

Coastal ecosystems, coastal forestry and fisheries

Wang'ondy Virginia

School of Biological Sciences, University of Nairobi, Nairobi, Kenya

E-mail: vwangondy@uonbi.ac.ke

Coastal ecosystems include estuaries, open ocean, coral reefs, mangroves, sea grass beds, lagoons and salt marshes. Due to their accessibility they are continually being exploited by humans for goods that they provide. They also provide important services such as habitat provision, shoreline stabilization, and water quality and are active carbon sinks. Increased human population has led to a rise in demand and utilizations of harvestable goods, leading to their degradation and in some cases species extinction. Coastal forests especially mangroves forests are globally on the decline due to overharvesting coupled to other causes such as pollution, pests and diseases among others. Coastal fisheries are on the decline due to overfishing, habitat degradation, pollution, mangrove forest degradation and fish species are continually being endangered. Climate change due to global warming is a threat to coastal ecosystems especially through sea level rise and increased sea temperatures. This calls for the need for sustainable management of coastal ecosystems for conservation, productivity and sustainable use. Various efforts have been directed towards conservation and sustainable use of coastal ecosystems. Concerted efforts have been directed towards reforestation of degraded mangrove forests and this has led to restoration of biodiversity in this ecosystem. Creation of marine protected areas has seen the protection of coral reefs, sea grass and mangrove ecosystems from continued human influence. However, methods and degree of protection varies across countries. Payment for ecosystem services and carbon markets programmes has encouraged the local communities to conserve coastal ecosystems as stakeholders. The recent Economic Stimulus Programme by the Kenyan Government has helped to reduce pressure on marine fisheries and reduce poverty levels among the coastal communities. Forestry programmes that encourage planting of other tree species have created alternative sources for wood and fuel thus reducing pressure on mangrove forests. Despite the efforts towards effective management and sustainable use of coastal ecosystems, human activities remain the enormous threat to coastal ecosystems on the global, regional and local scale. In Kenya development of a strategic management plan for coastal ecosystems in Kenya through the Kenya Coastal Development Programme will guide and oversee the effective and sustainable management of coastal ecosystems for sustainable utilization, productivity and conservation for future generations. This will reduce poverty, improve livelihoods and increase societal benefits from coastal ecosystems.