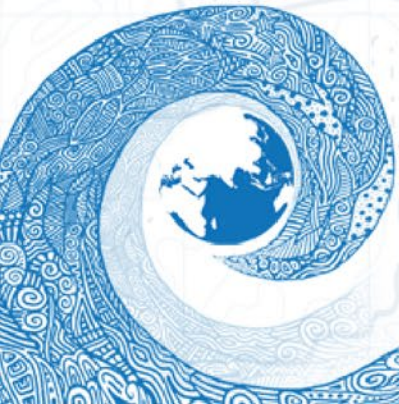


# 7. Integrated and time-line driven SOPs in National Tsunami Warning Chains

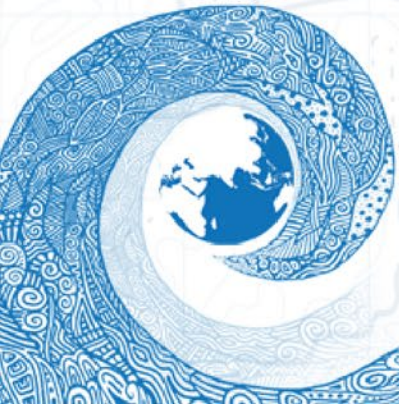
Harald Spahn



# A standard operating procedure (SOP)

- A SOP is a written document that describes the **actions to be taken in a system or process.**
- A SOP describes each individual activity in a sequence of activities, documenting **who does what, when, where, and how** for each activity.

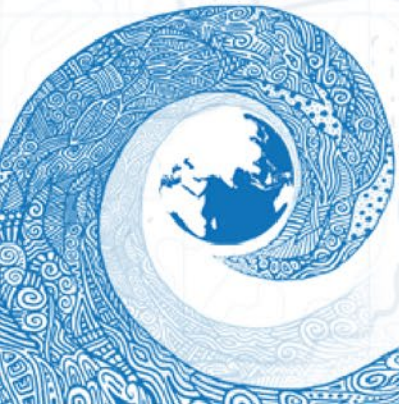
Source: IOC Manuals and Guides, 76



# A standard operating procedure (SOP)

“A description and **procedure on agreed steps** by institutions used in coordinating **who, what, when, where** and **how** for tsunami early warning and response”

Source: Indonesia 2007



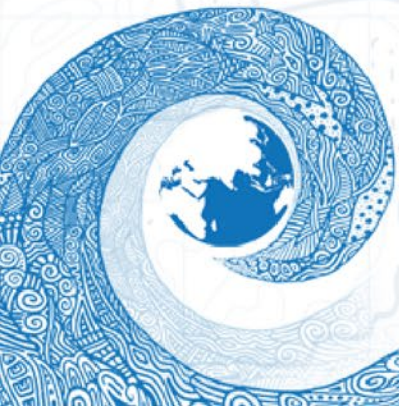
# Working with SOPs

SOPs need to be

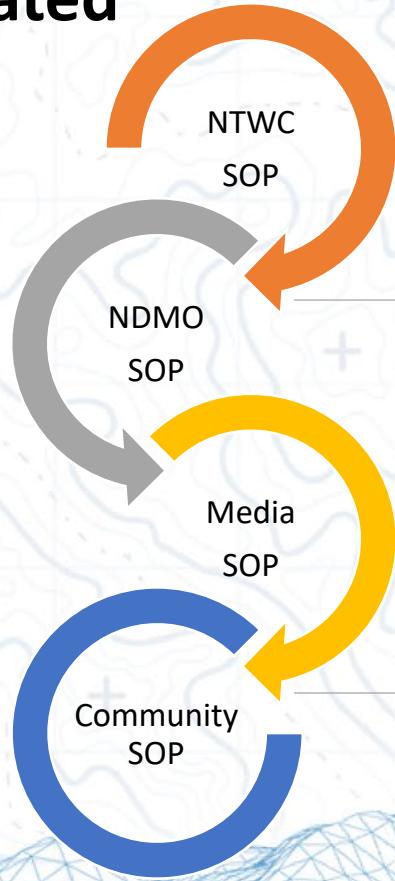
- strictly followed to ensure a complete and effective activity
- regularly reviewed
- approved

Staff must be trained and their competency at performing the activities as per the SOP should preferably be assessed.

Source: IOC Manuals and Guides, 76



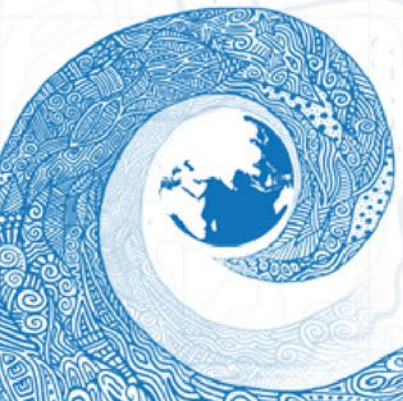
# Integrated



5  
Min

# Timeline-driven

7  
Min



# Tsunami Warning Chain

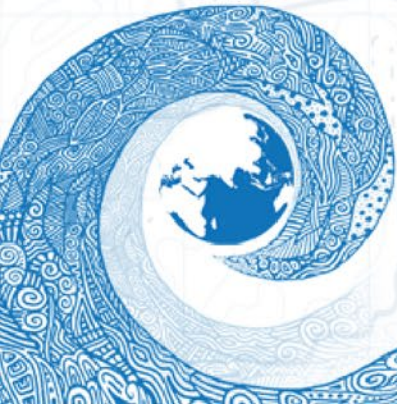
## Warning chain scheme, timeline & SOPs

