

## Tsunami Preparedness in Local Communities

### A Structured Approach for Capacity Development

The learning process during the GITEWS pilot project led to the development of a step-by-step approach towards tsunami preparedness across multiple levels.

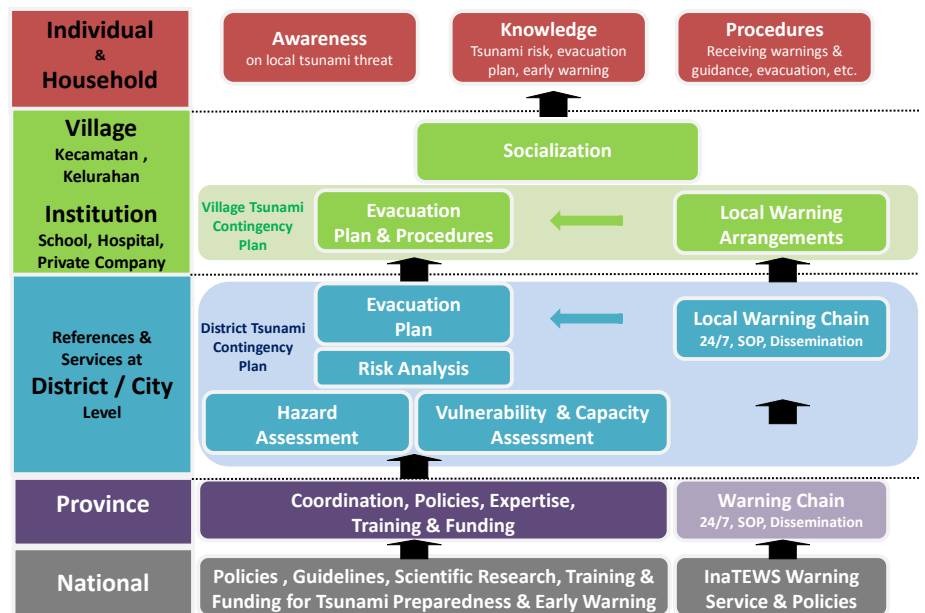
#### THE CONSECUTIVE STEP AND MULTI-LEVEL APPROACH

The rationale for this approach is based on the assumption that the chances to survive a near-field tsunami depend very much on the capacities of the affected people to quickly assess the situation and take the right decisions and actions based on basic but solid knowledge of local tsunami risks and preparedness plans, even in the case of the failure of warning services or in the absence of guidance from local authorities during an emergency.



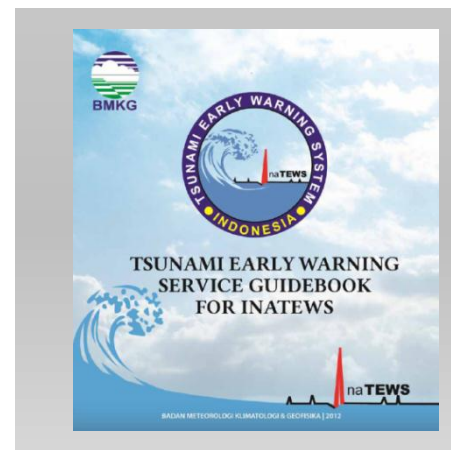
Therefore people in risk areas need to be aware about tsunami hazard and risks and understand local warning and evacuation procedures. Furthermore, individuals and families should be encouraged to discuss and agree on own emergency procedures within their families or households (Red Level).

To provide people in communities at risk with more than thumb rules or general instructions on how to react to a tsunami threat, it is necessary to develop specific local evacuation maps and procedures as well as warning arrangements in a participatory way and communicate them to all community members (Green Level). Developing such plans at village or institutional level usually requires references regarding hazard and safe zones and recommended evacuation strategies, as well as the development of local warning services.



The responsibility to provide such references, including risk assessments, evacuation plans and the setting up of mechanisms for decision making and disseminating warnings lies with district and city governments (Blue Level).

To build local tsunami preparedness in a consistent and coherent way, national guidelines and policies are required to provide the necessary framework for local actors (Grey Level). The National Guideline on Tsunami Warning Services, as developed by BMKG, provides official information regarding the Indonesian Tsunami Early Warning System (InaTEWS), the warning chain from national to local levels, the sequence and content of warning messages - including recommendations on reaction to local authorities - as well as clarification on the roles, responsibilities and procedures of all relevant bodies. Other guidelines by the National Disaster Management Agency (BNPB) are addressing topics like risk assessments, local emergency centers and contingency plans.



