

TECHNICAL NOTE

Transforming ecotourism in Bhutan: Towards green, inclusive and high-value competitive ecotourism



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TECHNICAL NOTE

Transforming ecotourism in Bhutan: Towards green, inclusive and high-value competitive ecotourism

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Foreword

This technical note identifies a suite of new findings and recommendations for ecotourism in Bhutan, that align national ambitions with regional priorities for a greener, inclusive, and climate-resilient future. As one of the regional member countries of the International Centre for Integrated Mountain Development (ICIMOD), Bhutan recognises ecotourism as an important driver of sustainable development. Post-COVID recovery demonstrates the sector's potential to advance Bhutan's 13th Five-Year Plan goal of becoming a high-income, prosperous nation.

Bhutan's High-Value, Low-Volume tourism model offers a powerful platform for sustainability and competitiveness. Yet, rapid growth in tourism has created pressures on water, energy, infrastructure, and services, while climate change and other socio-economic challenges are intensifying risks to ecotourism growth. Workforce shortages and disrupted supply chains in tourism (water, energy and enterprises) further challenge the sector. These realities demand an integrated response – one that embeds environmental stewardship, climate resilience, economic realities, gender equality and social inclusion at the core of tourism development.

While Bhutan is ahead of the curve in adopting policies that promote sustainability and competitiveness, there remains a continuing need for a holistic and integrated approach to ecotourism development, one that fully incorporates environmental considerations, climate resilience, economic realities, gender equality, and social inclusion.

ICIMOD's Moving Mountains 2030 Strategy offers a strong vision to transform HKH and its economies into a greener, inclusive and climate resilient future, while the HKH Call to Action and Ministerial Declaration reinforce regional cooperation to protect fragile ecosystems, empower communities, and advance climate-resilient tourism as a pathway for inclusive growth.

This document presents a set of integrated policy recommendations and actionable measures informed by regional and national policy contexts and backed by stakeholder commitment. It calls for collaboration across government, private sector, communities, and regional partners to address overcrowding, reduce regional disparities in tourism growth, strengthen workforce capacity, and greener supply chains and promote incentives for ecotourism.

ICIMOD stands ready to support Bhutan in translating this vision into practice, mobilizing finance, fostering knowledge exchange, and enabling evidence-based governance. Together, we can position Bhutan as a global benchmark for sustainable, inclusive, and climate-resilient mountain tourism.

Izabella Koziell

Deputy Director General, ICIMOD



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Royal Government of Bhutan
Ministry of Energy and Natural Resources
Department of Forests and Park Services



Director

Foreword

Bhutan's extraordinary natural heritage has long been the foundation of our national identity, our economic aspirations, and our global reputation as a country deeply committed to environmental stewardship. Guided by the farsighted vision of our Kings, Bhutan has protected vast landscapes, nurtured thriving ecosystems, and placed conservation at the heart of national development. Today, as tourism re-emerges and evolves in a post-COVID world, ecotourism stands out as one of the most promising avenues to ensure that conservation and development advance hand in hand.

This document arrives at a pivotal moment. Bhutan's recovery from the pandemic has demonstrated the resilience and potential of our tourism sector, reaffirming its role as a driver of green, inclusive, and climate-resilient growth. Yet, as highlighted in this assessment, new challenges are also emerging. Rising visitor pressure in certain hotspots, regional imbalances in tourism benefits, vulnerability of ecosystems to climate change, and the shortage of skilled professionals in hospitality and guiding services are shaping an increasingly complex ecotourism landscape. These issues demand thoughtful planning, coordinated action, and an integrated policy response.

What makes this report particularly significant is its emphasis on ecological integrity, climate resilience, and social inclusion principles that align closely with Bhutan's High Value–Low Volume tourism policy and with our broader national priorities under the 13th Five-Year Plan. The recommendations presented here recognise that ecotourism is not merely an economic activity; it is a conservation tool, a livelihood pathway for communities, and a means to deepen Bhutan's leadership in nature-based, sustainable development.

The Department of Forests and Park Services, as the custodian of more than half of Bhutan's landscapes including our national parks, wildlife sanctuaries, biological corridors, and community forests—welcomes the integrated policy directions articulated in this document. Ecotourism, when responsibly designed and equitably managed, can strengthen conservation financing, enhance community well-being, and foster stewardship of our forests and biodiversity. We are particularly encouraged by the collaborative spirit with which this work was undertaken and by the strong ownership demonstrated by ecotourism stakeholders across the country.

As Bhutan moves toward a greener, more prosperous future, this document provides a timely blueprint for reimagining ecotourism in a way that is competitive, resilient, and deeply aligned with our national values. I commend ICIMOD and all contributing agencies for their vision and dedication. The Department looks forward to working closely with our partners to translate these policy insights into meaningful action on the ground ensuring that tourism continues to enrich lives while safeguarding the natural treasures that define Bhutan.

Karma Tenzin,
Director

Acknowledgement

We extend our heartfelt gratitude to all individuals and institutions whose invaluable contributions supported the development of this document and the accompanying *Scoping Study on Sustainable and Climate-Resilient Mountain Tourism in Bhutan*.

Our sincere thanks go to the Department of Tourism (DoT), Bhutan, and the Department of Forest and Park Services (DoF&PS), whose officials provided critical insights during the field visits and consultation workshops. We also express our sincere gratitude to Soman Wangdi, Chief of Nature Conservation Division, DoF&PS, and Tashi Tenzin, Chief Tourism Officer, DoT, for their thoughtful reviews and valuable suggestions. Their guidance helped shape the strategic direction of this study and its policy recommendations.

The field visit to Thimphu and Jigme Dorji National Park (JDNP), conducted as part of the scoping study, offered a rich opportunity to engage with ecotourism stakeholders across six key sites: Thimphu, Dodena, Goen Damji Village, Gasa, Punakha, and Paro. We are deeply grateful to the national and local government institutions, community members, homestay operators, guides, porters,

yak herders, youth, monks, and entrepreneurs, especially in Laya, for generously sharing their experiences and aspirations.

We also acknowledge the contributions of Thimphu-based institutions working in ecotourism, climate action, and community development. These include the Tarayana Foundation, Bhutan Trust Fund for Environment Conservation (BTfec), Royal Society for Protection of Nature (RSPN), Bhutan Association of Women Entrepreneurs (BAOWE), UNDP-GEF Ecotourism Project, Royal Thimphu College (RTC), Nature Conservation Division (NCD), Association of Bhutanese Tour Operators (ABTO), and the Guide Association of Bhutan (GAB). Their perspectives enriched the sectoral analysis and helped identify strategic priorities for action.

This document is the result of a collaborative effort, shared vision, and strong stakeholder ownership. It reflects Bhutan's leadership in promoting ecotourism as a pathway to regenerative tourism development, climate resilience, and inclusive prosperity across the Hindu Kush Himalaya region.

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Executive summary

This policy document represents a real shift in how ecotourism is evolving in Bhutan, and what this means for the country going forward.

Bhutan, in the Hindu Kush Himalaya, is one of ICIMOD's regional member countries (RMCs), where ecotourism serves as a driving force to transition the country's economies to a green, inclusive, and climate-resilient future. Post-COVID tourism growth indicates that the country is on a path to recovery, thus demonstrating the economic resilience of the sector. The great tourism growth prospects provide unique opportunities for bringing prosperity to Bhutan, contributing to the ambitious sustainable development aspirations and targets of the 13th Five-Year Plan to become a high income and prosperous nation. The high value- low volume-driven development philosophies coupled with the user's pay policy provide a great mechanism to ensure Bhutan's ecotourism is green, inclusive and highly competitive.

However, Bhutan's ecotourism is facing major environmental and socio-economic challenges. Bhutan's tourism economies have a very intricate, yet delicate relationship with the environment. Tourism growth is generating an issue of overcrowding, putting pressure on water, energy, tourism infrastructure, and service, etc., while regional imbalance of such growth is leading to underutilisation of key ecotourism sites and resources. Climate change impacts are exacerbating the environmental and socio-economic

challenges, making the ecosystem (biodiversity, water, and carbon) and communities (tourism workforce, enterprises, and decision makers) vulnerable.

Adding complexity to these issues is the challenge brought by post-COVID socio-economic change. COVID disrupted some of the structural aspects of the ecotourism economy, primarily in areas of human resources and supply chains, impacting the wider economy. The country is suffering from the challenge of forming a skilled workforce in hospitality, travel, and tour guiding services.

Given this, the future of ecotourism, economies, and employment will be heavily shaped by the green and socio-economic agenda. Bhutan is ahead of the curve in terms of country's tourism policy to become green, sustainable, inclusive and a high-value competitive destination, indicating a new wave in ecotourism thinking and approach. However, an integrated ecotourism policy approach with adequate integration of environment, climate change, and gender equality and social inclusion is missing.

Bhutan's path to ecotourism calls for a holistic and integrated policy direction through strategic collaboration with multi-stakeholders and sectoral agencies. What makes this document unique, is the integrated policy recommendations, actions and commitment from key ecotourism stakeholders, indicating their ownership and buy in.



1. Introduction

Bhutan is a small, landlocked nation nestled in the Hindu Kush Himalaya (HKH) region, between India and the Tibetan Autonomous Region of the People's Republic of China. Covering an area of 38,394 km², the country is divided into 20 Dzongkhags (districts), some of which are further divided into Dungkhags (sub-districts). Each Dzongkhag and Dungkhag comprises several Gewogs (groups of villages) governed by elected councils led by a chairperson and a deputy chairperson, each serving five-year terms. Bhutan's unique administrative system historically consists of both civil and religious branches, with fortresses serving as both monastic and administrative complexes.

The country is renowned for its unique philosophy of Gross National Happiness (GNH), guiding its development strategies. Bhutan has a total population of 782,455, with a slightly higher male population at 53.4% compared to 46.6% female population ([World Bank, 2024](#)). Buddhism is practiced by 84.3% of the Bhutanese population, making Bhutan the only country where Mahayana and Vajrayana are practiced as state religions.

Bhutan being a mountainous country, its climate is influenced by altitude. The climate of Bhutan demonstrates three distinct characteristics – the Higher Himalaya Zone, Central Inner Himalaya Zone, and Southern Foothill Zone (Table 1). Accordingly, the altitude ranges from 7550m to 100m across the Higher Himalaya Zone (HHZ) to Southern Foothill Zone (SFZ) and the associated diversity in climate and precipitation conditions.

1.1. Economy

Bhutan, a lower-middle-income country, aims to become a high-income Gross National Happiness (GNH) economy by 2034, focusing on the interconnected pillars of people, progress, and prosperity. The government aims to increase GDP per capita income from USD 3,833 to USD 4,250 by 2029 and to USD 12,000 by 2034. The government aims to create full employment (97.5%) with quality jobs by 2027 and quadrupling the income of the bottom 40% by 2029.

Economic growth aspiration emerges largely due to growth in the service sector leading to gradual recovery of the economy (World Bank, 2024). Similarly, the robust performance of tourism, Bhutan's second-largest source of international reserves and economies, also underpinned such economic growth. The medium-term economic growth is projected to grow to 4.9%, driven by service sector recovery, including higher growth in tourism services (World Bank 2024) and long-term growth, underpinned by wellbeing and environmental sustainability of the Gross National Happiness (IMF, 2022).

