



ECOTOURISM – AN EFFECTIVE TOOL FOR MANGROVE CONSERVATION AND MANAGEMENT

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Abstract:

The present study is an assessment of potential ecotourism sites within mangroves covers of Devgad Tehsil that can accelerate the tourism infrastructural development. The ecotourism industry is gaining momentum in recent years as the demand raises for tourism that explore biodiversity, natural assets and scenic beauty. Mangrove tourism in Devgad will position as an effective tool for protecting mangroves covers, employment generation and promotes sustainable development. It is possible along the Western Coast and adjacent estuaries covered by mangrove patches. The main objective of study was to assess knowledge and perception of natives towards ecotourism and to obtain their views and opinions. The result of the study confirms that ecotourism will help to enhance the livelihood of the marginalized community. Economic status of the poor villagers will be elevated but simultaneously serious threats to marine life should be avoided through responsible eco-tourism. Key motive of ecotourism is to generate funds for safeguarding nature and to provide environmental education to the visitors. That will boost rural economy and foster respect towards nature. Ecotourism in Devgad mangrove forests has tremendous potential of conserving as well as protecting one of the most fragile and productive ecosystem.

Keywords: Devgad, Mangroves Conservation, Eco-tourism, Socio-economic development, Local Communities.

A] Introduction

Mangrove forests thrive in coastal zones characterized by desiccating heat, choking mud including protection of shoreline from erosion and hurricanes. "Mangrove" as obscurely connected with the Portuguese word "mangue", the Spanish word "mangle" and the English word "grove" (Bhosale 2005). Besides these ecological services mangrove wetlands have significant economically value. Mangrove sites around the world mainly attract a lot of researchers, ecologist, scientists and students having interest in intertidal habitat. Along with this, these sites have potential to develop as a tourist destination. Tourism has always been a major source of income for coastal communities. Since mangroves provide rich biodiversity including an impressive landscape, tourism could represent a reasonable part of the economic value of mangroves (Agardy 1993).

Evolution of ecotourism provides a sustainable solution to integrate conservation of mangrove swamps and provide opportunities to improve livelihood of local dependent communities. Devgad coastal zones are recognized for their rich marine diversity. However, the marine resources are declining due to over exploitation. Similarly mangroves forests are also depleting due to road construction, fire wood collection and expansion of aquaculture development. With the concept of ecotourism, these problems related to coastal vegetation and resources degradation may be addressed. Ecotourism programs are directed towards the conservation and sustainable use of natural resources in mangroves so it is necessity to

understanding the potential and tourism industry (Das 2013). Mangrove wetlands in Devgad must be conserved for ecological and economic reasons particularly for tourism. In nutshell, the coastal areas and mangroves have to be dealt with great concern for ecotourism development.

Interest in ecotourism can contribute to local economies by increase in demands of essential services and goods. Thus, this paper discusses the great potential of ecotourism in mangrove wetlands and its socio-economic impact with respect to sustainable development.

B] Material and Methods

1] Study Area

Devgad Tehsil is situated on the western coast of Sindhudurg, Maharashtra. It is gifted with 32 km coast line. The coastal zone of Devgad is interrupted by wetlands, lagoons, mangroves, sea grass beds, coral reefs, shallow bays, creeks and estuaries. The Devgad shoreline is mixture of sandy, rocky and muddy shores. These specialized ecosystems are storehouses for variety of flora and fauna. Major mangrove pockets in are Devgad Tehsil are located at Wadatar-malai, Hindle-Mithbhav, Taramumbri, Ilaye and Vijaydurg, where present study was carried out. Vijaydurg has maximum land under mangrove vegetation. People here are mainly engaged in agriculture and fishing. Fishing is exclusively carries in sea and creeks. The intertidal zones are mainly into focus for harvesting crabs, bivalves and oysters etc. From the economic perspectives, these coastal and marine ecosystems are of great importance to

local dwellers. Mangroves provide wide range of ecosystem services to the coastal inhabitants. Many families residing in coastal villages are either partially or completely dependent on the available bioresources.