### Warning chain scheme & timeline

- describe the overall sequence and the time frame
- display the main actors involved and their principal role in the process
- are a main reference for the SOP development

### SOPs

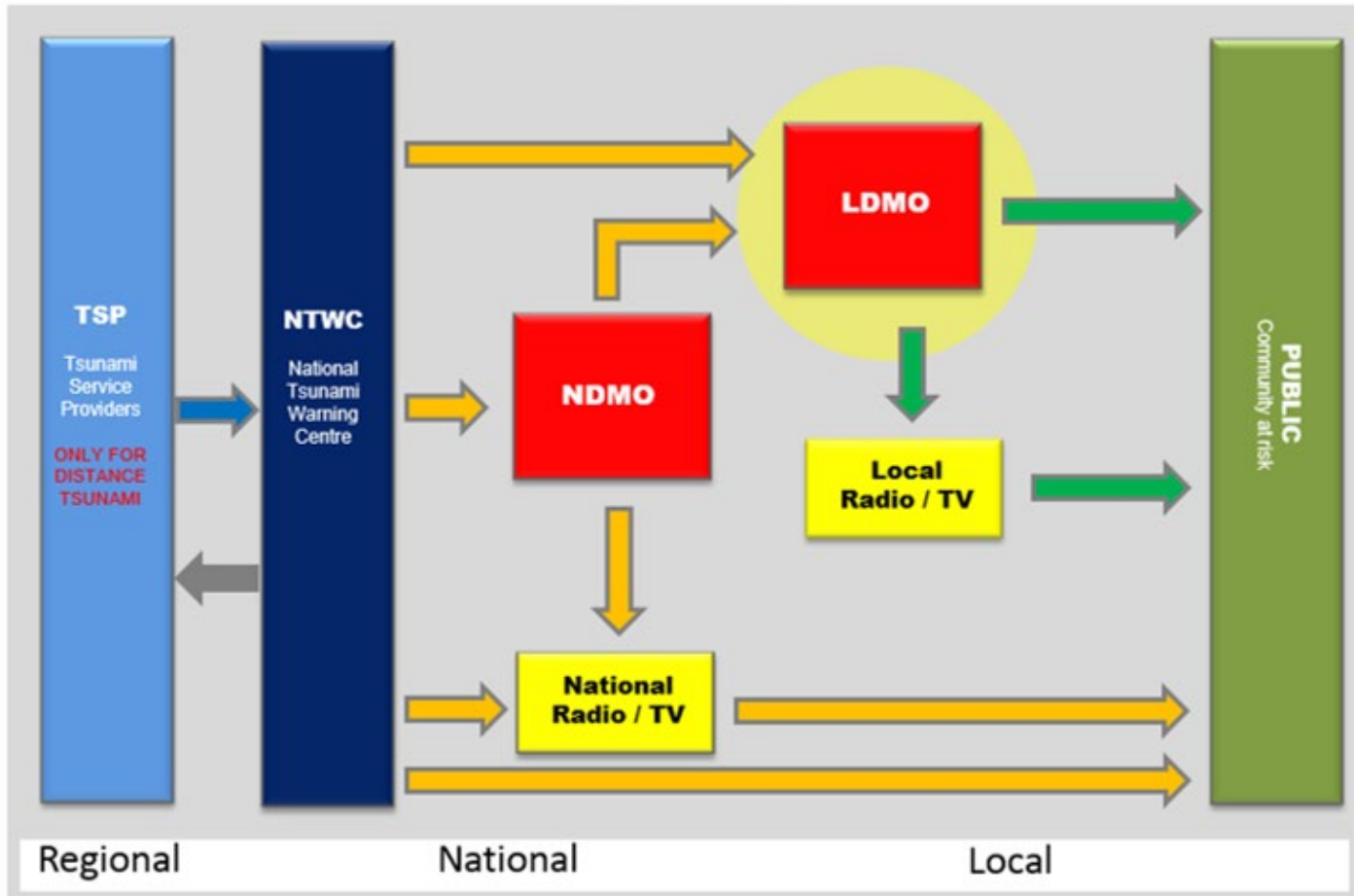
- provide concrete and detailed instructions to operate the warning chain at institutional levels
- describe decision making processes as well as contents and dissemination of warning messages



