

## **Assessment of Community Participation in Ecotourism and Conservation at Dandeli Wildlife Sanctuary, Karnataka, India**

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**Abstract :** Community involvement is emerging as a key element of both sustainable tourism and ecotourism. Community involvement in decision-making and residents' receipt of benefits from tourism is expected to play a vital role in sustainable tourism as well as preservation and conservation of biodiversity. Local communities living in the forest areas of Dandeli suffered a great neglect economically in the past. This study aimed at evaluating the participation of community residents in ecotourism and conservation activities at Dandeli Wildlife Sanctuary; review benefits received by residents from wildlife sanctuary. A multi-stage sampling procedure was used for the selection of respondents. Structured questionnaire were used to measure issues relating to the objectives of the study. Many respondents indicated that non active participation between community residents and Karnataka Tourism Development Corporation. The level of participation of community residents in ecotourism venture is very low. The tourism agencies failed to take community into confidence in planning and management process of wildlife sanctuary. The community residents were completely neglected while preparing action plan and evaluation and monitoring process of ecotourism project in Dandeli. The community residents were respecting policy towards conservation of biodiversity. They have reduced their involvement in illegal trading of forest products. The study also reveals that community residents were not involved in planning and management process of conservation of wildlife and biodiversity of Dandeli located in Western Ghats section of Karnataka. However, the ecotourism project has generated lot of entrepreneurship opportunities in Dandeli to the local people. Results also revealed that majority of community residents were not given priority for job in the Dandeli Wildlife Sanctuary. The ecotourism had a negative impact on tradition skills, social customs and local life style. Dandeli Wildlife Sanctuary project failed to offer some community services to community residents such as HIV/AIDS education and skill up-gradation training programme, Microcredit etc.

**Key words :** Ecotourism, Dandeli Wildlife Sanctuary, Conservation, Community residents

### **Introduction**

India is often termed as hotspot of bio-diversity and India's rich natural heritage already in existence in India. But, ecotourism was not properly planned in India. If planned and practiced in mutually complementing manner, ecotourism would be an import instrument for ecologic conservation and source of livelihood for people living in those areas. India has some successful examples of ecotourism i.e. Thenmala Ecotourism Project in Kerala. Western Ghats section of India is known for tourism. Few tourists spot in the Western Ghats section of south India has already been developed as ecotourism hubs in the form of national park, wildlife sanctuary and reserve forests. Among them Dandeli Wildlife Sanctuary located in Karnataka State is attracting national and international tourists. In the year 2012, UNESCO had declared Western Ghats as one of the biodiversity hotspot. But, unplanned growth of tourist destinations in Western Ghats is causing disturbance to flora and fauna. Therefore, the need of the hour is to protect the biodiversity of Western Ghats in a sustainable way without affecting the livelihood of local people and other stakeholders. Limited literature is available in India about ecotourism, policy initiative for protecting eco-system of the country, local community participation in ecotourism,

etc. No research has been done in India focusing on local community participation in ecotourism and conservation activities, review benefits received by residents, conflicts between residents and promoting agencies, problems faced by local community, impact of ecotourism on biodiversity, etc. This has encouraged the researchers to take up the present study. Dandeli Wildlife Sanctuary in Karnataka has been selected for the purpose of study.

### **Review Of Literature**

#### **International Status**

Michael J. Stone (2002) conducted a study on "International status of Ecotourism & Community Development: a case study of Hainan, China". The study sought to assess the current status of ecotourism at two destinations where it is being promoted as a regional development strategy. The existing tourism-park/resource-community relationships and impacts are evaluated at Jianfengling and Diaoluoshan National Forest Parks, in Hainan Province, China. According to him Ecotourism is an important provincial strategy for balancing economic growth and conservation. The study is intended to enhance the capacity of ecotourism to generate benefits for both the local communities and destinations, and thus contribute to

the sustainable development of the region more generally. According to researcher, socioeconomic benefits for the local communities have been very limited. Eugene E. Ezebilu (2012) threw a light on Economic Value of Ecotourism to Local Communities in the Nigerian Rainforest Zone. The study aims to assess community willingness to contribute for an ecotourism improvement project. The study showed that the respondents were willing to contribute an average of about one percent of their mean annual income per year. The results showed that willingness to contribute were influenced by factors such as income, distance of respondents' residence to the park, post-high school education, occupation and membership of an environmental conservation group. The results generated from this study are expected to contribute to the knowledge of sustainable management of ecotourism projects. Mohd Rusli Yacob\*, Ahmad Shuib\*\* and Alias Radam (2008) conducted a study on "How Much Does Ecotourism Development Contribute to Local Communities? An Empirical Study in a Small Island". The paper aims to estimate the local economic benefits of the ecotourism development in a small island. The results show that the development of ecotourism has definitely generated local employment opportunities. According to Bola Olusola Adeleke and Thandi Nzama (2013) communities have suffered a great neglect economically in the past. The study aimed at evaluating the participation of community residents in ecotourism and conservation activities at HUP; review benefits received by residents from park and determine the existence of conflicts between residents and park management. The study revealed that there was active participation between community residents and park management. Ecotourism and conservation projects are largely determined by the park system as residents are yet to be fully integrated into the planning process. According to researcher the major cause of conflict is restriction of residents from access to wildlife resources in the park. The researcher suggested that park system should improve its relationship with communities.

