



# COMMUNITY PARTICIPATION AND VISITOR SATISFACTION FOR ECOTOURISM DEVELOPMENT IN SIMILIPAL NATIONAL PARK, ORISSA

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## Abstract

*Community and tourists are two inseparable stakeholders that are complementary to each other in many respects in the development of ecotourism destinations. The assessment of perceptions of community and tourists on ecotourism development in the protected areas is a baseline on which ecotourism potential of the park is completely dependent. It is proved in many cases that there is a better understanding between community and tourists in the conservation of protected areas through the development of ecotourism. This paper explores how the*

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*ecotourism project has brought about considerable changes in the perceptions of community and tourists. The data collected from the residents of buffer area of the park show a positive response towards the promotion of eco friendly tourism in Similpal National Park. Similarly, the results of the analysis of the perceptions of tourists demonstrate a huge responsibility to the conservation of flora and fauna and sustainability of the ecotourism attractions. The outcomes of the research will have immense impact on the park authority to involve the community in all decision making process of ecotourism project in the future. The findings of the paper have practical relevance for park authority and tour operators that are trying to develop low impact tourism or responsible tourism. This research will lay foundation for future research work on the ecotourism in the protected areas.*

## Introduction

Ecotourism is considered to be a low impact means to provide income generating opportunities that are complementary to nature conservation as well as the welfare of the local population. Ecotourism supports nature conservation by providing an economic demand for natural ecosystems. Entrance fees and tourist expenditures provide financial incentives to national park managers and communities so that they maintain secure, accessible, and pristine visiting opportunities. Ecotourism facilitates rural development by diversifying income generation and complements other low-impact production and extraction activities. Ecotourism provides alternative recreation activities and thus complements beach and cultural tourism, as well as reduces the environmental impact of visitors on congested destinations.

Ecotourism is a paramount form of nature based tourism in the protected areas. The objective of ecotourism is outlined on the basic approach of encouraging travel to natural areas in a responsible and sustainable manner so that it leads to the conservation of the environment and benefits the lives and cultures of local people. Given the pragmatic framework of ecotourism, indeed, all the stakeholders in tourism development should safeguard the natural environment with a view to achieving sound, continuous and sustainable economic growth geared to satisfying equitably, the needs and aspirations of present and future generations. It is fundamentally essential to envision for well- planned ecotourism proposition in the places that can benefit both protected areas and residents of surrounding communities by linking long- term bio-diversity conservation with local, social and economic development. Ecotourism in simple words means management of tourism and

conservation of nature in a way so as to maintain a fine balance between the requirements of tourism and ecology on one hand and the needs of local communities for job, new skills, income generating employment and a better status for women on the other (Jagmohan 2002; Yadav 2002). The implementation of ecotourism scheme as model for renewing interest and motivation in the community may be confronted with protest and dislike of community in the primary stage. Community may perceive the implication of ecotourism as a step to relocate them in the future as they stand against the conservation measures. Thus the community may be spirited with pessimistic move toward the continuation and sustainability of ecotourism. And tourists may not be responsive and considerate to the welfare of the community due to the lack of community participation and the lack of awareness of do's and donot factors to be obeyed. Many instances like intense distrust of community and tourist behaviour and vice versa may happen if interest of the stakeholders are not protected adequately. As it is the human instinct, that chances of perceiving tourists by the community as outsider, rival and destructive force may not be averted, the locals may find the development of ecotourism at the cost of the community and the scheme may be designed to underpin on tourist centric instead of community centric. As a consequence, the end result of the plan will be unclear and uncertain in many ways. It is pertinent to inculcate the constructive discourses to the community stakeholders in order to make them key custodians of the scheme. At the same time, tourists who intend to visit the nature for recreation and relaxation have shown enormous interest and appreciation for conservation of environment and protection of community benefits in the study. The study outlines the wide ranging responses shared by the sample community members, domestic and foreign tourists and it further explains how the implication of ecotourism project in the protected areas of Similipal National Park in the district of Mayurbhanja, Orissa will be thriving with mutual understanding between the communities and tourists in the future.

## Methodology

A structured Likert five point questionnaire with 17 statements focusing on various aspects of local attitudes towards conservation and sustainable ecotourism tourism development was distributed to 220 respondents who are direct beneficiaries of the park. The questionnaires were equally administered to those respondents whose villages are located in the buffer area of Pithabata Forest Range and manipulation areas of Joshipur Forest Range. The questionnaires collected from the community residents were subjected to editing on the grounds of completeness, consistency, legibility and representation. A total of 210 filled questionnaires were finally collected and the questionnaires were tabulated for data analysis. Eco tour guides working for the tourists were engaged in the collection of primary data during the festival

period of 14th April to 21<sup>st</sup> April 2005. The respondents mostly knew these eco tour guides as they belong to the buffer and manipulation area. If a respondent was reluctant to give opinion of the questions, the enumerators were directed to ask next similar category people. Equal gender category respondents were interviewed and the statements were translated into local tribal language by the enumerators. After a series of demographic questions (age, sex, profession, number of children, place of birth), respondents were asked about their socio- economic conditions, culture, attitude to tourism, conservation of park and relationship of residents with park authority.

