

Article

Evaluating Ecotourism in Mountain Areas: A Study of Three Himalayan Destinations

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This paper addresses two prime concerns in ecotourism: defining ecotourism, and identifying indicators of ecotourism to facilitate operationalizing and evaluating the concept at a particular location. Based on a literature review, the following indicators are identified: impacts of ecotourism on the natural environment, its contribution to the local economy and conservation, the extent of participation of the host community, and its capacity to educate the stakeholders. Using the indicators, the study evaluates the sustainability of nature tourism in three destinations in the Kufri-Chail-Naldehra area of Himachal Pradesh, India. Primary data is used from surveys with tourists, tourism industry operators, host communities, representatives of local self-government institutions, and local development officers in the area. It is concluded that in its present form, tourism in the study area does not meet the criteria for true ecotourism. However, forging stronger links between local agricultural and other producers and the tourism industry, diversification of tourist accommodations and services in line with tourist demand, marketing of the destinations, education of the local people, and, particularly, more involvement of the community in tourism planning, could unlock significant potential for developing ecotourism that brings substantial economic benefits to the community and promotes environmental protection.

Keywords: Ecotourism, Mountain areas, Sustainability indicators, India

1. Introduction

It is often argued that as mountain areas have a comparative advantage in their provision of natural resources such as biodiversity and wildlife (Sinclair 1998), tourism there is predominantly nature based. This tourism provides alternative economic activities to people who otherwise have very limited options. Therefore, the trend often is towards attracting more and more tourists into these areas to boost the local economy. However, as the number of people approaches a threshold, the conflict between maintaining a good environment and tourism development increases. Mountain tourism is demand driven (Batta 2000); that is, people simply show up at destinations on their own, needing food and shelter, and the infrastructure is then created to suit their needs. One important drawback of such a trend is that these areas cannot develop a tourism product or niche and there is often the indiscriminate development of tourism infrastructure typical of mass tourism. Such a phenomenon is also called spearheading (Brandon 1996). Tourism development of this kind puts a strain on planners and policymakers responsible for developing sustainable tourism.

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The term *ecotourism* has often been equated with a number of terms like *alternative tourism*, *green tourism*, and *sustainable tourism* (Butler 1991). Usually considered more than just tourism to natural areas, the recent definitions of ecotourism (for example from Black 1996; Ceballos-Lascurain 1996; Scace 1992) include evaluation of aspects like the impacts of tourism on the environment, contribution to conservation, and community participation as essential components. However, the lack of a precise definition of the term has encouraged increasing free use of the term to gain competitive advantage. Such a trend has also flourished in the absence of standard indicators for measuring the success of ecotourism at a particular site. Thus, along with defining the concept, the real challenges lie in operationalizing it at specific locations and in developing indicators for evaluating the sustainability of ecotourism.

This paper addresses two prime concerns in ecotourism: defining what ecotourism is, and identifying indicators to facilitate operationalizing and evaluating the concept at a particular location. Indicators identified through a review of the literature—impacts of ecotourism on the natural environment, its contribution to the local economy and conservation, the extent of participation of the host community, and the capacity of tourism to educate the stakeholders—are studied with the help of primary data collected through field surveys in a mountain tourism area in Himachal Pradesh, India. For collecting and analyzing the data, the paper uses a multidisciplinary approach. While the indicators framework is taken from the tourism discipline, methodology to study the economic impacts of tourism is taken from economics, and methodology to study the willingness-to-pay (WTP) of the stakeholders is taken from environmental economics.

With its 32 wildlife sanctuaries, two nature parks, and 66 percent land under forest, Himachal Pradesh—a small province in the Indian Himalayas—has great advantages in nature-based tourism and ecotourism activities. The craze for calling any nature-based tourism destination an ecotourism destination has spread in the state, and many governmental agencies are also falling prey to it. Endowed with natural beauty, thick forest cover, biodiversity, and wildlife, the Kufri-Chail-Naldehra area has been promoted as an ecotourism destination by both government agencies and private operators. Recently, the state Forest Department has formed the Ecotourism Society to manage a nature park at Kufri.

This paper is divided into six sections. Section 2 examines definitions and indicators of ecotourism. Sections 3, 4, and 5 are devoted to the study of the Kufri-Chail-Naldehra nature-based tourism area, with reference to the selected indicators. Finally, section 6 offers conclusions and recommendations of the study. Based on the findings, it is concluded that in its current form, tourism in the study area has adverse as well as positive environmental impacts, contributes little to the local economy and conservation, does not elicit local community participation, and fails to educate the stakeholders. However, there exists great potential for development of sustainable ecotourism in the area. This could be realized through, among other things, linking local farmers and other producers with the tourism industry, proper marketing of the destination, diversification of tourist accommodations and services (in line with real demand), education of the local people, and greater community involvement in tourism planning.

2. Ecotourism and the indicator framework

The notion of ecotourism was initially developed in 1987 by Hector Ceballos-Lascurain, who defined ecotourism as an experience of:

traveling to relatively undisturbed areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals as well as any existing cultural manifestations found in these areas. (Boo 1990, xiv)

The Ceballos-Lascurain definition confined the scope of the ecotourism concept to the objective of traveling and the area traveled. The World Tourism Organization gives a very similar definition:

tourism that involves traveling to relatively undisturbed natural areas with the specified object of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural aspects (both of the past and the present) found in the areas. (McIntyre and Hetherington 1993, 23)

As is obvious from these definitions, the focus is solely on visiting these relatively undisturbed natural areas.

Later definitions, however, have included the impacts on the area visited as important ingredients of ecotourism. Rosemary Black has defined ecotourism as:

an experience with a focus on the natural and cultural environment, ecologically sustainable activity, an activity with a predominant educative and interpretative programme, and an activity that contributes to local community groups and projects and to the conservation of the surrounding environment. (Black 1996, 4)

A later definition by Ceballos-Lascurain also offers a wider scope:

environmentally responsible, enlightening travel and visitation to relatively undisturbed natural areas in order to enjoy and appreciate nature (and any accompanying cultural features both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local population." (Ceballos-Lascurain 1996, 20).

This study adopts Black's definition of ecotourism.

Studies in the recent past have focused on development of indicators for assessing the success of ecotourism at a specific location. Notable contributions in this respect come from Brandon (1996), Loon and Polakow (2001), Nepal (2000), Ross and Wall (1999), Scheyvens (1999), and Wallace and Pierce (1996). Brandon (1996) reviews the concept of ecotourism and identifies five key benefits that ecotourism should give to an area: a source of financing for parks; economic justification for park protection; economic alternatives for the local people; constituency building; and impetus to private conservation efforts. This study concludes that in many cases, nature-based tourism and ecotourism have not come up to expectations. Wallace and Pierce (1996) identify six indicators, namely: minimizes negative impacts on the environment and local people; involves people in natural and cultural systems; contributes to conservation; maximizes local participation; provides direct economic benefits to the local people that complement traditional practices; and provides special opportunities to the employees and local people to learn more about the area. In their study evaluating ecotourism in Amazonas, Brazil, they conclude that ecotourism could only partially satisfy the above six principles.

