



## **Implementing geological information on natural hazards in urban planning: experiences gathered in Indonesia**

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Indonesia has been hit by a series of devastating natural disasters: the Tsunami catastrophe of December 2004 in Banda Aceh, the May 2006 Yogyakarta earthquake, the Central Java Tsunami in July 2006 and the Merapi Volcano eruption of mid 2006. To that effect, political decision makers now ascribe more weight to the mitigation of georisks and the overall preparedness for natural disasters.

Consequently, the Geological Agency of Indonesia and the geological authorities on provincial level have been commissioned by the government to provide geological information for proper and sustainable reconstruction of disaster hit regions and to provide advisory services for urban planning authorities to better account for the local exposure to natural hazards. Reflecting this official request, the Federal Institute for Geosciences and Natural Resources of Germany (BGR) supports geological authorities in Indonesia with two technical cooperation projects focused on the Tsunami hit region of Banda Aceh and selected regions of East-Indonesia. The projects activities are twofold: Firstly, georisk relevant data have to be gathered and prepared for urban planning authorities. This comprises engineering-geological investigations for building grounds; georisk assessments regarding floods, volcanic eruptions, landslides and earthquakes; the identification of suitable building materials and the available resources of construction raw materials as well as the identification of freshwater resources. Secondly, the information have to be passed on to the relevant urban planning

authorities and the awareness of the public for georisks and preventative measures has to be raised. Thereby, the users of recommendations and the success of translating these in urban plans or reconstruction activities depends on the two time-scales on which the Geological Agency and the provincial authorities have to operate in providing i) immediate advisory for the reconstruction of a catastrophe-hit region such as Banda Aceh (Tsunami) and ii) sustainable longer-term urban planning advisory.

With this paper, we want to give an overview of the approach followed by the two technical cooperation projects in Indonesia of disseminating georisk information to the relevant planning authorities and the public and to share and discuss our experiences.