

Staging House Policy: Adaptation to Sea Level Rise in South Kalimantan, Indonesia

The Banjarmasin City is situated in lowland areas, in average 16 cm below sea level; therefore, the city is potentially impacted by rising sea levels. To be able to make a good decision for reduction of sea level rise (SLR) impact, the provincial government should have information on areas that would be inundated and estimation loss caused by SLR. Unfortunately, the prediction of areas that would be impacted by SLR was unavailable.



Figure 2. Staging house construction

A study funded by EEPSEA provided information on estimation of areas in the South Kalimantan that would be impacted by SLR (Figure 1). The most substantial impact of this study is that the data of this study was used by the Government of South Kalimantan as one of inputs for formulation of environmental management and policy. Results of the study revealed that the Banjarmasin City is one of the most areas impacted by SLR.

The government issued the Banjarmasin City Regulation No. 8 in 2009, and the regulation was endorsed by the House Representative of Banjarmasin City in June 2009. The regulation requires buildings (house, office, store, etc.) established in administrative areas of the Banjarmasin City should use staging house construction (Figure 2). The staging house structure applied a relatively high foundation structure of building in swampland areas to reduce impact of SLR.

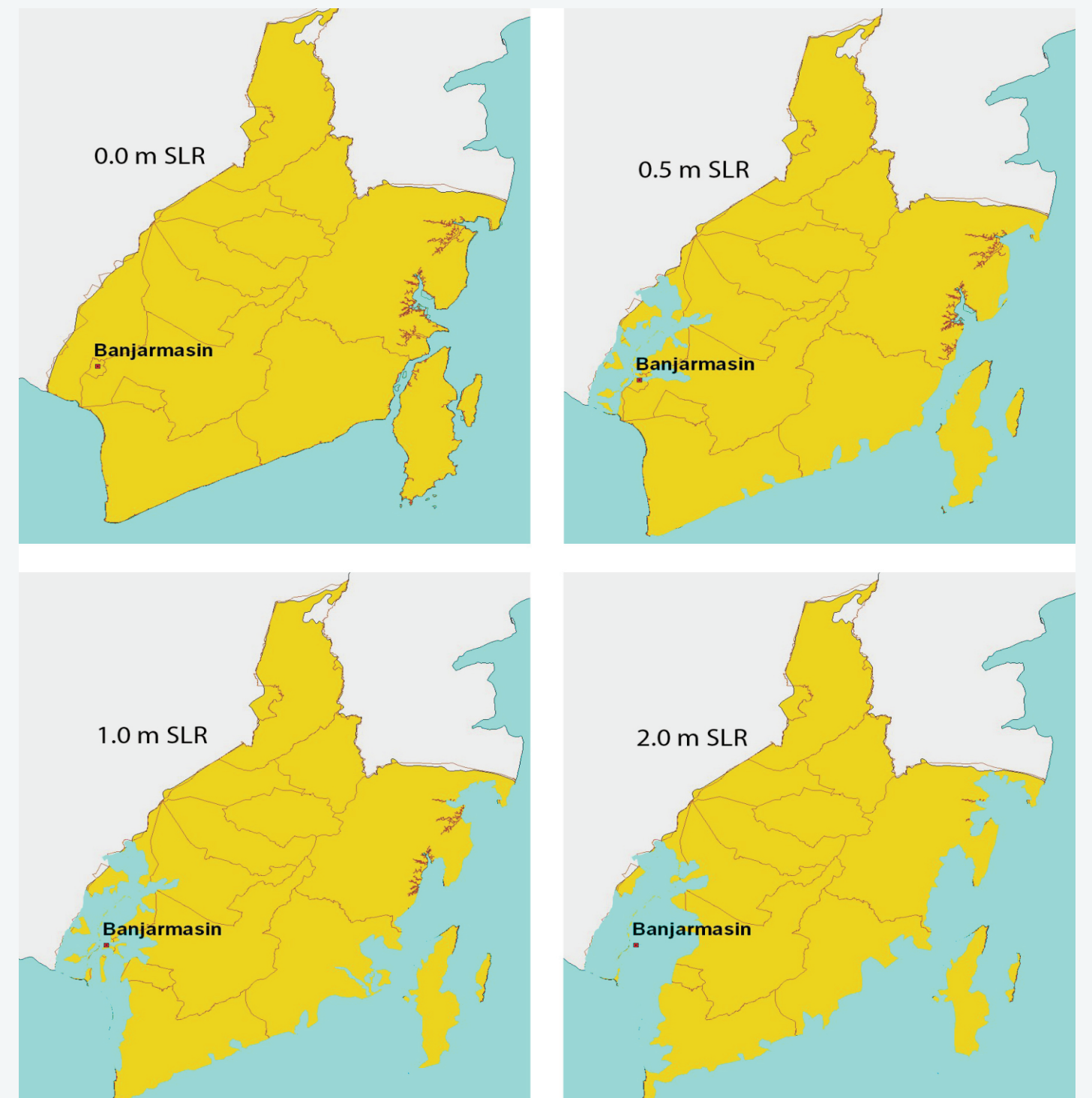


Figure 1. Inundation zone for different SLRs

Farm-dike Improvement: Agricultural Adaptation

The study funded by EEPSEA also looked at different options: building dikes or relocating farmers for adaptation strategy in agriculture. Farm dikes were established in reclaimed swamplands to control water flow in rainy and dry seasons, and in 2007 the dikes were improved by installation of fiber flap-gates to reduce impact of rising sea levels.

