Probabilistic seismic hazard assessment (PSHA) is an important tool for reducing earthquake fatalities through land use planning, improved building codes and emergency management training based on credible earthquake scenarios. The application of PSHA in Indonesia has seen rapid development in the last few years, with development of a PSHA for Sumatra by Petersen et al. (2004), followed by a PSHA of Java and Sumatra by Irsyam et al. (2008) and the most recent all-Indonesia PSHA developed by a group of Indonesian scientists known as “Team-9”. These recent PSHA’s for Indonesia show a generally increasing level of earthquake hazard. This increase is mainly associated with new information available on the earthquake activity of crustal faults, and, to a lesser extent, on intraslab earthquake activity. As part of a project to strengthen the Government of Indonesia’s capacity to produce better PSHA’s, we have used some of the most recent information available on earthquake activity and site response in the Indonesian province of Central Java. Our PSHA is implemented using an event-based approach to the calculation of seismic hazard (using the code EQRM: http://sourceforge.net/projects/eqrm/). It relies on geologic information on the slip rates of active crustal faults to define earthquake sources, and also on topography and surface geology information to estimate site amplification. We will discuss our results in the context of extending its application to all of Indonesia.