COMMUNITY BASED ECOTOURISM IN MIZORAM WITH SPECIAL REFERENCE TO MAMIT DISTRICT

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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Ph.D. REGISTRATION NO: MZU/Ph.D./1673 of 25.10.2020

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SCHOOL OF ECONOMICS MANAGEMENT AND INFORMATION SCIENCE

APRIL, 2025

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This is to certify that the thesis entitled, "***Community Based Ecotourism in Mizoram with Special Reference to Mamit District***", embodies the record of original investigation carried out by **Mr. Jonathan Lalrinawma** (Regd. No.: MZU/Ph.D./1673 of 25.10.2020), under my supervision and guidance, in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy of the Mizoram University, Aizawl.

He has fulfilled all the required norms laid down under Minimum Standards and Procedure for the Award of Ph.D. of UGC Regulations 2018. He has been duly registered and the thesis is worthy of being considered for the Ph.D. Degree. Neither the thesis as a whole nor any part of it was ever submitted to any University for any research degree.

.

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DECLARATION

MIZORAM UNIVERSITY

APRIL, 2025

I **JONATHAN LALRINAWMA**, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the **Degree of Doctor of Philosophy in Tourism and Hospitality Management.**

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ACKNOWLEDGEMENTS

I express my deepest gratitude to my supervisor Dr. Pankaj Kumar for his invaluable guidance, patience, inspiration and suggestions throughout this research journey. His expertise and encouragement have been instrumental in shaping this thesis.

I am immensely grateful to the Head of Department and all the faculty members and staff of the Department of Tourism and Hospitality Management, Mizoram University for their constant support.

I am deeply grateful to my family for their support and sacrifices without which the completion of this study would not have been possible.

I am thankful to all the respondents for taking the time and giving valuable inputs and making this journey accomplished.

I wish to thank all those names which I have not mentioned but have helped directly or indirectly during the course of my study.

Above all, I thank Almighty God for the blessings he has showered upon me.

This thesis is dedicated to my two sons- John and Timothy.

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ACRONYMS AND ABBREVIATIONS

ASEAN	Association of South East Asian Nations
AVEDSOC	Ailawng Village Ecotourism Development Society
CAGR	Compound Annual Growth Rate
CAMPA	Compensatory Afforestation Fund Management and Planning
Authority	
CBET	Community Based Ecotourism
CBETD	Community Based Ecotourism Development
CBT	Community Based Tourism
DoEFCC	Department of Environment Forest and Climate Change
DoNER	Development of North Eastern region
DPSIR	Drivers, Pressures, State, Impacts, Responses
EAP	Externally Aided Projects
ECOS	Ecotourism Opportunity Spectrum
EFCCD	Environment Forest and Climate Change Department
FDI	Foreign Diract Investment
FEE	Foreign Exchange Earnings
FTA	Foreign Tourist Arrivals
GDP	Gross Domestic Product
GSTC	Global Sustainable Tourism Council
ICT	Information and Communications Technology
IEC	Information, Education, Communication
MHIP	Mizo Hmeichhe Insuihkhawm Pawl
MICE	Meetings, Incentives, Conference and Exhibition
MoEFCC	Ministry of Environment, Forest and Climate Change
MoT	Ministry of Tourism
NEC	North Eastern Council
NEDP	New Economic Development Policy
NESIDS	North East Special Infrastructure Development Scheme
NGO	Non-Governmental Organization
NITI	National Institution for Transforming India

NSDP	Net State Domestic Product
OECD	Organisation for Economic Cooperation and Development
PCA	Principal Component Analysis
PPP	Public Private Partnership
PRASHAD	Pilgrimage Rejuvenation and Spiritual Augmentation Drive
SDG	Sustainable Development Goals
SEM	Structural Equation Modeling
SNPA	Sarikum Nature Protection Area
SPSS	Statistical Package for the Social Sciences
SWOT	Strength, Weakness, Opportunities, Threats
TIES	The International Ecotourism Society
UDAN	Ude Desh Ka Aam Nagrik
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational and Cultural Organization
UNWTO	United Nations World Tourism Organization
WTTC	World Travel and Tourism Council
YMA	Young Mizo Association

CHAPTER – 1

INTRODUCTION

CHAPTER - 1

INTRODUCTION

Tourism is characterized as “travel of individuals or groups to diverse locations for various purposes, including leisure, recreation, entertainment, visiting friends and relatives, conferences, medical needs, and experiencing nature, beauty, culture, and heritage” (Dhanalakshmi & Selvanathan, 2022). It has turned into a significant global industry, substantially impacting the economic, social, cultural, and environmental domains of nations worldwide.

Tourism, as defined by the United Nations World Tourism Organization (UNWTO), refers to "the activities of individuals travelling to and residing in locations outside their usual place of residence or employment for not more than one consecutive year for leisure, business, and other purposes," encompassing a wide array of activities and experiences (UNWTO, 2019). Hunziker and Krapf (1942) describe tourism as the aggregate of occurrences and connections resulting from travel and temporary residence, provided that the stay does not culminate in permanent residency and is not associated with any remunerative activities. In recent decades, tourism has evolved from a niche activity to a significant catalyst for economic development, especially in developing areas (Li et al., 2018).

The evolution of contemporary tourism can be attributed to the 19th century, characterized by industrialization and the growth of the middle class, which facilitated both the resources and the impetus for leisure travel (Towner & Wall, 1991). This era witnessed the rise of mass tourism, propelled by advancements in transportation, notably the steam engine, which significantly diminished trip duration and expenses (Urry, 1990). The democratization of travel persisted throughout the 20th century, propelled by economic expansion, technical innovations, paid vacations, and heightened disposable money, culminating in the emergence of tourism as a global industry (Dwyer, 2015).

1.1 TOURISM INDUSTRY OVERVIEW: GLOBAL, INDIA AND NORTH-EAST PERSPECTIVE

The tourism industry is crucial to the world economy, considerably impacting GDP, employment, and entrepreneurship. In recent years, there has been significant rise in worldwide tourist arrivals and tourism revenue, indicating the sector's increasing impact. Approximately 1.4 billion tourists travelled worldwide, generating US$ 1.6 trillion in tourism receipts in 2024.

In 2019, before Covid-19, the travel and tourism sector, encompassing direct, indirect, and induced impacts, represented 10.5% of total employment (334 million jobs) and contributed 10.4% to Global GDP (US$ 10.3 trillion) (Chipumuro, et al., 2024).

Table-1.1:

Global Tourist Arrivals and Tourism Receipts (2000-2024)

Year	Tourist Arrivals (in Million)	% Change over previous year	Tourism Receipts (bn. US$)	% Change over previous year
2000	687	7.8	475	3.70
2001	684	-0.5	464	-2.3
2002	702	2.7	482	3.9
2003	694	-1.7	529	9.75
2004	762	10	633	19.65
2005	802	5.5	680	7.4
2006	847	5.6	744	9.4
2007	901	6.4	857	15.2
2008	920	2.1	942	9.9
2009	880	-4	852	-11.6
2010	952	6.5	928	8.7
2011	996	4.7	1030	11.1
2012	1035	4.0	1078	4.0
2013	1087	5.0	1159	5.0
2014	1138	4.7	1197	3.3
2015	1186	4.2	1196	-0.1
2016	1239	4.5	1220	2.0
2016	1323	6.8	1340	9.8
2018	1408	6.4	1440	7.5
2019	1466	4.1	1470	2.1
2020	406	-72.3	546	-62.9

2021	446	9.9	602	10.3
2022	963	115.9	1000	66.1
2023	1260	30.8	1500	50.0
2024	1447	14.8	1600	6.7

Source: UN Tourism (Compiled*)*

The global tourism industry has become favourable for countries worldwide, as the number of international tourist arrivals continues to increase annually. The Global tourism industry has witnessed significant changes in trends in international tourist arrivals and tourism receipts between 2000 and 2024, as indicated in Table 1.1. Tourist arrivals increased significantly, rising from 674 million in 2000 to 1,461 million in 2019. This trend exhibits a rise in global mobility, improved travel accessibility, economic growth, and better connectivity. Tourism receipts exhibited a parallel trend, rising from US$ 475 billion to US$ 1,481 billion, suggesting an increase in both the number of travellers and their expenditure. The years 2005, 2010, and 2015 exhibited double-digit growth in both indicators, indicating favourable conditions including increasing middle-class incomes, enhanced digital access to tourism services, and proactive tourism promotion by nations.

This rising trend experienced a significant disruption in 2020 due to the COVID-19 pandemic. The tourism sector witnessed an unprecedented collapse, characterized by a 72.2% reduction in international tourist arrivals and a 75.9% loss in global tourism receipts, marking the most catastrophic downturn in modern tourism history (UNWTO, 2021). A mild recovery in the tourism sector commenced in 2021; however, it was not until 2022 that the industry exhibited a significant rebound, with arrivals increasing by over 120% and tourism receipts surging by 155% (UNWTO, 2023). Despite the positive gains observed in 2023 and 2024, the global tourism industry continues to be highly susceptible to external shocks, such as health crises, economic downturns, and geopolitical conflicts (OECD, 2022; WTTC, 2023). These fluctuations underscore the resilience and economic significance of global tourism, while also highlighting the urgent need for diversified, sustainable, and crisis-resilient tourism strategies. This resurgence reflects a broader positive trajectory, as the sector gradually returns to pre-pandemic levels, fuelling economic growth,

employment generation, and cultural exchange worldwide (UNWTO, 2024). The global tourism outlook suggests that international tourist arrivals are projected to increase by 3% to 5% in 2025 compared to 2024, reinforcing tourism's critical role in socio-economic diversification and development (UNWTO, 2024).

The economic advantages of tourism, particularly in developing nations, constitute a crucial source of foreign exchange and employment opportunities (Sharpley & Telfer, 2015). Nonetheless, tourism presents various challenges and critiques. Doxey (1975) emphasized the potential of tourism to result in cultural commodification and social tensions within host communities, a phenomenon commonly known as the "tourism life cycle" (Butler, 1980).

India's tourism industry has expanded considerably as an outcome of increased foreign exchange earnings and rising visitor numbers in both domestic and international segments (Ministry of Tourism, 2023). The labour-intensive nature of the tourism sector, coupled with significant tourist traffic, presents substantial prospects for entrepreneurship and employment for individuals of various skill levels, including skilled, semi-skilled, and unskilled workers (WTTC, 2022). The country's tourism industry has experienced steady growth in recent years owing to its extensive tourism offerings, ranging from heritage and cultural tourism to ecotourism, wellness, and adventure tourism (NITI Aayog, 2022; UNWTO, 2023).

As per the data released by the World Travel & Tourism Council (WTTC) and UN Tourism, the tourism and hospitality industry in India contributes approximately 8.1% to the country's Gross Domestic Product (GDP**)** in 2023, highlighting its vital role as a driver of economic growth, employment generation, and cultural exchange. The sector continues to be one of the leading sources of foreign exchange earnings, positioning India among the top 10 global tourism economies in terms of absolute contribution to GDP. According to the Ministry of Tourism, Government of India (India Tourism Statistics, 2024), the country recorded 11 million foreign tourist arrivals (FTAs) in 2024, demonstrating a robust recovery and growth momentum after the pandemic-induced slump. India's share in global tourism receipts has also

strengthened, due to an increase in long-haul travel, promotion of wellness, cultural, and eco-tourism, and improved digital and physical infrastructure.

India has transitioned from a developing tourism destination to a rising global contender, yet it continues to possess significant untapped potential, especially within the foreign tourist segment. Starting with a mere 16,829 foreign tourist arrivals in 1951, India's international tourism has experienced significant expansion over the years. The most recent figures indicate that foreign exchange earnings (FEE) from tourism amounted to new level in 2019 and rebounding after the Covid pandemic in 2024, playing a crucial role in the national economy.

Table- 1.2:

Foreign Tourist Arrivals (FTA), NRIs Arrivals and Foreign Exchange Earnings (FEE) in India (2000-2024)

Year	FTA (in Million)	% Change over previous years	NRIs Arrivals in India	% Change over previous years	FEE (in Rs Crore)	% Change over previous years
2000	2.65	6.7			15,625	20.7
2001	2.54	-4.2			15,083	-3.5
2002	2.38	-6.0			15,064	-0.1
2003	2.73	14.3			20,729	37.6
2004	3.46	26.8			27,944	34.8
2005	3.92	13.3			33,123	18.5
2006	4.45	13.5			39,025	17.8
2007	5.08	14.3			44,360	13.7
2008	5.28	4.0			51,294	15.6
2009	5.17	-2.2			53,700	4.7
2010	5.78	11.8			64,889	20.8
2011	6.31	9.2			77,591	19.6
2012	6.58	4.3			94,487	21.8
2013	6.97	5.9			1,07,563	13.15
2014	7.68	10.2	5.43		1,20,366	11.9
2015	8.03	4.53	5.74	5.66	1,34,483	12.03
2016	8.80	9.68	6.22	8.45	1,50,750	11.80
2017	10.04	13.99	6.77	8.81	1,78,189	18.20
2018	10.56	5.20	6.87	1.41	1,95,312	9.61
2019	10.93	3.53	6.98	1.67	2,16,467	10.83
2020	2.74	-74.89	3.59	-48.57	95,738	-55.77

2021	1.52	-44.36	5.48	52.65	63,978	-33.17
2022	6.44	321.54	7.89	43.98	1,69,917	165.59
2023	9.52	47.90	9.38	18.88	2,31,927	36.49
2024	9.66	1.4			2,77,842	19.80

Source: ITS, Ministry of Tourism, India (Compiled)

The government's ongoing investment in the sector through initiatives such as Dekho Apna Desh, Swadesh Darshan 2.0, and PRASHAD schemes underscores the critical role of tourism in fostering inclusive and sustainable development. India possesses a rich tapestry of cultural heritage, diverse ecosystems, and significant spiritual sites, which positions it favorably to enhance its presence in the global tourism market in the future.

In the year 2019, the country attracted 17.91 million international tourists and 2321.98 million domestic tourists, resulting in a revenue generation of US$30.058 billion (ITS, 2020).

From 2000 to 2019, India saw a consistent growth in FTAs, increasing from 2.65 million in 2000 to 10.93 million in 2019. FEE experienced significant growth, increasing from ₹15,625 crore to ₹2,16,467 crore during this timeframe. The increase can be linked to improved infrastructure, assertive marketing initiatives such as "Incredible India" and more flexible visa regulations.

The pandemic resulted in a significant downturn in 2020, with FTAs dropping by 74.89% and FEE falling by 55.77%. The following years demonstrated a steady recovery, with 2023 recording 9.52 million FTAs and ₹2,31,927 crore in FEE. The incorporation of NRI arrival data in 2014 has led to a significant rise from 5.43 million in 2014 to 9.38 million in 2023. This growth highlights the robust connections of the Indian diaspora and their ongoing involvement with their country of origin.

The Central government has launched several initiatives to boost international tourism:

• Chalo India Global Diaspora Campaign: This initiative was initiated to motivate the Indian diaspora to extend invitations to their non-Indian acquaintances to visit India.

The objective of the campaign is to elevate diaspora members to the role of tourism ambassadors. It provides incentives, such as free e-visas, to encourage cultural interaction and improve visitor inflow.

• The Incredible India Campaign: This long-standing marketing strategy has successfully exhibited India's unique cultural and natural history, attracting tourists from all over the world.

• E-Visa Facility: The development and growth of the e-visa facility streamlined the visa application procedure, making India more accessible to overseas visitors.

• The Swadesh Darshan and PRASHAD schemes: These projects, which focus on the development of thematic tourist circuits and pilgrimage sites, have improved infrastructure and expanded the visitor experience.

These efforts, along with policy reforms and infrastructural advancements, have substantially enhanced India's status as a leading global tourist destination. The consistent increase in domestic visitor arrivals in India, as demonstrated in Table 1.3, signifies a transformative change in our country's tourism sector. Domestic tourism has surged from 220 million visits in 2000 to over 2.5 billion in 2023, though an abrupt drop in 2020 attributed to the COVID-19 pandemic. This increase is attributed to various strategic governmental initiatives, including the inception of the Incredible India campaign, the Swadesh Darshan and PRASHAD schemes for thematic and pilgrimage tourism, the Dekho Apna Desh initiative advocating regional travel, and enhanced connectivity via the UDAN scheme (air routes to smaller cities). The government's emphasis on wellness and medical tourism, in conjunction with the Ministry of Ayush and the National Digital Health Mission, has bolstered domestic travel. Improved infrastructure, digitization, and proactive state tourism boards have been essential. This expansion has not only strengthened the economy but also created jobs and fostered sustainable, inclusive development throughout many regions.

Table- 1.3:

Domestic tourist visits in India (2000-2023)

Year	No. of Domestic Tourist Visits (in million)	% Change over the years
2000	220.11	
2001	236.47	7.43
2002	269.6	14.01
2003	309.04	14.63
2004	366.27	18.52
2005	391.95	7.01
2006	462.31	17.95
2007	526.43	13.87
2008	563.03	6.95
2009	666.8	18.43
2010	747.7	12.13
2011	864.53	15.63
2012	1036.35	19.87
2013	1142.53	10.25
2014	1282.80	12.28
2015	1431.97	11.63
2016	1615.39	12.81
2017	1657.55	2.61
2018	1853.78	11.84
2019	2321.98	25.26
2020	610.22	-73.72
2021	677.63	11.05
2022	1731.01	155.45
2023	2509.63	44.98

Source: ITS, Ministry of Tourism, India (Compiled)

North East India, consisting of eight states, is an undiscovered treasure poised for exploration. This region possesses significant potential for both domestic and international tourists owing to its picturesque landscape, stunning natural beauty, diversified culture, rich history, numerous adventure tourism activities and hospitable & welcoming local community. The region offers a distinctive and immersive experience, ranging from the snow-capped peaks of the Himalayas in Arunachal Pradesh and Sikkim to the verdant lowlands of the Eastern Himalayas, which extend from Arunachal Pradesh to Mizoram. This diverse landscape is complemented by vibrant festivals and ancient temples, leaving visitors in wonder. The tourism has

become a crucial sector for economic development, while also presenting cultural and environmental concerns in the region.

Figure 1.1: North-east India Map

Source: https://mdoners.gov.in

The varied topography of Northeast India offers an ideal backdrop for adventure tourism pursuits, including trekking, mountaineering, river rafting, paragliding, caving, bicycling, and angling. The Dzukou Valley walk and the exhilarating white water rafting on the Brahmaputra River welcome a diverse range of adrenaline-inducing activities for adventure seekers. The Ziro Valley, in Arunachal Pradesh, is renowned for its scenic beauty, Kaziranga National Park in Assam, Dampa National Park in Mizoram, for its wildlife and local community culture, Serchhip in Mizoram for Paragliding, and the caves of Meghalaya contain some of the longest and deepest formations globally, are essential destinations for nature enthusiasts and adventurers.

Cultural and Religious Tourism in North East India offers an opportunity to explore its dynamic and diverse cultures through visits to tribal village, weavers villages, participation in vibrant festivals, and engagement with the welcoming local community. The Kamakhya Temple in Assam, Tawang Monastery in Arunachal Pradesh, and the rock-cut sculptures at Unakoti in Tripura exemplify the region's profound religious tradition. With its lush green landscapes, high forest cover, towering mountains, and pristine rivers, offer a huge opportunity for nature tourism enthusiasts. The unique biodiversity shaped by vibrant geography and pleasant climatic conditions, includes a plethora of endangered species making it one of the most ecologically significant areas in the world. More than 25 wildlife sanctuaries and national parks scattered across the region house iconic species such as the one-horned rhinoceros, Asian elephant, Bengal tiger, and various rare avian species and are also vital for the conservation of diverse flora and fauna. The region also boasts several special interest tourism opportunities, including cave tourism, ecotourism, mountain tourism, caravan and camper van excursions, golf tourism, and river cruises.

There has been a steady increase in visitor arrivals to the North East states. Domestic tourist arrivals rose from 3.13 million in 2003 to 95 million in 2019, reflecting a Compound Annual Growth Rate (CAGR) of 8% over this period. The tourism sector opens a distinctive opportunity for operators, hotels, resorts, and infrastructure developers to expand on the unexploited potential of North East India. Investable projects encompass the construction of tourism circuits, hotels, resorts, tour operators, spas, golf courses, zip lines, and ropeways.

Table 1.4:

Tourist Arrivals in North-East Indian States

State	2002	2005	2010	2015	2020	2021
Arunachal Pradesh	4559	3294	58023	357772	43832	103097
Assam	1960324	2478434	4066081	5516565	1274183	1409697
Manipur	89854	94615	114451	149429	52808	50019
Meghalaya	271755	381000	656933	759192	27045	154820
Mizoram	31429	45999	57639	67413	161677	20564
Nagaland	14920	18353	22226	67385	11497	24293
Sikkim	167908	268267	720768	743502	336343	523177
Tripura	263188	219007	347485	398058	159692	177821

Source: ITS, Ministry of Tourism

The table demonstrates the changing tourism landscape in Northeast India from 2002 to 2021, highlighting notable variations among the states. Between 2002 and 2015, a gradual increase in tourist arrivals was observed across most states, attributed to enhanced connectivity, infrastructure improvements, and promotional initiatives by the Government of India. Notably, schemes such as Swadesh Darshan – North East Circuit and efforts by the Ministry of Tourism aimed to promote lesser-known destinations.

By 2015, states such as Sikkim and Arunachal Pradesh experienced significant growth in tourist arrivals, with Sikkim increasing from approximately 167,000 in 2002 to over 743,000 in 2015, indicating its development as a prominent eco-tourism and adventure destination. Arunachal Pradesh, previously among the least frequented regions, experienced significant growth from 2010 to 2015, attributed to improved road connectivity and the easing of travel permit regulations.

Assam, as the gateway to the Northeast, consistently recorded the highest tourist inflow, exceeding 5.5 million in 2015. Smaller states such as Nagaland, Mizoram, and Manipur exhibited modest growth, occasionally hindered by infrastructure challenges and political disturbances.

The COVID-19 pandemic in 2020 resulted in a significant reduction in tourist numbers throughout the region, with states such as Meghalaya and Nagaland experiencing deep down (90%). In 2021, states such as Arunachal Pradesh and Sikkim marked upturn, indicating the resilience and potential for the revival of

domestic tourism in the post-pandemic period, bolstered by government initiatives such as Dekho Apna Desh and targeted regional promotions. It finds the increasing importance of Northeast India and directs the necessity for ongoing investment, policy support, and community engagement to fully realize its potential.

1.2 COMMUNITY-BASED ECOTOURISM: EVOLUTION, GROWTH AND STRATEGIC DEVELOPMENT

Mass tourism, if left unchecked, can have significant negative consequences on destinations. It often leads to overcrowding, which in turn results in environmental degradation, including air and water pollution, the accumulation of solid waste, and changes in land-use patterns (Gössling, 2002). It may also lead to social issues such as prostitution, pick-pocketing, and theft, while cultural impacts like the erosion of indigenous values and the loss of traditional heritage become evident (Cohen, 1978). These pressing issues have garnered widespread attention and are now the focus of critical discussions among policymakers, industry practitioners, local communities, and tourists (UNWTO, 2018).

In response, there has been a global shift toward more sustainable and responsible tourism alternatives, including adventure tourism, cultural tourism, farm tourism, food tourism, ecotourism, and other nature-based experiences. These models are increasingly prioritized for their potential to balance tourism development with environmental conservation, cultural preservation, and community well-being (Honey, 2008; Weaver, 2001; UNEP, 2005).

Ecotourism is characterized as travel to natural habitats that aims to protect and improve the livelihoods of local residents (TIES, 2015). The objective is to encourage tourists to engage in responsible travel to natural areas. Ecotourism practices provide an opportunity to showcase natural habitats to tourists and are closely related with cultural heritage, while enhancing the livelihoods of local communities (EFCCD, 2017).

The concept of ecotourism evolved in the early 1980s as a form of travel aimed at educating individuals about diverse exotic environments while minimizing environmental harm associated with traditional tourism practices. The term was officially recorded for the first time in 1982. The Oxford English Dictionary defines ecotourism as tourism to areas of ecological interest, typically exotic and often threatened natural environments, aimed at supporting conservation efforts and observing wildlife, while ensuring minimal adverse effects. Ecotourism emerged as a momentous form of tourism in the 1990s, focusing on conservation of environment and planet, mother earth. Further, the United Nations designated year, 2002 as the Year of Ecotourism. A diverse array of activities and programmes were organized globally, with the aim to spread the necessity of promoting ecotourism. Several initiatives have been implemented to promote ecotourism and responsible travel since that time. The World Tourism Organization (UNWTO) identifies the following characteristics of ecotourism:

i. All nature-based forms of tourism in which the principal motivation to travel for the tourist is the observation and appreciation of nature as well as the traditional cultures prevailing in natural areas.
ii. It contains educational and interpretation features.
iii. It is generally, but not exclusively organised by specialised tour operators for small groups. Service provider partners at the destinations tend to be small, locally owned businesses.
iv. Ecotourism minimises negative impacts upon the natural and socio-cultural environment.
v. It supports the maintenance of natural areas which are used as ecotourism attractions by:

- Generating economic benefits for host communities, organisations and authorities managing natural areas with conservation purposes;
- Providing alternative employment and income opportunities for local communities;
- Increasing awareness towards the conservation of natural and cultural assets, both among locals and tourists.

Ecotourism prioritizes the preservation of natural ecosystems and the protection of indigenous cultures, serving as a responsible alternative to conventional mass tourism (EFCCD, 2017). The initiative's primary strength its potential to create jobs and foster local economic growth, through the engagement of community members in tourism activities. While utilizing local resources to attract tourists may seem advantageous, this strategy can also lead to the commodification of cultures or the overexploitation of fragile ecosystems if not managed appropriately. In contrast to traditional tourism, ecotourism typically serves smaller groups that seek immersive experiences in unspoiled natural environments, such as national parks, wildlife reserves, and isolated landscapes (Weaver, 2001). These low-impact experiences aim to both entertain and educate tourists regarding environmental stewardship while promoting a conservation ethic (Blamey, 2001). The emphasis on environmental awareness signifies a notable inference from the extractive practices associated with mass tourism, which frequently results in overcrowding, habitat degradation, and cultural erosion. Ecotourism aligns with the principles of sustainable tourism, advocating for the long-term preservation of cultural and environmental resources (Butler, 1999).

The relationship between ecotourism and sustainability is often complex (Diamantis, & Ladkin, 1999). Ecotourism, designed as a more ethical and environmentally sustainable option, presents inherent contradictions. Greenwashing, considered by tourism operators exaggerating or falsely claiming eco-credentials, continues to be a significant issue that undermines the credibility and effectiveness of ecotourism practices (Buckley, 2002). Furthermore, increased tourist activity leads to unintended negative consequences, including human-wildlife conflicts, strain on infrastructure, and overexploitation of ecologically sensitive areas, despite intentions to promote sustainability (Weaver & Lawton, 2007).

The growth of global ecotourism is closely associated to broader trends in consumer behaviour and environmental consciousness. Travelers are increasingly tending to places that provide natural landscapes, opportunities for wildlife observation, and cultural immersion primarily in rural, remote or underdeveloped areas. This shift

reflects an increasing preference for "authentic" experiences that provide a deeper connection with nature and local cultures, as opposed to the more commercialized and standardized experiences associated with mass tourism (Ballantyne & Packer, 2013).

