

## **Mountain Ecotourism and Sustainable Development**

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Sanjay K. Nepal

# Mountain Ecotourism and Sustainable Development

## Ecology, Economics, and Ethics

104

*Many mountain communities around the world have promoted ecotourism ventures to ameliorate problems of environmental degradation and underdevelopment. Although there is no agreement on what ecotourism is or should be, it is generally believed that this form of tourism in the mountains will foster responsible tourist behavior, conservation of important wildlife habitats and ecosystems,*

*appreciation of local cultures and traditional lifestyles, and provision of sustainable forms of livelihood for people living in remote areas and communities. The present article provides a brief overview of the trends in mountain ecotourism in developed and developing countries, concluding with a proposed framework for designation of mountain ecotourism sites.*



**FIGURE 1** Mt Thamaserku (6623 m) in eastern Nepal. Majestic mountains and spectacular views lure thousands of trekkers to Nepal. Without the presence of these towering mountain peaks, remote mountain regions such as Everest and Annapurna would hardly have experienced the level of development they now have. (Photo by author)

### Lack of definition and research

It is difficult to find successful examples of ecotourism in mountains. Any discussion of mountain ecotourism faces 2 problems: the lack of consensus among practitioners as to the precise definition of ecotourism and the dearth of research on mountain ecotourism. Yet, despite controversy, there is general agreement that properly planned ecotourism can change the fortunes of people and places in remote and

less developed regions such as mountains (Figure 1). It is no wonder that governments in countries where mountains constitute a major biological and cultural niche have envisioned ecotourism as a panacea for the problems of underdevelopment, marginality, and fragility.

Ecotourism is open to various interpretations. Criteria, such as benefits for local people, support for conservation, low-scale development, low visitor volume,

and educational experience, suggest that many mountain tourism destinations may not qualify as ecotourism venues. Nevertheless, mountain destinations that exhibit signs of mass tourism increasingly use the prefix “eco” in their advertising.

Literature on mountain-specific ecotourism is lacking, partly because the focus of ecotourism research is limited to well-known tropical islands, rainforests, and national parks and protected areas, not all of which are located in the mountains. There are hardly any comparable empirical studies on the impacts of ecotourism. Moreover, virtually no economic, ecological, and social evaluations of the so-called ecotourism destinations exist. “Ecotourism,” “nature tourism,” and “sustainable tourism” are often used interchangeably, even though these are distinct forms of tourism.

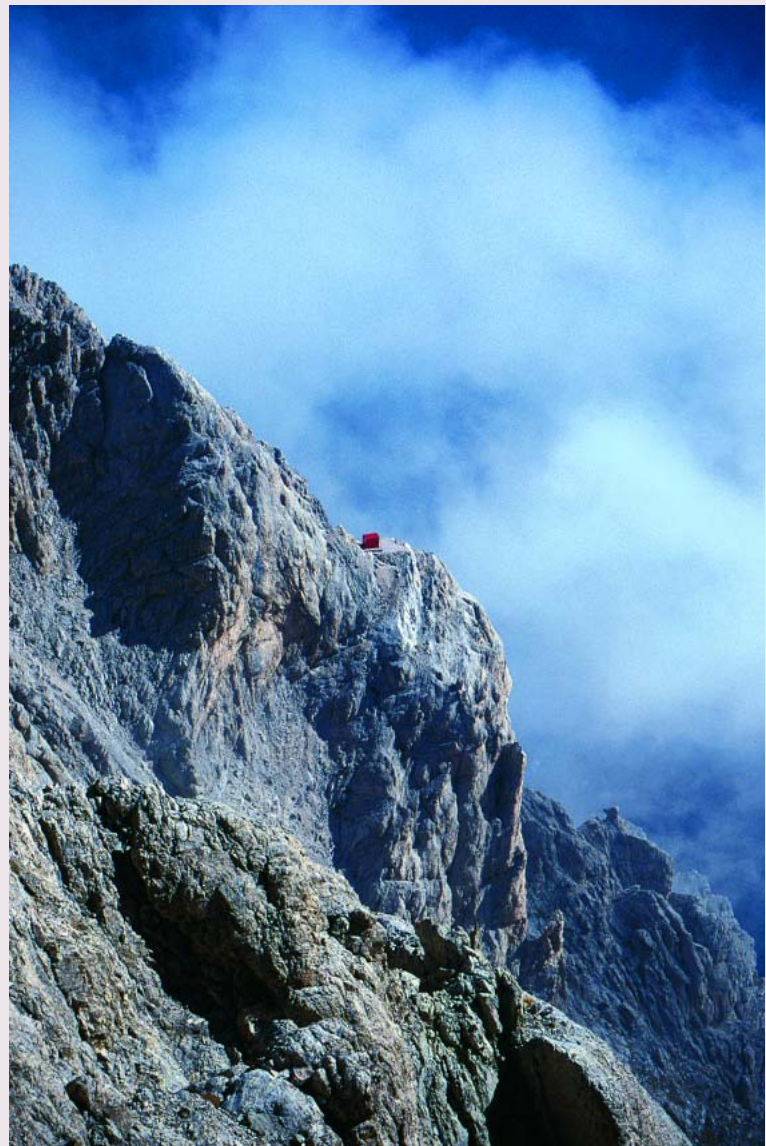
In the present context, mountain ecotourism is defined as follows:

