

# NATURAL RESOURCES AND POLICIES FOR COMMUNITY-BASED ECOTOURISM: AN UTTARAKHAND PERSPECTIVE

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## ABSTRACT

This paper in particular deals with the analysis and reviews of the ecotourism policies and the framework of the state of Uttarakhand and the Indian government. In general, it evaluates and discusses the future and significance of the natural resources for the development of the community-based ecotourism in Uttarakhand for the sustainable development of the villages including conservation of biological diversity. This paper argues that the homestay programme, if encouraged, might help the state to achieve its goal of ecotourism and the green economy. Tourism was given an industry status by the government of Uttarakhand in 2018, providing attractive incentives and subsidies. Nevertheless, there is still a need for the appropriate policy framework for the better management of the natural resources, development and the training of the various stakeholders and the entrepreneurs involved in the community-based ecotourism industry.

**Keywords:** *biodiversity, ecotourism, sustainable development, environment conservation*

## INTRODUCTION

According to the United Nations World Tourism Organization (UNWTO), international tourist arrivals worldwide grew by 4 % or more every year since 2010 [1]. In the context of India, despite the natural disaster and the poor infrastructure, the travel and tourism industry showed resilience in the year 2016, contributing directly to the GDP (Gross Domestic Product) growth by 3.1 %, which may accelerate up to 3.8 % and it is believed that this sector will provide 380 million jobs by the year 2027 [2]. During the last 10 to 15 years ecotourism developed as an industry and an epitome of sustainability that

not only conserves natural areas but also ensures the security and prosperity of the local people. In the current scenario, ecotourism and its various forms are certainly the contributing factors to the rising economies of the developing countries, as they identify it as the direct source of income. It is also predicted that the ecotourism and its various forms like nature, cultural and heritage tourism will develop rapidly in the two upcoming decades and the estimated expenditure on the ecotourism is to increase at a higher rate than the entire tourism industry of the world [3]. Worldwide about 8 billion visits per year have been estimated in the terrestrial protected areas, among which the countries like Europe

and North America receive approximately 80 % of the travellers, generating about 600 billion US\$ per year in direct in-country expenditure and 250 billion US\$ per year in the consumer surplus [4].

In 2008, UNWTO included the concept of ecotourism, sustainable tourism, and community-based ecotourism (CBE) for sustainable development. According to the CBE model, the local community was found to be directly benefited because of their significant involvement and control in ecotourism projects [5, 6]. In the context of rural population in developing countries, local communities are involved in the CBE and benefited from it [7, 8]. In India, the ecotourism is often delivered through the community-based ecotourism or by the rural, pilgrimage, cultural, nature/wildlife, and sometimes by homestay tourism - different terms having similar objectives. In India, community-based tourism is in its infancy with exceptional successful examples from the state of Sikkim [9], Kerala [10], Arunachal Pradesh [11] and Ladakh [12]. There are some studies on community-based ecotourism from the Indian Himalayan states, like Himachal Pradesh [13, 14], Jammu and Kashmir [15]. In the state of Uttarakhand, there is a wide range of research in this aspect by various researchers [16 - 19]. As CBE in itself recognizes and emphasizes the social dimension of tourism, the overall objectives are social and economic development with conservation of protected/reserved forest areas, cultural heritage sites, such as religious temples, rivers and also natural heritage sites. This paper discusses the natural resources and economic policies for the enhancement of ecotourism in the state of Uttarakhand, India.

## NATURAL RESOURCES AND ITS ROLE IN SUSTAINABLE LIVELIHOOD IN ECOTOURISM

Uttarakhand, part of the western Himalayas (Figure 1) is known for its rich biological diversity with the total forest cover of 24240 km<sup>2</sup>, which is 45.32 % of the total geographical area [20].

