

# A Study on The Socio-Economic Impacts of Eco Tourism in Ladakh, India

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## **Abstract**

Ecotourism has risen as a solution to counter conventional tourism's adverse effects while encouraging local involvement. This study delves into the social and economic impacts of ecotourism in Ladakh, India, where growing tourism has presented both environmental issues and developmental prospects. Socially, ecotourism encourages cultural preservation but also raises concerns about tourists not respecting the culture. Economically, it creates jobs but struggles with income inequality. The study conducted a survey with 28 participants to understand the local sentiments about Ecotourism. This study comprehensively analysis ecotourism's social and economic effects in Ladakh, emphasising sustainable practices and community engagement to maximise benefits while minimising negative consequences in this unique Himalayan region.

**Keywords:** Ecotourism, Ladakh, Travel, Leh

## **1.0 Introduction**

Ecotourism, as defined by The International Ecotourism Society, represents a comprehensive concept that harmonises sustainable travel, conservation efforts, and community engagement (The International Ecotourism Society, n.d.). It effectively serves as a bridge, connecting the advantages accruing to communities and addressing the negative opportunity costs that tourist destinations typically bear. This is achieved through a proactive approach emphasising the early and substantial involvement of local communities in this specialised form of tourism. Recent academic investigations consistently reveal a notable concentration of ecotourism destinations in the global south (Sowards & Banerjee, 2021).

The contemporary landscape is marked by growing environmental concerns, exacerbated by climate change and adverse climatic conditions. This shift has prompted individuals to exhibit increased conscientiousness regarding their consumption patterns. The advent of real-time information sharing through social media has amplified awareness of the dire global consequences of climate change. Furthermore, social media platforms have inadvertently glamorised travel, notably contributing to the phenomenon of "Instagram-motivated travel," which exacerbates environmental pressures on destinations. Ladakh, situated in a high-altitude desert region, has confronted a host of challenges, including chronic water shortages, deteriorating environmental infrastructure, threats to local wildlife, and unprecedented cloudburst floods. The exponential growth in tourism has exacerbated these issues. Ecotourism has emerged as a strategic response aimed at alleviating these adverse impacts while concurrently fostering community well-being and safeguarding the region's pristine natural environment. This study seeks to comprehensively examine the social and economic implications of ecotourism in the Ladakh region.

In pursuit of this objective, the paper will commence by exploring the historical origins and prevalence of ecotourism in Ladakh. Subsequently, it will delve into the intricate web of socio-economic consequences engendered by ecotourism. Finally, it will investigate the various governmental measures devised to support and promote ecotourism within the region

## 2.0 Review of literature

Ecotourism is part of the broader concept of alternative tourism that emerged in the 1980s in response to the social, economic, and biological impacts of mass tourism. Eco tourism merges environmental conservation and development.

Owing to the destruction caused by the tourism industry, eco tourism emerged as a panacea to maximise tourist's gratification whilst minimising environmental challenges posed by tourism (Smanla, 2022).

In their work Stacey and Paulami suggest a different perspective to ecotourism, they challenge the idea that it empowers local communities. In their work they unveil a colonial/racialized/gendered gaze reflected in peoples experiences (Sowards & Banerjee, 2021). They also investigate the negative impacts towards communities and ecology that ecotourism claims to mitigate. Through their research it was revealed that although ecotourism is commonly perceived as a favourable means of generating income for underprivileged communities, it carries substantial negative implications. Noteworthy among these are revenue leakage, which diverts income to external providers, guides, or services rather than benefiting local residents; challenges related to waste disposal, plastics, and sewage; instances of cultural misunderstandings; inappropriate interactions with wildlife; amplified human presence affecting soil, forests, and water bodies; and an absence of adequate tourist readiness for meaningful engagement with local cultures and the natural environment. These challenges emerge within both communities that are novices to the ecotourism sector and those with prior experience (Sowards & Banerjee, 2021).

The research done by Tashi Smanala discusses the contestation in perception of eco tourism as a concept involving multiple layers that are not limited to environment conservation. The paper showcases that ecotourism is simply perceived as refraining from littering the environment while its other components focusing on the local community are not acknowledged by travellers and tour operators (Smala, 2022, 2101). Tashi has also unearthed the differences in social order with the onset of ecotourism, managed by private players.

