

1.5-P34. Seismic Hazard Analysis and Iseisimal for Java, Bali and West of Nusa Tenggara

Java, Bali and West of Nusa Tenggara are earthquake prone areas. One efforts to minimize the disaster impact is carried out through seismic hazard research. This study to analyze the earthquake hazard and isoseisimal for the study area. The research include collecting and processing seismic data, seismic sources modeling and characterization, earthquake hazard and isoseisimal analysis. Seismic hazard analysis for the 10% probability of exceedance in 50 years was carried out using the total probability theory and three dimensional source modeling. This study used BMKG catalog 1903 – 2010, 0-300 km depth, $M_w \geq 5$ and PGA data recorded. The results of shows the PGA values varied from 0.05 to 0.5 g. The acceleration ranges relatively close to the Indonesian Earthquake Map 2010. Seismic hazard curves in some big cities in Java showed that the deep earthquake was very influential in Serang, Jakarta and Surabaya. The fault source dominant influence in Bandung, Yogyakarta and Semarang. Iseisimal analysis of Tasikmalaya earthquakes on September 2, 2009 and June 26, 2010 shows the area in the south western part of Java experience strong shocks around VII - VIII MMI (0.25 - 0.3 g) which corresponds to the hazard maps result of combine source.

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