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## Poacher's village to birds paradise of Mangalajodi: Biodiversity conservation by Ecotourism Initiatives at Odisha

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### ABSTRACT

Erstwhile fishermen communities of *Mangalajodi* of Khordha district of Odisha were making their living mostly by catching fishes from the *Chilika* lake mouth at *Mangalajodi* and by illegal poaching of migratory birds. As time passed by, large scale poaching activities resulted in ecological imbalance, biodiversity degradation and with a lot more negative impacts gradually started becoming ardent threat for the future of biodiversity at this *Birds Paradise*. The alarming scenario gets a kind of rejuvenation with the introduction of ecotourism and related activities at *Mangalajodi*. This initiation employs more than 100 families of the nearby villages. The poachers eventually turned into protectors of biodiversity of the place. The present research studies the factors influencing the villagers in such a remarkable transformation from destructor of the environment to get involved in a sustainable manner for protecting their environment with rewarding socio-economic-cultural development initiatives through ecotourism by the local community. The research also attempts to provide a framework of holistic integration among various stakeholders such as Non Governmental Organizations (NGOs), travel operators, Government Organizations, local community associations, *Mangalajodi Ecotourism Trust (MET)* – a community managed ecotourism enterprise in order to establish *Mangalajodi* as a successful ecotourism model in the Map of Odisha. The extent to which the socio-economic conditions and environmental growth have been realized so far and the likely solutions for the existing challenges for the community based ecotourism development at the destination have also been attempted to hit upon in this case study.

**Keywords :** *Ecotourism, Sustainable Development, Community Managed Ecotourism Enterprise, Stakeholders Participation*

### 1. Introduction

Tourism has been identified as one of the major industries, having the potential to assist local communities through diversifying the economy, enhancing community pride and awareness, and supporting the livelihoods of local communities. Unlike dynamic tour packages ecotourism, which is

responsible travel to natural areas that conserves the environment and improves the well-being of local people is very much evolving and has become a fast growing segment in International tourism. It is highly regarded as being part of soft tourism that entails a reduced impact on the environment. Ecotourism considered as nature-based, ecologically sustainable

which may require less infrastructure facilities and services, but it must provide enriched experiences to both host community and tourists. Experiential tourism is one of the major market trends in the modern tourism industry. The main reason for affirmatively emphasizing this aspect is that ecotourism is all about uniting conservation, communities and sustainable travel. The ecotourism sector is growing at a fast pace with an estimated yearly growth rate of 20-34% since the 1990s [10, 11, 12].

Natural environment provides various ecosystem services, viz., provisioning, regulating, cultural, and supporting services. Of these, cultural services facilitate in improving the economic standards of different stakeholders through ecotourism. Ecotourism is arguably the fastest growing sector of tourism, the largest service industry in the world, like any other industry, is governed by bottom lines growth and quick returns. This also forms the baseline for conservation initiatives, wherein local people can be meaningfully involved in aiming at conserving various wild flora and fauna such as birds. Promoting sustainable development and community participation are best practices in ecotourism. Synergized participation in ecotourism ventures by Forest & Wildlife officials, Self Help Groups (SHGs), NGO's etc. can indeed be a boon to several environmentally fragile places. Experiential Holidays which have now become part of ecotourism activities are - camping, trekking, birding, photography, hiking, boating, etc. Ecotourism as linked to sustainable development constantly seeks to achieve social and economic progress in ways that will not exploit finite natural resources. Keeping in view the nature and special characteristics of ecotourism, an innovative and deliberate approach is much required as regards ecotourism planning and marketing with the support, integration and inclusion of stakeholders such as citizens, entrepreneurs, community leaders, etc.

Integration is a scientifically and professionally proven method for empowering businesses. Integrative destination management provides the tool for tourism destination development, aims at sustainable tourism where the community collectively develops and runs the tourism economy. Networking or integration is

based upon the search for knowledge, empowerment and motivation. Long-term tourism success is conditional with an appropriate integration process that includes all the major parties (e.g. local economy, local population, government and tourists). It helps an environment, which has primarily been used for agricultural economic activities (e.g. rural and rural fringe areas) to overcome the economic and demographic problems. Beside this, the elements and means for rebuilding the economy of rural and rural fringe areas are insufficient, which is why we understand integration as a means of empowering a weak economy and as a source of fresh innovative ideas that could benefit these areas. Also integrated approach towards negotiating the pros and cons of ecotourism and some of its elements promises greater success than individualism.

