



Economics of Ecotourism: A Case Study of Dang District

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Abstract:

The paper delineates ecotourism and potential economic and conservational benefits from developing ecotourism with community participation. It's latent to generate income while creating bottlenecks for conservation has posed interesting challenge to academics and participants in ecotourism sector. The challenge to arrive at a tradeoff between the two goals of encouraging tourism as it provides income to rural poor and conserving environment, the need of hour. Economic researches into ecotourism impacts are a very few and this paper makes an attempt to study this aspect with special reference to Dang – a Tribal dominated district located in Southern Gujarat. The empirical analysis using survey data from tourists, business and household of Dang has been brought out showing various factors affecting to ecotourism. The Dang district offers a wide scope for tourism development though it includes tourist from Gujarat and other parts of India. The study reveals that ample opportunities are there for ecotourism in the surrounded areas of Dang.

Keywords: *Ecotourism, Sustainable Development, Sustainable Tourism, Community Participation, Tourism Economi*

1. Introduction

Around the world, ecotourism has been hailed as panacea: ways to fund conservation and scientific research, protect fragile and pristine ecosystems, benefit rural communities, promote development in poor countries, enhance ecological and cultural sensitivity, instill environmental awareness and a social conscience in the travel industry, satisfy and educate the discriminating, and, some claim, build world peace.(Honey, 1999, p.4)

Though the first ever use of term 'ecotourism' is not clear, one of the first to use it appears to have been Hetzer (1965), has defined four principles of tourism are: minimizing environmental impacts, respecting host cultures, maximizing the benefits to local people and maximizing the tourist satisfaction. The first among these is considered to be most distinguishing characteristics of 'ecotourism' (Fennell, 1998). Early references to ecotourism are found in the work of Miller (1998), who worked on national park planning for ecocodevelopment in Latin America and documentation produced by Environment Canada in relation to a set of road-based 'ecotours' they developed from the mid-1970s through to early 1980s. Moreover the development of ecotourism is due to the environmental movement during 1970s and 1980s (Honey, 1999, p.19). Environmental concern along with mass tourism led to increase demand for nature-based experiences of an alternative nature. By the mid 1980s, many developing countries had identified ecotourism as a means of achieving both conservation and development goals.

The first formal definition of ecotourism has been given by Ceballos-Lascurain (1987), has defined it as: 'travelling to relatively undisturbed areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as existing cultural manifestations (both past and present) found in these areas'. There are three dimensions of concept of ecotourism represent the main essence of it and they are – nature based, environmentally educated, and sustainably managed. In the light of this interpretation we have utilized the survey conducted on "The Development of Tourism in Dang District of Gujarat" by Planning Forum Committee, ABMB College, Sabargam, Surat in March 2011. The paper follows with the economy of Dang, Tourism related survey results and their analysis with conclusions in the end.

2. Dang –An Overview

Dang is a mountain range in western part on India which is inhabited by tribals. It is difficult to find successful examples of ecotourism in mountains. Properly planned ecotourism can change the fortunes of people in remote and less developed regions. Ecotourism is open to various interpretations, criteria, such as benefits to local people, support for conservation, low scale development, low visitor volume and educational experience; suggest that if tourism develops in these regions as an ecotourism centre, it can bring various economic benefits to the local population. Mountain ecotourism is defined as "Tourism that does not degrade the natural and cultural environment of mountain regions provides economic, environmental and social benefits to mountain communities and offers a high quality experience to visitors."

Dang – a tribal dominated district located in extreme south region of Gujarat adjoining with neighbor state Maharashtra. It's having the mountain range of Sahyadhri high hills and dense forest. The major tribal groups in Dang are Bhil, Konkani, Varli, Kotwaliya, Kathodi and Gamit. The district comprises of 311 villages and having single taluka. The total population of the Dang as per 2011 census is 226769, divided in 36498 households. The district headquarter is Ahwa. Waghai, Subir, Pimpri, Samgahan, Saputara etc are villages having population more than 1000 people. Saputara, the only hill station in Gujarat is an important tourist spot not only in district but also in the state.

3. Economy of Dang

3.1 Agriculture and Industry

Nearly 85% of population having their livelihood on agriculture and they are either cultivators or employed as agricultural laborers. Animal husbandry and Bamboo cutting are the other economic activities in the district. It seems high pressure on land as major portion nearly 59% lands is forestland. About 66% of total land is available for cultivation which also situated on slopes with uneven terrain. Just 13% land is irrigated. Due to hilly nature of district, opportunities are also limited for irrigation.

