Training/Workshop on
Tsunami Evacuation Maps, Plans, and Procedures and
the UNESCO-IOC Tsunami Ready Recognition Programme for the Indian Ocean Member States

Hyderabad - India, 15-23 April 2025

UNESCO-IOC Tsunami Ready Indicators
TRRP 11: Response Indicators 1

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RESP-1: A community Tsunami Emergency Response plan is approved

https://youtu.be/0r-lvl8HzPQVideo

<u>+</u> 5:28 minutes

RESP-1: A community Tsunami Emergency Response Plan is approved
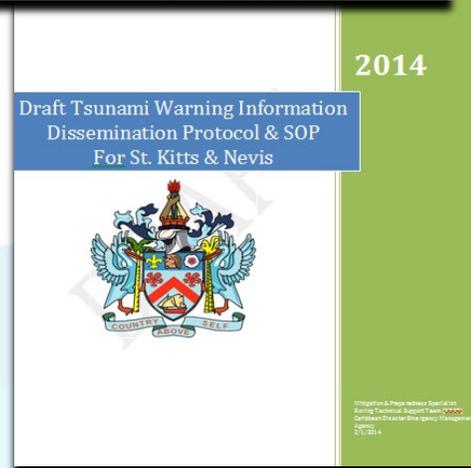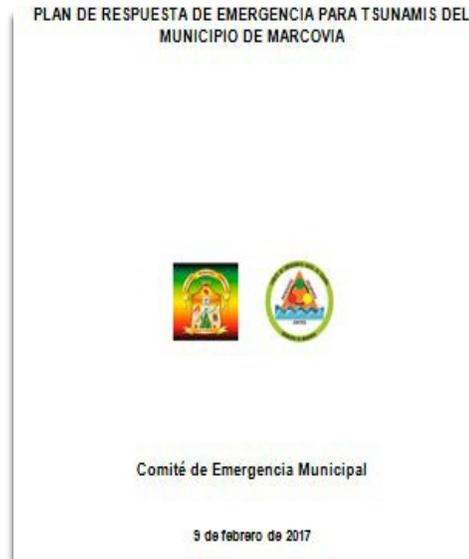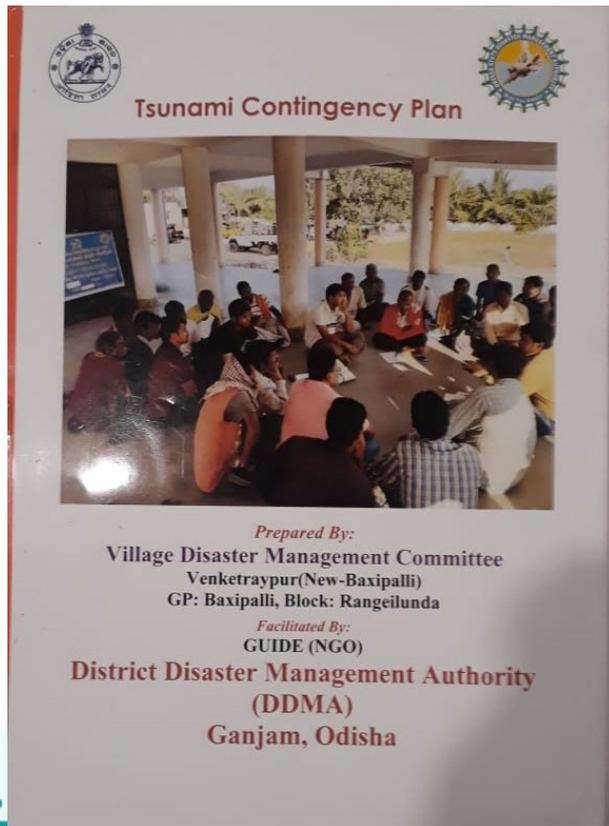
The community should have **approved Tsunami Emergency Response Plan**:

- Can be part of a multi-hazard plan that includes response for tsunami.

- Addresses both response to local and distant tsunamis.

- Should be part of national or local (province, district, or village) Emergency Response Plan.

