

Draft Recommendations on Risk Assessment and Reduction

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1. Countries should prioritize making **hazard assessment data**, such as bathymetric and topography (if not high-resolution, at least better than openly available data) and all potential source models for tsunami hazards , **publicly accessible** to facilitate better tsunami model results and evaluation procedures.

Emphasize the need for collecting **detailed tsunami risk data at the village and community levels**. Countries with robust disaster risk management systems, such as Indonesia, India, and others, can serve as models for improving local-level data collection and preparedness strategies: **Indonesia**: Indonesia has made significant progress in tsunami risk management, especially after the 2004 Indian Ocean tsunami. It has developed systems for local-level data collection and community-based preparedness in tsunami-prone areas. **India**: India also has made advancements, especially in tsunami warning systems and coastal community preparedness, though the focus is more regional or district-level.

2. **Encourage/Pursue international collaboration for technical support** in conducting tsunami hazard assessments and developing response strategies (i.e., sharing technical knowledge and best practices; focused training). Countries with advanced capabilities should be encouraged to share their expertise with less-prepared nations. Example: Northwest Indian Ocean Project
3. **Develop and implement /Utilise and enhance training programs and provision of information aimed at local disaster management offices (DMOs) and community engagement** to improve their response capabilities and synergies with other organisations, particularly in countries that report a need for

additional training in emergency response SOPs including at the community level. Example: Northwest Indian Ocean Project. Note: consider moving aspects to section 3.

4. Identify a national authority for undertaking the hazard assessment and ensure the tsunami information (scientific and other) is communicated to the community in an understandable manner through public engagement activities and other mechanisms.
5. Focus on **capacity-building initiatives** targeting countries in geographical regions of the Indian Ocean that rated their **tsunami risk assessment capabilities** as poor or very poor. These regions should be provided with the necessary technical support and training to enhance their preparedness.
6. Ensure that all countries prioritize the **creation and regular updating of evacuation maps**, as these are vital tools for effective emergency response during a tsunami. Countries that currently lack these should receive immediate assistance. Move to response section.
7. **Risk assessments should include considerations for vulnerable populations**, ensuring that disaster preparedness plans are inclusive to facilitate community awareness. Note: overlap with section 3.
8. **Urban planning authorities should integrate tsunami risk reduction strategies** into their planning processes for mitigation and preparedness to facilitate zoning laws that prevent construction in high-risk areas and the development of tsunami-resistant infrastructure. Note: overlap with section 3.
9. Countries sharing coastlines should work towards **better cross-border coordination** in tsunami preparedness and response. This includes hazard assessment procedures, harmonizing early warning systems, joint exercises, and shared evacuation plans. A good example is the NWIO. Note: overlap with section 3.

10. Encourage **sustainable coastal management practices** that reduce vulnerability to tsunamis, such as the restoration of mangroves and coral reefs, which act as natural barriers.
11. Promote and support **community-based disaster risk reduction** initiatives. Engaging local communities directly in preparedness activities can lead to more effective and culturally appropriate strategies.
12. Ensure that tsunami **contingency plans include specific provisions for disabled and elderly populations**, who may require additional assistance during evacuations.
13. Ensure **that women are actively involved** in all aspects of tsunami-related activities, including scientific research, evacuation planning, and post-disaster management.
14. Countries should be encouraged to **integrate tsunami risk into broader multi-hazard assessments** to ensure comprehensive disaster risk reduction strategies. This should be standardized across all member states to ensure uniformity in risk preparedness.
15. **International integration of all the efforts** being conducted to be able to conduct the analysis in an integrated form for example develop a unified tsunami modelling algorithm and provide this to all basins so they can use their own data to come up with a model on international recognition of the basis.