Another survey was also conducted among the tourists. A total of 250 tourists comprising of 90 % domestic tourists and 10 % foreign tourists were asked to respond to the questionnaires about the ecotourism development in Similipal national park. Tourist respondents were distributed a different set of Likert scale questionnaire containing 21 statements with the help of the eco- guides as per the instruction of the researchers during the month of November, 2005 at the entry ticket counter of Pithabata and Joshipur with a request to handover the questionnaire on the return of their visit. A total of 235 filled –in questionnaires were returned and 220 questionnaires were used for tabulation and analysis. The number of domestic tourist respondents had outnumbered the sample of foreign tourist respondents because the ratio of domestic and foreign tourist arrivals had a big difference as indicated in table-2. This study has made an attempt to examine the perceived equitable distribution of benefits of tourism within communities and the outcome extends support to pro tourism development. Moreover, the study has also made an assessment of perceptions of tourists about the ecotourism development. All investigations and discussions have been undertaken on the basis of patterns of perceptions of tourists on community development through ecotourism. The researchers took special care to see that the data so collected are uniform and the sample selected are representative of the target population. The researchers used the factor analysis, measured through SPSS 11 version after a varimax rotation with Eigen values greater than 1 to group different statements asked both to community members and tourists. Factors were interpreted from rotated factor matrix, which shows the relationship between the factors and individual variables. Each factor has been analyzed with variable that load high (>0.5) on it.

## Review of Literature

Ecotourism comprises recreational uses of the natural environment in ways that do not require extensive associated development but at the same time provide economic gains to nearby communities in the protected areas (Dixon and Sherman 1991 : 178). Similar way, Deng et.al (2003) has described the motivation of ecotourists

who prefer to visit relatively undeveloped and undisturbed areas in the spirit of appreciation, participation and sensitivity. He also cited the instance of national parks and other protected areas which have become popular destinations for nature tourism and ecotourism over the past two decades. Whether ecotourism is destructive or not, Stem et al. 2003 opined in recognizing ecotourism as a non consumptive use of resources but it also has the potential to lead to undesirable social, cultural, and economic consequences in the long run. Thus the impacts of ecotourism can be measured in each stage of development in such a manner that monitoring and balancing should be done to protect the novelty of the ecotourism. To support this point, Diamantis (1998) has firmly suggested that ecotourism needs to work out environmental auditing to monitor the environmental impacts throughout the tourism life cycle of a site. In the recent years, the concept of poverty alleviation and elimination of unemployment in the less developed areas has been widely appreciated as an innovative mechanism to generate new hopes for the local economy and preservation of environment. These two vital wings of ecotourism found rightful place in the guidelines of the declaration of the International Year of Eco-tourism and Mountaineering of the United Nations in 2002 (Jagmohan 2002).

Ecotourism has rightly defined the dynamic roles of community in the operation of ecotourism activities. Community is considered to be the major stakeholder to sustain the growth of ecotourism. Thus De Araujo and Bramwell (1999) have attributed to community as a primary stakeholder in the ecotourism activity. A good number of research studies have underscored the indispensable role of community as a significant determining force in the ecotourism development (Scheyvens 1999; Campbell 1999; Loon and Polakow 2001; Hampton 2005; Aas et.al. 2005; Jones 2005; Weaver 2005). The present paper is focusing on the greater role of the community in the protected areas and how community can be empowered to shoulder highest conscientiousness for the balanced growth of the ecotourism projects. Fennel (1999:213) has made an in-depth study in his book entitled "Ecotourism- an Introduction" on different dimensions of ecotourism and clarified the role of community by mentioning about the characteristics of community development. This is basically based on local initiatives, in that it advocates a site-specific approach to finding solutions to community problems using community members and community resources. A few more studies undertaken on the role of community have critically examined the pros and cons of ecotourism and strongly suggested Community-Based Conservation (CBC) approach that is undeniably a progressive paradigm to deal with the complexity of issues. Thus this is certainly the most practical approach to curtail biodiversity loss in developing countries. In order to garner the support of local communities for long-term biodiversity conservation goals, the effort should continue to address local development needs, encourage women's participation in community forestry and work towards dispute

