

Tsunami warning chains and SOP development in the Indian Ocean countries

Current Status and Recommendations

**Working Group 1 on Tsunami Risk,
Community Awareness and Preparedness**

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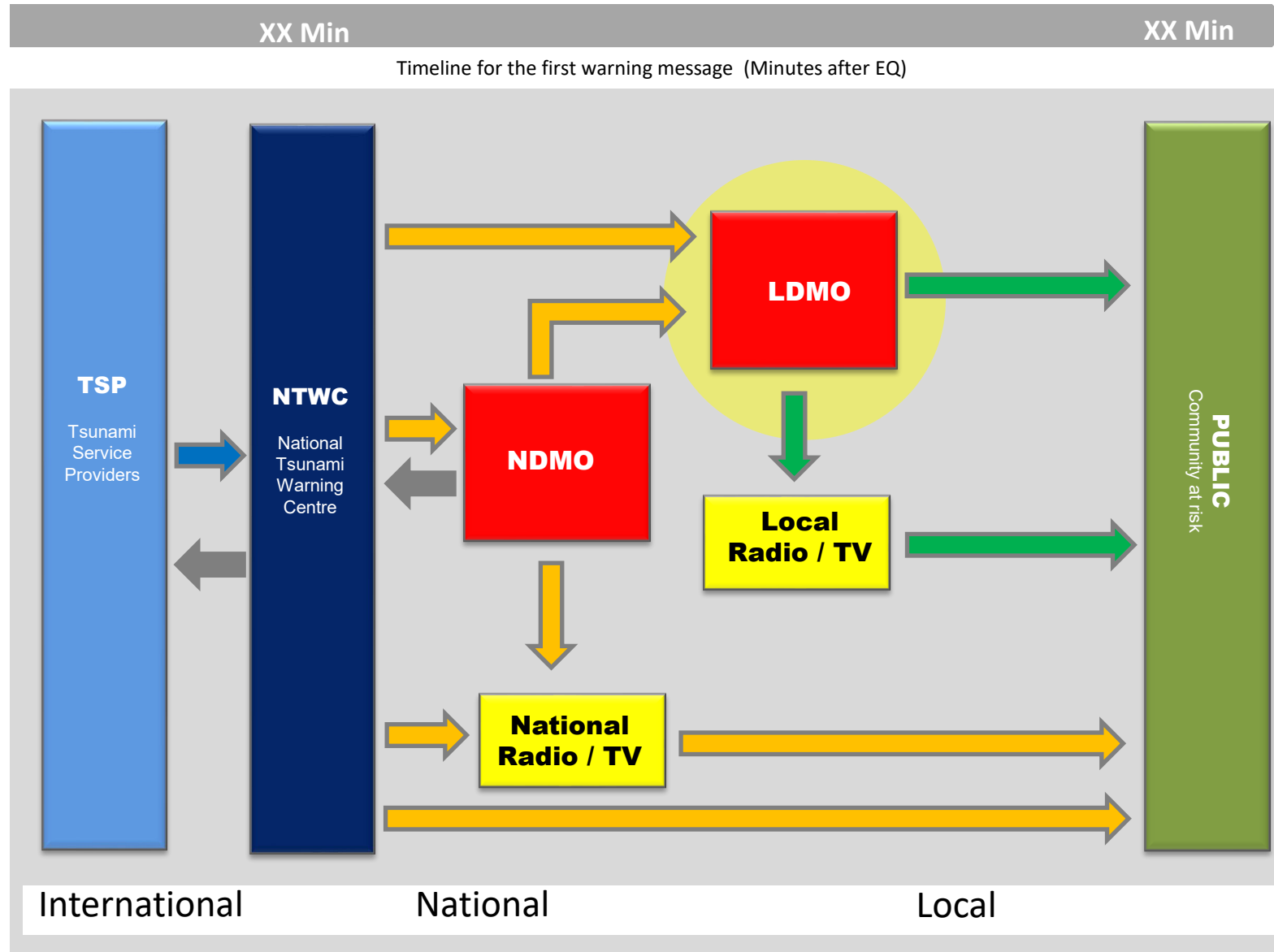
Background & References

- Capacity Assessment 2024
- SOP Trainings for Eastern (3-6 July 2023), Western Indian Ocean Countries (10-13 July 2023) and Northwest Indian Ocean Countries (7-8 August 2023)
- Consultancy Report (March 2024)

