



## **AN EMERGENCE OF ECOTOURISM IN MOUNTAINS**

### **A Comparative Case Study Of Nepal And Bhutan's Ecotourism Ecology**

Ar. Bhavna Agarwal<sup>1</sup>, Dr. Anjali S. Patil<sup>2</sup>

**Abstract-** Sustainable tourism is the prime most need to be practice, especially in eco fragile and remote areas. Ecotourism planning is the tool for development in direction of sustainability although it is practicing world widely even that developing countries have great potential of eco-tourism to expose and experience their untouched and unexposed area to the world and maintain the area's biodiversity conservation and sustainability goals by providing the economic platform to their native community. Many factors may affect eco-tourism planning's success and failure actively and passively. This paper study will be focused on the success and failure measures for the sustainability of tourism factors in Nepal and Bhutan.

**Keywords – Sustainable Tourism, Bio-Diversity, Conservation, Local Community**

#### I. INTRODUCTION

The rest of the paper is organized as follows. Proposed embedding and extraction algorithms are explained in section II. Experimental results are presented in section III. Concluding remarks are given in section IV. Ecotourism tourism: Nowadays life is getting fast day by day due to urbanization and people hardly get any time to spend quality time with their family members, but to compensate this many prefer to go out in rich eco areas during leave/holidays/ work breaks to spend some quality time away from work pressure and polluted cities to explore the exotic nature in undisturbed natural areas themselves, thus Eco-tourism has become an important socio-economic activity globally. Eco-tourism is an opportunity to experience a strong relationship between man & nature. It provides a platform to learn about rich biodiversity importance and conservation too. It directly helps to associated native people to generate local economy and livelihood contributes to state GDP as well as provides finance mechanisms for biodiversity conservation. So it accelerates sustainable development in a particular eco-system [1].

Ecotourism has been described as **“Tourism involves travelling to relatively undisturbed natural areas with specified object of studying, admiring and enjoying exotic nature and animals, as well as existing cultural aspects (both of the past and present) found in these areas.”**(TIES, 2015)[2].

Ecotourism is responsible for tourism in the nature-rich area it is a sub-component of alternative tourism. Ecotourism is an opportunity for the developing countries so that any particular region can develop its sustainability economically, socially and environmentally. Ecotourism involves visiting natural, entrepreneurship for the local community and economic contribution to the state [3]. The eco-sensitive area encourages those activities which are nature friendly and enables the economic and social development of local communities. It is reliant on awareness and learning experiences and sensitivity towards nature, its landscape, flora, fauna and their habitats, cultural artifacts of the local community. Eco-sensitive areas need to be carefully planned and well-conducted, and for the sustainability participation of village-based or local tribes is must, so that the pressure on the natural resources can be channelized and community can be made more self-dependent and productive in terms of quality of life. Ecotourism is important for raising environmental consciousness by exploring rich eco-

<sup>1</sup> Department of Architecture and Planning, Madhav Institute of Technology and Science, Gwalior, Madhya Pradesh, India

<sup>2</sup> Asso professor, Department of Architecture and Planning, Madhav Institute of Technology and Science, Gwalior, Madhya Pradesh, India

friendly areas while responsible tourism experiences. Ecosystems influence people's thinking process, which finally develops awareness for conservation and protection. It includes nature's cape and cultural cape-like water, landscape, topography, green foliage, pure air, and variety for recreational activities suitable for every type of environment [4].

- A. What is sustainable tourism: Many definitions have been proposed and emerged for the sustainable tourism with set of guidelines and principles. Ecotourism is a sustainable strategy for the rural and remote areas. Sustainable tourism basic principle-based upon the preservation of rich bio-diversity and integration of local people with their developments and operational activities, and finally its emphasis on their holistic development. Encompasses with natural resources management and establishes a relationship with host and guest with the tool of awareness and respect for the related eco-system Many organizations have proposed guidelines for sustainable tourism [5].
  
- B. Mountain areas and eco-tourism: Mountains are much more sensitive and fragile ecosystem than any plane area. According to the UN in the Year 2002 mountains and Ecotourism both have been co-related to achieve sustainable goals in mountains. This relationship is an important key driver for mountain communities. Where ecotourism contains itself as a key conductor for sustainable tourism and mountain development (UN). Mountains are blessed with enough potential to become perfect eco-tourism destinations. Mountains are full of natural resources(water, timber, minerals & amp; biodiversity), Rich flora fauna, culture heritage, medicinal plants and related products and solitude for meditation practice, etc. due to high urbanization, fast metro life usually people are moving forward to their Desired destination especially in nature's abundant areas like pilgrims, peace, meditational spots, soft adventure, landscape beauty, etc. [5].
  
- C. Need of Sustainable tourism in mountains: Mountains have enough potential for attracting ecotourism tourist destinations all over the world. Ecotourism in mountain regions is highly recommended for regional sustainable development and for the protection of mass tourism which can cause a hazardous impact of the mountain's ecosystem. Total land cover of mountains of the earth is about twenty-seven percent of the world land, and actively serves or home for 22% population of the world who depends upon mountain associated economy. Excluding the mountain communities, people who live in low laying areas also use mountains water & amp; resources with a large verity of goods and services, like wood, freshwater, energy, adventure, recreational, spiritual and any other needs. Mountain also provides great geographical defensive protection from natural hazards & enemies.
  - Mountains are responsible for fulfilling around 50% requirement of freshwater on earth.
  - It is estimated that mountain-based tourism generates more than 15-20% revenues for the tourist sector, every year.
  - Characteristics of Mountains: Mountains and hills have rich biodiversity; it can be established that mountains play a very important part in sustainability of various eco-systems. Almost each and every continent has some part of mountainous area & amp; within the almost mountainous ecosystem, blessed with deserts, polar ice caps, tropical forests, etc. that ensure plenty of mountainous eco-tourism destinations and mountainous wealth. With the emergence of protection of sensitive areas, we need to implement development policies that aimed at sustainable development [6].

