

Introduction

GOVERNANCE and INSTITUTIONAL ARRANGEMENTS



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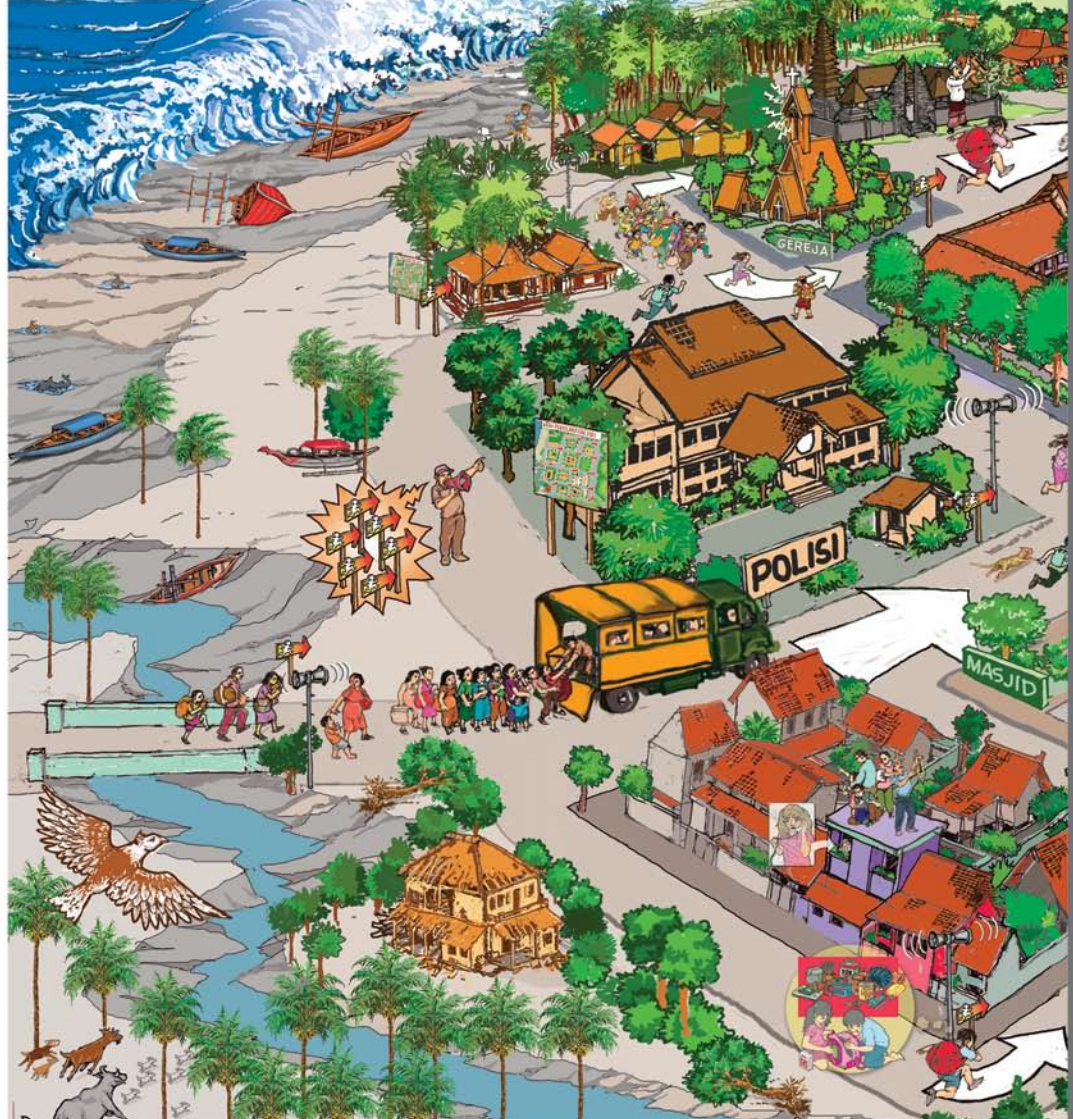
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Making Tsunami Early Warning a Long Term Priority

An end-to-end warning system like InaTEWS is complex since it involves science and engineering, governance and delivery of public services, disaster risk management, the news media, and public outreach. Therefore, it requires cooperation of many stakeholders – government institutions from various sectors and at all levels, scientists, the communities at risk, NGOs, and the private sector – to make the system work effectively.