Tourism that does not degrade the natural and cultural environment of mountain regions, provides economic, environmental, and social benefits to mountain communities (local residents), and offers a high-quality experience for visitors.

This definition could include many nature-based activities that are not strictly labeled as ecotourism.

### **Trends in mountain ecotourism, North and South**

Although steepness, fragility, and marginality often remain constraints that expose mountain areas to pervasive degradation, there are also opportunities to be tapped, in particular the pristine natural features, the spectacular scenery, and the idiosyncratic cultures that attract an increasing number of tourists worldwide. In general, the impact of and the issues raised by mountain tourism development are not the same in developing and in developed countries. When considering mountain ecotourism issues, the striking differences between mountain destinations in developed countries and those in developing countries must therefore be kept in mind.

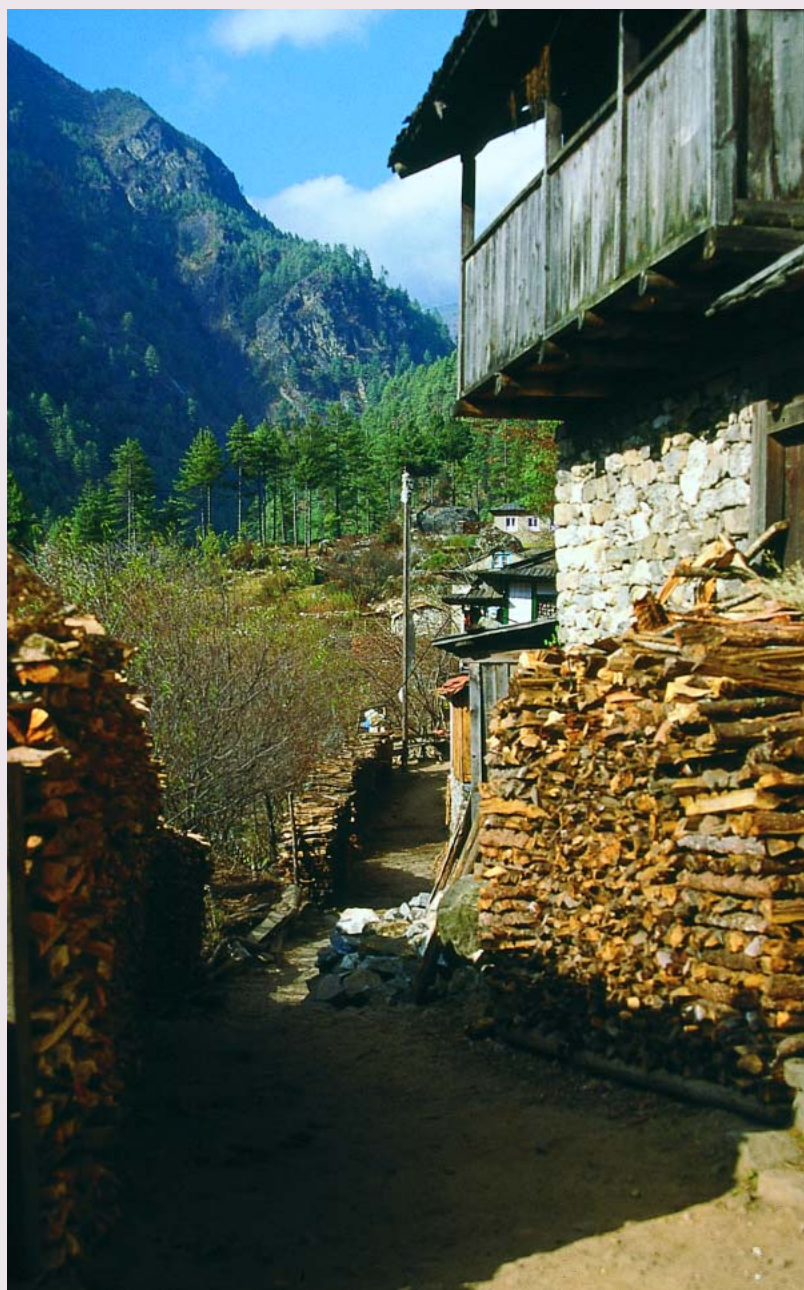


### **Developed countries: The search for niche markets and consolidation**

In developed countries many mountain tourist destinations have become major players in the local economy. With a relatively high volume and value, they have the characteristics of mass tourism. However, recent trends indicate a surge in the number of visitors to ecotourism destinations such as remote wilderness areas, where access is only possible on foot or by air (Figure 2). Hiking, camping, mountain and rock climbing, mountain biking, wildlife viewing, and other forms of non-consumptive recreation are in increasing demand, particularly in North America. The 1994–1995 US National Survey on Recreation and the Environment, for example, reported that between 1982/1983 and 1994/1995 the number of bird-watchers had increased by 155%, hik-

**FIGURE 2** Like many other imposing and forbidding mountain peaks in Europe and elsewhere, the Gransasso in the Italian Apennines is attracting a rapidly increasing number of nature-loving, adventurous tourists. How can ecotourism be implemented under such pressure? (Photo by Brigitta Stillhardt)





**FIGURE 3** Tourism is also responsible for the high