

Q23

Postal Address:

Respondent skipped this question

Page 5: PART I: Basic Information

Q24

TWFP 24x7 point of contact (office, operational unit or position, not a person):

BMKG

Q25

E-mail Address:

Q26

Telephone Number:

Q27

Respondent skipped this question

Cellular Telephone Number:

Q28

Fax:

Page 6: PART I: Basic Information

Q29

Yes

3d) Has your country appointed a Tsunami Ready Focal Point (TRFP)?The TRFP is a person from the Disaster Management (DMO) or similar institution that:- Acts as a national advocate for national implementation of the Tsunami Ready Recognition Programme (TRRP) or a recognised similar initiative to help make at-risk communities prepared and resilient to any tsunami threat within their Member State.- Actively contributes to the national implementation of TRRP or a recognised similar initiative.- Routinely update UNESCO-IOC ICG/IOTWMS on the status of the national implementation of the TRRP or a recognised similar initiative. - Informs relevant national authorities and orgaisations involved in the implementation of TRRP or a recongised similar initiative on any information and/or updates provided by UNESCO-IOC on activities related to making at risk communities Tsunami Ready.

Q30

If yes, please provide their details below:Name of the TRFP:

Hidayanti

Q31

Position:

Coordinator for Tsunami Mitigation

Q32

Agency:

BMKG

Q33

Telephone Number:

Q34

E-mail Address:

yanti0918@gmail.com

Q35 **Respondent skipped this question**

Postal Address:

Page 7: PART II: Hazard Assessment

Q36 **Yes**

4a) Has your country undertaken a hazard assessment?

Page 8: PART II: Hazard Assessment

Q37 **Multi-hazard assessment including tsunami**

4b) What type of hazard assessment has been carried out?

Page 9: PART II: Hazard Assessment

Q38

4c) What type of multi-hazard assessment has been carried out? (select all that apply)

Drought,

Tsunami,

Earthquakes,

Flooding,

Landslide,

Volcanic eruptions,

Cyclone,

Other (please specify):

Extreme Weather, Forest Fire, Liquefaction

Page 10: PART II: Hazard Assessment

Q39

4d) Who did the tsunami hazard assessment in your country? (select all that apply)

National Agency,

Please specify the name(s) of the agencies:

Agency for Meteorology Climatology and Geophysics (BMKG); Centre for Volcanology and Geological Disaster Mitigation (PVMBG); National Disaster Management Organization (BNPB)

Q40

4e) At what level was the tsunami hazard assessment carried out? (select all that apply)

National Level,

Regional Level,

City Level,

Village Level

Q41

4f) Which coastal areas have been mapped for tsunami hazard? Please include the names of the Region / City and an approximation of the percentage mapped.

Entire region of Indonesia

Q42

4g) For each of the data types listed below (in rows), answer the two questions (in columns). Select Yes / No / Don't know from the drop-down menu.

	Was this data used for tsunami hazard assessment?	Is this data publicly available?
Bathymetry	**Yes**	**Yes**
Seismo-tectonic model	**Yes**	**Yes**
Topography	**Yes**	**Yes**
Land Cover	**Yes**	**Yes**
Infrastructure details	**Yes**	**Yes**

Other data used (please specify):
Aerial photos or LiDAR images obtained from field survey.

Q43

4h) What products do you have from the tsunami hazard assessment? (select all that apply)

Probabilistic Tsunami Hazard Assessment (PTHA),

Deterministic Tsunami Hazard Analysis,

Hazard map,

Inundation map,

Evacuation map,

Guidelines (please specify below),

Other (please specify):
Documents for Spatial and Regional Planning, guidelines for tsunami evacuation.

Page 11: PART II: Hazard Assessment

Q44

4i) On a scale of 1 (Very poor) to 5 (Very good), please rate your country's capability to undertake tsunami hazard assessment

Capacity to undertake tsunami hazard assessment	**Very good**

Q45

4j) On a scale of 1 (Not a priority) to 5 (Essential), what is the priority level in your country to improve capacity in the following areas of tsunami hazard assessment?

Probabilistic Tsunami Hazard Assessment (PTHA)	**Medium priority**
Deterministic Tsunami Hazard Analysis	**High priority**
Field Studies on Tsunami Impacts	**High priority**
Hazard map	**Essential**
Inundation map	**High priority**
Evacuation map	**High priority**
What other areas of capacity in tsunami hazard assessment require improvement?	**Tsunami Evacuation Map: difficulties to develop a general standards for the evacuation map, and how to deliver the content in a proper map.**

Q46

4k) On a scale of 1 (No capacity) to 5 (Very good), what capacity does your country have to give training and/or consultancy on tsunami hazard assessment to other countries?