As a public service, the provision of tsunami early warning is primarily a government responsibility. The government must provide a robust legal and regulatory framework, have political commitment and should lead the coordination and cooperation of various stakeholders. Effective governance of InaTEWS requires clarification of roles and responsibilities at all levels, provision of adequate resources, development of capacities, and encouragement of participation at the local level. The coordination between national and local levels of government is key to building a consistent system, and a particular challenge in Indonesia, which is undergoing a decentralisation process.

In accordance with the division of roles in the decentralised governance system, local governments play a crucial role in InaTEWS, as they are the ones to decide whether to call for evacuation and to widely disseminate warning and guidance to their communities.

The project supported its local partners in the establishment of effective governance and institutional arrangements in various ways:

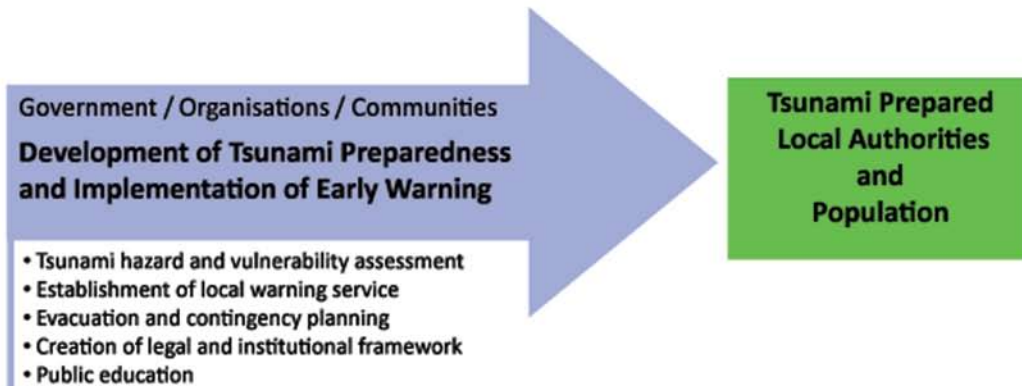
- Supporting a systematic and continuous planning and implementation process that covers all requirements of tsunami early warning and preparedness
- Assisting the clarification of roles, mandates and responsibilities with regards to tsunami early warning
- Advocating to strengthen political commitment
- Supporting the drafting of local regulations on, and budgeting for, tsunami early warning, and
- Strengthening institutional capacities for tsunami early warning



A Systematic Approach for Long-Term Preparedness

Long-term tsunami preparedness requires that local governments, together with other local stakeholders and the community, systematically plan ahead for emergencies and implement early warning mechanisms.

An assessment of the local tsunami hazard and the creation of tsunami hazard maps should provide the basic information about the threat. Vulnerability assessment helps to examine the capacities of local institutions and the population to respond appropriately to the tsunami threat and to improve them. A local warning service must be established to enable authorities to widely disseminate tsunami warnings and to guide the local population, as well as institutions, for appropriate responses in case of emergencies. It must be supported by clear procedures and plans, e.g., evacuation and contingency plans. Finally, the agreed institutional arrangements and mandates for early warning, tsunami hazard maps and response plans should be officially approved, recognised and legally binding. Community outreach activities must educate the public about the tsunami threat and response plans.



To achieve this, a step-by-step planning and implementation process is needed. For this purpose, the local partners in the pilot areas established multi-stakeholder working groups, which were also assigned to implement cooperation with the project at the district level. These working groups brought together the various actors from civil defense, the local planning agency, public works, the transportation department, the military and the police, as well as NGOs and the Red Cross (amongst others), to develop the different components of tsunami preparedness.