Components of a Tsunami Emergency Response Plan

Tsunami Ready focus on "before" and "during" a tsunami event

Tsunami Emergency Response Plan
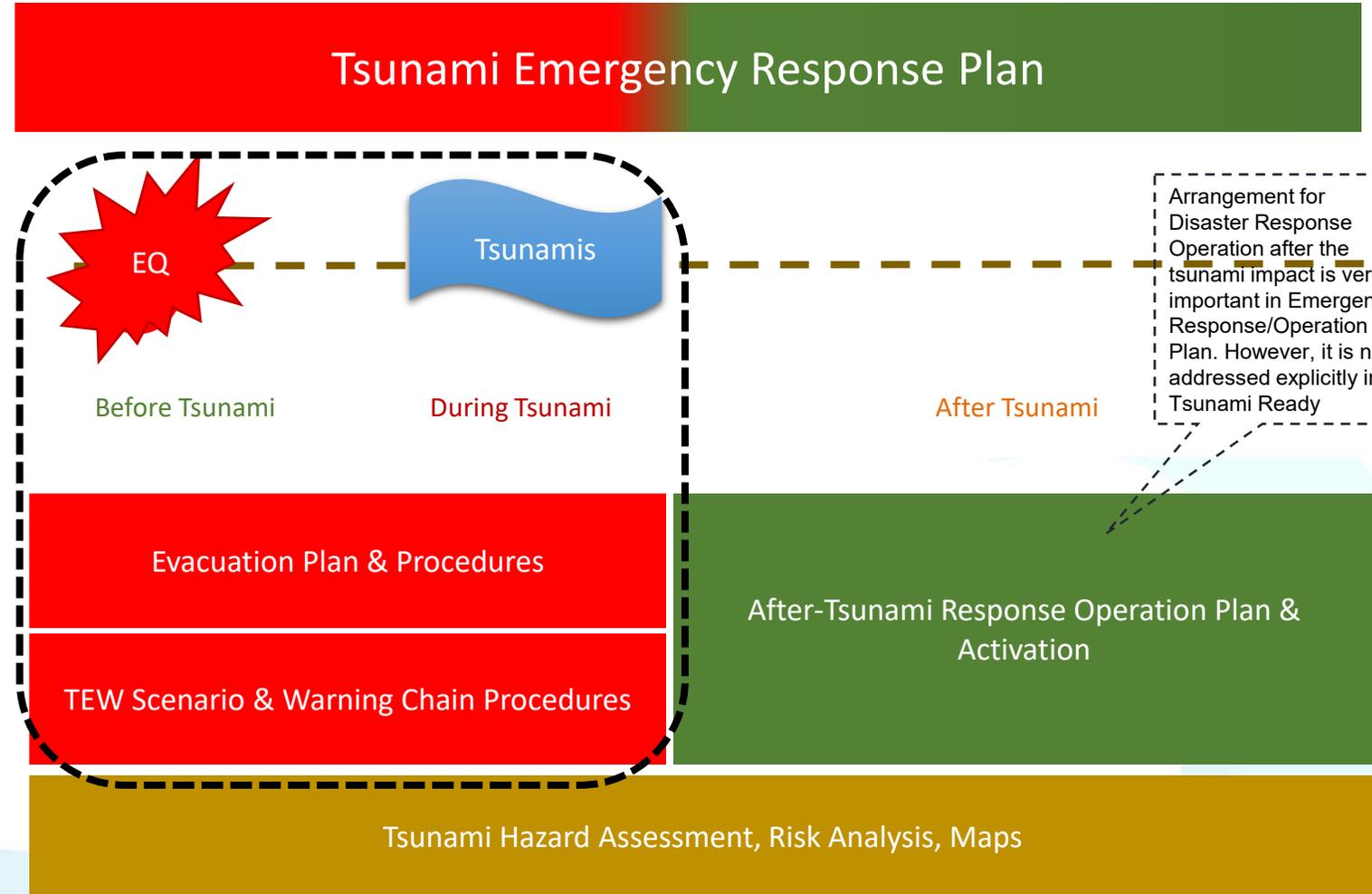
② Three specific circumstances must be considered for tsunami hazard: 1) Uncertainty; 2) Fast arrival time; 3) Long term impact

EQ

Tsunamis

Arrangement for Disaster Response Operation after the tsunami impact is very important in Emergency Response/Operation Plan. However, it is not addressed explicitly in Tsunami Ready

