

Co-ordinated training against disaster

Capacity Building for the German Indonesian Tsunami Early Warning System

The German Indonesian Tsunami Early Warning System (GITEWS) integrates terrestrial observation networks with marine measuring processes, satellite observation and the rapid distribution of warning messages. For its nationwide implementation, the sustainable operation of this system requires both the establishment and maintenance of the necessary technology and the development of the appropriate institutional and human capacities. These include scientific and technical expertise like earthquake detection, modelling and data management, as well as the skills needed to translate scientific data into clear warnings, practical advice and support for decision-makers.

Linked to its role in the development of the Tsunami Early Warning System, the German Aerospace Center (DLR) is providing technical training in Indonesia. Future operators of the Tsunami Early Warning Center are receiving training in the Decision Support System (DSS), a central component of the warning chain. A German-Indonesian working group on Risk Modelling and Vulnerability Assessment is developing hazard and risk maps. New Earth Observation techniques, which show potential for the future application in warning systems, are also being developed and tested.

In co-operation with the Indonesian Ministry of Research and Technology (RISTEK), InWent is providing support. A key milestone is the development of a Capacity Building Unit (CBU) that is to be responsible for the planning, implementation, and quality assurance of all training measures. As both service provider and

co-ordinator, the CBU will work closely with all of the partners involved in the Tsunami Early Warning System, a task that requires a high degree of inter-institutional network building.

Because of the large number of institutions involved, InWent is providing the CBU with an Internet-based Human Resource Development Platform that is based on open-source software. This platform will serve to announce and document all planned and completed capacity building measures, including courses, awareness campaigns, workshops and conferences.

The project is carried out by a number of German, Indonesian and international institutions under the leadership of the German Research Centre for Geosciences (GFZ). Funding is provided by the German Ministry of Education and Research (BMBF).



On the 26th of December in 2004, an earthquake on the ocean floor just off Sumatra triggered a series of devastating tsunamis, causing the death of over 150,000 people in Indonesia alone. The satellite map, which was generated by DLR, shows the flooded areas in Banda Aceh. Starting in 2009, a Tsunami Early Warning System will provide warning messages. Hazard and risk maps are being generated to support awareness building and disaster preparedness.



"The GITEWS Capacity Building Unit (CBU) identifies target groups and their training needs, increasing the capacities of experts and involved institutions in order to safeguard proper operation of an early warning system in future tsunami events."

Jörn Lauterjung, GITEWS Co-ordinator, GFZ

SPONSORED BY THE



Federal Ministry
of Education
and Research



Capacity Building International
Germany

Steps of the project:

- Establish an institutional concept for the CBU as a service provider
- Elaborate concepts for training schemes in close co-operation with Indonesian and German institutions
- Identify target groups for training measures, clarify classification of training needs and existing schemes and develop training modules
- Coordinate the exchange of knowledge and information in regard to training measures through permanent communication and reporting to all involved partners
- Train management and steer training measures in Indonesia
- Organize seminars for technical training and develop joint ongoing training schemes for experts in Indonesian and German institutions
- Support and carry out pre-selection of potential candidates for specific training courses
- Manage information for ongoing and future training activities within GITEWS and cooperate closely with other international donor organizations regarding tsunami-related activities

"The sustainability of any system largely depends upon the capacity of the people behind it. Efforts in capacity building are hence essential to keeping Ina-TEWS operational. The future work of the Capacity Building Unit will increase the knowledge, skills and awareness of scientists, engineers and decision-makers in order to manage and operate the Tsunami Early Warning System in Indonesia in a sustainable fashion."

Pariatmono, Assistant Deputy Minister for Promotion and Commercialization of Science and Technology, RISTEK

InWEnt – Qualified to shape the future

InWEnt – Capacity Building International, Germany, is a non-profit organisation with worldwide operations dedicated to human resource development, advanced training, and dialogue. Our capacity building programmes are directed at experts and executives from politics, administration, the business community, and civil society. We are commissioned by the German federal government to assist with the implementation of the Millennium Development Goals of the United Nations. In addition, we provide the German business sector with support for public-private partnership projects. Through exchange programmes, InWEnt also offers young people from Germany the opportunity to gain professional experience abroad.

InWEnt – Internationale Weiterbildung und Entwicklung gGmbH

Capacity Building International, Germany
Friedrich-Ebert-Allee 40
53113 Bonn, Germany
Phone +49 228 4460-0
Fax +49 228 4460-1766
www.inwent.org

Division for the Environment, Energy and Water

Dr. Christina Kamlage
Senior Project Manager
Lützowufer 6 – 9
10785 Berlin
Phone +49 30 25482-117
Fax +49 30 25482-103
christina.kamlage@inwent.org



Members of the Capacity Building Unit:

- Ministry of Foreign Affairs (DEPLU)
- Ministry of Home Affairs (DEPDAGRI)
- Ministry of Transportation
- Ministry of National Education (DEPDIKNAS)
- Ministry of Communication & Informatics (KOMINFO)
- Ministry of National Planning and Development/Head of BAPPENAS
- Ministry of Energy & Mineral Resources (ESDM)
- Ministry of Maritime & Fishery (DKP)
- State Ministry of Environment (KLH)
- Ministry of Cultural and Tourism Affairs (DEPBUDPAR)
- State Ministry of Research and Technology (RISTEK)
- National Board for Disaster Management (BNPB)
- National Police Force of Republic Indonesia (POLRI)
- National Army of Indonesia (TNI)
- Meteorological and Geophysical Agency of Indonesia (BMG)
- Agency for the Assessment & Application of Technology, Jakarta (BPPT)
- Indonesian Institute of Science (LIPI)
- National Coordinating Agency for Surveys and Mapping (Bakosurtanal)
- National Institute for Aeronautics and Space (LAPAN)
- Institute of Technology Bandung (ITB)