However, despite this progress, challenges such as vulnerability to poverty and spatial inequality persist. An estimated 12.4% of the population still lives below the national poverty line (World Bank, 2024). Most importantly, such poverty is more prevalent in rural areas, accounting for 17.5%.

TABLE 1

BHUTAN'S CLIMATE CHARACTERISTICS BY GEOGRAPHICAL ZONES:

Geographical zones	Climate	Elevation (m)	Temperature (°C)	Precipitation (mm/year)
Higher Himalaya Zone (HHZ)	Alpine climate with heavy snow	3000–7550	<0	400
Central Inner Himalaya Zone (CIHZ)	Cold dry winter Warm humid summer	1500–3000	-4–5 (winter) 5–24 (summer)	1000–2500
Southern Foothill Zone (SFZ)	Subtropical climate with heavy rains and high humidity	100–1500	15–30	2500–5500

Source: Adapted from Tariq et al., (2021).

Similarly, the share of social services expenditure, especially health, declined, while education expenditure increased only marginally in 2023/2024. Vulnerability to climatic shocks (hazards) and spatial inequalities pose significant challenge with a risk of at least 60% of the poor falling back to poverty or lowering of welfare conditions (World Bank, 2024). Limited job opportunities and economic prospects among the youth and educated population are driving them out of country (RMA, 2023; RGoB, 2024). Unemployment hit an all-time high at 5.9% and most worryingly, youth unemployment which stood at 28.6% in 2022 (RMA, 2023). Such socio-economic challenges persist due to a weak labour market and low job productivity.

In Bhutan, private sectors are primarily in a nascent stage. Similarly, most private sectors, such as the small and medium enterprises (SMEs) are concentrated mostly at the micro enterprise level, with women and the youth dominating the job market. This is a major sustainability challenge for productive labour force participation and market (World Bank, 2024).

Tourism, being a cross-cutting and labour-intensive sector, can provide a wide range of jobs for a skilled, semi- and low-skilled workforce, while also supporting the growth of SMEs. Such prospects of tourism make it an important contributor to high job productivity. However, this needs to be backed up by a quality workforce and competencies in the areas of technical, operational, and management skills.

1.2. Society

Bhutan is in a ‘sweet spot’ of enjoying the demographic dividend (Table 2), having a larger share of working age population. This is an important indicator providing a window of opportunity for Bhutan to bring economic growth, contributing to sustainable development envisaged in the 13th Five-Year Plan (FYP). In Bhutan, the working age population will continue to grow till 2050 (ESCAP, 2023), indicating the time-sensitive nature of the demographic dividend.

However, capitalising on such an opportunity lies in Bhutan’s ability to create inclusive economies, productive employment, and a supportive institutional environment. Social wellbeing, particularly the question of narrowing the gender gap and ensuring gender and social inclusion will be crucial.

TABLE 2 DEMOGRAPHIC DIVIDEND IN BHUTAN	
Year	Share of working age population (%)
2023	72%
2030	74.6%
2050	70%

Source: [ESCAP \(2023\)](#)

In Bhutan, women have significant rights, yet when it comes to gender equality, the status shows a mixed picture. Bhutan has improved its gender parity in education (up till the secondary level); however, women’s participation, representation, and decision making in areas of political and economic domains are low (Table 3). Women also experience a higher unemployment rate (World Bank, 2024a), gender payment gaps, and gender-based violence (NCWC, 2020).

Gender equality includes bringing social wellbeing to an inclusive ecotourism development in Bhutan. This could be delivered through supporting, implementing, and strengthening inclusive ecotourism development in policy and programmes for ecotourism business (SMEs), employment (jobs/labour market) and organisations. Gender equality for inclusive ecotourism development is possible, while Article 9 of the Constitution articulates policies to minimise inequalities of income, promote economic self-reliance, encourage and foster private sector development, ensure the right to work, vocational guidance and training, just and favourable conditions of work, elimination of all forms of discrimination and exploitation against women, and right to fair and reasonable remuneration for one’s work (RGoB, 2008).

TABLE 3 BHUTAN’S RANKING BY 2024 GLOBAL GENDER GAP SUBINDICES	
GLOBAL GENDER GAP SUBINDEX	RANK (out of 146 countries)
Political empowerment	139
Economic participation and opportunities	103
Educational attainment	113

Source (WEF, 2024).

1.3. Environment

In Bhutan, mountain regions provide vital ecosystem services (e.g., provision of freshwater, cultural services including recreation). The high-altitude rangelands, forests, agro-ecosystem, wetlands and protected areas (PAs) are key natural capital providing goods and services for ecotourism in Bhutan. The ecotourism's economy and its sustainability hinges on the wellbeing of the natural capital and its ability to maintain ambient weather conditions. With 80% of tourism goods and services relying on natural capital (WEF, 2020; WTTC, 2022), environment is at the heart of ecotourism sustainability.

However, ecotourism growth is directly linked with the consumption of goods and services (Wangmo, 2024), which is leading to resource use intensification (Gossling and Peeters, 2015). The environmental cost of tourism, especially damage to and loss of natural capital through the increased use of water, energy, forest products, and biodiversity, and increased emissions pose a risk to society, including in economic development and gender equality (WEF, 2020). Ecotourism stakeholders have a critical role to promote tourism that goes beyond minimising harm, to actively contribute to bringing positive impacts to the environment, sites/destination of tourism interest, and community. The positive impact is brought about by actively investing in regenerative tourism, that protects nature and restores sites/destination, alongside rigorous monitoring and reporting on environmental performance (WTO, WTTC and SHA, 2024) and social outcomes. Sustainable ecotourism builds upon key resources such as forest and biodiversity ecosystem and water.

Forests and biodiversity

The success of ecotourism in Bhutan is rooted in its notable achievements in forest and biodiversity conservation and the availability of a wide range of PAs. However, forests and biodiversity are under pressure from land conversion, over exploitation, dependence on wood fuel, rapid urbanisation, agricultural expansion, forest fires and climate change. Globally, biodiversity loss and ecosystem collapse are ranked as mid- to high-level global risks in terms of their impacts and likelihood (WEF, 2020). This is an alarming issue for a sustainable ecotourism future and its importance in Bhutan.

Water

Water is a crucial resource for the sustainability of ecotourism. Freshwater availability is one of the key determinants in enabling fast growth of ecotourism economies in Bhutan (supply) and its use (demand). Water originating from glacial lakes, glaciers, snowmelt, wetland, springs and rivers are important sources of freshwater. Bhutan has the highest per capita water resource availability (World Bank, 2023); however, water security is one of the major challenges faced by the population. Factors such as spatial and temporal variation in mountain regions and thereby the availability of water, governance issues, water-related disasters and development pressures (Nepal et al., 2019) all contribute to water security issues. Similarly, the country's ability to make the optimum use of freshwater for economic activities is another reason. Bhutan consumes only 1% of the total freshwater generated and supplies 99% of water to India (Tariq et al, 2021).

Besides, water availability from the supply side, to provide access to drinking water for consumption, is an important enabling condition for ecotourism economies. A total of 99% of Bhutan's rural population have access to basic drinking water services ([World Development Indicator](#)). However, as tourism grows, the demand on freshwater also increases for a wide range of end-uses, such as drinking, washing, food provision, recreation, aesthetic, and other services (Becken, 2014). Bhutan's tourism industry relies on an abundance of water resources. However, with a changing climate, socio-economic challenges, and primarily overtourism are threatening the water supply. Water scarcity can become a constraint to sustainable ecotourism development with its implications on the prospects of economic growth, a negative tourist experience and community conflict.

1.4. Climate change

Changing climate in Bhutan

Changing climate variability (temperature and precipitation) in Bhutan shows significant seasonal range in temperature, with higher temperatures during summer (June to September) and lower in winter (December to February) (Figure 1). Average rainfall also follows a similar pattern, with maximum rainfall occurring during the summer months (Figure 2).

FIGURE 1

BHUTAN - AVERAGE MINIMUM, MEAN AND MAXIMUM TEMPERATURE AND PRECIPITATION (1999-2022).

Monthly Climatology of Average Minimum Surface Air Temperature, Average Mean Surface Air Temperature, Average Maximum Surface Air Temperature & Precipitation 1991-2022; Bhutan

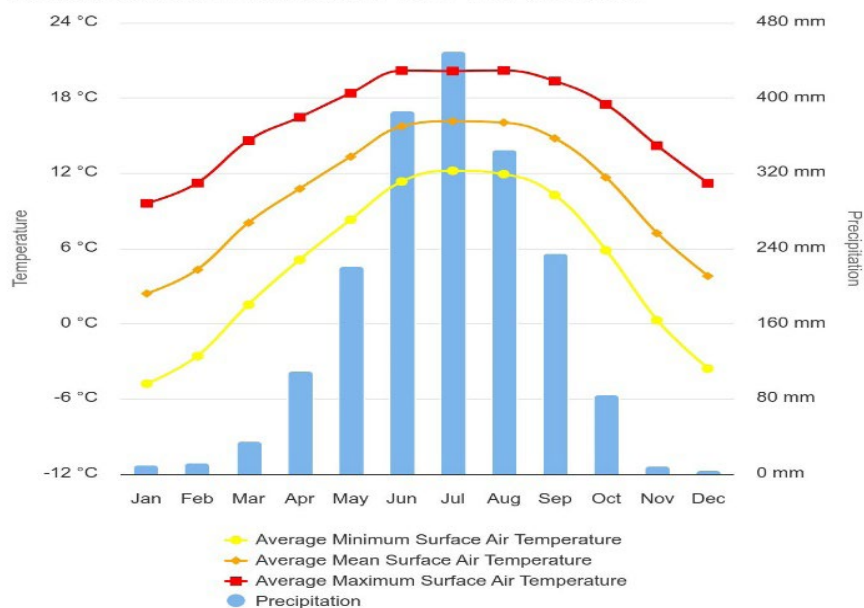
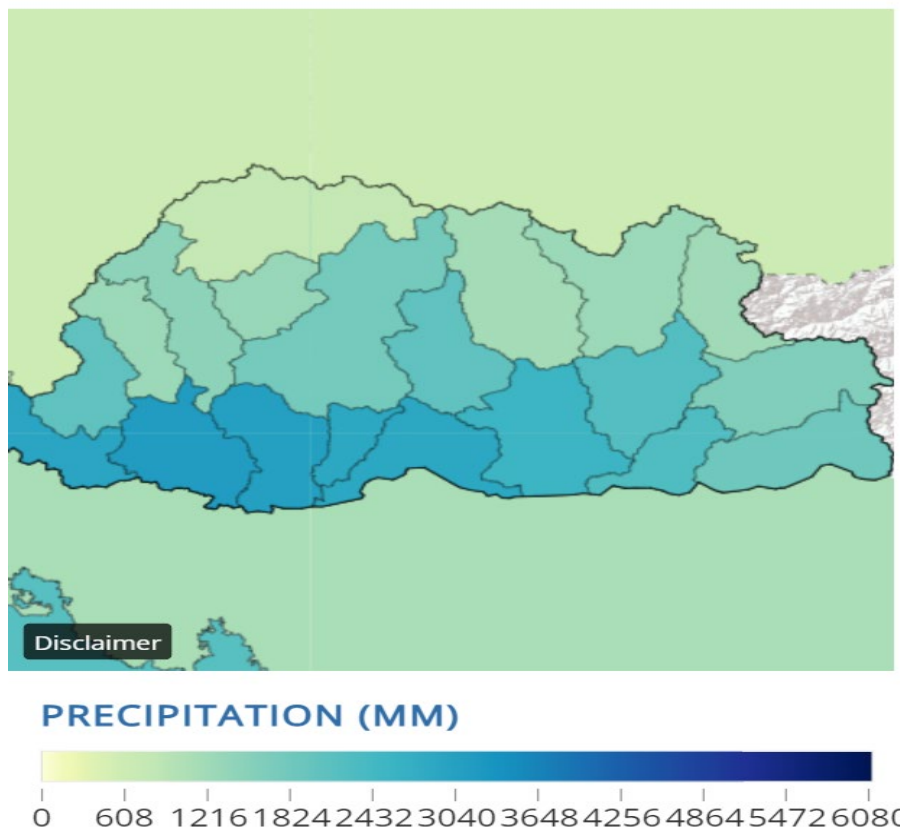


FIGURE 2

BHUTAN - AVERAGE MINIMUM, MEAN AND MAXIMUM TEMPERATURE AND PRECIPITATION (1999-2022).