5 Min

7 Min

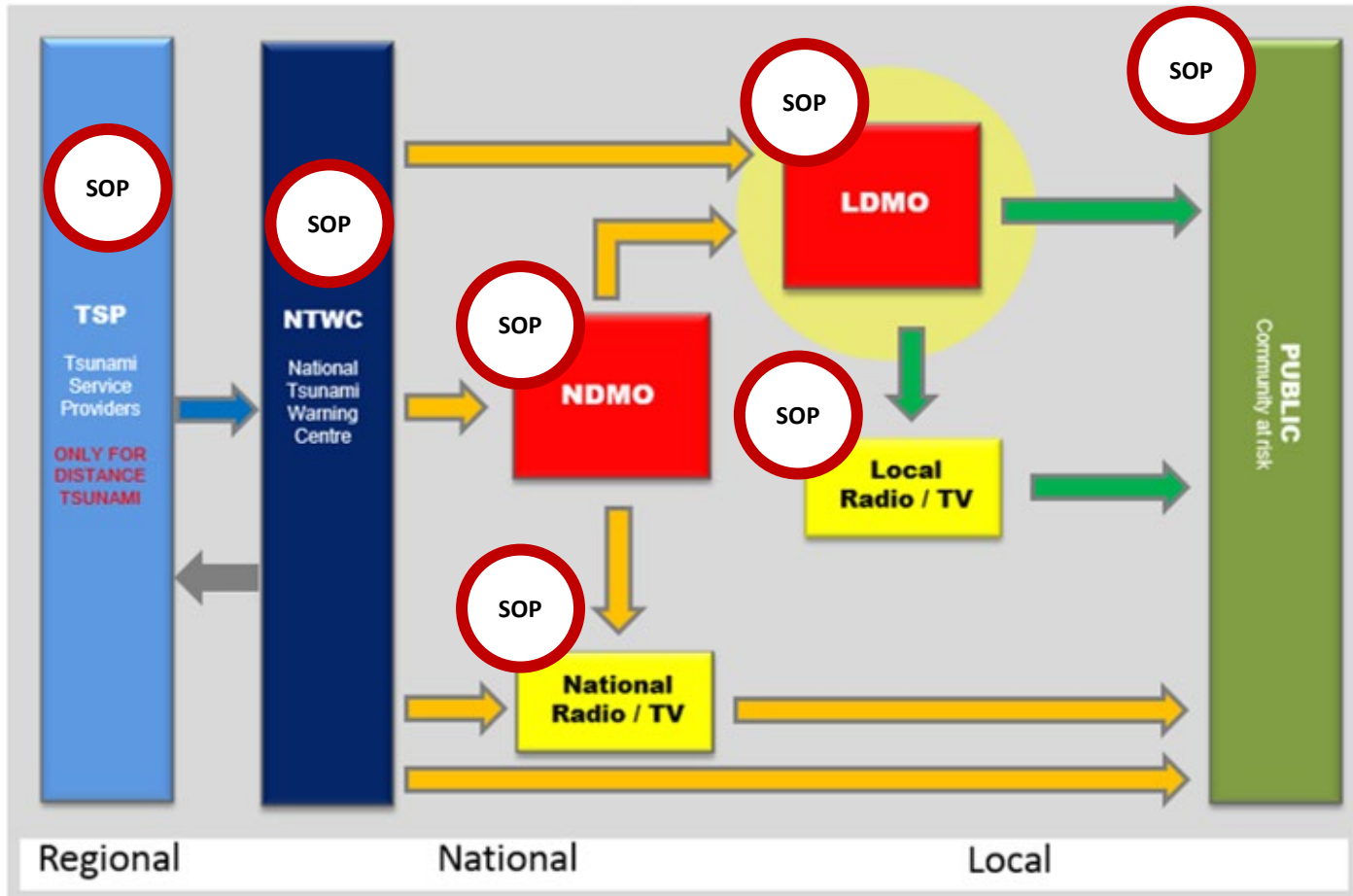
Timeline (Minutes after EQ)



5 Min

7 Min

Timeline (Minutes after EQ)