## II. METHODOLOGY

To understand and assess the criteria of successes and failure of eco-tourism in Nepal and Bhutan (both are very sensitive and eco fragile in nature), qualitative and quantitative method have been used. For the comparison analysis, Parameters have been opted based on sustainable tourism (social, economic, environment). Population density, community participation, the dependency of the economy on the tourism sector, tourist influx chronology, land cover, Eco region and policies regarding ecotourism are the parameters to evaluate failure and success. All the data has been collected from secondary sources. Secondary data were collected from different types of journals, research papers, articles, books, and the Internet.

III. SIMILARITIES AND DIFFERENCE IN BOTH COUNTRIES

Bhutan and Nepal both countries are located at steep Himalayan mountainous landlocked terrain, on either side of the Indian state “Sikkim”, having almost the same geographical importance globally, economically developing country and are major economies based upon tourism. Both countries also share their political boundaries with the same neighboring countries ‘India & China’ as shown in figure (1).



Figure (1): Location of Bhutan and Nepal on the Globe [7].

Table -1 Showing Major Typologies of Bhutan & Nepal

Type	Bhutan	Nepal
Location	27° 30' N, 90° 30' E	28° 00' N, 84° 00' E
Land Features	Combination of mountains and valleys	75% of steep Himalayan mountain
Elevation	7,000 M to 200 M from sea level	8,848 M to 60M from sea level
Area	38,394 KM2	147,181 KM2
Land Cover	72.5% of the area is under forest 2.75% agriculture land 5.35% Snow and Glacier 0.65% Water Bodies	25.4% forest cover 28.75% Agricultural land 15% snow and glacier, 65% hills, 17% tarai region and 2.7% water bodies
Population (2020)	7.6 lakh	2.8 million
Population Density (2020)	20 person / km2	203 person / km2
Economy Pillar	Tours and tourism, agriculture	Agriculture and tours and tourism
Literacy rate	66.56% in 2017	67.91% in 2018
Social Religion/Community	Mostly Buddhist	Mostly Hindu & Buddhist
Political Boundary	India (659 km) & China (477 km)	India (1,690 km) & China (1,236 km)
Urban Rural Ratio	54% population is rural and 46% population is urban	78.6 % population is rural and only 21.4 % population is urban

- A. Physical features: Due to location, Nepal, and Bhutan share a large range of vital characteristics. Both countries located within the Himalayas mountainous panorama. Consists of a critical upland of ridges and valleys leading as much as the excessive mountains, with a small lowland location along the Indian border. The towering, snowcapped Himalayas run alongside the northern border with China. They are craggy and forbidding and have steep mountain passes and year-round ice fields. The world's tallest mountain peak, Mt. Everest, is located in Nepal.
- B. Political features: Both countries are having political similarities too, according to historical facts both countries have never been under British rule or any other ruling power. Hindu kings dominated Nepal, whilst Buddhist priests managed Bhutan. Nowadays the governments of both Nepal and Bhutan are constitutional monarchies kingdoms. In Bhutan, the king is still the perfect ruler, whereas in Nepal the king shares strength with an elected parliament.
- C. Demography: In the context of population density, Bhutan has the lowest density of 18 people per sq km whereas Nepal is quite dense, 203 people per SQ KM, which is reflecting much higher urban density in comparison of Bhutan. Nepal's surface area is approx. 3.8 times greater than Bhutan's surface area but the growth rate of population is the much higher which raises the question about the huge difference of the capability of Nepal for sustainability. Higher Population pressure is one of the major constraints for ecotourism development and it's hard to stop encroachments in the protected area as shown in figure (2) & (3) [9] [10] [11] [12].

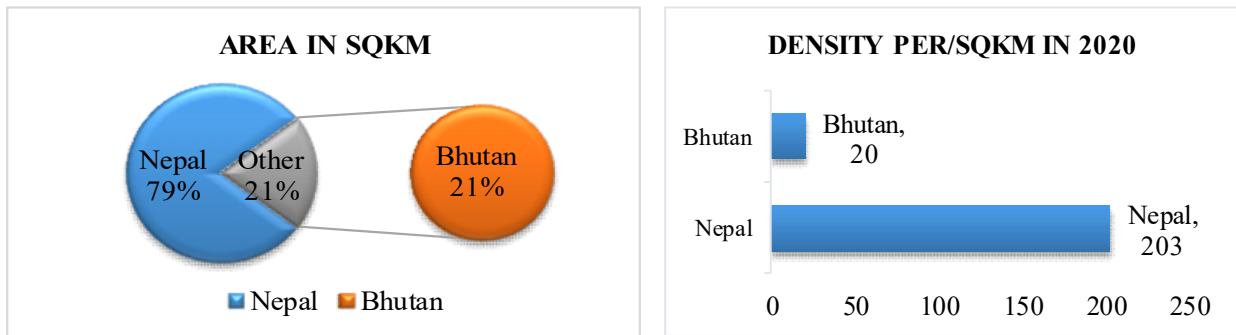


Figure 2. Area and Density Comparison Bhutan & Nepal [13] [14].

