

## Title

Community governance for sustainable natural resource management : A case study of mangrove management in Indonesia

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## Abstract

Community engagement in natural resource management has been championed as the most viable approach to reduce human disturbance and achieve sustainable result. This approach encourages local participation in important decision making related to resource identification, setting development priorities, and selection and adaptation of technologies for sustainable management practices. Despite worldwide acceptance of the approach, its implementation does not always lead to successful and sustainable result, as the case in community based mangrove management (CBMM) in Indonesia. Land tenure conflict, conversion to aquaculture, harvesting pressure and unsustainable fishing activities remains the potential threat to the protected or rehabilitated mangrove ecosystems. This study examine different CBMM practices to achieve sustainable management of rehabilitated mangrove resources. The analysis was focused on local mangrove resource management strategies in four coastal villages (e.g. Sriwulan, Bedono, Timbulsloko, and Surodadi) on Central Java, Indonesia. Local data on institutions, socio-economic conditions and mangrove resources utilization was collected through participatory resource mapping and interviews with 16 key actors and 500 households. The findings show that the main differences in CBMM-practices that affect the outcomes in each village were the type of community participation, the level of organizational and economic assistance from external institutions, the magnitude of the rehabilitation project, the time selected for rehabilitation and the maintenance strategies applied in each village. This study suggests that adding external scientific and technological assistance, income diversification, institutional reinforcement and continuous monitoring of the functioning of local institutions can improve the CBMM performance to sustainably manage mangrove resources and improve livelihoods.

## Keywords

*Community governance, sustainable management, mangrove ecosystems*