settlement of community forest-user groups (Mehta and Kellert 1998). Bagri and Mishra (2004) have made a comprehensive study of ecotourism planning and the role of stakeholders in Garhwal Himalaya and suggested the significant role of community in the management of ecotourism. After making a thorough review of the research works on the role of community in the ecotourism sites, the attention is now shifted to discuss the role of community in the protected areas in which there is no substitute for the community to think for the ecotourism development. As a result, Fennel (1999: 78) has referred to parks and protected areas which are public lands held in trust with both a recreation/ tourism and conservation/ preservation mandate, and owned and usually operated by a public agency (Fennel 1999: 78). The purpose of a protected area is to protect all non-domesticated elements of living nature (Dearden 2005). Protected areas are under the direct control of the government. All measures for conservation of park and creation of environment friendly facilities for the ecotourism promotion are the responsibility of the park authority. Under the scheme of self-employment, government solicits the direct support of community and their active involvement. Burns and Sancho (2003) have laid emphasis on the management of the park and its resources from the collection of the entrance fees generated by the park administration. An estimation of maintenance cost as per visitor basis should be worked out to strike balance between the development and consumption so far as the quality of environment and the rate of degradation of natural resources in the national parks are concerned. Park authorities should not solely bank on the revenue generated from the entry fees for the management of the park resources. Moreover, conservation of faunal and floral resources should be undertaken on round the year basis and government should adequately provide budgetary support to check the deforestation, soil erosion, hunting, cattle growing and to initiate extensive plantation work in the protected areas. To substantiate the noble idea, Buckley (2003) has come out with a very strong suggestion that visitor fees are not always efficient, effective or equitable in the park but recreation in parks continues to grow far faster than government funding for park management (Buckley 2003). Therefore, governments as the custodians of protected areas have to take all preventive and well defined measures to battle with the illegal poaching, hunting, deforesting, cattle growing, mining, water harvesting, etc and envision for constructive and progressive uses.

Hearnal and Santos (2005) have drawn inferences on their studies on "Tourists' and Locals' preferences toward ecotourism development in the Maya biosphere, reserve, Guatemala" by underpinning on the development of "Ecotourism" that has been identified as a low impact means to provide income generating opportunities to the local people. Ecotourism is one of the main resources for many of China's nature reserves (Li 2004).

## Protected Area Site Profile (Study Area)

The Similipal National Park, the hunting ground of erstwhile Mayurbhaj king and one of the earliest tiger projects in India, is situated in the north region of Orissa. The park spreads over in an area of 2750 sq. kms. The area of forest was declared as National Park Division in 1957, wildlife sanctuary in 1979 and project tiger in 1973. By the two declarations in 1980 and 1986, it was proposed as a national park of India. The Significant feature of the park is endowed with unique biodiversity that suits to the predators in particular and other animals in general to help in increasing their population. The park has the unique distinction of possessing highest number of tigers and leopards i.e. 229 as per 2004 tiger census and relatively higher annual precipitation of over 200 cm spread over about 135 days. There is a variation of altitude ranging from 40mts to 1168mts and Khairiburu and Meghasini hills are recognized as the lowest and the highest point respectively. Numerous watercourses and two permanent water falls namely Barehipani (400 mts) and Joranda (150 mts) feed to many tributaries. Occurrence of frost valleys in central and south Similipal is another significant feature of the park. A degree of resemblance of floral and faunal composition with those of the Western Ghats and north-east India can be distinguished. The formidable contribution of the matchless protected park is the unique ecosystem that has an impact on the Mahanadian bio-geographic region. Consequently, there is a marked variation of temperature range between the central and southern regions.

Orissa boasts of 2750 sq.km. stretch of Sal forest over an undulating landscape with altitude ranging from 100 m to 1200 m from the sea level and boasts of many rich flora and fauna. Efforts from the Govt., NGOs and people are needed to provide adequate protection to the wild life in the protected area or outside. The bio- diversity needs to be preserved and passed on to the posterity. This needs sufficient public awareness to be created through Govt. and NGOs. Regulated eco-friendly tourism with bias towards conservation education shall certainly go long way to improve the bio- diversity of the protected areas (Pattnaik2005). This tiger number in Similipal national park has been on the rise due to protection measures. But elsewhere in the state there is a decline (Tiwari 2005). Tiger cannot be conserved in isolation. The local man in and around Similipal is a part of such total complex. It has to be controlled and regulated at concessional rates (Choudhery 1974: 24). Hunting and fishing are the most popular pastimes of the local tribes in and around Similipal. The merger of Ex- Mayurbhanja state into Orissa has caused heavy depletion in wildlife for many parts in Similipal (Choudhery1974:23).

