How an environmental value defies socio-economic benefits of Community based aquaculture (CBA)

Mahingika, H. M.¹

¹Tanga Coelacanth Marine Park, P. O. Box 5362, Tanga, Tanzania
Presenting author: ngika74@gmail.com

It has been found that more than 30 million people in the Western Indian Ocean (WIO) Islands and East African coastal communities rely on the coastal environment for goods and services and as a source of livelihoods and income. The rapidly growing population is exerting large pressure on the marine environment, causing pollution, degradation of critical coastal habitats, and communities based aquaculture (CBA) projects diversified into promoting other income generating activities (IGA) such as shrimp farming, mud crab fattening, milk fish, seaweed and pear farming. Major environmental impacts of aquaculture are (1) decrease in the regional ground water level, (2) sedimentation and destruction of coastal water flow, (3) discharge of aquaculture-effluents, and (4) chemical and human health hazards in general. Measures suggested to be taken to mitigate adverse environmental impacts are (1) a combined fish culture and agricultural crops, (2) developing intensive farming, (3) planting mangroves, cultivation of sea grass, and (4) planting of young trees and others, a note on waste treatment is also added. Environmental Impact
Assessment (EIA) is important to develop environmentally acceptable aquaculture. Socio-economic impacts of CBA programmes including earns valuable local and foreign exchange, generates jobs across the industry from fry gatherers to growers and processors. However, grave socio-economic consequences - including conversion, expropriation and privatization of mangroves and other lands; sanitization of water and soil; decline in food security; marginalization of coastal communities; urban migration; and social conflicts - have followed in the wake of aquaculture development. The input from aquaculture farms is of the main sources of nitrogen and phosphorus; this is related to local and adverse effects on coastal ecosystems. The introduction of management measures to mitigate the adverse environmental impacts of aquaculture development has now become necessary and urgent.