In the pilot area of Java, for instance, the project supported this working process through a series of 15 technical workshops. The process enabled the participating local institutions not only to develop the above-mentioned components of tsunami preparedness, but also build cooperation and networks between the districts and with the provincial levels.

Navigating and Steering the Working Process



A **checklist** has been developed to assess the status quo of tsunami preparedness and early warning of a community and its institutions, as well as to guide local stakeholders through a process to implement solutions for effective early warning and to improve their response capacity. The results from the “Checklist for Developing Early Warning Systems” provide a comprehensive base to develop a local **action plan**. The project developed a simple tool for action planning, which helps to foster agreement on who is doing what, how and when, and who provides the necessary resources. Both tools, the action plan and the checklist, also serve to monitor and evaluate implementation and results throughout the working process.

Clarification of Roles, Mandates and Responsibilities



As tsunami early warning requires contributions from, and cooperation between, various stakeholders, an important initial step is to identify who needs to be involved and how. A **stakeholder analysis** is a practical tool used to identify institutions and organisations, from both the government and the civil society, which need to be involved, and to clarify their roles and responsibilities regarding preparedness and response activities. The stakeholder analysis in the pilot areas was conducted together with the local working groups.

One key issue that requires clarification is the mandate for an official call for evacuation. By law, only local governments at the district and city level have the authority to officially call for evacuation during a tsunami emergency. Since local tsunamis leave very little time for warning and response, the decision on whether to call for evacuation or

not must be made and publicly disseminated within a few minutes. District or city authorities need to delegate the mandate for this evacuation call to an institution that is capable of performing this task around the clock – 24 hours and 7 days a week (alias 24/7), in order to appropriately deal with the challenge of local tsunamis. This often requires intensive discussion among the various stakeholders and needs to be directly addressed to local decision makers.

In addition to this, the clarification of responsibilities between province, district and/or city level governments is vital. Synchronising procedures and mandates for decision-making and warning dissemination are among the issues that need to be addressed here. Close cooperation for tsunami early warning and preparedness across district, city and provincial boundaries helps to clarify roles, mandates and responsibilities and makes use of synergies with regards to warning services.



The Importance of Political Commitment

Tsunami early warning will be a long-term priority only if the various stakeholders can assure continuous political commitment and leadership for tsunami preparedness in their area. Political commitment will be evident when solid institutional arrangements and sufficient resources are provided to assure long-term preparedness and operation of early warning services. This is often challenging, especially because there are many other development issues that need attention and tsunamis are rare events.

Often, local heads of government are not yet aware of their role in the warning system and it is sometimes difficult to get their full attention. When the opportunity to meet senior government officials arises, it is important to be able to explain the necessities of tsunami early warning in a short and concise manner. For this purpose, the project developed an information package. The package includes a five-minute video and a short brochure. It raises awareness, explains the tsunami hazard, early warning, the roles of local governments in the warning system, and aims to encourage local leaders to assume their role and promote early warning.



Constant advocacy for the importance of preparedness by NGOs and other civil society organizations, as well as the demand for related public services expressed by the private sector, can help to keep early warning on the agenda of local policy and decision makers, and finally integrate tsunami preparedness and early warning as a long-term public service in the local planning and budgeting processes.

Local Regulations and Budgeting for Tsunami Early Warning



Political commitment is reflected also in a robust legal framework. Governance and institutional arrangements require a solid legal basis to be effective. Along with other national regulations, the Disaster Management Law (No. 24/2007) created the regulatory framework for disaster risk reduction in general and tsunami early warning and preparedness in particular. Local regulations need to further specify the institutional and technical requirements for early warning and direct local preparedness planning and implementation.