Ross and Wall (1999) identify the specific roles that ecotourism could play and then shortlist five indicators of ecotourism, namely: preserves natural environment and biodiversity; generates money to finance conservation; contributes to the local economy; promotes community partnership; and educates the visitors and the local stakeholders. Broadly, Wallace and Pierce’s above six principles are covered in these five indicators. Scheyvens (1999) gives an empowerment framework (economic, psychological, social, and political empowerment) to test the sustainability of ecotourism. However, she acknowledges that as the central concern in the framework is empowerment, it is useful only for evaluating the contribution of tourism to the community. Nepal (2000) reviews ecotourism in the Himalayas but does not offer any framework for similar studies at other locations. Finally, the whole focus of the study by Loon and Polakow (2001) is on economic aspects. The paper provides a generalized model to evaluate the financial viability of investment in ecotourism ventures. Comparing the internal rates of return from various forms of accommodations offered (campsites, lodges, and chalets), the study concludes that campsite accommodations offer the highest returns compared to lodges and chalets.

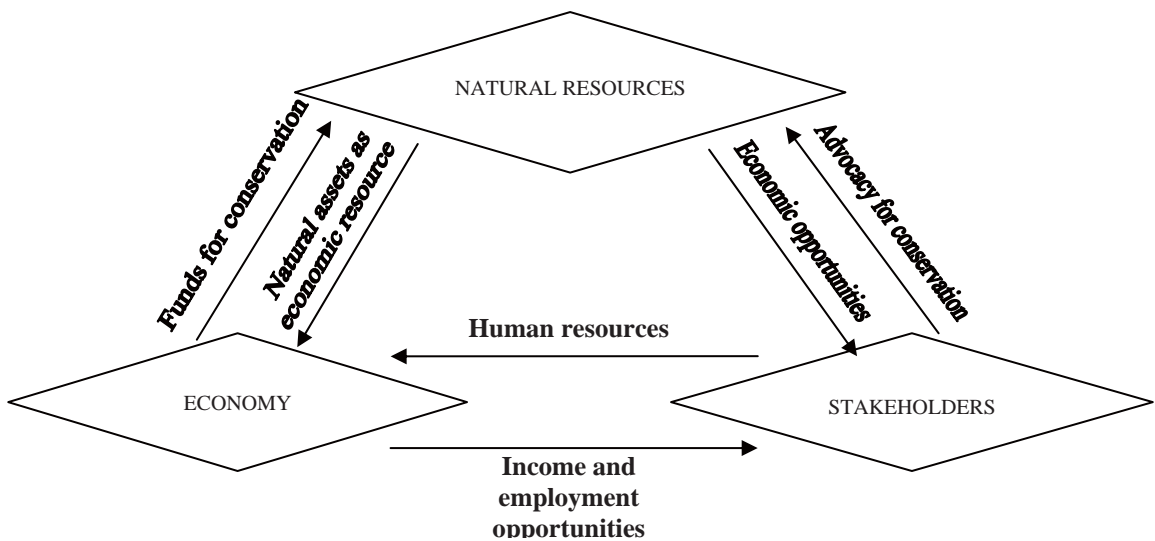


Figure 1. Indicators framework

From the above it is clear that though Brandon (1996) made an early attempt to identify indicators of ecotourism, the model is not comprehensive. It fails to include protection of the natural environment and community participation as components of the ecotourism framework, which are identified as essential prerequisites in Black’s definition of ecotourism. Similarly, the focus of other studies, such as Loon and Polakow (2001), Nepal (2000), and Scheyvens (1999), is rather limited. However, the indicators identified by Wallace and Pierce (1996) and the framework offered by Ross and Wall (1999) are similar and cover all aspects of ecotourism included in Black’s definition (Black 1996).

Based on the fundamental functions of ecotourism identified in the literature, we can say that its success at a site is reflected by the extent to which it satisfies these key requirements: preserves natural resources and biodiversity; generates money to finance conservation; contributes to the local economy; promotes community partnership; and educates visitors and members of local communities. Thus the

focus of the indicators is three dimensional: natural resources, local economy, and stakeholders. Individually, these indicators are interrelated and together they make nature tourism, ecotourism. The natural resources are protected and strengthened through conservation plans; the local economy gets a boost with the operation of multiplier effects; and the stakeholders are consulted and educated while developing tourism. For nature tourism to be ecotourism, it has to fulfill all of the above criteria.