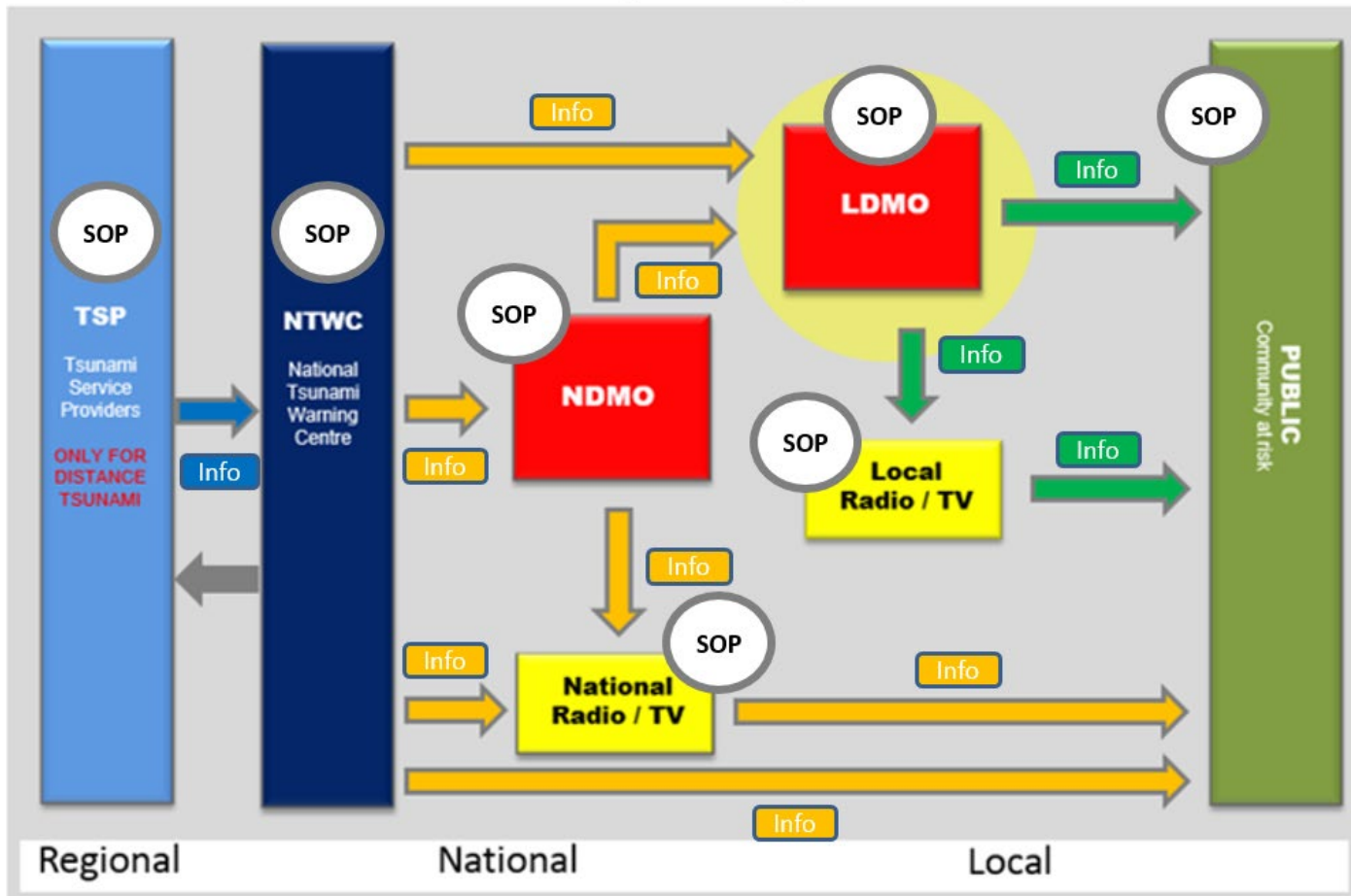




5 Min

7 Min

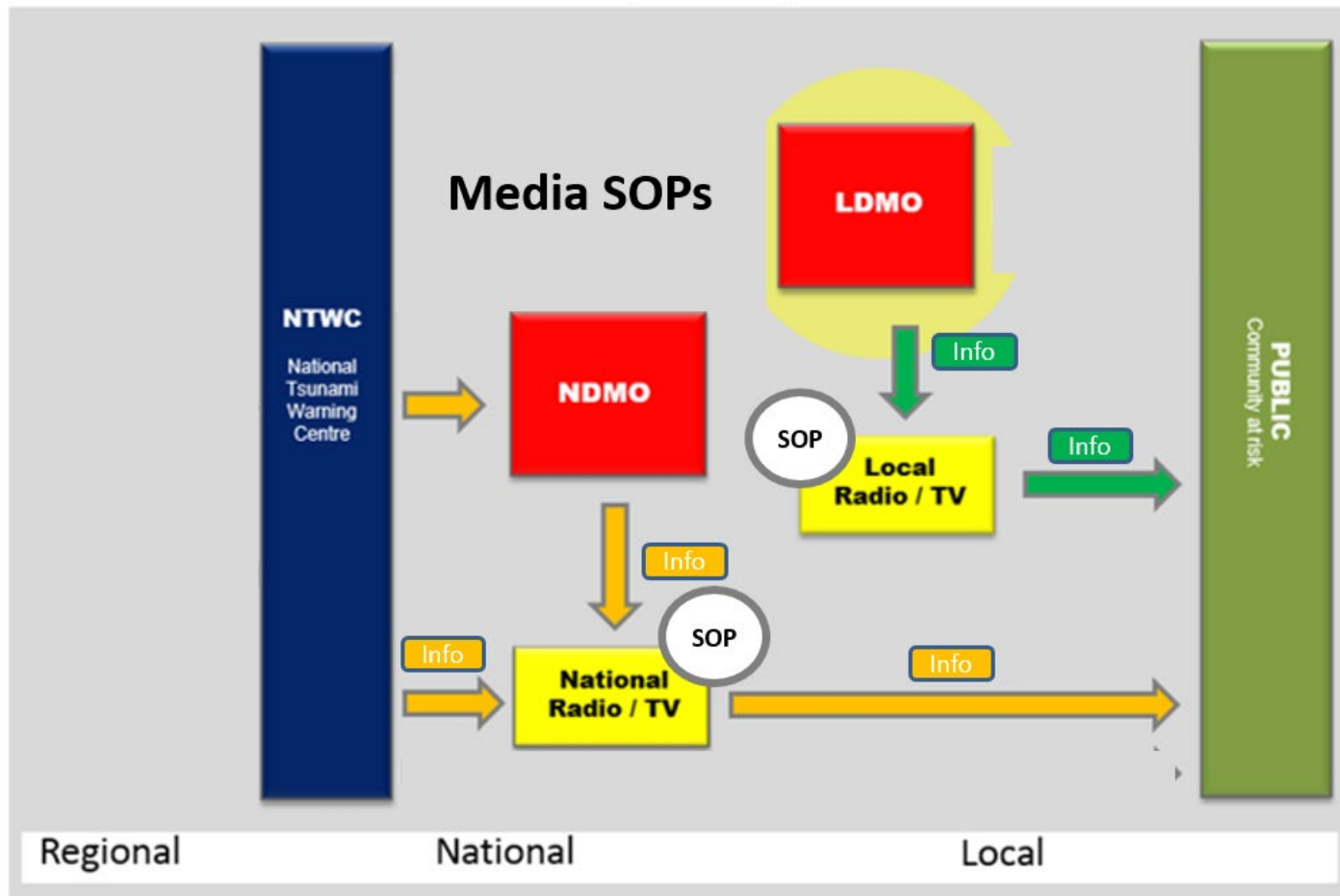
Timeline (Minutes after EQ)



