

## ABSTRACT

Earthquake dated May 27, 2006 which resulted in a number of fatalities and damage to buildings caused by fault activity or active fault along the Opak River, and many settlements are still scattered throughout the earthquake zone. Analysis of GIS overlay map of fault buffer and settlement area plus population statistic data of population and population density level obtained land area exposed buffer zone of primary earthquake with highest value in sequence that is Kecamatan Jetis, Imogiri, Pleret, Pundong and Banguntapan.

Based on the statistical data obtained for the mortality level of casualties from the buffer of the primary quake zone, the highest values were obtained in the sequence, namely Kecamatan Jetis, Pundong, Pleret, Imogiri and Kretek. Based on the result of scoring slope map, soil type map, groundwater map, rainfall map, disaster prone map and land use map then overlay with fault buffer map obtained statistical data of residential land potential in Bantul regency. Based on the statistical data obtained for the very potential land area for the settlement obtained the highest value in sequence, namely Kecamatan Dlingo, Banguntapan, Srandakan, Bantul and Kasihan.