The ecotourism market is anticipated to grow significantly, with estimates suggesting a valuation of USD 270.5 billion in 2025, projected to reach USD 551.8 billion by 2035, reflecting a compound annual growth rate (CAGR) of 7.4% during the forecast period (Allied Market Research, 2024). Over the years, ecotourism has emerged as a vital component of the global travel and tourism industry. Characterized by its commitment to sustainability, ecological conservation, and active involvement of local communities, ecotourism has reshaped both tourist behavior and tourism development strategies (Honey, 2008; UNWTO, 2022).

The rise in environmental awareness, particularly concerning climate change and biodiversity preservation, has spurred a shift toward more responsible and conscious travel. Tourists are increasingly opting for experiences that lessen environmental impact and maximizing socio-cultural and ecological benefits (Stronza & Durham, 2008). Principally, conceived as a means to safeguard natural ecosystems and provide economic opportunities for indigenous and rural communities, ecotourism has evolved into a global force within the tourism economy, capturing a growing share of the market due to its alignment with the principles of sustainable development (UNEP, 2021).

Ecotourism locations can be found all over the world, with each region featuring distinct ecosystems and cultural landscapes. In Africa, for example, ecotourism has been strongly linked to wildlife conservation efforts, particularly in Kenya, Tanzania, and South Africa, where safaris and nature reserves attract millions of tourists each year (Kiss, 2004). These ecotourism activities frequently provide crucial financing for the conservation of endangered species and their habitats, while also benefiting local economies through job creation and community development projects (Stem et al., 2003).

Ecotourism in Latin America and Asia has thrived owing to the regions' rich biodiversity, distinctive ecosystems, and cultural heritage. Countries such as Costa Rica have led in ecotourism by merging conservation initiatives with sustainable development strategies, and utilizing national parks to enhance economic benefits while safeguarding natural resources (Honey, 2008). Ecuador and Peru have leveraged globally significant ecosystems, including the Amazon and Galápagos Islands, to attract environmentally conscious travelers (Weaver & Lawton, 2007). These successes demonstrate the capacity of ecotourism to connect environmental sustainability with socio-economic development.

Additionally, the global reach of ecotourism significantly contributes to carbon emissions, prompting inquiries regarding its overall environmental impact (Gössling, 2010). Critics contend that certain operators participate in "greenwashing," superficially adopting the ecotourism label while failing to implement authentic ecological practices (Butcher, 2007). Furthermore, when local communities are excluded from planning and profit-sharing, ecotourism can perpetuate existing inequalities (West, Igoe, & Brockington, 2006). The sector has increasingly adopted community-based models and certification systems, including those from the Global Sustainable Tourism Council (GSTC), to promote equitable and environmentally sustainable practices (Zapata et al., 2011; Buckley, 2002). The implementation of these reforms is crucial for maintaining the integrity and long-term sustainability of ecotourism.

The appeal of ecotourism has improved global environmental awareness and a shared interest in genuine, impactful travel experiences that enhance connections with nature and local communities (Honey, 2008). The equilibrium between tourism expansion and ecological integrity is fragile and necessitates strong regulatory frameworks, community engagement, and ongoing impact assessments to guarantee sustainable benefits. However, the unchecked growth of tourism in ecologically fragile zones has led to habitat degradation, cultural erosion, and commercialization of nature (Buckley, 2000). These challenges emphasize the critical need for Community-Based Ecotourism (CBET**)**, an inclusive model that empowers local

communities as primary stakeholders and stewards of their natural and cultural assets (Kumar, et al., 2023). CBET ensures equitable benefit-sharing, strengthens Indigenous knowledge systems, and facilitates grassroots-led conservation efforts (Queiros, 2019).

Community-Based Ecotourism (CBET) represents a transformative model of sustainable tourism that centres local communities as the primary stakeholders. CBET empowers residents to lead tourism planning, operations, and governance (Scheyvens, 1999; Tosun, 2000). This participatory approach ensures that the economic, social, and environmental benefits of tourism are reinvested into the host communities themselves.

With the growing impacts of tourism impact on ecosystems and indigenous populations, CBET has emerged as a progressive alternative. It emphasises equity, empowerment, and cultural preservation over commercialisation (Scheyvens, 1999). Tosun (2000) highlights CBET as a strategy rooted in inclusive governance, aligning tourism development with long-term community welfare. CBET encourages communities to manage their own ecological and cultural assets, offering experiences such as forest treks, birdwatching, and eco-lodge accommodations while promoting conservation and meaningful cultural exchange. CBET signifies a paradigm shift in tourism from extraction to collaboration, and from consumption to connection anchored in indigenous knowledge, collective stewardship, and local community benefits. For ecotourism to effectively contribute to sustainable development, it is crucial to engage the community at all stages of planning and implementation (Khaledi, et al., 2023).

CBET fundamentally promotes the idea that communities should take responsibility for managing their ecological and cultural resources. Residents actively protect their natural surroundings and create sustainable livelihoods by managing nature-based experiences, including guided forest treks, birdwatching tours, and eco-lodge stays. This local stewardship promotes environmental conservation and enhances cultural

exchange between travelers and hosts, transforming tourism into a mechanism for resilience and regeneration.

CBET signifies a deliberate transition in the perception and practice of tourism, moving from extraction to collaboration and from consumption to connection. It represents a model of tourism grounded in community input, indigenous knowledge, and collective benefit.

India's growing focus on sustainable tourism has led to a multitude of policies at both national and state levels aimed at promoting ecotourism while preserving natural and cultural heritage. The National Strategy for Ecotourism (2022) provides a comprehensive framework aligning with the Sustainable Development Goals (SDGs), stressing biodiversity conservation, community participation, and circuit-based tourism models. National schemes like Swadesh Darshan and PRASHAD support infrastructure development in eco and spiritual destinations respectively. In line with the policies of the Central Government, several states have actively formulated specific ecotourism, sustainable and responsible tourism policies and initiatives.

Table- 1.5:
Central and State Government Policies and Strategies in India

Policy Name	Year	Jurisdiction	Objectives	Strategies
National Strategy for Ecotourism	2022	Government of India	Promote sustainable tourism, biodiversity conservation, and community welfare	Eco-tourism Boards, capacity building, PPPs, digital monitoring, circuit development
Wildlife Action Plan (2017–2031)	2017	Government of India	Integrate conservation with nature tourism	Responsible tourism in protected areas, community participation
Swadesh Darshan Scheme	2015	Government of India	Develop thematic tourism circuits including eco-circuits	Circuit-based infrastructure development, rural integration
PRASHAD Scheme	2015	Government of India	Promote religious tourism with sustainable infrastructure	Eco-friendly amenities, convergence with cultural and environmental heritage
Green India Mission		Government of India, MOEFCC	Ecosystem restoration, climate-resilient tourism	Multi-crore funding via MoEFCC for reforestation, eco-park development
CAMPA Funds		Government of India, MOEFCC & State Departments	Afforestation and ecotourism in forest areas	Strengthen Bamboo Forests across the country
NESIDS	2017	Ministry of DoNER, Government of India	Infrastructure in NE India including ecotourism, homestays	supports roads, toilets, trekking routes , etc.
Uttarakhand Eco-Tourism Policy	2018	State Government	Forest-based tourism, conservation, and employment	Eco-Tourism Corporation, community-based tourism, local guide training
Kerala Responsible	2008	State Government	Sustainable tourism linking	Community groups, heritage conservation,

Tourism Mission			livelihoods and conservation	use of local resources
Meghalaya Ecotourism Policy	2022	State Government	Promote community-driven and nature-based tourism	Sacred groves, capacity building, unique experiences like living root bridges
Sikkim Ecotourism Policy	2011	State Government	Low-impact rural tourism and organic promotion	Organic farm tourism, guide training, local materials
Madhya Pradesh Ecotourism Policy	2019	State Government	Biodiversity protection and eco-tourism hubs	Eco-trails, interpretation centers, tribal community engagement
Nagaland Tourism Policy	2020	State Government	Cultural and eco-tourism preservation	Homestays, tribal craft promotion, local guide support
Mizoram Tourism Policy	2014	Mizoram State Government	Promote tourism as an economic driver and showcase cultural heritage	Infrastructure development, public-private partnerships, promotion of festivals and eco-zones
Mizoram Ecotourism Policy	2017	Mizoram State Government	Conserve natural heritage through eco-tourism	Involvement of village councils, bamboo-based accommodations, community-based nature tourism
Mizoram Responsible Tourism Policy	2020	Mizoram State Government	Ensure tourism benefits communities and sustains environment	Capacity building, community engagement, promotion of AVEDSOC and eco-friendly practices
Bamboo Link Road (Mizoram) form Lengpui to Saiphal	2023	Mizoram State Government	Rural connectivity to bamboo regions, eco-tourism sites	Bamboo plantation

Source: Author's Compilation

India's rich ecological diversity and cultural heritage position it as a key player in the global ecotourism industry. With vast landscapes spanning the Himalayas, tropical rainforests, coastal ecosystems, and protected wildlife areas, the country offers

multifaceted opportunities for ecotourism grounded in environmental conservation, cultural preservation, and socio-economic development (Das & Chatterjee, 2015).

To establish India as a leading global ecotourism destination, the Ministry of Tourism, Government of India, has developed an exclusive National Strategy for Eco-Tourism 2022, grounded in a set of key strategic pillars aimed at fostering sustainable tourism growth. These pillars include:

1. State Assessment and Ranking to evaluate ecotourism readiness,
2. Formulation of State-Specific Ecotourism Strategies,
3. Information, Education, Communication (IEC), Capacity Building, and Certification,
4. Marketing and Promotion of ecotourism offerings,
5. Destination and Product Development,
6. Public-Private and Community Partnerships, and
7. A Strong Governance and Institutional Framework to support implementation.

These policies aim to position India as a leading ecotourism destination by stressing the sustainable management of natural and cultural resources, strengthening community-based tourism, and the all-around development of ecotourism circuits across biogeographic zones. It aligns with global conservation frameworks and the Sustainable Development Goals (SDGs). Key pillars of the National Strategy for Ecotourism 2022, include capacity building for local stakeholders, promoting eco-tourism services, eco-certification, and leveraging public-private partnerships (PPP) for eco-friendly infrastructure. Moreover, digital tools for interpretation and marketing have enhanced the visibility and accessibility of ecotourism destinations (Ministry of Tourism, 2022).

According to the *India Ecotourism Market Outlook (2025–2035),* the ecotourism sector is projected to grow from USD 15.5 billion in 2025 to USD 41.5 billion by 2035, driven by government incentives, technological innovations, and the rise of community-centric tourism models. However, challenges such as inadequate eco-

friendly infrastructure, community awareness, uneven policy enforcement and others persist, highlighting the need for continued investment and capacity enhancement (Future Market Insights, 2024).

Under the Swadesh Darshan Scheme, the Ministry of Tourism, Government of India identified 15 thematic areas, in which 76 projects are being promoted for tourism circuit development during the period 2014-2024 (PIB, 2024). Acknowledging the significance of ecotourism infrastructure, Swadesh Darshan Scheme 2.0 (SD 2.0) prioritizes the development of sustainable and responsible tourism destinations. The approach is centred on tourists and destinations, promoting the adoption of principles like environmental conservation, socio-cultural preservation, and economic viability to ensure long-term sustainability and community involvement in tourism development (MOT, 2025).

Table- 1.6:

Swadesh Darshan Scheme: List of Thematic Circuits in India from FY 2014-15 till 21st January 2024

Sl. No.	**Name of Theme**	**Number of Projects**	**Amount Sanctioned** (Amount in Rupees Crore)
1	Buddhist Circuit	05	319.01
2	Coastal Circuit	10	631.39
3	Desert Circuit	01	50.01
4	Eco Circuit	06	415.44
5	Heritage Circuit	10	742.85
6	Himalayan Circuit	07	587.92
7	Krishna Circuit	02	153.19
8	North-East Circuit	10	816.13
9	Ramayana Circuit	02	196.66
10	Rural Circuit	02	101.62
11	Spiritual Circuit	13	672.61
12	Tirthankar Circuit	01	33.96
13	Tribal Circuit	04	371.47
14	Wildlife Circuit	02	186.78
15	Wayside	01	15.07
	Total	**76**	**5294.11**

Source: PIB, Ministry of Tourism, GOI, February 2024

Investment in eco-sensitive zones, national parks, and animal sanctuaries has also been encouraged by programs such as the Green India Mission and the Compensatory Afforestation Fund Management and Planning Authority (CAMPA). State governments, particularly in the Northeastern and Himalayan regions, have also received financial and technical aid from the North East Special Infrastructure Development Scheme (NESIDS) and the Ministry of Tourism's Destination Development Grants.

Table- 1.7:

State-wise list of Destinations notified under Swadesh Darshan Scheme 2.0 in India

S. No.	State/UT	Destination Notified	S. No.	State/UT	Destination Notified
1	Andhra Pradesh	Gandikota, Arakku-Lambassingi	17	Meghalaya	Shillong, Sohra
2	Arunachal Pradesh	Nacho, Mechuka	18	Mizoram	Aizawl, Champhai
3	Assam	Jorhat, Kokrajhar	19	Nagaland	Niuland, Chumukedima
4	Bihar	Gaya, Nalanda	20	Odisha	Koraput, Debrigarh along with special attraction of 'Khinda Village'
5	Chhattisgarh	Bilaspur, Jagdalpur	21	Punjab	Amritsar, Kapurthala
6	Goa	Porvorim, Colva	22	Rajasthan	Bundi (Keshoraipatan), Jodhpur
7	Gujarat	Dholavira, Dwarka	23	Sikkim	Gangtok, Gyalshing
8	Haryana	Panchkula (Morni)	24	Tamil Nadu	Mamallapuram, The Nilgiris
9	Himachal Pradesh	Pong Dam	25	Telangana	Bhongir, Ananthagiri
10	Jammu & Kashmir	Basholi	26	Tripura	Agartala, Unakoti
11	Jharkhand	Chandil	27	Uttar Pradesh	Prayagraj, Naimisharanya
12	Karnataka	Hampi, Mysuru	28	Uttarakhand	Pittoragarh, Champavat
13	Kerala	Kumarakom, Kozhikode (Beypore)	29	Chandigarh	Chandigarh
14	Madhya Pradesh	Gwalior, Chitrakoot	30	Lakshadweep	Lakshadweep
15	Maharashtra	Sindhudurg, Ajanta-Ellora	31	Puducherry	Puducherry, Karaikal
16	Manipur	Moirang (Bishnupur)	32	Ladakh	Leh, Kargil

Source: www.tourism.gov.in

The Government of India, through schemes like Swadesh Darshan**,** PRASHAD**,** Green India Mission, and CAMPA Scheme of the Ministry of Environment, Forest and Climate Change, 2004, has made substantial investments to develop eco-sensitive tourism infrastructure nationwide. The Swadesh Darshan 2.0, restructured in 2022, aims to promote sustainable, inclusive, and community-based tourism circuits, with significant funds allocated to Northeast India due to its rich biodiversity and cultural heritage (Ministry of Tourism, 2022). In Mizoram, the State Government has aligned with these national policies, launching initiatives to support homestays, eco-villages, and local tourism entrepreneurship, particularly under the Mizoram Eco-Tourism Policy 2020. A pivotal infrastructure project is the Bamboo Link Road**,** developed under the New Economic Development Policy (NEDP**)** and Externally Aided Projects (EAPs). This project enhances access to bamboo-rich areas and supports eco-tourism, encouraging community engagement, bamboo-based tourism architecture, and sustainable livelihood generation (Planning & Programme Implementation Dept., Govt. of Mizoram, 2021). These efforts are complemented by the North East Special Infrastructure Development Scheme (NESIDS) and support from the North Eastern Council (NEC), which jointly finance infrastructure, skill development, and promotional activities. Collectively, these multilevel investments have positioned Mizoram as a growing hub for ecotourism that blends conservation with community empowerment.

Guiding Principles for Ecotourism development in India

Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India, has laid down the following principles for the development of Ecotourism in the country:

- Adopt low-impact wildlife tourism that protects the ecological integrity of forest and wildlife areas, secures the wildlife values of the destination and its surrounding
- Highlight the biodiversity richness, their values and their ecological services to people
- Highlight the heritage value Of India’s wilderness and protected areas

- ❖ Build environmental and cultural awareness and respect
- ❖ Facilitate the sustainability of Ecotourism enterprises and activities
- ❖ Provide livelihood opportunities to local communities
- ❖ Use Indigenous, locally produced and ecologically Sustainable materials for tourism activities

The Strategy for Ecotourism in India also include marketing and promotion, ease of travel, tourism infrastructure, ICT infrastructure, training and capacity building etc. The Key Components of the Draft National Strategy for Ecotourism are as follows:

- Capacity building for local communities and stakeholders
- Standards and certification systems for eco-lodges, guides, and destinations
- PPP models for eco-infrastructure development
- Use of technology for interpretation, monitoring, and data collection
- Marketing and branding India as an ecotourism hub

The *India Ecotourism Market Outlook (2025–2035)* projects significant growth, with the market expected to reach USD 15.5 billion by 2025 and expand to USD 41.5 billion by 2035, driven by a compound annual growth rate (CAGR) of 10.3%. This growth is attributed to robust government initiatives such as *Dekho Apna Desh*, the *Wildlife Action Plan (2021–2031)*, and the implementation of eco-certifications aimed at promoting sustainable tourism practices (Future Market Insights, 2024). Moreover, technological innovations including virtual reality tours, AI-powered travel planning, and carbon offset platforms are transforming tourist experiences while fostering sustainability (Development Alternatives, 2022). The emergence of new ecotourism destinations like the Andaman Islands, Meghalaya, and Arunachal Pradesh, along with an increasing post-COVID preference for community-based and responsible tourism, is further propelling the sector forward (Global Forest Coalition, 2022). However, despite these advances, the sector continues to face critical challenges, such as inadequate eco-friendly accommodation, poor waste management infrastructure, lack of standardized monitoring mechanisms, uneven state-level implementation, and capacity gaps in local stakeholder training (Future Market

Insights, 2024). Addressing these issues is essential for ensuring balanced, inclusive, and long-term growth of ecotourism in India.

Over the past two decades, initiatives such as the Periyar Tiger Reserve in Kerala and the Sikkim Ecotourism Project have showcased how local communities can co-manage ecotourism ventures and benefit from nature-based livelihoods. Yet, uneven infrastructure, policy gaps, and socio-economic disparities often hinder scalability.

Northeast India offers unique opportunities for integrating indigenous knowledge, conservation practices, and cultural tourism. However, challenges such as poor transport connectivity, limited market access, and underfunded local institutions pose barriers.

Key Features of CBET in Northeast India

1. Community Involvement and Empowerment: One of the primary features of CBET in Northeast India is the active involvement of local communities in tourism planning, management, and decision-making. Many indigenous tribes, such as the Nagas, Khasis, Mizos, Bodos, and Apatanis, have used their traditional knowledge and practices to develop eco-tourism ventures that are respectful of their culture and environment. CBET not only provides economic benefits but also strengthens social cohesion and cultural pride among these communities.
2. Biodiversity Conservation: The region is renowned for its biodiversity hotspots, such as the Kaziranga National Park in Assam (famous for the one-horned rhinoceros) and the Sundarbans mangrove forests. Through CBET, local communities play a crucial role in wildlife conservation and habitat protection. Their involvement in guiding, monitoring wildlife, and running eco-lodges ensures that tourism revenue directly supports conservation efforts.
3. Cultural Preservation: Northeast India is home to numerous indigenous tribes, each with its own unique language, customs, and traditions. CBET initiatives in the region often highlight local cultures, including traditional dance, music,

festivals, and crafts, which attract tourists interested in authentic cultural experiences. This not only provides an economic benefit but also helps preserve indigenous cultural practices that are at risk of being lost to globalization.

Several examples across Northeast India indicate how community-based ecotourism initiatives have empowered the local community, contributed to the conservation of culture and heritage, protected the natural environment and attracted tourists.

1. Kaziranga National Park, Assam: Kaziranga National Park, a UNESCO World Heritage site, is one of the best examples of CBET in the region. The local Bodo and Mishing tribes around Kaziranga are heavily involved in tourism-related activities such as wildlife safaris, guiding, and managing homestays. The communities help in maintaining eco-lodges and supporting sustainable tourism practices that minimize environmental damage. The success of Kaziranga's CBET model has also created awareness about the importance of conservation and the need to protect the endangered one-horned rhinoceros.
2. The Apatani Plateau, Arunachal Pradesh: The Apatani people in the Ziro Valley of Arunachal Pradesh have developed a successful CBET model that emphasizes environmental sustainability and cultural preservation. The Apatani have an indigenous rice cultivation system that is both highly productive and ecologically sustainable. Tourists visiting the Ziro Valley are given the opportunity to learn about the Apatani agricultural methods, traditional handicrafts, and unique religious practices. Local villagers manage homestays, where tourists can experience the daily life of the Apatani tribe while directly contributing to the community's livelihood.
3. Mawlynnong, Meghalaya: Known as one of the cleanest villages in Asia, Mawlynnong in Meghalaya is another example of successful CBET. The local Khasis have embraced eco-tourism by offering guided tours through the lush landscapes, including visits to the living root bridges—an architectural marvel where trees are trained to grow into bridges. The village has also set

up eco-lodges and guesthouses, and local women are involved in managing these businesses. The initiative has improved the community's standard of living and enhanced their sense of ownership and pride in maintaining the village's cleanliness and environmental integrity.

Dampa Wildlife Sanctuary, Mizoram: The Dampa Wildlife Sanctuary in Mizoram is home to a variety of species, including the Bengal tiger, elephants, and many bird species. In collaboration with NGOs, the local communities around the sanctuary have begun to engage in ecotourism activities, including guided treks, nature walks, and cultural programs. The sanctuary management includes local tribal communities, who are trained as naturalists and guides, ensuring that the tourists' experiences are rooted in the community's ecological and cultural knowledge.

1.3 STUDY AREA: TOURISM PATTERN AND DEVELOPMENT

With the aim to generate, higher income and boost the service providers and people of the state, Government of Mizoram declared tourism as an industry on 18th March 1993 just after the declaration of 'National Action Plan for Tourism 1992' of the Central government of India.

In consonance with the prevailing socio-economic, cultural and religious practices of the state, the Government of Mizoram notified Mizoram Tourism Policy on 15th May 2014 with the aim to strengthen the pace of development in sustainable Tourism (adventure tourism and ecotourism). With the primary aim to bio-diversity conservation, ecosystem functioning and socio-economic development in the state, Department of Environment Forest and Climate Change (DOEFCC), state Government of Mizoram notified Mizoram Ecotourism Policy on 9th June 2017. The objective of the policy is to provide recreation and promote understanding about heritage sites and its values, nature and wildlife conservation with income generation and employment opportunity to the local people. In order to provide economic, social and environmental benefits to the state recently the Government of Mizoram has notified 'Responsible Tourism Policy' on 7th August 2020 with the aim to spread the tourism industry benefits among the local community at large by encouraging them to participate actively into the tourism sector and ensuring livelihood opportunity to

women and youths of the state. It aligns with national-level tourism strategies, such as the National Strategy for Sustainable Tourism 2022 and National Strategy for Ecotourism 2022, which focus on destination stewardship, community engagement, and inter-sectoral collaboration approach in developing tourism across the states.

Together, these policies create a strategic roadmap for identifying, preserving, and developing ecotourism hotspots across Mizoram, thereby contributing to conservation, rural development, and sustainable livelihoods.

Northeast India, with its remarkable ecological diversity and vibrant indigenous cultures, is emerging as a model for community-based ecotourism (CBET), a sustainable tourism approach that centres on conservation, cultural preservation, and local community empowerment (Pandiya, 2024; Demkova et al., 2022). As part of the Indo-Burma Biodiversity Hotspot, this region is home to pristine landscapes and numerous endemic species, making it an ideal destination for nature-based experiences.

CBET in Northeast India is redefining how tourism contributes to regional development. By engaging local communities as stakeholders from guiding tours to managing homestays CBET ensures that tourism revenue circulates within the community while fostering environmental stewardship. Iconic ecotourism models in destinations and attractions like Assam's Kaziranga National Park and Sikkim's organic tourism model showcase, how CBET can generate livelihoods, preserve traditional knowledge systems, and promote ecological balance (Barua, 2013; Chhetri, 2020).

Mizoram, in particular, holds untapped potential for ecotourism development. The state is richly endowed with bamboo forests, rolling hills, and a cultural landscape shaped by traditional Mizo values of harmony with nature. Sites like Phawngpui Blue Mountain National Park and Dampa Tiger Reserve are ideal for low-impact ecotourism activities such as trekking, wildlife observation, and cultural immersion (Lalrosanga & Sajnani, 2017). Community involvement through village-level ecotourism committees such as Reiek Tlang Tourism Development Board, Ailawng

Village Ecotourism Development Society (AVEDSOC), etc. not only enhances visitor experiences but also fosters inclusive development (Kumar & Yadav, 2024).

The tourist arrival data for Mizoram from 2009–2010 to 2023–2024 reflects a gradual yet significant transformation in the state's tourism landscape. Beginning with modest numbers, 58,314 total visitors in 2009–10, including merely 675 foreign tourists, Mizoram had a consistent increase in both local and international arrivals over the subsequent decade. Domestic tourism significantly increased, rising from 57,639 in 2009–10 to an impressive 159,534 in 2019–20, reflecting heightened interest in Mizoram's tranquil landscapes, cultural heritage, and eco-tourism opportunities.

In 2020–21, there was a notable decline attributed to the COVID-19 pandemic, with total arrivals falling to merely 20,564. However, the state exhibited a robust recovery in the following years. In the period of 2022–23, tourist arrivals reached a peak of 222,008, while the number of foreign tourists increased to 3,551, marking the highest figures recorded during this time. Despite a minor decrease to 219,149 in 2023–24, this figure still signifies a noteworthy recovery following the pandemic.

Table-1.8:

Mizoram Tourist Arrival Data From 2009-2010 to 2023-2024

Year	Domestic	Foreign	Total
2009 - 2010	57639	675	58314
2010 - 2011	57623	619	58242
2011 - 2012	63512	744	64256
2012 - 2013	64631	712	65343
2013 - 2014	64583	906	65489
2014 - 2015	67554	862	68416
2015 - 2016	66583	830	67413
2016 - 2017	67223	987	68210
2017 - 2018	68679	1155	69834
2018 - 2019	88122	1644	89766
2019 - 2020	159534	2143	161677
2020 – 2021	20474	90	20564
2021 – 2022	132099	517	132616
2022 – 2023	218457	3551	222008
2023 – 2024	215265	3884	219149

Source: Department of Tourism, Govt. of Mizoram

The increase can be linked to enhanced infrastructure, improved connectivity, and targeted promotion by the Mizoram Tourism Department and the Government of India through initiatives such as the Swadesh Darshan Scheme and others. Mizoram, with its pristine natural landscapes and distinct cultural heritage, is gradually establishing itself as an appealing destination for travelers from both within the country and abroad.

