

ANALYSIS OF COMMUNITY-BASED MANGROVE CULTIVATION POLICY IN AFFECTED AREA OF SIDOARJO MUDFLOW BY UTILIZING GREEN ECONOMY CONCEPT

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ABSTRACT

One of the environmental damage that occurred in Indonesia is Sidoarjo mudflow disaster that caused so many speculations about the cause of the disaster and the impact on various sectors for more than six years. The problem of course, can also lead to the dynamics instability of local social, environmental, and economy, both locally and globally. Mangrove cultivation policy in the affected area of Sidoarjo mudflow as one of solutions to overcome these problems is expected to restore the ecosystems that have been damaged and benefit for the local community. This research aims to bring up alternative policies of mangrove cultivation in the affected area of Sidoarjo mudflow. In further, these alternatives will be periodically monitored and evaluated. The main consideration in this activity chain is a series of green economy concept that simultaneously pay attention to the economic, social, and environmental. The complexity of interaction between variables and system behavior on the condition dynamic of Sidoarjo mudflow underlies in choosing system dynamics method to solve these problems. According to the simulation results, from five policy scenarios indicated that two scenarios, such as the scenario of mangrove seedlings addition significantly influences to environmental aspects, the scenario of increasing the fraction of agency cooperation significantly influences to economical and social aspects. Meanwhile, the other scenarios, such as scenario of increasing the fraction of seed stocks, the fraction of allocation for education, and fish prices of sylvofishery do not significantly give effect to green economy aspects. To overcome the trade-off of the selected scenarios, so the scenario was sustainably combined of three aspects of green economy. The selected scenario combination is the optimistic scenario implementing improvements of the five policy scenarios and significantly affect to green economy aspects, so that it is necessary to collaborate optimally between the scenarios.

Keywords: Community-Based Mangrove, Green Economy, Policy Scenarios, Sidoarjo Mudflow, System Dynamics.

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