3. The study area

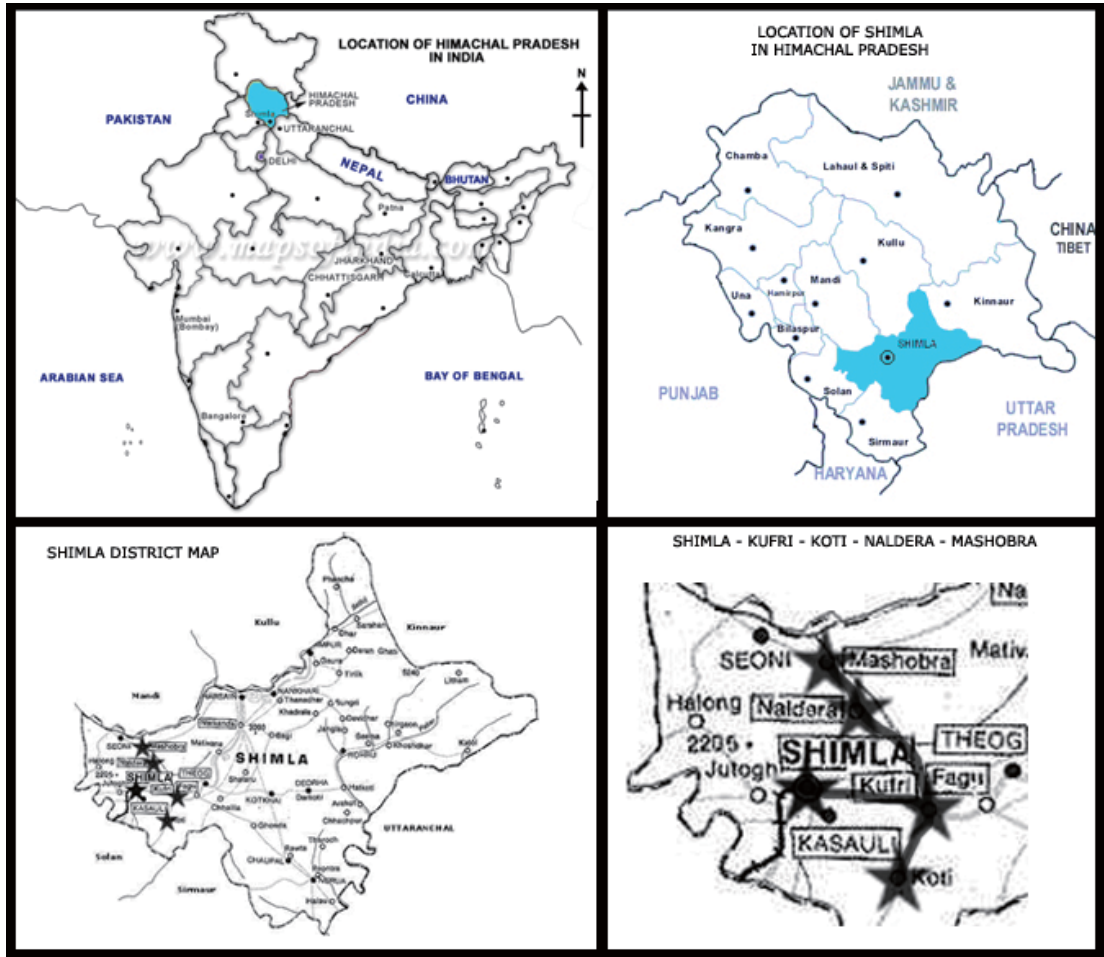


Figure 2. The Kufri-Chail-Naldehra area

The study area, comprising three hamlets—Kufri, Chail, and Naldehra—is located in the outskirts of Shimla town (figure 2). Naldehra-Mashobra, Kufri-Koti, and Chail are promoted as ecotourism destinations.

3.1. Kufri

About 16 kilometers (km) from Shimla, at an altitude of 2,633 meters (m), Kufri stands as a winter sports center of the Shimla circuit. It earlier had the distinction of being the winter sports capital of the state, but with the emergence of the Solang Nallah slopes in the Kullu Manali area, it has been relegated to second place. Nevertheless, it has vast potential for developing winter sports to reduce the seasonality of the circuit. Among the species of flora found here are *chil* (*chir* pine, *Pinus roxburghii* Sarj.), *kail* (blue pine, *Pinus wallichiana* Jack.), spruce, and deodar cedar (Himalayan cedar, *Cedrus deodar*). There is a zoo in the nature park. Tourism is the second main source of employment of the local people after agriculture.

Koti village is adjacent to Kufri and falls on the route to Chail. While the village does not offer any special attractions for tourists, all tourists going to Chail pass through it. Agriculture is the main occupation of its people. Put together, the total population of both the villages comes to 467 people, with a literacy rate of 46 percent, which is far lower than the state average of 67 percent.

3.2. Naldehra

About 22 km from Shimla, at an altitude of 2,078 m, Naldehra offers a refreshing retreat into woods of tall deodars and undulating hilly terrain. A well-kept nine-hole golf course is an attraction for visitors. The main occupation of the 217 people living in the village is agriculture. Tourism is picking up as the second main avenue of employment in the area.

Mashobra is a small village located close to Naldehra. Being on the way to Naldehra, Mashobra attracts people visiting that village. It has nice forest cover, nature trails, and a well-kept historical guesthouse built during the British rule. Being 5 km from the capital town, the majority of the local population is in civil employment. Literacy rates are quite high at 84 percent.

3.3. Chail

At an altitude of 2,250 m and about 45 km away from Shimla, Chail is a small mountain resort. A palace of the nineteenth century and some pretty cottages are part of the Chail Holiday Resorts. Chail is also well known for having the highest cricket pitch in the world. Chail has attractive walks and trails that meander through the dense pine forests, home to barking deer, wild bear, pheasant, and a variety of bird species. A small hill township, Chail has a total population of 534 people living in 93 households. The major occupation of the local people is agriculture, followed by business and tourism.

It is estimated that about 300,000 tourists visit the area every year. Of these, 89 percent are Indian nationals and only 11 percent are foreign. A majority of the domestic tourists (65 percent) are from the neighboring provinces of Punjab, Haryana, Chandigarh, and Delhi, while the remaining are from the provinces of western India. Among the foreign tourists, Europe accounts for 65 percent of total arrivals, followed by Asia (20 percent), and America and Canada (11 percent). Forty-five percent of the tourists are first timers, 36 percent second timers, and 20 percent have already visited more than twice. There are relatively fewer repeat visitors among foreigners (9 percent). The tendency for repeat visiting among domestic tourists can be attributed to the proximity factor.

At the time the study was carried out, there were 16 hotels, nine guesthouses, and seven resorts with 467 rooms and 767 beds. There was only one travel agency operating in the area. Two resorts in Naldehra, four in Kufri, and one in Chail were under construction. Most of the upcoming accommodations were for higher-income visitors. Two very distinct allied activities have emerged as a result of tourism in this area: gift shops and mule and yak operators. Gift shops mostly stock handwoven and handicraft items, art pieces, souvenirs, cola, chips, biscuits, and sweets. Mule and yak operators provide rides up to nearby adjoining sight-seeing areas at rates ranging from US\$0.20 to \$3.00 per ride. In Kufri, there are so many such operators that a special body has been set up to regulate deployment of mules for the tourists. There are no guides in the area. However, outdoor photographers registered with the state Tourism Department provide services to the tourists. The area therefore has some infrastructure to cater to tourist demand.

4. Methodology

Data for the study were collected through five surveys: a tourist survey, a tourism industry survey, a host community survey, a survey of *panchayat* (village council) representatives, and a survey of local development officers in the area. The tourist survey was conducted at Kufri, Naldehra, and Chail during the main tourist seasons: summer, autumn, and winter. Some 200 schedules were filled out on each visit. The survey instrument included questions on various socio-economic aspects, impressions of the tourists about the strengths of the area, environmental impacts, and WTP for protection of environmental resources in these areas.

There exist four basic methods for evaluating economic impacts: the inventory/budget method; input-output method; social accounting matrices and computable general equilibrium models; and benefit-cost analysis (Baumol 1977). The first is simply a summarization of the total value produced and total resources used by a firm or an industry. The input-output method uses matrix algebra to find out how much can be left over for consumption and how much output will be used up in the productive activity to obtain the final net output. However, it is quite a rigorous method imposing substantial data requirements. The social accounting matrices and the computable general equilibrium models are advanced and more sophisticated versions of input-output analysis and hence they also suffer from the same shortcomings. Finally, benefit-cost analysis is more popular for analyzing economic impact, as it is usually used to assess the economic costs and benefits of a project (Kottke 1988).