Table- 1.9:

Mizoram Tourism Revenue (2015- 2022)

S/N	**Year**	**Amount (in lakh)**
1.	2015-2016	221.00
2.	2016-2017	234.69
3.	2017-2018	250.10
4.	2018-2019	294.25
5.	2019-2020	305.70
6.	2020-2021	180.04
7	2021-2022	148.54

Source: Tourism Department, Government of Mizoram, Revenue 2015-2022

The available tourism revenue data for Mizoram from 2015 to 2022 reveals a fluctuating yet insightful trend. From 2015–2016 to 2019–2020, there was a consistent rise in revenue from ₹221 lakh to ₹305.70 lakh indicating a positive trajectory in tourism development, possibly driven by increased tourist inflow, improved infrastructure, and promotional initiatives. However, this upward trend was sharply disrupted in 2020–2021 and 2021–2022, where revenues fell drastically to ₹180.04 lakh and ₹148.54 lakh respectively. This steep decline coincides with the global COVID-19 pandemic, which severely impacted travel and tourism across India, and particularly in Northeast regions like Mizoram that depend heavily on connectivity and seasonal travel. The critical takeaway is that while Mizoram's tourism sector demonstrated growth potential pre-pandemic, the recent downturn highlights the urgent need for resilient tourism strategies, including eco-tourism promotion, digital marketing, and infrastructure development to ensure sustainable recovery and long-term economic benefits.

The State government's budgetary allotment to tourism has exhibited a positive trend between 2010–2011 and 2024–2025. The budget allocation for 2024–2025 has increased dramatically from ₹546.87 lakhs in 2003–2004 to ₹1259.19 lakhs. This shows the government's unwavering commitment towards growing and advancing the state's tourist industry.

Table- 1.10:

Budget Allocation to Tourism in Mizoram

Year	Budget Allocation (in lakhs)
2010-2011	546.87
2011-2012	532.11
2012-2013	598.71
2013-2014	583.02
2014-2015	538.54
2015-2016	685.36
2016-2017	675.02
2017-2018	732.1
2018-2019	739.07
2019-2020	978.21
2020-2021	1095.57
2021-2022	1089.78
2022-2023	1137.45
2023-2024	1134.16
2024-2025	1259.19

Source: Tourism Department, Government of Mizoram

Table 1.11:

Mizoram Tourism Service Providers 2023-2024

Tourism Service Providers	**No. of Service Providers**
State Owned Tourism Operational Facilities	67
No. of Registered Private Hotels	75
No. of Registered Homestays	98
No. of Registered Travel Agency	40
No. of Registered Tour Operators	10
No. of Registered Cab Service Providers	07

Source: Economy Survey of Mizoram, 2023-2024

Table- 1.11, provides a clear overview of both government and private sector engagement in the state's tourism industry. With 67 state-owned tourism facilities, the government plays a direct role in related infrastructure developments. Meanwhile, the private sector contributes significantly, with 75 registered hotels and 98 homestays, emphasizing the state's strategic move towards community-based ecotourism and responsible tourism practices (Economic Survey of Mizoram, 2024). The presence of 40 travel agencies and 10 tour operators indicates a growing tourism

support system, though only 7 registered cab service providers points to a gap in local transport infrastructure that must be addressed for better tourist mobility.

Further, Mizoram's tourism infrastructure has been promoted substantially since the formation of its Tourism Department in 1987, with financial backing from the Ministry of Tourism, Government of India. Initiatives began under the Ninth Five-Year Plan with support for low-cost accommodations and tourism amenities. These were streamlined in the Tenth and Eleventh Five-Year Plans into integrated tourism development projects, enabling the state to propose comprehensive plans for infrastructure upgrades. These centrally sponsored schemes have supported the development of tourism circuits and enhancement of facilities, reinforcing Mizoram's potential as a sustainable tourism destination (Ministry of Tourism, GoI, 2022). However, for long-term success, continued investment in transportation, digital services, and local capacity building remains critical.

The Government of India has initiated several schemes, notably the Swadesh Darshan and PRASHAD (Pilgrimage Rejuvenation and Spiritual Augmentation Drive) schemes, to enhance tourism infrastructure and circuit development across various states, including Mizoram. These initiatives aim to promote sustainable tourism by developing theme-based circuits and improving pilgrimage sites. Under the Swadesh Darshan Scheme, Mizoram has witnessed significant developments:

1. Integrated Development of New Eco-Tourism: Sanctioned in 2015-16, this project focuses on ecotourism development at Thenzawl, South Zote (District Serchhip), and Reiek. With a budget of ₹94.91 crore, the project aims to enhance eco-tourism facilities in these regions.
2. Thenzawl Golf Resort: Inaugurated in August 2020, this world-class golf resort was developed with an investment of ₹64.48 crore as part of the Integrated Development of Eco-Tourism project. Designed by Graham Cooke and Associates, the resort features an 18-hole golf course, eco-log huts, and other amenities, positioning Mizoram as a potential hub for golf tourism.
3. Aizawl Convention Center at Chite: The foundation stone for this convention center was laid in November 2022 under the PRASHAD scheme. This

facility is expected to boost MICE (Meetings, Incentives, Conferences, and Exhibitions) tourism in the state.

In the Union Budget 2023-24, the Ministry of Tourism allocated ₹2,400 crore, with ₹229 crore allotted specifically for tourism infrastructure and promotion in the North-Eastern states. This allocation underscores the government's commitment to enhancing tourism in the region. These initiatives reflect a concerted effort to position Northeast including Mizoram as a prominent destination for Ecotourism and advent ure tourism, leveraging its natural beauty and cultural heritage. However, the challenges encountered in certain projects highlight the necessity for meticulous planning, feasibility assessments, and stakeholder collaboration to ensure the successful implementation of tourism infrastructure projects.

1.4 Significance and Scope of the Study

The status of Tourism in Northeast including Mizoram is in infant stage. The states like Assam, Meghalaya, Sikkim, Arunachal Pradesh and others are in better position when we compare in terms of tourist arrivals and tourism receipts.

The green hills, crisscrossing rivers, interspersed lakes, wetlands, natural resources, climatic conditions, etc. makes Mizoram an ideal place for ecotourism development. Several policies and implementation initiatives have been taken by Central as well as State government to promote tourism and increase benefits from tourism in the state. The State government formulated the Mizoram tourism Policy 2014 which aims to develop sustainable and responsible and responsible tourism, highlighting eco, adventure, cultural and rural tourism. Its main objective was to position Mizoram as a key tourist destination by developing infrastructure, ensuring environmental sustainability and preserving local benefits, encouraged public-private partnerships to boost investment and aimed to build a skilled workforce through training and capacity building programs. Marketing strategies were also planned to promote Mizoram at both national and international levels. The Mizoram Responsible Tourism Policy 2020 notified by Department of Tourism, State Government of Mizoram which aims to promote tourism that is environmentally sustainable,

culturally respectful and economically beneficial to local communities. It focuses on integrating tourism with conservation, encouraging active community participation and ensuring equitable distribution benefits. The policy emphasizes quality infrastructure, skill development and strategic marketing to position Mizoram as responsible and unique tourism destination. It also encourages tourists to adopt responsible behaviour and supports the development of authentic, locally rooted tourism experiences. The Mizoram Ecotourism Policy 2017 was notified by Department of Environment, Forest and Climate Change, State Government of Mizoram which aims to promote ecotourism in a manner that supports environmental conservation, enhances local livelihoods and provides enriching experiences for visitors. The policy focuses on developing ecotourism sites within protected and other potential areas, ensuring that activities are sustainable and community-driven. It emphasizes the establishment of Ecotourism Development Committees at the village level to oversee project implementation and ensure the benefits are equitably shared with local communities. The Policy advocates for capacity building, awareness programs and adherence to environmental and cultural standards to position Mizoram as responsible ecotourism destination. The Government of India is also focusing a lot towards strengthening tourism in the state and whole northeastern states of the country. The policies of both the governments also emphasize to strengthen the development of community by empowering and involving them into mainstream tourism development.

Nature based tourism is the potential area for tourism development in the region. More than 90% of the state is mountainous in nature. Majority (85.41%) of the land area is covered with forest in Mizoram. The state has 2 national parks and 8 wildlife sanctuaries which is about 5.9% of the state's geographical area. There are several other components in the state which are favorable for nature based and ecotourism development. The proposed study is on "Community based ecotourism development in Mizoram with special reference to Mamit District". The proposed study will explore the authentic and reliable data on various aspects of tourism development. The findings of the study will highlight and explore the existing and potential tourism destinations and attractions. The research will be helpful to aware and

empower the destination community with regard to ecotourism development in the region. It will be helpful to explore the challenges and opportunities for different stakeholders viz. destination community, service providers, tourists and respective policy makers. The study could be a model research roadmap for future researcher.

CHAPTER – 2

REVIEW OF LITERATURE

CHAPTER 2

REVIEW OF LITERATURE

Ecotourism is commonly defined by its emphasis on environmental conservation, community involvement, and sustainable development. Kiper (2013) discusses sustainable tourism within the ecotourism framework, emphasizing the need to consider environmental, social, and economic factors. The connection between tourism and the environment sets ecotourism apart from other service sectors, making careful management essential for its success. Aciksoz et al., (2010) introduce the Ecotourism Opportunity Spectrum (ECOS), a method used to assess the potential for ecotourism in specific regions. Their research concludes that improving the connection between local communities and ecotourism sites is key to ensuring that the local population benefits from these areas. Diamantis (2010) emphasizes that eco-tourism is one of the fastest-growing sectors in the tourism industry. He notes that eco-tourism minimizes negative impacts on the natural and cultural environments by promoting conservation and offers a platform for local businesses. Tour guides, craftspeople, innkeepers, and restaurateurs benefit from eco-tourism, and the educational aspect of eco-tourism provides lasting benefits. Donohoe & Needham (2008) highlight the increasing popularity of eco-tourism and the subsequent definitional discourse. They note that stakeholders have often been confused by the disparate nature of eco-tourism definitions. The lack of a common understanding of eco-tourism poses a risk to its ethical foundations, the integrity of the natural environment, and the legitimacy of the industry. They advocate for developing a conceptual framework for eco-tourism policy by identifying recurring themes in the definitional debate, such as nature-based experiences, conservation, education, sustainability, distribution of benefits, and ethical responsibility. Singh & Goyal (2014) argue that sustainable tourism must not be viewed in isolation. They suggest that tourism is interdependent with other aspects of life, such as business, community well-being, and the environment. Successful implementation of sustainable tourism requires collaboration between the visitor, the industry, the environment, and the community. Their research emphasizes that the active participation of all stakeholders is essential for achieving sustainability in tourism.

Puri et al., (2018) examine the growth of nature-based tourism in India, noting that while eco-tourism has shown remarkable potential, its benefits to conservation, protected areas, and local communities remain limited. They identify primary motivations for eco-tourism, including biodiversity conservation and socio-economic development. Ramona (2016) points out that eco-tourism focuses on preserving the natural and cultural environments of destinations. Eco-tourism promotes the sustainable management of tourism in a way that balances the needs of tourists with the ecological and social needs of local communities. Ramona argues that India's vast geographical and ecological diversity provides significant opportunities for eco-tourism, and effective management can lead to both environmental preservation and community empowerment.

Tiwari & Abrol (2015) emphasize ecotourism, if managed properly, can serve as an opportunity to regenerate natural resources, raise awareness about environmental issues, and mitigate negative impacts. Their research identifies the roles of service providers, host communities, and authorities in ensuring that ecotourism practices are sustainable. According to Subramaniam (2008) eco-tourism plays a vital role in sustainable development in India, particularly in empowering marginalized communities excluded from economic growth. He advocates for a shift in governmental approaches, from regulation to empowerment and partnership with various stakeholders. Subramaniam stresses that successful eco-tourism requires clear business plans, monitoring, and evaluation systems to ensure financial independence without relying on grants or subsidies. He concludes that the success of eco-tourism projects depends on community involvement and environmental enhancement. Easa & Sankar (2001) focus on the management of protected areas and wildlife tourism in Kerala, emphasizing the need for tourism revenue to support conservation efforts and ensure the sustainability of wildlife habitats. Buckley (2000) investigates changing patterns in tourist behavior, noting an increased appreciation for nature and nature-based activities. He argues for the widespread implementation of ecotourism at natural reserves to meet this demand. Coria & Calfucura (2012) address the role of local communities in managing ecotourism. Their findings suggest that when local populations are actively involved in managing ecotourism

sites, it leads to better environmental preservation and greater socioeconomic benefits. Tisdell (1997) highlights the strategic objectives of sustainable development, ecological safety, and social inclusion within the eco-tourism sector. He emphasizes the importance of incorporating eco-tourism into national and transnational development strategies and identifies global threats to sustainable eco-tourism and explores the economic, social, and political factors that affect the success of eco-tourism initiatives. He concludes that government intervention is often necessary to ensure the sustainability and social acceptability of eco-tourism projects. Tiwari & Abrol (2015) argue that tourism is one of the key sectors contributing to revenue generation and employment, especially in India, which is rich in heritage, culture, and scenic beauty. However, this growth also raises concerns regarding the conservation and protection of major tourist sites. They emphasize that eco-tourism is both a challenge and an opportunity for sustainable tourism by managing tourist traffic, ensuring the carrying capacity of destinations, and planning for the regeneration of natural resources. Moreover, they highlight the importance of community awareness to mitigate the negative impacts of mass tourism. Baloch et al. (2023) explore the complex relationship between tourism development and environmental sustainability, proposing a comprehensive framework for promoting sustainable ecotourism. Their objective was to find a balance between promoting economic benefits through tourism and preserving the ecological integrity of natural habitats. They presented a model for sustainable ecotourism that underlined the necessity of proactive government policy interventions aimed at resource conservation and involving stakeholders in decision-making and fostering collaboration between the public and private sectors, sustainable tourism can be achieved in a way that benefits both business interests and ecological sustainability. Gupta et al. (2023) conduct a study to assess the economic impact of nature-based tourism on local communities, utilizing a Monte Carlo simulation approach to model the economic benefits of tourism in areas surrounding protected terrestrial and marine areas and states that nature-based tourism had a significant positive impact on local economies, especially in terms of income generation for the poorest households. Kirkby et al. (2010) conduct an economic evaluation of ecotourism in the Tambopata region of the Peruvian Amazon, using social cost-benefit analysis to

compare the long-term economic and environmental effects of ecotourism-controlled land versus alternative land uses such as logging, ranching, and agriculture. Additionally, the research shows that ecotourism offered substantial environmental benefits, such as carbon sequestration, which was equivalent to the amount of carbon emissions from thousands of years of domestic air and surface travel and demonstrates that by promoting the preservation of intact rainforest land, it offered both economic and environmental advantages. This dual benefit of ecotourism provides a compelling justification for maintaining rainforest areas, suggesting that ecotourism can be a sustainable land use that both supports local economies and contributes to global environmental goals. Kiss (2004) critically examine community-based ecotourism (CBET) as a potential tool for biodiversity conservation. While acknowledging that CBET can generate substantial revenue for local communities and enhance attitudes toward conservation efforts, the study found its overall effectiveness to be limited by several factors. These included the small scale of many CBET projects, weak links between biodiversity preservation and financial success, and the competitive pressures of the tourism industry. The study emphasizes that while CBET could offer modest benefits for both conservation and local communities, its sustainability depended on long-term funding, better data for assessing impacts, and careful planning. Kiss outlines specific conditions under which CBET is more likely to succeed, pointing to the importance of robust local support, a clear connection between conservation outcomes and community benefits, and well-managed projects. Despite its limitations, he suggests that CBET could be a valuable tool for sustainable development, provided that these challenges were addressed. Liu et al. (2023) explore the contributions of rural tourism to community development, proposing a rural tourism contribution model for policymakers. The study identifies four key benefits of rural tourism: economic, sociocultural, environmental, and leisure/educational. Among these, economic benefits were found to be the most significant, driving local development and improving the quality of life for rural communities. They also address the methodological challenges associated with developing sustainability models for rural tourism, noting that a comprehensive approach that considers all dimensions of rural development is essential. The study provides recommendations for improving the impact of rural

tourism, such as integrating sustainable practices into tourism development plans, fostering local entrepreneurship, and ensuring that tourism growth is inclusive and equitable. The research offers valuable insights for future policy and practice, advocating for a balanced approach to tourism that supports both economic growth and environmental preservation. Shang et al. (2024) conduct a study in China, investigating the impact of foreign direct investment (FDI) and political openness on ecotourism and the study highlights that political openness had a significant positive effect on ecotourism development. The authors conclude that fostering political stability and expanding green financial markets were essential strategies for promoting ecotourism in China. They recommend policies aimed at improving both the investment climate and the political environment, which would in turn stimulate further growth in the ecotourism sector. Diamantis (1999) explores the early stages of ecotourism research, criticizing the lack of clarity regarding the scope, planning needs, and operational methods of ecotourism. He calls for more standardized definitions and research into the sustainability of ecotourism. Fransson & Garling (1999) focus on the economic impacts of ecotourism, emphasizing its potential to drive development in local communities and protect natural resources. However, they also point out the need for careful planning to avoid negative environmental consequences. Ikenweiwe et al., (2007) discuss the potential of Oyan Lake in southwest Nigeria as an ecotourism destination. The study emphasizes the need for environmental conservation and encouraged visitors to learn about the preservation of local flora and fauna. The importance of maintaining the site's facilities and regularly updating visitor databases is also stressed. Hunter & Shaw (2007) discuss the increasing popularity of ecotourism and the rising academic interest in the subject. The study touches on the ecological footprint and explored its implications, particularly concerning air travel within ecotourism.

Ecotourism is a multi-faceted activity that requires the involvement of numerous stakeholders, including local communities, government bodies, tourists, NGOs, and private sector entities. Each of these groups has its own interests and perspectives, which must be balanced to ensure the success of ecotourism initiatives.

Bhavani (2016) discusses the concept of eco-tourism, which focuses on cultural and environmental sustainability, and emphasizes minimizing the negative effects of traditional tourism. He argues that responsible eco-tourism initiatives promote recycling, energy efficiency, water re-use, and economic opportunities for local communities. Bhavani advocates for an integrated approach where environmental and cultural factors are considered alongside efforts to provide lasting benefits to local populations. Diamantis (1999) suggests that eco-tourism provides a platform for local businesses and benefits local communities, but also encourages tourists to adopt sustainable living practices. Hameed & Khalid (2018) suggest that while eco-tourism has economic benefits, it also challenges traditional cultural practices. Locals view it as a factor contributing to cultural degradation. Karunakaran (2018) highlights the importance of including local communities in the decision-making process regarding eco-tourism projects, ensuring that the benefits are shared equitably. According to Kaur & Sharma (2018) the contribution of tourism to economic development has been widely recognized due to its impact on the balance of payments, GDP, and employment. The Indian tourism industry has been expanding rapidly in recent years, offering considerable potential for generating employment and foreign exchange. Subramaniam (2008) highlights that successful eco-tourism requires the involvement of various stakeholders, including clear business plans, monitoring, and evaluation systems. He emphasizes the need for collaboration with marginalized communities and governmental approaches for sustainable eco-tourism. Tiwari & Abrol (2015) discuss the roles of service providers, host communities, and authorities in ensuring the sustainability of ecotourism practices, highlighting that stakeholders must work together to mitigate negative impacts. Puri et.al., (2018) suggest that a deeper connection between local communities and ecotourism is needed for these areas to truly benefit from eco-tourism, thus involving local populations in conservation efforts and ensuring long-term success. Qian et al., (2018) analyze the development of sustainable tourism research and its implications for practice. Their findings suggest that key themes in sustainable tourism research—such as collaboration, impact, and knowledge dissemination—should guide future industry efforts. In their study, Moreno & Junior (2024) conduct a bibliometric analysis to review trends in community-based

ecotourism (CBET) research. They identify gaps in the literature, such as the under-explored involvement of indigenous populations in ecotourism initiatives and the limited use of quantitative methods. They recommend that future research should focus on marginalized regions and investigate the socio-cultural impacts of ecotourism on indigenous communities. This highlights the importance of stakeholder inclusivity in the research and development of community-based ecotourism. Baloch et al. (2023) stress the importance of stakeholder involvement in decision-making to achieve sustainable ecotourism. Their model suggests that proactive government policy interventions, stakeholder collaboration, and public-private partnerships are key to achieving long-term sustainability. Duong et al. (2024) emphasize the need for increased collaboration between government and the private sector, and the integration of traditional knowledge in ecotourism initiatives. These measures are recommended to ensure the long-term sustainability of community-based ecotourism ventures and to better meet the needs and expectations of local communities. Krittayaruangroj et al. (2023) conduct a bibliometric analysis of sustainable community-based tourism (CBT) by reviewing 869 documents indexed in Scopus. Using VOS viewer software, they identified significant trends in the research on CBT, which had increasingly shifted from developed to developing countries. Key areas of focus in the literature include tourist and resident satisfaction, economic growth, stakeholder participation, and heritage conservation. The study emphasizes that research on CBT had expanded to explore its role in achieving the Sustainable Development Goals (SDGs). They suggest that future research should focus on post-pandemic resilience, exploring how CBT can help communities recover and adapt in the aftermath of the COVID-19 pandemic. They also highlight the growing importance of understanding the contributions of CBT to global sustainability, stressing the need for more in-depth studies that examine the long-term impacts of such initiatives. Piñeros & Moreno (2015) examine the perceptions of forest owners in rural Puebla, Mexico, regarding the integration of ecotourism in forest conservation efforts. They apply Q methodology to analyze how forest owners viewed ecotourism as a complementary activity to traditional farming practices. The study found that forest owners generally perceived ecotourism as a low-impact activity that could coexist with agriculture while contributing to the preservation of

forests. Furthermore, the research reveals that forest owners preferred ecotourism development with minimal infrastructure to avoid damaging the natural environment. They also highlight that ecotourism could serve as a means of engaging women in community development, offering new opportunities for social inclusion and empowerment. The study concludes that integrating ecotourism into forest management strategies could provide both ecological and socio-economic benefits for rural communities, contributing to the overall well-being and sustainability of the area. Barkin & Pailles (2000) discuss the role of NGOs in promoting ecotourism. They emphasize the importance of NGOs in facilitating tourism education and cultural exchange, while also educating local communities on sustainability and safety practices. Fennell (1999) states that ecotourism should prioritize environmental responsibility, ensuring that the natural, physical, and cultural heritage of tourist sites is preserved. His emphasis was on sustainable practices that minimize negative impacts on the site. Ross & Wall (1999) focus on the distinction between ecotourism and general tourism development. They emphasize that the management and operational strategies of both sectors should be distinct and that the economic limits should be considered in ecotourism planning. Wearing & Neil (1999) investigate global tourism trends and the growing significance of sustainable ecotourism. They emphasize that ecotourism plays a critical role in linking various stakeholders, including students, professionals, local communities, and academics, to promote sustainable tourism practices.

Ecotourism, defined as responsible travel to natural areas that conserves the environment and improves the well-being of local people (The International Ecotourism Society, 2015), has emerged as a sustainable alternative to mass tourism. Over the past decades, its importance has increased significantly as a strategy for conserving biodiversity and promoting sustainable development. Weaver (2001) highlights ecotourism's dual focus on ecological conservation and socioeconomic development, noting that it offers a platform for integrating environmental education, cultural awareness, and local empowerment. Globally, regions such as Latin America, Southeast Asia, and Sub-Saharan Africa have adopted ecotourism to

mitigate the adverse impacts of traditional tourism while capitalizing on their natural and cultural resources.

Scheyvens (1999) in his study states that community-based ecotourism (CBET) is a subset of ecotourism that places local communities at the heart of tourism planning and benefit-sharing. This approach emphasizes participatory governance and aims to ensure that tourism revenues contribute directly to local livelihoods. According to Manyara & Jones (2007), CBET initiatives empower rural communities, especially in developing countries, by promoting local ownership, employment opportunities, and cultural preservation. In Costa Rica, for example, CBET projects have been instrumental in supporting conservation efforts in national parks while enabling indigenous communities to generate income through eco-lodges and guided tours (Weaver & Lawton, 2007).

However, the global implementation of ecotourism and CBET faces several challenges. Simpson (2008) argues that while the concept is theoretically sound, in practice, many initiatives suffer from a lack of capacity, unequal power dynamics, and insufficient financial benefits to local stakeholders. This is particularly true in cases where tourism is externally driven, with local communities playing a marginal role in decision-making processes. Moreover, the commodification of local cultures and environmental degradation due to increased tourist traffic can undermine the goals of ecotourism if not properly managed (Stronza & Gordillo, 2008).

Ecotourism Society (TIES, 2015) as responsible travel to natural areas that conserves the environment and improves the well-being of local people, ecotourism in the U.S. is often implemented through national parks, wildlife refuges, and community-based initiatives. Wearing & Neil (2009) note that U.S. ecotourism is distinct in its integration with public land systems, such as those managed by the National Park Service (NPS), which emphasizes education, preservation, and recreation. These federally protected lands offer opportunities for low-impact tourism that aligns with ecotourism principles.

Community-based ecotourism (CBET) in the U.S. has emerged as a way to link environmental conservation with local economic empowerment, particularly in marginalized rural and indigenous communities. For example, the Alaska Native communities have developed ecotourism programs that showcase cultural traditions while supporting wildlife conservation, such as whale watching and traditional craft demonstrations (Smith & Eadington, 1992). These initiatives not only preserve cultural heritage but also provide alternative income sources, fostering community resilience in regions often affected by limited economic opportunities. Similarly, ecotourism in the Appalachian region has been used as a post-coal economic diversification strategy, with community-led projects promoting hiking trails, local art, and cultural experiences (Boley et al., 2011).

Academic research supports the idea that CBET can promote sustainable development in the U.S., but it also highlights challenges related to scale, commercialization, and governance. Belsky (1999) argues that while CBET can empower communities, there is a persistent tension between economic goals and ecological integrity, especially when external investors or federal agencies play dominant roles. In cases such as the ecotourism projects in Hawaii, for instance, local control is often limited, and tourism can lead to environmental degradation or cultural exploitation if not carefully managed (Honey, 2008). Moreover, funding constraints and inconsistent support from local governments can hinder the long-term viability of CBET initiatives in the U.S. In California, for instance, community-driven efforts to develop ecotourism in areas such as the Sierra Nevada and coastal redwood regions have led to increased environmental awareness, job creation, and conservation partnerships between nonprofits, residents, and government agencies (Hill & Gale, 2009). These initiatives often involve interpretive guiding, native species conservation, and environmental education, which align with the triple-bottom-line goals of sustainability: environmental protection, social equity, and economic viability.

In Europe, ecotourism has developed as a vital strategy to promote sustainable tourism, especially in rural, mountainous, and environmentally sensitive areas. The European Charter for Sustainable Tourism in Protected Areas, initiated by the

Europarc Federation, emphasizes the importance of ecotourism in balancing environmental protection, cultural heritage, and economic viability (Europarc Federation, 2010). European ecotourism typically integrates environmental education, nature conservation, and low-impact recreational activities, aligning with broader EU sustainability goals. According to Fennell (2008), European ecotourism tends to be highly regulated and supported by policy frameworks, distinguishing it from less formal models in other regions.

Community-based ecotourism (CBET) in Europe is deeply rooted in local traditions, with a strong emphasis on preserving cultural landscapes and promoting rural development. One notable example is the “agritourism” movement in Italy, where family-owned farms offer ecotourism experiences, including organic food production, nature walks, and cultural immersion (Kizos & Iosifides, 2007). These initiatives not only diversify rural economies but also help preserve regional identities and traditional practices. Similarly, in the Scottish Highlands, CBET projects have empowered communities to manage tourism services around nature reserves and heritage sites, fostering a sense of ownership and environmental stewardship (Sharpley & Roberts, 2004).

