

AN ECONOMIC ANALYSIS OF DEPENDENCE OF  
COASTAL COMMUNITY ON MANGROVES-  
A CASE STUDY IN BATTICALOA LAGOON  
EASTERN SRI LANKA

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2006

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## Abstract

After Tsunami many of the developing countries today are increasingly facing a paradoxical situation in their attempts to seek solutions to the major problem associated with sustainable livelihood of the coastal community. In the Batticaloa district, Batticaloa lagoon has adversely affected due to natural disaster and unplanned human intervention. In spite of its uniqueness of biodiversity globally and contribution to the economy of Sri Lanka, there is an absence of research in conservation and the livelihood dependence of community on the coastal resources. Against this background, present study focuses on three important objectives are: to assess the economic value of the mangroves in the Batticaloa lagoon, to investigate the extent of dependence of coastal community on the Batticaloa lagoon and to assess the coastal community's perception on participatory lagoon management for sustainable livelihood.

Data were collected by using multistage random sample from 48 fishermen who depend on Batticaloa lagoon in four Divisional Secretariat Divisions. Questionnaire interview and focus group discussion were used to gather data during April and May 2006. Benefit Transfer method with appropriate amendment was used to assess the economic value of the mangroves in Batticaloa lagoon. The mangroves estimated value calculated to be Rs. 304708 per hectare per year. This value can be considered as a bottom bound of the mangroves. Next to income from fishing, fishermen derive significant (20%) cash and non-cash income from the mangroves for their livelihood. The main sources of mangroves income are prawn and poles for fencing and gardening. Removal of mangroves for security purpose and unsustainable harvesting of prawn and increase intensive fishing activities has lead to falling trend in both total income and environmental income of fishermen. Factors affecting attitude of community participation in participatory lagoon management were incorporated in

an ordered probit model. Results reveal that coastal community has a positive attitude towards importance of their participation. However serious doubts about non compliance, withdrawals, control, exclusion, planning and leadership qualities were raised for actual involvement. Income and education have shown some influence in respect to address these problems. The results have implications for participatory management and show that people participation in mangroves conservation is beneficial to the sustainable coastal community. It has been concluded that intervention of the government has become indispensable to implement strong lagoon ecosystem preservation, make people aware about the environmental values and improve the livelihood through participatory process.

**Keywords:** Coastal community, Mangroves, Livelihood, Dependency, Participatory lagoon management

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