2] Methodology

Mangroves covers in Devgad Tehsil were identified by using Google maps. Formerly, the coastal villages like Devgad, Wadatar-malai, Hindle-Mithbhav, Taramumbri, Ilaye and Vijaydurg, were explore for study. Mangrove vegetation's were particularly visited during low tide. Several walks were taken through mangrove forest to observe the biodiversity in mangrove ecosystem. Dimensions related to research were assessed, namely potential ecotourism sites, effect on rural economics, sustainable development and mangrove conservation. On-site interviews were conducted to gain detail information about the location. Data was also collected by informal discussions with local farmers, fishermen, Women Self-help Group and village leaders. Group discussions with villagers helped to gain base line data of coastal zones. Also UNDP Projects in mangrove vicinity like carb and oyster culture were visited. Photographs at each location were taken. Photography of the study areas and associated matters was done with help of digital camera.

C] Result and discussion

1] Ecotourism in Mangroves

Devgad tehsil have diversified coastline with great potential for ecotourism. Mangroves forests are endowed with appreciable marine and avian biodiversity. Mangroves in their undisturbed state are regarded as a refuge for rich biodiversity. Creeks of Wadatar- Malai and Taramumbri especially possess undisturbed mangrove vegetations, these sites are nature exploration, trekking and bird watching. Mangrove wetlands are hub for avian diversity; this offers great opportunity for bird watchers (Dhargalkar 2014). Apart from this surrounding area is covered by mudflats.

2] Alternate source of income

Eco-tourism industry can serve as alternate employment opportunity for coastal inhabitants. Local natives can generate income by providing essential goods, services and knowledge for tourists. Currently community dependence on the mangrove ecosystem is high. They harvest fishes, crabs, bivalves, oyster etc. from creeks for consumption as well as sell in market. But people mention that there is drastic decline in natural resources which in turn affects the economic status of coastal inhabitants. On other hand the agricultural lands close to the

coastal areas are affected by salinity ingressiön. These lands serve as livelihoods for coastal farmers. Unfortunately both the principal incomes sources are depleting that there is strong need to develop sustainable and long term solution to support lives at margin.

3] Socio-economic development

Development of tourism will accelerate the demands for quality of accommodation, food, beverages and other facilities. These demands will trigger the expansion of hotel and food industry. Expansion of tourism industry will attract national and international investors in remote areas. The main positive impact of ecotourism is that, it will generate employment and businesses at local level (Navare 2015). Tourism related goods and services add income to host economy that can stimulate the rural financial growth (Salem 2012).

4] Mangrove conservation

Studies depicted that mangrove forests at some locations are degrading. To sustain the ecotourism it is vital to protect mangroves. Thus mangrove conservation and management activities are essential along the coastal areas to protect the natural ecosystem. These include raising mangrove nursery and plantation of saplings at degraded sites. Such activities require accomplishment of finance, research and human resources. However the villagers and local government are insufficient to bear these expenses. But revenue generated from ecotourism can be channeled to support these activities.

5] Market for Crabs and Oysters

Crab and Oyster culture projects are initiated by UNDP on coastal line of Devgad. These projects are run in collaboration with NGO's and local self- help groups. These projects are successfully implemented in Wadatar and Taramumbri creeks where mangrove vegetation is healthy. Initially these projects finances are supported by Government subsidy later on fishers own the projects. Unfortunately the harvest do not get optimum price due to lack in market avenues and storage facilities. Fishermen completely depend on agents to sell their produce. Ecotourism will bring the market at door step since the demand for a sea food is certainly high.

D] Recommendations

1. The Government on its part needs to channel revenue generated from ecotourism activities into conservation and management of the mangrove swamps.
2. Local natives should be trained and motivated to establish ecotourism at potential sites.

3. Government should build interpretation centers in Devgad, providing brief information about mangroves, their associates plus marine flora and fauna.

E] Conclusion

Ecotourism creates new employment opportunities at local level that will help to reduce the pressure on the natural resources exerted by coastal population. In Devgad many mangrove wetlands are potentially suitable for ecotourism. The native marine and terrestrial biodiversity offers great attraction to tourists and researchers. In recent years, many mangrove forests have become accessible through board walkways and coastal highway. Here it is possible for tourists to spend an entire day in the mangroves swaps looking and appreciating interesting nature flourished with unique plants, animals and processes.

Studies reveal that ecotourism already exists in some coastal places but in small proportion. It is need to promote the ecotourism along the coastal area by creating consciousness among the natives. Since revenue generated from tourism will help local natives as well as Government. Development of rural economy will simultaneously improve the standard of living of local people. Furthermore, employment opportunities can hold the emigrating population to cities.

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