As the focus of the present study is on local economic impacts, it principally focuses on the distribution of economic benefits from the first round of tourism expenditure using the inventory/budget method. Economic multipliers result from the process by which tourist spending stimulates further spending and increased economic activity. Traditional economic analyses would estimate impacts using macroeconomic techniques such as input-output analysis, but such large-scale techniques are inappropriate for local-level inquiries where significant data are often unavailable. As the second and subsequent rounds of expenditure are not being studied, estimation of multiplier values is not possible. Although future spending rounds may be important for assessing the level of integration of tourism into the local economy, the estimation of multipliers requires considerable data that were not available

locally, and thus it was beyond the scope of this study. Since there were only 32 tourism units, the tourism industry survey covered all of them. Information on the profile of the tourism industry included the type of tourism unit (hotel, resort, or guesthouse), number of rooms, total investment made by the unit, the number of persons employed, educational level and area of origin of the workers, the sourcing of raw material by the unit, and WTP for protecting the environment.

With the growing interest in ecosystem protection and restoration, economic research has continued to seek improved methods for valuing environmental amenities. Among the methods used for this purpose are the travel cost method, the hedonic price method, and the contingent valuation method. While both the travel cost method and the hedonic price method rely on revealed preferences of the users, these can only measure the use values and are unable to take account of non-use values. One non-market valuation tool, the contingent valuation method, relies on surveys to ask individuals directly about the value of a specific change in environmental quality. In the case of recreational areas, particularly the study area, rich biodiversity, nature parks, and mountain landscapes give a location a high non-use value. Therefore, for a true reflection, the contingent valuation method was used to assess the non-use values.

To elicit values from tourists and tourism industry representatives, the scenarios below were presented and the respondents were asked about their WTP. Those who expressed a willingness to pay were asked to indicate how much, in monetary terms, they would pay, on a payment card schedule. In the case of those who were unwilling to pay, reasons for their unwillingness were ascertained.

Scenario for tourists and tourism industry representatives

Suppose some agency wanted to promote sustainable tourism in this area by:

- Setting up an independent agency to handle natural resource management in the area by visitation based on a carrying capacity plan, with emphasis on guided eco-tours;
- Economic development focusing on tourism with emphasis on the quality of existing environmental assets and developing missing services like sport, entertainment, nature trails, etc;
- More emphasis on afforestation, beautification, pollution control, solid waste management, biodiversity conservation, and water management that ensures better facilities.

The agency needs some capital to initiate these activities, and monthly maintenance and running expenditure (labor costs, electricity, etc.). Would you be willing to pay towards the cost and maintenance of such a project?

The host community scenario included enhancement of environmental resources so as to improve the availability of fuel, fodder, and water. In both the cases, those who replied in the affirmative were asked to indicate the monetary level they were willing to contribute.

Scenario for host communities

Suppose some agency took this site for conservation of its natural environment in terms of afforestation, beautification, pollution control, biodiversity conservation, and water resource management so that you get more fuelwood, fodder, and water. The agency needs some capital to initiate these activities and funds for monthly maintenance and running expenditure (labor costs, electricity, etc.). Would you be willing to pay for such a project?

The approach adopted to study host communities was akin to the socio-economic survey approach except that in addition to the questions on socio-economic variables, respondents were quizzed about their perceptions regarding impacts of tourism development and the way tourism should be developed in the area. Out of the 18 villages falling within the area, a sample of five was selected using a stratified sampling method, taking into consideration factors like distance from Shimla (the state capital of Himachal Pradesh), cropping patterns, and position on other socio-economic variables like education and occupational patterns. Along with Kufri, Chail, and Naldehra villages, which happened to be the main focus of the study because they are nature tourism destinations, Mashobra and Koti were also included (Mashobra because it is closer to the town and Koti because it has an agrarian economy). Each village had 25 to 30 households. A random sample of 20 households from every village was drawn for the host community survey.

The survey instrument used for host communities was divided into three parts. The first part sought information on socio-economic variables like size of the family, educational status, occupational pattern, composition of family assets, sources of fuelwood and fodder, and the gender distribution of collection efforts. The second part was based on the scenario to elicit WTP above. The third part included questions soliciting community members' views on impacts of tourism on the rural economy and the environment, the extent of their participation in decision making, and their suggestions on tourism development in the area. Following the Hunter and Green (1995) definition of *environment*, the environmental effects were studied in three parts: effects on natural environment, built environment, and socio-cultural environmental.

Local self-government institutions in Himachal Pradesh are organized in three tiers. At the grassroots level is the *panchayat* for a group of villages, followed by the *panchayat samiti* at the level of a development block, while at the district level is the *zilla parishad*. Each *panchayat* is headed by a *panchayat* president and has five other members. The survey of local representatives covered *panchayat* presidents. The interview schedule for the *panchayat* presidents included seeking their views on economic and environmental impacts of tourism in the area.

Another important stakeholder in tourism in the area is government, operating through its functionaries working in the villages. The survey instrument used for governmental functionaries included questions eliciting their opinions on impacts of tourism development and level of public participation. There are two key governmental functionaries connected with tourism and development in the area: the divisional forest officer and the block development officer

5. Findings

The success of ecotourism in the Kufri-Chail-Naldehra area was analyzed in terms of its performance against the indicators identified in section 2. The findings are presented below.

5.1. Preservation of natural environment and biodiversity

As definitions of ecotourism indicate, natural resources (land, water, and forest) and biodiversity are essential components of the ecotourism experience. It could even be said that they constitute the core of the ecotourism product. Nature-based tourism, which is defined as tourism that features nature (Priskin

2001), is a broad phenomenon that includes many forms of tourism like adventure tourism, cultural tourism, rural tourism, and ecotourism; like other forms of tourism, it is known to be hazardous to the natural environment if not developed in a planned manner. Both civic (roads, drainage, and sewerage) and tourism-specific (hotels, airports and parking) infrastructure requires land, which is often made available by clearing forests, causing soil erosion, and change in land use. Besides, increased activity and consumption may lead to rapid depletion of renewable and non-renewable natural resources like construction materials, forests, water, and animal life. Tourism-led deforestation and degradation of forest are issues widely reported (Batta 2000; Mieczkowski 1995). Furthermore, with increased construction activities and floating populations, there is increased demand for water and resultant depletion of water resources.