Research shows that CBET in Europe often benefits from strong institutional support and integration into regional planning. For example, the LEADER program, funded by the European Union, has facilitated community-led local development projects across rural Europe, many of which include ecotourism components (Ray, 2000). These projects often focus on creating local employment, conserving biodiversity, and improving infrastructure in environmentally significant areas. Moreover, initiatives like Natura 2000 and national park networks have supported ecotourism while ensuring strict conservation standards (Baldock et al., 2011). However, challenges remain in balancing visitor numbers with conservation goals, especially in popular destinations prone to overtourism.

Despite its potential, CBET in Europe also faces obstacles such as bureaucratic complexity, uneven regional development, and seasonal dependency. As Hall (2008) notes, community engagement in tourism development can be hindered by

administrative barriers and limited local capacity, particularly in Eastern European countries where ecotourism is still emerging. Additionally, climate change and biodiversity loss pose new threats to ecotourism destinations, requiring adaptive strategies and resilient planning (Holden, 2016).

India, with its vast biodiversity, cultural heritage, and varied landscapes, has increasingly recognized ecotourism as a tool for sustainable development and conservation. Ecotourism in the Indian context is not only about conserving nature but also about empowering local communities, particularly those living near protected areas. The Ministry of Tourism (2021) defines ecotourism as "responsible travel to natural areas that conserves the environment and improves the well-being of local people." This aligns closely with global definitions but also includes a strong emphasis on socio-cultural preservation. According to Das & Chatterjee (2015) India's approach to ecotourism is often interlinked with rural development, particularly in forest-fringe and tribal areas.

Community-based ecotourism (CBET) in India has gained momentum as a participatory development strategy, where local communities are not just beneficiaries but active participants in tourism management. The Periyar Tiger Reserve in Kerala has implemented a community-based ecotourism model where local people, including former poachers, are employed as guides and conservation workers, resulting in both biodiversity protection and community development (Sekhar, 2003). The Athirappilly and Vazhachal regions showcase successful examples of ecotourism driven by community participation. Menon (2019) explored how environmental awareness, economic incentives, and local governance fostered sustainable tourism practices in these destinations. His findings emphasized that community engagement in ecotourism not only supports livelihoods but also enhances conservation ethics among local people.

In Odisha, the Bhitarkanika Wildlife Sanctuary has demonstrated the effectiveness of CBET in promoting inclusive growth. Mohanty et al. (2024) found that community-managed ecotourism ventures around the sanctuary significantly improved local income levels, environmental consciousness, and tourist satisfaction.

The study highlights how decentralizing tourism management to the community level strengthens both ecological and economic resilience.

In Tamil Nadu, CBET is still evolving, with mixed ownership patterns. Mary (2019) identified that although CBET ventures are gaining traction, most are publicly owned, thereby limiting the direct benefits to local communities. The study calls for more inclusive and community-driven models to enhance equitable benefits and sustainability.

According to Mehta & Kellert (1998), community-managed tourism in these regions supports environmental conservation while preserving traditional knowledge systems. These models showcase how CBET can foster responsible travel while ensuring tangible benefits for host communities. In the Himalayan region of Uttarakhand, villages such as Sari have embraced community-based tourism near protected areas like the Kedarnath Wildlife Sanctuary. Gupta & Bhatt (2009) noted that tourism has positively impacted the socio-economic conditions of local people, although infrastructural and training gaps still persist. Their work suggests that CBET in mountain regions requires adaptive strategies sensitive to ecological fragility and cultural contexts.

However, CBET in India also faces considerable challenges. Bureaucratic inefficiencies, lack of clear policy guidelines, and top-down planning often limit genuine community participation (Das, 2011).

Despite these barriers, the potential of CBET in India remains strong. With government schemes such as the Swadesh Darshan and Eco Circuit programs under the Ministry of Tourism, there is growing institutional support for integrating conservation and rural development through tourism (Ministry of Tourism, 2021). Successful models from different parts of the country underline the importance of capacity building, stakeholder collaboration, and cultural sensitivity in ensuring the sustainability of CBET.

Lalnunmawia (2033) highlights how crucial it is to promote ecotourism in order to preserve India's natural and cultural richness while reducing its negative effects on the environment. Sati (2013) emphasizes using Mizoram's natural resources viz

agriculture, water, forests, and climate, to improve rural livelihoods. The study makes recommendations for how to improve rural economic prospects in the state by concentrating on initiatives including tourism development, forest-based industries, rainwater harvesting, and varied agriculture.

Particularly in places with distinctive natural and cultural features, tourism is essential to the economic growth of localities. Mizoram has a lot of potential for village tourism because of its pleasant climate, picturesque scenery, tranquil people, and abundant biodiversity. Notwithstanding these benefits, the number of visitors is still quite small, which poses both opportunities and challenges for the development of sustainable village tourism. According to Sati (2019), despite a modest rise in visitor numbers from 2016 to 2018, the total inflow is still quite small. The inner line permit system, which limits visitors' ability to stay longer, the scarcity of lodging and business opportunities, and Aizawl City's prominence as a tourist destination are some of the factors behind this. The expansion of tourism in Mizoram is also impacted by issues like unequal access to transportation and gender disparities among visitors. Reddy (2018) states that Mizoram's tourism industry recognizes the potential advantages of ecotourism for both locals and tourists. Notwithstanding this potential, obstacles like the Inner Line Permit (ILP) system limit accessibility and impede the expansion of tourism. The suggested remedies focussed on giving ecotourism initiatives top priority in order to boost both economic growth and visitor attraction. Diversifying and growing the tourism industry requires increasing awareness of Mizoram's untapped tourism potential.

Ecotourism is not without its difficulties, including issues such as lack of infrastructure, insufficient community involvement, and the competition between economic growth and environmental conservation. The literature reveals that, while ecotourism can generate significant revenue, it often faces challenges such as weak institutional support, external pressures like urbanization, and insufficient long-term planning.

According to Hameed & Khalid (2018) the impact of eco-tourism on local socio-economic and cultural conditions. Their study suggests that India has immense potential for eco-tourism, which is being actively promoted by both the government and tour operators. While eco-tourism has positively impacted employment, income, and infrastructure, the locals view it as a contributing factor to cultural degradation.

Hundloe (2002) states that tourism has proven to be an engine of economic growth in many economies, generating income, wealth, and employment. He also notes that eco-tourism presents a dual challenge and opportunity to create sustainable tourism by redirecting tourist traffic, ensuring the preservation of natural resources, and generating awareness among local communities. For eco-tourism to be effective, he stresses the need for informed stakeholders—including tourists, service providers, and host communities—to collaborate in harnessing tourism as a sustainable engine of growth.

Karunakaran (2018) highlights the importance of sustainability in eco-tourism, particularly in India, where protected areas are gradually being integrated into the tourism sector. He points out that despite India's vast eco-tourism potential, sustainability is often overlooked in the agendas of key stakeholders. He argues that effective environmental laws and coordination among stakeholders are essential for ensuring the sustainability of eco-tourism initiatives in India.

Puri et al., (2019) highlight the negative impacts of mass tourism on protected areas and call for further research to evaluate success stories and explore gaps in eco-tourism practices in India.

Vethirajan & Nagavalli (2014), while recognizing the growth potential of tourism in India, note that it is crucial to address various issues such as infrastructural needs and business opportunities to stimulate other sectors like agriculture, handicrafts, and transport, ensuring the sustainable growth of tourism.

Duong et al. (2024) evaluate the quality of community involvement in a CBE project in Cat Tien National Park, Vietnam. Despite the intention of involving local communities, the project struggled with top-down decision-making, unequal distribution of benefits, and a lack of capacity building for local residents. The

authors highlight the need for improved community participation and strategies such as community advisory boards to facilitate better decision-making and communication.

Dahmani & Hadjab (2023) explore challenges in Bou-Saada, Algeria, focusing on the weaknesses in local tourism infrastructure and environmental degradation, such as the erosion of historical buildings and landscapes. These issues, along with limited tourism products and poorly planned development strategies, were identified as significant barriers to the growth of heritage tourism. However, opportunities such as the potential for eco-tourism resorts were also recognized, providing a pathway to addressing these challenges while promoting sustainability.

Gupta et al. (2023) emphasize the economic costs associated with human-wildlife conflict, which can result in property damage and reduced income for local communities. Additionally, the negative economic impacts caused by external factors, such as the COVID-19 pandemic, highlight the fragility of tourism revenues and the need for effective management strategies.

Koricha & Adem (2024) investigate the role of community-based approaches in biodiversity conservation and socio-economic development in Bale Mountains National Park, Southeast Ethiopia. The researchers used a combination of primary and secondary data sources to analyze the effectiveness of community-based strategies. Their findings reveal that the park had significant benefits for local communities, but perceptions differed between those involved in community-based associations and those who were not. Even with variations in these perceptions, the study highlight that communities were actively contributing to park conservation efforts, such as controlling fires and reporting wildlife conflicts. They concluded that internal factors, such as community involvement and local governance, were more influential than external factors like government support. They argue that implementing community-based conservation approaches is vital for the long-term success of park conservation and the well-being of local communities.

Neupane et al. (2021) conduct another study in Nepal, this time focusing on the Bhadaure-Tamagi village in the Panchase Protected Forest Area, where they applied a mixed-method research approach. Their research aims to assess the potential of ecotourism as a tool for local development. They found that although ecotourism had considerable potential to generate income for the community, the accommodation facilities remained underutilized due to low occupancy rates. The study also discusses how the COVID-19 pandemic had severely affected tourism flows, leading to decreased visitor numbers and financial challenges for local businesses. They suggest that targeted promotional campaigns were necessary to reinvigorate the sector, attract more tourists, and enhance the overall sustainability of ecotourism in the region. Their findings point to the need for improved infrastructure, better marketing, and stronger community involvement to ensure the long-term success of ecotourism ventures in the area.

Saha et al. (2015) analyze community-based ecotourism (CBET) in the Sundarbans region of Bangladesh, a region that plays a significant role in local income generation. The study identifies several factors that contributed to increased income from tourism, including age, experience, and the quality of eco-cottages. However, it also highlights a number of challenges facing the sector, such as inadequate infrastructure, a lack of supportive government policies, and safety concerns, which were impeding further growth. The authors called for stronger government intervention, including better marketing strategies, improved physical infrastructure, and a more structured approach to planning. They argue that enhancing these areas would support the sustainable development of ecotourism in the region, ensuring that both environmental conservation and local community's benefit from tourism growth.

Öztürk et al. (2015) conduct a study on the Sarikum Nature Protection Area (SNPA) in Turkey, using SWOT analysis and R′WOT analysis to assess management strategies for ecotourism development. Their study identifies the rich biodiversity and the surrounding natural areas as key strengths of the SNPA, making it an attractive location for ecotourism. However, they also identify several weaknesses, such as the lack of adequate infrastructure and the absence of legal

regulations to support ecotourism activities. These weaknesses were seen as major barriers to the effective development of ecotourism in the area. The study emphasizes the need for a well-structured management plan that could address these challenges by improving infrastructure, establishing clear legal frameworks, and fostering sustainable ecotourism practices. They conclude that a more strategic approach to planning and management would be crucial to enhancing the ecological and economic benefits of ecotourism in the region.

Shang et al. (2023) examine the relationship between ecotourism, climate change, and environmental policies in developing economies. By analyzing data from 40 developing countries between 2010 and 2021, the study explored the effects of green governance and carbon dioxide emissions on ecotourism development. Their findings reveal that improvement in green governance positively impacted ecotourism, with a 1% increase in the green governance index leading to a 0.43% increase in ecotourism. The research also indicates that ecotourism in developing countries is more sensitive to macroeconomic changes compared to developed nations. Shang et al. recommend the adoption of policies such as green financing, virtual tourism, and government incentives to further promote ecotourism in developing economies. The study emphasizes the need for environmentally conscious policies to strengthen the link between sustainable governance and ecotourism growth in these regions.

Swangjang & Kornpiphat (2021) conduct a study in Klong Kone, Thailand, to assess whether ecotourism in the mangrove area conformed to principles of sustainable tourism. They used a SWOT analysis in combination with the DPSIR (Drivers, Pressures, State, Impacts, Responses) framework to gather data from various stakeholders, including tourists, homestay operators, community residents, and local officials. Their findings identify several key strengths, such as the income generated from nature-based tourism, but also highlighted weaknesses such as the lack of ecological awareness among local stakeholders. External opportunities from tourism policies and threats posed by urban planning and pollution were also identified. The study results in the development of a conceptual DPSIR model for

ecotourism, which illustrated the ecotourism lifecycle and provided a tool for managing sustainable tourism in mangrove ecosystems.

Upadhaya et al. (2022) examine the perceptions of local communities regarding ecotourism in Central Nepal, particularly in the vicinity of Chitwan National Park. The study, which involved semi-structured interviews with 167 respondents, found that more than 70% of the participants expressed interest in engaging in ecotourism activities. Their perceptions of ecotourism's impacts were influenced by factors such as age, education, and occupation. The research reveals that significant benefits from ecotourism included infrastructure development and increased knowledge. They concluded that a deeper understanding of the local community's socioeconomic and demographic characteristics could enhance ecotourism outreach and planning, making the sector more successful in the region. Their findings suggest that tailored approaches to community engagement and development could improve both the local economy and the sustainability of ecotourism in the area.

Barkin & Pailles (2000) discuss the role of NGOs in supporting ecotourism. They highlight how NGOs can help boost tourism by educating both local communities and tourists, and by showcasing local culture, lifestyle, and heritage. They also examine the negative impacts of tourism in regions like Mexico and Central America.

Diamantis (1999) explores the early stages of ecotourism research, criticizing the lack of clarity regarding the scope, planning needs, and operational methods of ecotourism. He calls for more standardized definitions and research into the sustainability of ecotourism.

Burneika & Kriaučiūnas (2007) investigate the potential of ecotourism in Lithuania, suggesting strategies to advance ecotourism in the region. Their study evaluates the effectiveness of existing tourism conditions and identified the best ones for fostering ecotourism growth.

This chapter reviews existing research on ecotourism, particularly focusing on community-based ecotourism (CBET). It discusses how ecotourism has grown as a response to environmental concerns while offering economic benefits. CBET is

highlighted as a way to involve local communities in sustainable tourism, ensuring both conservation and socio-economic development.

It explores different aspects of ecotourism, including its principles, benefits, and challenges. It also examines the role of various stakeholders, such as government bodies, local communities, businesses, and tourists, in the success of CBET. Also, the review identifies key obstacles, such as policy gaps, funding issues, and environmental impacts, which can hinder ecotourism development.

Thus, this chapter provides a foundation for understanding how CBET can be improved. It sets the stage for further research on effective strategies for sustainable tourism to ensure that both nature and local community's benefit from ecotourism initiatives.

Research Gap

Ecotourism, while not a new concept, has been widely explored in both India and globally, with several studies highlighting its various aspects such as environmental conservation, heritage preservation, destination development, and local community empowerment. However, most of the research on ecotourism and community-based ecotourism has primarily focused on the Himalayan states of India, such as Uttarakhand, Himachal Pradesh, and Jammu & Kashmir. A few studies have also identified the potential for promoting community-based ecotourism in the northeastern states of India, which share a unique geographical, typological, and cultural homogeneity (Meena & Das, 2012; Hussain & Das, 2013; Uprety, 2015; Lalrosanga& Sajnani, 2017; Deka, 2019; Sati, 2019).

Despite this, there is a significant gap in research specifically focusing on the northeastern states, and Mizoram in particular, where ecotourism remains under-explored. Mizoram, with its rich biodiversity, scenic landscapes, and cultural diversity, offers immense potential for ecotourism development. The state's government has shown increasing support through favorable policies and financial investment, and there is a growing global interest in nature-based and ecotourism destinations. Furthermore, numerous community-driven tourism development initiatives have emerged in the region in recent years.

However, comprehensive studies on community-based ecotourism in Mizoram, especially in the study area, are limited. This gap in research presents an opportunity to explore the potential of community-based ecotourism in Mizoram. Therefore, the proposed study, *'Community-based Ecotourism in Mizoram with Special Reference to Mamit District,'* is timely and significant. This study will contribute valuable insights into the field, fills the existing research gap, and serve as a model for future research in community-driven ecotourism in the northeastern states of India.

CHAPTER – 3

RESEARCH METHODOLOGY

CHAPTER 3
METHODOLOGY

This chapter presents a comprehensive overview of the methodological approach adopted in this study. Various topics concerning the research design, data sources and types, problem statement, research instruments, objectives, hypotheses, sampling procedure and sample size, data collection methods, and statistical analysis techniques etc. are discussed in this chapter.

Due to the multifaceted nature of the research, different methodological approaches have been adopted to address specific research objectives. A precise research design, population, sample size of respondents, and data collection process have been adopted. The methodology chosen for each objective was decided on the data requirements, study purpose, and research questions under investigation.

3.1. STATEMENT OF THE PROBLEM

The Northeastern states of India, including Mizoram, are better known for their scenic landscapes, unspoiled natural beauty, abundant biodiversity, and culturally dynamic tribal communities (NEC, 2022). Mizoram has a pristine environment with a varied array of flora and animals, establishing it as an ecotourism destination. The Mizo society is intertwined by robust social cohesion and a high literacy rate of 91.33%, among other states in India (Census of India, 2011). The inhabitants of Mizoram are distinguished for their cordial hospitality, benevolence, and collaborative ethos, which are vital characteristics for cultivating a healthy tourist ecosystem. The socio-cultural attributes, along with the state's ecological allure, render Mizoram an exemplary place for Community-Based Ecotourism Development (CBET), harmonizing conservation with local empowerment and visitor involvement (Kumar & Yadav, 2024).

Recognizing this potential, the Government of Mizoram, along with support from the Government of India, has introduced a series of progressive tourism policies to encourage responsible and sustainable tourism in the state. These include the Mizoram Tourism Policy (2014), Mizoram Ecotourism Policy (2017), and the

Mizoram Responsible Tourism Policy (2020). These policies emphasize adventure tourism, ecotourism, heritage tourism, and culture-based tourism, with the active involvement of local communities as key stakeholders in tourism development and management.

In alignment with these policies, initiatives such as the Reiek Tlang Tourism Development Board (2019) and Ailawng Village Ecotourism Development Society (AVEDSOC) in Mamit district have been established to promote destination-specific tourism and community engagement. However, tourism in Mamit district remains in its infancy, with limited infrastructure and visibility. While the region holds immense potential for ecotourism owing to its unspoiled nature and rich cultural fabric. Additionally, academic literature focusing on CBET in Mizoram, particularly in Mamit district, remains scarce and underexplored.

Therefore, the present study titled "*Community-Based Ecotourism in Mizoram with Special Reference to Mamit District*" aims to bridge this research gap by critically examining the current practices, potentials, challenges, and perceptions surrounding community participation in ecotourism.

3.2 OBJECTIVES OF THE STUDY

- To investigate the status and potential of tourism development in Mizoram including in the study area;
- To assess the functions and performance of existing community driven tourism development society in the study area;
- To assess the understanding, attitude and satisfaction of destination community towards ecotourism development;
- To evaluate the destination attributes in the perspective of both tourists and destination community; and
- To conduct a situational analysis of community-based ecotourism development and related infrastructure development in the study area.

3.3 HYPOTHESES OF THE STUDY

H1: Destination community in the study area are significantly informed and motivated towards “Community based ecotourism development”.

H2: Community based ecotourism development is significantly related to conservation, preservation and promotion of destination attributes.

H3: Ecotourism development is significantly related to sustainable development (Social, Economic and Environmental) of the study area.

3.4 STUDY AREA

Mizoram is renowned for its breathtaking scenery, which includes lakes, rivers, lakes, undulating hills, and valleys. The state is perfect to become an all-year tourism destination because of its moderate year-round temperature, which is neither too hot in the summer nor too cold in the winter. It has one of the lowest rates of crime and is one of India's most tranquil states. The Mizo culture is interesting, with its bright clothes, lively festivals, and communal dances.

The state of Mizoram located in North-East India was admitted to the Indian Union in February 1987 as the 23rd state of India. Assam and Manipur surround the northern boundary of the state, while Myanmar surrounds to the east and south, and Bangladesh, and Tripura to the west. Mizoram is located in a region of significant strategic importance and has a 722 km long international border with Bangladesh and Myanmar. Tropic of Cancer passes through the state. It resembles an inverted narrow triangle in shape.

Figure 3.1: Map of Mizoram

Source: Researcher's Compilation

The state lies in the region between longitudes 92°.15' East and 93°.29' East and latitudes 21°.58' North to 24°.35' North. The State comprises rugged, steep hill ranges and interspersed valleys. The climate ranging from moist tropical to moist sub-tropical in the state leads to pleasant climate throughout the year. The annual rainfall ranges between 2,100 mm to 3,500 mm and the annual temperature during winter, 11°C to 21°C and in summer between 20°C to 30°C refrain from extreme summer and extreme winter. The State has total 11 districts, all of which are hilly in nature. Mizoram is populated by 94.43% of its population as a tribal community.

The strategic location of Mizoram offers huge potential and advantage for industrial development. Sharing boundary with the two countries Myanmar and Bangladesh, Mizoram offers a gateway for international trade with Southeast Asian countries. With a literacy rate of 91.85 per cent, Mizoram offers a highly literate workforce. Knowledge of English is an added advantage for the Mizo workforce.

Table 3.1:

Demographic Profile of Mizoram

Sl. No.	Variables	Particulars
1	Location:	Latitude 21^{o} 58' & 24^{o} 35' N Longitude 92^{o} 15' & 93 ^{o} 29' E
2	Area: North – South East – West	21,087 Sq Kms 277 Kms 121 Kms
3	Inter-State Border	(a) With Assam - 123 Kms (b) With Tripura - 277 Kms (c) with Manipur - 95 Kms
4	International Border	(a) With Myanmar - 404 Kms (b) With Bangladesh - 318 Kms
5	Temperature:	11^{o} - 21^{o} C in winter 20^{o} - 30^{o} C in summer
6	Average rainfall ranges	2,100 mm to 3,500 mm
7	Population:	10,91,014 Male = 5,52,339, Female = 5,38,675 as 2011 Census
	Population Density	52 Person Per Sq. Km.
	Tribal Community	94.43%
8	Sex Ratio:	975 female per 1000 male
9	Urban Population	51.51%
10	Capital	Aizawl
11	Literacy	91.85 %
12	Net State Domestic Product(NSDP) (2024)	48,038 Crore Rupees
13	Per Capita Income (2024)	235823.061 Rupees
14	Highest Point:	Phawngpui (Blue Mountain) 2,210/2065 M
15	No. of Assembly Constituency:	40
16	No of Seat in Parliament (Lokshabha)	1
17	No of Seat in Parliament (Rajyashabha)	1
18	District	11
19	Block	26
20	Sub – Division	23
21	Autonomous District Council	3
22	Total Villages (2011)	852

23	Village Councils (Except under the District council of Lai, Mara, and Chakma) as on 31st January 2019	534
24	Airport	Lengpui Airport (Aizawl), Mizoram
25	Main Railway Access	Nearest major station: Bairabi (under development)
26	Forest Cover in Mizoram (PIB, 2024)	85.34%

Source: Government of Mizoram

Mizoram has a distinct advantage over other states because of its pleasant weather, alluring landscape, abundant biodiversity, dynamic culture, and rich history. Its fine handicrafts, traditional fairs, festivals, and mouthwatering cuisine all contribute to its attraction. In addition to these attractions, Mizoram provides a sanctuary of peace and security, offering a wide selection of lodging choices. The essence of Mizoram's allure is the Mizo community's sincere warmth and hospitality, which welcomes guests with open arms. Mizoram attracts tourists with a multitude of activities, including leisurely pastimes, thrilling excursions, birdwatching, and in-depth cultural immersions, regardless of the length of the trip.

The state, with over 9058.29 sq. km. of notified forest area, constitutes nearly 43% of its total geographical area under formal forest protection, making it a significant ecological asset within the North-Eastern region of India (Department of Environment, Forest & Climate Change, Mizoram, 2023). The state’s ecotourism potential is amplified by its increasing forest and tree cover, as documented in the India State of Forest Report (ISFR) 2021, which noted a positive trend in forest growth in Mizoram despite pressures from shifting cultivation practices and population dynamics (FSI, 2021). This expanding green footprint provides a sustainable backdrop for developing community-based ecotourism initiatives.

Table 3.2:

Notified Forests in Mizoram (Area in sq km)

Sl. No.	Forest Types	Area (in Sq. Km.)
1	Inner-line Reserved Forests	570.00
2	Riverine Reserved Forests	1832.50
3	Roadside Reserved Forests	97.20
4	Compensatory Afforestation Areas declared as Reserved Forests	125.19
5	Other Reserved Forests	1873.65
6	Wildlife Protected Areas	1997.75
7	Reserved Forests under District Councils	2562.00
	Total	9058.29

Source: Department of Environment, Forest & Climate Change, Govt. of Mizoram

Mizoram's ecotourism appeal is further supported by its diverse forest types including inner-line, riverine, roadside, and compensatory afforestation forests, which collectively offer varied landscapes suitable for nature-based activities. Particularly, wildlife protected areas like the Dampa Tiger Reserve (1033 sq. km.), Murlen National Park (100 sq. km.), and Phawngpui National Park (50 sq. km.) serve as biodiversity hotspots and anchor destinations for ecotourism (MoEFCC, 2023). The state's eleven protected areas covering 1,997.75 sq. km. are home to several endangered species such as the clouded leopard, hoolock gibbon, and hornbills, and support critical ecosystems within the Indo-Burma Biodiversity Hotspot (Chakraborty, 2018; Zorema, 2015). The vegetation in the state is diverse. Around 22 different types of bamboo and over 400 medicinal plants is found in Mizoram. The state enjoys a temperate climate, humid in the plains and pleasant to cool in higher elevations.

Table 3.3:

Protected Areas Network in Mizoram

Name of the Protected Areas	Area in Sq. Km.
Dampa Tiger Reserve	1033
Murlen National Park	100
Phawngpui National Park	50
Khawngpui wWildlife Sanctuary	35
Lengteng Wildlife Sanctuary	60
Ngengpui Wildlife Sanctuary	110
Pualreng Wildlife Sanctuary	50
Tawi Wildlife Sanctuary	35.75
Thorangtlang Wildlife Sanctuary	180
Tokalo Wildlife Sanctuary	250
Buhvum Wildlife Sanctuary	94
Total	**1997.75**

Source: Department of Environment, Forest & Climate Change, Govt. of Mizoram

Furthermore, the Mizoram Ecotourism Policy (2017) and Mizoram Responsible Tourism Policy (2020) underscore the state's commitment to promoting nature-centric and community-led tourism by ensuring the participation of village-level institutions, such as the Reiek Tourism Development Board and AVEDSOC, in planning and management (Department of Tourism, Mizoram, 2020). These initiatives are designed to align with national strategies such as the Draft National Strategy for Ecotourism (2022) and the Wildlife Action Plan (2017–2031), focuses biodiversity conservation, local empowerment, and sustainable tourism growth (Ministry of Tourism, 2022; MoEFCC, 2022).