③ Focus on the 3 key phases of emergency event (before Tsunami, During Tsunami, After Tsunami

Before Tsunami   During Tsunami   After Tsunami

④ Describe Early warning procedures to decide whether or not to issue an evacuation order.
Evacuation Plan must be known by the community and institutions
Describe who activates the after-tsunami operation

Evacuation Plan & Procedures

After-Tsunami Response Operation Plan & Activation

TEW Scenario & Warning Chain Procedures

① Tsunami hazard maps are needed to help identify priority responses and steps to reduce potential threats

Tsunami Hazard Assessment, Risk Analysis, Maps

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unesco
Intergovernmental
Oceanographic
Commission

Indian Ocean
Tsunami Information
Centre

ESCAP
Economic and Social Commission
for Asia and the Pacific

INCOIS

BMKG

Tsunami Ready

A TERP has links to all Tsunami Ready Indicators.
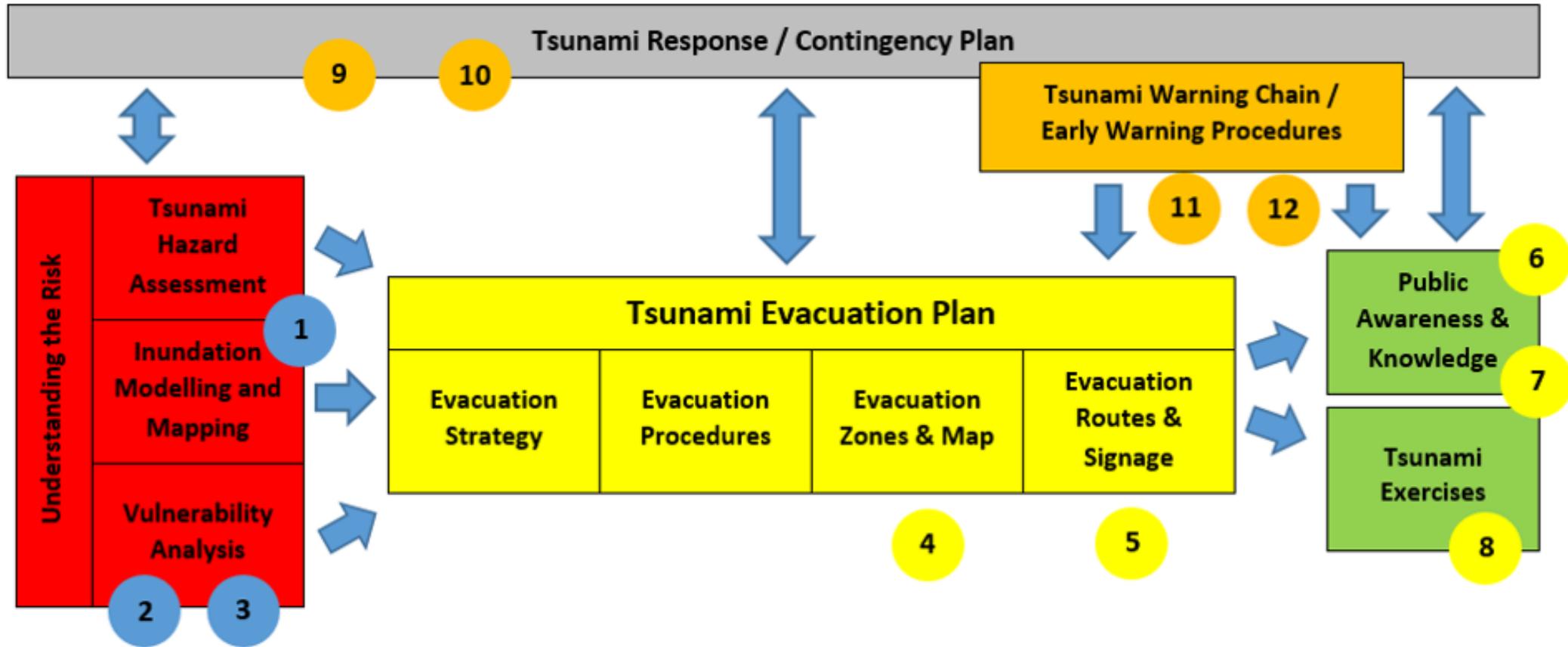
... which are related to **arrangements for warnings** and **evacuations** as well as **public awareness of these arrangements**

Tsunami Emergency Response Plan

The main purpose of an **Tsunami Emergency Response Plan (may also be referred to as an Emergency Operations Plan)** is to preserve life and minimise disruption of the community's function.