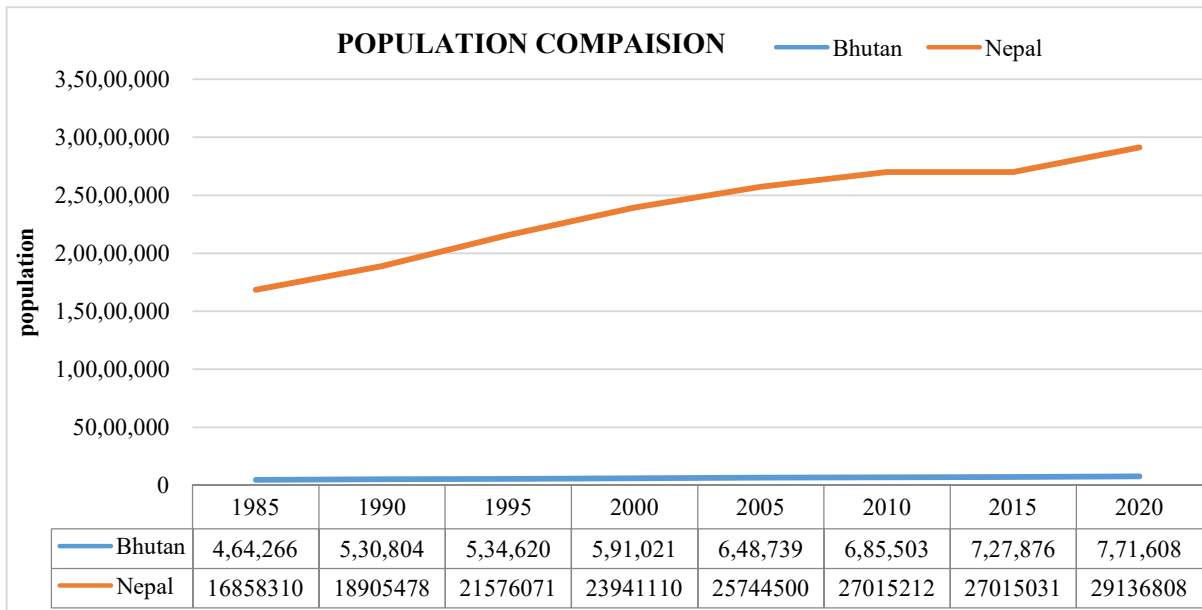


Figure 3. Population Comparison Bhutan & Nepal [13] [14]

IV. COMPARISON TOURIST FOOTPRINT AND ECONOMY IN BHUTAN AND NEPAL

Bhutan is amongst one of the poorest countries of the world. Due to climate and geographical challenges per person annual income as per the GDP was 3423.00 USD only in 2019. Bhutan is a newcomer in comparison to Nepal in the field of tourism. It has opened its boundary for tourism in 1974. At the same time, Nepal is also very poor country, 25% of its people fall under the BPL category. The GDP of Nepal is dependent primarily on remittance. The ill political base is also responsible for their economic backwardness. Annual income per person is 1,034.11 USD in 2019. Which is one-third of Bhutanese. Tourism is boon for both poor countries because of ample mountain, rich biodiversity, and full of the hot spot, great potential of natural, cultural, adventure and religious tourism. Nepal's travel and tourism directly contribute to Nepal's GDP in 2016 was 0.8billion USD, which is 3.6 percent of GDP, while the combined contribution was 1.6 billion USD, which is 7.5 percent of Nepal's GDP. Tourism also benefits Nepal in terms of poverty reduction, employment generation, and income redistribution. The WTTC report estimates that the arena supported nearly 1,000,000 (945,000) direct and indirect jobs in 2016, or roughly 6.4 percent of total employment. Figure 4 shows continued growth in arrivals for Bhutan whereas Nepal had to face ups and downs for the number of arrivals because in 2015 Nepal had to face a savior earthquake disaster that was the main tragedy for the lowest tourist arrivals. The growth rate shows negative growth. In the context of tourist density = tourist arrivals / km2. In the year 2018, Bhutan's tourism density was 5.26whereas Nepal's tourism density was 7.94 which show both countries got almost same proportion of tourist in 2018. So it disclose the questioning conventional tourism practices which based on poor sustainability measures and shows the need for improvement for sustainable tourism policies too [15] [16].

