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HARMONISING THE FRAGILE ECOLOGY WITH THE ECONOMIC DEVELOPMENTS: A STUDY OF STATE OF UTTARAKHAND, INDIA

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ABSTRACT

Nations strive for being the strongest by being economically sound worldwide. A nation's ability to flourish economically is the main factor determining its level of wealth in the modern, globalized world. But it has been observed that, in an effort to transform from developing to developed or while maintaining the status quo of developed nation, environmental concerns are often ignored. It has been often observed that in order to meet the ever-increasing aspirations of the present generations, the fragile environment is often neglected. Environmental protection is considered to be secondary to economic gains for governments, companies, and the general public. The same stands true in the State of Uttarakhand, in India which is a Himalayan State where the ecosystem is delicate. The biodiversity in such region is fragile and needs to be conserved as it IS home to numerous flora and fauna. It is also so religious to the Hindu community of India that the State is often referred to as "Abode of God". Religious sites such as Badrinath, Kedarnath, Gangotri and Yamunotri are the most pious to Hindus. Therefore, the State attracts religious tourism in huge numbers. Also, the scenic beauty of the Himalayan range attracts tourists for recreational purposes. Uttarakhand is the third State in India that has maximum tiger population, which therefore, attracts wildlife enthusiasts. Also, adventure tourism in the form of rafting, skydiving, skiing, etc. attracts tourists. However, with time it is being noticed that the eco-sensitive zones in the State is being over burdened by huge tourist inflow, which is resulting into adverse impact on the biodiversity of the region. Therefore, it is crucial to ascertain the carrying capacity of such environmentally sensitive areas so that economic prosperity of the State can be balanced with the environmental concerns.

Keywords*: Globalization, Economy, Tourism, Environment, State of Uttarakhand, Carrying Capacity.*

INTRODUCTION

According to a report by World Travel and Tourism Council (WTTC, 2017), the tourism industry in India generated 220 billion USD in 2016, which amounted to 9.6 percent of the nation 's Gross Domestic Product (hereinafter referred to as GDP).[1] The State of Uttarakhand

[1] Bhanu Pratap Durgapal & B.P. Singhal, Tourism in Uttarakhand, 5(5) INT'L J. MGMT. STUD. 8,8 (2024).

is situated in the north western part of India. It is bordered to the northwest by the Indian state of Himachal Pradesh, to the northeast by the Tibet Autonomous Region of China, to the southeast by Nepal, and to the south and southwest by the State of Uttar Pradesh. Dehradun, a city in Northwestern India, serves as its capital. Uttarakhand experiences a moderate climate, with seasonal temperature variations. The hilly regions are significantly impacted by tropical monsoons which rapidly changes their weather. Uttarakhand experiences cooler climatic conditions specially the hills because of which it witness huge tourist inflow during summers in northern India. Due to increase in the tourist numbers the hilly regions encounter numerous problems like resource scarcity, traffic congestion, pollution, over-construction, etc… The below mentioned figure discuss the growing trends in tourism numbers in Uttarakhand from 2018 to 2020 in a statistic report laid down by Uttarakhand Tourism, Government of Uttarakhand, India. The data depicts the increasing tourism in the State every year.