Tsunami Warning Chains and SOPs

CURRENT STATUS

Tsunami warning chain template



Information

Warning

Warning and Advice

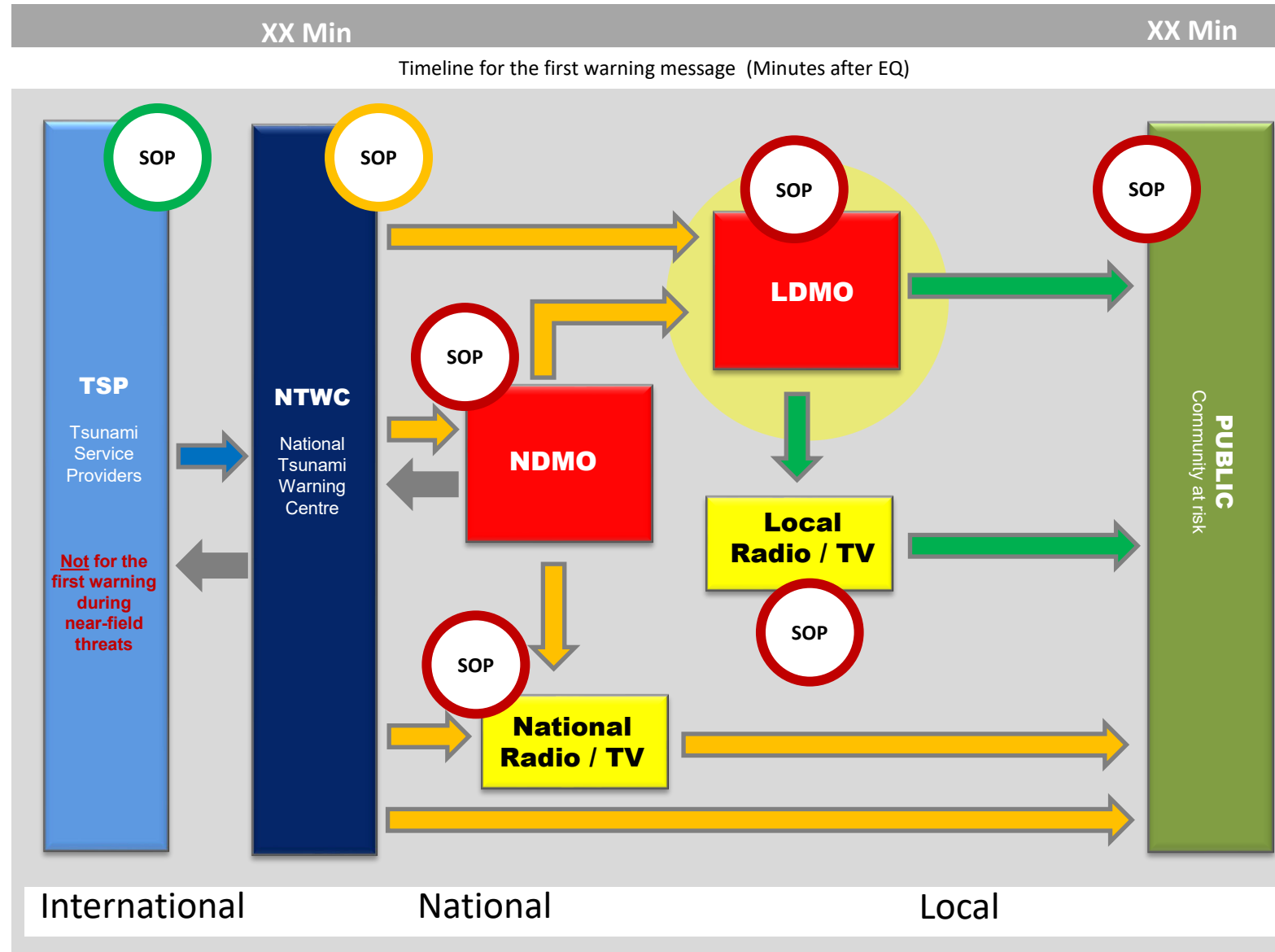
Official call for evacuation

Feed Back

Agency responsible to decide on official call for evacuation

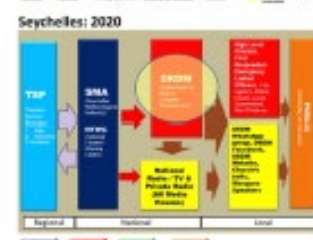
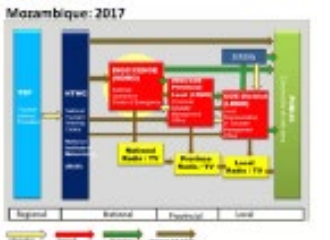
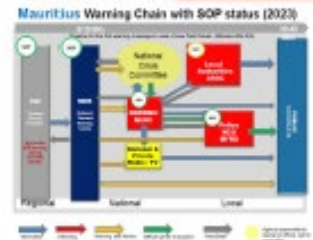
Country
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Operating the tsunami warning chain