Similipal national park and its adjoining protected areas extending over large areas of terrestrial or coastal/ marine eco-systems or combination thereof are under the direct supervision of United Nations Educational and Socio-Cultural Organization (UNESCO) as a Biosphere Reserve in the year 1994 (Wild Orissa 2004). The objective of promoting conservation of biodiversity and alternate livelihood for man living solely on it is to preserve cultural values. Two objectives of bio sphere reserve of UNESCO lay emphasis on the conflict between developmental activities and conservation to be taken into account and increased and broad based participation of the local people to be given utmost priority. There are 61 tribal villages in the buffer area of the park and 1200 villages in the transit areas with total population of 4.5 lakhs, out of which 73 per cent of populations are tribals. The settlements of human habitation in the buffer and transition zone have posed a great challenge to the eco system of the park. The core area around 845 sq. kms is broken away from all human pressures external to the system. The objective of restricting human activities into the core zone is to maintain ecosystem that will be putting positive impacts on the other two zones as the density of faunal population is high and animals under the endangered list can be protected from poaching. The Field Director of the park is very vigilant about the food web inside the core area. The total buffer zone comes around 1905 sq.kms. That area is categorized for undertaking safari tour, animal watching, fishing, angling, photography, trekking, picnicking, etc. with the fine intention of reducing its effect on core zone. The movement of traffic is very high during the peak season which is from November to February. Consequently the chances of spotting and watching animals on the road stretching on the buffer zone are very less. Forest rest houses run by the Filed Director of Similipal National Park are located at Chhala, Baraipani, Joranda, Gududgudi, Nawana, Joshipur etc. Tribal people from the buffer areas are engaged on permanent and temporary basis to work for the tourists as cook, watchman, eco- guide, etc at these guesthouses. The places like Meghasin and Debastali located in the core zone are prohibited areas for tourism activity but have ample chances of viewing animals.

The unique characteristic of the park is the abode of 94 species of orchids and about 3000 species of other plants, out of which 2 species of orchids are endemic, 8 plants are endangered, and the status of 8 species and 34 other rare species of plant is vulnerable. The inimitable feature of the park are the inhabitants black and melanistic tigers. Since the notification of it as a protected areas under the wild life act 1973, Park authority has identified species of fauna that include 12 species of amphibians, 29 species of reptiles, 264 species of birds and 42 species of mammals, all of which collectively bring to light the biodiversity richness of Similipal. *Paradoxurus jorandensis*, an endemic civet was located by the Zoological Survey of India in Similipal during 1980s and subsequently recorded it from all zones.



Phyllautus Similipalensis is a frog located near Chahala in 1975 has been identified from other locations. *Oryza officinalis* is a species of paddy known from Kerala was first collected in Orissa from Similipal near Khejuri hills in the late 1980s. This species is rare and sporadic, not used for any purpose locally. Another species of paddy, *O. granulata* previously recorded from Jeypore in south Orissa has also been recorded in Similipal. The discoveries of new paddy species and the identification of over 500 species of medicinal plants are only examples of the 'gene pool reserve' and there are vast opportunities for biotechnological research and applications in future.

Consequently upon the implementation of the project tiger scheme in the park, the number of tigers and leopards has increased from 142 in 1972 to 229 in 2004. The increase of 35 per cent over 32 years is showing a tremendous success in the tiger conservation in this park. The park has housed 50 per cent of tiger population. Most of the tigers from north part of the park are moving to south Similipal that remains a better habitat. The leopards, more adaptable than the tiger, are appearing in most of the habitats vacated by tigers. These observations suggest that Similipal habitat may be reaching the maximum of its carrying capacity in tigers. It seems the adjoining forests of Hadgarh and Kuldiha are proposed to be the best habitat centre for tigers in the future. The detail of wildlife status is given in table-.1

**Table - 1 Animal Census in the Park**

Sl No.	Name of the Animals	Present in Numbers in the Park	Category
1	Tiger	102	M-28, F-42, C-32
2	Leopard	127	M-44, F-64, C-19
3	Elephant	512	M-96, F-283, Y-128, U-5
4	Bison	1243	
5	Wild Bear	14538	
6	Sambar	10185	
7	Chital	3548	
8	Barking Deer	12278	
9	Mouse deer	4013	

**Source:** Ecotourism Destinations in Orissa, Forest Department, Government of Orissa, 2004, P-52.

The settlement of tribal habitation, as it remains threat to the national park, has urged the researcher, environmentalist, social activists, politician and authority of the park to formulate appropriate strategies to help sustain their livelihood without dislocation of their villages. Strategies have been implemented to find alternative way of generating income and involve them in creating awareness that will help in preventing them from poaching. Forest authority in association with Central Reserve Police Force (CRPF) personnel has been partly successful in curbing the mass killing of animals on the occasion of 'Akanda Sikara' during the mid of April. This is a festival during which poaching is a customary to indulge in large-scale killing of animals. The effort of beefing up the security to the animals with the active help of tribal people in the name of green brigades in the park has somehow curbed the poaching activity. Each brigade consists of about 10-15 members who are mostly from villages known to have a large number of hunters. The youth try to persuade their co-villagers not to enter the forest for the sake of hunting.