Tourist Statistics from 2018 to 2020 of Major Tourist Destinations

Sl. No.	Name of Tourist Destination	Year 2018			Year 2019			Year 2020		
		Indian	Indian	Indian	Indian	Indian	Indian	Indian	Indian	Indian
1	Dehradun	2453998	30291	2484289	2875467	29836	2905303	592079	1388	593467
2	Rishikesh	656074	6044	662118	855798	8088	863886	170598	1120	171718
3	Massoore	2870475	1550	2872025	3022774	1065	3023839	1016090	247	1016337
4	Pauri	77823	1238	79061	79186	866	80052	27108	56	27164
5	Srinagar	203912	276	204188	196188	234	196422	78140	35	78175
6	Kotdwar (Swaragasram, Chilla)	415769	11537	427306	441159	11307	452466	175178	6179	181357
7	Rudraprayag (without Kedarnath)	273700	1847	275547	334612	496	335108	78007	215	78222
8	Kedarnath	730387	1604	731991	998956	1065	1000021	135287	62	135349
9	Gopeshwar (Nandprayag,Mundoli, Tharali etc.)	245228	0	245228	255320	0	255320	19231	153	19384
10	Joshimath (Govindghat, Ghanghariya)	435537	516	436053	488638	882	489520	193760	69	193829
11	Badrinath	1046987	1064	1048051	1244100	893	1244993	155009	46	155055
12	Auli	151560	242	151802	284489	409	284898	190070	28	190098
13	Hemkunth Sahib	158817	286	159103	239910	223	240133	8290	0	8290
14	Velly of Flower	14128	664	14792	16904	520	17424	906	10	916
15	Tehri	2071142	46289	2117431	2296693	51348	2348041	225660	16445	242105
16	Uttarkashi (Harshil, Gangnani etc.)	320796	2001	322797	380230	1710	381940	63674	173	63847
17	Gangotri	447239	599	447838	529880	454	530334	23736	38	23774
18	Yamunotri	393963	482	394445	465111	423	465534	7717	11	7728
19	Haridwar	21555000	22583	21577583	21749425	20807	21770232	4016250	5581	4021831
20	Almora	114198	4144	118342	123416	5258	128674	18499	702	19201
21	Ranikheth	148212	1683	149895	150664	1920	152584	20109	97	20206
22	Kausani & Bageshwar	87217	1024	88241	104841	519	105360	11861	10	11871
23	Pithoragarh	153729	656	154385	208897	754	209651	46179	153	46332
24	Champawat	188703	213	188916	210522	191	210713	47259	51	47310
25	Nanital	924316	9341	933657	924341	9565	933906	212981	2768	215749
26	Kathgodam	151528	437	151965	152552	413	152965	37397	143	37540
27	Corbett National Park	255218	6062	261280	275521	7760	283281	165461	2617	168078
28	Udham Singh Nagar	152022	1853	153875	161182	1958	163140	99466	366	99832
	Total	**36697678**	**154526**	**36852204**	**39066776**	**158964**	**39225740**	**7836002**	**38763**	**7874765**

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As far as domestic tourists are concerned, there is increase of 209% from 2001 to 2015.[3] According to the Medical Tourism Association's Financial Year 2021 Medical Tourism Index, India is placed 10th out of the top 46 nations in the world. India's medical system has gained more credibility as a result of the country's handling of the COVID-19 pandemic and its readiness for future shocks. Medical Value Tourism (MVT), which is predicted to reach US$

[2] Market Research and Statistics, Yearly Statics 2000 to 2020, Uttarakhand Tourism, https://uttarakhandtourism.gov.in/sites/default/files/document/type/Tourist%20Statistics%20from%202000%20to%202020%20of%20Major%20Tourist%20Destinations.pdf (March 6, 2024).

[3] Dr. A.K. SAXENA & BINDU ROY, NEW TOURISM PARADIGMS IN A CHANGING WORLD-INNOVATIONS, DYNAMICS AND FUTURE PERSPECTIVES (1st ed. 2022).

13 billion by 2028, would benefit greatly from this. India is a popular destination for medical tourism due to a number of factors, including the availability of top-notch hospitals and highly qualified medical staff, superior quality healthcare, affordable treatment costs when compared to other nations, credibility in alternative medical systems, and a rise in the demand for wellness services like yoga and meditation worldwide.[4]

Thus, it becomes essential to determine the maximum capacity that such eco-sensitive regions can handle. If anything is burdened with more than its capacity damage is bound to happen in all normal circumstances. Similar is the situation with the hills it can accommodate only a specific capacity which needs to be determined and mountains need to be protected from being exploited merely for the economic benefits by the Governments and stake holders.

CARRYING CAPACITY: EXPLAINATION AND DEFINITION

Carrying capacity is the maximum number of different species in a population that an environment can sustain permanently. It is the environment's maximum load. An ecosystem's potential to support a particular species may be determined by factors such as its ability to replenish the food, water, atmosphere, and other necessities that creatures need to exist. Humanity must now decide on a sustainable path for expansion since the planet's carrying capacity is being threatened by its expanding population. The environment degrades as soon as carrying capacity is exceeded as it negatively impacts in achieving the goal of sustainable development.

The concept of carrying capacity suggests the following:

- The pace of resource extraction cannot be greater than the rate of resource renewal.
- The capacity of the ecosystem to absorb waste should serve as a barrier to waste creation.

The Carrying Capacity has been defined[5] as 'the limit of growth or development of each and all hierarchical levels of biological integration, beginning with the population, and shaped by processes and interdependent relationships between finite resources and the consumers of those resources.