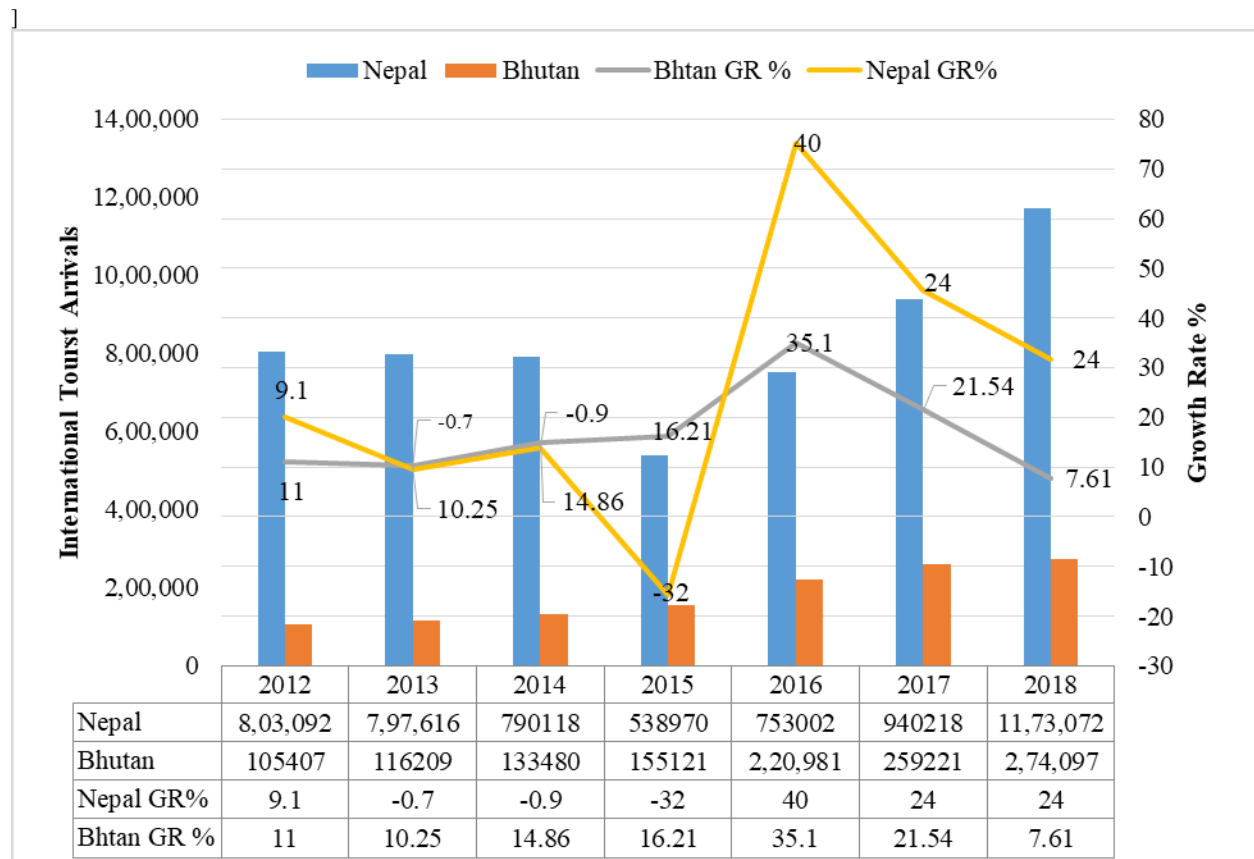


Figure 4. International Arrivals With Growth Rate Comparison [15] [16]

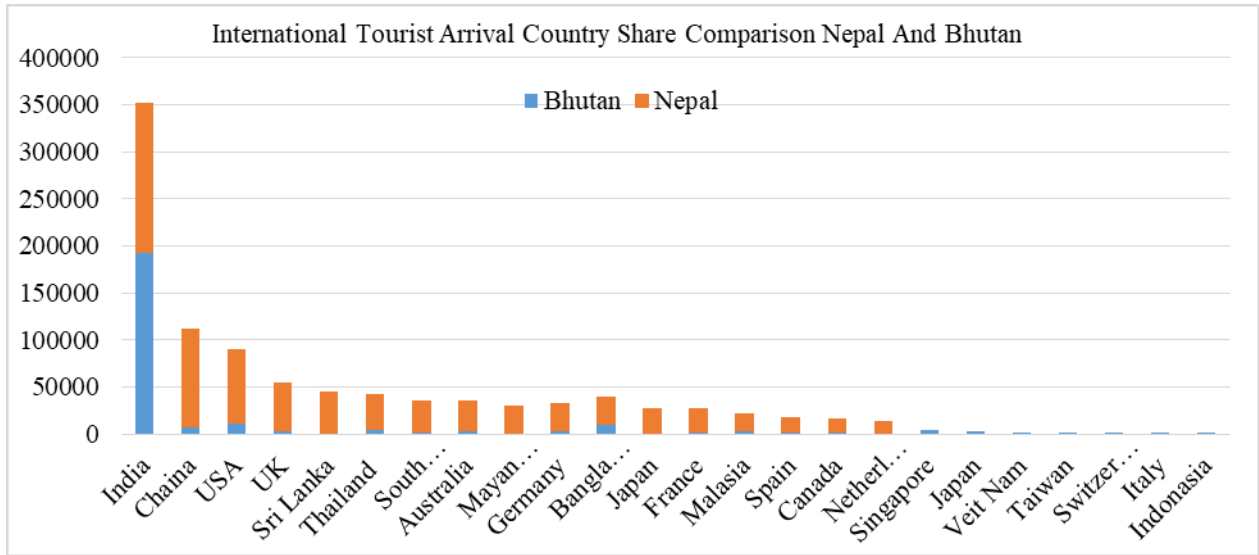


Figure 5. International Country Share Comparison [15] [16]

Nepal is continuously struggling with the fluctuating growth rate of international tourist arrivals which shows ill health of strategic tourism management and poor infrastructure whereas Bhutan is showing continuously positive gain in international arrivals. Figure (5) shows the dominance of Nepal in the international tourist arrivals due to essay asses towards Nepal and its visa policies, regional share especially Hindu religion temples & birth place of Gautama Buddha, and marketing strategies and Nepal has most important and high altitude peaks like Mt Everest, Annapurna, Kanchenjunga, and Lhotse etc. [17] [18]

