## 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 Singapore**

Page 1: Overview	
Q1	Confirm by clicking the checkbox
Consent: I have read the above information and wish to proceed.	
Q2	Singapore
Please select your country from the list below:	
Page 2: PART I: Basic Information	
Q3	
TNC Name:	
Lesley Choo	
Q4	
Position:	
Director	
Q5	
Organisation:	
Meteorological Service Singapore	
Q6	
Telephone Number:	

Q7	
E-mail Address:  lesley_choo@nea.gov.sg	
Q8 Fax Number:	Respondent skipped this question
Tax Number.	
Q9	
Postal Address:	040444
Meteorological Service Singapore, PO Box 8, Changi Airport, Singa	ароге 918141
Page 3: PART I: Basic Information	
Q10	
NTWC Agency Name:	
Meteorological Service Singapore	
Q11	
NTWC URL (web link) for tsunami warnings:	
http://www.weather.gov.sg/home/	
Q12	
NTWC Agency Contact or Officer in Charge (person):	
Chong Wei Ming	
Q13	
Position:	
Covering Deputy Director	
Q14	
Telephone Number:	
Q15	
E-mail Address:	
chong_wei_ming@nea.gov.sg	

### Q16

Postal Address:

Meteorological Service Singapore, PO Box 8, Changi Airport, Singapore 918141

Q17 Yes

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.

#### Page 4: PART I: Basic Information

Q18	Res	spondent	skip	ped	this	question

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

Q19 Respondent skipped this question

Name:

Q20 Respondent skipped this question

Position:

Q21 Respondent skipped this question

Telephone Number:

Q22 Respondent skipped this question

E-mail Address:

Q23 Respondent skipped this question

Postal Address:

#### Page 5: PART I: Basic Information

#### **Q24**

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

Meteorological Service Singapore

Q25 E-mail Address:	
Q26 Telephone Number:	
Q27 Cellular Telephone Number:	
<b>Q28</b> Fax:	
Page 6: PART I: Basic Information	
Q29	No
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	Respondent skipped this question
If yes, please provide their details below:Name of the TRFP:	
Q31	Respondent skipped this question
Position:	

Q32 Respondent skipped this question Agency: Q33 Respondent skipped this question Telephone Number: Q34 Respondent skipped this question E-mail Address: **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** Single hazard assessment on tsunami AND multihazard assessment including tsunami 4b) What type of hazard assessment has been carried out? Page 9: PART II: Hazard Assessment **Q38** Tsunami, 4c) What type of multi-hazard assessment has been Earthquakes, carried out? (select all that apply) Landslide, Volcanic eruptions Page 10: PART II: Hazard Assessment **Q39** National Agency, 4d) Who did the tsunami hazard assessment in your National / Local University country? (select all that apply) Q40 National Level, 4e) At what level was the tsunami hazard assessment Regional Level carried out? (select all that apply)

### 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.

Singapore, 90%, based on large earthquake scenarios in the Manila Trench and Sunda Trench

#### 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	No
Topography	No	Don't know
Land Cover	No	Don't know
Infrastructure details	Yes	No

#### 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,

**Inundation map** 

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

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)

Deterministic Tsunami Hazard Analysis

Field Studies on Tsunami Impacts

High priority

Hazard map

High priority

Inundation map

Essential

Evacuation map Medium priority

### Q46

**Evacuation** map

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?

No capacity

Probabilistic Tsunami Hazard Assessment (PTHA)

Moderate

Deterministic Tsunami Hazard Analysis

Field Studies on Tsunami Impacts

No capacity

Hazard map

Moderate

Inundation map

Moderate

Page 12: PART II: Risk Assessment

Q47 Yes

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

Page 13: PART II: Risk Assessment

Q48 Single risk assessment on tsunami AND multi-hazard

5b) What type of risk assessment? risk assessment including tsunami

Page 14: PART II: Risk Assessment

Q49 Tsunami,

5c) What hazards have been considered in your multi-

hazard risk assessment? (select all that apply)

Landslide,

Volcanic eruptions

**National Level** 

Page 15: PART II: Risk Assessment

Q50 National Agency,

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

5e) At what level was the tsunami risk assessment

carried out? (select all that apply)

**Q51** 

#### **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.

Singapore, 90%, based on large earthquake scenarios in the Manila Trench and Sunda Trench