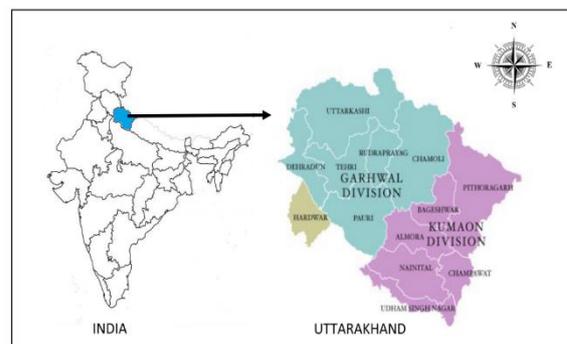


Figure 1. Location of the Uttarakhand state, India

It harbours rich faunal diversity; mammals with 93 species, 72 species of reptiles, 132 species of pisces, butterflies, and moths with 439 species [21] and aves with 710 species [22]. This rich biodiversity constitutes a major part of the wildlife and rural ecotourism activities in the state. According to the Uttarakhand Biodiversity Board “Threatened Species Manual” [23], this state has a high number of the endemic species, out of which approximately 16 floral species (such as *Aconitum balfourii* Stapf, *Aconitum heterophyllum* Wall. ex Royle, *Aconitum violaceum* Jacquem. ex Stapf, *Phlomis superba* (Royle ex Benth.) Kamelin & Makhm., *Gentiana kurroo* Royle, *Nardostachys Jatamansi* (D. Don) DC., *Schrebera swietenoides* Roxb., *Pinguicula alpina* L., *Phaius tankervilleae* (Banks) Blume, *Pecteilis gigantea* (Sm.) Raf., *Diplomeris hirsuta* (Lindl.) Lindl., *Cyathea spinulosa* Wall. ex Hook., *Turpinia cochinchinensis* (Lour.) Merr., *Indopiptadenia oudhensis* (Brandis) Brenan, *Meizotropis pellita* (Prain) Sanjappa, *Trachycarpus takil* Becc.) and 15 faunal species (*Gyps bengalensis* Gmelin, 1788, *Sarcogyps calvus* Scopoli, 1786, *Vanellus gregarius* Pallas, 1771, *Hyaena hyaena* Linnaeus, 1758, *Tragopan melanocephalus* Gray, 1829, *Tragopan satyra* Linnaeus, 1758, *Ophrysia superciliosa* Gray 1846, *Moschus chyrogastr* Hodgson, 1839, *Panthera uncia* Schreber, 1775, *Ursus arctos isabellinus* Horsefield, 1826, *Rucervus duvaucelii* G. Cuvier, 1823, *Melursus ursinus* Shaw, 1791, *Harpiola grisea* Peters, 1872, *Aonyx cinereus* Illiger, 1815 and *Panthera tigris* Linnaeus, 1758) are threatened in the state.

The state has 6 national parks (NP) (Corbett NP, Gangotri NP, Govind NP, Nanda Devi NP, Rajaji NP and Valley of Flowers NP), 7 wildlife sanctuaries (WLS) (Askot Musk Deer WLS, Binsar WLS, Govind Pashu Vihar WLS, Kedarnath WLS, Mussorie WLS, Nandhaur WLS and Sonanadi WLS), and 4 conservation reserves (CR) (Assan CR, Jhilmil Jheel CR, Naina Devi Himalayan Bird CR and Pawalgarh CR). All these NP, WLS and CR attract tourists from all over the world who are interested in trekking and mountaineering sports and also the large numbers of nature lovers, including ecologists, botanists, zoologists and ornithologists.

The national parks such as Nanda Devi and the Valley of Flowers, part of Western Himalayas have already been included in world heritage sites by United Nations Educational, Scientific, and Cultural Organization [24]. These two national parks have high diversity and density of some threatened and significant flora like *N. jatamansi* (Critically endangered; IUCN [14]), *Picrorhiza kurroa* Royle ex Benth., *Cypripedium elegans* Rchb.f. (Endangered; IUCN [25]), *Cypripedium himalaicum* Rolfe (Endangered; IUCN [25]), *Dioscorea deltoidea* Wall. ex Griseb. and *Allium stracheyi* Baker etc. Nanda Devi NP holds threatened faunal species, like Snow Leopard *P. uncia* (Vulnerable; IUCN [25, 26]), Himalayan Musk Deer *Moschus leucogaster* Hodgson, 1839 (Endangered; IUCN [25]), Himalayan Serow *Capricornis thar* Hodgson, 1831 (Near Threatened; IUCN [25]), Northern Plains Gray Langur *Semnopithecus entellus* Dufresne, 1797 (previously near threatened) and Blue Sheep *Pseudois nayaur* Hodgson, 1833 [27 - 30]. The entire reserve is an endemic bird area site according to Birdlife International [31], having 83 avian species recorded within the reserve; some common species frequently seen in the area are: Himalayan Griffon *Gyps himalayensis* Hume, 1869 (Near Threatened; IUCN [25]), Yellow-billed Cough *Pyrhocorax graculus* Linnaeus, 1766, Cheer Pheasant *Catreus wallichii* Hardwicke, 1827 (Vulnerable; IUCN [25]), Himalayan Monal *Lophophorus impejanus* Latham, 1790 and Koklass Pheasant *Pucrasia macrolopha*

Lesson, 1829. These reserves have well-regulated community-based ecotourism since 1983 with almost no anthropogenic disturbances since then [24].