Table 3.4:

List of potential and unexplored Ecotourism facilities and Ecotourism Activities in Mizoram

Ecotourism facilities	**Ecotourism Activities**
Nature Walk/ Trekking	Canopy Walk
Homestays	Safari
Birdwatching	Trekking and Nature Walks
Boating	Wildlife Spotting and Bird Watching
Wildlife/ Nature Photography	Angling
Nature Camps	Nature Photography Tour
Amphitheatre	
Nature shops and Sale Outlets	

Source: Department of Environment, Forest & Climate Change, Govt. of Mizoram

Table 3.5:
Potential tourism areas and expected challenges

Eco-tourism areas	Existing and potential tourism activities	Challenges
Adventure tourism and Adventure Sports	Rock climbing, paragliding, zip lining, mountain cycling, mountain biking, aero sport, paragliding, indigenous sports, etc.	To ensure maintenance of international protocols of safety, quality and service by strictly following guidelines issued by the Ministry of Tourism
Wild-life tourism	Two national parks and eight sanctuaries, several bird watching sites, angling, nature walk, etc.	To develop basic tourism facilities-accommodation, amenities and destination community awareness.
Culture and Heritage Tourism	Tribal culture, Cave tourism, Anthurium festival, Christmas festival, Mizo villages, horticulture (Anthurium) tourism sites, etc.	Lack of promotion
Wellness, Health & Herbal Tourism	Medical tourism, Spa and Ayurvedic tourism, medicinal plants,	Lack of requisite amenities and lack of promotion
MICE Tourism	Thenzawl, Aizawl, Hmuifang, etc.	Lack of promotion and state-of-the-art modern convention facilities

Source: Mizoram Responsible Tourism Policy 2020

The identified infrastructure and facilities to be developed in the "Mizoram Responsible Tourism Policy 2020 are-

i) Nature Camps including day visitor centres
ii) Eco-friendly Accommodation including home stays.
iii) Visitor Interpretation Centres and Nature Education.
iv) Amphitheatre.
v) Nature shops.
vi) Herbal Ecotourism with sale outlets.
vii) Urban ecotourism through eco-parks.

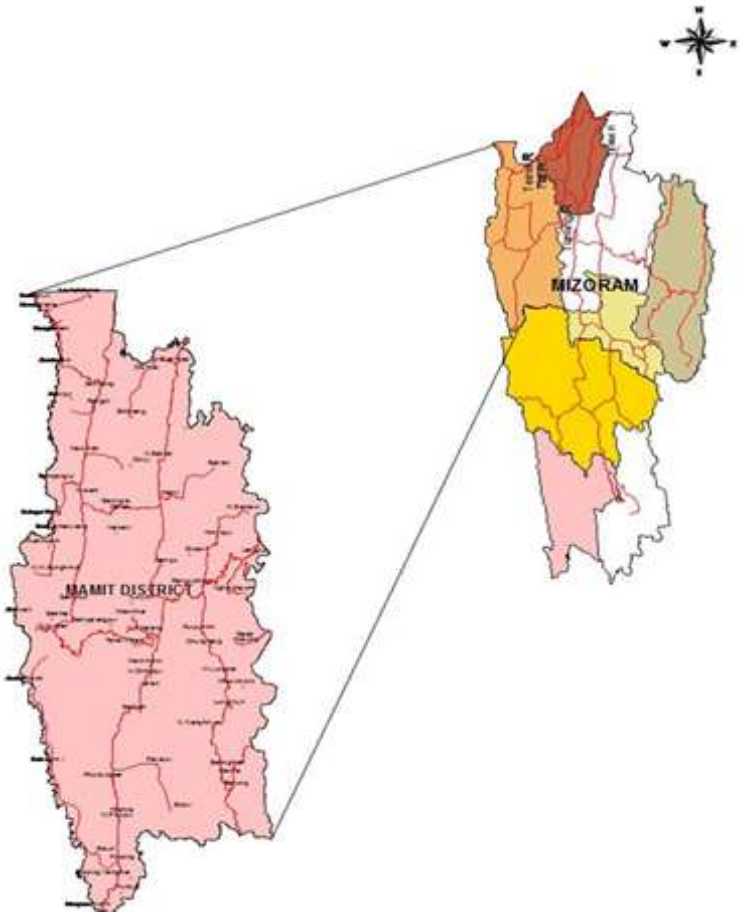
viii) Wayside amenities like public conveniences, roadside garbage disposal facilities, observation towers with telescope and binoculars, adequate signage, wayside exhibits, etc.

ix) Other facilities for any other eco-friendly activities may also be provided based on specific requirements of a site provided the activity is compatible with the overall objectives of this policy and in conformance with the various standards and guidelines laid down in this regard

Several tourism development and policy initiatives have been taken by the state and central government in last couple of years. Department of Tourism, State government of Mizoram has also taken several initiatives for tourism awareness and capacity building program viz. tour-guide training, training for service providers. Through a variety of avenues, including the development of infrastructure, the creation of jobs, the expansion of businesses, the exchange of cultures, and the improvement of skills, tourism can have a major impact on per capita income. The world's largest bamboo dance is performed here, which has been also acknowledged by the Guinness Book of Records on March 12, 2010.

The district of Mamit was established in 1998 and occupies the western limits of the state of Mizoram, India. It is bordered by the states of Tripura to the west and Assam to the north, and the districts of Kolasib and Aizawl to the east, and Lunglei to the south. Covering an area of 3,025.75 square kilometres, the district offers an extraordinary setting of natural beauty, cultural heritage, and community-driven initiatives, which makes it a potential hotspot for ecotourism. The district is home to one of the few tiger reserves in India, the Dampa Tiger Reserve, and also hosts several floral and faunal species (Department of Environment, Forests & Climate Change, Govt. of Mizoram). The rivers flowing through the valleys provide essential water sources for the local people and support a diverse ecosystem. Moreover, the north-flowing rivers cover about three-fourths of the district’s area, while south-flowing rivers drain the remaining portion, creating a unique river system that sustains life in Mamit and offers stunning landscapes for visitors to enjoy.

Figure 3.2: Location Map of Mamit District



Source: Researcher's compilation

The study area is primarily inhabited by the Mizo people, who are known for their vibrant festivals, colourful traditional dances like Cheraw, and unique culinary offerings. Ethnic minorities, such as the Brus and Chakmas, also reside within certain areas of the district, and these people also have their own unique traditions and customs. The people of the study area have led a usually harmonious life, and they have cultivated an atmosphere where different cultures coexist. This blend of diversity, coupled with the district's lush greeneries and the active involvement of the local community makes Mamit an ideal ecotourism destination.

3.5 RESEARCH METHODOLOGY

The study employs a mixed method approach, combining quantitative and qualitative methods, to achieve specific objectives and ensure comprehensive analysis.

3.5.1 Methodology for Objective 1:

To investigate the status and potential of tourism development in Mizoram including in the study area

A qualitative research approach was employed to investigate the status and potential of tourism development in Mizoram. The purpose of this objective was to assess the perspective of various stakeholders involved in tourism through a semi-structured interview. Moreover, case studies were conducted in Ailawng village and Reiek village, within the study area which are popular among visitors.

Sampling Unit, Sample Size, Sampling Method

Government officials (tourism department representatives), community leaders, tourism operators, local business owners, community members i.e., individuals directly or indirectly involved in the tourism industry were selected for the semi-structured interview. Two villages, *viz.* Reiek and Ailawng were selected as the sites for conducting case study.

Guest et al. (2006) suggest that qualitative studies should have around 12-15 interviewees. Following this guideline, this study included 15 participants from different areas of the tourism industry in the study area. The group consisted of 3 government officials, 3 community leaders, 3 tourism industry workers, 3 business owners, and 3 community members. Also, two case studies were carried out in Ailawng and Reiek, two villages in the district, to explore the current state and potential for tourism development in these areas.

For the semi-structured interviews, purposive sampling technique was used for the selection of participants having substantial knowledge and experience related to tourism development in Mizoram.

Methods of Data Collection, Data Analysis and Screening

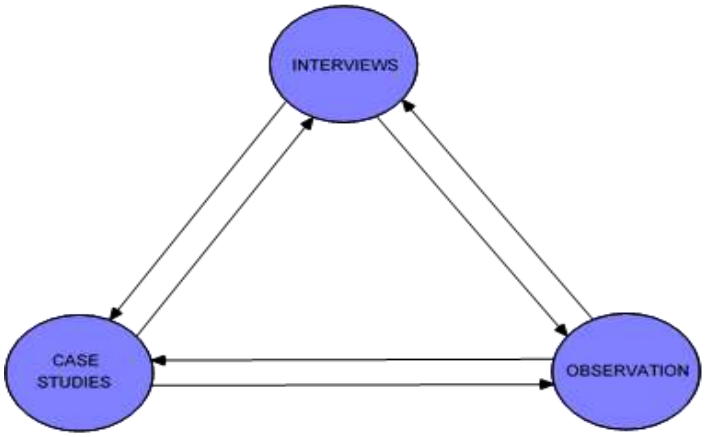
A semi-structured interviews was designed to explore the interviewees' opinions and views on the current status of tourism, challenges faced, the impact of tourism on the local economy and culture, and the potential for future development. Case studies were also conducted in Ailawng and Reiek, two villages/towns within Mamit district, which involved direct observations, informal discussions with residents and examination of local tourism practices and infrastructure.

Thematic analysis was employed to analyze the qualitative data collected from interviews and case studies using NVivo software (V.20.7.1.1534). Textual data were coded and used identify recurring patterns, themes, and sub-themes such as infrastructure challenges, economic impact, community involvement, and the current situations within Mamit district. The key information gained from these analyses were categorized meaningfully and used as the bases to draw meaningful conclusions about the status and potential of tourism in Mizoram.

Reliability Measures

Reliability in the qualitative research process was ensured through the triangulation of data from the interviews and case studies, as well as the informal observations, which were cross-checked to validate and ensure the trustworthiness of the findings (Figure 3.3).

Figure 3.3: Triangulation Process of the Qualitative Data



Source: Author

The triangulation process was conducted by cross-referencing data from the in-depth interviews, the case studies conducted in the villages of Ailawng and Reiek and direct observations made at key tourism sites and within the communities. The key themes identified from these interviews were validated through the case studies which detail the experiences of the participant stakeholders at a local level. The observations made validated the themes that emerged from the interviews and case studies. The triangulation method reveals that the various themes identified were not only consistent across different data sources but also reflected the actual conditions as shown in Table 3.6.

Table 3.6:
Outcome of the Triangulation of the Qualitative Data

Theme Identified	Interviews	Case Studies	Observations	Evaluation
Infrastructure Deficiencies	Mentioned by government officials, tourism participants, and community members.	Confirmed poor road conditions and lack of facilities in Ailawng and Reiek.	Direct observation of inadequate infrastructure at tourism sites.	Consistent across all sources, validating the theme.
Seasonality Challenges	Raised by business owners, tourism participants, and government officials.	Case studies showed significant drops in tourist activity during off-peak seasons.	Observations during non-peak seasons confirmed low tourist presence.	Consistency across all sources, validating the theme.
Community Involvement	Emphasized by community leaders and residents as crucial for tourism success.	Case studies highlighted varied levels of community involvement in tourism.	Observations showed differing levels of community participation at sites.	Theme consistently identified, supporting the importance of this issue.
Economic Impact of Tourism	Business owners and community members discussed both positive and negative impacts.	Case studies reflected economic benefits and challenges in Ailawng and Reiek.	Observations of local businesses indicated varying degrees of economic activity.	The theme is corroborated across different sources, reinforcing its significance.
Environmental Concerns	Mentioned by community leaders and some government officials.	Studies noted specific environmental issues in the villages studied mentioned in case studies.	Observations revealed visible environmental impacts at tourism sites.	Consistent findings across all sources, validating environmental concerns.

Source: Author

3.5.2 Methodology for Objective 2:

To assess the functions and performance of existing community driven tourism development society in the study area.

A quantitative method was employed to evaluate the functions and performance of the community-driven tourism development society in Mamit District and to test the related hypotheses. Structural Equation Modeling (SEM) was used to analyze the relationships among variables to test the hypotheses.

Sampling Unit, Sample Size, and Sampling Method

The sample comprised local residents involved in ecotourism and tourism operators within Mamit District.

According to Bentler and Chou (1987), when latent variables are measured with many indicators, a ratio as low as five cases per variable may be sufficient for normally distributed data. As a lower constraint for an appropriate sample size, Nunnally's (1967) well recognised recommendation calls for at least 10 cases per indicator variable. Therefore, in light of the recommendation of these authors, the 240 participants selected for this particular objective may be considered adequate.

Simple random sampling was utilized, with participants randomly selected from various villages in Mamit District.

Methods of Data Collection

Data was collected using structured questionnaires designed to capture information on informedness, motivation, and aspects of sustainable development (environmental, social, and economic). For the environmental domain, specific focus was given to conservation, preservation, and promotion of destination attributes.

Indicators of Functions and Performance of Existing Community-Driven Tourism Development Society

To assess the functions and performance of the existing community-driven tourism development society, it is necessary to use specific indicators that provide

measurable metrics reflecting the society's effectiveness in various areas, such as informedness, motivation, and the three domains of sustainable development. The indicators listed in Table 3.7 were framed based on the Review of Literature section. Participants were asked to respond on a scale of 1 to 5 regarding the performance and functions of the society in these areas.

Table 3.7:
Indicators Used in the Assessment of Functions and Performance of Existing Community-Driven Tourism Development Society

Code	Statement	Domain Name	Source
Info_1	Providing clear information about community-based ecotourism initiatives.	Informedness	Tiwari & Abrol (2015) etc.
Info_2	Keeping community members updated about ecotourism activities and projects.	Informedness	Tiwari & Abrol (2015) etc.
Info_3	Ensuring that community members understand the goals and benefits of ecotourism.	Informedness	Tiwari & Abrol (2015) etc.
Info_4	Communicating effectively about how ecotourism affects the local environment and community.	Informedness	Tiwari & Abrol (2015) etc.
Motiv_1	Encouraging community members to participate in ecotourism activities.	Motivation	Kirby et al. (2010) etc.
Motiv_2	Supporting active involvement in ecotourism projects within the community.	Motivation	Kiss. (2004) etc.
Motiv_3	Promoting enthusiasm for ecotourism initiatives that benefit the environment and community.	Motivation	Puri, Karanth, and Thapa (2018) etc.
Motiv_4	Maintaining the interest and participation of community members in ecotourism activities.	Motivation	Duong et al. (2024) etc.
Env_1	Working to protect local wildlife and natural habitats through ecotourism.	Environmental	Raina et al. (1999) etc.
Env_2	Preserving natural resources	Environmental	Lalhmachhuana (2011)

	and promoting environmental sustainability.		etc.
Env_3	Effectively promoting and showcasing the unique features of the destination.	Environmental	Lalhmachhuana (2011) etc.
Env_4	Improving the protection and preservation of the environment through ecotourism.	Environmental	Lalhmachhuana (2011) etc.
Soc_1	Strengthening community relationships and cooperation through ecotourism activities.	Social	Chandrashekra and Nagaraju (2014) etc.
Soc_2	Preserving and promoting local culture and traditions through ecotourism.	Social	Barker and Pailles (2000) etc.
Soc_3	Enhancing social services, infrastructure, and overall community well-being.	Social	Singh (2015) etc.
Soc_4	Encouraging a sense of responsibility and active participation among community members.	Social	Fennell (1999) etc.
Econ_1	Contributing to the economic improvement of community members through ecotourism.	Economic	Kaur & Sharma (2018) etc.
Econ_2	Helping local businesses grow as a result of ecotourism activities.	Economic	Diamantis (2010) etc.
Econ_3	Creating job opportunities and improving employment prospects in the community.	Economic	Tiwari and Abrol (2015) etc.
Econ_4	Generating income that significantly benefits the local economy through ecotourism.	Economic	Upadhaya et al. (2012) etc.

Source: Author

Data Analysis and Screening

Data analysis was conducted using Microsoft Excel 2019, IBM SPSS Statistics 22, and AMOS 16. Descriptive statistics were initially provided to give an overview of the data. Structural Equation Modeling (SEM) was employed to test the hypothesized relationships and assess model fit. Multivariate normality was assessed by plotting

Cook's distance as a scatter graph to identify any influential data points and verify that the data met the assumptions for SEM analysis.

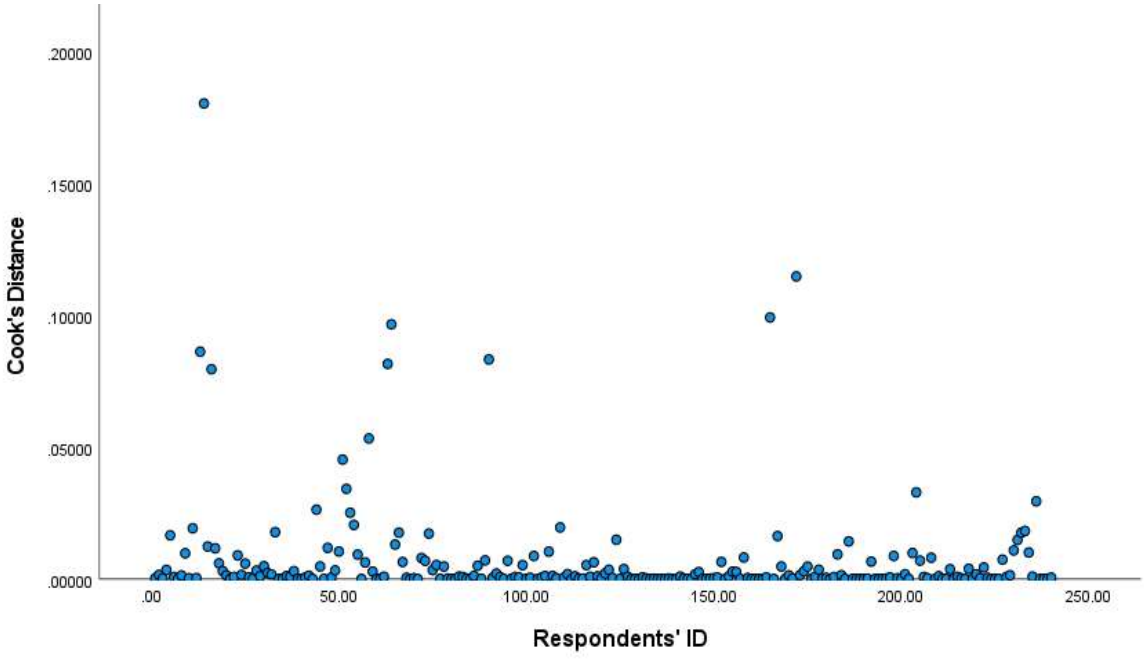
Missing Values

No missing values were found among the data collected. This may be due to the fact that the purpose of the research and its significance was thoroughly explained to the participants, and also due to the brevity of the research instrument.

Assessment of Multivariate Normality

From Figure 3.4, it can be seen that the scatter points did not reach the threshold level of 1 (Y-axis), indicating that there were no influential data points affecting the analysis. This confirms that the data adhered to the multivariate normality assumptions for SEM.

Figure 3.4: Scatterplot of Cook's Distance by Respondents' ID



Source: Author

Reliability Test & Model Fit

For reliability, a Cronbach's Alpha value greater than 0.70 was considered indicative of satisfactory internal consistency. In the current study, the Cronbach's Alpha values for each measure exceeded this values, showing that the measurement tools were fit for use among the samples (see Table 3.8).

Table 3.8:
Reliability Statistics of the Measurement Instrument for the Assessment of Functions and Performance of Existing Community-Driven Tourism Development Society

Variable	Cronbach's Alpha	Number of Indicators
Informedness	0.76	4
Motivation	0.81	4
Environmental Sustainability	0.81	4
Social Sustainability	0.85	4
Economic Sustainability	0.84	4

Source: Author

The model fit of the Structural Equation Model was determined using several indices: the Chi-Square Minimum Discrepancy (CMIN/df), where a value less than 2 is desired; the Comparative Fit Index (CFI), with values of 0.90 or higher indicating a good fit; the Goodness of Fit Index (GFI), where values of 0.90 or above suggest a good fit; the Root Mean Square Error of Approximation (RMSEA), where values of 0.06 or lower indicate a good fit; and the Adjusted Goodness of Fit Index (AGFI), where values of 0.90 or higher also indicate a good fit. The initial model showed suboptimal fit indices, prompting a review of modification indices, which suggested correlating certain error terms with high values. These correlations were added selectively, ensuring theoretical justification, such as items measuring closely related constructs or influenced by similar factors. After incorporating these correlations, the model was re-estimated, resulting in significantly improved fit indices, aligning with the desired thresholds and confirming the validity of the revised measurement model (Table 3.9).

Table 3.9:
Model Fit Indices for the Initial Model and Final Model of the Structural Equation Model

Fit Index	Initial Fit Indices	Final Fit Indices	Desired Values
Chi-Square Minimum Discrepancy (CMIN/df)	1.97	1.25	Less than 2
Goodness of Fit Index (GFI)	0.88	0.93	0.90 or higher
Root Mean Square Error of Approximation (RMSEA)	0.06	0.03	0.06 or lower (acceptable up to 0.08)
Adjusted Goodness of Fit Index (AGFI)	0.85	0.90	0.90 or higher

Source: Author

3.5.3 Methodology for Objective 3:

To assess the understanding, attitude and satisfaction of destination community towards ecotourism development.

To assess the understanding, attitude, and satisfaction of the local community towards ecotourism development, a measurement tool was developed to meet this particular objective. The conceptual framework of this study was based on three components: understanding, attitude, and satisfaction. Understanding reflects the cognitive component and was measured by assessing knowledge and awareness of ecotourism. Attitude reflects the affective component and was measured by assessing feelings and predispositions towards ecotourism. Satisfaction reflects the evaluative component and was measured by assessing contentment with ecotourism impacts and practices.

To measure the understanding of ecotourism among local people, a scale comprising 10 items was developed. These items were crafted following an extensive review of previous literature on ecotourism. For example, the scale included statements like "I am aware of the principles of ecotourism," "I understand the benefits that ecotourism brings to our community," and "I know how ecotourism

practices help in environmental conservation." Respondents rated each item on a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Attitude towards ecotourism was assessed using a scale adapted from Mohanty et al.'s 2021 study. Originally consisting of 11 items, the scale was reduced to 10 items for this study by combining the last item, which inquired about positive and negative influences, into a single comprehensive item. Example items from this scale included statements such as "I believe ecotourism positively impacts our community," "I think ecotourism development should be promoted," and "Ecotourism activities are beneficial for local businesses." Similar to the understanding scale, respondents rated each item on a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Satisfaction with ecotourism was measured using items from the scales developed for understanding and attitude to ensure that satisfaction was assessed in relation to the specific aspects of ecotourism that respondents were knowledgeable about and had formed attitudes towards. Example items included statements such as "I am satisfied with the benefits that ecotourism brings to our community," "I feel satisfied with how ecotourism practices are implemented here," and "I am happy with the opportunities ecotourism provides for local businesses." Respondents rated each item on a Likert scale ranging from 1 (Very Dissatisfied) to 5 (Very Satisfied).

In this study, a quantitative approach was used to assess the understanding, attitude and satisfaction of the destination community towards ecotourism development. Participants were asked to evaluate various characteristics related to these aspects through a structured survey or questionnaire.

Sampling Unit, Sample Size, and Sampling Method

The samples who participated in the study were individuals residing in the in the study area. 231 participants' responses were selected to assess the community's understanding, attitude and satisfaction towards ecotourism development. A convenient sampling technique was used to collect data from the sample respondents (Local community members of the various villages and towns in Mamit district).

Methods of Data Collection

The structured questionnaires were distributed to the sample respondents. 231 responses were found valid for the study. The questionnaire includes demographic information, as well as questions related to the study's objectives.

A questionnaire was created especially for the study to gauge the local community's understanding, attitude, and satisfaction with the growth of ecotourism The questionnaire included 10 items for each of these three aspects (understanding, attitude and satisfaction) to gauge their levels through a 5-point Likert scale (e.g., 1 = Strongly Disagree, 5 = Strongly Agree). Higher attributes on a given aspect are indicated by higher scores on that aspect. Table 3.10, lists the sources and the questions/items for this specific scale.

Table 3.10:
Items for Assessment of the Understanding, Attitude and Satisfaction of Local Communities on Ecotourism Development in Mamit District

Aspect	Code	Statement	Source
Understanding	U1	Ecotourism is responsible travel to natural areas that conserves the environment and improves the well-being of local people	International Ecotourism Society, 1990
Understanding	U2	Ecotourism development must be designed in such a way that ecotourism will have a low visitor impact upon a protected area's natural resources	World Conservation Union, 1996
Understanding	U3	Ecotourism can bring economic benefits to the community.	Cobbinah, 2015; Snyman, 2017; Zhong & Liu, 2017; de Grosbois& Fennell, 2021
Understanding	U4	Conservation of resources is required in ecotourism development	Cobbinah, 2015; de Grosbois& Fennell, 2021
Understanding	U5	Ecotourism also involves	Cobbinah, 2015; de

		preserving the local culture and heritage	Grosbois & Fennell, 2021
Understanding	U6	Sustainable practices are important in ecotourism	Whitelaw et al., 2014
Understanding	U7	I am familiar with the ecotourism initiatives currently in place in our community	N/A
Understanding	U8	Ecotourism is a different concept from traditional mass tourism	Liang et al. 2018
Understanding	U9	There are different stakeholders in ecotourism development, such as the local community members, various NGOs and even tourists	Swarbrooke & Horner, 2001
Understanding	U10	Ecotourism requires environmentally responsible behaviour	Chiu et al., 2014
Attitude	A1	Ecotourism activities help in livelihood	Mohanty et al., 2021
Attitude	A2	Ecotourism has created infrastructure development in the locality	
Attitude	A3	Ecotourism activities benefit the local people	
Attitude	A4	Ecotourism development enhances the economic condition of local people	
Attitude	A5	Ecotourism creates awareness about health, education, safety, sanitation, and hygiene	
Attitude	A6	Ecotourism activities help in empowering the local people	
Attitude	A7	Ecotourism practices help in conserving and protecting the wildlife and sanctuary	
Attitude	A8	Ecotourism benefits the government and tourism staff	
Attitude	A9	Ecotourism benefits the local people and tourists	
Attitude	A10	Ecotourism positively influences	

		the local people	
Satisfaction	S1	I am satisfied with the current ecotourism initiatives in our community	N/A
Satisfaction	S2	I feel that my opinions and suggestions are considered in ecotourism planning	
Satisfaction	S3	I am happy with the economic benefits brought by ecotourism	
Satisfaction	S4	I am satisfied with the efforts made to preserve our natural environment through ecotourism	
Satisfaction	S5	I feel that ecotourism has helped to promote our cultural heritage	
Satisfaction	S6	I am content with the level of community involvement in ecotourism projects	
Satisfaction	S7	I am satisfied with the support provided by the government for ecotourism	
Satisfaction	S8	I feel that ecotourism activities are well-managed and organized	
Satisfaction	S9	I believe that ecotourism has improved the infrastructure in our community	
Satisfaction	S10	Overall, I am satisfied with the impact of ecotourism on our community	

Source: Author

A total score was calculated for each aspect, with a maximum possible score of 30. To analyze the distribution of responses, Z-scores were calculated for each aspect. These Z-scores were then categorized into three groups based on percentiles: 33rd percentile or below (Low), 34th to 66th percentile (Moderate/Average) and above the 66th percentile (High). Finally, the understanding, attitude, and satisfaction of the local community were categorized as Low, Moderate/Average or High based on the percentile of their respective Z-scores (Table 3.11).