### V. COMPARISON OF FOREST COVER, ECO REGIONS AND ITS PLANNING

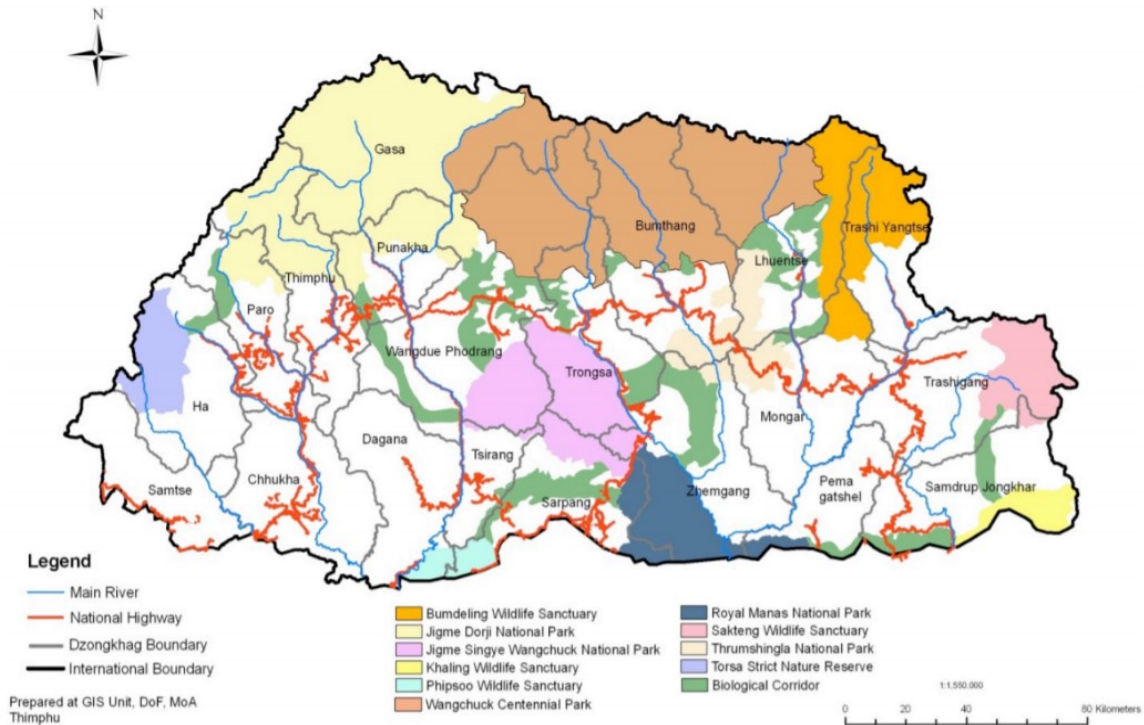


Figure 6. Map Of Bhutan Protected Areas [19]

Land cover and protected area plays vital role for the sustainability of mountain and its biodiversity conservation. Nepal and Bhutan both countries have very sensitive mountain ecology, their mountains falls under the category of very important mountains, on the world map in context of water typology, forest resources and rich biodiversity.

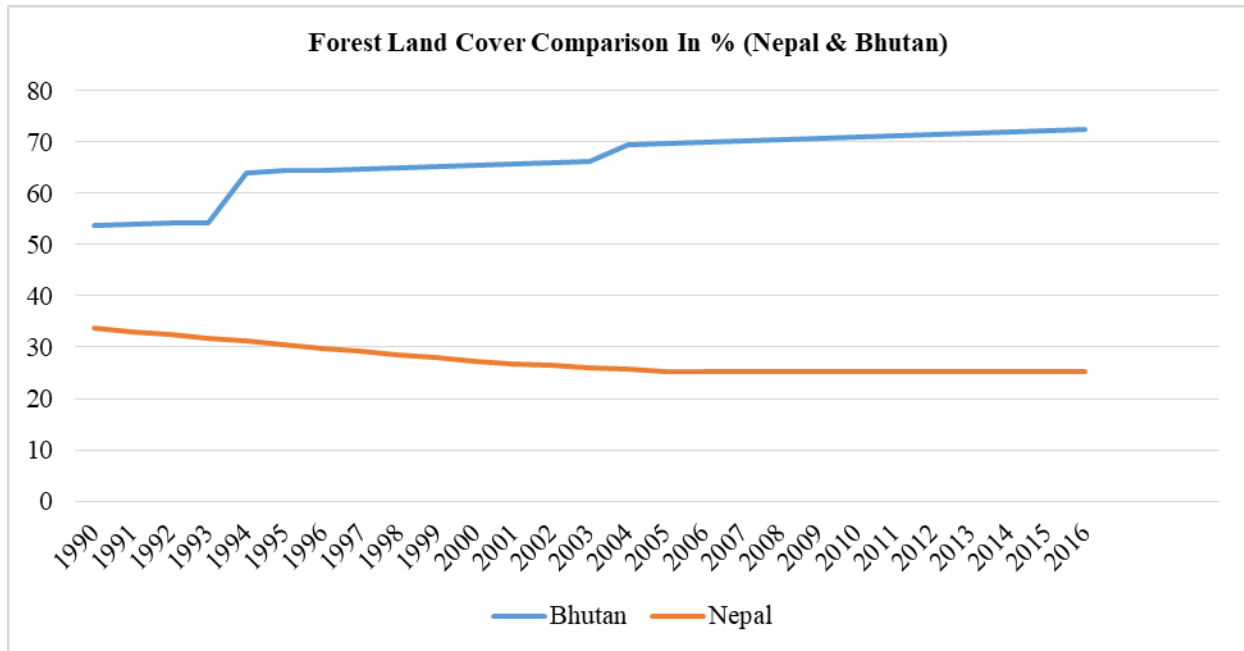


Figure 2: Protected Area Comparison [20] [21]

Bhutan enjoys a special position in the international arena by explicitly taking sustainable development as the central objective of its development policy and thus embracing ecotourism as the national tourism development objective (Rinzin 2006). For the eco-tourism planning main stage is the first stage which identifies the site potential so that the related community and biodiversity can be sustainable and fruitful for the cultural appreciation. Although both countries have lots of geographical and location wise similarities, and at the same time both have similar tourism policies based upon sustainable tourism. Even though Bhutan is a tiny state, eco region has been identified cautiously based upon sustainable tourism like whole country's mountainous peaks fall into protected region and are smartly connected with eco-corridors, which gives full exposure journey to one Eco region to the another eco region. It creates an inclusive approach to the ecotourism planning and management as shown in figure 6. [19]

- A. This eco-corridor approach, minimize the encroachment in the protected forest area. Generally ribbon development takes place along the national and state highways especially in developing countries due to lack of unorganized employment opportunities. Because of this land encroachment is very common into the protected areas.
- B. It gives full opportunity to develop forest community. Eco-corridor approach is a boon for the rural tourism. Due to this approach homestays, rural products, rural employment, and encounter with seasonably all the elements can be easily sync with the eco-tourism and goal of sustainability would be boosted easily.
- C. A segregation of national highway and eco-tourist corridors provides full exposure to local community as well as mitigates the urbanization impact to the high sensitive areas.
- D. Deduct noise pollution and minimize the carbon emissions. With the approach of eco-corridor, it enhance the rich environment and helpful to maintain bio-diversity conservation.
- E. Because of eco-corridors high values of eco-tourism can be achieved which leads eco-tourism to the further dimension.
- F. Community involvement: for the benefit of the last person, to ensure the positive involvement of the last person is necessary. In context of developing country promotion of CBT is essential to get direct benefit to the local community but it's challenging too. With the corridor approach within the protected area, waste

management, energy conservation, water conservation capacity building of community can be effectively managed.