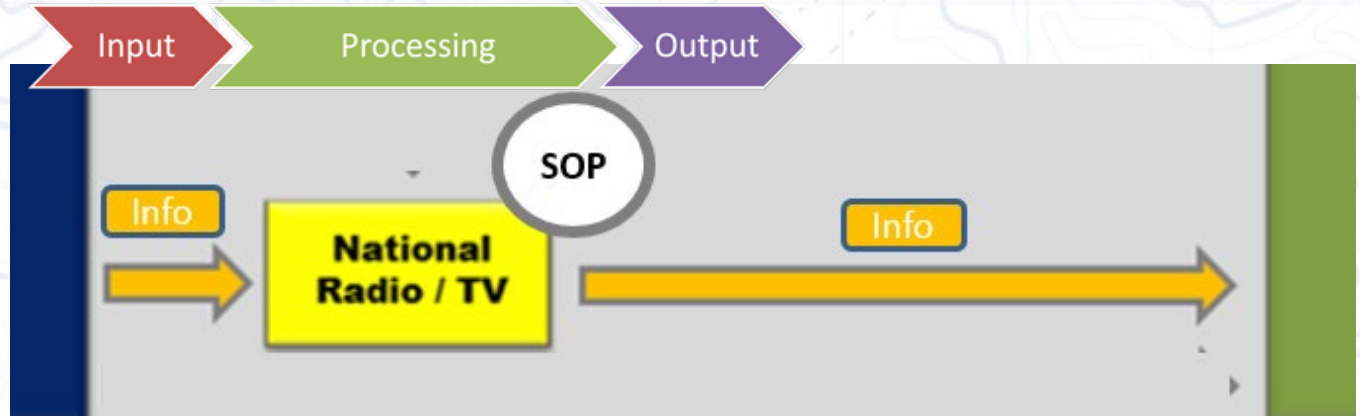
5 Min

7 Min

Timeline (Minutes after EQ)





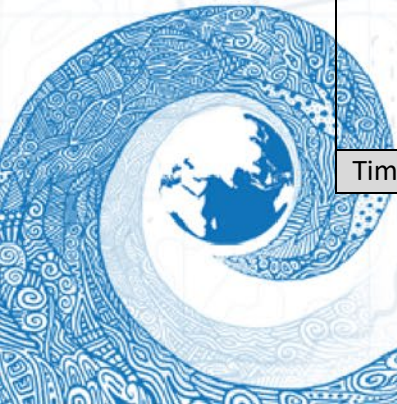
# Media SOP in the warning chain



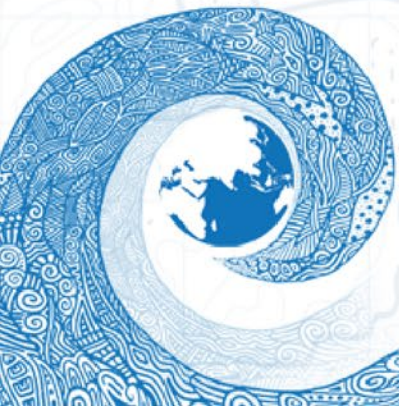
# Media SOP in the warning chain



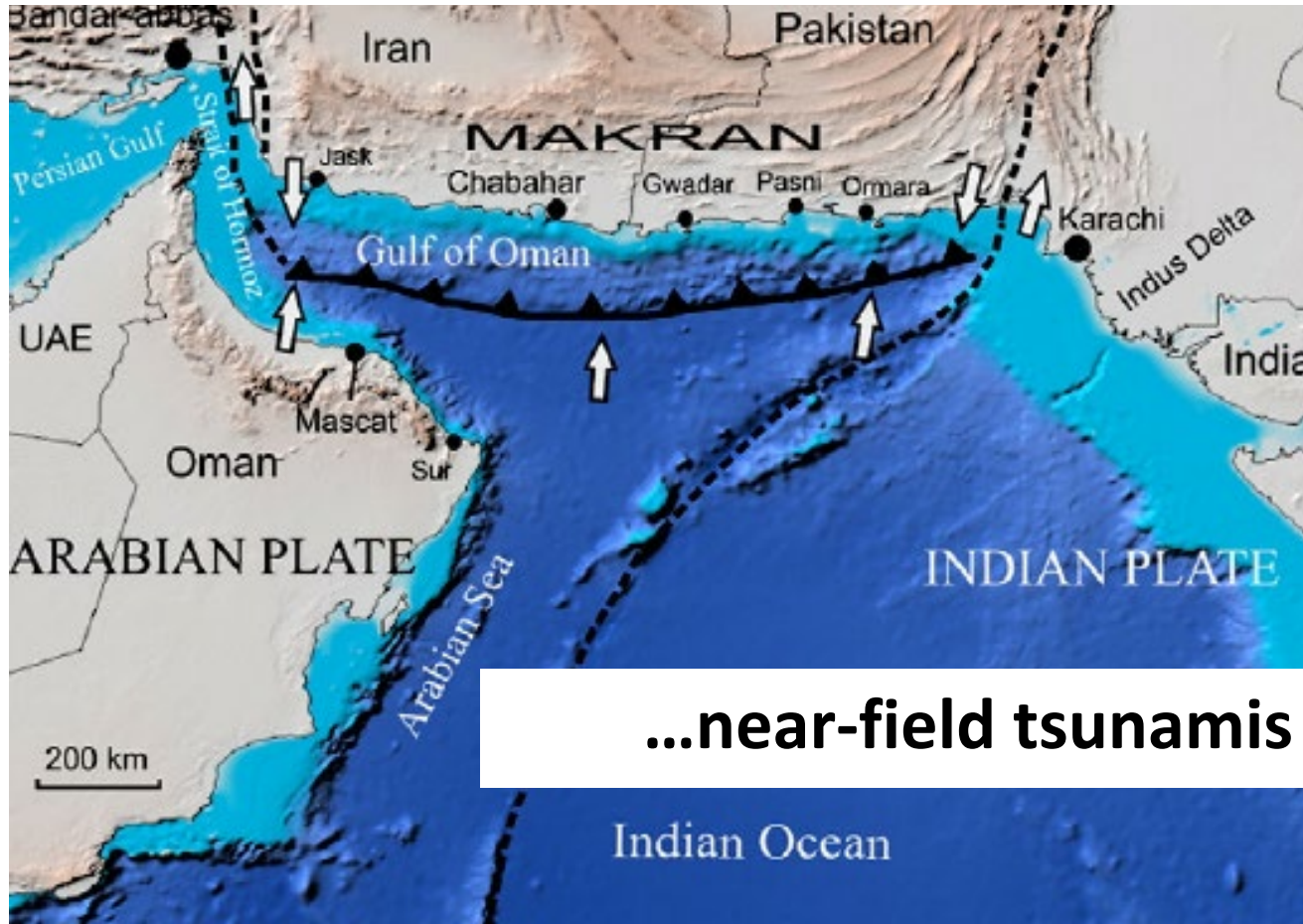
Input			Proceeding	Output		
What	From whom	How received	Processing the input, decision making and generating the output	What	To whom	How disseminated
						