The cropping pattern of Dang is conditioned to rain fed nature of agricultural land and lack of irrigation facilities. Major cultivation is done during the monsoon and due to this farmers are restricted to take only single crop and their agriculture produced includes are rice, ragi, kharsani, tuver, groundnut, mangoes, custard apples and others. Ragi is main crop in Dang. The forestland in Dang predominantly falls under the reserve forest and is the richest forest in Gujarat. The forest is a rich resource of medicinal plants like Mardasingi (*Helicteres ixora*) and Baheda (*Tecome stans microcarpa*). Sag (*Tectona grandis*), Khakro (*Butea monosperma*), Umbero (*Ficus racemora*) and Bamboo tress are there in the thick forest of Dang. Forestland provides maximum opportunities to generate sustainable livelihood and employment for the village people. Animal

husbandry and dairy production have increased business opportunities for the local people of the district. Agro-processing and tourism are the other supporting pillars of rural economy of Dang. Plantation and nursery development activities have the potential to generate maximum wage employment.

The district has also waterfalls like Gira and Borda. It is well connected with other part of Gujarat and Maharashtra through well developed roads. A narrow-gauge railway line connected to Waghai and Dungarda stations from Bilimora station of Navasari is also available.

The district is having rich forests, small and large waterfalls, beautiful landscapes and tribal culture which account for huge influx of tourists. Saputara, in South Dang, which is on Surat-Nasik high way also known as Abode of serpents, is a hill resort on plateau of the Sahyadri range of mountains that offers rich wildlife for touristy. Saputara museum contains interesting information about the topography and anthropology of Dangs. Hatgarh Fort situated about 60 k.m. far way from Saputara, was built by Maratha leader Chhatrapati Shivaji and is a beautiful piece of architecture.

There are around 20 small and big water falls in Dang. Gira fall, 3 k.m. from Waghai, is 30 meter drop in to Ambika River and offers solace and relaxation. Girmal fall is the most scenic sight in the district. Vansada National park in Dang harbors large mammals including leopards, hyena, jungle cat, macaques and barking deer. It is also home of endangered great Indian squirrel. Botanical garden situated at Waghai is also attractive place for tourist.

It is important in the development of the tourists sector that local people have ownership over the resources and are benefitted from labour generated to small scale tourist enterprises. Moreover, they are also developed by providing financial resources given to local people. Tourism would also stimulate local handicraft production which can provide livelihood opportunities for women and other artisans.

Due to having dense forest in Dang, different types of plant are available it will be used for medicinal purpose. And it has potential to develop medical tourism in this area. The local knowledge of people is a very useful tool to encourage medical or ecotourism. Apart from it, the local people will get opportunities for employment and will be able to earn income which will ultimately improve their economic conditions. Intensive efforts are being call upon to develop medical tourism as having variety kind of medicinal plants in the area.

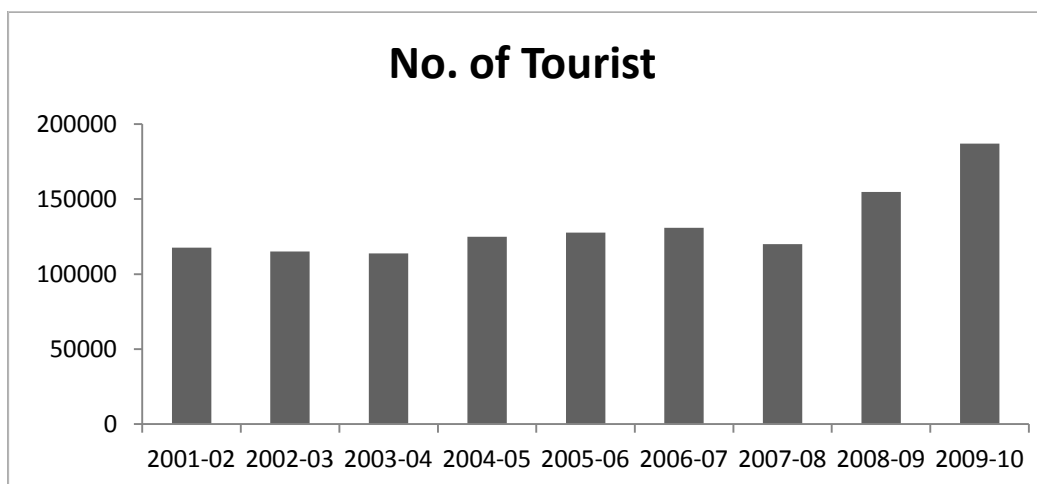
It is important in the development of the tourist sector that local people have ownership over the resources and are benefitted by labour generated by scale tourist enterprise and craft production which can provide livelihood opportunities for worsen and other artisans.