Probabilistic Tsunami Hazard Assessment (PTHA)	**Good**
Deterministic Tsunami Hazard Analysis	**Very good**
Field Studies on Tsunami Impacts	**Very good**
Hazard map	**Very good**
Inundation map	**Very good**
Evacuation map	**Very good**
Please provide the name(s) and contact detail(s) of any individuals / institutions in your country that could provide this training / consultancy	**BMKG; BNPB (Agency for National Disaster Management); PVMBG (Centre for Volcanology and Geological Disaster Mitigation)**

Page 12: PART II: Risk Assessment

Q47 **Yes**

5a) Has your country undertaken a tsunami risk assessment?

Page 13: PART II: Risk Assessment

Q48 **Multi-hazard risk assessment including tsunami**

5b) What type of risk assessment?

Page 14: PART II: Risk Assessment

Q49

5c) What hazards have been considered in your multi-hazard risk assessment? (select all that apply)

Tsunami,

Drought,

Earthquakes,

Flooding,

Landslide,

Volcanic eruptions,

Cyclone,

Other (please specify):

Extreme Weather, Forest Fire, Liquefaction

Page 15: PART II: Risk Assessment

Q50

5d) Who did the tsunami risk assessment in your country? (select all that apply)

National Agency,

Please specify the name(s) of the agency(ies):

BNPB

Q51

5e) At what level was the tsunami risk assessment carried out? (select all that apply)

Regional Level,

City Level

Q52

5f) Which coastal areas have been tsunami risk mapped? Please include the names of the Region / City and an approximation of the overall national percentage of risk prone areas mapped.

Entire region of Indonesia

Q53

5g) How many Cities / Municipalities / Regencies are at risk from tsunami?

5.744 villages are at-risk of tsunami out of 81.800 total village in Indonesia, but still need to be verified further

Q54

5h) What products do you have from the tsunami risk assessment? (select all that apply)

Risk map,

Evacuation map,

Guidelines (please specify below),

Action Plan (please specify below),

Others (please specify below),

Other (please specify):

Guidelines including self-protection, understanding of information. SOPs, Decree of Community Tsunami preparedness team.

Page 16: PART II: Risk Assessment

Q55

5i) On a scale of 1 (Very poor) to 5 (Very good), please rate your country's capability to undertake tsunami risk assessment

Capability to undertake tsunami risk assessment	**Good**

Q56

5j) On a scale of 1 (Not a priority) to 5 (Essential), what is the priority level of your country to improve capacity in the following areas of tsunami risk assessment?

Tsunami risk assessment at national level	**Essential**
Tsunami risk assessment at regional level	**Essential**
Tsunami risk assessment at city level	**Essential**
Tsunami risk assessment at village level	**Essential**
Tsunami risk assessment at community / neighbourhood level	**Essential**

Q57

5k) On a scale of 1 (No capacity) to 5 (Very good) what capacity does your country have to give training and/or consultancy on tsunami risk assessment to other countries?

Tsunami risk assessment at national level	**Good**
Tsunami risk assessment at regional level	**Good**
Tsunami risk assessment at city level	**Good**
Tsunami risk assessment at village level	**Good**
Tsunami risk assessment at community / neighbourhood level	**Good**
Please gives the names of any individuals / institutions in your country that could provide this training / consultancy	**BNPB**

Page 17: PART II: Policies

Q58

6a) Does your country have a national tsunami policy? For each of the four disaster management phases listed below, select standalone policy / multi hazard policy / policy not available. Use the comments box to detail the specific name of the policy (if available).

	In what form is the policy?
Prevention and mitigation	**Standalone tsunami only**
Preparedness	**Standalone tsunami only**
Emergency response	**Multi hazard including tsunami**
Rehabilitation and reconstruction	**Multi hazard including tsunami**

What is the name of policy? (if available):
Prevention and Mitigation, preparedness: Presidential Decree No. 93/2019 Emergency Response: Law No. 24/2007 Rehabilitation and Reconstruction: Government Regulation No. 21/2008, Presidential Decree No. 87/2020

Q59

6b) Does your country have local tsunami policies? For each of the disaster management phases listed below, select standalone policy / multi hazard policy / policy not available. Use the comments box to detail the specific name(s) of the policy (if available).