### **National Status**

Santosh. P. Thampi (2005) has conducted a study on "Ecotourism in Kerala, India: Lessons from the Eco-Development Project in Periyar Tiger Reserve". The purpose of the study was to describe and evaluate the ecotourism project at the Periyar Tiger Reserve, Kerala, India. According to him, the inhabitants of the forest use to make living by illegal trading of forest goods. Their activity was thus detrimental to the conservation of the forest. However, their intimate knowledge about the plants and animals, and their survival instincts could be best used for participatory ecotourism activities. V. Kumar and Arvind Kumar (2009) had conducted a study on assessment of socio-economic impact of tourism/eco-tourism at Barabar and Nagarjuni Hills in Bihar (India). The study aims to assess the tourism/

ecotourism potential of Barabar and Nagarjuni Hills caves site in Bihar (India) and to assess its potential socio-economic impact on the local Population. It was found that in spite of its huge potential for declaring it as an eco-tourist site, it has not been done so owing to various reasons like lack of Infrastructure, lack of awareness about such a site amongst tourists from outside, lack of political will etc.

### **Objectives of the Study**

The present study was undertaken with the following objectives:

1. To identify demographic profile of community residents
2. To assess the participation of community residents in ecotourism and conservation of biodiversity at Dandeli Wildlife Sanctuary
3. To review the benefit received by community residents from ecotourism
4. To draw conclusions and offer suggestions

### **Methodology**

The study is empirical in nature. Dandeli Wildlife Sanctuary, Karnataka has been selected for the purpose of study. The sample size consists of 50 community residents and 10 respondents from tourism and forest departments. The selection of the community residents for the purpose of data collection was on random basis. Data for the study has been collected from primary as well as from secondary sources. The questionnaires were administered to the respondent. The secondary data was collected from government reports, research reports, and working papers and from the website of National Commission of Higher Education, Ministry of tourism, GOI, Karnataka Tourism Development Corporation, etc. The data was also collected by means of personal interaction with environmentalist, educationist, and local community in Dandeli Forest areas and through observations. The data so collected were analyzed by using tools such as percentage. The data was presented in tabular form. The period of study has been confined to December 2012, January-February and July 2013 – peak tourists' season.

### **Limitations Of The Study**

Other ecotourism spot in Western Ghats section of Karnataka State were excluded from the preview of the study due to time constraint. Few of the community residents refused to interact with the researchers due to time constraints.

### **Meaning of Key Words Used**

- a) **Eco-Tourism:** Travel to natural areas where flora,

fauna, fragile, pristine and cultural heritage are the primary attractions. The travel should not lead to disturbing and damaging the eco-system and local value system. But, it should help the local people to improve their economic conditions. The travel should also help in spreading the message of preservation of the biodiversity, educating people about preservation of biodiversity but also lead to promotion of local culture.

- b) **Biodiversity:** A natural area made up of living organisms such as plants, animals, marine and other living things in a particular geographical region. These inhabitants are rare living organism and are very sensitive to civilization. The civilization, urbanization and industrialization may cause huge damage and disturbance to these inhabitants. Therefore, it is the responsibility of each citizen, government, industry and society to preserve and protect such rare living organisms on the earth.
- c) **Community Residents:** community residents refers to group of people living in forest areas having cultural, ethnic, social customs and practices, social values and beliefs or other characteristics in common

### Results and Discussion

The findings and discussion are presented according to the set objectives

#### Demographics of Residents in the Communities

The table-1 reveals that majority of respondents (40.8) being females could be indication that females participate more in ecotourism and conservation ventures in Dandeli Wildlife Sanctuary than males. It could also be because many women in India maintain life in homes through daily food supply and payment of education fees for their kids. High population of youths was recorded in the communities as majority was between ages 18 and 44.

**Table-1: Gender and Age of Community Residents**

Demographics		Percentage
<b>Gender</b>	Male	39.2
	Female	40.8
<b>Age</b>	18-24	24.0
	25-34	31.8
	35-44	22.5
	45-54	10.0
	55-65	6.4
	65 and above	5.3

**Table-2: Education Level of Community Residents**

Level of Education	No. of Respondents	Percentage
No Education at all	14	28
Primary Education	29	58
Secondary Education	6	12
College/Vocational	1	2
University Education	0	0
Total	50	100

The table-2 exhibits that majority of community residents have completed only primary education. Further, 28 percent of community residents did not have any formal education. This indicates high level of illiteracy in the communities, and this could lead to restiveness and conflicts especially when the youths are not fully occupied.

