

## Disaster Awareness in Primary Schools

A Module on Tsunami Hazard



### THE INITIATIVE

The events of 26th December 2004 in Aceh showed again that children are among the most vulnerable in natural disasters. In the past children generally were perceived as "passive victims". Nowadays this perception has changed as it is proven that children can play an active part in disaster risk reduction. Children are the ones who easily pick up new ideas, adopt them and play an important role as multipliers by conveying new ideas and concepts to their families and peer group.

Following this understanding, the GTZ IS - GITEWS project decided to support the integration of tsunami preparedness into school curricula and promote the development of school preparedness plans. The GTZ- Science Education Quality Improvement Project (SEQIP) was identified as an interesting cooperation partner as this project already developed preparedness modules for earthquake hazard and is linked directly to the Indonesian Ministry of Education.

The Disaster Awareness in Primary Schools (DAPS) program is focused on the need to teach schoolchildren and their teacher's specific protective measures before, during, and immediately after a disaster. The project was implemented by GTZ-SEQIP between October 2005 – December 2009. The project experienced strong support by the Indonesian Ministry of Education at all levels. The first phase of DAPS was for earthquake disaster only, while the second phase covered landslide, tsunami, and flood.

In 2007, the GITEWS project and SEQIP agreed to cooperate in order to assure that technical inputs regarding tsunami hazard and early warning are included into the newly developed tsunami module. As the implementation process of the Indonesian Tsunami Early Warning System (InaTEWS) was still ongoing, several revisions of the module were necessary in order to keep the document up to date.

### MODULE DEVELOPMENT

Following SEQIP's approach, the module was developed in a way that makes it possible for the teachers to integrate it into the pre-existing subject. This approach was made to cope with the fact the existing curricula is already too heavy and it was impossible to add disaster preparedness as a new subject. A team of consultants developed the module using simple terms, and a children-centred methodology. A member of the GTZ IS GITEWS team participated in the tsunami module development and implementation process. The tsunami module includes basic information about tsunami hazard and the Tsunami Early Warning System. It also



Countries Impacted by the Indian Ocean Tsunami of 2004



Earthquake Simulation in Elementary School



Escape Building in Banda Aceh



addresses evacuation planning process in schools and summarizes experiences how to survive a tsunami. The Tsunami Module also includes two chapters which had already been developed for modules dealing with other hazards: "Natural Disaster and Their Causes" and "First Aid Procedures and Equipment".

## IMPLEMENTATION

During its second phase the DAPS program (2006 – 2007) focused on institutionalising advanced training of teachers through the national Ministry of Education and teacher training institution *Lembaga Penjamin Mutu Pendidikan* (LPMP) at province level. As all regions of Indonesia are prone to natural disasters, this is the only way the approach can be disseminated in a broader way. The LPMP trained teachers, headmasters, and school personnel using the content of the DAPS Module. Teachers are then integrating the information into the pre-existing subject such as "Indonesian Language", "Science", "Social Studies", "Physical Education", "Art".