## 1.2 Need for the Study

The present research approach is meant to understand about the role of various stakeholders and the impact of their integration at different stages in terms of transforming the destination Mangalajodi from a poacher's village to an exemplary model of sustainable source of livelihood. Also a lucid understanding with respect to the dynamics of tourism in an emerging destination like Mangalajodi, which confronts the global issues such as biodiversity conservation shall provide insights on the deeper role which may be played by ecotourism. The study also highlights the role of tourism in the preservation of the fragile environment of Mangalajodi and functioning of ecotourism enterprises for contributing local economy.

## 1.3 Objectives of the study

- To understand the transformation process of Mangalajodi from a poachers village to an ideal ecotourism destination.
- To figure out stakeholders participation at various levels in order to develop and promote ecotourism in a sustainable manner.
- To trace out key driving factors encouraging local community to participate in ecotourism activities at Mangalajodi.

#### 1.4 Scope of the Study

Similar such sustainable practices as in vogue in Mangalajodi, which are unveiled in this paper. Awareness about the connection between tourism, sustainable development, community empowerment, biodiversity conservation and socioeconomic development can be better disseminated through an intensive study. This paper is mostly based on the exemplary initiatives by Indian Grameen Services (IGS) with financial and strategic assistance from RBS Foundation India at Mangalajodi.

#### 1.5 Review of literature

Though concept of ecotourism has been defined differently by different national and international agencies, the widely accepted phenomena states, "ecotourism encapsulates a type of tourism that involves travelling to relatively undisturbed or uncontaminated natural areas with specific objective of studying, admiring and enjoying the scenery, wild plants and animals, as well as exciting cultural aspects (both past and present) found in those area [6]." Ecotourism, a sub-category of sustainable tourism, is perceived by many rural communities as a new means of attracting visitors and stimulate local economies through generating tour revenues while conserving the natural, social and cultural resources of the communities [9]. The fundamental positive effects of tourism are related to the preservation and renovation of infrastructure and the demographic and economic problems of the rural and rural fringe areas. Rural tourism is being interpreted as soft, alternative, green and responsible tourism [5].

Like all other kinds of tourism, ecotourism also retains multi fragmented characteristics. Tourism destinations are complex and dynamic systems that involve various stakeholders each with different understanding of same tourism system [4]. Participatory system approach is required to develop a share understanding amongst stakeholders. Tourism planners need to evaluate stakeholder level of awareness and perception of tourism, the ecotourism process and principles of sustainability [3]. Integration is a

scientifically and professionally proven method for empowering businesses which leads towards the long term success of ecotourism operations at a destination. If appropriately managed, ecotourism can contribute to development and conservation at protected areas, and the economic and social enhancement of local communities. Ecotourism involves multiple goals. It inevitably involves stakeholders with different interests, roles and responsibilities. The community should be empowered to participate, monitor and to benefit from ecotourism [10]. Integrative destination management based upon the search for knowledge, empowerment and motivation provides the tool for tourist destinations development, aims at sustainable tourism where the community collectively develops and runs the tourism economy. Sustainable community tourism composed of the ecological, social, economic, political, cultural and technological dimensions of the influential communities. So, it is essential that the entire local community is treated as partners within the tourism development process.

In most of the destinations it is hard to find that community initiative for ecotourism development without any external support or efforts. The govt and private service providers are expected to start and invest on such initiatives. In developing countries the trend shows that rather than relying on national government, NGOs endeavor to undertake conservation activities directly, including community engagement and revenue generation through ecotourism. Ecotourism approaches by NGOs in developing country commonly combine nature conservation and poverty alleviation, often in challenging political circumstances. Tactics include the community based ecotourism projects and campaigning to promote social awareness or create social pressure to halt unsustainable developments [8]. Initiators must see that all the partners understand the objects and goals of tourism. This characteristic is significantly found in the work culture of NGOs. They also played the role of intermediaries between the both intra and extra community stakeholders. Few research studies have boldly emphasized on the relationship between community and extra community

stakeholders that will enable the effective development of sustainable tourism [9]. He emphasized on four stepped roles of intermediaries as transforming of community resources into tourism products, promoting and selling the products to consumers, facilitating the tourists as well as the community to get economic returns and reinvesting on community resources that enables the further development or enhances the value of destination resources.