As there was no baseline data available with reference to which tourism's impacts on the natural environment of the study area could be analyzed, all the five surveys conducted during the study included questions on impacts of tourism on the natural, built, and cultural environment. This was done to capture the stakeholders' impressions of the changes seen in a historical perspective. The findings revealed that negative impacts often attributed to tourism in the area are littering, deforestation, soil erosion, water scarcity and deterioration in water quality, and unscientific disposal of solid waste.

A majority of tourists (55 percent) visiting the area noticed littering with non-biodegradable garbage in the open. Most of it comprised disposable glasses, plates, and cans and other packaging. Even the hoteliers also felt concerned about this problem. With the popularity of fast food growing in the developing countries, the problem of disposal of packaging materials is assuming alarming proportions. Waste management is yet to be introduced in the area, even though composting of organic waste is easy. By disposing of waste in the open, the hoteliers revealed their preference for lower private costs and higher social costs, as the natural resources in the area are open-access resources. It has been argued (Dixon and Sherman 1990) that social and private interests often do not coincide; what is good for an individual may impose costs for the society. This disparity between private and social costs and benefits, coupled with the nature of property rights on these resources, exacerbates the damage.

On the issue of impacts on the natural environment, the most useful information came from the household survey and the survey of local representatives. A majority of households in Naldehra and Kufri villages (45 percent and 52 percent respectively) felt that tourism had benefited the natural environment in the area, with improvements in the existing wildlife sanctuary and the golf course located there. However, in Mashobra, Koti, and Chail villages a majority felt that tourism had had no impact. The largest number of households noticing no change was in Koti, where 91 percent of households felt that tourism had had no impact on the natural environment. Those who felt that tourism had damaged the local environment (32 percent in Kufri and 23 percent in Mashobra) attributed the problems of soil erosion prevalent in the area to the construction of hotels.

The perception of the households seems to have been influenced by the level of tourism development in the area. In places already exposed to tourism (such as Naldehra, Kufri, and Chail), the state government had invested money on maintenance of environmental assets and hence the positive impact

was visible, while in places where tourism was not an important activity (like Koti), the perception was of no impact from tourism.

Soil erosion was an issue of serious concern with the *panchayat* presidents. While the host populations did not notice it, the presidents cited examples of cutting the hillside by particular hoteliers. The *panchayat* presidents from Koti and Mashobra felt that tourism had destroyed natural resources, with hotels causing soil erosion and dumping waste in the open. They even pointed out specific sites where erosion had occurred due to large-scale cutting of hills by the hotels. On the other hand, the presidents of Kufri, Naldehra, and Chail *panchayats* felt that tourism had increased the natural capital in the area in the form of nature parks, nature trails, and increased biodiversity.

As for water, hoteliers, villagers, and *panchayat* presidents felt concerned about the scarcity of water and deteriorating water quality in the area. Among the major reasons for scarcity were increasing demand from hoteliers, golf course managers, and the floating population. Water pollution was due to littering by tourists, unscientific disposal of solid waste, and the discharge of untreated wastewater by the hotels. The *panchayat* presidents cited quite a few locations where waste was being dumped in the open by hotels.

As can be seen from the above, tourism's impacts on the environment arose mostly due to lack of a proper environmental management system. Problems of littering, waste disposal, and discharge could be solved by education of tourists and accommodations providers and by having a common treatment plant and incinerator.

5.2. Contribution to the local economy

Protected areas and their surroundings are among the most remote and agriculturally marginal lands in many countries. One of the most important factors in community involvement is that residents living in or adjacent to a protected area should be receiving economic and social benefits or compensation that support or complement their livelihoods (Lindberg and Enriquez 1994). The economic benefits often flow in the form of foreign-exchange earnings, generation of income due to the operation of multipliers, and creation of employment opportunities. While foreign-exchange earnings tend to benefit the country/region as a whole, the income and employment effects usually have local benefits. Additional incomes are generated as tourist spending boosts trade and business and creates demand for local products and handicrafts. Alongside enhancing economic activities, ecotourism can also contribute to providing markets for the products of cottage and small-scale industries. The most significant benefit for most rural communities from ecotourism is creating a range of employment opportunities. The types of employment generated are strongly linked to the way in which tourism is managed and the level of local control. If local people lack the requisite skills, people from outside will grab the opportunities arising from nature-based tourism development.