The community should have an TERP in place that addresses tsunamis. This may be part of a multi-hazard EOP as long as it specifically covers tsunamis.

The **TERP is a written set of instructions** detailing what must be done in an emergency, how people and property are protected and how resources are used.

The **TERP covers arrangements for warnings and evacuations and public awareness of these arrangements**.

RESP-1 is closely related to RESP-2 which relates to capacity to manage emergency response operations

4 Steps for Tsunami Emergency Response Planning

| 1. Acquire Required Information | 2. Develop Response Plan | 3. Develop SOPs | 4. Develop Public Awareness |
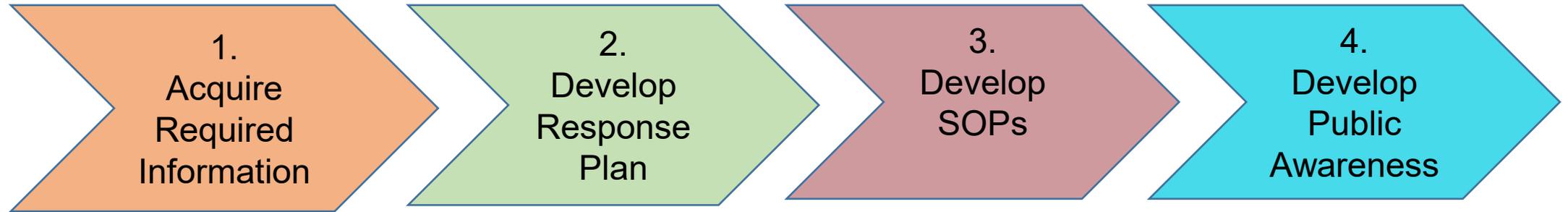
- A TERP is **based on the information that is specific to the community's circumstances** as well as **national references**

- A TERP is supported by **agency-specific SOPs** that will be activated on the receipt of a tsunami warning or during a local source earthquake that may generate a tsunami

- It is vital to **ensure that the community is aware of the TERP** and understands what actions to take in the event the TERP is activated

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Standar Operation Procedures

Why are SOPs important?

- **SOPs lay the foundations of effective, reliable warning systems**

- All warning systems require SOPs, but for tsunami, **rapid evaluation, warning and response** is essential to save lives

- In an end-to-end system, communications links between stakeholders must be robust or the warning chain will be broken.

- SOPs should be developed, practiced and modified as necessary – **a "living document"**

Standard Operation Procedures

> "A description and **procedure on agreed** steps by institutions/agencies/groups/teams used in coordinating **who, what, when, where and** how for tsunami early warning and response"*

- A SOP is a **written document** that describes the actions to be taken in a system or process.
- SOPs are a set of written **instructions for routine/repetitive** organisation activities. Procedures followed in an emergency
- SOPs **detail work process** conducted/followed within an organisation
- SOPs document **the way activities are performed** for consistent conformance to system requirements and an organisation's mission

From Indonesian Local SOP Workshops: Capacity Building for Development of Local SOPs for Tsunami Early Warning and Response. 2006-2007