According to Catton, carrying capacity is the maximum load that a focal population in a bounded environment can sustain over time.[6]

HISTORICAL BACKGROUND

Although the notion of carrying capacity dates back to the 1930s, it has been extensively used in studies of tourism and recreation since the 1960s [7]. On the other hand, carrying capacity assessments were first employed in agriculture to establish the optimal stocking rates. Its parameters have also been used in biology, ecology, and population research. The term "carrying capacity" in livestock study refers to the maximum number of grazing animals that

[4] Economic Survey 2022-2023. Department of Economic Affairs, Ministry of Finance, Government of India.
[5] Pablo del Monte-Luna, Barry W. Brook, Manuel J. Zetina-Rejón & Victor H. Cruz-Escalona, *The Carrying Capacity of Ecosystems,* 13(6) GLOBAL ECOLOGY & BIOGEOGRAPHY 485 (2004).
[6] M.E.Geores, *Carrying Capacity of the Environment,* 10 International Encyclopedia of the Social & Behavioral Sciences, 7038,7039, (2001).
[7]JAMES KENNELL, *Carrying capacity, tourism, in* ENCYCLOPEDIA OF TOURISM (Jafari, Jafar and Xiao, Honggen ed., 2015).

may be accommodated in a specific region; this natural resource-based tradition has influenced several tourist studies. Thus, attempts were made to ascertain the one ideal visitor count that may make use of a tourist resource at any given moment.

IMPORTANCE OF CARRYING CAPACITY

In most of the National Green Tribunal (henceforth referred to as the "NGT") cases, carrying capacity—or, more generally, the total number of members of a species that may exist in an environment under particular conditions—has been a contentious topic. States are required by directives to evaluate environmental burdens in environmentally vulnerable areas.

Understanding carrying capacity is an important first step, considering how quickly resources are depleting and how quickly India is becoming more urbanized. In terms of air pollution, the NGT ordered[8] in 2018 that the latter be used to calculate the total vehicle carrying capacity in Sanjay Gandhi National Park, Mumbai. However, from a pollution standpoint, a vehicle's carrying capacity varies depending on things like access to clean technology, which could eventually change the game. Furthermore, any restrictions imposed on a service or amenity must be taken into account elements like accessibility to other options, affordability, and so forth.[9]

Uttarakhand has plain terrain in four southern districts, while nine of its districts are mountainous. The State is endowed by nature with a wealth of resources. Increased surface runoff and soil erosion result from the clearing of forests in mountainous regions. Even though Uttarakhand is prone to disasters, state governments in the past have supported an economic growth model that completely ignores this fact. Development must be integrated with a continuous state of disaster preparedness at every level in Uttarakhand, especially a State that is prone to natural disasters. The Himalayan Mountains are too delicate to withstand extensive and quick development. It is imperative that we move away from it because climatologists have consistently predicted that future global warming will increase the frequency of destructive weather events.

The worst disaster Uttarakhand has ever experienced was caused by massive floods and landslides in June 2013. Over 6,000 persons were officially reported killed and over 6,000 reported missing. Numerous horses, ponies, and cattle lost their lives as well. The 2011 Census indicates that 10.12 million people called Uttarakhand home. In the mountain districts, over 90% of the population resides in rural areas. 'Outside' contractors benefited more from the commercial exploitation of Uttarakhand's forests than the local populace.

The Indian Space Research Organization (ISRO) in its research has tracked nearly 2,395 landslides in various locations throughout the Mandakini, Alaknanda, and Bhagirathi

[8] D.V. Girish v. Union of India, (2021) SCC OnLine NGT 1152.
[9] Shrimoyee Bhattacharya & Jaya Dhindaw, *Is 'carrying capacity' a relevant tool to ensure sustainable Growth in cities?*, THE ECONOMIC TIMES (June 22, 2021) https://economictimes.indiatimes.com/news/economy/indicators/is-carrying-capacity-a-relevant-tool-to-ensure-sustainable-growth-in-cities/articleshow/83739151.cms.

watersheds during a preliminary assessment. Such regions have been developed under the Char Dham Project.