Table 3.11:
Classification of Scores

Aspect	Percentile	Raw Score	Z-Score	Level/Interpretation
Understanding	0 - 33rd	42 &Below	-0.24&Below	Low
	34th- 66th	43 – 46	-0.25 - 0.59	Moderate/Average
	67th- 100th	47 – 50	0.59&Above	High
Attitude	0 - 33rd	43 &Below	-0.24&Below	Low
	34th- 66th	44 – 49	-0.25 - 0.76	Moderate/Average
	67th- 100th	49 – 50	0.76 &Above	High
Satisfaction	0 - 33rd	42 &Below	-0.30&Below	Low
	34th- 66th	42 – 48	-0.31 - 0.71	Moderate/Average
	67th- 100th	48 – 50	0.71 &Above	High

Source: Author

Data Analysis and Screening

Microsoft Excel 2013 and IBM SPSS version 22 were used in for the analysis of the data. The responses from participants were initially entered into Microsoft Excel and subsequently transferred to SPSS for further analysis. Missing values were carefully checked and addressed to ensure the integrity of the dataset. Assumptions underlying the use of parametric statistics, such as normality of the data, were evaluated for continuous data to validate the appropriateness of the statistical methods used. Since the skewness and kurtosis values did not exceed ± 2 respectively for the data (Table 3.12), a univariate form of distribution can be assumed for the data(George & Mallery, 2010).

Table 3.12:
Skewness and Kurtosis of the Data

Variables	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Understanding	231	-1.26	0.16	1.71	0.32
Attitude	231	-1.19	0.16	0.84	0.32
Satisfaction	231	-0.84	0.16	0.00	0.32

Source: Author

Reliability Test

The internal consistency of the measures used was verified using Cronbach's Alpha. A value greater than 0.70 was considered indicative of adequate reliability. According to Nunnally (1978), a Cronbach's Alpha value above this threshold suggests that the research instruments have sufficient evidence to yield accurate and reliable results. The values of Cronbach's Alpha for each aspect are shown in the Table 3.13 and they fall above the recommended value, which means that the measures for each aspect are internally consistent.

Table 3.13:
Reliability Statistics

Variables	Cronbach's Alpha	No. of Items
Understanding	0.90	10
Attitude	0.92	10
Satisfaction	0.91	10

Source: Author

3.5.4 Methodology for Objective 4:

To evaluate the destination attributes in the perspective of both tourists and destination community

To assess the destination attributes from the perspectives of both tourists and the destination community, a structured questionnaire was specifically designed for this study. Both tourist and local community samples were asked to evaluate various aspects of the destination attributes of the Mamit area. Participants rated these attributes on a scale from 1 ('Very Poor') to 5 ('Excellent'), with 1 indicating a very negative perspective and 5 indicating a very positive perspective. This rating scale was designed in a way to allow for a more detailed understanding of how both tourists and local residents perceive different characteristics of the destination, such as natural beauty, infrastructure, cultural significance, hospitality and overall satisfaction. The list of the attributes and their descriptions are given in Table 3.14.

Table 3.14:
List of Attributes

Attribute	Description
1. Natural/Wildlife Attractions	The primary draw for ecotourists, these are the core resources.
2. Eco-Friendly Facilities	Facilities that minimize the environmental impact of tourism operations.
3. Environment Conservation Increase	Measures taken to protect and enhance the environment.
4. Environment Conservation Enhancement	Active efforts to improve environmental conditions.
5. Economic Benefits Increase	Positive economic impact on the local community.
6. Professional Tour Guides	Trained guides who provide informative and responsible tours.
7. Local Coordination	Collaboration with local communities for sustainable tourism development.
8. Toilets	Essential for sanitation and hygiene, especially in remote areas.
9. Dustbins	Proper waste management is crucial for preserving the environment.
10. Laybys	Designated stopping points for vehicles, important for safety and traffic management.
11. Footpaths	Controlled access to sensitive areas, preventing damage to ecosystems.
12. Railings	Safety measures, particularly in areas with elevation changes or hazards.
13. Interpretation Boards	Educational signage that enhances visitor understanding and appreciation.
14. Signboards	Directional and informational signs for visitor guidance.
15. Drinking Water	Essential for visitor comfort and safety.
16. Drainage Systems	Prevent waterlogging and erosion, protecting the environment.
17. Safety Facilities	Ensure visitor safety and security.
18. Scenery	The visual appeal of the natural environment contributes significantly to the ecotourism experience.

19. Family-Friendly Facilities	Amenities that cater to different visitor groups.
20. Eating Places	Catering to visitor needs while minimizing environmental impact.
21. Tourist Information Centre	Provides essential information to visitors, promoting responsible tourism.
22. Accommodation	Provides lodging options that respect the local environment.
23. Activities/Things to Do	Diverse offerings to engage visitors and enhance the experience.
24. Accessibility	Ensuring that ecotourism opportunities are available to a wide range of people.
25. Transportation	Sustainable transportation options for accessing the destination.
26. Maintenance for Eco-Tourism	Ongoing upkeep of facilities and infrastructure to ensure sustainability.

Source: Author

In this study, *a between-subjects design* was employed to evaluate the destination attributes from the perspectives of both tourists and the destination community. This design involved two distinct groups of participants: tourists visiting the Mamit area and local residents living within the community. Each group was asked to evaluate various destination attributes through a structured questionnaire, providing ratings on a scale from 1 to 5 with 1 indicating a very negative perspective and 5 indicating a very positive perspective. The data collected was cross-sectional in nature, which means that all data was gathered at a single point in time, rather than over a prolonged period.

Sampling Unit, Sample Size, and Sampling method

Samples from the previous objective, which focused on local community members were reused in this study to maintain continuity and build upon the existing data set. In addition to these local community members, this section of the study incorporated a new sample group comprising tourists visiting various towns and villages within the Mamit district.

Samples from the previous objective, which focused on local community members were reused in this study, including 231 local residents. In addition to these local community members, this section of the study incorporated a new sample group of 170 tourists visiting the study area.

A convenience sampling technique was used to gather data from participants who are local community members in the study area. This technique was also applied to tourist samples who were staying in various accommodation units within the study area.

Methods of Data Collection

The data was collected by distributing structured questionnaires from 231 local community and 170 tourists. The questionnaire contained two sections a demographic section, and a section containing questions related to the study's objectives. The collected data was then systematically organized, tabulated, and analyzed.

Data Analysis and Screening

Microsoft Excel 2013 and IBM SPSS version 22 were used to analyze the data. The responses from participants were initially entered into Microsoft Excel and then transferred to SPSS for further analysis. Missing values were carefully checked and addressed to ensure data set integrity. Since the destination attributes were evaluated using ordinal scales which rank items in order but do not measure the exact differences between them, non-parametric statistics were deemed appropriate for analyzing these 26 items. Non-parametric methods are well-suited for ordinal data as they do not assume a normal distribution and can handle the ranking nature of the data effectively and since they provide robust analysis for the ordinal scales and allow for accurate interpretation of the participants' evaluations of destination attributes without requiring interval or ratio-level data.

Also, assumptions for parametric statistics such as data normality were evaluated for the overall rating to validate the statistical methods used. Since the skewness and kurtosis values did not exceed ±2 respectively for the data (Table 3.15), a univariate

form of distribution can be assumed for the Overall Rating data (George & Mallery, 2010).

Table 3.15:
Skewness and Kurtosis of the Overall Rating of the Destination Attributes for Local Community and Tourist Samples

Sample Category	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Local Community	231	0.02	0.16	-1.49	0.32
Tourist	170	0.51	0.19	-0.05	0.37

Source: Author

Reliability Test

The internal consistency of the measures used was assessed using Cronbach's Alpha, with a threshold of 0.70 considered indicative of adequate reliability. As noted by Nunnally (1978), a Cronbach's Alpha value exceeding this threshold signifies that the research instruments possess sufficient dependability to produce accurate and reliable results. For local community members, the alpha value exceeded the recommended threshold, indicating that the measures for each attribute are internally consistent. However, there was a need to enhance the reliability of the measures for tourist samples, for which specific items were removed from the list of attributes in the reliability analysis. The items deleted were Footpaths (11), Railings (12), Interpretation Boards (13), Safety Facilities (17), and Family-Friendly Facilities (19). After these adjustments, it is anticipated that the Cronbach's Alpha value for tourist samples will improve, potentially meeting or exceeding the recommended threshold of 0.70. The Cronbach's Alpha values for both local communities and tourists after the removal of these items/attributes are given in Table 3.16., while the final list of the attributes are listed in Table 3.17.

Table 3.16:

Reliability Statistics

Sample Category	Cronbach's Alpha	No. of Items
Local Community Members	0.88	21
Tourist	0.71	

Source: Author

Table 3.17:

Final List of Attributes

Attribute	Description
1. Natural/Wildlife Attractions	The primary draw for ecotourists, these are the core resources.
2. Eco-Friendly Facilities	Facilities that minimize the environmental impact of tourism operations.
3. Environment Conservation Increase	Measures taken to protect and enhance the environment.
4. Environment Conservation Enhancement	Active efforts to improve environmental conditions.
5. Economic Benefits Increase	Positive economic impact on the local community.
6. Professional Tour Guides	Trained guides who provide informative and responsible tours.
7. Local Coordination	Collaboration with local communities for sustainable tourism development.
8. Toilets	Essential for sanitation and hygiene, especially in remote areas.
9. Dustbins	Proper waste management is crucial for preserving the environment.
10. Laybys	Designated stopping points for vehicles, important for safety and traffic management.
14. Signboards	Directional and informational signs for visitor guidance.
15. Drinking Water	Essential for visitor comfort and safety.
16. Drainage Systems	Prevent waterlogging and erosion, protecting the environment.
18. Scenery	The visual appeal of the natural environment contributes significantly to the ecotourism experience.

20. Eating Places	Catering to visitor needs while minimizing environmental impact.
21. Tourist Information Centre	Provides essential information to visitors, promoting responsible tourism.
22. Accommodation	Provides lodging options that respect the local environment.
23. Activities/Things to Do	Diverse offerings to engage visitors and enhance the experience.
24. Accessibility	Ensuring that ecotourism opportunities are available to a wide range of people.
25. Transportation	Sustainable transportation options for accessing the destination.
26. Maintenance for Eco-Tourism	Ongoing upkeep of facilities and infrastructure to ensure sustainability.

Source: Author

3.5.5 Methodology for Objective 5:

To conduct a situational analysis of community-based ecotourism development and related infrastructure development in the study area.

In order to conduct a situational analysis of community-based ecotourism development and related infrastructure development in the study area, SWOT analysis was used for the study, augmented by the application of Principal Component Analysis (PCA). The initial phase was on identifying the core elements of SWOT (Strengths, Weaknesses, Opportunities and Threats). The Key indicators were extracted from a comprehensive literature review, brainstorming and drawing on ideas from the researcher's practical experience in the field. Following this, a structured questionnaire was designed and administered to a diverse group of stakeholders, including local community members, tourism operators and community leaders as well as tourists. The collected data was then subjected to PCA to effectively reduce the data into manageable components. Factor loadings and screen plots were examined to reveal the underlying between the SWOT indicators to understand the key factors driving community-based ecotourism development in Mamit District. The key SWOT indicators are given in Table 3.18.

Table 3.18:
SWOT Indicators Included in the Study

SWOT Aspect	SWOT Variables	Descriptions
Strengths	Cultural Richness	Mamit has a rich cultural heritage which can provide tourists with authentic cultural experiences.
	Natural Beauty	Mamit district is endowed with breathtaking natural landscapes, including lush forests, scenic waterfalls, and diverse flora and fauna.
	Community Engagement	Active participation and responsible ownership by local communities
	Sustainable Practices	The people are interested in conservation of natural resources and preservation of cultural heritage for future generations.
	Government Support	There is favourable government support and policies promoting ecotourism development.
Weaknesses	Infrastructure Limitations	Inadequate infrastructure such as roads, accommodation facilities, and tourist amenities may hinder the growth of ecotourism in Mamit.
	Limited Awareness	Lack of awareness among tourists about the existence and offerings of CBET initiatives in Mamit may result in low visitation rates.
	Skills Gap	Some community members may lack the necessary skills and training to effectively manage and operate ecotourism ventures, impacting.
	Seasonal Dependency	Ecotourism activities in Mamit may be seasonal, leading to lack of consistency in tourist arrivals and economic benefits for the community.
	Competitive Landscape	Mamit faces competition from neighboring regions and established tourist destinations, requiring innovative marketing strategies to attract visitors.
	Diversification of Offerings	Expanding the range of ecotourism activities to include adventure sports, cultural festivals, and homestay experiences to attract a diverse range of tourists.

Opportunities	Collaborative Partnerships	Forming partnerships with NGOs, educational institutions, and private sector stakeholders to enhance the capacity-building efforts and financial sustainability of CBET initiatives.
	Infrastructure Development	Investing in infrastructure development projects such as road improvements and eco-friendly accommodation facilities can enhance the overall tourism experience and attract more visitors.
	Promotion of Sustainable Practices	Highlighting Mamit's commitment to sustainability and responsible tourism practices can appeal to eco-conscious travelers seeking authentic and ethical travel experiences.
	Cultural Exchanges	Facilitating cultural exchange programs and community-based tourism events can foster cross-cultural understanding and promote socio-economic development in Mamit.
Threats	Environmental Degradation	Unsustainable tourism practices and overexploitation of natural resources can lead to environmental degradation and loss of biodiversity.
	Natural Disasters	The region is prone to natural disasters such as floods and landslides, which can disrupt tourism activities and infrastructure.
	Political Instability	Political unrest or conflicts in the region can deter tourists and investors.
	Changing Consumer Preferences	Shifting consumer preferences towards mass tourism destinations or urban-centric experiences may reduce the demand for ecotourism offerings in Mamit.
	Regulatory Challenges	Regulatory hurdles and bureaucratic red tape may impede the implementation of CBET initiatives and discourage investment in the tourism sector.

Source: Author

The methodology for assessing the SWOT (Strengths, Weaknesses, Opportunities and Threats) of community-based ecotourism development involved a structured approach. The process began with the identification of SWOT variables

followed by data collection from key stakeholders and concluded with Principal Component Analysis (PCA) to group and reduce these variables.

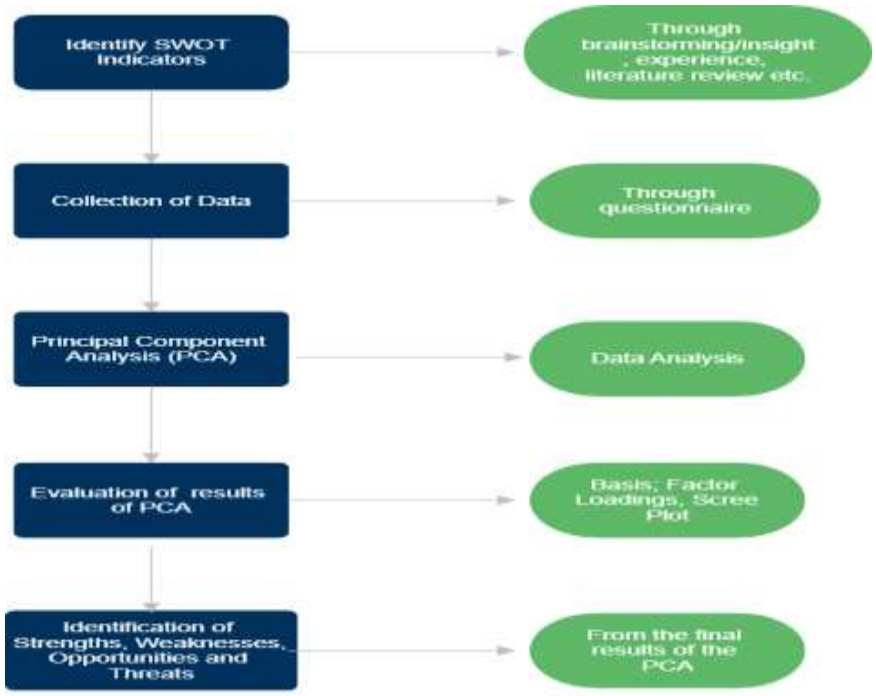
Sampling & Data Collection

Hair et al. (1995) recommended that a sample size of at least 100 is required for exploratory factor analysis. The study engaged a total of 181 key stakeholders from Mamit District including operators, community members, village/local council members and tourists.

Convenience sampling was utilized to gather data from key stakeholders. This method was effective in reaching individuals directly involved in or knowledgeable about the community-based ecotourism sector.

Data was collected through a structured questionnaire designed to identify SWOT variables related to community-based ecotourism development. The responses were systematically organized, tabulated and analyzed to extract meaningful information.

Figure 3.5: Methodology for Situational Analysis Using SWOT Analysis & PCA



Source: Author

Data Analysis and Screening

The analysis involved PCA to reduce and group the SWOT variables into meaningful structures. The results was used to identify and categorise the core strengths, weaknesses, opportunities and threats associated with community-based ecotourism development. A reliability analysis was conducted prior to PCA, yielding a Cronbach's Alpha (α) value of 0.94. This value exceeds the recommended minimum of 0.70 (Nunnally, 1978), indicating strong internal consistency and reliability of the survey instrument.

The suitability of the data for PCA was assessed using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. The KMO value of 0.92 suggests adequate sample size. Bartlett's Test yielded a chi-square value of 2076.71 with 190 degrees of freedom and a p-value of .000, indicating the appropriateness of the conduct PCA (see Table 3.19).

Table 3.19:

Results of the Reliability, KMO and Bartlett's Test

Measure	Value
Cronbach's Alpha	0.94
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.92
Bartlett's Test of Sphericity	Approx. Chi-Square: 2076.71, df: 190, Sig. = .000

Source: Author

This chapter described the research methodology, including the processes of data collection, participant selection, and case study locations for each objective. A combination of qualitative and quantitative methods was used to examine community-based ecotourism development. With the methodological framework in place, the next step is to analyze the collected data. This will involve organizing and refining the information to maintain accuracy, followed by the analyses to uncover key patterns, themes and relationships. The application of suitable qualitative and quantitative techniques is particularly useful since the research aims to generate valuable insights into tourism development in the selected areas. These findings will serve as a basis for discussions and recommendations in the preceding chapters.

CHAPTER – 4

DATA ANALYSIS AND INTERPRETATION

CHAPTER 4
DATA ANALYSIS AND INTERPRETATION

This chapter explores in-depth analysis and interpretation of the data collected for each individual research objective. They are presented and explained as follows:

4.1 Objective 1: To investigate the status and Potential of tourism development in Mizoram including in the study area

To investigate the status and potential of tourism development in Mizoram, with a specific focus on Mamit district, the study was conducted in two phases: semi-structured interviews with key stakeholders and a detailed case study of the district focusing on the villages of Ailawng and Reiek as the sites of investigation.

The aim of the semi-structured interview was to understand the current situation, identify the main issues, and explore the possibilities for future tourism development, helping to highlight what improvements are needed. The parameters for the interviews were drawn to gather a wide range of opinions about the current status and future prospects of tourism development in Mizoram. The questions were designed to cover such as the role of different tourism stakeholders, the challenges they face, and the possible scope for growth.

The profile of the interviewees involved in the study on tourism development in Mizoram can be seen from Table 4.1. The interviewees included government officials, community leaders (village council heads and a leader of the Young Mizo Association (YMA)), tourism operators, business owners, and community members.

Table 4.1:
Profile of the Interviewees

Stakeholder Group	Role/Position	Details	N
Government Officials	Officials in relevant tourism departments	Includes officials from local and regional tourism departments.	3
Community Leaders	Local leaders and influencers	Includes village heads and prominent community member, such as Village Council Members and Young Mizo Association (YMA) Leaders	3
Tourism Operators	Owners and managers of tourism businesses	Includes operators of hotels, tour agencies, and other tourism-related businesses.	3
Business Owners	Owners of local businesses impacted by tourism	Includes owners of local shops and restaurants.	3
Community Members	Local residents	Includes a mix of local residents and individuals actively engaged with tourism activities.	3

Source- Author

The questions that were asked in the semi-structured interviews are shown in Table 4.2. These questions were asked for specific purposes in the assessment of the status and potential of tourism development within the study area. For example, the question, “What is your role in tourism development in Mizoram?” was asked to find out what each person’s job or contribution was in the tourism sector, and the second question, “How would you describe the current status of tourism in your area?” was asked to understand how tourism is currently doing from the point of view of the locals.

Table 4.2:
Questions Asked in the Semi-Structured Interviews

Question	Purpose
1. What is your role in tourism development in Mizoram?	To identify the specific roles and contributions of different stakeholders in tourism development.
2. How would you describe the current status of tourism in your area?	To understand the current state of tourism from the perspective of local stakeholders.
3. What are the main challenges you face in promoting tourism?	To identify the key obstacles and challenges hindering tourism growth in the area.
4. How is the local community involved in tourism activities?	To assess the level and nature of community involvement in tourism-related activities.
5. What impact has tourism had on the environment and local culture?	To explore the effects of tourism on the environment and local cultural practices.
6. What are your thoughts on the government's support for tourism development?	To evaluate stakeholder perceptions of government involvement and support for tourism.
7. What do you believe is the potential for future tourism development in Mizoram?	To gather insights on the perceived opportunities and potential for future tourism growth.
8. How has tourism affected the local economy?	To understand the economic impact of tourism on local businesses and livelihoods.
9. What improvements do you think are needed to enhance tourism in your area?	To identify suggested improvements and actions needed to boost tourism in the study area.

Source- Author

Note: Responses are open-ended narrative responses

The transcription process involved the researcher writing down the interview responses during the sessions. As the interviewees answered the questions, the researcher carefully took notes, making sure to capture the main points and important details. After each interview, the notes were reviewed to check for accuracy and to make sure nothing was missed. This helped ensure that all the information was properly recorded for later analysis.

To analyze the information collected from the interviews, thematic analysis was performed. During the thematic analysis of the interviews conducted in the study

area, several key themes were identified regarding the status and potential of tourism development in the area. These themes concern the current challenges, opportunities, and involvement of the community in tourism activities. Below is a summary of the main themes identified in Table 4.3.

Table 4.3:
Themes and Subthemes on the Status and Potential of Tourism Development in Mamit district

Themes	Subthemes	Description	Examples from Stakeholder Responses
Infrastructure Deficiencies	Poor Road Conditions	Roads in the study are in poor condition, hindering access for tourists and affecting overall visitor experience.	*"Infrastructure issues, roads, communication, lack of trained staff."*
	Lack of Tourism Facilities	There is a need for more accommodation, eateries, and recreational facilities to cater to tourists.	*"Growing, early stages, needs promotion, better facilities."*
	Communication Barriers	Limited internet and phone connectivity make it difficult for tourists to navigate and enjoy their visit.	*"Infrastructure issues, roads, communication..."*
Community Involvement	High Community Engagement	Local communities are increasingly involved in tourism activities like homestays and cultural events.	*"High involvement, homestays, cultural events."*
	Need for Skill Development	Community members require training to enhance their hospitality and service skills to improve tourist interactions.	*"Lack of awareness, skills, interaction with tourists."*
Economic Impact	Income Opportunities	Tourism has created new income opportunities for local residents through small businesses, guiding, and selling local products.	*"New income opportunities, small businesses, guides."*

	Challenges for Small Businesses	Small businesses face competition from larger, government-run outlets and lack effective marketing strategies.	*"Competition from government sale outlets and District Handloom... price-sensitive customers."*
Environmental Concerns	Sustainable Tourism	Focus on preserving the environment while developing tourism, ensuring minimal impact on natural and cultural heritage.	*"Minimal impact so far, focus on sustainability."*
	Impact of Tourist Activity	Tourist activities have both positive and negative impacts on local ecosystems which will be requiring careful management.	*"Visible environmental impacts at tourism sites."*
Seasonality Challenges	Fluctuating Tourist Numbers	Tourist activity in the study area is highly seasonal, with significant drops in visitors during certain seasons.	*"Significant drops in tourist activity during the middle of the year."*
	Need for Year-Round Activities	There is a need to develop year-round attractions to maintain a steady flow of tourists throughout the year.	*"Needs better facilities, activities."*
Government Support	Inconsistent Support	Government support is present but often slow, with bureaucratic delays affecting the execution of tourism development projects.	*"Supportive, but slow, needs immediate support."*
	Need for Better Funding	Stakeholders call for increased funding and faster execution of government plans to enhance tourism infrastructure.	*"Supportive, needs more funding, faster execution."*
Marketing and Promotion	Lack of Marketing Strategy	There is an urgent need for better marketing and promotional strategies to attract more tourists to the study area.	*"Better marketing, more local training."*

	Leveraging Digital Platforms	Utilizing social media and online platforms can help promote the region as a tourist destination and reach a wider audience.	*"We have social media as a platform of promoting our products currently."*
Potential for Future Development	Untapped Natural and Cultural Potential	The study area has vast natural beauty and unique cultural elements that, if properly developed, can significantly boost tourism.	*"High potential, natural beauty, unique culture, investment needed."*
	Eco-Tourism Opportunities	Eco-tourism offers significant potential, highlighting the area's unique landscapes and promoting sustainable travel.	*"Tourism can generate a lot of employment for our people here... eco-tourism."*
	Cultural Tourism	The region's rich cultural heritage can be taken advantage of to create immersive tourism experiences, such as cultural festivals and traditional craft showcases.	*"Organize cultural events... preserving our culture and heritage."*

Source- Author

Case Studies- Reiek village and Ailawng village

To gain a detailed information on the status and potential of tourism development in Mizoram, particularly in the study area, two case studies were conducted. These studies focused on Reiek village and Ailawng village as the chosen sites within Mamit district.

The background information of the two villages can be seen from Table 4.4.

Table 4.4:
Background Profile of Reiek and Ailawng

Aspect	Reiek	Ailawng
Location from the State Capital (i.e., Aizawl)	30 km west of Aizawl at the base of Reiek Mountain	Located 27 km from Aizawl in Reiek Block of Mamit District
Population (as per 2011 census)	1627 (786 males, 841 females)	611 people (303 males, 308 females)
Major Community	Mizo	Mizo
Key Attractions	Reiek Mountain, traditional Mizo huts, eco-adventure tourism	KhuangcheraPuk (cave), scenic hills, flora and fauna
Main Economic Activity	Tourism and agriculture (turmeric farming)	Agriculture (87.50% engaged), ecotourism
Cultural Significance	Hosts the Anthurium Festival and Adventure Festivals	Known for KhuangcheraPuk, named after Khuangchera, one of the most famous folk heroes in Mizo history
Tourism Infrastructure	Tourist resort, adventure park, homestays, convention center, trekking	Cable footbridge, cafes, watchtowers, homestays, trekking routes
Organisations	Reiek Tourism Development Board with village councils and NGOs	Ailawng Village Ecotourism Development Society (AVEDSOC)

Source- Author

From the study, several key findings were made, which are given in Table 4.5.

Table 4.5:
Findings from the Case Studies

Aspect	**Reiek**	**Ailawng**
Tourism Development Status	It is an established tourist destination with a range of developed infrastructures such as the Reiek Tourist Resort, Adventure Theme Park, Convention Center, and traditional Mizo village setups. The village hosts the annual Anthurium Festival, which significantly boosts tourist footfall and promotes cultural exchange.	It is an emerging ecotourism destination with significant community involvement. The Ailawng Village Ecotourism Development Society (AVEDSOC) actively promotes tourism by building tourism infrastructure such as homestays, trekking routes, and watchtowers. The village focuses on eco-tourism to enhance local livelihoods.

