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Transfer of Ownership of the Tsunami Early Warning System GITEWS to Indonesia

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Today, on behalf of the German Federal Government, Parlamentary State Secretary Thomas Rachel (BMBF) transfers the ownership of the tsunami early warning system GITEWS to Indonesia in a solemn ceremony in Jakarta. The GITEWS project has ended according to schedule, six years after the devastating tsunami in the Indian Ocean.

The development of GITEWS (German Indonesian Tsunami Early Warning System) was launched in 2005 because the vast extent of the natural disaster of December 2004 was due primarily to the fact thatthere was no precaution against a tsunami in the Indian Ocean. People in this area were caught completely off guard by the deadly wave. In November 2008, the system went into operation. Thereafter, GITEWS was optimized in joint operation by Indonesian and German institutions. Since then, the reliability of the early warning system has been successfully demonstrated numerous times.

"*The early warning system is now completely in Indonesian responsibility. That does not mean that we will withdraw from the system. Germany continues to support the operation, in particular with the sustainable education and training of the warning centre operator BMKG*", said Professor Reinhard Huettl, chairman of the GFZ German Research Centre for Geosciences (Helmholtz Association).

What has been achieved, what happens next?

The technical structure of GITEWS and its mode of operation were evaluated by an international commission and were appraised as exemplary for the Indian Ocean. Members of this commission included the heads of the four operating worldwide tsunami warning centres (PazificTsunami Warning Center, tsunami warning systems of Japan, Australia and India). Particularly the extremely short warning time for Indonesia presented a challenge. "*SeisComP3, the software tool developed by the GFZ, was designed for a very fast evaluation of earthquakes and has established itself as a standard for the nations around the Indian Ocean and the Mediterranean*", ascertains Professor Huettl. It is not just about the threat to Indonesia, the 2004 tsunami covered the entire Indian Ocean and claimed about a quarter of a million lives, 170 000 of which in Indonesia.

Capacity Development

Besides the technical structure, scientists, disaster management, administration and population have to be trained to know what to do in case of a strong earthquake and a tsunami and what preventive measures can be taken. The recent earthquake tragedy in Japan demonstrates how prevention and training measures can minimise harm even during major disasters. For a

sustainable success of the early warning system in Indonesia,this so-called capacity development will need to be developedfurther. Specifically for GITEWS, the sequence of events beginning with a tsunami warning and ending with the evacuation of a coastal area were acted out in three test regions (Padang, Sumatra, Cilacap, South Java; Kuta / Sanur, Bali).In addition, Indonesia's seismological service BMKG independently developed alarm plans for the entire country. "*Together with the newly established Indonesian National Board for Disaster Management BNPB, the procedures developed in the test regions will be carried nationwide in cooperation with LIPI, the Indonesian Academy of Sciences*" adds the GITEWS project coordinator and GFZ scientist Dr. Jörn Lauterjung.

Complete protection does not exist

The Honshu-tsunami of 11 March 2011 in the Pacific shows that there cannot be a complete protection. But the dimensions of such a catastrophe can be reduced. This also applies to the Indian Ocean. Immediately after the tsunami disaster of 26 December 2004, the Federal Government contracted the Helmholtz Association of German Research Centres, represented by the GFZ German Research Centre for Geosciences, to develop and implement an early warning system for tsunamis in the Indian Ocean. The funds in the amount of € 55 million stem largely from the contribution of the Federal Government to the aid for flood victims. The research project was funded by the Federal Ministry of Education and Research (BMBF) and conducted in cooperation with the Indonesian Ministry of Science and responsible authorities.

An early warning system cannot prevent a strong earthquake and a resulting tsunami.Deaths and major damage will continue to occur in the future. But by the establishment of an early warning system, including administrative measures and comprehensive capacity building, the impact of such natural disasters can be reduced.

Images in printable resolution can be found at:

www.gfz-potsdam.de/portal/gfz/Public+Relations/M40-Bildarchiv/Bildergalerie+GITEWS

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