	In what form is the policy?
Prevention and mitigation	**Multi hazard including tsunami**
Preparedness	**Multi hazard including tsunami**
Emergency response	**Multi hazard including tsunami**
Rehabilitation and reconstruction	**Multi hazard including tsunami**

What is the name of policy? (if available):
every regional or municipal authority have their own policy including contigency plan, city development plan, as well as emergency response plan, specifically adjusted to each region.

Page 18: PART II: Plans

Q60

7a) Does your country have national, local and community level tsunami disaster risk reduction plans? For each of the four disaster management phases listed below, select standalone plan / multi hazard plan / plan not available. Use the comments box to detail the specific name(s) of the plan(s) (if available). Please use the scroll bar to view the entire table.

	National level	Local level	Community level
Prevention and mitigation	**Multi hazard including tsunami**	**Multi hazard including tsunami**	**Multi hazard including tsunami**
Preparedness	**Multi hazard including tsunami**	**Multi hazard including tsunami**	**Multi hazard including tsunami**
Emergency response	**Multi hazard including tsunami**	**Multi hazard including tsunami**	**Multi hazard including tsunami**
Rehabilitation and reconstruction	**National plan is not available**	**Multi hazard including tsunami**	**Community plan is not available**

What is the name of the plan(s) (if available):
For National level we have the National Plan for Disaster Countermeasures (http://mpbi.info/wp-content/uploads/2017/10/Renas-PB-2020-2024.pdf)

Q61

7b) Are your country's tsunami disaster risk reduction plans based on hazards and risk assessments?

Yes

Page 19: PART II: Guidelines

Q62

8a) Does your country have national tsunami DRR guidelines? For each of the four lifecycle phases, select standalone guidelines / multi hazard guidelines / guidelines not available. Use the comments box to detail the specific name of the guidelines (if available).

	In what form are the guidelines?
Prevention and mitigation	**Standalone tsunami guidelines**
Preparedness	**Standalone tsunami guidelines**
Emergency response	**Multi hazard guidelines including tsunami**
Rehabilitation and reconstruction	**Multi hazard guidelines including tsunami**

What is the name of guidelines? (if available):
Prevention and Mitigation, preparedness: Guidelines for Municipality Tsunami Risk Map Development (https://perpustakaan.bnpb.go.id/bulian/index.php?p=show_detail&id=1911), for the Emergency Response law no 24/2007, for the Rehabilitation and Reconstruction is the BNPB Regulation no 6/2017

Q63

8b) Does your country have local tsunami DRR guidelines? For each of the four lifecycle phases, select standalone guidelines / multi-hazard guidelines / guidelines not available. Use the comments box to detail the specific name of the guidelines (if available).

	In what form are the guidelines?
Prevention and mitigation	**Multi hazard guidelines including tsunami**
Preparedness	**Multi hazard guidelines including tsunami**
Emergency response	**Guidelines not available**
Rehabilitation and reconstruction	**Guidelines not available**

What is the name of guidelines? (if available):
Regulation of Ministry of Internal Affairs No. 101/2018 on Standardized Services for local governance in Disaster Management.

Page 20: PART III: Detection and Warning

Q64

9a) Does your country have a national capability to assess and/or receive potential tsunami threat information and advise/warn its coastal communities?

Yes

Page 21: PART III: Detection and Warning

Q65

9b) Does your country utilise the data provided by the IOTWMS Tsunami Service Providers (TSPs) for the Coastal Forecast Zones (CFZ) of your country's coastline to determine national threats or does it undertake its own threat assessments? (select all that apply)

Use TSP data,

Use own threat assessments

Q66

9c) Which organisation in your country has the responsibility for assessing and/or receiving potential tsunami threat information?Please provide the name and contact details.

The main actors in receiving and responding to tsunami early warning are the National Disaster Management Agency (BNPB), as well as the local disaster management agency (BPBD) that are stationed in every municipal and regional governmency in Indonesia.

Furthermore, several institution in national level also involved in indonesia tsunami early warning chain, some of those institution are:
- BNPB/ Indonesia NDMO (https://bnpb.go.id/)
- Ministry of Information and Comunication (https://www.kominfo.go.id/)
- National Army (https://tni.mil.id/)
- National Police (https://polri.go.id/)
- National Search and Rescue Agency (https://basarnas.go.id/)

Q67

9d) Does the organisation responsible for assessing and/or receiving potential tsunami threat information operate 24x7?