levels of firewood consumption in the mountains, which has resulted in increasing pressure on mountain forests and other natural resources. (Photo by author)

ers by 94%, and backpackers by 73%. Frontier areas such as the Yukon and the Northwest Territories in Canada and in Alaska, USA, have experienced an increase in tourism, partly as a result of the growing international demand for remote areas. In the Canadian Rockies national parks, such as Jasper and Banff, are characteristic of mass tourism destinations, but several lesser known sites in the Rockies are becoming ecotourism destinations.

In European countries, such as the UK and Germany, the trend is toward small, specialized offers based on “green,” “nature,” and “sustainable tourism” con-

cepts. Recent reports reveal that 50 tour operators and travel agencies are involved in ecotourism operations in the UK. In Germany an association for alternative tourism (Forum Anders Reisen) lists more than 40 small and medium tour operators and travel agencies catering to “ecotourists.” The establishment of new national parks and protected areas in several eastern European and central Asian countries will no doubt increase ecotourism activities in these regions, probably attracting a large number of visitors from western Europe. In fact, tourism is considered one of the rationales for establishing parks and protected areas in these regions. Within Europe several protected area initiatives and related ecotourism activities, particularly in the UK, France, Italy, and Austria, are the result of a new philosophy for European parks: encouraging development that is compatible with nature conservation instead of simply forbidding development to maintain the pristine condition of an area.

Mountain tourism destinations in developed countries are characterized by consolidation of businesses to increase profits and efficiency through reduced management costs and internal structural adjustments. But apart from these measures, strict regulations and control in the quality of services and facilities, implementation of environmental measures such as emission and pollution standards, minimization of energy costs, appropriate measures for solid waste disposal, and treatment of sewage have become focal concerns.