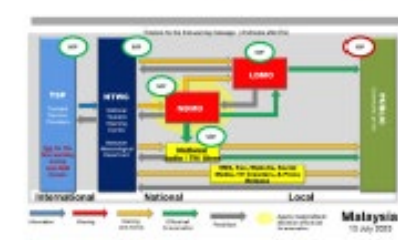
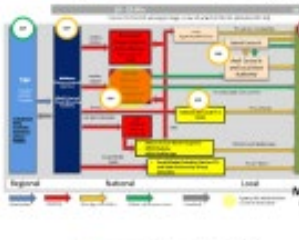
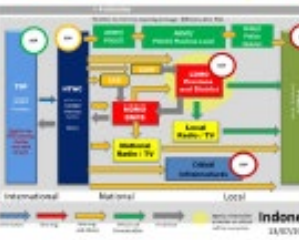


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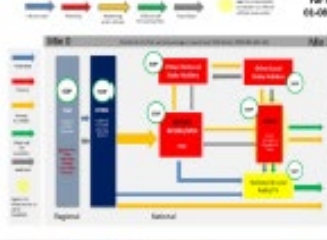
Western Indian Ocean



Eastern Indian Ocean



North West Indian Ocean



Main Observations

- **Warning Chains:** documented for all member states, except Yemen. Most warning chains are solid and include a reasonable level of redundancy. 11 of 25 countries still require some further clarification of roles and responsibilities.
- **Time-line driven:** 8 countries did not yet visualize the timeline for the first warning. In EIO countries, their timelines could be better aligned with the flow of monitoring and warning information provided by the TSP.
- **Non-seismic events:** The warning chains and SOPs have so far been designed exclusively for seismically induced tsunamis. Possible non-seismic events still need to be taken into account.

Main Observations

- **Status SOPs in Warning Chain:** 13 countries have indicated the status of SOPs in the graphic, 11 not yet
- **NTWC SOPs:** Nearly all countries have shared NTWC SOPs. All 13 countries judge their SOPs as solid (green)
- **DMO-SOPs:** not all countries have made DMO SOPs available. Except 2 cases, all DMO-SOPs are very general in nature and contain mainly information on the respective legal framework, general roles & responsibilities, organisational structures / contact data or represent a flow for a particular IOWave exercise. These do not yet represent solid SOPs at institutional level, which would actually be necessary. Only 3 out of 13 countries judge their DMO SOPs as solid (green).

Tsunami Warning Chains and SOPs

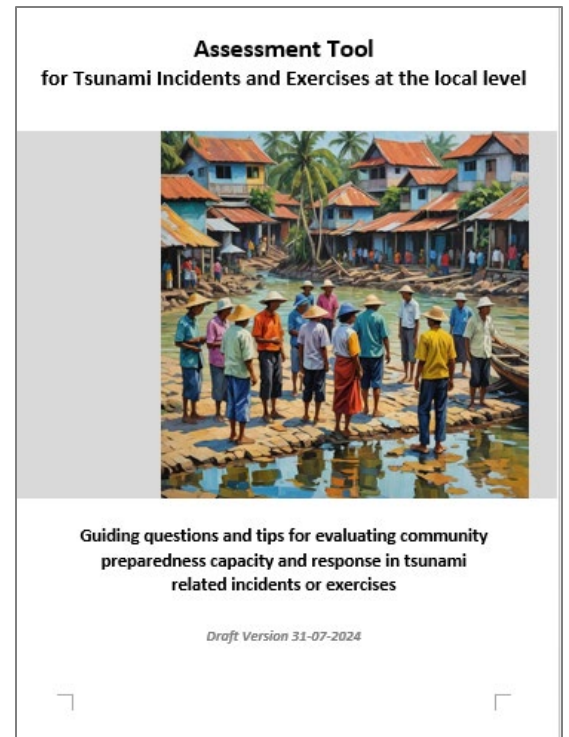
RECOMMENDATIONS

Recommendations from the Consultancy Report

- Strengthening the framework conditions and multi-stakeholder processes for effective warnings through high-level political dialogue
- Strengthening regional cooperation (EIO, WIO, NWIO)
- Facilitate continuous and collective learning
- Focusing more strongly on the DMO SOPs
- Stronger focus on SOPs in IOWave exercises
- Learning from experience: enhancement of the IOC Post-Tsunami Survey Guidelines by including assessment of downstream processes

Assessment of Downstream Processes

- An **assessment tool** developed in the frame of the TsunamiRisk Project, an Indonesian-German research initiative implemented between 2022 and 2024, and designed to guide the evaluation of community preparedness capacity and response in any type of tsunami related incidents or exercises.
- The tool contains a set of guiding questions that can be applied for a range of incidents that have posed a tsunami threat at the community level. This can include incidents where a tsunami was generated, but also incidents where an earthquake was strongly felt or a tsunami warning was issued, but ultimately no tsunami occurred.



Thanks for your attention