Yes

Q68

9e) What / which infrastructure is available to enable 24x7 operations? (select all that apply)

Computers,

Internet,

Landline Phone,

Mobile Phone or Cell Phone,

Satellite Phone,

GTS (WMO Global Telecommunication System),

UPS (Uninterruptable Power Supply),

VSAT,

Please specify any other infrastructure:

BMKG provides those agency with special dissemination instrument called WRS-BMKG (Warning Receiver System). This equipment are equipped with at least two communication, GSM and satellite, that allows those institution to receive earthquake information and tsunami warning for 24/7. Some of the institution such as the Local BPBDs and National Army also equipped with VHF Radio that extremely robust in emergency situation.

Q69

9f) Which level of tsunami threat forecast information is produced by the responsible organisation? (select all that apply)

Ocean-wide,

National,

Local

Q70

9g) Does the organisation have access to national and/or international seismic networks? (please select one from the following options)

Yes, national and international

Page 22

Q71

9h) Is national seismic data shared in real time?

Some national seismic data is shared in real time,
Please specify which seismic data is shared in real time:
BMKG as the responsible institution in managing seismic and tsunami data has been collaborating with several international institution in regards of data sharing. External institution such as USGS or GFZ placed their own sensor in Indonesia territory so they can monitor the seismic activity happening around the region. In return, BMKG can also utilize the data from those sensors for their monitoring operation.

Page 23: PART III: Detection and Warning

Q72

9i) Does your organisation have access to GNSS data?

No

Q73

9j) Is the list of broadband seismometers operated by your country listed accurately in the IOTWMS seismic database http://www.ioc-tsunami.org/index.php?option=com_oe&task=viewDocumentRecord&docID=20796)?

Yes

Q74

9k) When compared to the IOTWMS seismic database (http://www.ioc-tsunami.org/index.php?option=com_oe&task=viewDocumentRecord&docID=20796), have you decommissioned or added broadband seismometers operated by your country (Check all that apply and include details in the comments section below)

There are no changes,

Please indicate which stations have been decommissioned or added, including the Station Name/Location, email Contact of the Station Operator (IOTWMS Secretariat will contact for more information).:

As of now, Indonesia has been operating more than 500 seismic stations, distributed in the entire country. However the sensors that were agreed to be shared between BMKG and IOTWMS have not been changed.

Page 24: PART III: Detection and Warning

Q75

9l) Does the organisation have access to national and/or international sea level networks? (please select one answer from the following options)

Yes, national and international

Page 25: PART III: Detection and Warning

Q76

9m) Is national sea level data shared in real time?

All national sea level data is shared in real time

Page 26: PART III: Detection and Warning

Q77

9n) Is the list of sea level stations operated by your country listed accurately in the IOTWMS sea level database (http://www.ioc-tsunami.org/index.php?option=com_oe&task=viewDocumentRecord&docID=20833)?

No

Q78

9o) When compared to the IOTWMS sea level database (http://www.ioc-tsunami.org/index.php?option=com_oe&task=viewDocumentRecord&docID=20833), have you decommissioned or added sea level stations operated by your country (Check all that apply and include details in the comments section below)

Some stations have been decommissioned,

Please indicate which stations have been decommissioned or added, including the Station Name/Location, email Contact of the Station Operator (IOTWMS Secretariat will contact for more information).:

Several stations have been dismantled. There are only three existing instruments left in Jakarta, Semarang, and Surabaya.

Page 27: PART III: Detection and Warning

Q79

9p) What other observing networks are operated by your country and used for tsunami early warning?

Other (please specify below),

Please provide the type of observing network, the station name/location, email contact of any other observing network operator (IOTWMS Secretariat will contact for more information).:

Monitoring network to monitor volcanic activity, operated by PVMBG (https://vsi.esdm.go.id/portalmbg/)

Q80

9q) Does the organisation have the capability of analysing real-time seismic and sea-level data for potential tsunami threat?

YesPlease specify the software tools used:
BMKG uses seiscomp to analysis real time seismic data, and used TOAST for Tsunami Modelling

Q81

9r) Does the organisation have capability for tsunami modelling to support generation of threat forecasts?

YesPlease specify the modelling tools and data used:
BMKG uses TOAST to model the tsunami propagation and analyzed the tsunami threat forecasts for every affected area.

Q82

9s) Does the organisation responsible for identifying a potential tsunami threat also issue national tsunami no threat, watches, advisories, alerts and/or warnings?