3.2 Tourist activities in Dang

Tourists Arrivals in Dang

No.	Year	No. of Tourist
1	2001-02	117593
2	2002-03	114999
3	2003-04	113710
4	2004-05	124957
5	2005-06	127675
6	2006-07	130921
7	2007-08	119983
8	2008-09	154739
9	2009-10	186944

Source: Government of Gujarat, 2010



3.3 Impact of Tourism at Dang

The impact of tourism at Dang has been analysed on the survey undertaken. The survey covered 104 respondents and based on the data collected. The result is presented in three sections namely-local people's views on tourism and its impact, tourists' view points on tourism development and view points of businessmen associated with tourism at Dang district.

3.4 Local people and tourism development in Dang

A survey of local residents in Dang has been undertaken to find out impact of tourism on their economic life. Though their level of education was not high as most of them were illiterates, people of Dang have strong realization that tourism can improve their economic status. Tourism gives a boost to their revenue earning capacity since tourist buy local products. Though, tourism gives opportunity for employment, survey revealed that only 38.2% people get tour related jobs out of those who are surveyed. Educational status has impact on tour related jobs and it has been well supported in following table.

Educational Level and Tour Related Employment

Level of Education	Tour related employment(%)
Illiterate	15.4
Primary	46.2
Secondary & Higher Secondary	23.1
Higher Education	15.4

Source : Based on Survey



It is clear from the above table that with more training and education, tourism can bring more tour related jobs.

3.5 Local People’s Views on Tourism in Dang

Views of Local People	Yes	No
Does your income increase due to tourism development?	82.4	17.6
Does tourist purchase your product when they visit Dang?	91.2	8.8
Views of Local People	Yes	No
Does any member of your family go for employment at tourist spot?	38.2	61.8
Does employment opportunity increase due to tourism development in Dang ?	61.8	38.2
Are you satisfied with tourism development of Dang?	17.6	82.4
Are you aware of Medicinal Plant?	29.4	70.6

The above table shows that 82.4% local people say that after tourism activities have been developed their income has been increased. 38.2% family got employment at tourist place. It also indicates that 91.2% of tourists have purchased local products and has resulted in the improvement of their economic conditions. Nearly 76.5% people are satisfied with tourism development. 17.6% respondents answered that tourists purchased their local special crops. This results indicate that tourism in this area surely improve local economy.

In Dang majority of population is dependent on agriculture sector for their livelihood. Animal husbandry and bamboo cutting are the other economic activities in the region. After tourist spot development, the cropping pattern has slightly changed. The agricultural production pattern is slowly changing from traditional coarse grains like ragi, kharsani and tuver to rice and many people are now cultivating medicinal plants. It indicates that tourism helps to improve local economy.

Generally tourist activities result in deforestation and adversely affect environment. Moreover the survey has recorded the local people's response regarding the negative impact. The following suggestions of the local stakeholders are worth mentioning here. The majority people want a total ban on the usage of plastic materials in and around the tourism place. The other suggestions are a check on deforestation and creation of the awareness of environmental issues among the local people, tourists, and tour operators.

The encouraging findings of the survey is that local people have experienced an increase in their income due to tourist activities. Tourism has potential to bring development in backward region. There is a strong case to develop Dang as an ecotourism site in Gujarat.

Further, elaborating the survey, it can be said that people of Dang have not experienced any negative impact of tourism so far. Mostly the local people are engaged in basic agricultural activities. Very few have taken up the cultivation of medicinal plants for commercial purpose. There is a need to train them on these aspects so that they can get benefit by cultivating medicinal plants.

People of Dang have shown clear awareness about the necessity to protect environment. The residents have given a strong opinion that usage of plastics need to be prevented in order to save environment. Local residents can be involved in the development of ecotourism centre at Dang as they are aware of the necessity to profit environment.