The table-3 depicts that many of the respondents (22%) agreed that residents were employed by the Karnataka Tourism Development Corporation and Forest Department in wildlife sanctuary. However, majority of community residents were self employed out which 44 percent depended on wood and forest products for their livelihood. Few of the community residents were involved in trading and selling handicrafts products to tourist visiting sanctuary. The result revealing that very few of the respondents were hunters, suggesting that there would be less pressure on the fauna population in the sanctuary.

**Table-3: Occupation of Community Residents**

Occupation	No. of Respondents	Percentage
Farming	05	10
Animal husbandry	04	8
Gathering of wood & forest products	17	34
Hunting	03	6
Fishing	03	6
Handicrafts	01	2
Employment in sanctuary	11	22
Trading	06	12
Employment	00	00
	50	100

**Table-4: Income Level of Community Residents**

Income Per Month	No. of Respondents	Percentage
2250-4500	05	10
4500-6750	11	22
6750-9000	00	00
Above 9000	00	00
Total	50	100

The low level of income per month by majority of the respondents (2250 per month) could be as a result of the prevailing poverty in the area and they fall under below poverty line income category notified by government of India. 22 percent of the community residents were earning in the range of 4500-6750 as they were employed by tourism and wildlife protection agencies. However, the earning of employed category was also below the OBC income level notified by government of India.

#### **Participation of Community Residents in Ecotourism and Conservation Activities**

Table 5 shows that majority of the respondents reported that they did not have any idea and knowledge about participation of community residents in ecotourism ventures. This clearly speaks of tourism promoting agencies and forest department were not involving the community people in ecotourism planning and management process. The community residents were completely neglected while preparing action plan and evaluation and monitoring process of ecotourism project in Dandeli. However, the implementing agencies have taken the help of community residents as they find it difficult to implement the project indicating residents were used as lender of last resort.

**Table-5: Participation of Communities in Ecotourism Planning & Mgt.**

Variable	No of Respondents		
	Yes	No	No Idea
Planning	-	-	50
Preliminary Study	-	-	50
Action Plan	-	-	50
Implementation	23	-	27
Monitoring & Evaluation	-	21	29

**Table-6: Participation of Communities in Conservation**

Variable	No of Respondents		
	Yes	No	No Idea
Policy respect by community	29	-	21
Illegal Trading of forest Products	09	41	-
Health Services for Wildlife	17	-	33
Guide Service in restricted areas	05	38	07
Information supply about wildlife behaviour and living style	36	-	14
Social Forestry	00	00	50
Planning for conservation	00	14	36
Conservation Action Plan	00	00	50
Implementation of action Plan	00	00	50
Monitoring & Evaluation	00	00	50

Majority of the respondents agreed that they do respect policy of conservation biodiversity. They also opined that residents' involvement in illegal trading of forest products had drastically come down because of awareness, opening of different avenues of income and tight policing activities in sanctuary. The community residents also argued that the tourism promoting agencies as well as forest department were not involving the community residents in planning and management process of conservation of wildlife and biodiversity of Dandeli located in Western Ghats section of Karnataka.

**Table-7: Participation of Communities in Ecotourism Business**

Variable	No of Respondents		
	Yes	No	No Idea
Trading in restricted areas	43	-	07
Illegal Trading of forest Products	41	9	00
Use of Animals as means of transportation - cattle, horse and camel	35	15	00
Use of plastic	17	31	02
Selling Pots and baskets, traditional Dish	49	01	00
Practicing local crafts, dance, folk-art etc	42	00	8
Selling fruits and Ayurvedic Products	50	00	00

The respondents (table-7) expressed that the ecotourism projects has generated lot of entrepreneurship opportunities in Dandeli to the local people. The new source of income for the community residents includes animal transportation, selling basket, pots, traditional Dish, local crafts, fruits and Ayurvedic Products. The dance and folk-art shows is also emerging as a new source of revenue for them.