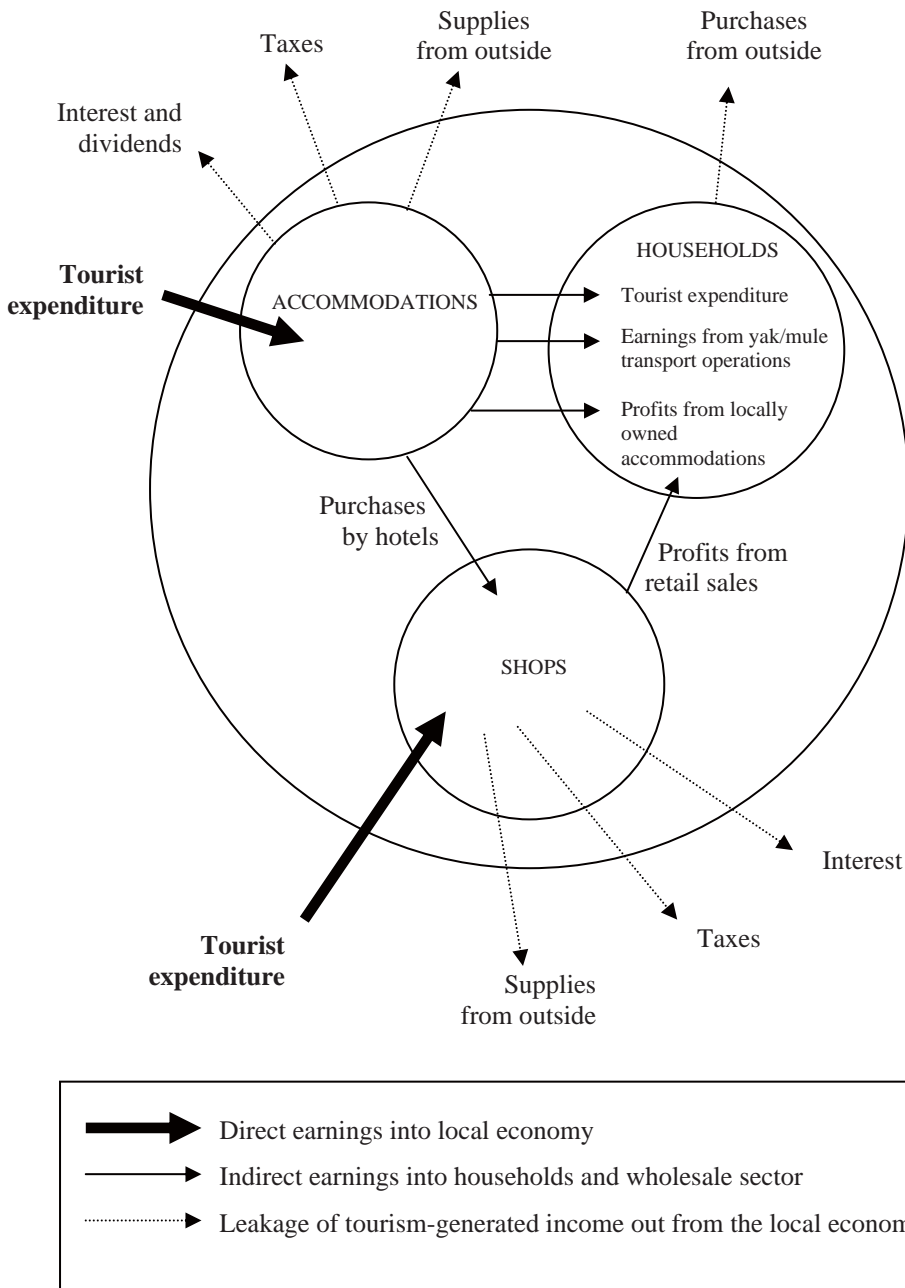


Figure 3. Economic impacts of tourism in the study area

On the economic impacts of tourism, the survey results show that about 30 percent of revenue was generated and retained in the places of origin. Analysis of the expenditure pattern revealed that 33 percent of expenditure incurred was on interest, dividends, and taxes (15 percent, 10 percent, and 18 percent respectively). While interest and taxes were payments made to the Government and to

financial institutions located outside the study area, with 86 percent of resorts and 12 percent hotels owned by outsiders, a major share of dividends was also being filtered out. Even expenditure on account of water (2 percent), electricity (4 percent), and transport (3 percent) was also leaking, as this was given to outside parties and nothing was ploughed back into the local economy. Therefore, 52 percent of total earnings generated by the tourism units went to outside agencies. Of the remaining 48 percent, 23 percent was spent on raw materials, 15 percent on wages, and 10 percent on maintenance. Analysis of the procurement of raw materials by the tourism units showed that 95 percent of the raw materials (fruits and vegetables, pulses, beverages, grains, bread, butter and eggs, and liquor) used by resorts, 65 percent of the raw materials used by hotels, and 40 percent of raw materials used by guesthouses were being procured from outside the study area.

Even in allied sectors (shops, mule operators, photographers, etc.), leakage was very heavy. Of shops, the survey covered only gift shops catering exclusively to tourists. Most of these stocked souvenirs, gift items, and handwoven and handicraft items. Not a single item being sold here was produced locally; all were imported from outside. Handwoven items came from Kullu, Ludhiana, and Shimla towns, while souvenir and gift items were imported from the adjoining cities of Delhi and Chandigarh. The shopkeepers thus retained their commission on sales. However, mule and yak operators and photographers, being locals, retained their earnings.

As for employment in tourism, a total of 206 jobs in Kufri-Koti, 62 in Chail, and 103 in Naldehra-Mashobra areas were totally dependent on tourism (only direct employment in tourist accommodations included). Besides these, about 843 full-time jobs were created indirectly in the supporting service sector.

Table 1. Estimates of tourism and related employment in the study area

	Number of direct jobs offered				Indirect jobs created in allied sectors			Indirect employment as % of direct employment
	Hotels	Resorts	Guest houses	Total	Shops	Yak/mule operators	Taxi operators	
Kufri-Koti	60	166	–	206	64	515	30	295
Chail	42	32	8	62	22	56	33	179
Naldehra-Mashobra	25	84	4	103	–	82	41	119
Total	77	282	12	371	86	653	104	284

The overall ratio of direct to indirect employment was 1:2.2. An analysis of employment per room gives a ratio of rooms to direct and indirect employment of 1:2.6. This ratio is close to the national average of 1:3 (Seth 1996). Eight hotels, and three resorts created direct employment to 206 people and indirect employment to 609 people in the Kufri area. The ratio of direct to indirect employment there came to 1:2.9, the highest in the study region. The reason for this high ratio is the large number of mule and yak operators working in the area. Set against this, the ratios in Chail and Naldehra were 1:1.8 and 1:1.2 respectively.

The overall ratio of skilled employment (with a diploma or higher qualification in hotel management and catering) to unskilled employment (without any formal training in hotel management and catering) was 42:58. The proportion of skilled employment was higher in resorts (48 percent) compared to hotels (20 percent). While 85 percent of unskilled labor came from the study area, only 15 percent of skilled workers were local. However, 87 percent of shopkeepers, 76 percent of taxi operators, and almost 100 percent of mule and yak operators were local. Low levels of skilled employment in hotels could be attributed to two factors. First, unskilled labor was available in the local area at very cheap rates, and thus the hotels preferred to employ cheap labor. Second, interestingly, the Himachal Pradesh Tourist Trade Act and the Star Classification Guidelines of the Government of India do not lay down any requirements for qualified staff.

Both in terms of income generation and employment opportunities, there are problems of low retention of benefits in the local economy. What is needed, therefore, is integration of tourism with other sectors of the economy.

5.3. Generation of money for conservation

Ecotourism should be able to generate resources for the conservation of the protected areas on which it thrives. For any protected area to be successful in the long run, it should satisfy two major conditions, as follows. A justification is first needed to show that the benefits from conservation and preservation are greater than the total costs (establishment, operation, management cost, and the opportunity cost or value of output forgone). Second, while computing benefits, social benefits may also be included that may not bring direct revenues. Therefore, these private benefits that accrue to the affected population need to be encashed in the form of consumer surplus. This could be achieved through realization of environmental values by the development agencies. Designation as a nature-based tourism destination is an important avenue for conservation and preservation of the environment and biodiversity. Both the use and non-use values (use values are the values assigned by the users on use of the environmental resources; non-use, or "existence" values, on the other hand, are derived not by direct use but by the existence of the environmental resource) are potentially recoverable from tourism to finance the tourist area. However, due to lack of understanding of the magnitudes of these values, very often, the protected areas are dependent on government support. With budgetary resources diminishing day by day, the very existence of these areas and the quality of the experience they offer are falling under threat. Studies have shown (Batta 2003; Brandon 1996; Dharmaratne, Sang, and Walling 2000) that while use values are often recovered, the non-use values are not.