Yes

Q83

9t) What are the threshold or criteria (for example sea levels, magnitude) for declaring a potential national tsunami emergency, watch, alert, advisory or warning?

We have three tsunami threat category which classified based on forecasted tsunami run-up in specific area, which area:
- Major Warning, Tsunami run-up height is more than 3 m;
- Warning, Tsunami run-up height is between 0.5 - 3 m;
- Advisory, Tsunami run-up is less than 0.5 m.

Q84

9u) What actions were taken by your country's National Tsunami Warning Centre (NTWC) and/or Tsunami Warning Focal Point (TWFP) in response to earthquake events and messages issued by the IOTWMS TSPs during the inter-sessional period?

BMKG will check and validate the earthquake parameters obtained form IOTWMS with parameters obtained by BMKG. If BMKG does not have any parameters or does not detect any event, we will use the parameters from IOTWMS to make the tsunami propagation models. If the model shows the tsunami will affect some areas in Indonesia, BMKG will disseminate tsunami warning. Even if there are no expected tsunami impacts in Indonesia, BMKG will still acts as TSP for Indian Ocean and disseminates the warning to all the affected countries.

Q85

9v) Did your country's NTWC and/or TWFP participate in the 6-monthly communications tests conducted by the IOTWMS TSPs?

Yes (please name the organisation(s) that participated in the additional comments)

,
Additional comments:
BMKG always participated in the said communication test.

Q86

9w) Did your country's NTWC and/or TWFP participate in national and/or international Tsunami Exercises (eg. IOWave) conducted in the inter-sessional period between ICG meetings?

Yes (please name the exercise(s) and organisation(s) that participated in the additional comments)

,
Additional comments:
We regulary participated in either IoWAVE or PacWAVE, along with other institution such as

Q87

9x) After the December 26 2004 tsunami and until now, was your country impacted by any damaging tsunami? If Yes, what was your national response to each event (please comment if warnings were issued by your NTWC in a timely manner to enable communities to respond, if public were evacuated, etc.)

Yes (please indicate your national response to each event):
BMKG, acts as NTWC disseminates the tsunami warning into affected area in under 5 minutes after the earthquake occurs. The local DMO of affected area will receive the warning and act accordingly based on the level of tsunami threat forecasted by BMKG. If an area receive Major Warning/ Warning level threat, they need to evacuate every people in tsunami hazard zone.

Q88

9y) Since 2018, have there been any enhancements in your national warning SOPs and alerting?

Yes (please specify the enhancements):
We accomodated the needs to improve our warning system in monitoring non-seismic tsunami, mainly due to volcanic activity and landslide.

Page 28: PART III: Dissemination

Q89

10a) How is the tsunami information (warning, public safety action, etc) disseminated within country? (select all that apply)

Email,

SMS,

Telephone,

Fax,

Webpage,

Radio,

WhatsApp / Facebook / Other social media,

Sirens,

Television,

Megaphone,

Police/military,

Public alert system,

VHF radio,

Other:

WRS-BMKG, Mobile Application (InfoBMKG), Traditional instrument (Kentongan)

Q90

10b) For each emergency response organisation listed below, which communication methods for emergency response are available? (select all that apply)

National DMOs	**Telephone, Fax, Email, SMS, Siren, Other (please specify below)**
Local DMOs	**Telephone, Email, SMS, Siren, Other (please specify below)**
General Public	**Siren, Other (please specify below)**
Coastal Communities	**Siren, Other (please specify below)**
Media	**Siren, Other (please specify below)**

Other communication methods (please specify)

WRS-BMKG, Mobile Application (InfoBMKG), Radio, Website, and Social Media (WhatsApp, Telegram, Twitter, Instagram)

Q91

10c) How is the warning situation terminated?

BMKG monitors the tide gauges records regularly during the tsunami emergency situation, and will terminate the tsunami warning if none of the tide gauges records any tsunami. If there were lack of tide recordings, BMKG will terminated the situation 2 hours after the last estimated tsunami arrival time.

Q92

10d) What website is used for display of national threat status during events? Please provide the URL.

We provide the warning through our web-based warning dissemination system that can be accessed publicly through this link (https://inatews.bmkg.go.id/wrs/index.html).

Tsunami warning could also be monitored from this link: https://inatews.bmkg.go.id/web/tsunami

Q93

10e) Does your country's national tsunami warning system utilise the Common Alert Protocol (CAP) for the dissemination of warnings? If yes, please describe how the CAP is integrated into your warning dissemination processes, including any platforms or communication channels that are specifically utilised to broadcast CAP-formatted alerts to the public and relevant stakeholders.