### **Developing countries:**

#### **The dilemmas of development**

In contrast with mountain areas in developed countries, mountains in developing countries are often influenced by the countries’ high population growth rates and characterized by inaccessibility, marginal development, peripheral locations, high levels of stress on natural resources (Figure 3), rampant poverty, and highly skewed distribution of wealth and property. Historical developments (former colonial rule), political systems (eg, in eastern European and central Asian countries), and issues of governance (eg, civil wars

and conflicts such as those in Central and South America) have marred efforts to promote mountain development.

However, mountain regions in developing countries are also characterized by high biological and cultural diversity. National and international efforts to conserve biodiversity in these mountains have resulted in an impressive network of national parks and protected areas, and the visitor interest that accompanies such designations. The past few decades have seen a dramatic increase in visitor numbers to areas, such as the world's highest national park, the Sagarmatha (Mt Everest) National Park in Nepal, the Taman Negara National Park, a highland rainforest in West Malaysia, the Simen Mountains National Park in northern Ethiopia, and the Huascarán National Park in Peru. Similarly, several recently established national parks and protected areas in central Asia hope to promote tourism.

Mountain tourism in developing countries is characterized by haphazard planning, lack of environmental standards and monitoring, price cutting resulting in high volume and low returns, stark seasonality, and domination of tourism in the overall economy. Some of the problems of mountain tourism in developing countries include competition between small-scale local operations and large international chains, alienation of local residents as a result of a large number of visitors, sharp rises in property values, environmental damage, and native inhabitants being confronted with the values of postindustrial society (Figure 4).

### The challenges of mountain ecotourism

There are dangers in promoting mountain destinations for ecotourism, especially if there is no strategic focus on the type and intensity of activities to be promoted, the benefits and the beneficiaries, and the decisions related to governance, control, and regulations. Some of the major environmental impacts in many mountain regions around the world with direct implications for local mountain communities include overcrowding, noise pollution, garbage pollution (Figure 5), extrac-



tion of valuable resources (collection of firewood and rare plant specimens), pack stock grazing, fire hazards, introduction of nonnative species, and sewage outflow.

In developed countries the concern for environmental conservation has led to conflicts between tourism operators and public interest groups. The ski industries in the United States, Canada, Switzerland, and Austria illustrate this problem. In the Himalayas the question is not how communities might respond to ecotourism-led development but rather how best to attract a critical mass of visitors who will stay longer, pumping some cash into the local economy. P. Sharma has identified 6 substantive issues that contribute to the unsustainability of mountain tourism in the Himalayas: exploitation of environmental resources and environmental pollution, lack of linkages with the local or regional production systems, low retention of benefits, a high degree of seasonality, sociocultural impacts resulting from tourism, and policy and institutional development problems. These are also applicable to many other mountain destinations in developing countries.

### Recommendations for sound ecotourism

As Hansruedi Müller argues, mountain tourism must be characterized by a participatory planning process, efficiency, environmental friendliness, authenticity, slow development, high quality, and a humanis-

**FIGURE 4** Many traditional highland communities are confronted with postmodern values introduced by tourists; however, they are also capable of quickly responding to tourist demands for local arts and crafts and food. Highland ethnic people such as these Quechua in the market town of Písaq, Peru, are likely to be aware of the potential revenue to be earned from tourism. Policies for developing mountain tourism must ensure that the benefits outweigh the negative impacts. (Photo by author)





**FIGURE 5** Heavy visitor traffic and imported consumption habits produce unmanageable amounts of refuse, as shown here, near the entrance to Namche Bazaar, a high-altitude settlement in the Everest region. Solving refuse disposal problems in remote mountain communities is a difficult task because of lack of transportation, recycling facilities, and institutional support. (Photo by author)

tic (ie, people-centered) philosophy and management. These requirements are particularly relevant to mountain ecotourism. More specifically, the following measures merit careful consideration:

1. *Make ecotourism more sustainable.* Mountain communities should invest in mechanisms that allow them to monitor development over time in the environment, in the economy, and in social and cultural aspects, with strict regulation and visitor use limits.
2. *Reduce dependency and increase diversity.* As tourism matures, linkages must be established with other economic sectors, such as agriculture and livestock herding, transport, communication, and small and medium business enterprises.