Lansdowne Forest Division, which is a part of Corbett National Park and a famous hill station, is least known for wildlife tourism destinations for local and international bird watchers. About 216 avian species [32] and wildlife sightings of threatened species, like Asian Elephant *Elephas maximus* Linnaeus, 1758, Tiger *P. tigris*, Leopard *Panthera pardus* Linnaeus, 1758, etc. [33], attract not only Indians but foreigners, too. Uttarakhand state has 15 Important Bird and Biodiversity Areas (IBAs) with a wide range of native and migratory birds [34]. IBAs should be recognized as a useful marketing tool to attract dedicated bird watchers from all around the world. Bird watching can play an important potential role in the ecotourism sector; it should be marketed domestically and internationally. If we take an example from other countries, like the United Kingdom, reserves run by the Royal Society for the Protection of Birds attracted 66 million £ into the surrounding communities in the year 2009 and generated a total of 1,872 full-time equivalent (FTE) local jobs, which is 87 % more since the year 2002 [35]. Even in a remote area, like Mull of Galloway, which is on the southernmost coast of Scotland, sea bird watching brings 3.3 full-time equivalent jobs and tourists spend 2.8 million £ in the local community [35]. This model of green economy and conservation should be adopted by the India by constituting a policy framework, which states can implement and modify according to their needs.

## GOVERNMENT POLICIES AND ITS IMPLICATIONS

Ministry of Tourism under the government of India in 1998 initiated ecotourism policy with detailed guidelines to take economic benefits from protected ecosystems and natural resources in all the states. National Environment Policy 2006 [36] of the government of India also stresses that

protected areas (PAs), wildlife, and various ecosystems can complement each other by benefiting ecotourism with the enhancement of the natural resources. In 2003, the Uttarakhand government, through its “Community-Based Rural Tourism” programme, made an effort to increase tourism and sustainable livelihoods to local people with the aim to develop rural areas with good potentials of tourism. The Uttarakhand Tourism Policy 2018 [37] granted tourism the industry status, allowing investors to avail attractive incentive/subsidies as given to other industries under MSME (Ministry of Micro, Small and Medium Enterprises) and decided a development strategy by focusing mainly on 13 districts 13 destinations policy by dividing these districts into their potential 13 different themes, one of which is eco/rural tourism (Table 1). Uttarakhand government also launched a scheme titled “Deendayal Upadhyaya Homestay Development Scheme” in 2018 [38], attracting local rural people to earn their livelihood by building or renovating their houses with a minimum standard of hospitality and standard. Since its launch, about 267 people have registered in urban and 755 in rural areas in all 13 districts until March 2019 under this scheme, which shows that people accepted this policy positively, and in the near future, homestays may play a vital role in rural or green tourism in the state [39]. To make it more successful, the homestay programmes often combine with other community-based activities like camping, trekking, bird watching, pilgrimage, spirituality, and other adventurous activities. This can be quite successful like in Kerala and Arunachal Pradesh, where it not only makes tourist feel connected with their culture and the local community to diversify their income as well [10, 11]. By launching these policies, the state government is showing their strong concern to disseminate problems of youth empowerment and high level of out-migration recorded in Uttarakhand.

Data for the last five years on tourist arrivals shows unprecedented growth in the Indian Himalayan Region (IHR), which includes states: Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim,

Tripura, Uttarakhand and West Bengal. The total number of tourist arrivals between years 2011 to 2015 was 494 million (Table 2), which was 8.42 % of the total national arrivals (5,870,256,562) [40]. Further, it is projected that by the year 2025 tourist arrivals may increase to an estimated 240 million in the IHR states [40].

The Uttarakhand state was the highest revenue earner among IHR states of approximately 49 crore Indian rupees annually in 2016 - 2017, with the Sikkim in the second place, and the Nagaland having the lowest income, but it is worth to note that, despite the top earner ranking, Uttarakhand invests lowest in its budget (0.15 %) for the tourism industry. However, the state Sikkim invests the highest in this sector 1.9 % of their total expenditure. This shows their willingness to make their state best for private investment by boosting infrastructure and tourism policy [40].

Furthermore, if we compare the GSDP (Gross State Domestic Product) of the Himalayan states for the year 2011 - 2015, tourism sector was found to be the highest in contributing (10 %) in GSDP of the Uttarakhand state, despite the fact that the loss of forest area was high in the state [40]. This loss may be because of economic activities, like making special economic zones for industries, highways building, etc. Future economic and tourism policy should be more focused on sustainable use of natural resources with a strict policy on environmental conservation [40].