Kharias, a primitive tribe belonging to the Dravidian family and original inhabitant inside the protected areas manage to survive on collection of non-timber forest products, honey, gum, arrowroot and wild mushrooms. The price of such products does not fetch better income. Neither these products are consumed by them nor do they claim for reasonable price due to lack of information about the market value of the product. The Kharia family speak Oriya and is unaware of any other dialect. Gonds used to be a primitive tribe in few pockets of Similipal. Over the periods, their population is shrinking due to problem of sustenance. Other common tribes are Bhumija, Bathudi, Kolha, Gonda, Santhal and Mankadia, which are also dependent on the forest products. The festivals and the dances of these tribes also form a part of their socio-cultural value. In contrast to Kharias, Kolha, Munda, Mahali, Mankadia, Santal have their own dialects such as Kolarian, Mundari, Santali etc. People in the Reserve area are largely tribes. Due to low level of skills, lower educational levels and socio-culture traits, they are mainly dependent on local resources. They collect and sell minor forest produces. Remoteness of the areas and insufficient infrastructure makes it difficult to enforce the existing law. There was nearly forty per cent rise in human population between 1971-1991. There are four villages inside the core. The human population in core has increased from 394 to 576 from 1981 to 1991 censuses. There are 61 villages in the buffer area in which the human population of these villages have increased from 8249 to 9697 from 1981 to 1991. The tribal population comprises of 73.44 %, the scheduled cast population is 5.21 % and population of other castes is 21.35 % ([www.projecttiger.nic.in](http://www.projecttiger.nic.in)).

The park authority collects the detailed tourist statistics during the period 1<sup>st</sup> November to 15<sup>th</sup> June every year. The period between November to mid June is

considered the best time to visit the park. There is a high degree of authenticity and accuracy in the tourist statistics because the number of visitors are recorded from the entry permits. Day visitors outstrip the night stay tourists. It is inferred that domestic tourist arrivals into the park are much higher than the foreign tourist arrivals through out the periods. There are two entry points to the park and park authority do collect entry fee Rs10 /- each from domestic visitors and Rs. 100/- from foreign tourists. The revenues generated from entry fee from both domestic tourists and foreign tourists during 2003-04 amounts to Rs. 190450/-. The revenue being generated from entry of vehicles, participating in trekking activities, use of still camera, cine camera, video camera, etc. as another major principal revenue receipts of the park. There are seventeen different category forest rest houses with 80 beds contributing much revenue to the park.

**Table-2 : Tourist Arrivals in the Park during 1993-94 to 2003-2004**

Year	Tourist		Total
	Domestic	Foreign	
1993-94	17,493	132	17,625
1994-95	16,608	148	17,056
1995-96	20,236	134	20,370
1996-97	21,133	140	21,273
1997-98	24,413	161	24,574
1998-99	19,377	163	19,540
1999-00	13,403	84	13,487
2000-01	22,166	105	22,271
2001-02	22,508	146	22,654
2002-03	21,651	172	21,823
2003-04	17,125	192	17,317

**Source:** Ecotourism Destinations in Orissa, Forest Department, Government of Orissa, 2004, P-54.

## Results and Discussion

### Descriptive Summary of Respondents

A descriptive summary of the sample selected for the study is presented in table-3. The total sample is mainly divided into two groups on the basis of gender. The male sample group consists of 71.42 per cent and 28.57 of total sample. The highest number of respondents (40.47 %) was predominantly dependent upon agriculture and horticulture. 35.71 per cent of respondents belong to the age group of 36-45 is comparatively higher than other age groups of sample population. Majority of respondents (57.14 %) are having high school education as the researcher has made a deliberate attempt to incorporate them into the sample for the sake of getting valid and pertinent perceptions about the eco-tourism development in the park. Respondents having less than Rs. 5000 income are 76.19 %. 110 respondents (52.38 %) are having family size within 5-7.

**Table-3 Descriptive Summary of Community Participants**

Socio demographic Variables	N	Percentage
Age (N=210)		
25-35	60	28.57
36-45	75	35.71
46-55	50	23.80
56-65	15	7.14
66 & Above	10	4.76
Gender (N=210)		
Male	150	71.42
Female	60	28.57
Education (N 210)		
Below Primary School	80	38.09
High School	120	57.14
Matriculation Pass and above	10	4.76

**Table-3 (contd.)**

Socio demographic Variables	N	Percentage
Annual Income (N=210)		
Below Rs.5000	160	76.19
Above Rs.5000	50	23.80
Occupation ( N=210)		
Agriculture/ Horticulture	85	40.47
Fuel Wood Collection	55	26.19
Local Trade	10	4.76
Hunting	15	7.14
Daily Labourer	35	16.66
Temporary/Permanent Employee in the SNP	6	2.87
Any other	4	1.90
Family Size( N=210)		
Less than 4	70	33.33
5-7	110	52.38
8-10	30	14.26

The majority of respondents perceived the ecotourism as an appropriate choice for economic development and employment generation inside the park. At the same time, majority of respondents are wholly dependent on the resources that eventually lead to pose threat on the ecosystem of the park. In order to make provision for alternative scope of employment for the local stakeholders, the park authority has launched an ecotourism project that will function under the dynamic leadership of community at a large and community will be included in the decision making process. In table- 4, the responses of the local people about the ecotourism are exhibited.