- G. In figure 7, we can make out a positive increase in forest cover in Bhutan and Nepal is unable to manage encroachment in forest areas.

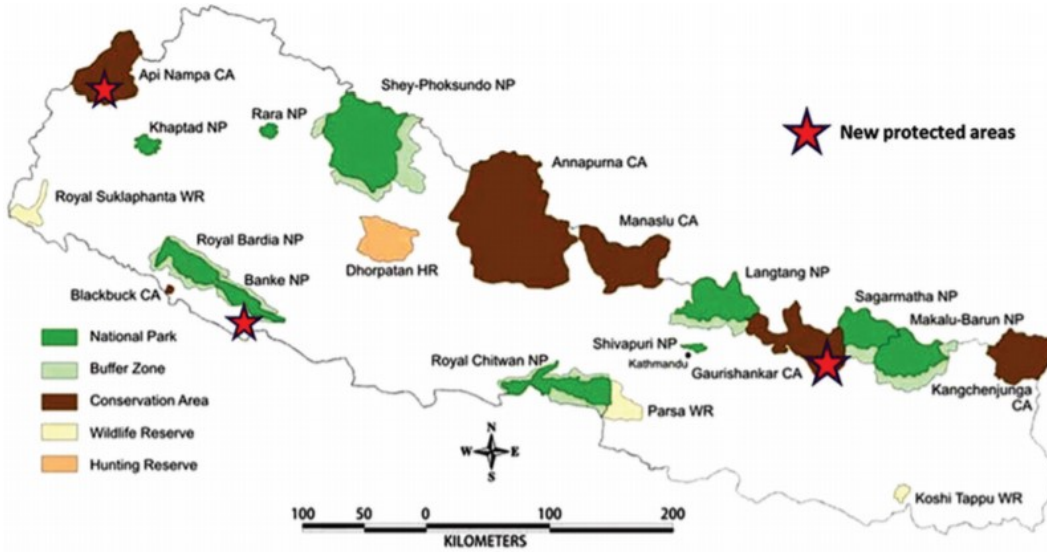


Figure 3: Base Map Adapted From Nepal Department Of National Parks And Wildlife Conservation “Protected Areas Of Nepal” [22]

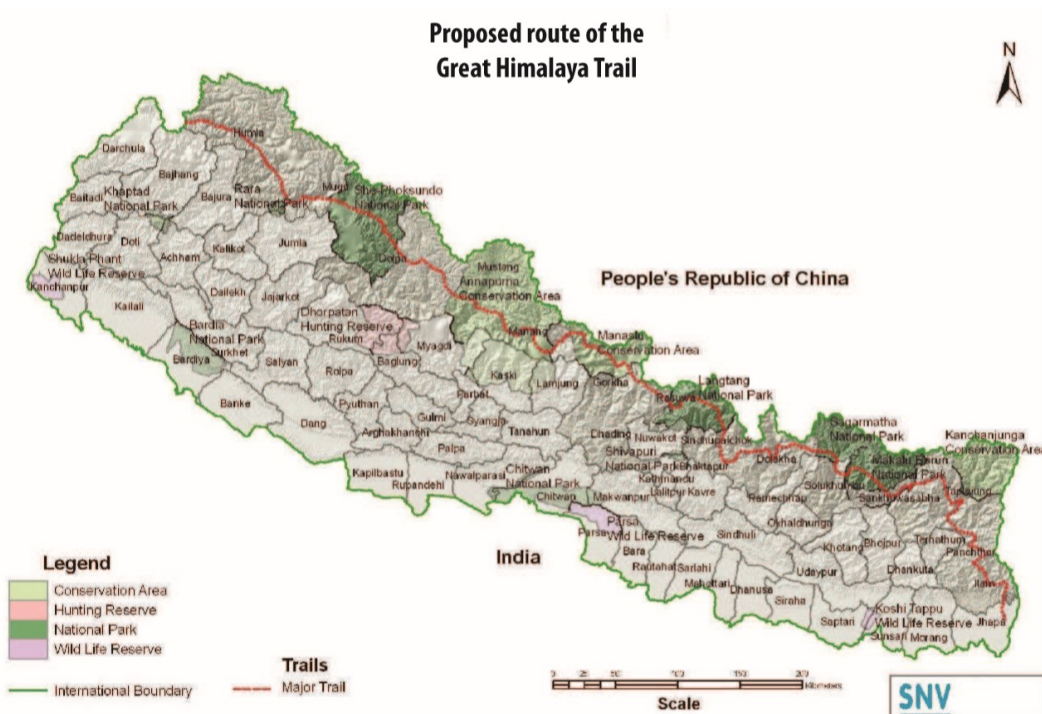


Figure 4: Proposed Tourist Route In Nepal [23]

Even though Nepal is 3.8times (approx.) bigger area wise it is much densely populated as compared to Bhutan. In respect of ecotourism planning Nepal’s eco-regions provides buffer zone according to conventional method of



protection which is very thin to protect eco-sensitive protected region as shown in figure 7 and it has been provided only around the national parks regions only. A positive approach has been reflected in figure 8, a trail has been proposed to connect whole mountain peaks chain with each other which ensure to enhance the sustainability to the highly eco-sensitive Mountains as shown in figure 8 & 9. [19] [22] [23] [24].