Yes (please describe how CAP is integrated):
The CAP message is generated automatically into warning dissemination process and disseminate to the stakeholders and to the various dissemination channels and platform such as mobile apps and also to the google alert

Q94

10f) Who is primarily responsible for the direct dissemination of tsunami alerts to the public in your country, and what is the timeframe for these alerts to achieve effective last-mile responses? Please provide details.

BMKG is the one responsible in disseminating tsunami warning to affected area, stakeholders, and the general public. We have the obligation to disseminate the warnings in 5 minutes after the earthquake occurs, at the latest.

Page 29: PART IV: Standard Operating Procedures

Q95

11a) For each of the (upstream) emergency response issues listed below (in rows), consider the four questions (in columns). Select a yes/no response using the drop-down menus.

	Does your SOP address this aspect of tsunami emergency response?	Is support required to develop/improve this aspect of tsunami emergency response in your SOP?	Is support required to develop Human Resources in this aspect of tsunami emergency response?	Is support required to develop infrastructure for this aspect of tsunami emergency response?
24/7 Emergency Operation Centre (EOC)	**Yes**	**Yes**	**Yes**	**Yes**
Receiving information from the NTWC	**Yes**	**Yes**	**Yes**	**Yes**
Response Criteria / decision making	**Yes**	**Yes**	**Yes**	**Yes**

Q96

11b) For each of the (downstream) emergency response issues listed below (in rows), consider the four questions (in columns). Select a yes/no response using the drop-down menus.

	Does your SOP address this aspect of tsunami emergency response?	Is support required to develop/improve this aspect of tsunami emergency response in your SOP?	Is support required to develop Human Resources in this aspect of tsunami emergency response?	Is support required to develop infrastructure for this aspect of tsunami emergency response?
Warning dissemination	**Yes**	**Yes**	**Yes**	**Yes**
Evacuation call procedures	**Yes**	**Yes**	**Yes**	**Yes**
Community evacuation procedures	**Yes**	**Yes**	**Yes**	**Yes**
Communication with NTWC	**Yes**	**Yes**	**Yes**	**Yes**
Communication with Local Government	**Yes**	**Yes**	**Yes**	**Yes**
Media arrangements	**Yes**	**Yes**	**Yes**	**Yes**
Communication with other stakeholder i.e. Red Cross, Fire Brigade, Search and Rescue, Police, Army, Navy etc.	**Yes**	**Yes**	**Yes**	**Yes**

Q97

11c) Would your country be willing to share your SOPs with the IOTIC and other countries?

Yes

Page 30: PART IV: Evacuation Infrastructure

Q98

12a) Does your country have the following evacuation infrastructure? (select all that apply and detail specific areas). Please use the scroll bar below to view the entire table.

Evacuation shelter	**Yes**
Comment:	16 vertical Evacuation shelters has been built in 16 villages in 6 provinces (Aceh, padang, Bengkulu, Banten, Bali, Lombok)
Vertical evacuation structure	**Yes**
Comment:	In general, the Vertical Evacuation Structure is also functioned as the Vertical Evacuation shelter. Therefore 6 vertical Evacuation shelters that has been built in 16 villages in 6 provinces (Aceh, padang, Bengkulu, Banten, Bali, Lombok), are the vertical evacuation structure as well. However, in some places Hotels, Airport, School, High building are used for Vertical Evacuation Structure
Natural or artificial hill for vertical evacuation	**Yes**
Comment:	Indonesia has both of natural and artificial evacuation site
Evacuation signage	**Yes**
Comment:	Lots of cities and villages, especially the ones that has been recognized as tsunami ready community have evacuation signage

Q99

12b) Is your evacuation infrastructure integrated in the evacuation plan?

Yes

Page 31: PART IV: Tsunami Exercises

Q100

12c) Are tsunami exercises incorporated within national policies and guidelines? (select all that apply)

National policy

Q101

12d) At what levels were the exercises conducted during the inter-sessional (between ICG meetings) period? (select all that apply)

National level,

Regional level,

Village level,

School level

Q102

12e) What kind of tsunami exercise activities have been undertaken in your country and how many times during the inter-sessional (between ICG Meetings) period?