It is argued (Batta 2003; Dharmaratne, Sang, and Walling 2000) that the recovery of non-use values could play an important role in providing funds for environmental causes. Individual WTP for the preservation of unique species and habitats in the world has been estimated to provide a huge new potential flow of finances (Pearce 1994; Pearce and Moran 1995). Furthering the argument, Tietenberg (1995) cites the example of the world's largest privately owned reserve system, Nature Conservancy, which is managing 3.5 million acres of ecosystems and biodiversity throughout the world thanks to liberal donations from people living on different parts of the globe. Similar is the example of Saba

Marine Park, which is able to attract in donations from former visitors some 9 percent of its total revenue (Dharmaratne, Sang, and Walling 2000).

Presently, an entry fee of US\$0.20 per head for adults and \$0.10 per head for children is being charged in Nature Park Kufri. Enquires revealed that during the peak season, the daily takings at this zoological park were around \$80, falling to \$12–14 during the off-season. The average annual revenue from entry fees was \$5,000–6,000, which was not even sufficient to cover the costs of food and other related items for zoo animals. On average, the zoo authorities spent \$15,000 per annum on these costs alone, and must also cover staff salaries.

The study attempted to find out the willingness of tourists, the tourism industry, and the local population to pay for environmental protection.

Table 2. Estimates of tourists' willingness to pay for environmental protection

Bid amount (in US\$)	Domestic tourists	Foreign tourists	Total
\$0	246 (46%)	0	246 (41%)
< \$1.00	102 (19%)	0	102 (17%)
\$1.00	121 (23%)	12 (18%)	133 (22%)
\$2.00	45 (8%)	9 (15%)	54 (9%)
\$3.00	8 (2%)	25 (38%)	33 (6%)
\$4.00	12 (2%)	20 (30%)	32 (5%)
\$5.00	0	0	0
\$10.00	0	0	0
Total respondents	534 (100%)	66 (100%)	600 (100%)
Mean value	\$0.65	\$2.75	\$0.86

With almost half of tourists unwilling to contribute to environmental protection, their WTP was rather low. One of the major factors for such low WTP was lack of information among tourists. Not enough literature and on-site information is available. The inability of tourism managers to develop forest trails and wildlife viewing towers inside the sanctuary area, exacerbated by a lack of coordinated approach, was also responsible. The mean WTP of foreign tourists was \$2.75 per head, while it was \$0.65 for domestic tourists. The combined mean WTP for all tourists was \$0.86. With 300,000 tourists visiting the area every year, the total income could therefore potentially reach \$255,000.

Table 3. Estimates of the local tourism industry's WTP for environmental protection

WTP values (US\$) per annum	Hotels	Resorts	Guesthouses
\$100	-	-	-
\$200	-	-	7 (77%)
\$300	7 (44%)	-	2 (23%)
\$500	7 (44%)	-	-
\$1,000	2 (12%)	-	-
\$2,000	-	7 (100%)	-

Tourism units were equally interested in contributing towards protecting the environment, as table 3 shows. The difference between hotels', resorts', and guesthouses' WTP was marked. Resorts were willing to pay much more than hotels, which in turn were willing to pay more than guesthouses. Among the factors that contribute to this difference were variation in paying capacity of resorts and hotels and differences between their stakes in the business. The total revenues for environmental protection from tourism units could potentially reach \$23,600.

The survey results showed that households completely refused to pay anything towards environmental protection, even though the scenario included afforestation, which would have increased the availability of fuel, fodder, and water. Among the reasons given for this unwillingness were low incomes and a strong belief that environmental protection is the responsibility of the Government. Two factors could be at work here. First, it is often argued (O'Neill 2001) that the true non-use values will frequently be recognized, and WTP therefore rise, if the respondents feel some real threat to the environmental resources. The host populations in this case felt that tourism had had positive impacts on the environment, so they did not fear losing the natural resources. Second, it is possible that the host populations could not understand the design of the survey. Such problems have been noticed in surveys of local populations elsewhere. For instance, in contingent valuation studies of a wildlife enhancement scheme in England (O'Neill 2001), the WTP was quoted as zero by the local population. However, when the effects of such a decision were explained to the respondents, one of them commented, "I feel quite strongly that if we would have known a bit more, and the influence perhaps that the questions and answer could have, our response would have been different." A similar problem may well have occurred in the present study.

In summary, given the importance of the environment to all the stakeholders, the study attempted to find out the WTP of tourists, tourism industry representatives, and the local population. The outcome was very interesting. Both tourists and the tourism industry said they were willing to pay. This is an important finding for two reasons. First, environment being an important component of the tourism product of Himachal Pradesh, the industry and the tourists both benefit from it, in the forms of improved business and high-quality recreational experiences. Therefore, it is appropriate for these groups to be made to pay. Second, it gives an indication of values being realized from an important resource—forests and wildlife—which have high use, option, and non-use values. Total income from tourists and tourism

units could potentially reach US\$278,000. The current entry fees are therefore far below the potential. Even if half of this sum could be realized, it would be a great contribution toward conservation.

5.4. Promoting community partnership

To ensure greater percolation of benefits, it is important for any ecotourism venture to work in harmony with local communities. This in turn requires greater control to be put in the hands of the communities. The participation and involvement of local communities is one of the essential elements of true ecotourism (Boo 1990; Brandon 1996; Ceballos-Lascurain 1996). Basically, in a symbiotic relationship between the local population and the protected area's resources or biodiversity, local residents act as stewards of the natural resources and in return benefit from the protected areas through sustainable harvesting and water catchments. Brandon (1996) identifies key factors that promote local input. Among them are maintenance of a dialogue to permit understanding of local needs and concerns; avoidance of decisions that may impact negatively on local residents; encouragement of a form of empowerment or decentralization that allows people some control over decision making that affects them; strengthening links between conservation and development goals with local benefits; facilitation of the local distribution of benefits; and provision of local capacity to monitor and evaluate progress of projects.

According to information available from the local land revenue authorities, local people enjoy the rights of timber extraction for construction of houses and of extraction of minor forest produce like herbs growing naturally in the forest. Attempts to regulate entry without consultation could cause serious tensions (Ziffer 1989).

The inquiry into community participation in tourism development in the study areas included questions about the levels of community participation and levels of consultation of *panchayats* by local authorities in formulating tourism plans. On involvement of local bodies by the government functionaries, all respondents felt that plans and programs were framed at the government level and local bodies were not consulted. The responses to the question on consultation of the Panchayats/community in tourism development were also negative.