The loss of cultural identity due to commercialization among local populations is explored in Dr. Sheetal Kapoor and Wangus work (Kapoor & Wangdus, 2020). In "Contemporary Ladakh: Culture, Commodification, and Tourism" (2013), Tashi examines the impact of tourism on local lifestyles and discusses cultural commodification in Ladakh. Owing to tourism, Ladakh has gradually eroded the significance of traditional events and festivals, shifting many winter festivals from various parts of the region to the more tourist-centric summer season (Lundup, 2013).

In her research article discussing the economy of Ladakh, Zainb Akhter discusses the increased migration towards Leh for livelihoods based in the tourism industry. She maps out the reduction in popularity of agricultural livelihoods in the region owing to tourism (Akhter, 2013). However there is a lack of studies citing the positive impacts of ecotourism especially the eco conversation that may have taken place. There is an over focus on the cultural shift in the region and less focus on the social changes that have taken place due to eco tourism.

### 3.0 Eco tourism and in origins

The United Nations World Tourism Organization (UNWTO) defines ecotourism as nature-focused tourism driven by appreciation of nature and local cultures. It educates, involves communities, and avoids harm to nature and local communities. Often led by specialised operators, it aids conservation, benefiting economies, creating jobs, and promoting awareness among both visitors and locals about preserving natural and cultural treasures (The British Ecotourism Market, 2002). It is implied that ecotourism is a more responsible and sustainable way to travel as opposed to mass tourism.

There is no universal definition to eco tourism. Divergent interpretations of ecotourism's definition arise due to its complex nature and various perspectives within the industry. According to The International Ecotourism Society (TIES), ecotourism is characterised by its commitment to environmental conservation and community engagement (TIES, "What is Ecotourism?"). This definition places a strong emphasis on minimising negative impacts and enhancing the well-being of local communities. In contrast, the World Tourism Organization (UNWTO) focuses on the experiential aspect, defining ecotourism as tourism that involves visiting natural areas and appreciating their cultural heritage (UNWTO, "Global Code of Ethics for Tourism"). This highlights the dual nature-nurture aspects of ecotourism, which involve both environmental appreciation and cultural immersion. The differences in these definitions reflect the ongoing discourse within the industry about the balance between conservation and community development, as well as the role of the tourist experience in ecotourism endeavours.

### 3.1 Tourism in Ladakh

Ladakh, located in the Indian state of Jammu and Kashmir, is characterised as a desert at high altitudes. It spans across an area of 40,000 square miles and provides sustenance to a population of approximately 120,000 individuals, the majority of whom derive their livelihood from subsistence agriculture. The climatic conditions are marked by extremes: annual precipitation averages less than four inches, and winter experiences temperatures that can plummet to as frigid as -40°F. The year 1974 marked a significant shift when the region was made accessible to global tourism, leading to a swift incursion of modern influences that impinged upon its traditional way of life (Peter G., 2010).

In 1974, Ladakh welcomed its first tourists, totaling 527, with 27 being domestic and 500 international visitors. The last decade witnessed Ladakh's tourism surge, attributed partly to Bollywood filming there. By 2010, domestic tourists (55,685) surpassed foreign visitors (22,155), marking a significant shift in Ladakh's tourism landscape (Kapoor & Wangdus, 2020).

### 3.2 Environmental challenges posed by Tourism in Ladakh

High altitude ecosystems possess inherent fragility and exhibit limited resilience, rendering them exceptionally vulnerable to human activities like soil and vegetation disruption, disturbance to native wildlife, and improper waste disposal (Arrowsmith and Inbakaran, 2002, Buckley et al., 2000). Tourism has strained Ladakh's natural resources like water. Ladakh's indigenous dry toilets that are well suited to the freezing months have been replaced by water toilets adding to the region's water crisis. Hotels tap communal water sources, depleting them, and some import water by tank trucks. Waste generation, absent in the past, now pollutes land and water due to poorly managed modern waste. Flawed sewage systems in hotels contaminate streams. Leh's construction boom hasn't accommodated the influx of tourists, leaving temporary residents in rented rooms without water or sanitation. Energy demands from tourists exceed

locals', relying on fossil fuels transported over the Himalayas, worsening air quality. Tourists' high consumption influences locals negatively.