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Step 3 – Develop SOPs

End-to-End Warning SOP – Information Flow

Integrated

NTWC SOP

NDMO SOP

LDMO SOP

Community SOP

EQ

5 Min

Timeline-driven

7 Min

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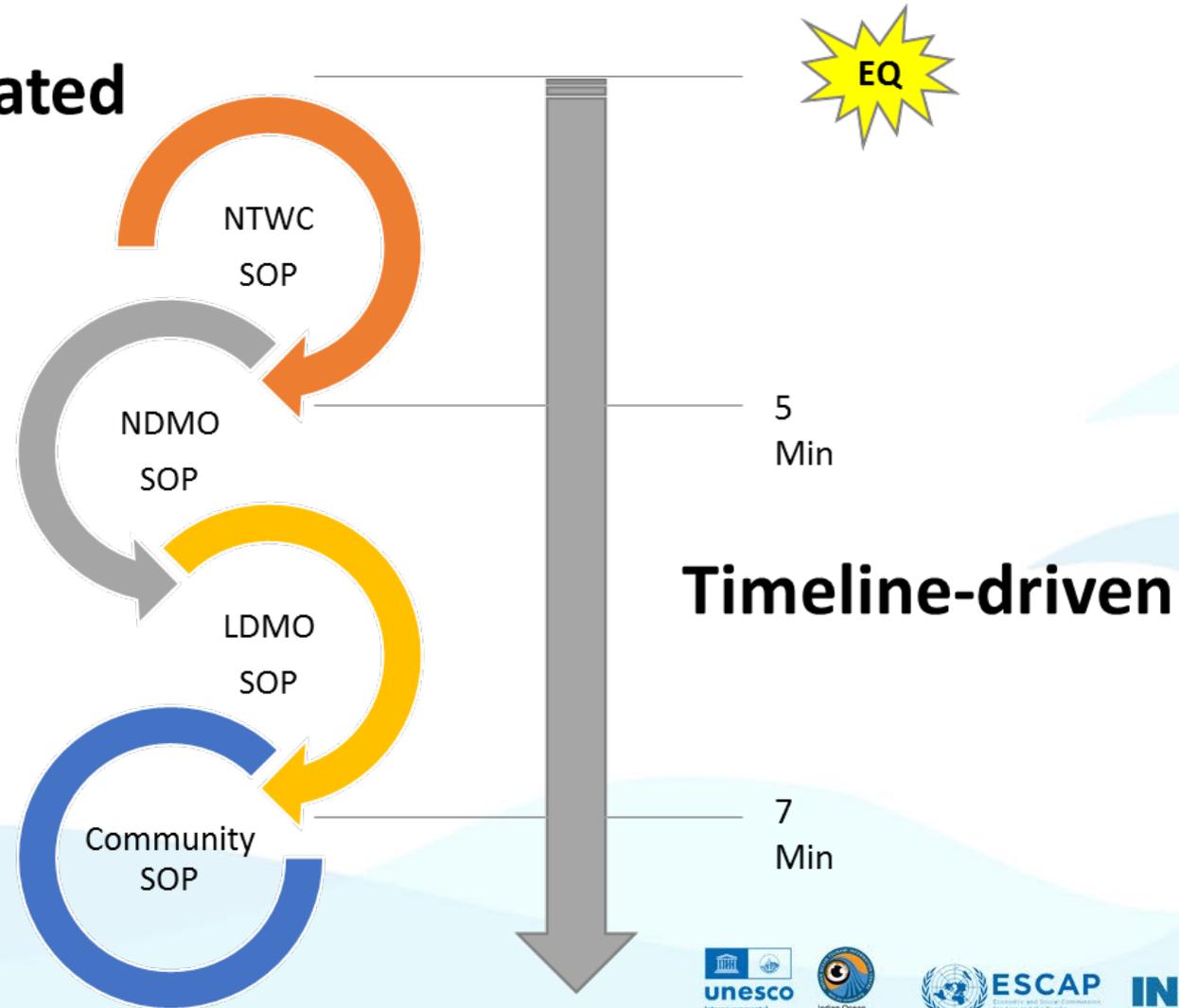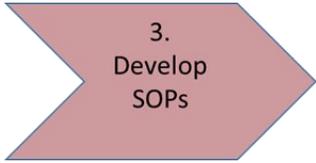
Step 3 – Develop SOPs

**SOPs related to the TERP at local level**

1. SOPs for **receipt of warnings** and cancellation **messages from the NTWC**
2. SOPs for **decision making on evacuations**
3. SOPs for **public alerting**
4. SOPs for **media arrangements**
5. SOPs for **support of evacuation**
6. SOP for **traffic management**
7. SOP for **all clear and safe return**