Observed Annual Precipitation 1991-2020; Bhutan

Source: World Bank's [Climate knowledge portal](#)

The mountain regions of Bhutan are experiencing a rapid and unprecedented rate of climate change (Wester et al., 2019). Annual temperatures in these regions are increasing faster than the global average, leading to widespread impacts. Consequently, the region is witnessing increased snow and glacial melt, along with more frequent extreme weather events. Short-term risks such as avalanches, landslides, reduced snow cover, floods, droughts, wildfires, melting glaciers, and degradation of forests and ecosystems are becoming more frequent and common.

Future projection

Climate projection shows significant future risks from a changing climate and natural hazards (Table 4). A projected increase in temperature is great in northern/higher elevation region with seasonal variation. Precipitation is likely to increase in high emission scenarios, with northern areas showing decreased rainfall. Intensification of extreme events and natural hazards such as heatwaves, GLOFs, floods, and droughts, make the region extremely vulnerable to disaster risks.

Climate action and investment

Multiple climate change-induced risks are resulting in unprecedented impacts on the key resource base (water, energy, biodiversity), ecosystem services, and economies. This is increasing climate-related financial risks. Access to finance is imperative for Bhutan to respond to threats posed by climate change impacts. According to the ND-GAIN index 2022¹, Bhutan is ranked in 102nd position. It is the 34th

most vulnerable country to climate change impact and the 67th most ready country to use investment for adaptive action.

Climate finance is an important investment mechanism available to finance climate change-related activities with the aim to achieve low-carbon and climate-resilient development (Watson and Schalatek, 2021). As agreed by the Conference of the Parties (CoP), the countries agreed to mobilise USD 300 billion by 2035 to help developing countries take climate action through mitigation and adaptation activities. *Article 2.1 (c)* clearly outlines UNFCCC’s commitment to foster finance flow, consistent with the pathways towards low carbon and climate-resilient development (UNFCCC, 2016).

Considering the frequency, intensity, and scale of climate change impacts, the Adaptation Gap Report 2023 indicated a much bigger adaptation finance need, with the adaptation gap standing at USD 194–366 billion/year (UNEP, 2023). In the case of Bhutan, the country has developed their National Adaptation Plan (NAP); however, limited adaptation finance is putting the country at risk. Besides climate finance, the 21st Century Economic Roadmap Bhutan aims to transform financing, investment and sustainable development direction, contributing to bring sustained economic growth by future proofing its economy from risks. The roadmap focuses on green lending in the productive sector (products and services) with prospects on return on investment and nature positive outcomes, to provide additional green investment to strengthen green sectors and accelerate the financial sector’s contribution towards transitioning to a low carbon economy (through innovative green solutions) (RGoB, 2021).

TABLE 4		CLIMATE PROJECTION IN BHUTAN	
Climate Future	Temperature	Precipitation	Natural hazards
Bhutan	Temperature increase is greater than global average, and more pronounced in northern/higher elevation. Annual average monthly maximum and minimum temperature to increase greater than annual average.	Great uncertainty. Future projection less reliable. Some models show slight increase in precipitation under all emission pathways. Northern area could see decrease in rainfall. Great certainty around changes to the future intensity of heavy rainfall events.	Increase in heatwaves, GLOFs, floods, and droughts and related hazards. Flood risks concentrated in central and northwestern region.

Source: World Bank – ADB (2021)). Note: Future climate scenarios focused on two time slices: a short-term period (2021–2050) and a long-term period (2070–2099). The projection considers two socio-economic scenarios representing trends –Representative Concentration Pathways (RCPs 2.6 and 8.5), extremes of low and high emission of the IPCC fifth assessment report (AR5).

¹ The Notre Dame Global Adaptation Initiative (ND-GAIN) Index measures a country's climate change vulnerability and readiness to use investments for adaptive action.



2. Ecotourism sector

Tourism is a rapidly expanding sector in Bhutan. The country has a unique approach to tourism development and faces distinct challenges and opportunities to make tourism sustainable and climate resilient. Bhutan is renowned for its low volume and high-value tourism policy. Such policy provision made Bhutan a premier destination for high end tourism. In Bhutan, ecotourism has a big potential to become an important driver for bringing prosperity. The great ecotourism growth prospects and its contribution to the wider economy provide unique opportunities for prosperity in Bhutan. The prosperity outcome is strongly linked to the strength of ecotourism in bringing high economic growth envisaged in the 13th FYP.

2.1 Ecotourism growth

Ecotourism growth: Tourist arrivals

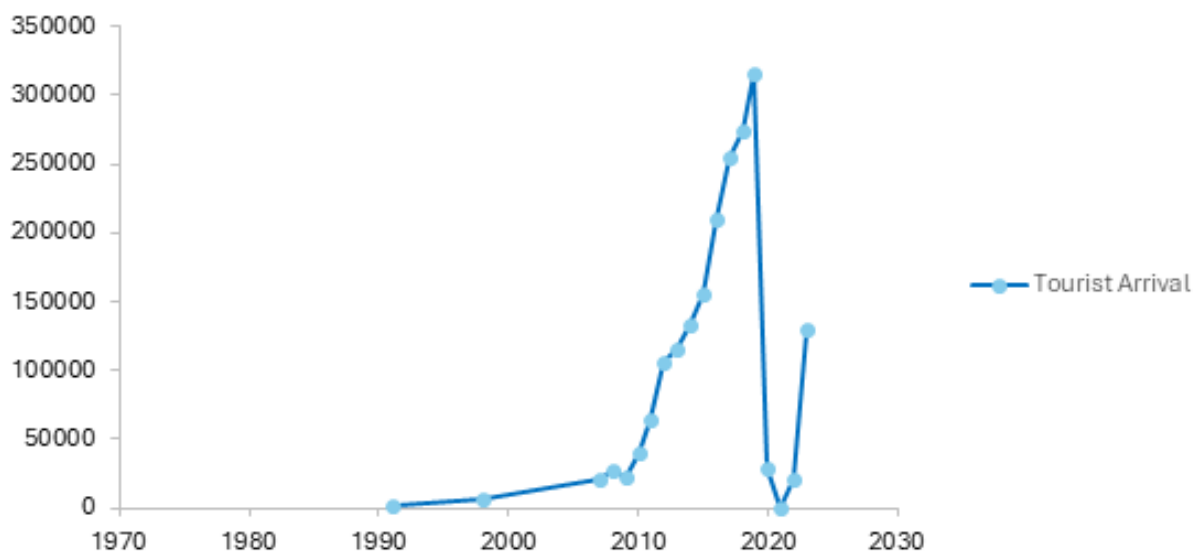
Since Bhutan ended its international isolation in 1971, the country has been experiencing impressive annual growth in tourist numbers until 2019. Tourist arrivals plummeted in 2020 and 2021 due to the COVID-19 pandemic outbreak; numbers picked up after Bhutan lifted travel restrictions in June 2022 (Figure 3).

In 2022, Bhutan recorded 21,653 tourist arrivals, and in 2023, it welcomed over 103,000 tourists, surpassing expectations. This growth rate indicates that tourism is on a strong path to recovery. Since 2021, Bhutan has witnessed a surge in domestic tourist numbers. Presently, Bhutan does not enforce a cap on tourist numbers. Instead, there is a general rule: international tourists willing to pay a Sustainable Development Fee (SDF) and travel through authorised tour operators or a licensed tour guide, are welcome. In a recent interview to CNBC Travel, the Prime Minister stated that Bhutan has a quota of 300,000 tourists². However, there is a mixed perspective among tourism stakeholders regarding the ideal level of tourist numbers. Some believe that Bhutan possesses the products, infrastructure, and service capacity to accommodate more tourists, while others express concerns that an excessive focus on increasing tourist numbers may tarnish Bhutan's reputation as a premium and exclusive destination in the region. The SDF acts as a strategic tool to regulate and limit the numbers.

Ecotourism growth: Source markets

Bhutan's high value-low volume tourism policy is a key drawcard to high end tourists, primarily from international source markets. However,

FIGURE 3 TOURIST ARRIVALS IN BHUTAN



²CNBC Travel (2024). Think Bhutan's \$100 daily tourism fee is pricey? It could go even higher, says prime minister.

Bhutan is also one of most sought-after destinations among the regional source market. A total of 73% of tourists comes from the regional market, with India topping the list. In 2019, India, Bangladesh, China, Vietnam, Japan, Thailand, Singapore and Malaysia are among the top 12 source markets from the region. Around 27% of Bhutan's source market are international tourists, with USA, UK, Germany and Australia in this list. Despite the SDF (which is around USD 15 for Indian tourists), the volume of Indian tourist arrivals has remained unaffected, with India continuing to be the largest tourism source market for Bhutan, accounting for 70% of tourist arrivals in 2023.

One interesting observation is that 97.49% of tourists from India and Bangladesh visited only Bhutan in 2019, compared to 61.68% of foreign tourists who combined Bhutan with other international destinations, including 8.54% who included Nepal in their itinerary. Limited flight routes due to few international carriers, restricted entry points and no direct long-haul flights, serve as major contributing factors. This data highlights three important aspects: firstly, regional tourists are becoming a major source market, particularly Indian tourists. Secondly, for many international tourists, Bhutan is apart of a regional tourism product, with the package involving, Nepal, India, Thailand, etc. Thirdly, Bhutan is a secondary and not primary market for international tourists. The major issue lies in the lack of a diverse tourism product offering destinations beyond the golden triangle of Thimpu, Paro, and Punakha (Gyeltshen, 2019). The challenge for Bhutan's tourism sector, therefore, lies in diversifying and expanding its source markets, as well as promoting Bhutan as a primary destination with innovative and customised products on offer.