Some of the ecological challenges include soil erosion, degradation of vegetation, thinning of forests, reduced biodiversity, disruption of wildlife, habitat fragmentation, and the introduction of non-native species (Geneletti & Dawa, 2009).

#### **4.0 Eco tourism in Ladakh**

The sudden surge in tourist arrivals in Ladakh has sparked concerns among both the local population and policymakers, as the region's ecological health is showing signs of deterioration (Mallon and Prodon, 1995; Osmaston, 1995; Singh 1993; Norberg 1991). This has prompted a shift in perspective toward considering the environmental aspects of Ladakh. Ecotourism is believed to possess the potential for fostering comprehensive and sustainable development in this area.

Various ecotourism initiatives within Ladakh's protected zones, including Hemis National Park, Changthang Wildlife Sanctuary, and Karakoram Wildlife Sanctuary, have been diligently working to promote different facets of ecotourism, drawing the attention of international travellers. This year, reports indicate that nearly 90 percent of the 3,000 tourists, primarily foreigners, who explored the park were fortunate to catch a glimpse of the elusive Snow leopard in its natural habitat.

The core objectives driving ecotourism in Ladakh encompass the encouragement of recycling practices, the effective utilisation of renewable energy sources, the preservation of water resources, and the generation of economic prospects for local communities. More than 700 households in Ladakh extend hospitality to visiting tourists, offering them shelter, as shared by a source from the Leh tourism department.

In 2001, the LedeG centre in Leh orchestrated a workshop aimed at promoting ecotourism possibilities in rural Ladakh. The rationale behind advocating for ecotourism in Ladakh stems from the fact that the current tourism sector has not substantially improved the livelihoods of rural residents. Furthermore, there is heightened apprehension regarding the ecological impact of mass tourism on the region. The concept of alternative tourism seeks equitable participation from all key stakeholders: government entities, travel operators, and rural communities. Ecotourism is anticipated to pave the way for a more all-encompassing form of development. The surge in ecotourism has exerted pressure on Ladakh's resources, impacting both local communities and the environment. Water availability has become a concern due to increased demand from both tourists and the tourism-related infrastructure. Waste management has become more complex, as the rise in visitors generates higher waste volumes, necessitating effective disposal strategies. According to a survey conducted for this study with a sample pool of 28 individuals, it was found that among the sample of only Ladhakis, 65% were aware of the concept of ecotourism. Those aware were indirectly or directly linked to the tourism sector. Interestingly, this contests the very idea of eco tourism which conceptually encourages community involvement in tourism.

#### **5.0 Government efforts to popularise Ecotourism**

Recognizing the impact of unplanned tourism, the World Wide Fund for Nature (WWF-India) identified the need to implement a community-based ecotourism initiative in Korzok. The goal was to safeguard Lake Tsomoriri and create supplementary income opportunities for the Changpa community. Situated at an altitude of around 4595 m, Korzok is a picturesque village on Lake Tsomoriri's northwestern shores in Ladakh, India. Research emphasised that community-led resource monitoring and regulation lead to

increased ownership and positive conservation results (Chhatre and Agrawal 2008). Given the longstanding tradition of participatory decision-making and shared resource practices among the Changpa people, the initiative needed to be culturally integrated to ensure benefits for both residents and the environment simultaneously.

The Tsomoriri Conservation Committee was developed with hopes of conservation. Ten permanent residences were chosen for hosting homestays. The selection was based on households' capacity to allocate at least one room for lodging consistently throughout the year. Initially comprising a handful of villagers, monastery monks, and the WWF project officer, the Tsomoriri Conservation Committee later transformed into the Tsomoriri Conservation Trust. Once a residence is endorsed by the committee for homestays, the family receives furniture and support to arrange the room for accommodating guests. Here one notices the increased involvement of local communities in ecotourism ventures by the WWF.

Women have also played a role in popularising eco tourism, one such example is the Ladakhi women's travel company is a home grown women owned group. They encourage tourists to reside in homestays to engage with Ladakhi culture. In their own measures they have drafted policies that encourage their guests to leave no trace after camping, use glass bottles, refrain from feeding wildlife, and encourage trekkers to wash themselves at a distance of 50 metres away from any stream and more (Ladakhi Women's Travel company, n.d.).

