

ABSTRACT

Rawa Pening is an ecosystem that provides biodiversity which is a source of livelihood for the community. The complexity of the problem causes changes in socio-economic-environmental conditions. The purpose of this research is to identify the socio-economic-ecological state of Pening Swamp resources, examine changes in fast and slow variables to gain an understanding of the phenomenon of lake ecosystem change, analyze the level of livelihood vulnerability then can be analyzed for adaptation responses, formulate sustainable resource governance strategies to improve the adaptive response of livelihoods of swamp resource users in order to create sustainable ecosystems and human development. A total of 300 livelihood actors were sampled using purposive sampling. This research uses a mixed methods approach with descriptive statistics, recognition survey, qualitative descriptive, Livelihood Vulnerability Index and transaction cost.

The results showed First, the socio-economic-ecological state of Rawa Pening resources in the environmental aspect with changes that are getting worse. Socio-economic aspects are low commodity selling prices, reduced income, lack of employment, additional income, lack of markets. management/governance needs law enforcement, rules and regulations are not negotiated. Second, changes in the Pening Swamp ecosystem are studied with the approach of changes in slow variables and fast variables in the social-ecological subsystem. Slow variables in this study are demands for changes in culture, values and institutions; Wealth and infrastructure; Biomass and biodiversity; Property rights and use rights with fast variables of swamp governance, resources, and land, investment,; The condition and function of the swamp is deteriorating.

Third, the level of vulnerability is measured by the dimensions of exposure, sensitivity and adaptive capacity. The result is that the vulnerability faced by farmers, water hyacinth seekers, and fishermen around Rawa Pening is different. Fourth, the adaptation response is done by 1) response diversity through livelihood diversification. The most common side jobs are farmers, fishermen, and water hyacinth seekers; 2) collaborative capacity, decision making in groups is still low; 3) connectivity through the involvement of resource users in the group is quite high but organizational involvement is low; 4) abundance / reserves in the form of household reserves; (5) learning capacity is done by increasing learning capacity through informal meetings of community activities. Fifth, Pening Swamp Management offers three strategic priorities. The rescue function revitalization option offers a quick and effective response to the environmental crisis that threatens the sustainability of the lake; the development option carries an attractive long-term vision, focusing on sustainable management and economic utilization of lake resources.

Keywords: Resource Management, Socio-Economic-Ecological Change, Vulnerability, Adaptation Response, Sustainable Governance