





# Building the InaSAFE community in Indonesia and beyond



In September 2014, disaster managers, developers and trainers from around the world met in Jakarta for an InaSAFE technical workshop to share ideas and to work together on developing the next version of InaSAFE. This marks two years of success for InaSAFE following it's launch in October 2012, when the Indonesian President Dr Susilo Bambang Yudhoyono praised InaSAFE as being "very beneficial to us all".

InaSAFE, free software that produces realistic natural hazard impact scenarios for better planning, preparedness and response activities, was launched at the 5th Asian Ministerial Conference for Disaster Risk Reduction in Yogyakarta in October 2012.

In February 2014 the World Bank President Dr Jim Yong Kim wrote about seven steps to surviving a disaster. InaSAFE was highlighted as the first step to identify those risks:

"Indonesia has shown how [disaster risk identification] can be done. There, the government and partners developed InaSAFE, a free interactive software program that allows local officials to ask questions that help them quantify the damage a disaster might cause. ..... By helping to estimate the number of people and facilities in danger, the tool helps decision makers better prepare for, and respond to,

disaster risks."

InaSAFE was recognised by Black Duck as one of the top Open Source programs initiated in 2012. It was selected for this prestigious award from amongst thousands of new open source software projects alongside software developed by Microsoft, Twitter and Yahoo.





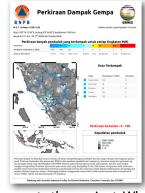
## Integrating Science, Local Knowledge and Disaster Management

InaSAFE is a tool that integrates scientific and local knowledge about hazards with detailed spatial information on critical infrastructure, such as schools and hospitals, to understand possible impacts. Indonesia's National Disaster Management Agency (BNPB) and the Australian funded Australia-Indonesia Facility for Disaster Reduction (AIFDR) have been working together to build the capacity of Indonesia's science agencies to develop fundamental scientific information about the threats Indonesia faces from hazards such as earthquakes, tsunami and volcanos.

At the same time, BNPB and AIFDR are working with the Humanitarian OpenStreetMap Team and communities to map the location of buildings, from residential homes to schools and hospitals. This program has seen over 900 people trained in OpenStreetMap with over 1.4 million buildings mapped in OpenStreetMap across Indonesia since 2011.

## **InaSAFE and emergencies**

InaSAFE is a practical tool that can be used during disaster events. For example, it has been designed to automatically get the latest earthquake information from Indonesia's Agency for Meteorology, Climatology and Geophysics (BMKG) and combine this with population data to estimate the number of people impacted by an earthquake immediately after the event. The continuing development of the software will enable policy makers and disaster managers to understand, in real time, the scale of the disaster, allowing them to prioritise distribution of resources to the areas most affected and to determine the number of relief items needed.



# **Building the InaSAFE Community**

Indonesia

The key to open source software is the community that supports the project. What is unique about InaSAFE is that it pulls together scientists and communities to help support policy makers and disaster managers. BNPB and AIFDR have been working towards building this community through presentations, workshops and training activities. To date over 300 Indonesian disaster managers across seven provinces have been trained in InaSAFE, as well as data collection (OpenStreetMap), and basic GIS (QGIS). Upon the conclusion of the trainings, 18 people across 7 provinces were certified to become InaSAFE trainers for their region.

The InaSAFE team supports training and outreach to Indonesia's open source software developer community. Increasing opportunities for new developers to contribute to the project is also a key aspect of collaboration with the Indonesian Agency for Assessment and Application of Technology (BPPT). Three developer trainings and a Code for Resilience Hackathon event were held in 2014.

Indonesia, Australia and the World Bank - Global Facility for Disaster Reduction and Recovery (GFDRR) are also taking the training to the region and beyond. In March 2013, BNPB and AIFDR staff conducted InaSAFE training for disaster managers and government scientists at the ASEAN Risk Assessment Forum, held in Bangkok. Ninety percent of trainees said that they would like to use **InaSAFE** in their day-to-day work.

The World Bank-GFDRR has also started to socialise the concept of InaSAFE across the world, with many countries keen to receive support in implementing the software. In 2013, the World Bank-GFDRR kicked off new collaborative initiative with the Philippines, Sri Lanka and Pakistan, that included integration of InaSAFE into its existing disaster preparedness processes. In July 2014, InaSAFE was introduced in Malawi, with experts from Indonesia supporting training and field work.

"InaSAFE is a useful tool in preparing for disaster response. What is good about it is that it can be adapted and enhanced by individual countries to suit their risks."

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