## VI. COMPARISON ANALYSIS:

Following are the factors which are most responsible for the success and failure of the eco-tourism sustainable strategies for any country. Which emphasis Bhutan and Nepal both are very similarly nature blessed countries. In this table we can see the reflection, Bhutan eco-tourism perspective, is much more.

Table -2 Comparison of Success and Failure Factors In Bhutan & Nepal [25]

S. NO.	PARAMETER	BHUTAN	NEPAL	COMMENT
A.	Population Density	20 person/ km <sup>2</sup> in 2019	203 person/ km <sup>2</sup> in 2019	Shows control population and encourage sustainable development
B.	Tourist Density= Tourist arrivals/km <sup>2</sup> In year 2018	5.26 tourist/km <sup>2</sup>	7.94tourist/km <sup>2</sup>	Shows Almost equal tourist arrivals which promote eco-tourism practice and disclose myth about conventional tourism.
C.	Tourist Arrivals International	247097	1173072	Number of international arrivals is higher for Nepal even polices are unable to handle sustainability for environment and cultural too at the same time Bhutan polices are attracting international tourism with its eco-sensitive centric approaches.
D.	Environmental Activities	“High value low impact” promoting practices which minimize and mitigate the negative impact on environment.	Haphazard development, encroachment in protected areas and illegal use of forest resources.	Controlled development policies, using natural renewal energies, waste management in protected areas, eco lodge, etc. encourage environment based activates in protected area.
E.	Impact On Environment	“High value low volume” fix quota for tourist fix guidelines for hotels, services and infrastructure.	No limit and management for tourist.	In Bhutan, Increase in protected area shows biodiversity conservation, well implemented Ecotourism policies which are favorable for environment enhancement.
F.	Interaction With Nature	Developing eco corridors, protecting peaks, and developing a model where eco tourist has been focused.	Mostly tourism activity based upon conventional tourism.	Eco-corridors are enabled a higher dimensional connecting exposure to eco tourist.
G.	Community Involvement	Promote cultural and nature based tourism.	Rural tourism is building CBT.	Rural tourism got higher degree opportunity by the eco-corridors.
H.	Economic Sustainability	Initiatives of Bhutanese festivals, art and craft, promotion of heritage site.	Most of the religious and adventure hot spot make attractive but polices are unable to extract maximum potentials.	Due to the segregation approach of road network enhance the community capacity building eventually.

## VII. CONCLUSION:

The comparative assessment of both countries reveals that geographic and political base of both countries are almost similar. Nature has blessed both of the countries equally but the planning and community pattern makes huge difference thus beauty of ecotourism planning took place and shows Bhutan polices are more and more focused on sustainable tourism. Though Nepal is blessed with higher scope for tourism growth because of popular Himalayan highest peaks, Hindu religious pilgrims, birthplace of Gautama Buddha, bigger land area, climate and other factors which are favorable for the higher influx of international arrivals to Nepal rather than Bhutan. But high population, haphazard urbanization, development without planning, the lack of resilience strategies, legislation uncertainty threatens the sustainable tourism development in the long run whereas on the other hand Bhutan is new in the field of tourism and it has to face high competition by its neighbor specially Sikkim, although Bhutan is taking tiny and gradual steps towards the sustainable tourism their growth and approach is much more positive and focused on

sustainable goals in comparison to Nepal. It promises more sensible and sustainable tourism because of successful policies and positive contribution of its community approach.