**Table-4: Community's Perception Regarding the Effects of Sustainable Ecotourism Development**

Factor	Statements	Factor loading	Naming
	Similipal national park abounds with enormous scenic and natural beauty.	.555	<b>Ecotourism Awareness</b>
	Similipal is a well known park that draws a large number of tourists.	.673	
	Ecotourism provides compatible and sustainable tourism for enlightened wilderness experience to the visitors.	.597	
	Ecotourism provides park/ sanctuary interpretation facilities to generate conservation awareness among the visitors and local inhabitants.	.745	
	Ecotourism generates sufficient revenue and make the activity self sustaining as far as possible.	.569	
	Local products can be used largely for consumption of ecotourism.	.575	
	Ecotourism can empower the community residents in planning and management of facilities.	.896	<b>Ecotourism and Community Participation</b>
	Ecotourism can create employment opportunities for local people to cater to the needs of visitors such as taxi driver, nature interpreter, eco guide, cook, assistant, watchman, handicraft vendors, etc;	.840	
	Women and poor people can be empowered economically and socially.	.704	

**Table-4 (contd.)**

Factor	Statements	Factor loading	Naming
	Community can establish a self help group to manufacture local crafts that can be purchased by visitors.	.682	
	The revenue to be generated should be spent for quality of life of local residents.	.595	
	Government should lease lands and subsidize loans to locals to build eco friendly accommodation in the peripheral areas.	.694	<b>Planning for Ecotourism</b>
	Park authority should have a long term planning to make ecotourism sustainable, community centric and conservation tool.	.635	
	Park authority should make full-fledged implementation of ecotourism project.	.594	
	Park authority should give attention to improve facilities and amenities for visitor satisfaction.	.560	
	Promotion of ecotourism should be undertaken on a priority basis.	.704	<b>Ecotourism Promotion</b>
	Travel intermediaries should be associated in the promotion of ecotourism products.	.823	

The factor analysis measured through SPSS 11 version generated 5 factors arrived after a varimax rotation with Eigen values greater than 1, which explains about 74.647 % of cumulative variance. Factors were interpreted from rotated factor matrix, which shows the relationship between the factors and individual variables. Each factor has been analyzed with variable that load high (>0.5) on it.

**Ecotourism Awareness:** The first factor explained 6 variables which mainly outline that the community members are well aware about the scope of ecotourism development in Similipal National Park. The community members are perceived to have understood the prospects of ecotourism option and intend to distance them from destruction of forest. Ecotourism is conceived to have more reflection on their livelihood and quality of life

**Ecotourism and Community Participation:** The second factor consists of variables emphasizing on the community participation in ecotourism development in the park area and its future benefits. Ecotourism is considered by the community members as an effective measure to substantiate income and employment to the community in the park.

**Planning for Ecotourism:** The community members are well aware that for the development of ecotourism in the park area government including the park authority must develop long terms plan so that tourism development must be sustainable and community centric.

**Ecotourism Promotion:** Fourth factor highlights that the promotion of ecotourism should be taken on a priority basis and travel intermediaries must be involved for the promotion of ecotourism of Similipal National Park. There is a large chunk of market waiting to be tapped to magnetize clientele for ecotourism activities. Park authority has recently shown a high degree of inclination for ecotourism development for two important reasons; the first is the development of socio-economic condition of local tribal community and the second is the due care for enhancing the level of visitor satisfaction. The present trend of responsible tourism/ alternative tourism enlightens the tourists about the manifold importance of nature and their visitations that must appreciate the pristine beauty of the nature. The eco trips are arranged in such a manner that both tourists and community members get many occasions to interact on various aspects such as life style, cuisine, festivals, social habits, etc. Tourists are taken as one of the major partners in sustaining the growth of ecotourism development in the protected areas. Consequently, perception of tourists about the sustainable ecotourism development was also included into the study. Tourist respondents were asked about their perceptions towards various aspects of ecotourism and its impact on the community and environment. Tourists are very much considerate to the quality of life in the way that brings about significant transformation of social and economic condition of the local people. It is a conventional consequence that tourism acts as a destroyer to the local environment by making optimum use of facilities. The primary objective of ecotourism in the protected areas is economic empowerment of local people. Tourists have comprehensive idea about the economic benefits of the community involved in catering services. The community centered



economy is deemed as an imperative component of ecotourism. An effort was made to analyze the perception of tourists on the community centered economy. The end result of ecotourism concept is visitor satisfaction and the tourists are highly firm in the opinion to emphasize on visitor satisfaction.

