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Indonesia Scenario Assessment for Emergencies (InaSAFE)

Abstract

To effectively prepare for future floods, earthquakes or tsunami you must first understand the likely impacts that need to be managed. For example, to prepare contingency plans for a severe flood in Jakarta, emergency managers need to answer questions like: what are the areas likely to be affected; how many people will need to be evacuated and sheltered; which schools will be closed; which hospitals can still take patients; and what roads will be closed?

InaSAFE is free and open-source software that is focused on examining, in detail, the impacts a natural hazard scenario would have on a specific community. e.g. estimate the number of people who would need shelter following a worst-case tsunami and what the minimum requirements for food, water and sanitation would be to manage this event. InaSAFE provides a simple but robust approach to answering these sorts of questions.

InaSAFE is designed to combine hazard scenarios from government science agencies and universities, together with local wisdom and community knowledge collected through participatory tools such as OpenStreetMap. This approach of bringing together detailed science with community knowledge is providing new insights into the possible impacts of future disasters and reforming contingency planning in Indonesia and the region.