Before Tsunami   During Tsunami   After Tsunami

Evacuation Plan & Procedures

TEW Procedures

Disaster Response Operation Plan
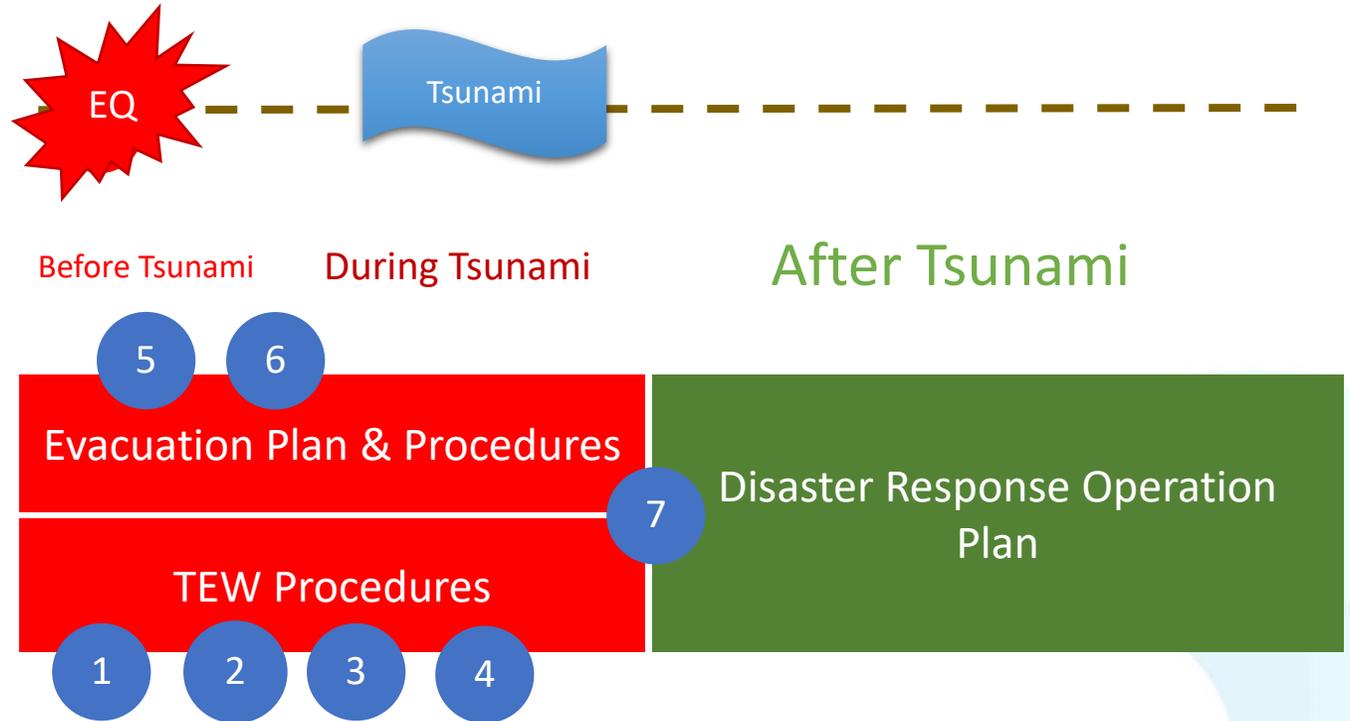
- All warning and response systems require SOPs. In case of tsunamis the <u>rapid</u> evaluation, warning and response is essential to save lives.
- SOPs are "living documents" and should be developed, practiced and modified as necessary

Example

Simplified flow chart for **tsunami response** to **NTWC warnings** at local level