Time in: EQ + x min			<b>Timeline</b>	Time out: EQ + x min		



# Timelines

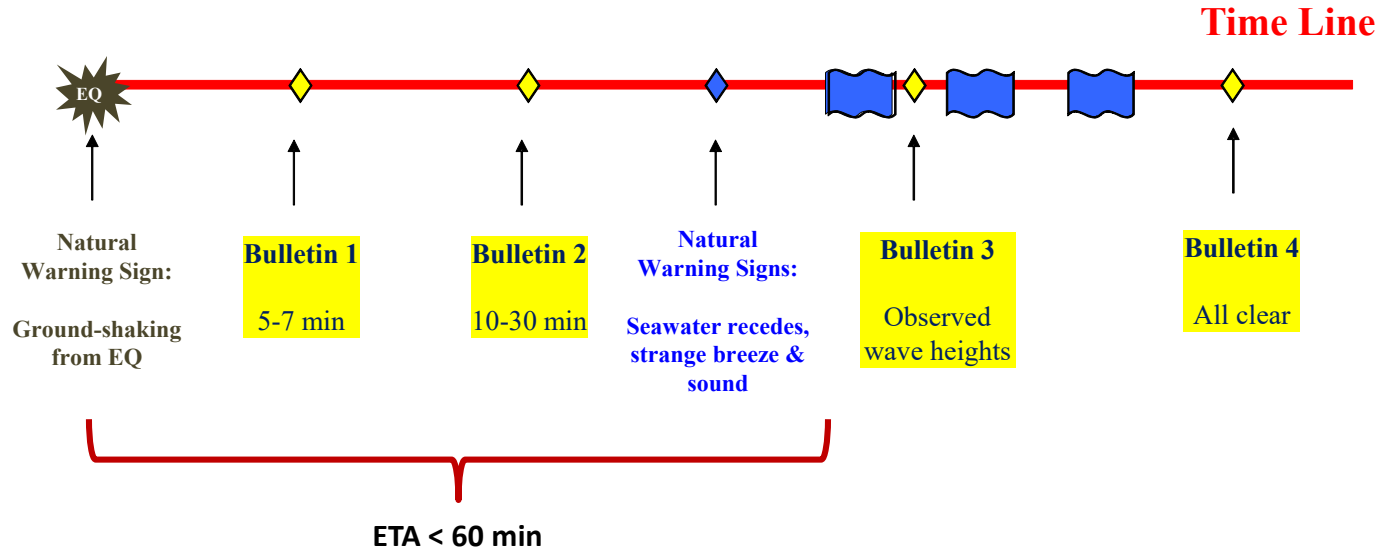


# Main Challenge for TEWS in the NWIO...

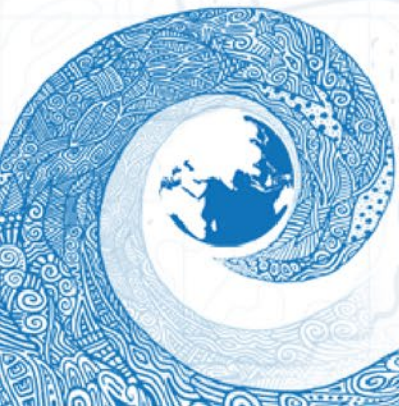


# Understanding the time-line for near-field tsunamis

## Exemplary early warning sequence

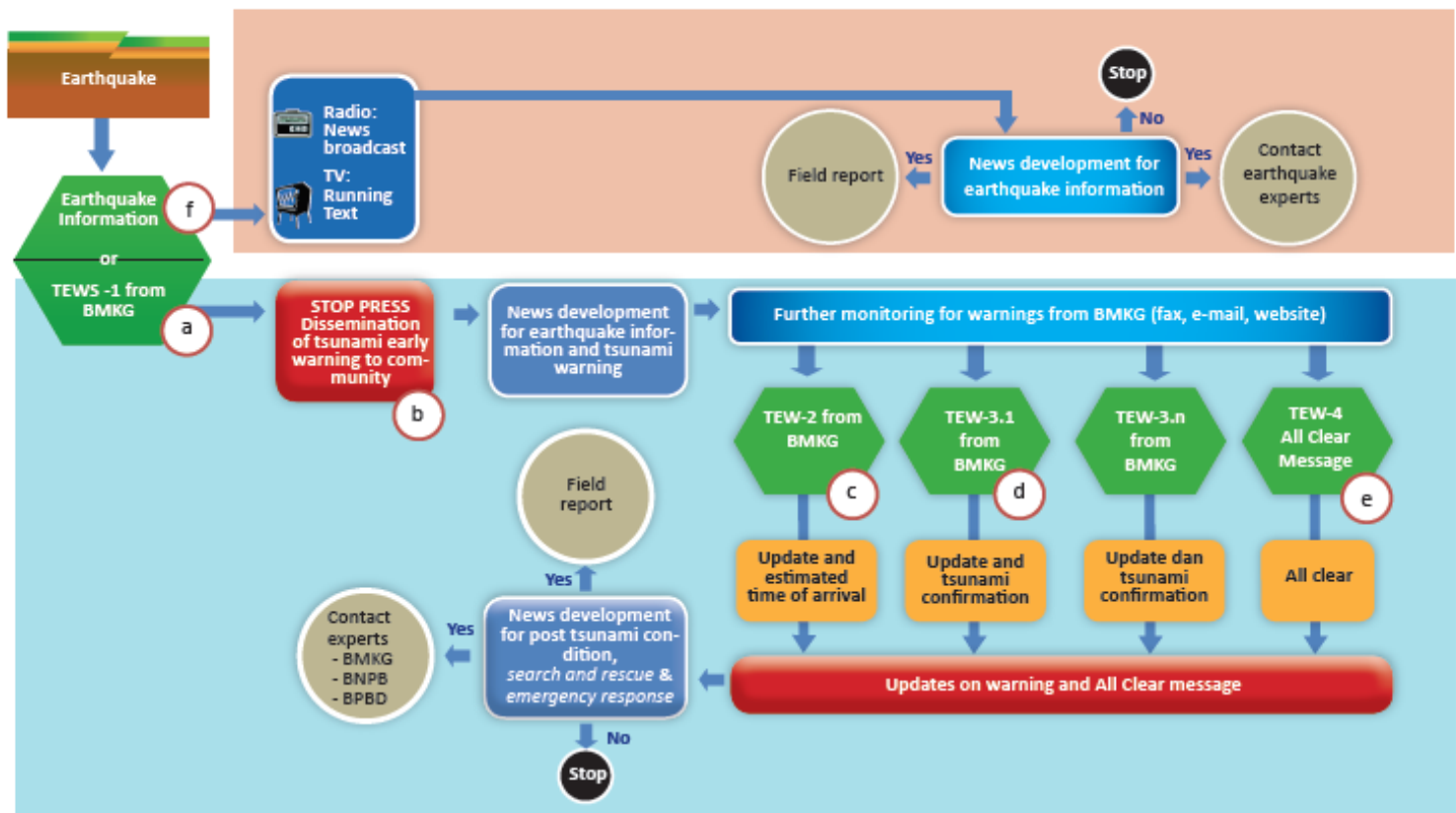


# Examples for Media SOPs





## Flow Chart of Dissemination of Tsunami Early Warning for Mass Media



- represents a Stop Press that the media must implement
- description of contents of the respective TEW message
- represents a TEW message from the BMKG

- describes the sequence of steps if an earthquake does not have the potential to cause a tsunami
- describes the sequence of steps to be taken in case of a tsunami warning

- describes the suggested steps the media can take in developing news reports
- process completed/terminated



Search