Organisation table top exercise	**Yes**
Comment:	We conducted the earthquake field school activity which incorporated the table top exercise. Currently we already conducted the activity in 142 locations across Indonesia
Inter-organisation table top exercise	**Yes**
Comment:	We usually incorporated inter-organization exercise in internasional exercise such as PacWAVE or IoWAVE. We have been involved in the activities every year since 2018.
National tsunami drill/exercise	**Yes**
Comment:	We usually incorporated national tsunami exercise in internasional exercise such as PacWAVE or IoWAVE. We have been involved in the activities every year since 2018.
Indian Ocean Wave exercise	**Yes**
Comment:	one in two years
Local tsunami drill/exercise	**Yes**
Comment:	several times, mostly by request from the local government/ community
Other (please specify)	**Yes**

Page 32: PART IV: Public Awareness

Q103

13a) Who is responsible for tsunami public awareness programmes in your country?

National Disaster Management Office

Q104

13b) What tsunami related education and awareness materials do you have? (select all that apply)

Leaflets or flyers,

Posters,

Booklets,

Information boards,

Tsunami Signage,

Video, or other visual or oral media,

Indigenous knowledge, folklore, or oral history accounts or compilations

,

Teaching kits on tsunamis,

School curricula,

Public Evacuation Map

Q105

13c) Would your country be willing to share these education and awareness materials with the Indian Ocean Tsunami Information Centre (IOTIC) and other countries?

Yes

Q106

13d) Do you undertake the following tsunami awareness activities?

World Tsunami Awareness Day	**Yes**
Comment:	Every year
Global Disaster Risk Reduction day	**Yes**
Comment:	one time back in 2022
Public tsunami preparedness outreach	**Yes**
Comment:	We conducted earthquake field school activity which basically a publick tsunami preparedness outreach since 2015. In total we have conducted this activity in 142 locations
School and/or children awareness	**Yes**
Comment:	several times, mostly by request by the school/institutions including the activities of BMKG goes to School
Exhibitions	**Yes**
Comment:	several times
Competitions or other ways of highlighting tsunami safety	**Yes**
Tsunami Exercise	**Yes**
Comment:	We have been participated in international tsunami exercise like PacWAVE and IoWAVE every year since 2018

Q107

13e) Use the boxes below to indicate any areas in which you require support from the IOTIC to develop or enhance public awareness in your country. If you do not require support, please leave blank.

Customisation of general materials to country or community

,

Development of tsunami awareness programmes, activities or campaigns

,

Participation/support by international agencies or experts to your country's activities

,

Provision of general tsunami awareness materials,

Other (please specify):

Tsunami Ready Community Programme Implementation Guidelines for Communities

Q108

13f) Can your country offer support to other Member States to develop or enhance public awareness in their country?

Yes (please specify what type of support):
We can facilitate othe countries to improve their monitoring and information dissemination capability, as well as sharing knowledge for community preparedness improvement

Page 33: PART V: UNESCO-IOC Tsunami Ready Recognition Programme (TRRP)

Q109

14a) Does your country have an interest to participate in the UNESCO-IOC TRRP?

Yes, we are already participating,
Additional comments:
Currently we have facilitate 9 communities to receive the intenational recognition and prepare several other to be checked and certified.

Q110

14b) Aside from UNESCO-IOC TRRP, is your country currently implementing any other tsunami resilience and preparedness related initiatives or programmes?

Yes (please describe the initiatives or programmes below)
,
Other tsunami resilience and preparedness related initiatives or programmes being implemented in your country:
Several years ago some villages adopt the village disaster resilient programme (DESTANA)

Q111

14c) What number of villages, cities/districts and provinces/state levels in your country are at risk to tsunami?

Village	**5744**
City / District	**255**
Province / State	**26**

Q112

14d) Does your country have a National Tsunami Ready Board (NTRB)The National Tsunami Ready Board (NTRB) is responsible for guiding the community on the steps for Tsunami Ready recognition and for the review and approval of the community's Tsunami Ready application. It consists of designated representatives of the National Emergency Management Agency or Disaster Mangement Office, NTWC, TNC, the scientific community, and other invited guests.

Yes,
Please specify any existing coordination mechanisms that can fulfil this role of NTRB:
National Tsunami Warning Center (BMKG), National Disaster Management Office (BNPB), other stakeholders such as Ministry of Communication, Search And Rescue Agency, Police and Army forces, etc.

Q113

14e) Which institution(s) should be involved in the implementation of TRRP or similar national initiative? (please use a comma between the name of the institutions)

National Tsunami Warning Center (BMKG), National Disaster Management Office (BNPB), other stakeholders such as Ministry of Communication, Search And Rescue Agency, Police and Army forces, etc.