## REFERENCES

- [1] Batta, R.N, "Tourism and the Environment: A quest for sustainability", *Published by M.L. Gidwani, Indus Publication Company. -ISBN 81-7387-110-8, 2000.*
- [2] Tuğba Kiper, "Role of Ecotourism in Sustainable Development", -DOI: 10.5772/55749, 2013. Available Online: <https://www.intechopen.com/books/advances-in-landscape-architecture/role-of-ecotourism-in-sustainable-development>
- [3] Paul F. J. Eagles, Stephen F. McCool, Christopher D. Haynes, United Nations Environment Programme, World Tourism Organization, "IUCN World Commission on Protected Areas, Sustainable Tourism in Protected Areas: Guidelines for Planning and Management", *Published By IUCN, Gland Switzerland and Cambridge, UK, the United Nation Environment Programme and WTO - ISBN: 2-8317-0648-3, 2002.*
- [4] Carlo Aall, "Sustainable Tourism in Practice Promoting or Perverting the Quest for Sustainable Development?", *Published by Research Gate Sustainability, 6, 2562-2583; DOI: 10.3390/su6052562, ISSN 2071-1050, 2014.* Available Online: [https://www.researchgate.net/publication/272757419\\_Sustainable\\_Tourism\\_in\\_Practice\\_Promoting\\_or\\_Perverting\\_the\\_Quest\\_for\\_a\\_Sustainable\\_Development](https://www.researchgate.net/publication/272757419_Sustainable_Tourism_in_Practice_Promoting_or_Perverting_the_Quest_for_a_Sustainable_Development)
- [5] Harold Richins, John Hull, "Mountain Tourism: Experiences, Communities, Environments and Sustainable Futures", *Publisher: CABI - ISBN: 1780644604, 9781780644608, March 28-2016.*
- [6] Dr. Vikram Singh Gaur, NITI Aayog, and Dr. Rajan Kotru, "ICIMOD, Report of Working Group II Sustainable Tourism in the Indian Himalayan Region, NITI Aayog", *publication: NITI AAYOG Sansad Marg, New Delhi, and 110001 Fax 91-11-23096764 & 23096779 EPABX 23096620 Reception Ext.2018.* Available Online: <http://niti.gov.in>
- [7] Nepal and Bhutan map. Available Online: <https://tibet.net/wp-content/uploads/2017/09/bhutan-in-china-india.jpg>
- [8] Nepal and Bhutan, "A comparison study on the similarities and differences, using the five themes of geography", 2017. Online: <https://nepalandbhutanblog.wordpress.com/>
- [9] Nepal, "Encyclopedia Britannica", 2017. Available Online: <https://www.britannica.com/place/Nepal/The-economy#toc23642>
- [10] Bhutan. "Encyclopedia Britannica", 2017. Available Online: <https://www.britannica.com/place/Bhutan/The-economy#toc23642>
- [11] Wikipedia, "Geography of Nepal", 2020. Available Online: [https://en.wikipedia.org/wiki/Geography\\_of\\_Nepal](https://en.wikipedia.org/wiki/Geography_of_Nepal)
- [12] Wikipedia, "Geography of Bhutan", 2020. Available Online: [https://en.wikipedia.org/wiki/Geography\\_of\\_Bhutan](https://en.wikipedia.org/wiki/Geography_of_Bhutan)
- [13] Planning commission of Nepal, "Govt. of Nepal", 2019. Available Online: [https://www.npc.gov.np/images/category/Demographic\\_Dividend\\_Report\\_May\\_2017\\_final\\_for\\_circulation1.pdf](https://www.npc.gov.np/images/category/Demographic_Dividend_Report_May_2017_final_for_circulation1.pdf)
- [14] Population & Housing Census of Bhutan, "National Statistics Bureau of Bhutan", 2018. Available Online: [http://www.nsb.gov.bt/publication/files/PHCB2017\\_national.pdf](http://www.nsb.gov.bt/publication/files/PHCB2017_national.pdf)
- [15] Department of Tourism, "Ministry of Culture, Tourism and Civil Aviation, Govt. of Nepal". Available Online: <https://www.tourismdepartment.gov.np/>
- [16] Tourism council of Bhutan, "Govt. of Bhutan". Available Online: <https://www.tourism.gov.bt/>
- [17] Kashi Raj Bhandari Research, "Planning and Monitoring Nepal Tourism Board, Tourism Policies and Priorities". Available Online: <https://www.coursehero.com/file/35932122/country-report-nepalpdf/>
- [18] Walter J.V. Vermeulen Utrecht University, Pieter Glasbergen, "Ecotourism as a mechanism for sustainable development: the case of Bhutan Article in Environmental Sciences", *DOI: 10.1080/15693430701365420 publication by research gate, 2007.* Available Online: <http://dx.doi.org/10.1080/15693430701365420>
- [19] Phuntsho Thinley, Cornell University, James P. Lassoie, Cornell University, "A case study: Human-Wildlife Conflicts in Bhutan: Promoting Biodiversity Conservation and Rural Livelihoods", published by research gate, DOI:10.13140/RG.2.2.17780.96648, 2013. Available Online: [www.researchgate.net/publication/313774103\\_Human\\_Wildlife\\_Conflicts\\_in\\_Bhutan\\_Promoting\\_Biodiversity\\_Conservation\\_and\\_Rural\\_Livelihoods](http://www.researchgate.net/publication/313774103_Human_Wildlife_Conflicts_in_Bhutan_Promoting_Biodiversity_Conservation_and_Rural_Livelihoods)
- [20] Nepal - Forest area (% of land area). Available Online: <https://www.indexmundi.com/facts/nepal/indicator/AG.LND.FRST.ZS>
- [21] Bhutan - Forest area (% of land area). Online: <https://www.indexmundi.com/facts/bhutan/indicator/AG.LND.FRST.ZS>
- [22] Ramesh Kumar Sunama, Dipak Bishwokarmab, and Kumar Bahadur Darjeec, "A Crawford School of Public Policy, Australian National University, Canberra, ACT, Australia b Forest Action Nepal", *Kathmandu, Nepal. Conservation and Society 13(2): 179-188 2015.* Available Online: <http://www.conservationandsociety.org> on Wednesday, September 02, 2015, IP: 182.73.193.34]
- [23] Tourism vision, "Ministry of Tourism and Civil Aviation Kathmandu, Government of Nepal", *Published by: Ministry of Tourism and Civil Aviation, 2020.* Available Online: [www.tourism.gov.np](http://www.tourism.gov.np) Photographs: Nepal Tourism Board Kathmandu, Nepal May 2009
- [24] Md. Tariqul Islam, Aswajit Boro and Namgay Phuntsho. "A Study on Sustainable Tourism Development in Bhutan: Quantifying the Awareness of Millennia, People of Bhutan towards Sustainable Development", *published by Journal of Tourism Intelligence and Smartness DOI: 10.13140/RG.2.2.11433.54889, 2019.* Available Online: [https://www.researchgate.net/publication/340660233\\_A\\_STUDY\\_ON\\_SUSTAINABLE\\_TOURISM\\_DEVELOPMENT\\_IN\\_BHUTAN\\_QUANTIFYING\\_THE\\_AWARENESS\\_OF\\_MILLENNIAL\\_PEOPLE\\_OF\\_BHUTAN\\_TOWARDS\\_SUSTAINABLE\\_DEVELOPMENT](https://www.researchgate.net/publication/340660233_A_STUDY_ON_SUSTAINABLE_TOURISM_DEVELOPMENT_IN_BHUTAN_QUANTIFYING_THE_AWARENESS_OF_MILLENNIAL_PEOPLE_OF_BHUTAN_TOWARDS_SUSTAINABLE_DEVELOPMENT)
- [25] Elizabeth Malek-Zadeh, "The Ecotourism Equation: Measuring the Impacts", *Yale School of Forestry & Environmental Studies Bulletin Series. 101, 1996.* Available Online: [https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1100&context=yale\\_fes\\_bulletin#page=159](https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1100&context=yale_fes_bulletin#page=159)