

Abstract

Mida creek on Watamu Marine Reserve is an important socio-ecological system (SES) along the Kenyan Coast. Ecosystems of the creek like mangroves provide the community living around it with different Ecosystem Services: provisioning services (food, honey, and fuel), supporting services (Nursery and breeding grounds, nutrient cycling), regulating services (storm protection) and cultural services (recreation, education and research). However, this complex SES faces environmental, economic and social challenges which call for renewed integrated natural resources management. The ecosystem based approach to management provides a framework aimed at sustainable management. However, to achieve this, ecosystem services mapping has been proposed as one of the first steps towards its application. This study aimed at finding; the important ecosystem services in Mida Creek, the characteristic land use classes that exist in Mida creek and how the ecosystems services flow are spatially distributed. A total of 50 expert interviews were carried out with different stakeholders and community members involved in different community based groups with different projects aimed at conserving the creek. The matrix model was applied in which land use/land cover classes map was created using GIS software. Preliminary results show that fish (provisioning service) is the most important. In addition there is significant flow of ecosystem services from the mangroves. Findings from this spatially explicit approach will allow better interaction between stakeholders and decision makers who believe in what they see.