In my personal observations, I found that most of the businessmen outside of the Uttarakhand or people of the Uttarakhand who can or want to invest especially in areas adjoining the Corbett National Park (which is a famous wildlife destination) and the Lansdowne forest division have almost no idea of government policy and sustainability of natural resources to develop the ecotourism. There are observations indicating that the people involved in the tourism business are still going through painstaking hardship to sustain due to the problems of basic amenities, like water, electricity and good transport, which makes it harder for them to carry out their projects further in a well-managed way.

Table 1. Theme-wise major destinations in Uttarakhand [37]

Themes	Major Destinations (Comprising of 13 districts)
Adventure	Rafting - Shivpuri, Tons, Kali Skiing - Auli, Dayara, Khaliya Top Trekking - Gangotri Kalindi Khal-Badrinath, Devariyatal-Chandershila, Govindghat-Ghangariya-Valley of Flowers, Almora- Jageshwar- Binsar, Bedni Bugyal, Chopta, Pindari Glacier Trek, Milam Glacier Trek, Om Parvat-Aadi Kailash etc. Aero Sports: Helium & Hot Air Balloons/Blimps-Pithoragah, Naukuchiyatal, Tehri, Bedni Bugyal, Chopta etc. Mountain Biking - Nainital, Mussoorie, Almora etc.
Pilgrimage, cultural & festivals	Gangotri, Yamunotri, Kedarnath, Badrinath, Rishikesh, Haridwar, Jageshwar, Baijnath, Piran Kaliyar, Hemkund Sahib, Nanda Devi, Chota Kailash, Patal Bhuvaneshwar, Nanak -matta, Panch Prayag, Panch Kedar, Panch Badri, Nanda Rajjat Yatra, Uttarayani Mela, Kumbh Mela, Ramman Festival etc.
Wildlife & bird sanctuaries	Jim Corbett National Park, Rajaji National Park, Binsar Wildlife Sanctuary, Kedarnath Musk Deer Sanctuary, Nanda Devi National Park, Askot Musk Deer Snactuary, Neel Dhara Pakshi Vihar, Benog Wildlife Sanctuary, Govind Wildlife Sanctuary, Gangotri National Park, Kedarnath Sanctuary etc.
Nature & landscape	Mussoorie, Nainital, Chakrata, Dhanaulti, Almora, Kausani, Lansdowne, Mukteshwar, Ranikhet, Chaukauri, Pithoragarh, Khirsu etc.
Health, rejuvenation & medical	Rishikesh, Haridwar, Tapovan, Dehradun, Haldwani etc.
Eco/rural tourism	Mana, Chopta, Chakrata, Deoriyatal, Pallyu, Shaukiyathal, Bageshwar and Munsyari, Dodital, Dayara Bugyal, Kanatal, Sattal, Chaiinsheel, Mori etc.
Water sports, cruise, yachts	Tehri Dam Reservoir, Nainital, Nanaksagar, Baur Jalashaya, Naukuchiyatal, Bhimtal, Sattal, Maneri etc.
MICE (Meeting Incentive Convention Exhibition)	Dehradun, Nainital, Haridwar, Rishikesh
Buddhist	Rock Edict Kalsi Dehradun, Govisairn (Kashipur)
Heritage tourism	Narendranagar (Tehri), Gujugarhi (Pauri), Uppugarhi (Tehri), Pithoragarh Fort (Pithoragarh), Chandpurgarhi (Chamoli), Vairat Kila (Chakrata), Katarmal Sun Temple (Almora), Devalgarh (Pauri), Nelong Valley (Uttarkashi) etc.
Ropeways & funicular	Auli, Haridwar, Ranibagh, Dehradun, Mussoorie, Jankichatti, Yamunotri, Govind ghat, Ghangaria Gaurikund, Kedarnath, Hemkund Sahib etc.