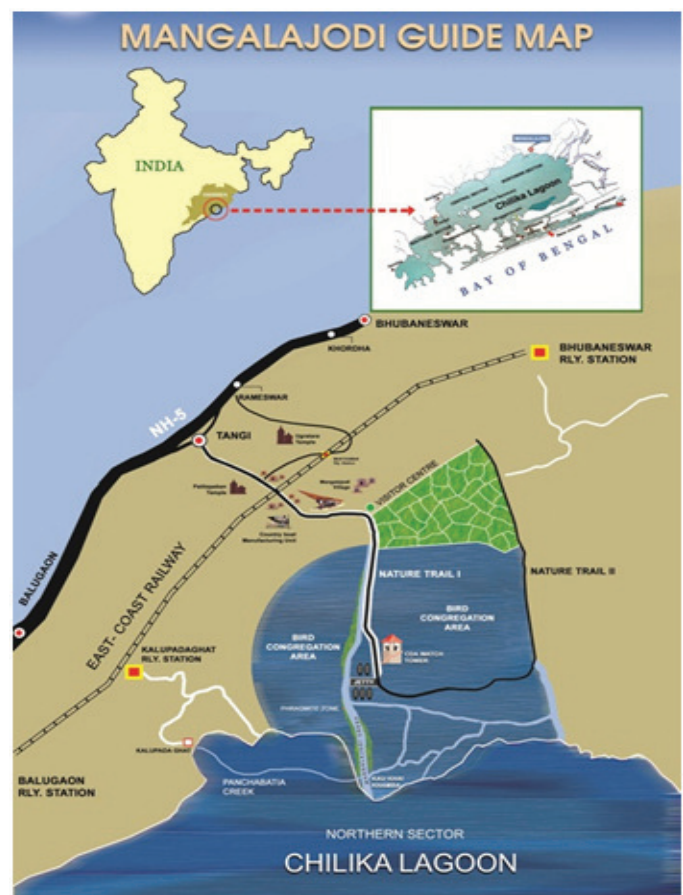
Community participation is an important method to promote healthy and sustainable development of tourism in ecotourism destinations. There are some driving factors that influence the community in the participation of ecotourism development process. The greater the comparative benefit of participants in tourism, the bigger possibility of community participation is [12]. Some researchers at various places and time frame have widely figured out that various economic, socio-cultural and environmental factors mainly have strong impact on the attitudes and behavior of local community members towards ecotourism in their locality [7, 9, 1, 2].

Existing literatures are very much focused on the requirement of stakeholder involvement and perception of host community towards ecotourism, but there are very insignificant incidents of development of the whole ecotourism process and transformation of attitude of local people because of ecotourism practices. The existing challenges at various ecotourism destinations are rarely touched in the literatures reviewed. Similarly very insignificant detailed researches on ecotourism destinations of Odisha as well as India have been conducted. This case study is an attempt to fill these gaps found in the reviewed literatures.

## 2. Destination Profile

Mangalajodi is a relatively unexplored tourism destination in the Khurda district of Odisha. This scenic village located on the northern banks of Asia's largest brackish water lake; Chilika Lagoon just 75 kms from Bhubaneswar toward Berhampur, which is also a Ramsar site and popularly known as "Birds Paradise". The climatic condition and the eco-system attract more

than 300 species of migratory and resident birds from different parts of the globe during the winter. This fragile eco-system hosts more than a lakh birds every year and along with the serenity it attracts nature lovers and wildlife enthusiast from all across the world. But, just before few decades the village was very much defamed as poachers' village. Poaching of birds was rampant, one of the major sources of livelihood for the villagers along with large scale fishing and agriculture. The continuous and conscious effort by some government officials, community members, NGOs, the villagers became the protector of this destination and biodiversity after an alarming deterioration of its natural resources, especially the bird species. But the true transformation has been taken place with the introduction of ecotourism at Mangalajodi.