Q53 Respondent skipped this question

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

Q54 Risk map

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

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 Very 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

Tsunami risk assessment at regional level

Tsunami risk assessment at city level

Tsunami risk assessment at village level

Tsunami risk assessment at community / neighbourhood level

Not a priority

Not a priority

### **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

Tsunami risk assessment at regional level

Moderate

Tsunami risk assessment at city level

Moderate

Tsunami risk assessment at village level

No capacity

Tsunami risk assessment at community / neighbourhood level

No capacity

Other (specify below)

No capacity

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	Multi hazard including tsunami
Preparedness	Policy is not available
Emergency response	Policy is not available
Rehabilitation and reconstruction	Policy is not available
What is the name of policy? (if available): OPS NOAH	

### 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	Policy is not available
Preparedness	Policy is not available
Emergency response	Policy is not available
Rehabilitation and reconstruction	Policy is not available

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	Local plan is not available	Community plan is not available
Preparedness	Multi hazard including tsunami	Local plan is not available	Community plan is not available
Emergency response	Multi hazard including tsunami	Local plan is not available	Community plan is not available
Rehabilitation and reconstruction	Multi hazard including tsunami	Local plan is not available	Community plan is not available
What is the name of the plan(s) OPS NOAH	(if available):		
Q61		Yes	
7b) Are your country's tsuna reduction plans based on ha assessments?			

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	Standalone tsunami guidelines
Rehabilitation and reconstruction	Standalone tsunami guidelines

### 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	Standalone tsunami guidelines
Preparedness	Standalone tsunami guidelines
Emergency response	Standalone tsunami guidelines
Rehabilitation and reconstruction	Standalone tsunami guidelines

#### Page 20: PART III: Detection and Warning

Q64 Yes

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

Page 21: PART III: Detection and Warning

Q65 Use TSP data

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)

#### **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.

Meteorological Service Singapore, mss\_cfo\_fcsters@nea.gov.sg

Q67 Yes

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

# **Q68** Computers, 9e) What / which infrastructure is available to enable Internet, 24x7 operations? (select all that apply) Landline Phone, Mobile Phone or Cell Phone, Fax. GTS (WMO Global Telecommunication System) **Q69** National, 9f) Which level of tsunami threat forecast information is Local produced by the responsible organisation? (select all that apply) **O70** Yes, national and international 9g) Does the organisation have access to national and/or international seismic networks? (please select one from the following options) Page 22 Q71 All national seismic data is shared in real time 9h) Is national seismic data shared in real time? Page 23: PART III: Detection and Warning **Q72** Yes 9i) Does your organisation have access to GNSS data? Q73 Yes 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=20 796)?

**Q74** 

There are no changes

9k) When compared to the IOTWMS seismic database (http://www.ioc-tsunami.org/index.php? option=com\_oe&task=viewDocumentRecord&docID=20 796), have you decommissioned or added broadband seismometers operated by your country (Check all that apply and include details in the comments section below)

Page 24: PART III: Detection and Warning

#### Q75

#### Yes, national and international

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

Page 25: PART III: Detection and Warning

#### **Q76**

Respondent skipped this question

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

Page 26: PART III: Detection and Warning

#### **Q77**

Respondent skipped this question

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=20 833)?

#### **Q78**

Respondent skipped this question

9o) When compared to the IOTWMS sea level database (http://www.ioc-tsunami.org/index.php? option=com\_oe&task=viewDocumentRecord&docID=20 833), have you decommissioned or added sea level stations operated by your country (Check all that apply and include details in the comments section below)

Page 27: PART III: Detection and Warning

### **Q79**

No other observing networks are operated by the country

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

#### **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: SIGMA, TOAST

### Q81

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

YesPlease specify the modelling tools and data used: TOAST (Easywave)

Q82 Yes

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

#### 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?

If tsunami waves generated by magnitude >= 8.5 undersea earthquake are expected to affect Singapore

#### **O84**

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 intersessional period?