The majority of tourists visit Bhutan for holiday, leisure, and recreation purposes; in 2019, 89.29% of tourists cited this as their reason for visiting (BTM, 2019). For the vast majority of tourists (99.39%) who visited Bhutan in 2019, cultural tours were the main attraction (TCB, 2020). Only 4,633 trekkers explored the country's 14 different trekking routes during the same year, while participation in activities such as rafting and bird watching remained minimal. Promoting and optimising the utilisation of areas off the beaten track and underutilised tourism offerings, are crucial for transitioning Bhutan to a green, inclusive and climate-resilient future. This should be a priority policy objective, particularly to

ensuring the green transition of ecotourism while also bringing equitable distribution of growth in lesser visited rural areas.

Ecotourism growth: Distribution

Tourist distribution is thinly spread across Bhutan (Figure 4). Of the 19 out of 20 Dzongkhags that recorded tourist flows, Paro, Thimphu, and Punakha, (Bhutan's 'tourism golden triangle') accounted for 74% of tourist arrivals in 2019. Dzongkhags such as Samdrupjongkhar, Trashiyangtse, Gasa, Lhuentse, Zhemgang, Sarpang, Pema Gatshel, Tsirang, and Dagana recorded only 2.6% of tourist flows.

2.2. Ecotourism economy

Ecotourism revenue and expenditure

Tourism is a major source of foreign exchange for Bhutan, second only to hydropower. According to the Tourism Satellite Account of Bhutan for 2019, tourism GDP was estimated at 10% of the total economy. The gross tourism receipts of Bhutan in 2019 amounted to USD 345.88 million, with foreign exchange earnings totaling USD 88.65 million.

Tourism revenue

Bhutan's unique and successful High Value, Low Volume tourism policy has been instrumental for its tourism to contribute significantly to direct revenue earning. The direct revenue in 2017, 2018, and 2019 stood at USD 25.88, 26.88 and 27.23 million respectively. Bhutan also charges a visa fee of USD 40 per tourist. Tourists visiting heritage sites (monasteries and fortresses) are also levied fees.

Bhutan has pursued a very cautious and long-term vision-oriented tourism development approach. The High Value, Low Volume tourism policy in this regard guides the country's ecotourism development direction. In doing so, the policy provision has undergone a great level of evolution and revisions, since its initiation in 1974 (Figure 5).

An important point to note in this process is the unwavering growth, both in terms of revenue and tourist numbers, which was disrupted during COVID-19 Pandemic, causing a huge drop in revenue and numbers. Such disruption not only challenged

FIGURE 4

TOURISM GROWTH AND DISTRIBUTION IN BHUTAN BY DESTINATION

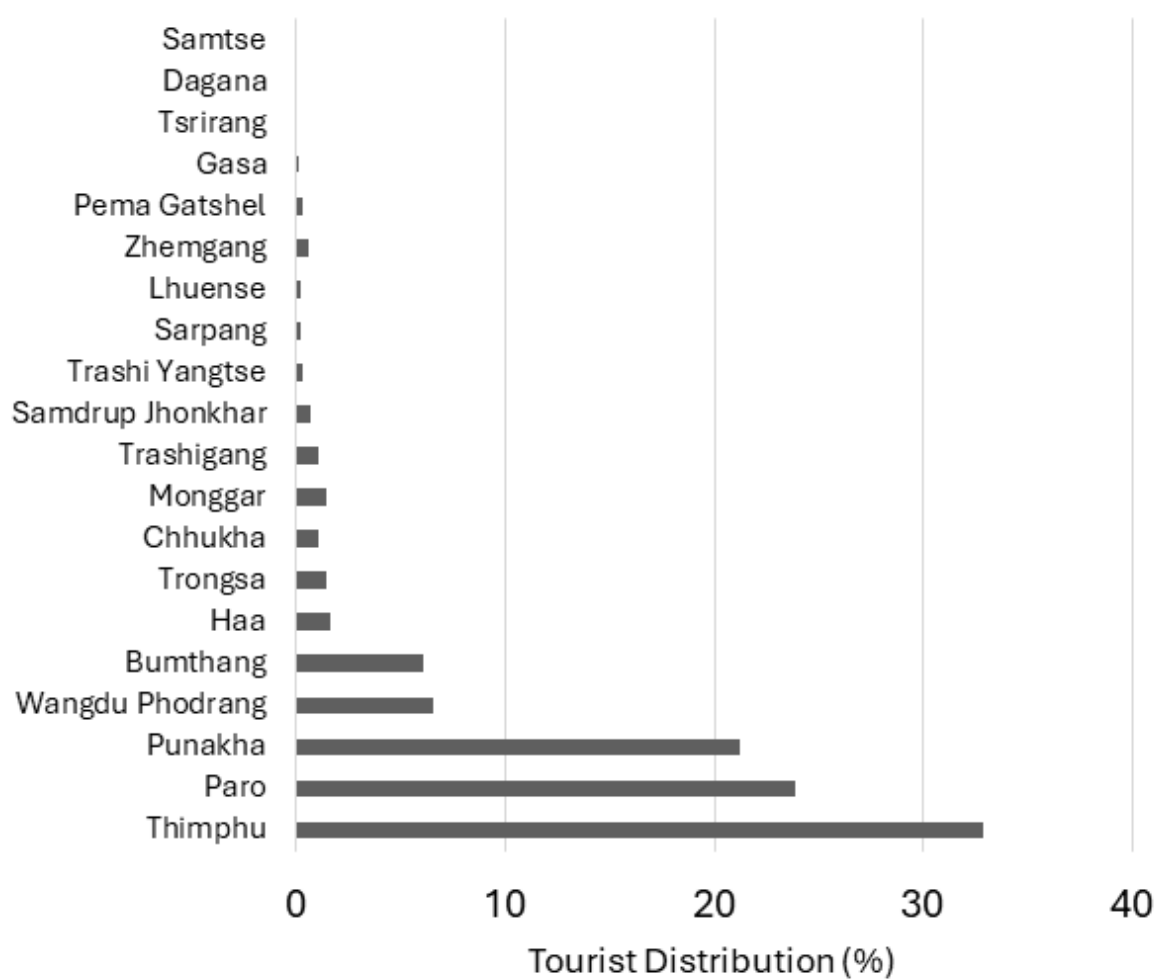
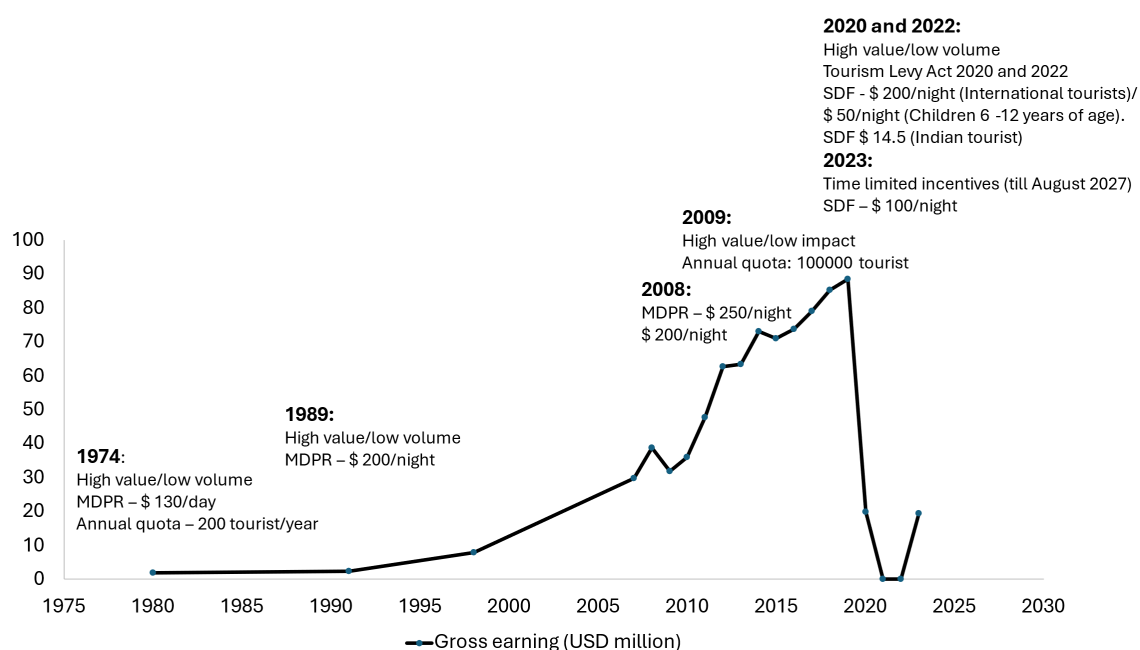


FIGURE 5

BHUTAN'S EVOLVING TOURISM LEVY POLICY



Source: TCB (2018, 2019, 2020, 2021), NSB (2023), RMA (2023).

Bhutan’s effort of operationalising a transformative ecotourism development programme aligned with the FYP, but also reduced the finances needed to support wide ranging socio-economic development and environment protection activities. This shock became a game changer in heralding a more ambitious tourism levy policy – the Sustainable Development Fund (SDF).

SDF serves as a significant portion of direct revenue generated by tourism. International tourists visiting Bhutan must pay a tourism levy of USD 100/night (down from USD 200/night), effective from September 2023 until August 2027. Indian tourists are required to pay a SDF of USD 15 (Nu 1200/night), a policy move that has effectively curbed low-spending Indian tourists. With the enactment of the new SDF policy, tourists no longer has to pay Minimum Daily Package Rate (MDPR) and are free to arrange their accommodation and itineraries through local licensed guides, accommodation providers etc.

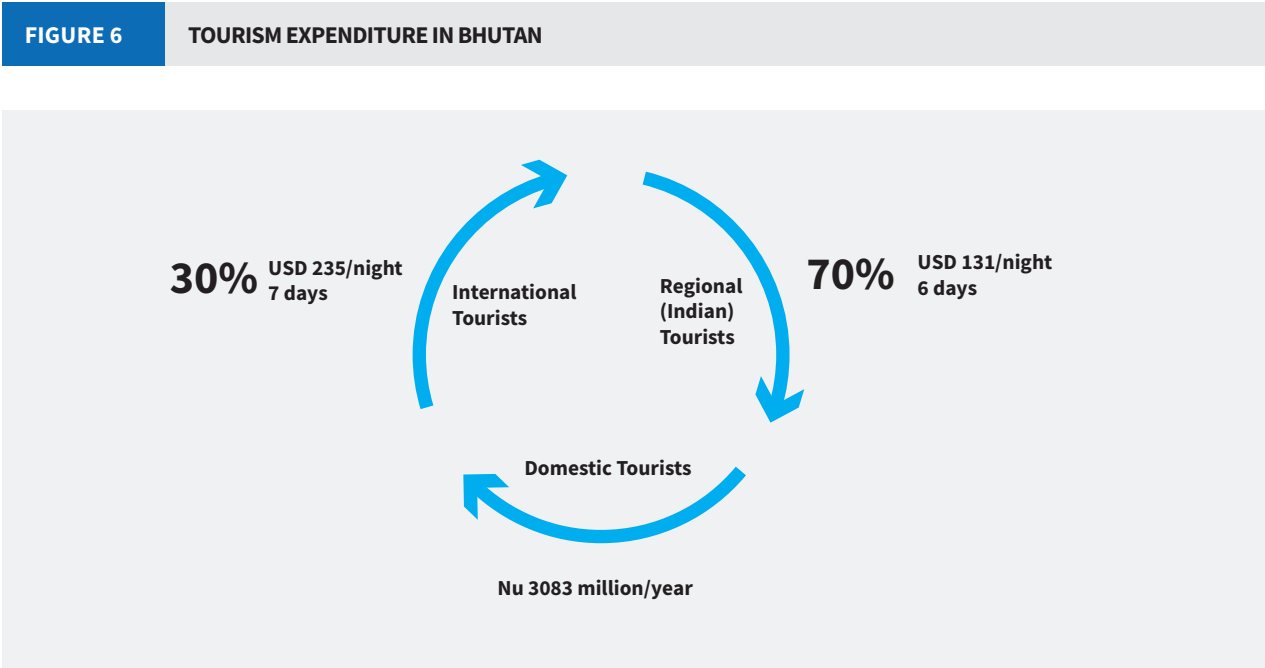
Bhutan tourism economy is on a positive track, led by growth in tourist numbers and SDF. The country collected around USD 26 million in SDF in 2023. In addition to this, the government has recently introduced a ‘green tax’ of USD 54 /night (Nu 4500) for vehicles with Indian plates, effectively reducing the Indian vehicles on Bhutanese roads, creating

more income opportunities for local transport operators and above all, generating additional revenue to support low carbon ecotourism initiatives.