**Fig.2. Location map of Mangalajodi**

This unique destination offers home stays and activities which include bird watching, photography, boating on marshes, etc. hosted by the local



communities. The erstwhile poachers of the village have been actively patrolling and protecting birds in its marshes and showcasing an exemplary model of a sustainable source of livelihood in front of the entire world. It has been designated as an 'Important Bird Area' by Birdlife International for the significant global waterfowl habitat. October to February is the best time to experience the true essence of Mangalajodi.

### 3. Methodology

As the ecotourism at Mangalajodi is in its initial stage the researchers found it convenient to adopt Thematic Content Analysis and Empirical Data Analysis for this kind of exploratory case study. The primary data have been collected from the key informant through interviews and focused group discussions. Key informants are the members of MET, villagers, representatives from IGS who are actively associated with the promotion of MET. The focus group consists of members of MET, boatmen, photographers, shopkeepers, SHG members, artists, craftsmen/women and leaders of the Mangalajodi village. Secondary data also plays a key role in exploratory research and those have been collected from the brochures and records of MET, various documents including previous studies, progress reports, learning studies, strategy notes done by IGS. Website of MET and social media pages, documentaries and so on.

### 4. Development of Ecotourism at Mangalajodi

All the data collected from the above mentioned sources have been understood by the authors. Being situated on the northern bank of the Chilka Lake, Mangalajodi supports some of the largest congregation of migratory birds arrive from the Caspian Sea, Lake Baikal, Aral Sea, remote parts of Russia, Kirghiz steppes of Mongolia, Central and South East Asia, Ladakh and the Himalayas to feed and breed in its fertile waters, particularly during the winter. But earlier, especially before the year 1995 the place was neither that much famous as a birds paradise nor the local residents were very much aware about the value

of conservation of biodiversity and ecosystem as a whole. Besides their living from the traditional farming and catching fish, the villagers found poaching as another earning opportunity for their livelihoods and lucrative incomes from the unethical practices.

Eventually Mangalajodi became infamous as "Poacher's Village". The threat of large scale poaching in the area has been taken into serious and a survey conducted in 200 revealed that an alarming decrease in the number and species of migratory birds at Mangalajodi during winter. Along with the reduced number of migratory birds and huge scale poaching activities the ecosystem got deteriorated in a significant manner. Fish production was also affected in the area. So Chilika Development Authority, Local Forest Department and NGOs took some initiatives to stop illegal poaching at Mangalajodi. The volunteers of Wild Orissa (a local NGO working on wildlife conservation) conducted a series of meetings with leaders, villagers, youth and even poachers to spread the awareness of bird conservation among the communities with to bring back poachers to the mainstream of the society. In that initial phase some of the youth of Mangalajodi with the objectives to prohibit poaching activities, conserve the nature, formed a citizen forum named as "Maa Kalijai Jubak Sangh". In the presence of Chilika Development Authority (CDA) officials, they even took a vow in the name of Goddess Kalijai, which is mentioned below:

*"We pledge that till we are alive, we will neither hunt, eat bird meat nor allow anybody to kill birds. This is the truth, truth and nothing but the truth."*

With the help of volunteers from Wild Orissa, the ex-poachers and village youth formed a bird protection committee, namely "Sree Sree Mahavir Suraksha Committee" took the initiatives for the conservation of wetland and birds. CDA and local forest department extended their hands with Wild Orissa to carry forward that momentum of conservation exercises at Mangalajodi some years till 2002. Even to stop poaching government started giving a monthly stipend (initially 500 INR, later 1000 INR) to conservators and poachers to motivate them. These initiatives were

partly successful, but neither consistent nor brought poaching activities to an end. The major significant change in attitude of the community as a whole took place with the introduction of tourism at Mangaljodi around the year 2002-2003. Around 25 youths of Mangaljodi and 7 from nearby villages were given Guide Training by CDA in association with Wild Orissa. That introduced another kind of livelihood opportunity for villagers which previously was limited to fishing, agriculture and illegal poaching. Wild Orissa along with another well-known NGO named Council of Professional Social Workers (CPSW) supported by RBS Foundation India, started ecotourism in the form of guided bird watching for bird watchers and nature lovers with the support of trained local guides.