NEED FOR DETERMINATION OF CARRYING CAPACITY

- **Climate Change**

  All around the planet, changes in the climate are evident as a result of global warming. The rainfall ranges from almost nonexistent to quite high, rendering the weather highly variable. Disasters in hilly regions are frequently caused by changes in river courses that occur during rainfall seasons. Much of the construction has been done near water bodies which get swept away during the rains due to landslides or heavy boulders. Compared to previous eras, summers are longer and there is less snowfall on the hills.

- **Governance Issues**

  Studies indicates that there have been systemic flaws in the way the State administration handled the situations. Weather alerts have frequently been disregarded for various reasons. State authorities claim they were unable to take immediate action to lessen the calamity because they were not provided with an adequate or accurate advance notice.

  Due to its small yields, mountain agriculture has been largely disregarded since India gained its independence. Many farming families have abandoned their farms and moved elsewhere, but Uttarakhand has a great deal of potential to produce profitable niche crops due to its location and climate.

  Forests are the foundation of healthy ecosystems in mountainous areas. They also offer resources for a profitable livelihood. Just half of Uttarakhand's forest lands are home to dense and somewhat dense forests. Thus, increasing the amount of forest cover in a way that supports the growth of livelihoods must be the top priority. It will also preserve wildlife and wilderness areas, as well as river ecosystems.

  In exchange for preserving the country's forests and offering other ecological services to the rest of India, the Himalayan States ought to be compensated fairly. Uttarakhand is referred to as the “Land of the Gods”, or “Dev Bhoomi”. To increase revenue, the State has thus actively promoted religious tourism along with other forms.

- **Repercussion of Unplanned Development**

  State governments, due to numerous special interests, have pushed an economic growth model that completely ignores the state's mountainous terrain and the corresponding environmental vulnerabilities. Since Uttarakhand was created as a separate state on the basis of its unique terrain not much has been done with respect to environment rather incidents only speal about its economic exploitation. The Government have steadfastly supported the building of roads, hotels and resorts along riverbanks, dams on both big and small rivers, long tunnels beneath precarious mountain slopes, and extensive sand mining operations in riverbeds. However, development is essential to boost the economy of the State as Tourism is the biggest contributor but the sustainability of the projects have often been ignored. Sustainable Development has only been in the words

and promises but has not been executed in actual settings. The table below shows the contribution of tourism industry in the GDP of the State.

Table 5: **Gross state domestic product (GSDP) at factor cost 'trade, hotel and restaurants' (current price)**

State	GSDP (Rs. in Lakh)				
	2010-11	2011-12	2012-13	2013-14	2014-15
Arunachal Pradesh	34,867 (3.86%)	41383 (3.84%)	46,525 (3.93%)	47,891 (4.04%)	54,621 (3.50)
Assam	149,1371 (13.23%)	1,756,799 (13.95%)	1,992,811 (14.39%)	2,182,985 (13.68%)	2,411,535 (13.12%)
Himachal Pradesh	612,649 (12.71%)	740,072 (12.88%)	811,392 (12.49%)	898,233 (12.18%)	990,264 (11.99%)
Jammu & Kashmir	390,640 (6.72%)	503,024 (7.37%)	571,420 (7.42%)	628,827 (7.18%)	589,389 (6.70%)
Manipur	67,560 (7.39%)	80,728 (7.28%)	90,060 (7.09%)	100,421 (7.01%)	–
Meghalaya	154,202 (10.57%)	178,162 (10.35%)	182,938 (9.62%)	205,957 (9.39%)	231,962 (10.28%)
Mizoram	58,489 (9.15%)	60967 (8.84%)	71,116 (8.50%)	82,954 (8.05%)	–
Nagaland	48,672 (4.13%)	54,250 (3.91%)	61,427 (3.91%)	69,898 (3.93%)	79,614 (3.96%)
Sikkim	19,569 (2.64%)	27,475 (3.08%)	30,781 (2.93%)	35,199 (2.84%)	–
Tripura	249,606 (13.96%)	266,690 (13.35%)	310,700 (13.68%)	388,375 (14.48%)	–
Uttarakhand	1,939,254 (23.09%)	2,375,533 (24.27%)	2,550,948 (23.56%)	2,840,372 (23.11%)	3,056,268 (22.03%)
West Bengal	7,774,500 (16.86%)	8,498,352 (16.08%)	9,541,111 (15.81%)	10,654,559 (15.07%)	11,348,331 (14.17%)

Source: Reserve Bank of India

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JUDICIAL APPROACH

- Society for Preservation of Kasauli and its Environs (SPOKE) v. M/s Kasauli Glaxie Resorts[11] Order dated 05.10.2018

  The preservation of the town of Kasauli in Himachal Pradesh's delicate ecosystem was at stake in this dispute. The community needed water and other necessities like drainage and sanitary facilities. There was no sewage system in place. It was contended that the ecology and environment will suffer if the Himachal Pradesh Tourism Development Corporation (henceforth referred to as HPTDC) is permitted to build a commercial complex in these circumstances. The issues of water scarcity, tree-cutting, air and noise pollution, and traffic congestion will all get worse as a result.