The project supported its partners in the pilot areas with technical assistance and resource persons in the drafting process of local regulations and decrees. In Padang, a multi-stakeholder team drafted a mayor's decree that regulates the implementation of tsunami early warning for the city. For instance, it states clearly that in case the city mayor (or his/her representatives) is not reachable within a few minutes of an earthquake, the local operations control centre has the mandate to decide upon and directly issue an official call for evacuation.

The governor's decree on tsunami early warning in Bali regulates the division of mandates between the province and the city and district governments on the island. The provincial government, as a central provider of warning and guidance for Bali, is given the mandate to issue an official call for evacuation and trigger tsunami sirens on behalf of district and city governments. This saves time and takes into account the limited resources at the district and city level.

In both cases, these local regulations provide the basis for institutional arrangements and long-term planning and budgeting. A solid regulatory framework provides the formal means to access regular local and national state budgets. However, in order to obtain funds for the further development of tsunami early warning and preparedness, they need to be integrated into local strategic and development plans. Other sources of funding are Public Private Partnerships, as well as Corporate Social Responsibility funds, that are more easily accessed once legal and institutional arrangements are in place. Local governments also have the chance to tap other international funds, such as DIPECHO, a programme of the European Commission, for disaster risk reduction and preparedness.



Institutional Integration of Tsunami Early Warning

One of the biggest challenges on the way to an effective and sustainable InaTEWS is the integration of tsunami early warning and preparedness into the local disaster management institutions. Through Law No. 24, Indonesia established a National Disaster Management Agency (BNPB) in 2008. While most of the provincial disaster management agencies (mandatory by law) have been formally founded, to date only a few district and municipal governments (not mandatory by law) have established a Local Disaster Management Agency (BPBD). In the absence of a BPBD, the local Civil Defense Agency, known as KESBANGLINMAS, is usually appointed to implement tsunami early warning.



Local governments can assume their role in InaTEWS only if they build solid institutional structures and develop human resources. The newly established BPBDs need to steer the local preparedness planning and implementation process. Equipped with standard procedures, communication technology and mandates, a local operations control centre (PUSDALOPS) must operate 24/7 and provide the warning service. Tsunami early warning and a functioning PUSDALOPS must be integrated into the BPBDs, and, where absent, into the existing structures of KESBANGLINMAS or other institutions that can potentially provide the warning service, e.g., police, military or the fire department. The district of Bantul (Yogyakarta), the province of Bali and the city of Padang (West Sumatra) are examples of areas where a PUSDALOPS that deals with tsunami early warning is in operation. In Padang, it is already fully integrated into the city's BPBD.



Tsunamis are not the only natural events that occur in Indonesia. Earthquakes, floods, volcanic eruptions, and landslides occur frequently and pose a major threat to Indonesian society. A BPBD or another institution in charge of disaster management must deal with all of these natural disasters. In order to save resources and use synergies, the development of tsunami early warning and preparedness at the local level must be part of a multi-hazard approach. Experiences from tsunami early warning can be used to develop procedures and warning mechanisms for other natural hazards, e.g., floods or landslides.



The Content of the Tsunami Kit Related to Governance and Institutional Arrangements

The Tsunami Kit's contents with regards to governance and institutional arrangements is presented in the following documents:

Checklist – an assessment and monitoring tool for governance and institutional arrangements

Tool

- Stakeholder Analysis
- Action Plan

Our Experience – best practices and lessons learnt (fact sheets)

- Local Disaster Management Agency: Experiences in the Establishment of BPDB in the Pilot Areas
- Tsunami Preparedness and Early Warning: A Multi-stakeholder Affair that requires Mutual Cooperation
- Local Legal Framework: How to legalize Tsunami Early Warning locally

Info – information about other initiatives within InaTEWS (fact sheets)

- Legal Framework related to Tsunami Early Warning in Indonesia

Outreach Material – material for education and raising awareness

- “Are you ready?” – an information package on Tsunami Early Warning for local decision makers, including a movie and a booklet

Further Resources – other useful documents

- A compilation of all local and national regulations and policies with regards to tsunami early warning and preparedness