Q114

14f) Are any communities (for example, villages, cities, districts, provinces or states) in your country currently working towards implementing or interested in implementing the UNESCO-IOC TRRP or similar national initiative?

Yes (please list the names of the communities below),
Names of the communities working towards or interested in working towards TRRP:
9 other communities are currently working towards international recognition, which are: 1. Sidaurip, Central Java 2. Parangtritis, Yogyakarta 3. Poncosari, Yogyakarta, 4. Tirtohargo, Yogyakarta 5. Srigading, Yogyakarta 6. Gadingsari, Yogyakarta 7. Galala, Maluku 8. Hative Kecil, Maluku 9. Pangastulan, Bali

Q115

14g) Have any communities in your country achieved recognition through UNESCO-IOC TRRP or similar national initiative?

Yes (please list the names of the communities below),
Names of the communities that have achieved TRRP:
10 communities already recognize: 1. Tanjung Benoa, Bali 2. Glagah, Yogyakarta 3. Kemadang, Yogyakarta 4. Pangandaran, West Java 5. Pangarangan, Banten 6. Tambakrejo, Malang 7. Kuta Mandaika, West Nusa Tenggara 8. Purus, West Sumatera 9. Lolong Belanti, West Sumatera 10 Tapakih Wes Sumatera

Page 34: PART V: UNESCO-IOC Tsunami Ready Recognition Programme (TRRP)

Q116

15a) Is there national capacity to develop tsunami hazard maps?

Yes, it can be easily done through mobilising national experts and funding

Q117

15b) Is there national capacity to train the community on identifying and estimating the number of people that live in the tsunami hazard zone?

Yes, it can be easily done through mobilising national experts and funding

Q118

15c) Is there national capacity to train the community on the inventory of available economic, instrastructural, political, and social resources to reduce tsunami risk at the community level?

Yes, it can be easily done through mobilising national experts and funding

Q119

15d) Is there national capacity to work with the community to develop tsunami evacuation maps, plans and procedures at the community level?

Yes, it can be easily done through mobilising national experts and funding

Q120

15e) Is there national capacity to work with the community to develop a public display of tsunami information?

Yes, it can be easily done through mobilising national experts and funding

Q121

15f) Is there national capacity to work with the community to develop local context outreach and public education materials?

Yes, it can be easily done through mobilising national experts and funding

Q122

15g) Is there national capacity to train and build capacity of community to be able to organise and implement outreach and education activity?

Yes, it can be easily done through mobilising national experts and funding

Q123

15h) Is there national capacity to train and build capacity of community to be able to organise and implement tsunami exercises?

Yes, it can be easily done through mobilising national experts and funding

Q124

15i) Is there national capacity to train and build capacity of communities to be able to develop their community Emergency Operation Plan?

Yes, it can be easily done through mobilising national experts and funding

Q125

15j) Is there national capacity to train and build capacity of communities to manage 24/7 tsunami emergency response operation?

Yes, it can be easily done through mobilising national experts and funding

Q126

15k) Is there national capacity to train and work with the communities to develop mechanisms (means and procedures) to receive 24/7 warning?

Yes, it can be easily done through mobilising national experts and funding

Q127

15l) Is there national capacity to train and work with the communities to develop mechanisms (means and procedures) to disseminate 24/7 warning to the community?

Yes, it can be easily done through mobilising national experts and funding

Page 35: PART V: UNESCO-IOC Tsunami Ready Recognition Programme (TRRP)

Q128

15m) Which of the following challenges inhibit the implementation of TRRP or similar national initiatives in your country? (select all that apply)

Limited awareness,

Lack of community interest,

Other (please specify):

lack of tangible benefits in TRPP

Page 36: PART VI: Narrative

Q129

16) Please briefly describe any innovations or modifications to national tsunami warning and mitigation procedures or operations since the last reassessment. For example, this might include tsunami related research projects, implementation of new seismic and/or sea level monitoring technologies, tsunami mitigation activities and best practices (especially in preparedness and emergency management), as well as public education programmes or other measures taken to heighten awareness of the tsunami hazard and risk.

InaTEWS has succesfully implemented new system to monitor and detect non-seismic tsunami.

Q130

17) Please provide a brief summary of plans for future tsunami warning and mitigation system improvements

Incorporates the tsunami inundation information in warning services.

Q131

18) Please list areas where your country would like support for targeted capacity development.

Maldives
Timor Leste
Seychelles

Q132 **Respondent skipped this question**

Upload Documents