Training Modules

About the Project

Links

Risk Knowledge

Monitoring & Warning Service

Dissemination and Communication

Response Capacity

Knowledge & Awareness

Governance & Institutional Arrangements

## DISSEMINATION AND COMMUNICATION

Introduction >

Checklist

Tool ▾

- Tsunami Early Warning Service Guidebook for InaTEWS (Summary Version)
- Guidebook Dissemination of Early Warning at the Local Level in Indonesia
- Tsunami Early Warning Service Guidebook for InaTEWS
- Warning Receiver System for Dissemination of Tsunami Warnings at Local Level in Indonesia
- [Information Guidebook Tsunami Early Warning for Broadcasting Institutions in Indonesia](#)
- Training Manual Tsunami Ea

[Tsunami Early Warning Service Guidebook for InaTEWS](#)

Our Experience >

Info >

Further Resources >



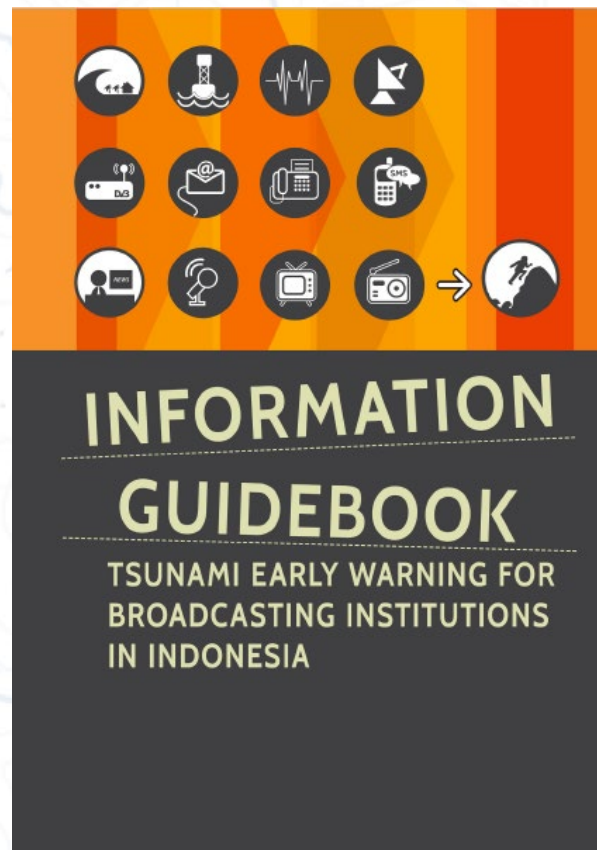
German-Indonesian Cooperation for a Tsunami Early Warning System