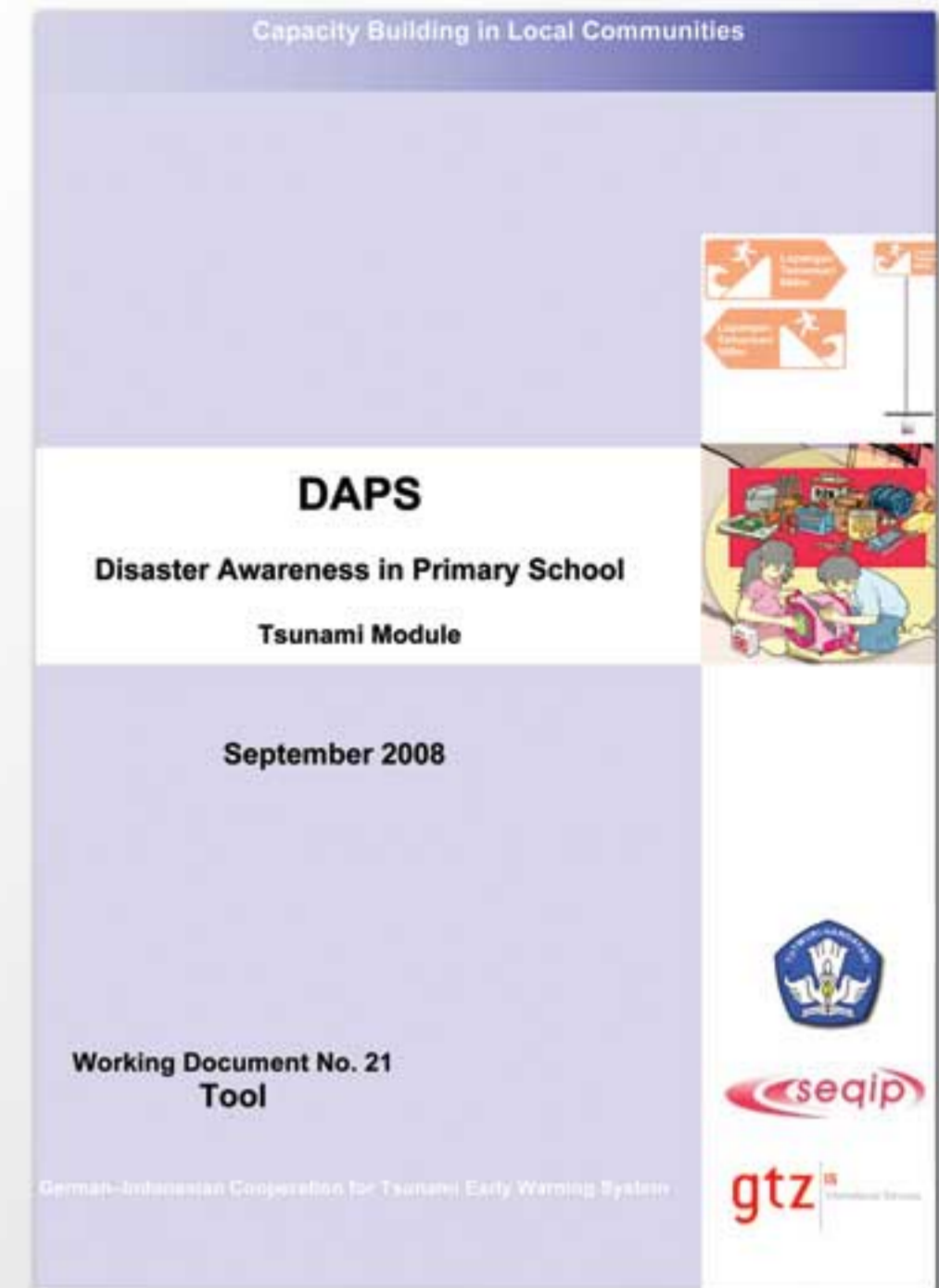
## WHAT HAS BEEN ACHIEVED?

By 2007, a total of 400 schools and 80.000 pupils all over Indonesia had been reached by the DAPS project. It included selected schools in GITEWS's pilot areas. Regarding the Tsunami Module all in all 36 schools in Cilacap, Kebumen (Central Java), Ciamis (West Java), Bantul (Jogjakarta), Padang (West Sumatra), and Badung (Bali) received the DAPS training.

## LESSONS LEARNT

A key lesson learned of the implementation of DAPS was that disaster risk reduction material and plans must be fashioned by the teachers themselves. To address main challenges during the implementing of the project, the trainers had to consider the following issues:

- Superstition. The design of the Module initiates a reflection process whether training participants would rather try to protect their families or simply leave it to fate.
- Poor qualification and professionalism among teachers. Scientific language and formulas were avoided whenever possible, simple language and visual aids (pictures, videos, role play, etc) were used as much as possible. Teachers were familiarized with teaching plans through peer teaching.
- As schools are particularly vulnerable, it was decided to include a chapter on school evacuation planning. The module provides a step by step method to enable schools to do their evacuation planning. The school community (headmaster, teachers, parents) are actively involved and encouraged to follow up.



Tsunami Module for DAPS Project



Tsunami Simulation in Elementary School on Padang

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