

Title:

Estuaries in West, Central and East Africa: comparing estuarine ecosystem functioning and management.

By

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Abstract: (Your abstract must use **Normal style** and must fit in this box. Your abstract should be no longer than 300 words. The box will 'expand' over 2 pages as you add text/diagrams into it.)

Case studies presented in two books both to be published in the EOTW Series provide clear evidence of the fact that the estuarine ecosystems in Africa are extremely valuable in providing cultural (recreational, spiritual, etc.), provisioning (food, timber, etc.) and regulatory (flood protection, climate regulation, etc.) services that are not only at the core of the coastal ecosystem functioning, but also an important basis of livelihoods of over 120 million inhabitants living in the region; the coastal ecosystems of the region, and in particular estuaries, represent important socio-economic values based on irreplaceable ecosystem functions. However, these valuable ecosystems are subject to a range of human pressures that may compromise the health of living human residents. These disturbances are multiple and include pollutants, excess nutrients (causing eutrophication), loss and transformation of habitats and disturbance of hydrological regimes causing flooding and unpredictable flow patterns. The effects of these impacts, often acting in cumulative and synergistic manners, affect the overall stability of the system and threaten its strength and resilience.

Unfortunately, due to inadequacies in the management and governance of these ecosystems, local management is often unable to control the basic causes of these attacks on ecosystem integrity, instead passively responding to their consequences without treating the cause. In addition, the exogenous pressures imposed by global climate change amplify the scale of stress on ecosystems. Its consequences (e.g. the increase in temperature, sea level rise, increased risks of flooding, etc.) may intensify the risk of seeing abrupt and nonlinear changes in natural systems. This will have an impact on flora and fauna, their structure (species richness and biological diversity), their functioning and their biological productivity.

At risk of compromising future development, policy makers are confronted with economic and legal constraints which often are antagonistic. The complexity of understanding human-marine coastal environment interactions as evidenced in both publications, explain why the ecosystem-based approach constitutes one of the most valuable frameworks for promoting the sustainable development of marine and coastal ecosystems in African estuaries as elsewhere in the world. Indeed, the books indicate that adequate knowledge, scientific information and capacity, awareness and governance on ecological processes and the important role and value of ecosystems goods and services they provide are the key to allowing coastal communities and policy makers to define adequate responses to the threats at hand.