## THE CAPACITY DEVELOPMENT APPROACH

The above scheme does not only show the interdependence between the different levels but also illustrates the logic sequence of steps to be taken when building local tsunami preparedness. Without a local scale hazard map or risk assessment it is virtually impossible to develop solid evacuation plans. And it also doesn't make much sense to start public education without having previously agreed on evacuation procedures and warning arrangements.

Therefore, the capacity development process in its initial phase puts a strong focus to develop the required capacities at district or city level, especially in the local disaster-management agencies (BPBD). The purpose is to strengthen and support local stakeholder and the BPBDs in providing the necessary references and services to the communities. Once basic references and services are available and considered solid enough, the capacity development process shifts to the community level to strengthen local actors to develop more detailed maps and procedures which are tailor made to the local conditions at village or institutional level and to communicate them to the individuals and families.

## SOME LESSONS LEARNT

During the PROTECTS project the above scheme proved to be an excellent tool to negotiate and organize the capacity development process with partners and target groups in the project areas. The simplicity and convincing logic of the scheme helped a lot to communicate and visualize the joint working process and expected outputs at any stage on the route.

The PROTECTS capacity development process followed this step by step approach and was facilitated through a sequence of workshops, trainings and phases for practical implementation. During the workshops, participants were introduced to specific topics, such as hazard and risk assessments, evacuation planning, the local warning chain, community awareness and tsunami-simulation exercises. Additionally, technical trainings on evacuation planning and local warning services, as well as on the facilitation of preparedness processes and awareness campaigns at grassroots level, had been provided to ensure that the necessary skills to implement the different components are met. Outside of these workshops and trainings, local working groups were in charge with implementing the steps in their respective regions

First level tsunami evacuation plans turned out to play a core role in any tsunami preparedness process as they combine key information on local tsunami hazard, with warning and evacuation procedures, thus providing essential orientation for the communities to save themselves in an emergency situation. In view of that the project provided additional technical backstopping services to the local partners to assure the quality of local evacuation maps and procedures.

## ACKNOWLEDGMENT

The hereby presented scheme has been developed and refined based on the experiences of the GITEWS and PROTECTS project. A large number of institutions and individuals from local to national level had been involved. We are especially thankful to RISTEK, BNPB, BMKG and LIPI, the BPBDs from the provinces and districts in East- and Central Java, Yogyakarta, West Sumatera, Bali and NTB and their local working groups.

### Author:

Harald Spahn  
harald.spahn@giz.de

### Published by:

Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ)  
GmbH

**Photos & graphic by:**  
© GIZ IS - PROTECTS

GIZ Office Jakarta  
Menara BCA 46<sup>th</sup> Floor  
Jln. M.H. Thamrin no. 1  
Jakarta 10310  
Tel.: +62 21 2358 7571  
Fax.: +62 21 2358 7570  
E: giz-indonesia@giz.de  
I: www.giz.de/indonesia

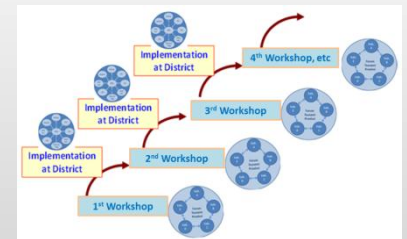
### Further Information:

[www.gitews.org/tsunami-kit](http://www.gitews.org/tsunami-kit)

GITEWS/PROTECTS  
[www.gitews.org](http://www.gitews.org)



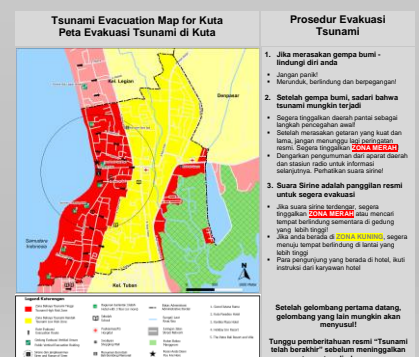
Capacity development workshop



Workshops are followed by implementation phases



Local working group discussing hazard map



First level evacuation map and procedures