

**ECONOMIC EVALUATION ON FISHPOND
AND MANGROVE AREA
POST MUD VULCANO DISASTER AT PORONG RIVER
ESTUARY SIDOARJO DISTRICT EAST JAVA PROVINCE**

By :

Taufik Hidayatullah

ABSTRACT

Mangrove ecosystem and aquaculture in estuaries Delta Porong Jabon sub-district are at risk for experiencing pollution brought by the flooding caused by the disposal Sidoarjo Mud-vulcano. This study aim to identify coastal flooding of contaminated Sidoarjo Mud-vulcano around the mouth of the River Porong and estimate the economic value of fish-ponds and mangrove areas in the district of Sidoarjo regency Jabon.

The method used to identify the inundation flooding using flood models using elevation data RBI converted into DEM data and information obtained from the highest tides in the community to apply in the flood inundation model. Land cover information was extracted from Landsat and Geoeye image through on-screen digitizing. Estimated farm economy is based on the business value of aquaculture, especially shrimp and milkfish, while the economic value of mangrove based on benefit transfer method.

The results based on the model showed a decrease of productive fish-pond from 5,010.49 Ha to 4,473.05 Ha (60 cm inundation scenario) and 1,630.82 Ha (80 cm inundation scenario). The effect will decrease the estimated economic value of the fish pond, from Rp 299,126,432,100,- to Rp 126,139,981,800 and Rp 45,989,124,000,-. Meanwhile the mangrove forests area have increased from 374,58 ha to 571.30 Ha based on the interpretation of land cover and it will increase the estimated economic value of mangrove from Rp 35,769,530,456.28,- to Rp 54,554,597,711.07,-

Keywords: fish-pond, mangrove, SidoarjoMud-vulcano,benefit transfer