  On the other hand, the respondent contended that throughout the project's conceptualization, the Town and Country Planning Department, the Himachal Pradesh Pollution Control Board (henceforth referred to as HPPCB), and the cantonment board were consulted. Systems for efficient waste management, solar energy generation, water harvesting, recycling, and reusing water for gardening and irrigation are all included in the project under consideration. The project is adhering to all environmental laws.

  The consent to HPTDC's was given by the HPPCB, but the Tribunal set it aside because the latter failed to conduct an appropriate evaluation before providing the license. In order to carry out a dual assessment of the project's effects on Kasauli Town's ecology

[10] VIKRAM SINGH & RANJAN KATRU, NITI AAYOG, SUSTAINABLE TOURISM IN THE INDIAN HIMALAYAN REGION, 13 (2018).
[11] 2017 SCC OnLine NGT 1738

and carrying capacity with regard to tourist influx, vehicle traffic, ground water scarcity, drinking water availability, air quality, and biodiversity, the Tribunal ordered the formation of a Special Expert Committee.

It was decided that the town's carrying capacity had been exceeded. It was observed that there were not enough parking spots, poor road conditions, traffic jams, and congestion; also, the bus stop's location contributed to the chaos. The list of these environmentally vulnerable hill stations, for which a carrying capacity determination is crucial, must be submitted by the Ministry of Environment, Forests, and Climate Change.

- News item published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with multiple timelines to clean air in 102 cities to be released around August 15"[12]

  Remedial Action for Noise Pollution and Air Pollution in 124 Non-Attainment Cities (NACs) and Other Polluted Areas with Poor Air Quality was the subject of the case. An earlier directive from the NGT mandated that noise pollution, indoor and agricultural pollution reduction, and carrying capacity assessment be given top priority in rural areas. In the same case, the Tribunal also addressed the roads' carrying capacity. The assignment of determining carrying capacity and other environmental problems fell to a National Task Force.

- Ramesh Chand vs. State of Himachal Pradesh & Others[13]

  The lawsuit concerned unlawful construction taking place in Kullu, Manali, Dharamshala, and Mc Leodganj, all in the state of Himachal Pradesh. An expert committee evaluated the carrying capacity of these locations, and their recommendation was to refrain from any new construction anywhere in Manali and McLeodganj other than government and residential structures. In accordance with the area's carrying capacity, instructions were given for controlling unauthorized building.

- D.V. Girish v. Union of India and Others[14]

  The issue involved in the case is relates to the construction activity within the premises of the Sanjay Gandhi National Park as it will affect the fragile ecosystem of the area and will also put pressure on other environmental attributes such as water, air and noise which will affect the overall environment. Thus, the court directed the authorities to conducts an assessment report for determination of the carrying capacity of the National Park.

  It was held by the Hon'ble Tribunal held that there was need to ascertain the carrying capacity of eco sensitive areas in all the States and Union Territories and reiterated its own direction for this course of action being adopted in a time bound manner to enforce the ‘Sustainable Development’ and ‘Precautionary’ principles which the Tribunal is

[12] 2018 SCC OnLine NGT 416
[13] 2020 SCC OnLine NGT 2900
[14] 2021 SCC OnLine NGT 1152.

expected to apply in giving directions under Section 15 of the NGT Act, 2010. And, also directed that such exercise shall be conducted by concerned States or Union Territories and they shall be coordinated by a joint Committee comprising of the State Pollution Control Board, Secretary or Director Environment and Chief Wildlife Warden.

- Sanjay Kumar vs. State of UP & Ors.[15],
  The matter under consideration in this case concerns the operation of hot mix plants in Noida beyond the carrying capacity as established by the Central and State Pollution Control Boards, as this was having a detrimental effect on the environment and possibly even endangering human health. As a result, the Pollution Control Board filed a report, and the facilities were ordered to close due to their capacity being exceeded.