Still the realization of the full potential of ecotourism was far away at Mangaljodi. Because of some internal conflicts, lack of coordination among various stakeholders, lack of transparency, absence of proper promotional strategies etc. hampered ecotourism at Mangaljodi. The ecotourism activities and flow of tourists to Mangaljodi were very insignificant till 2008. CPSW was also trying to cease its operations going on at Mangaljodi at that point of time.

It was in the year 2009, when Indian Grameen Services (IGS) was roped in by RBS Foundation to establish community based ecotourism activities at the Mangaljodi because of their extensive experience in community development across several parts of the country. After a deep study, understanding the situation and attitudes of the villagers properly, IGS started executing its ecotourism operation in a very well planned manner.

Mangaljodi Ecotourism Trust (MET) was set up, guide, hospitality, food training was provided to the local people and local boatmen were engaged to provide boating facilities to tourists and awareness were spread among the villagers on a large scale. A private land was taken on rent from a villager to establish accommodation facilities for the tourists. Home stays were being established along with local food options. Some of the trained/educated villagers

were given adequate training on the managerial aspects to host tourists and visitors. A Few community members were employed in the housekeeping and in other departments as in guide, cook, boatman, etc. It was found safer and much more convenient from the earlier temporary camps.

IGS is also looking after various marketing strategies to promote the destination and attract tourists to the destination. A well dedicated website, email account, social media page, telephone facilities, videos was developed in the name of MET. IGS has also been promoting this ecotourism project at various travel and trade fairs. Well maintained contacts with tour operators and educational institutions also helps in attracting tourists, wildlife photographers, travel writers, academicians, etc. to the destination. In fact the travel stories in different books, magazines, blogs, photos, documentaries, reviews of tourists in various internet platforms and positive word of mouth are proven to be some of the most effective promotional tools for MET. Brochures containing small information about the place, activities to be done, products of MET and various characteristics of eco tourists have been given to each guest at the office. Nowadays IGS is also trying to promote traditional arts and crafts, culture of the locality to realize the full potential of ecotourism and development of community through it. IGS is very much aware about the sustainable development and nature of ecotourism. So any kind of mass tourism related activities to the place is generally discouraged. The special visitors are given attention and cooperated by the members of MET. The already established connectivity, easy accessibility to the destination and all other factors mentioned above can be considered successful in order to establish Mangaljodi as a major ecotourism spot in the map of Odisha. The numbers of eco-tourists are also increasing in every year bringing positive developmental changes in and around Mangaljodi.

## **5. Factors driving community participation**

Some driving factors of community participation figured out from key informant interviews and focused group discussions can be explained as follows :

### 5.1 Economic factors

- a) **Complementary livelihood opportunities:** Local community at Mangalajodi appreciates ecotourism as an additional way of earning their livelihood as farming and fishing have been major sources of their livelihoods.
- b) **New employment opportunities:** Demand of various services like; guiding, housekeeping, food-production, boating, transportation like auto services from the nearby railway station to the destination etc. creating various employment opportunities for local community people.
- c) **Sale of local products:** Local handicrafts, food and rural products are sold to tourists which encourages local craftsmen and sellers.
- d) **Multiplier effect:** Local community members are very much aware about the multiplier effect of selling and buying of goods and services at various levels for fulfilling the requirements of tourists. Such kind of awareness also encourages local communities to proactively participate in and promote ecotourism activities.

### 5.2 Socio-cultural Factors

- a) **Social dignity:** Earlier the village was very much infamous as a poacher's village. Villagers were mocked by others as illiterate poachers outside the village. Now Mangalajodi is a famous ecotourism destination, creating a unique example. Social dignity of residents is getting magnified in terms of conservator of nature and ecotourism service providers.
- b) **Acknowledgement, Recognition and Awards:** Community members involved actively in ecotourism activities are getting acknowledged, recognised and awarded by various national and international platforms. Recently, Mangalajodi Ecotourism Trust recognised with UNWTO Awards 2018 for Innovation in Enterprises.
- c) **Involvement in decision making:** Local residents are getting fare enough opportunities to get involved in decision making for the development

of ecotourism initiatives at Mangalajodi.