## Benefits Received by Community Residents from Park

**Table-8: Benefits Received by Communities from Dandeli Wildlife Sanctuary**

Benefits	Strongly Disagree	Neutral	Agree	Strongly Agree
Community receive priority in Jobs	30	09	11	00
Exposure to Traditional skills	41	04	05	00
Access to Wildlife Resources	00	11	02	37
Opportunity to sell product available in Sanctuary	19	23	08	00
HIV/AIDS education to youths and adults	05	43	02	00
Empowerment of local community	00	50	00	00
Income from practicing local crafts, dance, folk-art, bird-watching helpline, selling Pots, baskets & traditional Dish	00	00	42	08
Training – skill up-gradation	23	20	07	00
Infrastructure development – schools, clinics, linking roads, transportation, toilet facility, etc	41	00	09	00
Awareness about Govt. schemes and Assistance	46	00	04	00
Increase in Income from Trading	00	00	43	07
Access to Microcredit	00	43	07	00

Results from Table 8 reveal that majority of respondents (60%) were of the opinion that locals were not given priority for job in the Dandeli Wildlife Sanctuary. This might have resulted from low educational background of the majority of the residents as shown in Table 2 and as such many might not be employable by the Sanctuary. Many of the community residents (82%) were not of the opinion that ecotourism will help to build traditional skills of residents. Actually the ecotourism in Dandeli is having negative impact on tradition skills, social customs, local life style due to influence of tourist visiting Dandeli. Many of the respondents (74%) were of the opinion that residents were restricted access to sanctuary resources. However, many of the respondents agreed that income of locals had increased through ecotourism businesses. There is evidence that the sanctuary had attempted to empower community members as much as possible as some respondents (82%) believed residents were given opportunities to market their local products in the sanctuary which had helped in improving their standard of living. However, the Dandeli Wildlife Sanctuary project did not improve the linking roads to communities and other infrastructure in the area such as schools, clinics, transportation, toilet facility, etc. The project also failed to offer some community services to community residents such as HIV/AIDS education and skill up-gradation training programme, Microcredit etc.

### Conclusion

The majority of the community residents fall under below poverty line income category notified by government of India even though the ecotourism had opened up new

avenues of revenues for them and helped in improving their standard of living. They had different approach towards standard of living. So, the local community did not benefited much from ecotourism project in Dandeli. The level of participation of community residents in ecotourism venture is very low. The tourism agencies failed to take community into confidence in planning and management process of wildlife sanctuary. The community residents were completely neglected while preparing action plan and evaluation and monitoring process of ecotourism project in Dandeli. However, the implanting agencies have taken the help of community residents as they find it difficult to implement the project indicating residents were used as lender of last resort. It is observed that majority of the respondents were respecting policy towards conservation of biodiversity. They have reduced their involvement in illegal trading of forest products. The study also reveals that community residents were not involved in planning and management process of conservation of wildlife and biodiversity of Dandeli located in Western Ghats section of Karnataka. The respondents expressed that the ecotourism projects has generated lot of entrepreneurship opportunities in Dandeli to the local people. Results also revealed that majority of community residents were not given priority for job in the Dandeli Wildlife Sanctuary. The ecotourism had a negative impact on tradition skills, social customs, local life style due to influence of tourist visiting Dandeli. Dandeli Wildlife Sanctuary project did not improve the linking roads to communities and other infrastructure in the area such as schools, clinics, transportation, toilet facility, etc. The project also failed to offer some community services to community residents such as HIV/AIDS education and skill up-gradation training programme, Microcredit etc.

### Suggestions

The Karnataka Tourism Development Corporation in association with NGOs and Business Management Educational Institutions should conduct market orientation programme for community residents. Such programme will help them to equip themselves with latest marketing techniques to boost the sales of their produce. The government schemes meant for tribal and below poverty line category have not reached the community residents living in forest areas of Dandeli. The need of the hour is that government machinery to immediately develop a comprehensive plan for integrated development of community residents living in forest areas of Dandeli wildlife sanctuary. The Karnataka Tourism Development Corporation as well as Karnataka Forest Department should develop an integrated plan for developing ecotourism as well conservation of biodiversity in Dandeli. They should involve all the stakeholders right from the planning process to monitoring and evaluation process. The community

residents should be assigned with key responsibility in all areas of planning and management. Measure should be taken to preserve the local culture, tradition social customs, local life style by creating platform for exhibiting art, culture, tradition on the occasion of tourism and environmental day. Dandeli wildlife festival should be organized for the same. The government machinery should also take measures to improve the linking roads to communities and other infrastructure in the area such as schools, clinics, transportation, toilet facility, etc. The high flow of tourist to Dandeli may put community residents into the risk of HIV/AIDS infection. Therefore, NGO in association with Health department should conduct HIV/AIDS awareness programme and organize health camp at regular interval. The Microcredit concept which was so popular throughout the country had not reached the community living in forest areas of Dandeli. The NGO can play vital role in improving standard of living of community residents through the provision of microfinance. They should also conduct customized vocational training programmes for community residents. Finally, all the stakeholders need to play their role in promoting ecotourism which will go a long way in preserving and protecting the biodiversity as well as wildlife for the next generation. They also need to share responsibilities for preserving the biodiversity but also participate in equitable sharing of the benefits.

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