LEHO-Ladakh Environment and Health Organization is another homegrown organisation that promotes a sustainable tourism model that can be replicated across India. They also promote homestays across Likir, Takmachik and Shara as a means of engaging with Ladakhi culture. One must observe the community based nature of decision making popularised in these ecotourism ventures.

An interesting result of eco tourism is the greatly changed perceptions about certain wildlife among local communities. In the past, snow leopards in Ladakh were frequently targeted by local populations due to their predation on livestock. However, the introduction of the Himalayan Homestay Program, a community-centred ecotourism project, has shifted the perspective on snow leopards, considering them as assets, leading to increased community backing for their protection (Jain & Sekar, 2019). To ensure that the positive viewpoint of snow leopards persists during periods of reduced tourism, the Snow Leopard Conservancy-India Trust is actively educating communities about the inherent and ecological importance of these magnificent creatures, along with implementing other strategies (Jain & Sekar, 2019).

Policy recommendations for Ladakh's tourism sector include integrating tourism zones and policies with land use planning. This involves designating specific tourism zones based on carrying capacity and ensuring pedestrian-friendly towns, considering differently-abled individuals (Administration of Union Territory of Ladakh & G.B Pant National Institute of Himalayan Environment, 2020). Additionally, community involvement is crucial, requiring regulations that mandate community-based tourism for equitable development, benefit sharing, conservation, and knowledge preservation. Ladakh's Tourism and Wildlife departments are responsible for coordinating these efforts, involving rural development and expert agencies.

## 6.0 Social impacts of Ecotourism

Eco-tourism in Ladakh has engendered various social and economic repercussions. Socially, it has facilitated cultural exchange and appreciation, enabling the preservation and promotion of local traditions and heritage. However, it has also brought about the adoption of certain tourist behaviours by locals, potentially altering traditional ways of life (Flanagan, 1997). Ladakh has gradually eroded the

significance of traditional events and festivals, shifting many winter festivals from various parts of the region to the more tourist-centric summer season (Lundup, 2013). There has been an increased reliance on private vehicles by locals. Upon further investigation it was discovered that the rise in private cabs for tourists were causing reduced investing in public transport in the region by authorities. Thereby making it extremely expensive for locals to travel (Smala, 2022). Thereby furthering the gap between the rich and the poor.

There has been dis-integration of the Phaspun communal group present across villages in Ladakh (Smala, 2022). Agriculture allowed for an increase in fostering relations between members of different families. With the advent of eco tourism, there has been a migration of Ladhaki youth to city centres in search of jobs in the sector. This has led to a decline in communal relations among villages that were otherwise tight knit.

A survey was conducted to understand the social and economic impacts of ecotourism. The survey had 28 participants from various sectors of work in Ladakh. In the survey, there was 88.5% consensus on the increasing number of shops being open specifically to cater to tourists. This diluted the local culture severely and one could even say it is a move to homogenise the area. It was observed that local cuisines were not served in areas with higher tourism, which is a reminder of the erosion of Ladhaki cuisine and its appreciation. It also evokes the larger understanding of tourists being less willing to fully adapt to the local culture whilst visiting an area, instead they expect all foods and cultural similarities of their homeland to be available in new spaces. Interestingly, this attitude is absent when the same tourists visit developed nations, where they attempt to indulge in local cuisines and cultures eagerly. The survey produced scattered results where 40% participants agreed that tourists were willing to try Ladhaki cuisine, 59% participants urged that mainland Indian dishes were more popular among tourists.

Another social impact of ecotourism has been the increased respect toward local cultures. Locals until now have been witness to several tourist alterations and misdemeanours. Eco tourism seeks to mitigate these social tensions by educating tourists about local cultures, in an attempt to understand the reality of this notion of eco tourism the survey asked participants if they had witnessed any tourist disrespecting their culture. In the survey conducted 40% of participants agreed that they had witnessed some form of tourist misbehaviours, an additional 3% specified that domestic tourists from India had been guilty of culturally insensitive misconduct. 3% urged they had witnessed tourists misbehaving with the wildlife, 5% claimed they witnessed misbehaviour towards locals and 34% of participants reported that they had not witnessed any culturally disrespectful behaviour.