The opinion of local government officers on reasons for the lack of public participation was different. Both the block development officer and the divisional forest officer of the area felt that the public response in the developmental process was very poor. The block development officer backed up his argument by citing the problem of low participation in village meetings. The divisional forest officer said the relation of the public with the forest was "one way"—the community simply demanded rights and benefits. Both felt that owing to these reasons, they could not consult the local community in the formulation of developmental plans, including tourism. However, this cloud had a silver lining: the ecotourism society of Kufri has included representatives of the local *panchayat*, *mahila mandals* (women's club), NGOs, and hoteliers in its executive body.

On the modes of participation, most community respondents felt that the matter should be considered in the village assembly. Both host communities and *panchayat* presidents complained that they were not consulted in policymaking for tourism. The villagers offered different suggestions as to how tourism should be developed and what should be done to make tourism more beneficial to the area. A large

majority (71 percent) felt that tourism policy should promote employment in the area, 16 percent were in favor of better water management to overcome the water shortages and improve water quality, and 13 percent also favored the idea of developing recreational sites and parks in the destination area.

5.5. Educating the stakeholders

Finally, there is the issue of educating visitors and stakeholders, also referred to as constituency building (Brandon 1996). One often overlooked way in which ecotourism supports conservation is that ecotourists, upon returning home, act as advocates for the area visited. This advocacy can help in many ways. First, ecotourists are likely to give more generously for the conservation of the area. Second, they can also donate their time for lobbying in favor of policies that help conservation.

According to the findings of the tourist survey, 85 percent of the tourists visiting the study area came for its scenic beauty and had no idea of the strengths of the area in terms of biodiversity and wildlife. There are no on-site plaques to educate tourists. Even the tourism units in the study area chose the place for its scenic beauty and not due to its environmental wealth. The local community was equally ignorant about their endowments and the likely impacts of tourism on the area. No guides were available to educate or to answer questions. Lack of information among tourists causes problems of irresponsible behavior in waste disposal and unsympathetic attitudes towards the fauna and flora.

From the point of view of the local communities, this lack of knowledge could be detrimental in three ways. First, a community that becomes aware of its present situation and possibilities for tourism can plan for tourism. This lack of knowledge therefore deprives them of this benefit. Second, unplanned flow of benefits often results in their inequitable distribution and hence dissent among host communities. (A small hamlet near Koti village called Dharbhog already faces this problem, with the village community divided into two groups, for and against tourism, based on economic considerations.) A unified community is likely to participate to a high degree for common interests (Mitchell and Reid 2001). Finally, community awareness about tourism opportunities is closely linked to tourism planning and development. It basically entails educating the community about the benefits of promoting tourism. It also transfers control over tourism to the local community.

6. Conclusions and recommendations

Since its introduction by Ceballos-Lascurain in 1987, the concept of ecotourism has undergone fundamental change. As the priority for development of tourism shifted from purely economic benefits in the 1960s to environmental concerns and community participation in the 1980s and 1990s, definitions of ecotourism have adapted to include these new aspects. However, since ecotourism remains a subset of nature-based tourism, there is still potential for confusion of ecotourism other forms of nature-based tourism. The task of properly defining the two and developing indicators for their evaluation therefore gains importance.

Owing to its dependence on natural resources, ecotourism has not only to protect the natural resources in the destination area but also to contribute to strengthening the area's natural resource base (by adding to the biodiversity and landscape of the area). One important way of doing so is to enlist the support of the local population by providing economic benefits. As the dependence of the local population on the

natural resources is very high in mountain areas (due to subsistence farming and a higher percentage of the population being dependent on agriculture for their livelihood), developing tourism has a double-dividend property: reducing overexploitation of natural resources by local people, and providing additional sources of income and employment for local people. In mountain areas, high dependence on natural resources (for instance, land and forests) for livelihood tends to accelerate the rate of their exploitation. Tourism can offer alternative avenues for income and employment, which are generally absent in these areas. The economic activities typically found in mountain areas depend very highly on natural resources (Batta 2000). For instance, the cottage and small-scale units existing in the study area included three sawmills and one art gallery making wooden artifacts. Both were heavily dependent on forestry. Tourism development could reduce dependence on such activities by offering alternate remunerative avenues of employment and increasing disposable income.

Economic attractions very often become the starting point for developing a favorable disposition towards nature tourism among host communities. For greater percolation of economic benefits, the range of accommodations offered to tourists and their locations are very influential. They should include both on-site and off-site accommodations. On-site accommodations may be relatively primitive, such as camping in remote areas or guesthouses in remote villages. These can be located inside the sanctuary area. Since these do not involve much capital, locals can develop these very easily. Owing to the low capital requirements, developing these forms of accommodation also offers a high internal rate of return and higher profits (Loon and Polakow 2001). This will bring tourists into closer contact with the local population, give tourists more experience of local culture and cuisine, and generate local employment.

Off-site accommodations, like the present resort areas, are more comfortable for those taking day tours to nature-tourism areas. Providers of these accommodations should focus on internal aspects of management as well. Practices like efficient use and conservation of natural resources, waste disposal and recycling, green purchasing policies, and sympathetic building and architecture can be adopted. However, an important caveat relating to both off-site and on-site accommodations is that they will only bring economic benefits if there is sufficient demand. Accommodations development should go hand in hand with market research and with promotion of the destination through appropriate channels, both of which will require cooperation between local people and outside agencies.

Perhaps more important, and certainly safer, is to promote the use of local agricultural and other products by tourist accommodations and service providers. If there is insufficient tourist demand, the excess products can still benefit the community by being used locally, stocked up, or marketed elsewhere, whereas empty accommodation generates no income or material benefits.

Having offered a reasonable economic package, another important task would be to involve local communities in tourism planning and development. Tourism planning has to emphasize a strategy that promotes host-community-oriented tourism, to ensure that tourism is environmentally sensitive and guarantees that the members of the local community control the activities taking place and a significant proportion of benefits also accrue to them. In the context of the present study, it has been seen from the data that ecotourism could be credited with bringing some benefits of environmental conservation through governmental efforts. However, owing to high leakage and low employment effects, tourism

remains divorced from the host communities' aspirations. While it utilizes and damages the local resources on which the local populations heavily depend, it does not bring commensurate benefits to the local people. A balance sheet of gains and losses to the host community due to tourism ultimately becomes the acid test.

Any attempt to develop ecotourism should enlist community participation at all stages: conceptualization, planning, development, marketing, and management of the area. Involvement of the stakeholders also ensures their education. In the process of participative management, the stakeholders will come to recognize the strengths of the area and the value of maintaining it for both present and future generations. As the study area has all the features necessary—natural beauty, biodiversity, and wildlife—it could potentially develop into a successful ecotourism destination that offers non-farm income and employment avenues to the local people. What is needed is a planned effort.

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