Tourism expenditure

The average daily expenditure of tourists in Bhutan is relatively high due to the country’s focus on attracting high-spending visitors. The country boasts several luxury hotel groups, including Amankora and Six Senses. Prices per night in Amankora range from USD 930 in low season to USD 1550 in high season, while in Six Senses it ranges from USD 1600 to USD 1860. According to the Bhutan Tourism Monitor report, the average tourist in Bhutan spent USD 235 per night in 2019. Indian tourists, on the other hand, spent less, averaging USD 131.90 per night. Tourists from the top ten foreign source markets typically spent between USD 2,000 and USD 4,600 per trip, and USD 400 to USD 684 per night. Although there are no recent figures available, it is expected that the average expenditure per night and per trip will continue to increase in Bhutan.

Domestic tourists are rapidly increasing in the consumer market, contributing to generating significant income. The Bhutan Tourist Satellite Account indicates that overnight expenditures by domestic tourists amounted to Nu 3,083 million in 2019 (Figure 6). In terms of the average length of stay in Bhutan, there was a one-day difference between foreign and Indian tourists, with foreigners staying for an average of seven days and Indians for six days.



Ecotourism employment

Bhutan employs a total of 52,174 individuals in different tourism enterprises (accommodation, food/beverage/restaurant, tour/travel/transport/reservation, health and wellness and others). Women's participation is just one-third (35.79%) that of men. Similarly, the sector generated direct

employment to 26,087 individuals. The share and contribution of women's employment (direct and total) in enterprises such as accommodation, health and wellness and others is very high (Figures 7 and 8). Whereas enterprises such as tours and travel, transport, reservations, food and beverages, and entertainment are predominantly a male-dominated job market.

FIGURE 7

GENDER RATIO IN DIRECT EMPLOYMENT IN BHUTAN'S TOURISM SECTOR

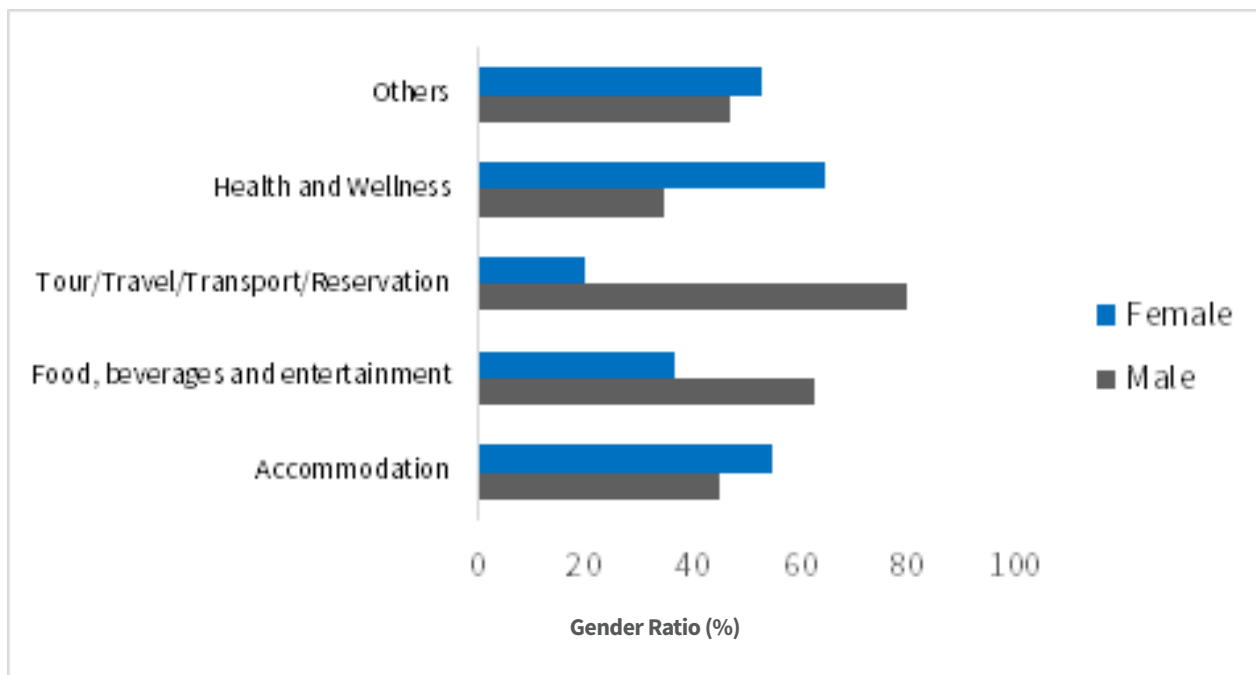
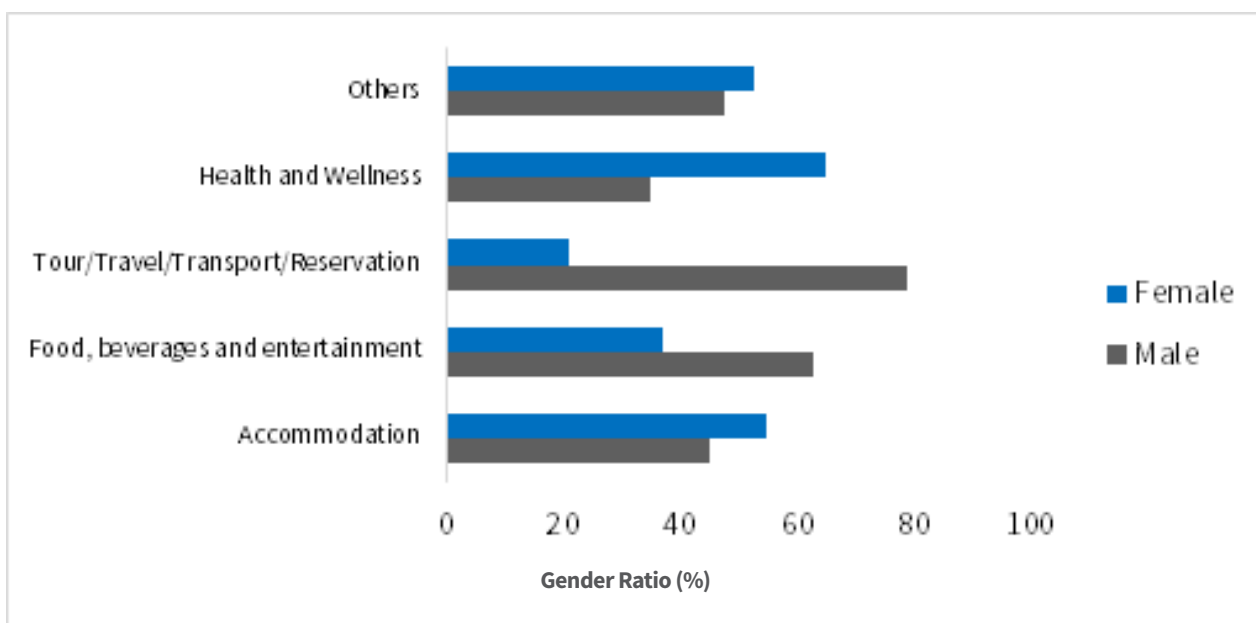


FIGURE 8

GENDER RATIO IN OVERALL EMPLOYMENT IN BHUTAN'S TOURISM SECTOR



Within the accommodation service sector, women tend to occupy junior positions such as waiting staff, receptionists, housekeepers, and cleaners, while men are more likely to work in managerial, accounting, and security roles.

Since the COVID outbreak, the hospitality sector has suffered from the lack of trained human resources, and particularly men who have the left country. This gap is being filled by women, yet they often lack formal training and skills required for jobs in the accommodation service. Basic orientation and hands-on experience are the only means for women to deliver service. The availability of trained tourism workforce in general, and the empowerment of women in particular, is a concern from a gender equality perspective. Following government directives, the Association of Bhutanese Tour Operators (ABTO) and the Guide Association of Bhutan (GAB) are mapping tourism services and assessing the available workforce, particularly guides, to fill the void present in the job market.

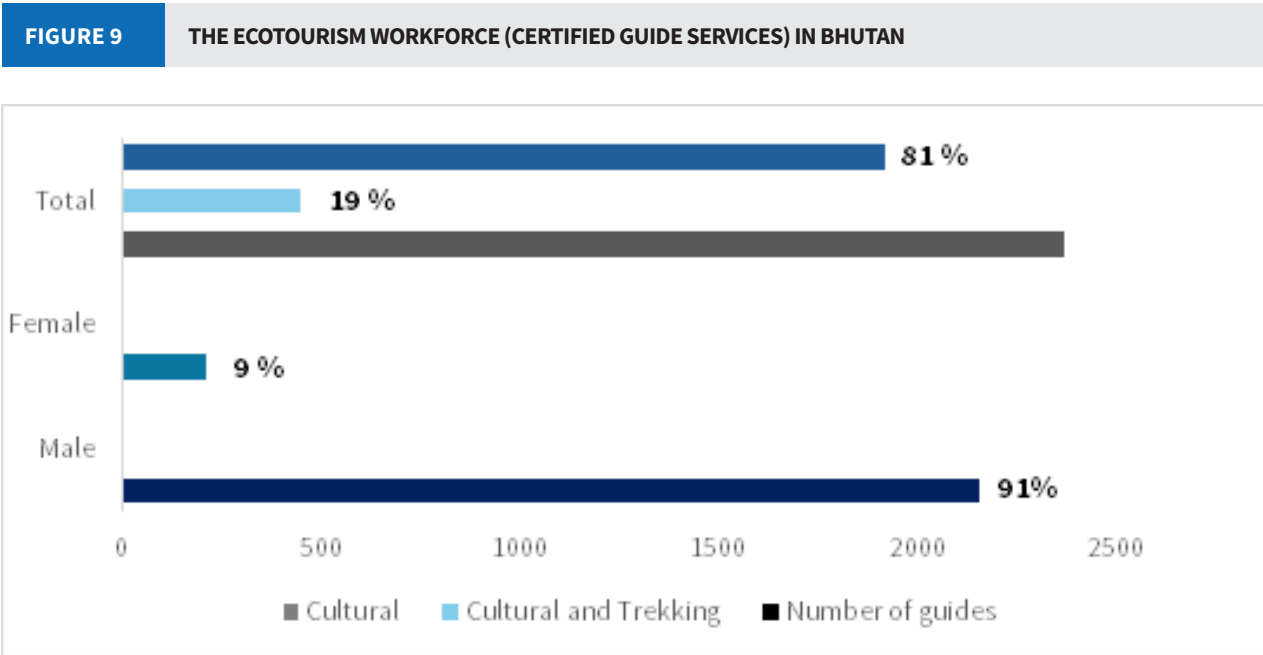
The challenge going forward arises not only from producing an adequate workforce, but one that is skilled and competent, encouraging more women and youths to take up the guiding profession. There are now more women entering the guiding profession. Of the 2,367 certified guides registered with the Department of Tourism (DoT) in Bhutan, 212 are women (Figure 9). Female guides represent 9% of the overall workforce. This highlights that