## 7.0 Economic impacts of Ecotourism

Mountainous communities usually experience lower economic prosperity compared to lowland counterparts, and poverty remains prevalent in numerous mountain regions, even within developed countries (Godde et al., 2000; Messerli and Ives, 1997). Most often policies are not effectively implemented in these areas due to its distance from the decision making centres in nations (Geneletti & Dawa, 2009)

Tourism bolsters Ladakh's economy, particularly in Leh, but mainly benefits a minority. Over 90% of Ladakhis outside this area see little gain (Peter G., 2010). Most proceeds go to large hotel-owning Ladakhis in Leh or seasonal merchants. Even those outside Leh gain from trekkers, renting pack animals and lodging some. However, tourism disrupts old mutual aid norms. Scarce resources become pricey due

to tourist demand, harming traditional sharing. Villagers can't access animals due to tourism, lose building materials' income to Leh's lucrative market, causing rising inequality within villages (Peter G., 2010).

Economically, eco-tourism has led to job creation and income generation within the region, particularly in the hospitality and service sectors (Dogra & Sharma, 2012). It has supported the growth of local businesses, including accommodations, restaurants, and handicrafts. Nevertheless, challenges persist, such as income inequality, as not all residents benefit equitably from the tourism-related revenues. This disparity can create social tensions and imbalances especially among those in the city centre and those in the periphery. The survey also showed multiple perspectives of people engaged in eco tourism, when asked about its positive impact on the business, 52% of participants agreed whilst 28% said they were not positively impacted, further investigating it was inferred that the lack of positive impact could stem from the fact that as they were not the owner of their tourist endeavours.

For many rural communities in Ladakh, ecotourism provides an alternative source of income alongside traditional agricultural activities. This diversification reduces economic vulnerabilities and enhances overall resilience (Bhat & Razdan, 2016, 118). From the survey 42.3% said that they were more financially stable since engaging with eco tourism. While 3.8% concurred that they weren't more stable than before the introduction of eco tourism. The growth of ecotourism often prompts investments in infrastructure improvements, such as better roads, transportation services, and accommodations. This can lead to the creation of new businesses and job opportunities, contributing to economic development.

## 8.0 Conclusion

Ecotourism is a concept that has gained prominence by integrating sustainable travel, conservation, and community engagement. It aims to bridge the gap between economic benefits and negative impacts experienced by tourist destinations, emphasising local community inclusion and responsible practices. While the literature shows that ecotourism often centres in global south regions, its growth has been notable.

Eco tourism emerged as a counter narrative to unplanned tourism fueled by the rising social media trends and accessibility to remote areas. Ladakh in particular are some of the areas that fell prey to extensive tourism. The introduction of eco tourism in this area is said to mitigate the risks posed by unplanned tourism. Through the study it is evident that though Ladaki community is brilliantly interwoven into the fabric of eco tourism by government and nonprofit entities, there is still a failure to bureaucratize these involvements as well as ensure an equitable distribution of profits among people of neighbouring villages. As noted in the study, there has been a rise of travel agencies sporting eco tourism as their brand, however they only factor in not littering the area as eco tourism. It is essential to realise that ecotourism is a wide web of encompassing features like cultural preservation, ecological preservation, indigenous community involvement and more.

The social impacts of ecotourism include migration of young Ladhakis to city centres like Leh to engage in the tourism sector; there has been a reduced number of young people in agriculture. There has also been a shift of winter festivals to the summer tourist season. There have been changes in waste disposal in the area as well, predominantly dependent on dry toilets, tourism caused an influx of water based toilets. Some of the economic impacts include increased income disparity among those in city centres and those in periphery villages. There have been high levels of infrastructure development plans diverted to the area. There has been an increase in the number of Homestays in the region which are self financed.

The study's findings underscore the need for balanced approaches that prioritise both environmental conservation and community well-being. Effective implementation of policies, community involvement, and responsible tourism practices can help Ladakh harness the potential of ecotourism while addressing its associated challenges. As Ladakh navigates the path of ecotourism, it must continue to adapt strategies that promote sustainable development, respect local cultures, and ensure economic security for all stakeholders involved.

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