Table 2. Tourist arrival trends in the Indian Himalayan Region (IHR) states (Year 2011 - 2015) [40]

Indian Himalayan States	2011	2012	2013	2014	2015	Total	Five Years Average (Rounded off)
Arunachal Pradesh	237,980	322,378	136,307	341,178	357,772	1395,615	279,123
Assam	4,355,885	4,528,950	4,702,165	4,848,239	5,516,565	23,951,804	4,790,361
Himachal Pradesh	15,089,406	16,146,332	15,129,835	16,314,400	17,531,153	80,211,126	16,042,225
Jammu & Kashmir	13,143,124	12,505,924	13,703,247	9,525,021	9,203,584	58,080,900	11,616,180
Manipur	135,083	135,290	142,581	118,268	149,429	680,651	136,130
Meghalaya	672,307	685,567	698,042	725,133	759,192	354,0241	708,048
Mizoram	62,832	64,993	64,177	69,124	67,403	328,529	65,705
Nagaland	27,471	38,404	38,942	61,092	67,385	233,294	46,658
Sikkim	576,055	585,027	608,447	611,593	743,502	3,124,624	624,924
Tripura	365,561	369,626	371,439	387,935	398,058	1,892,619	378,523
Uttarakhand	26,070,907	26,951,884	20,038,811	22,093,281	29,602,820	124,757,703	24,951,540
West Bengal	23,470,238	23,949,815	26,792,530	50,405,330	71,682,950	196,300,863	39,260,172
Total	84,206,849	86,284,190	82,426,523	105,500,594	136,079,813	494,497,969	98,899,593

The best CBE model would be a joint venture between the local community and an outside business partner or a Public-Private Partnership model, which is still in its infancy in the state. In my opinion, since the rural people in Uttarakhand are economically poor to develop their economy hence before going into partnerships with business corporations, the government needs assessment approach to find the viability of the project. There should

be pre-assessment of the projects to ensure that the community leaders, such as Gram Pradhan of villages (local social leaders and economists), objectively evaluate their needs and goals and that they were not mistakenly swayed by the offer of government or private funding or business opportunities that might later prove detrimental to the community. Therefore, community involvement and expert opinion in the decision making for the

project's initial objectives and scope should be ensured through the right policy and the planning because many local communities do not have a top-down decision-making structure. Obviously, all efforts should be made to maximize benefits to the local communities, or expertise. These plans should include the various components, such as markets, management of the natural attractions, and creation of the local economic benefits for tourism development. There are many countries, like Namibia, Indonesia, and Madagascar, where the CBE model is helping local people and biodiversity conservation. In the context of India, the organic state of Sikkim was the first to adopt the policy on ecotourism and provides an opportunity for objectives of community-based ecotourism and people's direct involvement in livelihood generation and nature conservation. In Uttarakhand, too, the government should emphasize the theme "Tourism and biodiversity conservation". The enormous biodiversity resources may provide good revenue to the local people through tourism and related activities, like wildlife safari, trekking, rafting, etc. with utmost importance to the conservation of biodiversity. The government should plan carefully to develop ecotourism in the wildlife zone of renowned Corbett National Park, Rajaji National Park and Nanda Devi reserve, etc. with the local community-based partnerships. Here, it has been suggested that tourism, when properly planned and managed, can also contribute to biodiversity conservation and boost the economy of local people by directly capitalizing on biodiversity assets and by indirectly reducing the vulnerability of the poor to environmental degradation. Ecotourism in partnership with research and development organizations involved wildlife management initiatives has the potential to influence the floral and faunal conservation significantly in India.

## CONCLUSION

With the worldwide decline of ecosystems and gradual loss of biodiversity harboured in these

natural areas, only ecotourism allows more people to perceive scenic natural landscapes and conserve wildlife by developing a healthy attitude towards wildlife while benefiting local economies. Moreover, unless the local people receive direct benefits from community-based ecotourism, they will never consider themselves stakeholders in the economic and conservation policies of the state. Tourism has also improved the preservation and maintenance of Hindu temples and Buddhist monasteries in the Indian Himalayas and Nepal. Here tourists have contributed directly through fees to the preservation of monasteries and the temples, along with the local communities who are also willing to spend more on preserving their heritage if their income improves. In the context of Uttarakhand, ecotourism with cultural tourism will not only have a positive impact on natural ecosystems but it will also be helpful in conserving the natural and regional heritage sites and offers a way to promote conservation in these ecologically fragile regions. It is recommended that the ecotourism should be developed in a responsible and sustainable way. There is need of a comprehensive plan that focuses on visitor's satisfaction in terms of hospitality especially in homestays in the rural areas, maintaining the carrying capacity, proper waste management plans, maximum uses of local handicrafts, artefacts and local cultural activities to make visitors associated with the local community, which ensures healthy and peaceful environment for the tourism at the local level.

In Uttarakhand, the best CBE model could be a joint venture between the local community and an outside business partner or the public-private partnership model, which is still in its infancy and it is intended to become a national model for bringing the people and natural areas close to develop the economy of the local people.

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