**Table- 5: Tourists' Perception Regarding the Effect of Sustainable Ecotourism Development**

Factor	Statements	Factor loading	Naming
F1	Community environment must be protected.	.576	<b>Environmental Sustainability and Long Term Planning</b>
	Tourism needs to be harmonized with nature and culture.	.728	
	Regulatory environment measures need to be maintained.	.763	
	Successful management of tourism requires advanced planning strategy.	.761	
	Long term planning can make development of tourism sustainable.	.782	
	All amenities and facilities can be developed in the long term planning process.	.810	
	The quality of the life of the community gets disrupted due to tourism activities.	.753	
F2	Visitor satisfaction is the hallmark of the tourism industry.	.698	<b>Visitor satisfaction</b>
	Ecotourism development can better attend to visitor satisfaction.	.798	
	Priority needs to be underscored on visitor satisfaction.	.730	

**Table-5 (contd.)**

Factor	Statements	Factor loading	Naming
F3	Decisions for tourism development must be endorsed by all community stakeholders.	.839	<b>Community Oriented Development</b>
	Tourism must embrace the values of all community residents	.789	
	Community is the focal point of ecotourism tourism development.	.603	
	One half of the goods and services consumed by the tourists should be obtained within the local community.	.532	
	One half of the employees should be hired from the local community.	.680	
	Revenue generated should be contributed to community improvement funds.	.558	
F4	Tourists visiting the community enlighten the people.	.629	<b>Social and Economic benefits</b>
	Tourism brings new income to the community.	.797	
	Facilities meant for community are not overused by tourists.	.623	
F5	Tourism creates a new market for the local product.	.577	<b>Benefit local product and Industry</b>
	Tourism diversifies the local economy and benefits other industries.	.715	

The factor analysis measured through SPSS 11 version generated 5 factors arrived after a varimax rotation with Eigen values greater than 1, which explains about

78.669 % of cumulative variance. Factors were interpreted from rotated factor matrix, which shows the relationship between the factors and individual variables. Each factor has been analyzed with variable that load high ( $>0.5$ ) on it.

**Environmental Sustainability and Long Term Planning:** The tourists were having strong inclination towards “Environmental Sustainability and Long Term Planning” as tourists who got motivated for the ecotourism activities are mostly admirers of nature. Thus they were having a strong feeling for the protection of community environment that is considered a significant component of ecotourism. Tourists were of the opinion that tourism must develop in a sustainable manner supported by a long term plan in accordance with the prevailing nature and culture. It is therefore inferred that tourists with basic instincts of appreciating and understanding nature and its rich natural scenic beauty have shown their wholehearted supports for conservation of flora and fauna.

**Visitor Satisfaction:** The statements included in this factor highlights the importance of visitor satisfaction as hallmark of tourism industry and the role of ecotourism development in the over all satisfaction of the visitor. The outputs of factor loadings have strongly demonstrated that visitor satisfaction is the end objective of ecotourism development.

**Community Oriented Development:** It was stressed that the local community should endorse all tourism development initiatives and the community development should be the focal point for the development of ecotourism. The goods used by the tourists should be obtained from the local community, the services of local people should also be utilized and the revenue generated should also be utilized for the community development. The community centered economy is deemed as an imperative component of ecotourism.

**Social and Economic benefits:** Tourism has both social and economic benefits. Tourists are of the opinion that the visit of tourist to the park area enlightens the local people and generates new source of income for the local community members. Tourists are of the view that tourism in the park area can brings about significant transformation of social and economic plight of the local people.

**Benefit local product and Industry:** Visit of tourist to the park area creates market to the local product and promotes the sale of products of the local industry. Tourists particularly coming for the purpose of ecotourism love to use the local products produced locally by the community members.

## Findings, Suggestions and Conclusion

The untapped nature based destinations can be identified in the buffer zone and manipulation zone of the park by laying emphasis on the development of ecotourism. These places can be provided with better accessibility and amenities to enable tourists to reach at the places and enjoy the enchanting beauty of the nature. Construction of different facilities must not cause much damage but it should be measured at the cost of the nature. Community can be involved in all decisions of implementation of ecotourism project. Maintenance of facilities is the important task that can be entrusted on the community to gain sustainable ecotourism growth. The incredible spots need to be showcased as credible attractions. The enormous potential of ecotourism in the protected areas of Similipal national park has highly been recognized in the recent years. The efforts initiated by the park authority to make widespread development of ecotourism aims to involve local community in diverse array of activities. The study is based on the collected opinions of community respondents and tourist respondents about the ecotourism development in the park. Respondents have appreciated the steps taken by authority to generate substantial revenue for the host community people by promoting ecotourism. The results of the study also illustrated more factor loadings indicating majority of respondents are supportive to the continuation of the ecotourism activities. Community is considered as a major stakeholder to maintain the amenities and facilities, which are not only meant for the visitors but also meant for community members as a whole. Community respondents are well aware about their ecotourism sites inside the park. The respondents also emphasized role of the government in continuing the project with financial and administrative aids. It is inferred from the perceptions of the community respondents that community will fully reciprocate to the policy guidelines of park authority for ecotourism development in the future.