there's a long way to go for the country to bridge the gender divide in the tourism guiding service ecosystem. There is also a huge gap when it comes to availability of professional guides with specialised knowledge on the environment (forest, biodiversity, water), geography, and climate change. A total of 81% of registered guides are certified cultural guides followed by 19% which offer cultural and trekking guide tours.

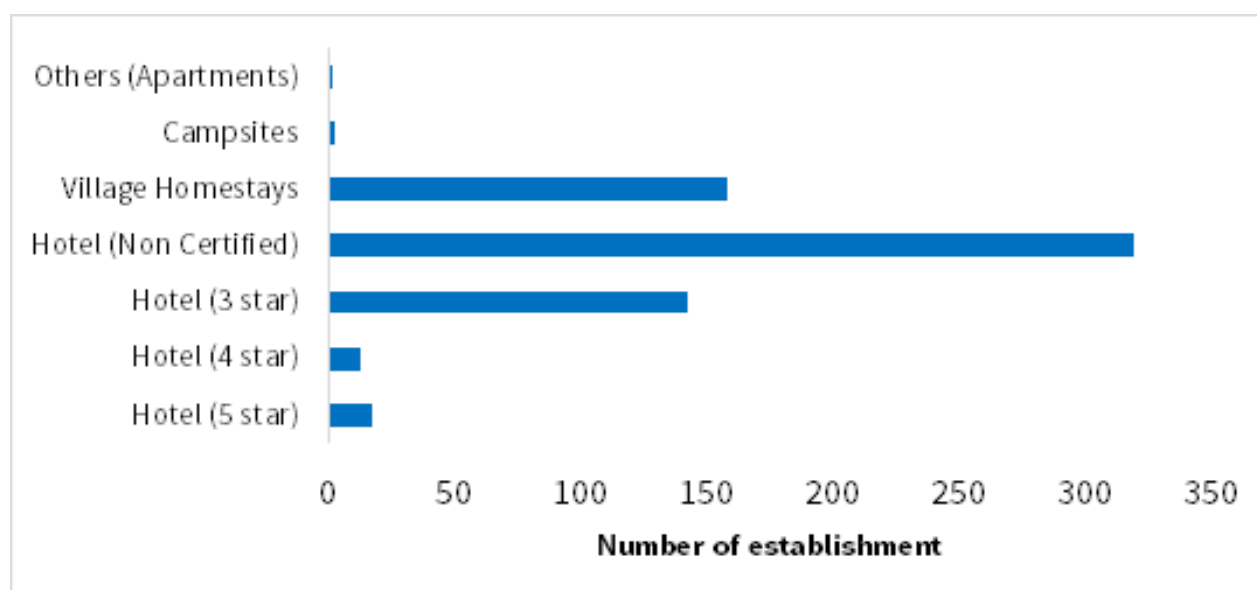
Ecotourism enterprises

In Bhutan, private sector is emerging with strong potential. The hospitality sector is one of the major growth areas, with a remarkable 124% increase from 2012 to 2018. In 2022/2023, the sector increased by 22% (World Bank, 2024). Reports published by the Tourism Council of Bhutan revealed that there were 656 registered accommodations in Bhutan, spread across 11 Dzongkhags (Figure 10).

Bhutan has over 630 budget hotels, of which 11 were upgraded to 3-star hotels. The country also has 158 registered homestays. These establishments have benefitted from the rapid growth of domestic tourism, especially after the COVID-19 Pandemic. Bhutan's tour/travel/transport/reservation services collectively accounts for 6,564 establishments (Table 5). There are around 3,525 registered Tour/travel agencies, 2,991 taxi, 28 bus, 17 Car rental and 3 air transport companies.



Source: DoT

FIGURE 10**REGISTERED ACCOMMODATION IN BHUTAN**

Source: TCB (2021a)

TABLE 5**REGISTERED TRAVEL AND TOURISM BUSINESS ESTABLISHMENTS IN BHUTAN**

Tour/Travel/Transport/ Reservation Services	Tour/travel Agencies	3,525
	Land transport (Taxi)	2,991
	Land transport (Scheduled/Non scheduled buses)	28
	Car Rental	17
	Air Transport	3

Source: TCB (2021a; 2021b).

In Bhutan, the SMEs are part and parcel of the rural ecotourism economy, where women often make up a larger proportion of the workforce. However, in rural areas, there is a limited enabling environment for the ecotourism programme and affirmative policy space to invest in women-led SMEs to equip them with knowledge, skillsets, and growth opportunity. Gender equality is also impacted by outmigration of youths and feminisation of work.

Changing livelihoods and aspirations among youths are resulting in youths abandoning farming practice and leaving villages and the country in search of better opportunities.



3. Ecotourism and dynamic risk

In Bhutan, the combined pressure of overcrowding and climate change are significantly degrading the environment, affecting forest, biodiversity, and ecosystem services, as well as destinations, and local communities. Overcrowding accelerates environmental degradation through deforestation, waste generation and habitat disturbance, which weakens ecosystem resilience. This reduced resilience amplifies the negative impacts of climate related risks such as landslides, floods, and species loss, generating a complex and evolving risk landscape for ecotourism, where biodiversity loss, water insecurity and increased carbon emissions emerge as major sustainability challenges. This cascading chain of impacts not only threatens Bhutan's ecological integrity but also risks diminishing destination competitiveness, and eroding its appeal for visitors, ultimately jeopardising the country's vision of transforming tourism into a regenerative, inclusive and high-value driver of national development (DoT, 2025)

Globally, nature-based tourism provides a great opportunity, as it is a growing market, accounting for over half of all tours, with a prediction to generate USD 665 billion annually by 2030 (Grand View Research, 2020). As stated in the 13th FYP, ecotourism has great potential to be a significant economic driver for Bhutan. Moreover, the very environment (forest, biodiversity), water, and carbon are key nature markets for ecotourism. By protecting, restoring and regenerating the environment and water, such risks can be converted into a virtuous cycle.

3.1. Ecotourism and mitigation

The ecotourism sector is not only vulnerable to climate change impacts but it is also emerging as a significant contributor to carbon emissions. Despite being a low greenhouse gas (GHG) emitter, there has been a rapid increase in emissions in Bhutan, brought by the pace of economic growth and development.

Under the energy category, a major portion of the tourism emissions are attributed to surface transport and civil aviation. Surface and air routes serve as the main modes of travel for tourists (Table 6). In Bhutan, surface transport accounts for 54.71% of tourism travel, followed by air transport of 45.29% (TCB, 2019). Those arriving by land are primarily from India.

Though most of the energy use in ecotourism is derived from hydropower, the fossil fuel use intensification in providing ecotourism services (tour/leisure/cultural activities) is a growing environmental sustainability concern. For example, the increased use of fossil fuel-run transport (vehicles) will pose a critical carbon risk. The transport sector accounts for nearly 60% of Bhutan's CO₂ emissions (MoIT, 2021). Similarly, Bhutan's transport sector is rapidly expanding, with aircraft having the highest carbon footprint. The country's extensive road network, connecting 20 district headquarters, primarily caters to bus transportation, with services available to popular tourist destinations. Taxi and ride-sharing services are prevalent in urban areas, while domestic flights are favoured for accessing mountainous regions for trekking and mountaineering expeditions.

3.2. Ecotourism and adaptation

Bhutan and its ecotourism stakeholders are extremely vulnerable to the impacts of climate change (RGoB, 2021). The impacts of changing climate are felt severely and disproportionately, increasing the vulnerability of the stakeholders, the women, youth and marginal groups.

Climate risk

The changing climate and the country's exposure to multiple hazards are serious issues for sustainability aspects of ecotourism development in Bhutan. Bhutan has been identified as a high-risk area for glacial lake outburst floods (GLOFs) and forest fires. Bhutan already experienced one of its worst forest

fires on April 9, 2016, when a range inside the Jigme Singye Wangchuk National Park, the second-largest PA in the country, was engulfed by a week-long forest fire. Bhutan recorded over 216 forest fires in the period from 2012 to 2016, burning 96,044 acres of forest cover³. These examples indicate the severity and frequency of climate-induced disasters in Bhutan.

These are some of the critical climate risks likely to impact ecotourism economies, infrastructure, assets and livelihoods. Impacts are visible in key resources (forests, biodiversity, rangelands, water and energy), ecosystem and service provisions. This is exacerbating poverty and social disparities. These serve as clear evidence of climate change risks and their impacts on ecotourism in various ways (environmentally, socially, and economically).

Projected risks from changing climate and natural hazards are also high for Bhutan. The projections of temperature and climate extremes are likely to exert severe impacts on key resources such as water, energy and food security, ambient weather, and increased disasters (GLOF, flood, heatwaves and droughts).

Although specific data and information on the extent and magnitude of impacts on ecotourism is not available, it is identified as the most vulnerable sector to climate change. Despite these shortcomings, the urgency of climate change vulnerability underscores the need for taking

3.3. Ecotourism and investment

urgent and ambitious climate action, addressing both short-term and long-term impacts on ecotourism in Bhutan.

Ecotourism is a highly sensitive and exposed sector to climate change risks. Global warming altered precipitation and extreme events are causing widespread impacts on key ecotourism resources, infrastructure damage, loss of lives, and disruptions of business, services, livelihoods, and activities. There is an urgent need to take tourism climate action and focus on enhancing the resilience of ecotourism destinations and communities. Taking climate action requires proper funding and investments to incentivise green transition of ecotourism destinations, economies and communities. This necessitates exploring and integrating new investment tools like climate/green financing via public and private partnership to invest in greening of destination, ecotourism products, business and services, enhance capacity and entrepreneurship development.

The Sustainable Development Fee (SDF) is the significant portion of direct revenue generated by ecotourism. SDF is a dynamic revenue generation and ecotourism financing model, informed by the need to mainstream the environment, climate change and poverty agenda. The SDF, coupled with the green tax and spending by tourists serves as the largest voluntary transfer of finance to support green, sustainable, inclusive and a highly competitive tourism destination development drive in Bhutan.