Manual and Guide No 76

https://unesdoc.unesco.org/ark:/48223/pf0000256552
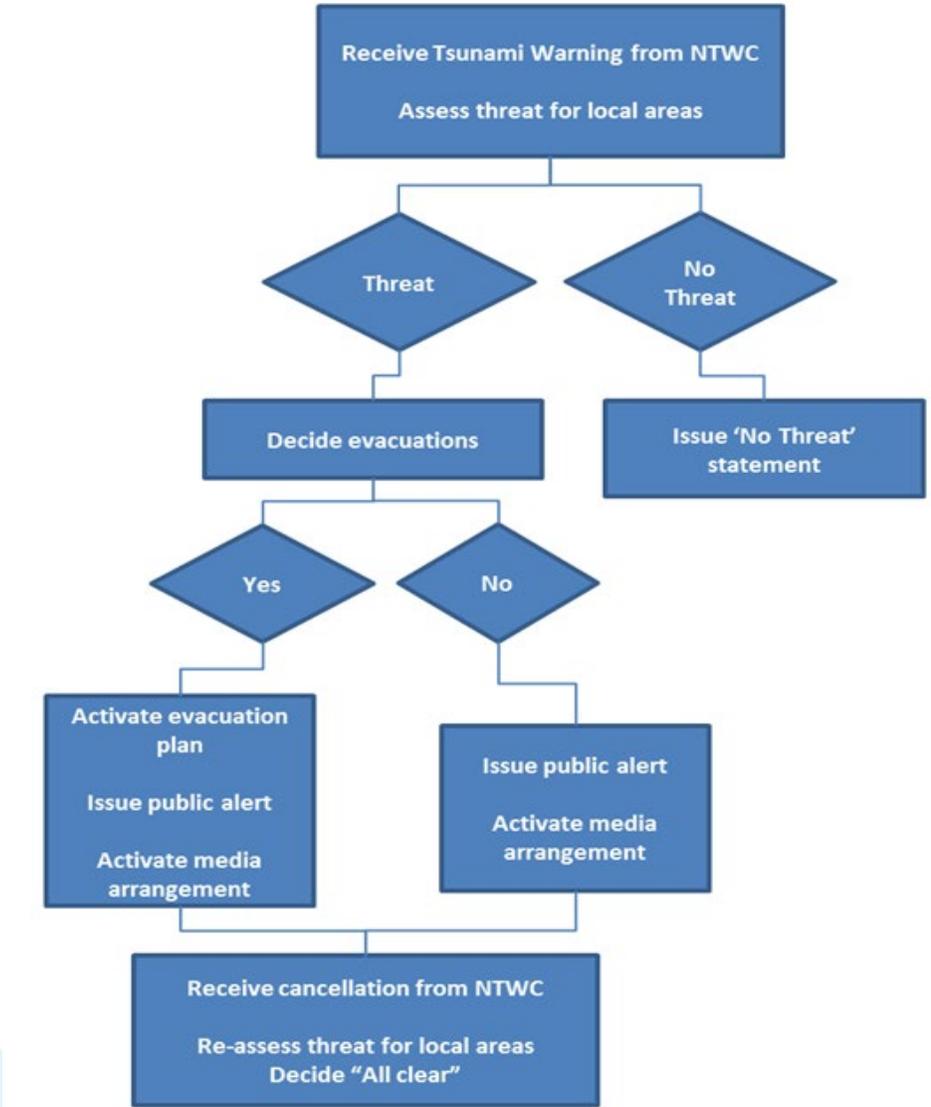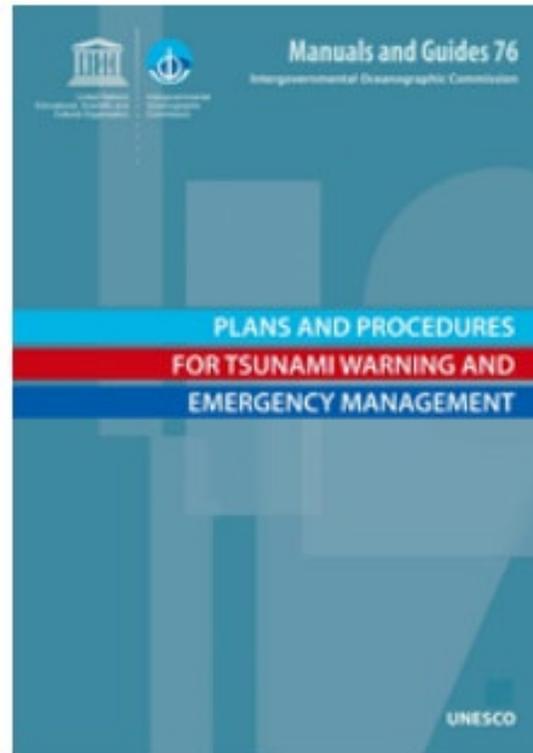
Thank you

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

Disaster Risk Reduction and Tsunami Information Unit
UNESCO Jakarta Office

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