Key Tourism Activities	It offers a variety of activities such as trekking on Reiek Mountain, eco-adventure sports (e.g., zip lines, mountain biking trails), cultural experiences at the typical Mizo village, and events like the Adventure Festival. These activities attract adventure enthusiasts and those interested in Mizo culture.	The key activities include trekking and camping on Ailawng Tlang, exploring Khuangchera Puk (a cave with historical significance maintained by the Young Mizo Association) and Leisang Kurung (a natural gorge), and engaging in cultural experiences such as local dances and cuisine. The village also offers guided nature walks showcasing local flora and fauna.
Community Involvement	The Reiek Tourism Development Board, which includes members from the Village Council, Young Mizo Association, and other NGOs, actively manages tourism development. The board organizes events, promotes environmental sustainability, and ensures community benefits from tourism activities.	In Ailawng, AVEDSOC manages tourism activities, ensuring that tourism development aligns with community interests. The society involves local residents in tourism operations, such as running homestays, guiding tours, and maintaining tourist sites. This community-based approach enhances local ownership and benefits from tourism.
Environmental Sustainability	The village emphasizes environmental sustainability through initiatives like anti-plastic campaigns, tree planting drives, and regular village clean-ups. The community also participates in conserving natural and cultural resources by maintaining the pristine condition of Reiek Peak and surrounding areas.	The village focuses on conserving its natural environment through community-driven initiatives. AVEDSOC leads projects such as maintaining trekking routes, promoting eco-friendly tourism practices, and protecting local wildlife habitats. The village's commitment to sustainability is evident in its careful management of natural resources.
Social Inclusion and Equity	It promotes social inclusion by training young locals to offer services such as guiding trekking and operating adventure equipment. Women in the village manage homestays, eateries, and vendor stalls, promoting	The community-based tourism model includes various social groups, ensuring broad participation in tourism benefits. Local residents, including women, are employed in tourism-related activities such as managing homestays

	gender equality and financial independence. During the Anthurium Festival, women dominate the business activities.	and acting as guides, which helps to enhance community income and ensure equitable distribution of benefits.
Economic Impact	Tourism is a major economic driver in the region, supporting local enterprises such as artisan markets and traditional craft stalls. The Reiek Tourism Board collaborates with the State Government to enhance local livelihoods through tourism, creating jobs and fostering entrepreneurship in the community.	Ailawng's economy is primarily agrarian, but ecotourism is emerging as a significant contributor. The development of homestays, guided tours, and other tourism-related services has created additional income opportunities for residents. These activities are designed to be sustainable and provide long-term economic benefits.
Challenges	Limited Healthcare Facilities: It only has a sub-center and a Primary Health Center, which poses challenges during medical emergencies. Residents and tourists must travel 30 km to Aizawl for more comprehensive healthcare services.	Low Visitor Numbers: Despite its potential, it has a lower number of visitors compared to other regions. This could be due to limited promotion and awareness.
	Water Supply Issues: The village relies heavily on rainwater harvesting, which can be unreliable due to changing weather patterns.	Infrastructure Needs: There is a need for better infrastructure and facilities to support growing tourism activities, such as additional homestays, eateries, and improved transport links (Case study Ailawng).
Potential for Future Development	High Potential for Expansion: Reiek has the potential to further develop its eco-tourism, adventure tourism, and cultural tourism sectors. The introduction of more adventure activities and cultural experiences, as well as improved marketing strategies, could attract more visitors.	Emerging Destination: Ailawng has significant potential for growth in community-based ecotourism due to its natural beauty and cultural heritage. Projects like the construction of trekking routes, homestays, and orchid parks, initiated by the Ailawng Village Ecotourism Development Society (AVEDSOC), show a strong foundation for future tourism development. More investment
	Community Engagement: There is a strong community	

	involvement, which can be leveraged for sustainable tourism development.	in marketing and infrastructure could boost its tourism sector.
Examples of Tourism Initiatives	Anthurium Festival: An annual event that draws numerous tourists to the village, showcasing local culture and natural beauty. It has become one of the most popular festivals in Mizoram, enhancing the village's profile as a top tourist destination.	Community-Led Projects: The Ailawng Village Ecotourism Development Society has implemented various projects, such as a cable footbridge, cafes, watchtowers, and a trekking route. These initiatives are aimed at promoting the village as an ecotourism hub while providing employment opportunities for locals(Case study Ailawng).
	Adventure Sports and Homestays: The village offers trekking, zip lines, mountain biking, and authentic Mizo homestays, providing diverse tourism experiences.	Khuangchera Puk (Cave): This attraction is maintained by the Young Mizo Association and is popular for adventure activities.

Source- Author

Complementary Visual Observations of the Case Study in Reiek village and Ailawng village

The purpose of the visual observations conducted in Reiek and Ailawng village is to complement the findings from interviews and other qualitative data by providing a direct assessment of the physical and environmental conditions of key tourist sites within these villages. These observations aim to capture the current state of infrastructure, community involvement, natural attractions, and the overall visitor experience by visually documenting the on-ground realities to provide tangible evidence to support the themes identified in the analysis.

Local women, particularly members of the Mizo Hmeichhe Insuihkhawm Pawl (MHIP), the largest women's organization in Mizoram, play a significant role in the tourism sector in the region. As depicted in Image 4.1, a member of the MHIP is seen on duty at the foothill entrance of Ailawng Peak, with her performing her duties, including assisting visitors, managing ticketing, and ensuring that the site remains welcoming and safe for tourists.

Image 4.1: A MHIP Member on Duty at the Foothill Entrance of Ailawng Peak

*Sourc*e: Author

Mamit district is known for its natural architectural features, which draw visitors seeking to explore its rugged landscapes and remarkable geological formations. For example, Leisang Kurung, literally translatable as 'High Bridge Gorge,' at Ailawng is characterized by its deep, narrow canyon walls that create a striking natural bridge formation (Image 4.2). Another notable site within Ailawng is Thawmpawnga Puk, depicted in Image 4.3, named after the grandson of a Sailo Chief, is steeped in local folklore and history, and is a historically important destination for both tourists and locals.

Image 4.2: Leisang Kurung

Image 4.3: Thawmpawnga Puk

Sources: Author

Local community members have recognized the importance of enhancing visitor experiences beyond merely visually enjoying the area's natural landscapes. The community's awareness stems from the understanding that while Ailawng's natural landscapes are a key draw, they need to offer more interactive and accessible attractions to cater to diverse visitor interests. This has led to innovative efforts that provide unique experiences, allowing tourists to connect with the environment in ways that go beyond passive sightseeing. One notable example of such efforts is the construction of a cable footbridge along the vales of Ailawng, as shown in Image 4.4. This footbridge serves not only as a practical means of crossing difficult terrain but also allows tourists to enjoy panoramic views of the surrounding valleys.

Image 4.4: Cable Foot Bridge at Ailawng

Source: Author

Local communities are not only actively enhancing visitor experiences but are also deeply aware of the need for maintaining the environment and promoting responsible

tourism practices. One of the proactive measures taken by the community is the installation of signages across key tourist sites, as shown in Image 4.5. These signs serve as reminders for tourists to act responsibly, highlighting the importance of avoiding littering and refraining from starting fires irresponsibly. The signages show that community is aware that that maintenance of the area is not solely their responsibility but a collaborative effort that includes encouraging responsible behavior from tourists. This further shows that the community are knowledgeable enough to foster a culture of respect towards the natural environment in order to ensure that tourism development does not come at the cost of environmental degradation.

Image 4.5: Signages Across Designated Key Tourism Sites

Source: Author

4.2 Objective 2: To assess the Functions and Performance of Existing Community-Driven Tourism Development Society

The demographic profile of the participants shown in Table 4.6 reveals that the majority (49.2%) fall within the 31-35 age group, followed by 23.3% in the 26-30

age group, and 20.0% in the 36-40 age group. The gender distribution is fairly balanced, with 51.3% male and 48.8% female participants. In terms of village distribution, the highest number of participants come from Mamit (20.4%), followed by Kanghmun (15.8%), West Phaileng (14.6%), and Tlabung (14.2%). Smaller proportions of the sample are from Reiek (12.9%), Lengpui (12.1%), and Ailawng (10.0%).

Table 4.6:
Demographic Profile of the Participants

Demographic Variable	Category	N	%
Age	18-25	18	7.5
	26-30	56	23.3
	31-35	118	49.2
	36-40	48	20.0
Gender	Female	117	48.8
	Male	123	51.3
Village	West Phaileng	35	14.6
	Kanghmun	38	15.8
	Ailawng	24	10.0
	Mamit	49	20.4
	Reiek	31	12.9
	Tlabung	34	14.2
	Lengpui	29	12.1

Source- Author

The responses of the participants regarding the performance and function of their community-driven tourism development society across various indicators can be seen in Table 4.7.

Table 4.7:
Responses of the Participants on the Indicators of the Performance and Functions of Community-Based Ecotourism Development

Indicator	Very Low		Low		Moderate		High		Very High	
	N	%	N	%	N	%	N	%	N	%
Info_1	4	1.67	10	4.17	40	16.67	67	27.92	119	49.58
Info_2	1	0.42	8	3.33	21	8.75	73	30.42	137	57.08
Info_3	0	0.00	6	2.50	30	12.50	79	32.92	125	52.08
Info_4	2	0.83	5	2.08	34	14.17	84	35.00	115	47.92
Motiv_1	2	0.83	3	1.25	36	15.00	73	30.42	126	52.50
Motiv_2	1	0.42	6	2.50	24	10.00	62	25.83	147	61.25
Motiv_3	2	0.83	4	1.67	17	7.08	45	18.75	172	71.67
Motiv_4	0	0.00	10	4.17	38	15.83	86	35.83	106	44.17
Env_1	2	0.83	9	3.75	36	15.00	83	34.58	110	45.83
Env_2	1	0.42	6	2.50	21	8.75	69	28.75	143	59.58
Env_3	2	0.83	5	2.08	25	10.42	70	29.17	138	57.50
Env_4	0	0.00	1	0.42	20	8.33	59	24.58	160	66.67
Soc_1	0	0.00	7	2.92	43	17.92	79	32.92	111	46.25
Soc_2	0	0.00	7	2.92	15	6.25	49	20.42	169	70.42
Soc_3	1	0.42	3	1.25	22	9.17	61	25.42	153	63.75
Soc_4	0	0.00	5	2.08	22	9.17	68	28.33	145	60.42
Econ_1	3	1.25	5	2.08	43	17.92	61	25.42	128	53.33
Econ_2	1	0.42	5	2.08	26	10.83	61	25.42	147	61.25
Econ_3	1	0.42	2	0.83	22	9.17	59	24.58	156	65.00
Econ_4	2	0.83	3	1.25	25	10.42	71	29.58	139	57.92

Source- Author

Informedness Indicators:

- Providing clear information about community-based ecotourism initiatives (Info_1): A significant portion of participants, 49.58%, rated their community's performance as Very High. High Performance was noted by 27.92%, while only a small percentage rated it as Very Low or Low. This suggests that the community is well-informed about ecotourism initiatives.

- Keeping community members updated about ecotourism activities and projects (Info_2): Even stronger results were seen here, with 57.08% of participants indicating Very High Performance and 30.42% noting High Performance. This reflects a robust communication system keeping members well-informed.

- Ensuring that community members understand the goals and benefits of ecotourism (Info_3): Performance was positive, with 52.08% rating Very High and 32.92% indicating High Performance. This shows that most community members have a good understanding of the goals and benefits of ecotourism.

- Communicating effectively about how ecotourism affects the local environment and community (Info_4): This was also rated positively, with 47.92% marking Very High Performance and 35.00% rating it High, indicating effective communication on ecotourism impacts.

Motivation Indicators:

- Encouraging community members to participate in ecotourism activities (Motiv_1): This indicator had 52.50% of participants rating Very High Performance and 30.42% High, showing strong encouragement for participation.

- Supporting active involvement in ecotourism projects within the community (Motiv_2): An impressive 61.25% of responses indicated Very High Performance, with 25.83% noting High Performance. This highlights effective support for community involvement in ecotourism projects.

- Promoting enthusiasm for ecotourism initiatives that benefit the environment and community (Motiv_3): A strong 71.67% rated Very High Performance, the highest among all Motivation indicators, indicating a high level of enthusiasm for ecotourism initiatives.

- Maintaining the interest and participation of community members in ecotourism activities (Motiv_4): This had 44.17% rating Very High and 35.83% rating High Performance, demonstrating sustained interest and participation.

Environmental Sustainability Indicators (Conservation, Preservation, Promotion):

- Working to protect local wildlife and natural habitats through ecotourism (Env_1): This was rated positively, with 45.83% of participants indicating Very High Performance and 34.58% rating High. This reflects strong conservation efforts.

- Preserving natural resources and promoting environmental sustainability (Env_2): The Very High response was 59.58%, with 28.75% indicating High Performance. This suggests effective preservation and promotion of environmental sustainability.

- Effectively promoting and showcasing the unique features of the destination (Env_3): Performance was strong, with 57.50% of participants rating Very High and 29.17% rating High, highlighting successful promotion of the destination's unique features.

- Improving the protection and preservation of the environment through ecotourism (Env_4): This indicator had the highest positive rating, with 66.67% marking Very High and 24.58% High, demonstrating significant efforts in environmental protection.

Social Sustainability Indicators:

- Strengthening community relationships and cooperation through ecotourism activities (Soc_1): 46.25% rated Very High and 32.92% rated High Performance, indicating strong social cohesion fostered by ecotourism.

- Preserving and promoting local culture and traditions through ecotourism (Soc_2): 70.42% of participants perceived Very High Performance, reflecting a significant cultural impact.

- Enhancing social services, infrastructure, and overall community well-being (Soc_3): Performance was rated positively, with 63.75% indicating Very High Performance, showing that ecotourism has enhanced social well-being.

- Encouraging a sense of responsibility and active participation among community members (Soc_4): This was rated High to Very High by 60.42%, reflecting a strong sense of community responsibility and engagement.

Economic Sustainability Indicators:

- Contributing to the economic improvement of community members through ecotourism (Econ_1): Performance was rated Very High by 53.33% and High by 25.42%, indicating positive economic contributions.

- Helping local businesses grow as a result of ecotourism activities (Econ_2): 61.25% rated Very High and 25.42% rated High, reflecting strong support for local business growth.

- Creating job opportunities and improving employment prospects in the community (Econ_3): Performance was rated Very High by 65.00%, indicating a positive impact on job creation.

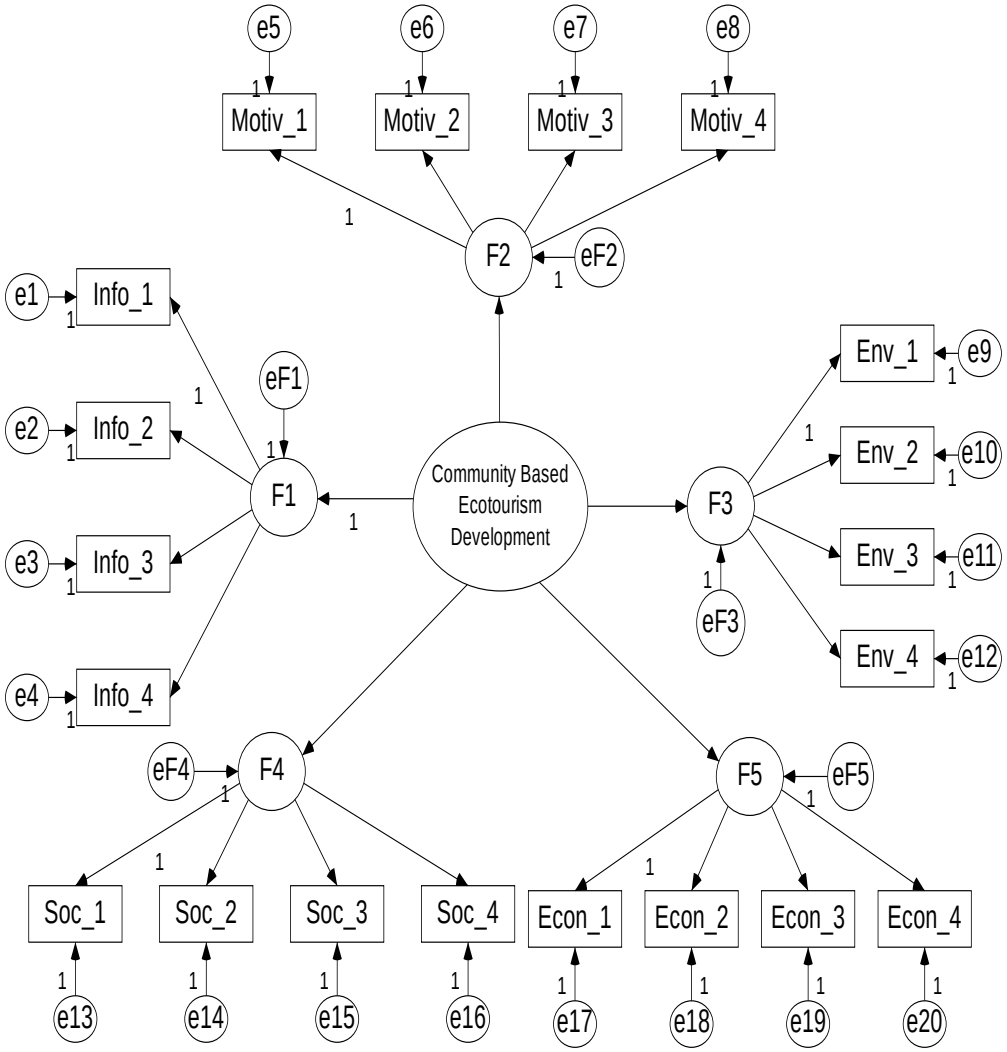
- Generating income that significantly benefits the local economy through ecotourism (Econ_4): This was rated Very High by 57.92% and High by 29.58%, highlighting substantial economic benefits.

Outcome of the Confirmatory Factor Analysis via Structural Equation Modelling

The conceptual model of the Structural Equation Modeling in Figure 4.1 shows the framework of the relationships between the variables, and the final model, depicted

in Figure 4.2, shows the significant refinements after the correlation of the error variances.

Figure 4.1: Conceptual Model of the Structural Equation Model



Source: Author

Note:

F1 = Informedness

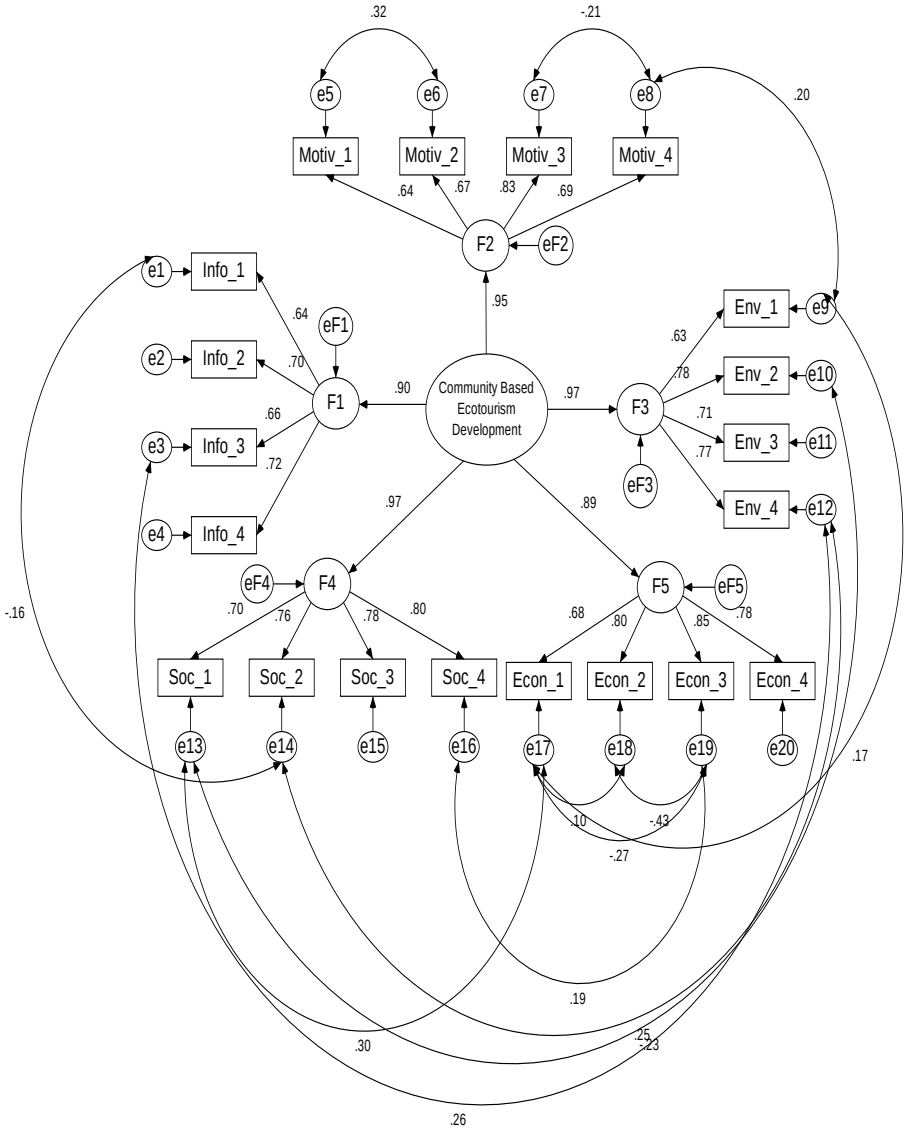
F2= Motivation

F3 = Environmental Sustainability

F4 = Social Sustainability

F5 = Economic Sustainability

Figure 4.2: Conceptual Model of the Structural Equation Model



Source: Author

Table 4.8 details the factor loadings, overall weights, and significance levels of the variables within the final model. The factor loadings indicate the strength of each variable's association with the underlying factors, with higher loadings suggesting stronger relationships. The overall weights highlight the relative importance of each factor, while the significance values confirm the statistical

reliability of these relationships. The final model demonstrates improved fit and explanatory power, underscoring the effectiveness of the adjustments made during the analysis.

Table 4.8:
Factor Loading and Overall Weight of the Indicators and Domains Used for the Assessment of the Functions and Performance of Existing Community-Driven Tourism Development Society

Code 1	Domain/Indicator 1	Direction	Domain/Indicator 2	Factor Loading	Overall Weight	P Value
F1	Informedness	<---	Community Based_Ecotourism_Development	0.90	0.32	< .001
F2	Motivation	<---	Community Based_Ecotourism_Development	0.95	0.34	< .001
F3	Environmental Sustainability	<---	Community Based_Ecotourism_Development	0.97	0.34	< .001
F4	Social Sustainability	<---	Community Based_Ecotourism_Development	0.97	0.34	< .001
F5	Economic Sustainability	<---	Community Based_Ecotourism_Development	0.89	0.31	< .001
Info_1	Providing clear information about community-based ecotourism initiatives.	<---	Informedness	0.64	0.24	< .001
Info_2	Keeping community members updated about ecotourism activities and projects.	<---	Informedness	0.70	0.26	< .001
Info_3	Ensuring that community members understand the goals and benefits of ecotourism.	<---	Informedness	0.66	0.25	< .001
Info_4	Communicatin	<---	Informedness	0.72	0.27	<

	g effectively about how ecotourism affects the local environment and community.					.001
Motiv_1	Encouraging community members to participate in ecotourism activities.	<---	Motivation	0.64	0.23	< .001
Motiv_2	Supporting active involvement in ecotourism projects within the community.	<---	Motivation	0.67	0.24	< .001
Motiv_3	Promoting enthusiasm for ecotourism initiatives that benefit the environment and community.	<---	Motivation	0.83	0.29	< .001
Motiv_4	Maintaining the interest and participation of community members in ecotourism activities.	<---	Motivation	0.69	0.24	< .001
Env_1	Working to protect local wildlife and natural habitats through ecotourism.	<---	Environmental Sustainability	0.63	0.22	< .001
Env_2	Preserving natural resources and promoting environmental sustainability.	<---	Environmental Sustainability	0.78	0.27	< .001
Env_3	Effectively promoting and showcasing the	<---	Environmental Sustainability	0.71	0.25	< .001

	unique features of the destination.					
Env_4	Improving the protection and preservation of the environment through ecotourism.	<---	Environmental Sustainability	0.77	0.27	< .001
Soc_1	Strengthening community relationships and cooperation through ecotourism activities.	<---	Social Sustainability	0.70	0.23	< .001
Soc_2	Preserving and promoting local culture and traditions through ecotourism.	<---	Social Sustainability	0.76	0.25	< .001
Soc_3	Enhancing social services, infrastructure, and overall community well-being.	<---	Social Sustainability	0.78	0.26	< .001
Soc_4	Encouraging a sense of responsibility and active participation among community members.	<---	Social Sustainability	0.80	0.26	< .001
Econ_1	Contributing to the economic improvement of community members through ecotourism.	<---	Economic Sustainability	0.68	0.22	< .001
Econ_2	Helping local businesses grow as a result of ecotourism activities.	<---	Economic Sustainability	0.80	0.26	< .001

Econ_3	Creating job opportunities and improving employment prospects in the community.	<---	Economic Sustainability	0.85	0.27	< .001
Econ_4	Generating income that significantly benefits the local economy through ecotourism.	<---	Economic Sustainability	0.78	0.25	< .001

Source- Author

The Structural Equation Modeling (SEM) analysis revealed that each domain and its associated indicators make distinct and significant contributions to the overarching construct of Community-Based Ecotourism Development. The domains examined include Informedness, Motivation, Environmental Sustainability, Social Sustainability, and Economic Sustainability. The overall weight of each domain and the significance (p-values) of their associated indicators were assessed to understand their relative importance in the model.

1. Informedness

The Informedness domain plays a crucial role in ensuring that community members are well-informed about ecotourism initiatives. This domain's overall weight is 0.32, indicating its substantial impact on the community-based ecotourism development process. The p-values for all indicators within this domain are less than 0.001, demonstrating their statistical significance.

- Info_1 (Providing clear information about community-based ecotourism initiatives): This indicator has a factor loading of 0.64 and an overall weight of 0.24. It emphasizes the importance of clear communication in raising awareness among community members.

- Info_2 (Keeping community members updated about ecotourism activities and projects): With a factor loading of 0.70 and an overall weight of 0.26, this

indicator highlights the need for ongoing updates to maintain community engagement.

- Info_3 (Ensuring that community members understand the goals and benefits of ecotourism): This indicator's factor loading is 0.66, with an overall weight of 0.25. It underscores the necessity of ensuring that the community comprehends the broader objectives and benefits of ecotourism.

- Info_4 (Communicating effectively about how ecotourism affects the local environment and community): The highest loading within this domain is 0.72, with an overall weight of 0.27. This shows that effective communication about the impact of ecotourism is crucial for community understanding and support.

2. Motivation

Motivation is another critical domain, with an overall weight of 0.34, reflecting its significant influence on encouraging community participation in ecotourism activities. All indicators under this domain have p-values less than 0.001, confirming their importance.

- Motiv_1 (Encouraging community members to participate in ecotourism activities): This indicator has a factor loading of 0.64 and an overall weight of 0.23. It highlights the importance of motivating community members to engage actively in ecotourism.