³<https://www.thethirdpole.net/en/livelihoods/week-long-forest-fire-still-burning-in-bhutan/>

4. Policies and provisions

Bhutan adopts a holistic and sustainable approach to ecotourism development guided by the philosophy of Gross National Happiness (GNH). Being a cross-cutting sector, tourism intersects with different policy areas. To ensure ecotourism is on the right track and contribute to becoming green, inclusive and highly competitive, it must consider several factors – environmental, social, and economic wellbeing (Table 7).

The 13th FYP aims to transform Bhutan into a high-income country with a GDP of USD 5 billion through innovation and sustainability by 2029 (RGoB, 2024). The primary focus lies on strengthening social and economic wellbeing. Social wellbeing is envisaged by ensuring a healthy and productive society with fair access to quality healthcare, education, and social protection; and economic wellbeing, through economic prosperity by promoting economic growth.

The FYP identifies tourism as the second most important growth sector contributing to economic and social wellbeing and achieving sustainable development. The FYP emphasises promoting economic diversification, job creation, and professionalising the sector through capacity enhancement, including skilling and reskilling the professionals, workforce, and decision makers.

The current tourism policy envisions Bhutan to be a green, sustainable, inclusive and high-value competitive ecotourism destination. This means that nature, local communities, sustainable consumption and production and quality services delivery will play a critical role in translating such a vision. Such a policy measure also reflects Bhutan's strategic thrust of bringing green and inclusive recovery to the tourism industry that protects, restores, and regenerates nature and biodiversity, promotes low carbon, environmentally friendly and quality tourism development pathways, and creates opportunities and benefits for all.

The policy and provision assessment indicates that the future of ecotourism in Bhutan needs to consider policy provision integrating various aspects together (tourism, climate, forest and biodiversity, gender, enterprise and investment) across three major policy domains (environment, social and economic).

4.1. Policy issues and gaps

Ecotourism is confronted with complex risks resulting from climate and socio-economic challenges. Responding to such risks is crucial for the sustainability of ecotourism and to achieve the economic prosperity envisaged in the 13th FYP. Major issues and gaps can be broadly grouped under the following three sustainability dimensions – environmental, social, and economic, which call for green and just transitioning of the ecotourism sector and economies.

Overall policy issues and gaps

Bhutan performs well with regard to making tourism green and inclusive. However, the current policy suffers from three fundamental issues.

First, the poor integration of green (nature) and social (gender) aspects in the existing tourism policy landscape. For instance, water, biodiversity, energy and low carbon are sporadically mentioned.

Second, the policy remains silent in areas of integrating aspects related to climate change, forest, biodiversity, and ecosystem services. Lack of policy integration is also prevalent in terms of investment. Sustainable financing of ecotourism for the protection, restoration, and regeneration of nature, mitigation, and adaptation actions is a major policy area. It is apparent that sustainable financing of ecotourism is a major issue faced by Bhutan. The current policy fails to explore and appreciate environment (forest, biodiversity, and ecosystem services) as key nature markets for ecotourism.

Third, while the national climate action policies such as the NDC and NAP do have some focus on the overall tourism sector and its vulnerabilities in planning for climate adaptation and mitigation measures, ecotourism, per se, lack prioritisation. For instance, the estimated cost of ecotourism development represents a very small fraction of the total NAP implementation budget (USD 1.5 million out of the total USD 14 billion). Limited climate financing in the NAP serves as one of the major bottlenecks to fund green transitioning of ecotourism and take climate action (mitigation and adaptation).

TABLE 6

POLICIES AND PROVISIONS FOR GREEN, INCLUSIVE AND CLIMATE RESILIENT ECOTOURISM

National Development		13 th Five Year Plan By 2034, transform Bhutan into high – income country with a GDP of USD 5 billion through innovation and sustainability . Second most important growth sectors contributing to economic diversification , job creation and achieve sustainable development . Professionalizing the ecotourism sector is crucial which calls for skilling and reskilling of the professionals , including decision makers and community . Ensure stakeholder empowerment by fostering integrated and inclusive ecotourism development that is sustainable and climate resilient, aligned with Bhutan’s green aspirations, equitable benefit sharing and enhances the overall visitor experience (RGoB, 2024).							
Policy Domains/Provisions		Environmental			Social		Economic		Investment
Tourism		Climate Change		Forest & Biodiversity	Gender	CSI			
		Climate Change Policy	NDC				LED	NAP	
A green, sustainable, inclusive and high value competitive tourism destination (TCB, 2019)	A prosperous, resilient and carbon neutral Bhutan where the pursuit of gross national happiness for the present and future generations is secure under a changing climate (RGoB, 2020)	Remain carbon neutral at all times (RGoB, 2021)	Mitigate carbon footprint to remain carbon neutral and contribute to Bhutan’s Long Term Low Greenhouse gas emission and Climate Resilient Development Strategy (LTS) (RGoB, 2023a)	To protect the health, lives, livelihoods and happiness of the people of Bhutan from the adverse impacts of climate change by building adaptive capacity and enhancing resilience to reduce vulnerability and by integrating adaptation actions into the development planning process at all levels (RGoB, 2023b).	To protect, restore and sustainably use forests, biodiversity, wetlands and ecosystem services, and promote recreation and ecotourism in the protected areas	Mainstream gender in all disaster and climate change related initiatives by acknowledging the differential impacts of disasters and climate change on women and men and highlight the positive roles women can play in adaptation and mitigation efforts (NCWC, 2020).	A dynamic, competitive and innovative CSI sector in harmony with the GNH philosophy (MoEA, 2019 a).	To promote investment in green, culturally and spiritually sensitive industries that maximized the GNH and the creation of Knowledge Society (MoEA, 2019b).	

Source: TCB (2019), MoEA (2019a, b), MoWCSC (2020), MPDSI (2022), NCWC (2020), RGoB (2020, 2021, 2023a, 2023b, 2024)

Key issues and gaps

Environmental issues

- Overcrowding and congestion in concentrated sites (Paro, Thimphu, and Punakha), are putting a major strain on water, energy, aesthetic, and scenic beauty of the landscape, and waste generation.
- Under appreciation and underutilisation of ecotourism offerings (nature, wildlife, landscapes, and forest) in Dzongkhags other than Paro, Thimphu, and Punakha.
- Bhutan's rich and bountiful forest and nature is an underutilised and undervalued economic sector. Bhutan's rich forest coverage is not able to maximise the opportunity in economic terms. Its contribution to GDP is gradually declining, showing a negative growth in the last decade.
- Inadequate infrastructure for non-motorised transport, such as network of trekking/hiking/cycling routes in ecotourism destinations.
- Water scarcity as a major concern in most destinations with its implications on the prospects of economic growth, negative tourist experience and community conflict. Increasing demand on water and its overuse are already major issues which hinder the ability to conduct relevant economic activities, provide services and avoid negative impression about the destinations.
- Waste management is one of the major environmental issues for tourism in Bhutan. From an emissions perspective, waste is a fast-growing emission sector in Bhutan, caused by the increasing trend of waste generation both in urban and rural areas (MoENR, 2023). Recognising its importance, the government has set up a National Waste Management Flagship Program with the aim to realise a Zero Waste Bhutan by 2030 (NEC, 2023).
- Ecotourism destination is facing significant risks from the changing climate and hazards (increased temperature, GLOFs, melting glaciers, floods).
- Ecotourism is also facing risks from increased tourist transport and consumption-led emissions. The sector overly relies on fossil fuel-based energy in delivering tourism goods and

services. The projections of increase in fossil fuel use is likely to increase under a business-as-usual scenario, with a significant rise in GHG emissions expected from light vehicles (MoIT, 2021; MoENR, 2023).

- Low penetration of electric vehicles (EV) in tourism transport and light vehicles.
- Current climate change policies offer a limited opportunity to take climate action and focus on enhancing the resilience of ecotourism and its communities.
- Although Bhutan is ahead in the race to promoting green, inclusive and climate-resilient ecotourism, an integrated policy approach (i.e. jointly addressing environmental, economic and social issues) towards achieving the vision is missing.

Social issues

Labour market, workforce participation, and productivity are three key areas triggering social issues.

- A staggering outmigration and unemployment rate among educated and socially disadvantaged youths is affecting the tourism labour market. Those undertaking the jobs suffer from weak workforce participation and low productivity caused by low competencies, skill mismatch and lack of required technical and specialised skills.
- Gender parity, especially low women's participation, representation, and decision making in areas of economic and political domains. Women's participation in the tourism sector is just one-third that of men. Women are underrepresented and an untapped workforce in the service sector and economies such as in tour, travel, transport, reservation and food and beverages.
- Higher occupational segregation, and concentration of women in traditional services, such as hospitality, undermine their full and productive participation in the tourism labour market and SMEs. Women lack skills such as business management, language, hospitality, cooking/culinary and guiding. Women own and manage much less businesses and they tend to be mostly concentrated in the SME scale.

- Women occupy junior and clerical positions and in low-paying jobs. They are less represented in higher positions, limiting opportunity to take leadership role and better pay.
- Uneven tourism distribution and expenditure, contributing to inequitable tourism growth and benefit sharing among businesses.
- Inadequate understanding about the vulnerability of ecotourism to environmental change and its impacts which is creating a very dynamic and complex risk environment.
- Inadequate understanding of ecotourism and environmental concerns from a climate change, gender equality, and investment perspective.
- Inadequate capacity and incentives to promote environment (forest, biodiversity, and water) as nature markets.
- Inadequate capacity among local institutions to govern, monitor and manage overall operation.
- Lack of community-based organisations and limited participation of local people in sustainable ecotourism management in PAs.
- Inadequate coordination and collaboration among diverse ecotourism stakeholders.
- Over supply of culture/tour and trekking guides and under supply of guides specialised in nature, wildlife, biodiversity and climate change topics.
- The majority of ecotourism SMEs fall under cottage firms and remain small, resulting in low labour productivity. They also lack relevant knowledge and skills which limit achieving the full entrepreneurial potential. This makes them an untapped entrepreneurial entity and a huge loss for the country, as they occupy a significant share of tourism economies.
- A highly seasonal sector presents a major challenge in optimising tourism services during high and low seasons. This results in impacts such as crowding, price hikes, over/under consumption of resources (peak/low seasons), pollution, job insecurity, and business continuity.
- Limited and thinly dispersed funding of available resources for ecotourism and staffing. Ecotourism lacks adequate financial resources to safeguard the critical resources, invest in conservation, develop ecotourism products and facilities (trails, campsites, resting places, etc.), build capacity of the officials to monitor and sustainably manage the destinations, including PAs.
- SDF is a centrally managed revenue generation model. All revenues generated go directly to the central treasury, leaving no opportunity to plough a certain percentage of revenue back to the PAs, where it was generated. PAs totally depend on the government's budget to implement planned programmes and activities on an annual basis. However, of late, an innovative, sustainable financing mechanism introduced by the 'Bhutan for Life' towards conservation programs, has also supported implementation activities in the ecotourism sector.