3. *Restructure and reform existing governmental and nongovernmental institutions.* Successful ecotourism will hinge on the implementation of national policies and strategies formulated in consultation with local stakeholders because they are the ones who implement the strategies in their respective areas.
4. *Advance gender equity.* Research has indicated that women in development (WID) models need to be tailored to a community-specific socioeconomic and cultural context. Projects and programs related to ecotourism must consider equitable opportunities for both men and women as well as employment for young people.
5. *Foster interdependent local economies.* Many tourism projects have evolved from a local–global nexus, resulting in enclave development that does not allow local regions to link their development potential to the surrounding regions. Ecotourism projects should enhance rather than erode interdependent local economies.
6. *Provide access to training, communications, and funding.* Training in meal preparations, lodge management, etc, should expand to include awareness of the potential harmful effects of tourism and knowledge of ecotourism product development, product packaging, and marketing strategies. Access to modern means of communication such as the Internet is extremely important for accessing global markets, as is funding for ecolodge operations.
7. *Promote peace, safety, and security.* Hotbeds of conflict in mountain areas have seen a decline in tourism in recent years. Internal conflicts, insurgency, political instability, and terrorism are very detrimental to current and future ecotourism destinations in the mountains.

#### **A proposal: Designating international mountain ecotourism sites**

Mountain ecotourism could greatly benefit from international collaboration, for example, by creating an international system to designate mountain ecotourism sites similar to the UNESCO World Heritage Site designation system. Such a program of Des-





**FIGURE 6** Mt Ama Dablam (6856 m) as seen from Tengboche Monastery campgrounds in the Sagarmatha (Mt Everest) National Park of Nepal. High mountains draw thousands of mountaineers to Nepal's remote areas, bringing the much-needed tourism revenues that can promote mountain development. (Photo by author)

ignation of International Mountain Eco-tourism Sites (DIMES) would involve stakeholders in mountain ecotourism in developing a set of criteria and indicators to provide a basis for designating a mountain location as an ecotourism destination. The development of such criteria should involve policymakers, practitioners, local communities, and the scientific community. Each designated site should be required to go through periodic evaluation, perhaps every 5 years, to monitor whether or not ecotourism projects are implemented according to the principles laid out by DIMES. Destinations that adhere to the globally recognized principles should be rewarded financially and through other international forms of recognition and merit. Those that fail to adhere to established principles could be delisted.

Although the World Tourism Organization (WTO) has identified over 105 eco-labels and certification schemes for tourism, only 5000 companies have joined such schemes, mainly because they are voluntary and offer no distinct benefits. With government involvement at the international level, DIMES could be truly instrumental in establishing standards, measures, and guidelines for managing ecotourism destinations. It would differ from WTO eco-labeling in that it would not focus on a particular business or company but rather on all key ecotourism players in the destination area.

## Conclusions

As an alternative to mass tourism, ecotourism in mountain regions seems to have a certain appeal for those concerned with mountain development and conservation. The global market for ecotourism (both domestic and international) has grown significantly, with a gradual shift in worldwide travel patterns and preferences (Figure 6). If mountain regions are to take advantage of ecotourism, efforts must be focused on developing long-term plans and policies necessary for successful implementation. Key elements of such policies include sustainability criteria, diversity, institutional reforms, gender equity, local, regional, and global economic integration, local financial incentives, and peace and security.

Because the concept of mountain ecotourism tends to be used haphazardly, a clear definition must be developed and a set of criteria and indicators applied to the evaluation of ecotourism destinations. The international mountain community should cooperate to develop such criteria and indicators. Furthermore, the potential for a system of ecotourism site designation must also be explored. This will set the stage for increased compliance and adherence to ecotourism criteria and indicators by ecotour operators, establish monitoring mechanisms, and offer mountain ecotourism destinations a platform for raising their profiles at the international level.

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