Nil

#### **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:

Meteorological Service Singapore

### **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:
IOWave23, Meteorological Service Singapore

Q87 No

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 specify the enhancements):
Ongoing Tsunami impact review and ongoing review of
Tsunami response plan and Agencies support plans

# Q88

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

Page 28: PART III: Dissemination

Q89 Email,

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

SMS,

Webpage,

Radio,

WhatsApp / Facebook / Other social media,

Sirens,

Television,

Police/military,

Public alert system

#### Q90

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

National DMOs SMS, Siren
Local DMOs SMS, Siren

General Public SMS, Siren

Coastal Communities SMS, Siren

Media SMS, Siren

Other communication methods (please specify)

Television, Webpage

#### Q91

10c) How is the warning situation terminated?

When the All Clear signal is given by the NTWC that no tsunami is expected to affect Singapore

#### Q92

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

http://www.weather.gov.sg/home/

Q93 No

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.

### 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.

Meteorological Service Singapore. Alerts are targeted to be sent 10-12 hours before Tsunami reaches Singapore, after a large earthquake in the Manila Trench or Sunda Trench.

### 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	No	No	No
Receiving information from the NTWC	Yes	No	No	No
Response Criteria / decision making	Yes	No	No	No

### **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 emergenc y response?	Is support required to develop/im prove this aspect of tsunami emergenc y response in your SOP?	Is support required to develop Human Resources in this aspect of tsunami emergency response?	Is support required to develop infrastruct ure for this aspect of tsunami emergency response?
Warning dissemination	Yes	No	No	No
Evacuation call procedures	Yes	No	No	No
Community evacuation procedures	Yes	No	No	No
Communication with NTWC	Yes	No	No	No
Communication with Local Government	Yes	No	No	No
Media arrangements	Yes	No	No	No
Communication with other stakeholder i.e. Red Cross, Fire Brigade, Search and Rescue, Police, Army, Navy etc.	Yes	No	No	No

Q97 Yes

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

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	No
Vertical evacuation structure	No
Natural or artificial hill for vertical evacuation	No
Evacuation signage	No
Other (please specify)	No

Q99 No

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

Page 31: PART IV: Tsunami Exercises

Q100 National guidelines

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

Q101 National level

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

#### 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: 1 Inter-organisation table top exercise Yes Comment: 1 National tsunami drill/exercise Yes Comment: 1 Indian Ocean Wave exercise Yes Comment: 1 Local tsunami drill/exercise No Other (please specify) No

Page 32: PART IV: Public Awareness

Q103 Respondent skipped this question

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

Q104 Respondent skipped this question

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

No

#### Q105

Respondent skipped this question

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

#### Q106

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

World Tsunami Awareness Day

Global Disaster Risk Reduction day

Public tsunami preparedness outreach No

School and/or children awareness No

Exhibitions No.

Competitions or other ways of highlighting tsunami safety

Tsunami Exercise Yes
Comment: Annually

Other (Please specify) No

Q107 Respondent skipped this question

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.

Q108 No

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

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?

No, and there are no plans to do so in the near future (please elaborate in the additional comments)

Q110 No

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

### Q111 Village 0 O City / District 14c) What number of villages, cities/districts and Province / State provinces/state levels in your country are at risk to tsunami? Q112 No (if no, is there another existing coordination mechanism that can fulfil this role of NTRB? please 14d) Does your country have a National Tsunami Ready specify below) Board (NTRB)The National Tsunami Ready Board (NTRB) is responsible for guiding the community on the Please specify any existing coordination mechanisms that steps for Tsunami Ready recognition and for the review and approval of the community's Tsunami Ready can fulfil this role of NTRB: application. It consists of designated representatives of Singapore is a city state and has a single national the National Emergency Management Agency or Tsunami plan for all local communities Disaster Mangement Office, NTWC, TNC, the scientific community, and other invited quests. Q113 Respondent skipped this question 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) Q114 No 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? Q115 No 14g) Have any communities in your country achieved recognition through UNESCO-IOC TRRP or similar national initiative? Page 34: PART V: UNESCO-IOC Tsunami Ready Recognition Programme (TRRP) 0116 Yes, it can be easily done through mobilising national experts and funding 15a) Is there national capacity to develop tsunami hazard maps? Q117 Yes, it can be easily done through mobilising national

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

in the tsunami hazard zone?

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)

Respondent skipped this question

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.

Respondent skipped this question

#### Q130

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

Respondent skipped this question

## Q131

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

Respondent skipped this question

#### Q132

**Upload Documents** 

Respondent skipped this question