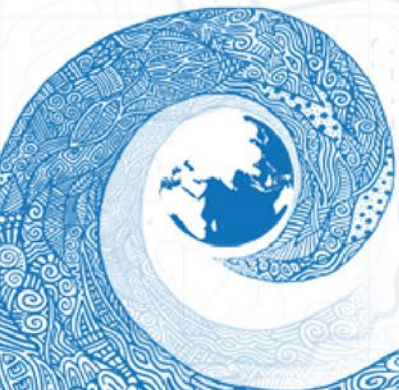
Federal Ministry of Education and Research



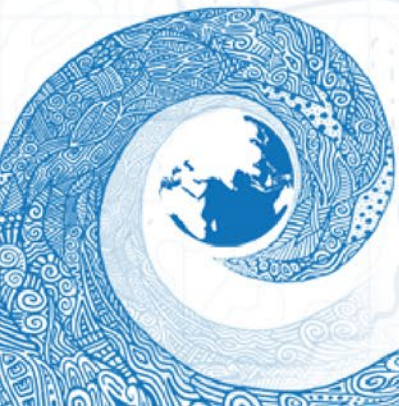
International Services



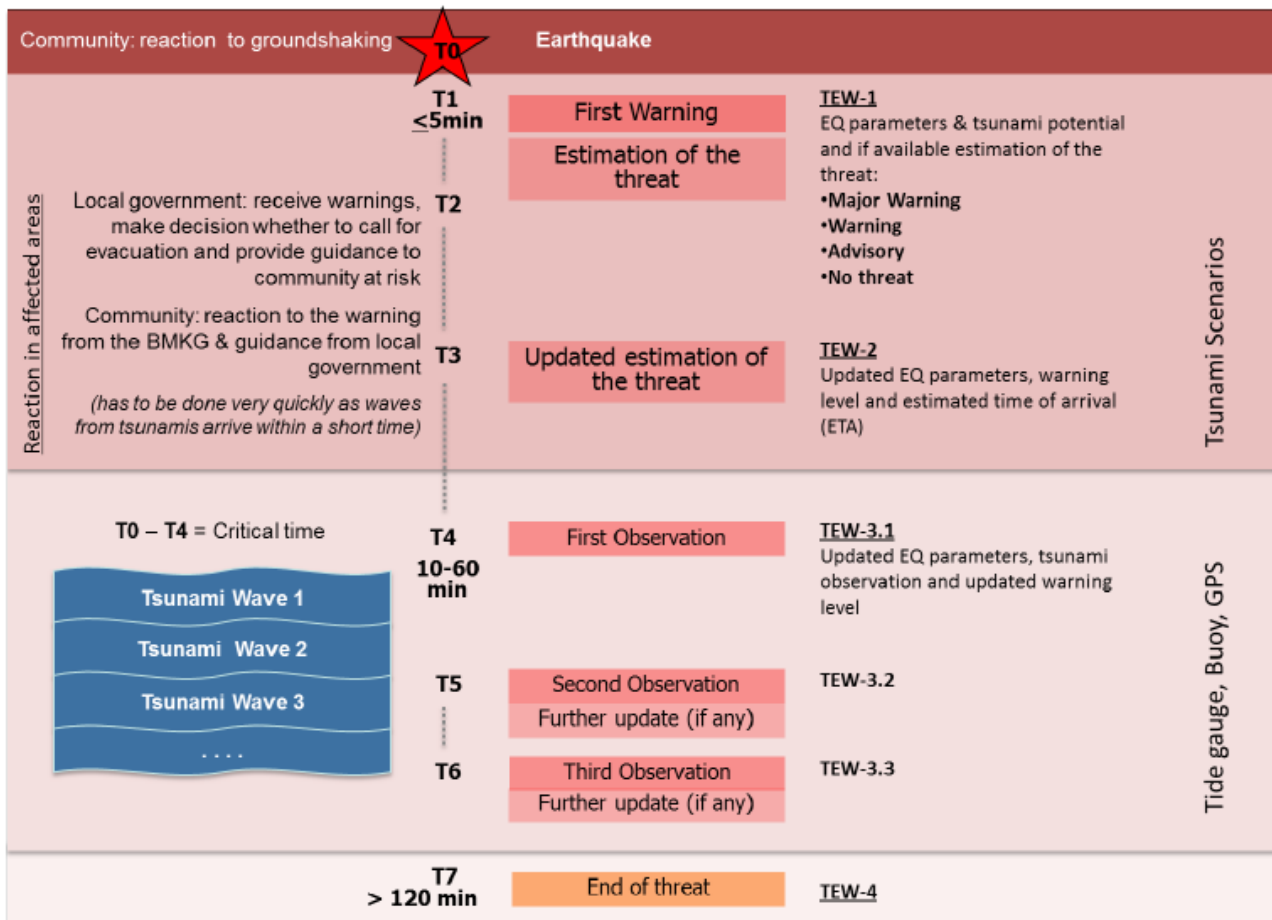
<https://www.gitews.org/tsunami-kit/en>



# Challenges and issues to consider

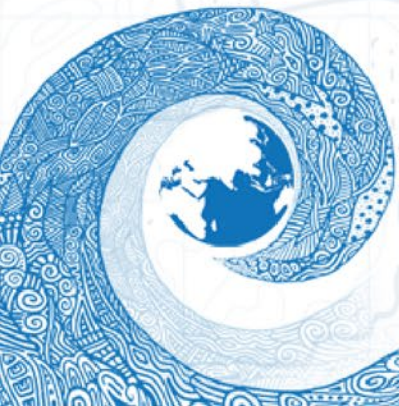


# Understanding processes y products



## 24/7 Services required!

- Warning services must operate 24/7
- A limitation with some media is that they are not all 24/7. Further, some might transmit 24/7 but do not necessarily have live content.





Thanks for your attention