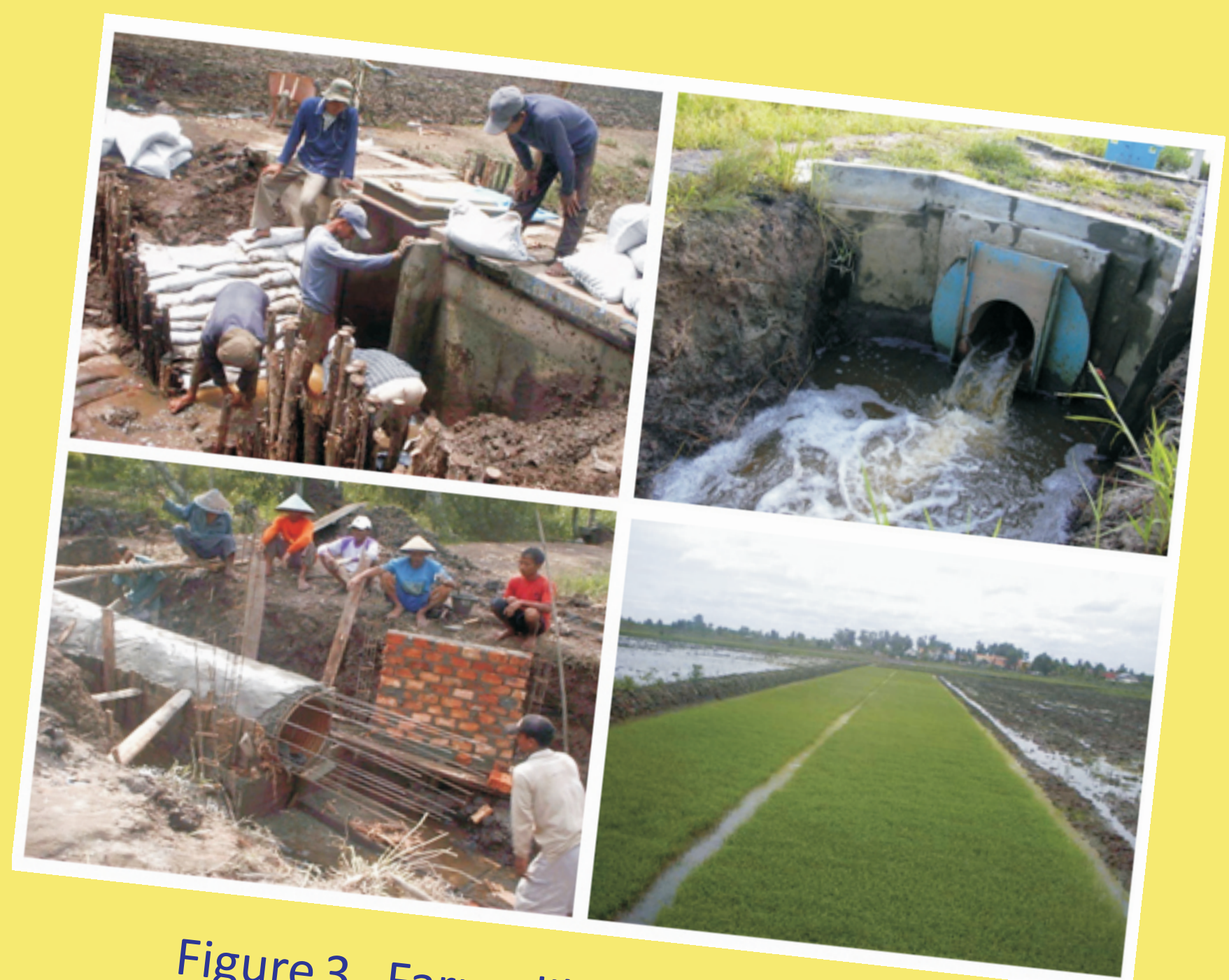


Figure 3. Farm-dike improvement

The study found that farm dike improvement was better option from an economic point of view than relocating farmers to new farmland at a higher altitude. Using recommendation from the EEPSEA' study, the government continues to improve dikes for adaptation strategy in agriculture (Figure 3).

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