Economic issues:

- Vulnerability to poverty and economic inequality, caused by persistence of spatial inequality and growth disparity. Significant regional imbalance in ecotourist growth and distribution, five districts capture 88% of the market share.
- Large concentration of ecotourism in and around urban and peri-urban areas leading to limited opportunity and growth in rural and highland areas.
- The tourism-led private sectors such as SMEs are still in the nascent stage and hence not able to harness their full potential and power of becoming economic growth engine, through their contribution in employment and income generation.
- Ecotourism lacks economic and product diversification, limiting its market share in tourism economies.

4.2. Policy recommendations

Greening ecotourism

The ecotourism trajectory, especially its growth, development, and sustainability aspects indicate an emerging shift. The future of ecotourism is about making sure that it actively protects, restores, and regenerates the health of the environment, and promotes low-carbon and climate-resilient development pathways.

Regenerative ecotourism

- Diversify ecotourism destinations and products to disperse and manage overcrowding.
- Implement visitor quotas in overcrowded and sensitive ecotourism sites to minimise environmental damage.
- Promote incentive to develop nature markets for optimum utilisation of underappreciated ecotourism offerings – nature, wildlife, landscape, and forests).
- Promote green infrastructure through trekking/ hiking/cycling trails and forest walkways.
- Develop a range of ecotourism products (park visits, rafting, kayaking, wildlife/bird watching, etc.) and responsible tourism activities.
- Restore, protect, and regenerate the health of the environment, promote locally sourced materials and energy efficiency solutions.
- Encourage water-saving technologies and practices in ecotourism sites, business (accommodation) and facilities, including rainwater harvesting.
- Promote technology and innovation to support the green transition of ecotourism products, business and services.
- Develop and encourage green standards and certification for business and services requiring them to meet criteria regarding environmental impact, waste management, energy and water use, and local community engagement.
- Implement strict regulations on waste disposal and recycling within ecotourism sites, promoting responsible waste management practices.
- Develop comprehensive training programmes for ecotourism stakeholders on regenerative practices, including waste management and biodiversity conservation.
- Provide tax incentives for ecotourism businesses and service providers that implement regenerative practices and prioritise environmental and social responsibility.

Climate-resilient ecotourism development

- Conduct baseline studies and establish a database for planning, monitoring and reporting on climate-resilient ecotourism development.

- Promote the green transition of sector, business, and services integrating water – energy – waste management solutions
- Promote digitalisation services (weather/climate information) for safeguarding ecotourism destinations, businesses, and communities against disasters.

Low carbon ecotourism development

- Conduct baseline studies and establish databases for planning, monitoring and reporting on low-carbon ecotourism development.
- Promote low-carbon tourism transport, e.g., use of electric vehicle services (public and passenger transport) such as buses, light vehicles and two wheelers.
- Strengthen and deploy stringent vehicle and emission standards and their regular monitoring.
- Develop/promote low-carbon tourism products, business and services through deployment of energy and water efficient solutions (Solar Rooftop, renewable energy (RE)/ energy efficient (EE) appliances and lighting, rainwater harvesting, grey water treatment, etc.) in accommodation, travel and tour companies and services.
- Promote shared mobility (carpooling, ride sharing and rental services), discourage / disincentivise imports of fossil fuel-run vehicles and/or deployment of a quota system or the same.

Ecotourism for all

- Promote an integrated policy approach, harmonising relevant cross-sectoral policies (climate change, forest, and biodiversity, water, gender, enterprise, and investment) to enable ecotourism to become green, sustainable, inclusive and a high-value competitive destination development.
- Strengthen coordination and cooperation among different ecotourism stakeholders (public, private, community, financial

institutions, research and academia) to engage in and advance regenerative, low-carbon and climate-resilient ecotourism development.

- Develop deeper understanding about the need to transition ecotourism to become green, inclusive and highly competitive, mobilising key stakeholders (research, academia, community, industry and policy makers).
- Conducting gender-responsive action research to co-generate and co-develop knowledge products/application and solutions across multiple fields (academies, industry and policy).
- Enhance the capacity of key stakeholders through knowledge exchange and skills and services enhancement, enabled through research, education, vocational training and policy support.
- Enhance gainful employment and diversify economic opportunity for women and youths.
- Eliminate the gender wage gap and break occupational segregation through technical and vocational skills necessary to build competencies and enhance employability.
- Ensure safety and safeguarding of the tourists and host communities through improved access to weather information, insurance, and early warning system.
- Ensure coherent understanding among ecotourism stakeholders and the incorporation of sustainability principles for standardisation and quality assurance of ecotourism products, business and services.
- Promote public-private-community-led ecotourism initiative to diversify ecotourism offering products and services.
- Ensure active engagement of local organisations/communities in decision-making processes, including planning and development of ecotourism destination and activities.

Ecotourism for prosperity

The government pledges such as to remain carbon neutral promote High Value, Low Volume tourism and become green, sustainable, inclusive and a high-value competitive ecotourism destination provide important strategic direction. However, this requires harnessing economic opportunities and investment.

- Promote incentives to develop nature markets for ecotourism to generate much-needed revenue sources for sustainable ecotourism financing and attract investments.
- Strengthen research collaboration and exchange of knowledge on best practices in climate financing (schemes, mechanisms and business models).
- Map and profile investment landscape comprising investor database and financial flows on ecotourism financing.
- Promote access to climate finance and incentives to strengthen and speed up regenerative, low carbon and climate resilient ecotourism development.
- Advocate and establish public-private partnership for climate financing as revenue plough back mechanism to incentivise ecotourism stakeholders (community, SMEs and decision makers) for protecting, restoring and regenerating resource, mitigation and adaptation actions.
- The SDF, green tax and spending by tourists serves as the largest voluntary transfer of finance to support Bhutan become green, inclusive and highly competitive tourism destination. However, these finances are insufficient to fully support the greening of ecotourism and take climate actions. Explore additional revenue streams while maintaining the flow and utilisation of the SDF.
- Strengthen global, regional, national, and local networks and collaboration to finance regenerative ecotourism and climate action (mitigation and adaptation).

5. Towards green, inclusive and a high-value competitive ecotourism

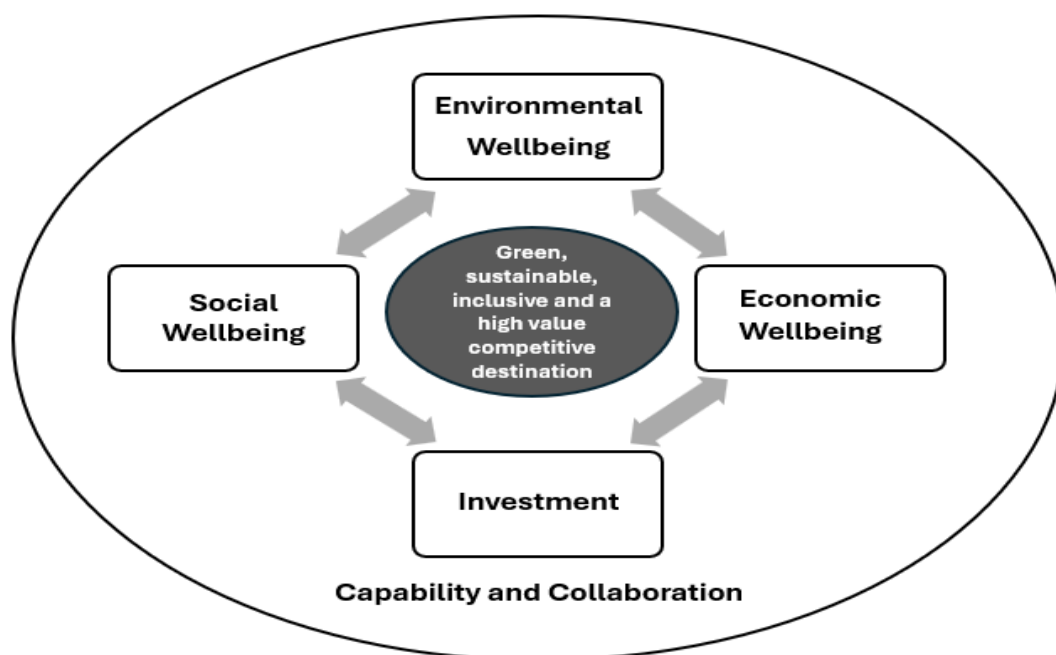
Ecotourism has a very intricate, yet delicate relationship with the environment, society, and economy. The policy contexts and issues for ecotourism are therefore broad and systemic in nature, requiring holistic and integrated approach. Going forward, policy pathways for Bhutan are about promoting nature positive ecotourism⁴ constitutive of a roadmap informed by integrated policy recommendations and actions. The policy action includes a transition pathway in five strategic areas – environmental wellbeing, social wellbeing, economic wellbeing, investment, and capability and collaboration pathways (Figure 11).

5.1. Environmental wellbeing

Strengthen protection, restoration and regeneration aspects of environment (forest, biodiversity and ecosystems) through mitigation and adaptation measures. Mitigation measures are important for destinations and communities to reduce the environmental and climate footprints of over tourism, and their implication on energy, water, food, and waste. Adaptation measures are important to reduce negative impacts of rising temperature, altered precipitation and extreme events on environment, destination, products, business and services.

FIGURE 11

POLICY PATHWAYS FOR ENABLING ECOTOURISM TO BECOME GREEN, SUSTAINABLE, INCLUSIVE AND A HIGH-VALUE COMPETITIVE DESTINATION



⁴Nature positive ecotourism serves as a concept and approach which actively protects, restores and regenerate biodiversity, habitat, ecosystem services and land use, food and water, preserves cultural heritage and traditions, maximizes equitable benefits sharing for local communities and attracts green finances to accelerate tourism climate action (mitigation and adaptation).

5.2. Social wellbeing

Ensure and emphasise active involvement of ecotourism workforce (women, youth and marginalised groups), entrepreneurs and local institutions in decision-making processes. Enhance workforce, entrepreneurs and local institution's capacity through their full and productive participation in ecotourism development. Promote collaborative and community-based initiatives that empower communities to take ownership of tourism activities and benefit directly from tourism revenues.

5.3. Economic wellbeing

Support high value and sustained economic growth while ensuring that it benefits local communities and supports inclusive development. This involves strategies to develop high yield tourism, attract high spending tourists, promote conscious consumerism and ensure equitable benefit sharing.

5.4. Investment

Promote investment opportunities, providing incentives for green transition of ecotourism via nature positive tourism development (sector, destination, products, business and services), through green/innovative financing opportunity focusing on regenerative, low carbon and climate resilient ecotourism development.

5.5. Capability and collaboration

Promote and enhance capability in research and ecotourism development. This includes research for action in academic and training programs for tourism, faculty and industry professionals, raising awareness among visitors about responsible tourism practices, and educating local communities about the value of their natural and cultural resources.

Facilitate multi-stakeholders and multi-level collaboration to enhance capability of human resources for management (e.g., planning, implementation, monitoring, and evaluation of the policy actions), productive workforce participation (e.g., enhancing knowledge and skills) and regenerative, low-carbon and climate-resilient entrepreneurship development, through improved knowledge and access to innovative Nature-based Solutions.

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