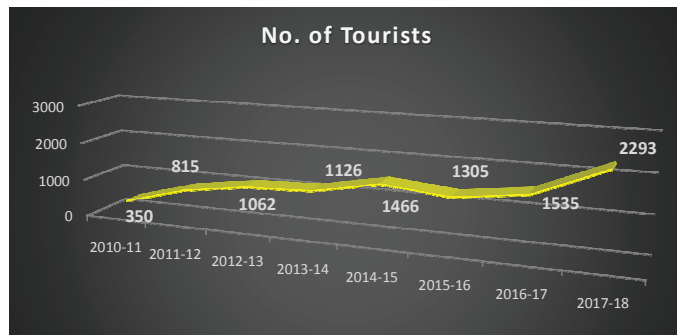
- d) **Gender mainstreaming:** Females are also getting the opportunity to participate and earn their livings from ecotourism activities.
- e) **Increased quality living standard:** Quality of living standard of local people is increasing with increase in economic benefits, capacity building and adopting sustainable way of living.
- f) **Cross cultural interaction:** Local community people getting opportunities to interact with tourists. Linguistic skills and knowledge about other cultures and the outside world is increasing among the residents.
- g) **Promotion of art and culture:** Traditional local art and ethnic culture like local handicrafts, Paika dance, processing of river food etc. are getting promoted through ecotourism which previously were unknown to the outside world.

### 5.3 Environmental factors

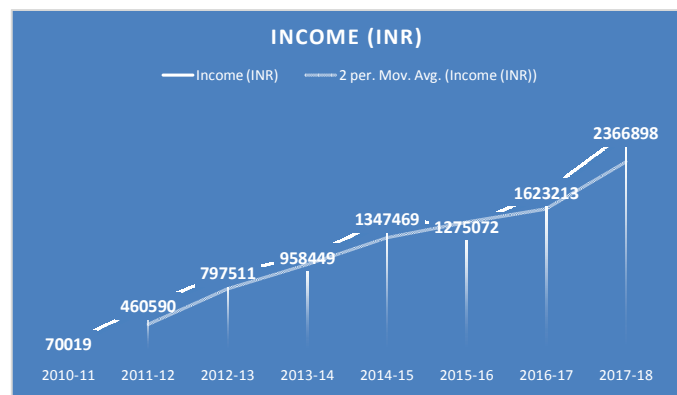
- a) **Revival of wetland ecosystem:** The natural ecosystem of wetland was critically damaged due to large scale illegal poaching. Due to ecotourism the wetland ecosystem is revived and measures are developed strategically to restore the sustainable ecosystem of the destination.
- b) **Increase level of environmental awareness:** Looking at the increasing value of natural environment among tourists, residents tried getting more aware about the environment. Various other organised activities also helped in the increasing the environmental awareness level of residents.
- c) **Optimal use of environmental resources:** Eco-tourists are very much responsible in nature. They leave nothing but the footprints and memory at the destination by appreciating the natural resources. It also helps in the protection of natural resources which makes the destination look clean and green.

## 6. Tourist visited and Economic Incentives to MET

It is clearly evident that, there is a significant increase in terms of tourist visited the destination. If we compare it with last year, it is 49.38 % of growth which is very encouraging.



**Fig. 1. Trend of Tourists Inflow year to year**



**Fig. 2. Income from Tourism Services year to year**

## 7. Conclusion

To see the initiative for long term transition towards sustainability, the key recommendations highlighted include district administrator would take a key role in enabling great partnership among various stakeholders and convergence of flagship programs for the sustainability of the efforts on ecotourism development. Comprehensive carrying capacity study need to be done and self regulations must be implemented to maintain the acceptable carrying capacity of the destination. Conservation aspect must be ensured and detailed scientific biodiversity research must be conducted with proper monitoring measures for the ecosystem at Mangalajodi wetland. Positive attitude of the villagers need to be maintained by the

district administration towards ecotourism and sustainability

The ecotourism model at Mangalajodi is undoubtedly unique in the sense where the community owned, managed and led the whole offerings of ecotourism services and protection of the ecosystem. This is a classic example of livelihoods and conservation both are going hand-on-hand with multi stakeholders' participation. The model demonstrates that, if we give space and time for the community to understand the importance of the conservation of their natural resources on which they depends, they ensures optimum use of the resources in effective way, ecotourism at Mangalajodi set an example for many. This inspires the citizens, the policy makers, development agencies and so on. The learning's from Mangalajodi could be the way forward towards sustainable development of community and ecosystem.

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