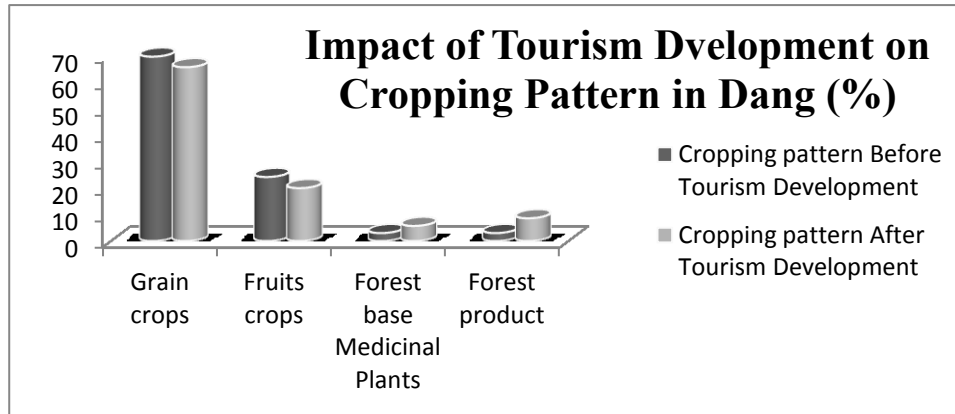
The survey focusing on tourists who arrived at Dang revealed some worth noting findings. Dang has recorded tourists mainly from India. International tourists are occasionally touring this place. To promote this place as Ecotourism centre, a lot of initiatives either from Government or through Private-Public Partnership will be required.

Tourist activities have taken a momentum since 2000 in this area. Government's policy of providing "Leave Travel Concession" has positive impact on tourism here. Apart from people employed in government services, business and traders are also tourists in this area.

Impact of Tourism Development on Cropping Pattern in Dang (%)

Crops	Cropping pattern	
	Before Tourism Development	After Tourism Development
Grain crops	69.70	65.70
Fruits crops	24.20	20.00
Forest base Medicinal Plants	3.00	5.70
Forest product	3.00	8.60
Total	100	100

Source: Based on Survey



Many farmers have started growing forest crops as well as medicinal plants and it a shine of changing cropping pattern. As area has enough potetial to develop medical tourism it o Special feature of Dang tourism is that medicinal plants and herbs are purchased by tourists. Although many turists have expressed their ignorance regading these herbs and plants. It requires effeorts to be taken for commercial trading of these products. This will ultimately bring advantages to local people.

4. Tourist view point on Tourism Development at Dang

State Government has declared Dang as Ecotourism spot, it is important to have tourists views about it. The respondennts have given different reasons for choosing Dang as their touring spot. The following observations have been emerged.

It is obvious from below table that there are varied reasons for which tourists visit Dang as tourist spot. Government may considered these objectives of Tourists for policy making to develop Dang as Ecotourism spot.

5. Objectives of Tourist to visit Tourist Place at Dang

Objectives of Tourist	Total Respondents	%
To Enjoy forest area	19	31.70
To Study Cultural aspect	5	8.30
To visit Hilly area for fresh air	19	31.70
To Study Socio-Economic aspects	5	8.30
To Purchase forest products	5	8.30
To Visit Historical Places	7	11.70
Total	60	100

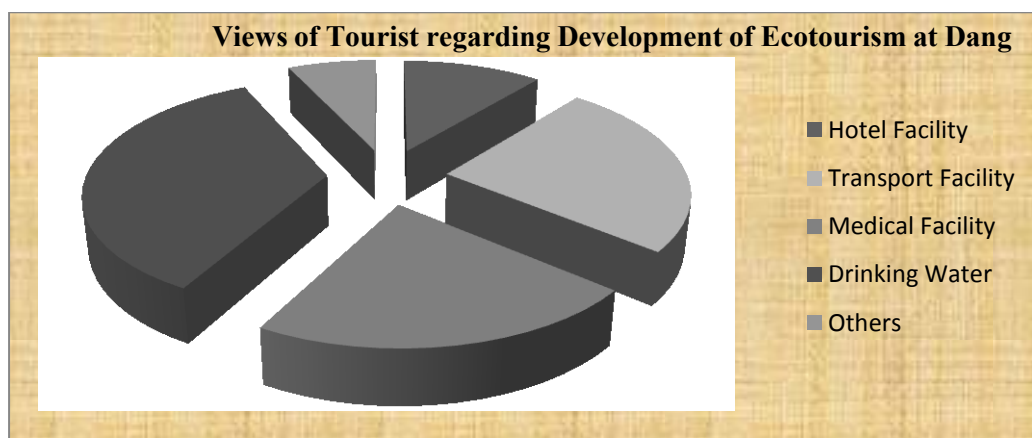
Source: Based on Survey

Opinions of tourists regarding the type of facilities are to be developed in this tourist spost has also collected in survey. The results show that various facilities like infrastructure, educational, banking are required in this area. This will surely help to generate employment for local people. If government, NGOs or any other instituions take up this work properly, more people will be benefitted from ecotourism. Government may intiate various schemes promoting ecotourism like market development, highlight local products, developed Medical Tourism or Healthcare Tourism, Destination Development, Infrastructure and Transport Development.