- In re: News item published in The Hindu dated 27.02.2022 titled "Tourism has brought economic prosperity to the Himalayan region, but the environmental cost has been catastrophic" [16]
  Guidelines for conducting carrying capacity of significant hill stations in each of the nation's 12 hill States were issued and order was made for implementing the required mitigating actions to lessen the negative effects of tourism in these areas to the concerned authorities.

- In re: News item published in The Tribune dated 16.01.2023 titled "Joshimath disaster a warning for Mussoorie"[17]
  In order to limit and regulate unplanned growth, guidelines were released by the Tribunal for the carrying capacity study of Mussoorie, Uttarakhand, including the sustainability of buildings and the precautions that must be adhered to.

SUGGESTIONS

- **Reforestation for Ecological Sustainability**
  With increase in development projects Uttarakhand hills are losing their green cover significantly. Widening of the roads, construction of multi storey hotels, etc are few such examples. Uttarakhand needs to embrace the green development philosophy that sparked the push for the creation of a distinct mountain state. Encouraging the growth of livelihoods through improved forest cover should be the primary goal of green development.

- **Development of Equitable Livelihoods**
  The goal for Uttarakhand's economic development should be to guarantee mountain residents a living wage from the environment. A sustainable revival of mountain agriculture is required. Eco-Tourism should be promoted by the government. Schemes

[15] 2021 SCC OnLine NGT 442
[16]2022 SCC OnLine NGT OA No. 178/2022
[17]2023 SCC OnLine NGT OA No. 51/2023

such as Pandit Deen Dayal Upadhyay Homestays are steps taken in this direction. Also, locals should be preferred over non-locals for business on hills as this would prevent the villages being abandoned due to non-availability of monetary sources.

- **Safer and More Sustainable Infrastructure Development**
  Tourism, hydropower development, and related industries like building and road construction must incorporate safety and sustainability. Four lane highways on mountains involves methods like blasting which weakens the mountain range and also the loss of fauna. Instead of strengthening the public transport means are being adopted to play with nature for economic gains. Modern techniques of architecture have replaced the vernacular techniques where the former uses more foreign articles being imported to the hills whereas the latter uses the already available resources for construction. Therefore, research is to be carried out to evolve a technique that combines vernacular techniques with modern form of architecture.

- **Disaster Preparedness**
  The state of Uttarakhand needs to review reports and studies that have already been done on the subject by government and nongovernmental organizations. It should then develop and put into action disaster preparedness plans at the state, district, and village panchayat levels.

- **The Need for Good Governance**
  The proactive prevention, mitigation, and readiness-driven approach is the current foundation of the national disaster management policy. Uttarakhand needs to remain ready at all times because of its sensitive placement geographically.

- **Advocacy**
  It is essential to train the locals for disasters. In every rainy season's mountain witness landslide and flood like situations as seasonal rivers are flooded. School children must be trained to fight such situations. The tourists also need to be made aware specially after the 2013 Uttarakhand tragedy which took away lives of many. In order to promote a people-centric agenda for mountain development, the people living in the mountain States must unite around a common cause. NGO's could be key role player in this as they function at ground level with common people. Government could function in this regard with the NGO'S.

Since Uttarakhand is located in seismic zones IV and V, it is prone to natural disasters. Learning from the 2013 Uttarakhand catastrophe is crucial, especially in view of the ongoing evidence of climate change and its effects. Ecologically sustainable development is a basic prerequisite for catastrophe mitigation. It is imperative that governments recognize that they are unable to act appropriately on their own. The community's involvement and strict laws along with

appropriate administrative measures are the only things that can assist achieve sustainable development. Civil society organizations and communities need to work together actively.[18] With the help of judicial pronouncements, it can be said that carrying capacity is essentially to be determined so as to evaluate the maximum capacity that any region can bear. Without legislation establishing the guidelines for calculating carrying capacity, mountains would always be at risk. Additionally, if the administration makes an attempt to exceed the capacity, the law must penalize them. It is high time that we quit thinking of mountains as places to enjoy leisurely vacations. If they are not viewed with concern and if unconsidered development operations are undertaken, there may be significant losses to both biodiversity and humankind.

[18] Ravi Chopra, *Uttarakhand: Development and Ecological Sustainability*, Oxfam India, 6 (2014).