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Experience from three years of local capacity development for tsunami early warning in Indonesia: challenges, lessons and the way ahead

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Abstract. Five years after the 2004 tsunami, a lot has been achieved to make communities in Indonesia better prepared for tsunamis. This achievement is primarily linked to the development of the Indonesian Tsunami Early Warning System (InaTEWS). However, many challenges remain. This paper describes the experience with local capacity development for tsunami early warning (TEW) in Indonesia, based on activities of a pilot project. TEW in Indonesia is still new to disaster management institutions and the public, as is the paradigm of Disaster Reduction (DRR). The technology components of InaTEWS will soon be operational. The major challenge for the system is the establishment of clear institutional arrangements and capacities at national and local levels that support the development of public and institutional response capability at the local level. Due to a lack of information and national guidance, most local actors have a limited understanding of InaTEWS, DRR, and often show little political will and priority to engage in TEW. The often-limited capacity of local governments is contrasted by the strong engagement of civil society organisations that opt for early warning based on natural warning signs rather than technology-based early warning. Bringing together the various actors, developing capacities in a multi-stakeholder cooperation for an effective warning system are key challenges for the end-to-end approach of InaTEWS. The development of local response capability needs to receive the same commitment as the development of the system's technology components. Public understanding of and trust in the system comes with knowledge and awareness on the part of the end users of the system and convincing performance on the part of the public service provider. Both sides need to be strengthened. This requires the integration of TEW into DRR, clear institutional arrangements, national guidance and intensive support for capacity development at local levels as well as dialogue between the various actors.

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