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A Preliminary Assessment of the Indonesian Tsunami Ready Communities

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Tsunami risk in Indonesia is strongly real and needs serious handling. Due to the extremely dangerous, it is important for coastal communities to be prepared and responsive in responding to threats. The recent decade tsunami disaster highlighted the extraordinary gaps and challenges on the development and strengthening of the downstream component on the system. Communities need to be educated, aware and ready to respond to warnings both natural as well as official warnings. For this reason, the Indonesia Agency for Meteorology, Climatology, and Geophysics (BMKG) considers to introduce an Indonesia Tsunami Ready programme that will encourage communities to build, strengthen and develop their capacity and ability to respond to tsunami threats.

In this paper we try to analyze the community actualization on hazard assessment, preparedness, and response as the result of the Indonesian Tsunami Ready programme. The assessment is based on the 12 indicators of the tsunami ready which had been determined by the United Nations Educational, Scientific and Cultural Organization-the Intergovernmental Oceanographic Commission (UNESCO-IOC). A field survey of the 12 indicators has been carried out to assess seven communities (Penggarangan, Pangandaran, Gelagah, Kemandang, Tambakrejo, Kuta Mandalika, and Tanjung Benoa) living in the tsunami prone area.

Generally, the results showed the communities didn't have the updated tsunami hazard map as the hazard assessment indicator. The previous hazard map was not established based on the latest seismological study and tsunami modelling. Most of communities have an emergency operation plan for earthquake and tsunami, even though it doesn't consider the earthquake information and tsunami warning. In some villages such as Tanjung Benoa and Kuta Mandalika, local potentials are used also to empower the preparedness and response capacity.

BMKG gave an advocacy to complete and accomplish some the unavailable indicators such as tsunami hazard map, emergency operation plan, and public education materials. The result of this study is expected to be an effective way to build a community awareness, preparedness and response.

Keywords: tsunami ready, 12 indicators of tsunami ready, hazard assessment, preparedness, response