The national park is a popular wild life tourism spot known to the tourists for long years. The reason may be attributed to the captive Tigress "Khairi" which once caught the attention of tourists across the world. Since then the park has earned a special distinction to have an ideal place for wild life tourism. The park normally receives more domestic visitors from the neighborhood states during the peak tourist season. The park gets overcrowded in certain places with the arrival of day visitors during the festivals, weekends and local holidays. One of the important findings may be the limited spot identified so far to accommodate increasing number of domestic tourists. Tourist is also an important stakeholder in the ecotourism development in a destination. In this study, tourists are more concerned to the environment of park because hard core tourists have a great admiration to the nature. It is indicative from the perceptions that tourists who select national parks for visitation must love flora and fauna.

Ecotourism can be a suitable model for the sustainable development paradigm. Similipal National Park should capitalize the ecotourism potential because this model of ecotourism promotion has minimal impact on the environment. The Department of Forest should take steps with immediate effect to provide all required supports to community so that community members will find this opportunity as a vital alternative income and employment source. Community should be allowed to work in the forefront while delivering services to the tourists. The study aims at highlighting how ecotourism can be selected as the best pragmatic way out for economic and social problem of community members. Park authority has been striving hard to make pro-employment oriented mechanism to eliminate unemployment and poverty for a long time. And the questionnaires and the interviews resolved around the following themes:

The interest and enthusiasm showed by the local community in the ecotourism activities. The profound interest and concerns perceived by the tourists for environment preservation and community participation.

### **What respondents expect from the government to get involved in the ecotourism venture?**

The nature and principle of the ecotourism is to have less environmental impacts and less investment. The multiplier effect is very high as compared to any forms of tourism. The park is located in a strategic location that can be accessed by rail from Balasore railway station, Jamshedpur city in Jharkhand and Howrah railway station and by air from Bhubaneswar, Kolkata and Ranchi. While analyzing the responses of the local community regarding their active involvement, it is found that their reply was positive regard to their keenness in reaping benefits of the projects the positive reply from them and their keenness in reaping benefits of the projects. Most of the respondents are convinced with the economic benefits in terms of self-employment as guide, interpreter, porter, shopkeeper, cook, watchman, cultural performers etc. Some suggestive measures may be adopted to make the current ecotourism project more community oriented. Empowerment should be entrusted to the community to maintain the resources of the park as their support and involvement is indispensable in the conservation of the park. When a large number of respondents perceive ecotourism as a possible choice to find income and employment for them, park authorities should take steps to give training to tune them with the pattern of tourism services. Emphasis should be given to bring change in their capability and attitude to deal with the business efficiently and dynamically. The revenue earnings through tourist expenditure should be spent for overall community development. And utmost attention should be focused on upgrading the quality of life of the people by making provision of portable drinking water,

solar light, medical facility, primary education, etc. Tour operators should try to involve men and women both skilled and semi-skilled workers working in the projects. In addition, efforts should be made to associate young people in the ecotourism activity, as they will be playing a crucial role in changing the mindset of the local people about the implications of the project. Tour operators, transport operators and hoteliers in close by cities should be involved in the promotion of ecotourism. Park authorities should adopt segmented marketing strategy keeping in mind hard core nature lovers or eco adventurers. The inflow of tourist arrivals should not fluctuate due to the differences of community and park authority. As it is perceptible in the primary data analysis, a major portion of community members are inclined to work in the ecotourism venture in the future. Thus the greatest challenge of the park authority is to establish synchronization between host community and visitors by adopting accurate measures like improvement of facilities, safety, hygiene of the ecotourism sites and accommodation units.

The present study is highly in conformity with findings of the studies carried out by Hearnal and Santos (2005) on the ecotourism development with active participation of locals and tourists in the Maya biosphere, reserve in Guatemala, (Walpole and Goodwin (2001) on local attitudes towards conservation and tourism around Komodo National Park, Indonesia and Mehta and Kellert (1998) on local attitudes toward community-based conservation policy and Programmes in Nepal: A Case Study in the Makalu - Barun Conservation Area. This exploratory study has found out the role of community and tourists as two significant stakeholders for achieving sustainable development of ecotourism in the park. The result of the study revealed that community has a considerable role in sustaining the ecotourism growth. However a good number of tourism literature reviewed herein have come out with valuable outputs in the area of ecotourism and community participation in the protected areas. The outcome of the empirical research as reviewed in the literature strongly supports the principle of ecotourism through the community participation. Perceptions of community and tourists are considered as an important aspect to scale the development of ecotourism for longer period in the protected areas. By empowering local populations and encouraging them to participate in the entire process, sustainability will be ensured as it becomes accepted by and adjusted to the local communities. Ecotourism development will be influential in changing the nature of tourism in this protected area and will benefit both tourists and local community. Considering the role of different stakeholders in eco tourism development this study attempted to give appropriate direction to the park administration and tour intermediaries to steer the progress of the project towards meeting the needs of the community stakeholders.

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