6.Views of Tourist regarding Development of Ecotourism at Dang

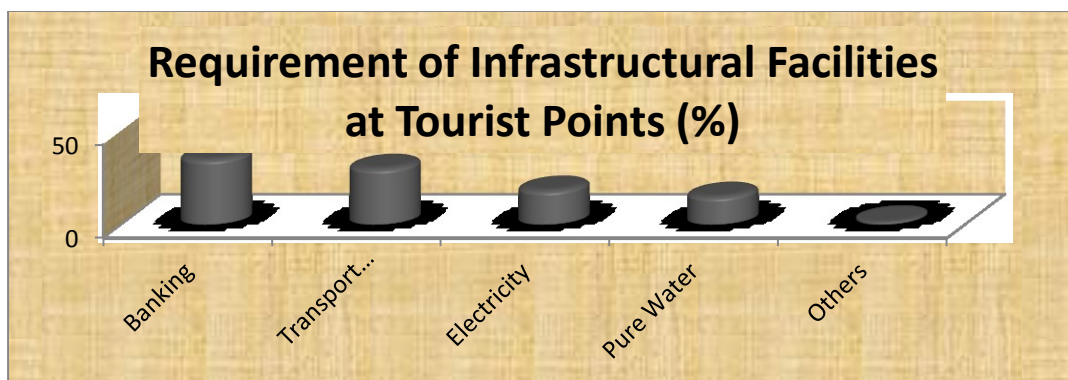
It is general opinion of Tourists that if Dang has to be developed as ecotourism centre than it is necessary to develop facilities like Hotel, Transport, Medical, Drinking Water and other facilities by 11%, 25% , 35% and 7% respectively for various facilities as views given by respondent tourists.

Tourists expectations for various places at Dang which made them to finalise their tour are also analysed. There are 43.10% tourists shown their keen interest to visit hill station and 50% of them have to enjoy forest area of Dang while only 6.90% are interested in medical tourism. The Sunset point- Ahwa, Naladana Dev (Borakhal), Shabarimata Pratishtan at Subir, Pampa Lake, Gira Falls, Botanical Garden (Vaghai), Shiv Temple, the Forest of Mahalkot-Mahal, the Fort of Roop Gadh (Kalibel), Maya Devi (Bhenshkatri) and other spots have vast potentiality for ecotourism at Dang.



7. The View Point of Businessmen in Dang for Vaiious Tourist Spots

Local people and businessmen have shown keen interest in the development of tourism in Dang. The opininions collected from buisnessmen also revealed that with balanced approach Dang will develop as an important tourism centre. The other importatnt recommnedations from businessmen are regarding the infrastructural facilities. And they are well explained in the following chart.



It is necessary to give importance to the development of banking , transport, electricity and basic requirements if sustain tourism activities are to be developed in Dang. In this tribal area women are participating in tourism related services. This is also the trend witnessed in other inportatnt centre in South Asia like Thailand, Indonesia and other places. Almost 53% of them were from

backward groups. However, their educational background is not encouraging. Hardly 30% from them reach secondary level and above education.

The tourism operators have opined that infrastructure facilities which are necessary for tourism activities are not well developed and they are average. This can be considered as one of the reasons that Dang has not get exposure to International Tourists.

8. Conclusion

For a sound base of ecotourism in a mountain range, there must be participatory and humanist efficiency, environmental friendliness and humanistic philosophy are required. More particularly one can consider the following measures:

9. Sustainable Ecotourism

This requires that mountain communities should invest in such mechanism that allow them to monitor development over time in the environment, in the economy and in social and cultural aspects with strict regulation with limited uses to visitors.

10. Reduce Dependency and Increase Diversity

Dang is an important place having varieties in medicinal plants and herbs. As tourism activities develop gradually it should link with medical tourism so that local people can participate and learn about medicinal plants and their commercialization.

11. Restructure and Reform Existing Governmental and Non-Governmental Institutions

Successful ecotourism will hinge on the implementation of national policies and strategies formulated in consultation with local stakeholders. They can implement the ideas in their respective areas.

Further, training to create awareness of the potential harmful effects of tourism will give social benefits. Local products need to be marketed and packed as per modern marketing strategies. And training on these aspects is essential.

Dang as a Mountain region is taking advantage of ecotourism, efforts must be focused on developing long term plans and policies necessary for successful implementations. Ecotourism in Dang has a huge potential and if planned well there can be sustained development of one of the backward regions of the state and this will uplift the down-trodden tribal population.

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