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Use Values of an Estuarine Ecosystem: The Case of Ashtamudi Estuary in South India

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Abstract

Estuarine ecosystems are very unique with respect to biodiversity as well as the services provided to the community. Ashtamudi estuary in Kerala state is a RAMSAR site and designated as the “wetland of international importance”. It provides means of livelihood for the people surrounding it by way of fishing, coconut husk retting for coir production, and inland navigation services.

The estuary supports 92 identified fish species including prawns, crabs and other bivalves, of which 28 are of commercial importance. The clams from this estuary are being exported to countries like Japan. Retting of coconut husk, which is a pre-treatment for coir production, is another major economic activity and a source of livelihood for people. The value of this service alone is estimated at Rs 5.1 million per annum.

The marketed use values of the estuary were assessed using the market value approach. It was found that fishery accounted for the major share amongst the total direct use values with Rs 66.8 million per annum. Inland navigation service is another major direct use value provided by the estuary which is also estimated using the market value approach. Recreation is a non-consumptive direct use value provided by the estuary which is estimated employing travel cost method.

The estuary also acts as the nursery for the marine prawn species. This is an important indirect use value that was estimated using replacement cost method. Recently this fragile ecosystem is facing serious threats from human as well as nonhuman involvements like over-fishing, pollution, sand mining, bank erosion, loss of mangroves, etc.

The study emphasised the economic as well as ecological importance of Ashtamudi estuary. The need of the hour to initiate necessary policy initiatives for appropriate management of the estuary to ensure its ecological sustainability as well as livelihood security of the stakeholders.

Keywords: Ashtamudi, use values