- Motiv_2 (Supporting active involvement in ecotourism projects within the community): With a factor loading of 0.67 and an overall weight of 0.24, this indicator underscores the need for ongoing support to sustain community involvement.

- Motiv_3 (Promoting enthusiasm for ecotourism initiatives that benefit the environment and community): This indicator has the highest factor loading in this domain at 0.83, with an overall weight of 0.29, indicating that fostering enthusiasm is crucial for successful ecotourism initiatives.

- Motiv_4 (Maintaining the interest and participation of community members in ecotourism activities): The factor loading for this indicator is 0.69, with an overall weight of 0.24, emphasizing the importance of sustained community engagement over time.

3. Environmental Sustainability

The Environmental Sustainability domain, with an overall weight of 0.34, is vital for ensuring that ecotourism activities are environmentally responsible and contribute to the preservation of natural resources. The p-values for all indicators in this domain are also less than 0.001, indicating their strong significance.

- Env_1 (Working to protect local wildlife and natural habitats through ecotourism): This indicator has a factor loading of 0.63 and an overall weight of 0.22. It reflects the importance of ecotourism in protecting wildlife and natural habitats.

- Env_2 (Preserving natural resources and promoting environmental sustainability): With a factor loading of 0.78 and an overall weight of 0.27, this indicator emphasizes the importance of resource preservation in ecotourism.

- Env_3 (Effectively promoting and showcasing the unique features of the destination): This indicator's factor loading is 0.71, with an overall weight of 0.25. It highlights the role of ecotourism in promoting the unique environmental features of a destination.

- Env_4 (Improving the protection and preservation of the environment through ecotourism): The factor loading for this indicator is 0.77, with an overall weight of 0.27, indicating the significant role ecotourism plays in enhancing environmental protection efforts.

4. Social Sustainability

Social Sustainability, with an overall weight of 0.34, focuses on strengthening community ties and ensuring that ecotourism benefits the social fabric of the community. This domain also has highly significant p-values (less than 0.001) for all indicators.

- Soc_1 (Strengthening community relationships and cooperation through ecotourism activities): This indicator has a factor loading of 0.70 and an overall weight of 0.23. It emphasizes the role of ecotourism in enhancing social cohesion within the community.

- Soc_2 (Preserving and promoting local culture and traditions through ecotourism): With a factor loading of 0.76 and an overall weight of 0.25, this indicator highlights the importance of cultural preservation in social sustainability.

- Soc_3 (Enhancing social services, infrastructure, and overall community well-being): This indicator has a factor loading of 0.78 and an overall weight of 0.26, underscoring the importance of improving community infrastructure and services through ecotourism.

- Soc_4 (Encouraging a sense of responsibility and active participation among community members): The highest loading in this domain is 0.80, with an overall weight of 0.26. This indicates that fostering a sense of responsibility and participation is crucial for social sustainability.

5. Economic Sustainability

Economic Sustainability is fundamental to ensuring that ecotourism contributes to the economic well-being of the community, with an overall weight of 0.31. The p-values for all indicators are less than 0.001, confirming their statistical significance.

- Econ_1 (Contributing to the economic improvement of community members through ecotourism): This indicator has a factor loading of 0.68 and an

overall weight of 0.22. It shows the role of ecotourism in improving the economic status of community members.

- Econ_2 (Helping local businesses grow as a result of ecotourism activities): With a factor loading of 0.80 and an overall weight of 0.26, this indicator shows the significant impact of ecotourism on local business growth.

- Econ_3 (Creating job opportunities and improving employment prospects in the community): This indicator has the highest factor loading in this domain at 0.85, with an overall weight of 0.27, emphasizing the importance of job creation for economic sustainability.

- Econ_4 (Generating income that significantly benefits the local economy through ecotourism): The factor loading for this indicator is 0.78, with an overall weight of 0.25, showing the critical role of income generation through ecotourism in supporting the local economy.

4.3 Objective 3: To assess the understanding, attitude and Satisfaction of destination Community towards ecotourism development

The demographic profile of participants engaged in tourism development initiatives in the study area can be seen from Table 4.9. There is a balanced representation of genders, with 106 females comprising 45.9% and 125 males constituting 54.1% of the total sample. The age distribution showcases a diverse range, with the majority falling within the 20-30 years age group (42.4%), followed by 30-40 years (21.2%), and 40-50 years (12.1%). There are also participants both below 20 years (7.4%) and above 50 years (13.9%).

Education-wise, the participants exhibit varied levels of attainment, from Illiterate (0.4%) to PhD (1.3%), with Bachelor's degree holders (32.0%) and individuals with education below high school (29.9%) being the most prevalent categories. Occupationally, the participants engage in a diverse array of activities, with notable proportions involved in farming (20.8%), government jobs (20.3%), and

student roles (27.7%). A smaller percentage is involved in private business ventures (10.0%), while some were identified as unemployed (16.5%).

Regarding income distribution, the majority of participants earn below Rs. 10000 (38.5%), followed by those earning between Rs. 10000-20000 (24.2%). The income brackets also extend to higher ranges, with smaller percentages earning Rs. 20000-30000 (7.8%), Rs. 30000-40000 (6.1%), and above Rs. 40000 (7.4%). Lastly, there are participants who prefer not to disclose their income status (16.0%).

Table 4.9:
Demographic Profile of the Participants

Demographic	Category	Frequency	Percent
Gender	Female	106	45.9
	Male	125	54.1
Age (Years)	Below 20	17	7.4
	20-30	98	42.4
	30-40	49	21.2
	40-50	28	12.1
	Above 50	32	13.9
Education	Illiterate	1	0.4
	Below High School	69	29.9
	Higher Secondary	52	22.5
	Bachelor	74	32
	PG	10	4.3
	PhD	3	1.3
	Prefer not to say	22	9.5
Occupation	Farmer	48	20.8
	Gov't Job	47	20.3
	Private Business	23	10
	Student	64	27.7
	Unemployed	38	16.5
	Prefer not to say	11	4.8
Income (INR/Rs)	Below 10000	89	38.5
	10000-20000	56	24.2
	20000-30000	18	7.8
	30000-40000	14	6.1
	Above 40000	17	7.4
	Prefer not to say	37	16

Source- Author

The responses from participants regarding the items used to measure their understanding, attitude, and satisfaction with ecotourism development among community members are presented in Table 4.10. The information on the detailed responses of the participants for each item across the various aspects of the study can be seen from the table.

The measurement items for Understanding assesses how well the community members grasp the concept and principles of ecotourism. The items in this section include questions about their knowledge of what ecotourism entails, its benefits, and potential impacts on their local environment and economy. The measurement items for Attitude evaluates the participants' opinions and feelings toward ecotourism development. This measurement covers their general support or opposition to ecotourism projects, their perceptions of its advantages or disadvantages, and how they feel about the changes it might bring to their community. The measurement items for Satisfaction gauges the level of satisfaction among community members with the current state or development of ecotourism. These include questions about their contentment with the implementation of ecotourism initiatives, how these initiatives meet their expectations, and the perceived quality of the experiences provided.

Table 4.10:
Responses of Participants on the Items Used in the Measurement of Understanding, Attitude & Satisfaction Towards Ecotourism Development

Item	Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
U1	Ecotourism is responsible travel to natural areas that conserves the environment and improves the well-being of local people	4 (1.7%)	10 (4.3%)	39 (16.9%)	65 (28.1%)	113 (48.9%)
U2	Ecotourism development must be designed in such a way that ecotourism will have a low visitor impact upon a protected area’s natural resources	1 (0.4%)	8 (3.5%)	21 (9.1%)	68 (29.4%)	133 (57.6%)

U3	Ecotourism can bring economic benefits to the community.	0 (0.0%)	6 (2.6%)	27 (11.7%)	76 (32.9%)	122 (52.8%)
U4	Conservation of resources is required in ecotourism development	2 (0.9%)	5 (2.2%)	32 (13.9%)	82 (35.5%)	110 (47.6%)
U5	Ecotourism also involves preserving the local culture and heritage	2 (0.9%)	3 (1.3%)	33 (14.3%)	72 (31.2%)	121 (52.4%)
U6	Sustainable practices are important in ecotourism	1 (0.4%)	6 (2.6%)	22 (9.5%)	59 (25.5%)	143 (61.9%)
U7	I am familiar with the ecotourism initiatives currently in place in our community	2 (0.9%)	4 (1.7%)	17 (7.4%)	43 (18.6%)	165 (71.4%)
U8	Ecotourism is a different concept from traditional mass tourism	0 (0.0%)	10 (4.3%)	35 (15.2%)	84 (36.4%)	102 (44.2%)
U9	There are different stakeholders in ecotourism development, such as the local community members, various NGOs and even tourists	2 (0.9%)	9 (3.9%)	34 (14.7%)	81 (35.1%)	105 (45.5%)
U10	Ecotourism requires environmentally responsible behaviour	1 (0.4%)	6 (2.6%)	20 (8.7%)	66 (28.6%)	138 (59.7%)
A1	Ecotourism activities help in livelihood	2 (0.9%)	5 (2.2%)	24 (10.4%)	66 (28.6%)	134 (58.0%)
A2	Ecotourism has created infrastructure development in the locality	0 (0.0%)	1 (0.4%)	20 (8.7%)	54 (23.4%)	156 (67.5%)
A3	Ecotourism activities benefit the local people	0 (0.0%)	7 (3.0%)	42 (18.2%)	76 (32.9%)	106 (45.9%)
A4	Ecotourism development enhances the economic condition of local people	0 (0.0%)	7 (3.0%)	15 (6.5%)	45 (19.5%)	164 (71.0%)
A5	Ecotourism creates awareness about health, education, safety, sanitation, and hygiene	1 (0.4%)	3 (1.3%)	22 (9.5%)	57 (24.7%)	148 (64.1%)
A6	Ecotourism activities help in empowering the local people	0 (0.0%)	5 (2.2%)	22 (9.5%)	65 (28.1%)	139 (60.2%)
A7	Ecotourism practices help in conserving and protecting the wildlife and sanctuary	3 (1.3%)	5 (2.2%)	43 (18.6%)	57 (24.7%)	123 (53.2%)

A8	Ecotourism benefits the government and tourism staff	1 (0.4%)	5 (2.2%)	26 (11.3%)	58 (25.1%)	141 (61.0%)
A9	Ecotourism benefits the local people and tourists	1 (0.4%)	2 (0.9%)	21 (9.1%)	55 (23.8%)	152 (65.8%)
A10	Ecotourism positively influences the local people	2 (0.9%)	3 (1.3%)	25 (10.8%)	66 (28.6%)	135 (58.4%)
S1	I am satisfied with the current ecotourism initiatives in our community	2 (0.9%)	3 (1.3%)	19 (8.2%)	54 (23.4%)	153 (66.2%)
S2	I feel that my opinions and suggestions are considered in ecotourism planning	0 (0.0%)	1 (0.4%)	15 (6.5%)	52 (22.5%)	163 (70.6%)
S3	I am happy with the economic benefits brought by ecotourism	0 (0.0%)	4 (1.7%)	24 (10.4%)	59 (25.5%)	144 (62.3%)
S4	I am satisfied with the efforts made to preserve our natural environment through ecotourism	1 (0.4%)	3 (1.3%)	30 (13.0%)	85 (36.8%)	112 (48.5%)
S5	I feel that ecotourism has helped to promote our cultural heritage	1 (0.4%)	12 (5.2%)	34 (14.7%)	70 (30.3%)	114 (49.4%)
S6	I am content with the level of community involvement in ecotourism projects	1 (0.4%)	7 (3.0%)	29 (12.6%)	74 (32.0%)	120 (51.9%)
S7	I am satisfied with the support provided by the government for ecotourism	2 (0.9%)	5 (2.2%)	31 (13.4%)	85 (36.8%)	108 (46.8%)
S8	I feel that ecotourism activities are well-managed and organized	1 (0.4%)	7 (3.0%)	25 (10.8%)	81 (35.1%)	117 (50.6%)
S9	I believe that ecotourism has improved infrastructure in our community	0 (0.0%)	8 (3.5%)	38 (16.5%)	76 (32.9%)	109 (47.2%)
S10	Overall, I am satisfied with the impact of ecotourism on our community	0 (0.0%)	2 (0.9%)	20 (8.7%)	78 (33.8%)	131 (56.7%)

Source- Author

Understanding Items

The "Understanding" aspect measures respondents' knowledge and perceptions about ecotourism and its principles. For item U1, which states that ecotourism is responsible travel to natural areas that conserves the environment and improves the well-being of local people, 1.7% of respondents strongly disagreed, 4.3% disagreed, 16.9% were neutral, 28.1% agreed, and 48.9% strongly agreed. This indicates a high level of understanding with the basic definition of ecotourism.

For item U2, stating that ecotourism development must have a low visitor impact on a protected area’s natural resources, only 0.4% strongly disagreed, 3.5% disagreed, 9.1% were neutral, 29.4% agreed, and 57.6% strongly agreed. The responses suggest that most respondents understand and support the necessity of minimizing visitor impact.

Item U3, which claims that ecotourism can bring economic benefits to the community, had no strong disagreement, 2.6% disagreement, 11.7% neutrality, 32.9% agreement, and 52.8% strong agreement. This shows that the majority of respondents recognize the economic potential of ecotourism.

For U4, which emphasizes the requirement for resource conservation in ecotourism development, 0.9% strongly disagreed, 2.2% disagreed, 13.9% were neutral, 35.5% agreed, and 47.6% strongly agreed, demonstrating a strong understanding of conservation's role in ecotourism.

For U5, which states that ecotourism involves preserving local culture and heritage, 0.9% strongly disagreed, 1.3% disagreed, 14.3% were neutral, 31.2% agreed, and 52.4% strongly agreed. This shows a significant acknowledgment of the cultural preservation aspect of ecotourism.

For U6, which highlights the importance of sustainable practices in ecotourism, 0.4% strongly disagreed, 2.6% disagreed, 9.5% were neutral, 25.5% agreed, and 61.9% strongly agreed, indicating strong support for sustainability.

In U7, concerning familiarity with ecotourism initiatives in the community, 0.9% strongly disagreed, 1.7% disagreed, 7.4% were neutral, 18.6% agreed, and 71.4% strongly agreed, suggesting that most respondents are well-informed about local ecotourism efforts.

For U8, which states that ecotourism is different from traditional mass tourism, 0.0% strongly disagreed, 4.3% disagreed, 15.2% were neutral, 36.4% agreed, and 44.2% strongly agreed. This indicates a clear understanding of the distinct nature of ecotourism.

U9, which discusses the involvement of various stakeholders in ecotourism development, had 0.9% strong disagreement, 3.9% disagreement, 14.7% neutrality, 35.1% agreement, and 45.5% strong agreement, reflecting awareness of the collaborative nature of ecotourism.

For U10, which asserts that ecotourism requires environmentally responsible behaviour, had 0.4% strong disagreement, 2.6% disagreement, 8.7% neutrality, 28.6% agreement, and 59.7% strong agreement, showing strong support for responsible practices in ecotourism.

Attitude Items

The "Attitude" aspect assesses respondents' beliefs and feelings towards the impact and benefits of ecotourism. For item A1, which states that ecotourism activities help in livelihood, 0.9% strongly disagreed, 2.2% disagreed, 10.4% were neutral, 28.6% agreed, and 58.0% strongly agreed. This indicates a strong belief in the livelihood benefits of ecotourism.

For A2, stating that ecotourism has created infrastructure development in the locality, there was no strong disagreement, 0.4% disagreement, 8.7% neutrality, 23.4% agreement, and 67.5% strong agreement. This suggests a strong perception of infrastructure development due to ecotourism.

Item A3, which claims that ecotourism activities benefit the local people, had no strong disagreement, 3.0% disagreement, 18.2% neutrality, 32.9% agreement, and

45.9% strong agreement. This shows a positive attitude towards the benefits of ecotourism for local people.

For A4, which states that ecotourism development enhances the economic condition of local people, there was no strong disagreement, 3.0% disagreement, 6.5% neutrality, 19.5% agreement, and 71.0% strong agreement, indicating a strong belief in the economic enhancement from ecotourism.

For A5, which claims that ecotourism creates awareness about health, education, safety, sanitation, and hygiene, 0.4% strongly disagreed, 1.3% disagreed, 9.5% were neutral, 24.7% agreed, and 64.1% strongly agreed, reflecting a positive attitude towards the awareness created by ecotourism.

For A6, which states that ecotourism activities help in empowering the local people, there was no strong disagreement, 2.2% disagreement, 9.5% neutrality, 28.1% agreement, and 60.2% strong agreement, indicating a positive attitude towards empowerment through ecotourism.

A7, which discusses ecotourism practices helping in conserving and protecting wildlife and sanctuaries, had 1.3% strong disagreement, 2.2% disagreement, 18.6% neutrality, 24.7% agreement, and 53.2% strong agreement, showing a supportive attitude towards conservation efforts through ecotourism.

For A8, which states that ecotourism benefits the government and tourism staff, 0.4% strongly disagreed, 2.2% disagreed, 11.3% were neutral, 25.1% agreed, and 61.0% strongly agreed, indicating a belief in the benefits of ecotourism for these groups.

A9, which claims that ecotourism benefits both local people and tourists, had 0.4% strong disagreement, 0.9% disagreement, 9.1% neutrality, 23.8% agreement, and 65.8% strong agreement, reflecting a positive attitude towards the mutual benefits of ecotourism.

For A10, which states that ecotourism positively influences the local people, had 0.9% strong disagreement, 1.3% disagreement, 10.8% neutrality, 28.6%

agreement, and 58.4% strong agreement, showing a positive perception of the influence of ecotourism.

Satisfaction Items

The "Satisfaction" aspect evaluates respondents' contentment with various facets of ecotourism initiatives. For item S1, which states that respondents are satisfied with the current ecotourism initiatives in their community, 0.9% strongly disagreed, 1.3% disagreed, 8.2% were neutral, 23.4% agreed, and 66.2% strongly agreed. This indicates a high level of satisfaction with current initiatives.

For S2, which states that respondents feel their opinions and suggestions are considered in ecotourism planning, there was no strong disagreement, 0.4% disagreement, 6.5% neutrality, 22.5% agreement, and 70.6% strong agreement, reflecting a strong sense of inclusion in planning.

Item S3, which claims that respondents are happy with the economic benefits brought by ecotourism, had no strong disagreement, 1.7% disagreement, 10.4% neutrality, 25.5% agreement, and 62.3% strong agreement. This shows a high level of satisfaction with the economic benefits.

For S4, which states that respondents are satisfied with the efforts made to preserve the natural environment through ecotourism, 0.4% strongly disagreed, 1.3% disagreed, 13.0% were neutral, 36.8% agreed, and 48.5% strongly agreed, indicating satisfaction with environmental preservation efforts.

For S5, which claims that respondents are content with the way ecotourism has preserved their cultural heritage, 0.4% strongly disagreed, 5.2% disagreed, 14.7% were neutral, 30.3% agreed, and 49.4% strongly agreed, reflecting a positive perception of cultural preservation.

For S6, which states that respondents feel ecotourism has improved the quality of life in their community, 0.4% strongly disagreed, 3.0% disagreed, 12.6% neutrality, 32.0% agreement, and 51.9% strong agreement, indicating satisfaction with the quality of life improvements.

S7, which states that respondents are satisfied with the educational opportunities provided through ecotourism, had 0.9% strong disagreement, 2.2% disagreement, 13.4% neutrality, 36.8% agreement, and 46.8% strong agreement, showing satisfaction with educational opportunities.

For S8, which claims that respondents feel secure with the safety measures implemented in ecotourism areas, 0.4% strongly disagreed, 3.0% disagreed, 10.8% neutrality, 35.1% agreement, and 50.6% strong agreement, reflecting satisfaction with safety measures.

S9, which states that respondents are satisfied with the community involvement in ecotourism activities, had no strong disagreement, 3.5% disagreement, 16.5% neutrality, 32.9% agreement, and 47.2% strong agreement, indicating satisfaction with community involvement.

For S10, which claims that respondents are happy with the transparency in the management of ecotourism funds, had no strong disagreement, 0.9% disagreement, 8.7% neutrality, 33.8% agreement, and 56.7% strong agreement, showing satisfaction with financial transparency.

Level of Understanding of Eco-Tourism Development of Local Communities

The result reveals a significant proportion of participants, approximately 33.8%, fell into the category of Low Understanding, indicating a relatively limited grasp of eco-tourism concepts and their implications. Meanwhile, participants who scored within the Moderate/Average Understanding category, comprising approximately 37.2% of the sample, demonstrated a baseline level of comprehension of eco-tourism development. While these individuals may possess a basic understanding of eco-tourism concepts, there remains room for further education and capacity-building initiatives to strengthen their knowledge and engagement. The High Understanding category, encompassing around 29.0% of participants, comprised individuals with a robust understanding of eco-tourism development. These community members exhibited a keen awareness of eco-tourism principles

and practices, potentially stemming from their involvement in related initiatives or access to specialized knowledge resources (Table 4.11).

Table 4.11:
Level of Understanding of Community Members on Eco-Tourism Development

Level	Percentile	N	%
Low	33rd & Below	78	33.8
Moderate/Average	34th to 66th	86	37.2
High	Above 66th	67	29.0

Source- Author

Level of Attitude of Local Communities Towards Eco-Tourism Development

Table 4.12 shows the levels of attitude among community members towards eco-tourism development, categorized into Low, Moderate, and Positive based on percentiles. Approximately 34.2% of community members fell into the Low Attitude category, indicating a significant proportion with either negative or indifferent attitudes towards eco-tourism development. This suggests a potential lack of awareness or skepticism regarding the benefits of eco-tourism within this segment of the community. In contrast, the Moderate Attitude category, comprising around 39.0% of community members, reflects a neutral or ambivalent stance towards eco-tourism development. While individuals in this group may acknowledge the importance of eco-tourism, they may not fully endorse or actively engage in related activities. The smallest proportion of community members, approximately 26.8%, demonstrated a Positive Attitude towards eco-tourism development. This segment likely perceives eco-tourism as a valuable opportunity for community empowerment, economic growth, and environmental conservation.

Table 4.12:
Level of Attitude of Community Members Towards Eco-Tourism Development

Level	Percentile	N	%
Low	33rd & Below	79	34.2
Moderate	34th to 66th	90	39.0
Positive	Above 66th	62	26.8

Source- Author

Level of Satisfaction of Local Communities Towards Eco-Tourism Development

The levels of satisfaction among community members regarding eco-tourism development, categorized into Low, Moderate, and Positive based on percentiles are shown in Table 4.13. In the Low Satisfaction category, comprising approximately 38.5% of community members falling within the 33rd percentile or below, there appears to be a notable proportion of individuals expressing dissatisfaction or discontent with eco-tourism development efforts. Meanwhile, in the Moderate Satisfaction category, encompassing around 31.2% of community members falling within the 34th to 66th percentile, these individuals may exhibit a more neutral or ambivalent stance towards eco-tourism development. While not expressing outright dissatisfaction, this group may have reservations or uncertainties regarding certain aspects of eco-tourism initiatives.

On the other hand, the Positive Satisfaction category, consisting of approximately 30.3% of community members falling above the 66th percentile, represents individuals who express satisfaction and contentment with eco-tourism development efforts. This segment likely perceives eco-tourism as a valuable contributor to community well-being, economic prosperity, and environmental conservation.

Table 4.13:
Level of Satisfaction of Community Members Towards Eco-Tourism Development

Level	Percentile	N	%
Low	33rd & Below	89	38.5
Moderate	34th to 66th	72	31.2
Positive	Above 66th	70	30.3

Source- Author

4.4 Objective 4: To evaluate the destination attributes in the Perspective of both tourists and destination community

For this particular objective, the previous samples of destination community members were used again, and their demographic profile can be seen in Table 4.9. the demographic profile of tourists are explained below in Table 4.14

Demographic Profile of the Tourist Samples

A detailed breakdown of various characteristics observed within the tourist samples can be seen in Table 4.14. The gender distribution among the tourists reveals a fairly even split between males and females, with 72 individuals (42.35%) identifying as female and an equal number identifying as male. 26 individuals (15.29%) chose not to disclose their gender.

In terms of geographic origins, the majority of tourists hail from diverse states across India, although a significant portion either did not specify their state or originated from states such as Uttar Pradesh, Bihar, and Madhya Pradesh. Specifically, Uttar Pradesh accounts for 4 tourists (2.35%), Bihar and Madhya Pradesh each account for 4 tourists (2.35%), and 142 tourists (83.53%) did not specify their state.

There was varied distribution of tourists' current places of residence, ranging from urban centers like Kolkata and Chennai to smaller locales such as Alwar and Darjeeling. Notably, 142 tourists (83.53%) did not specify their place of residence, while smaller percentages were reported for various cities such as Patna, Jalandhar, and Meerut.

Moving to age demographics, the distribution shows a broad spectrum, with tourists spanning across different age groups. Notably, 55 tourists (32.35%) fall within the age brackets of both 30-40 years and 40-50 years, indicating a significant presence of middle-aged individuals. Additionally, 33 tourists (19.41%) belong to the 20-30 years age group, while 21 tourists (12.35%) are above 50 years old.

Educational backgrounds of the tourists vary widely, with representations across various levels of academic attainment. While a substantial portion holds bachelor's and postgraduate degrees, there are also individuals with higher secondary education or even doctoral qualifications. Specifically, postgraduates constitute the largest group with 76 tourists (44.71%), followed by bachelor's degree holders with 52 tourists (30.59%).

Occupationally, the sample demonstrates diversity, with a notable presence of individuals employed in private businesses and government jobs. Additionally, students and unemployed individuals constitute smaller yet significant segments within the sample. Private business employees make up the largest group with 97 tourists (57.06%), followed by government job holders with 49 tourists (28.82%).

Regarding income distribution, the majority of tourists report monthly earnings above 40,000 INR, indicating a relatively affluent cohort. However, there is also a notable proportion who preferred not to disclose their income, reflecting a level of privacy or variability in financial circumstances among the sampled population. Specifically, 118 tourists (69.41%) reported an income above 40,000 INR, while 24 tourists (14.12%) preferred not to disclose their income.

Table 4.14:
Demographic Profile of Tourist Samples

Demographic Variable	Category	N	%
Gender	Don't want to say	26	15.29
	Female	72	42.35
	Male	72	42.35
State	Assam	2	1.18
	Bihar	4	2.35
	Delhi	1	0.59
	Gujarat	1	0.59
	Jharkhand	2	1.18
	Madhya Pradesh	4	2.35
	Manipur	3	1.76
	Not specified	142	83.53
	Punjab	1	0.59
	Rajasthan	2	1.18
	Tamil Nadu	1	0.59
	Uttar Pradesh	4	2.35
	West Bengal	3	1.76
Age	Below 20 years	6	3.53
	20-30 years	33	19.41
	30-40 years	55	32.35
	40-50 years	55	32.35
	Above 50 years	21	12.35

Education	Below High School	3	1.76
	Higher Secondary	24	14.12
	Bachelor	52	30.59
	PG	76	44.71
	PhD	15	8.82
Occupation	Gov't Job	49	28.82
	Private business	97	57.06
	Student	13	7.65
	Unemployed	11	6.47
Monthly Income	Prefer not to say	24	14.12
	20k-30k	9	5.29
	30k-40k	19	11.18
	Above 40k	118	69.41

Source- Author

Ratings/Responses of Participants on Individual Destination Attributes

The responses of the research participants on each individual destination attribute can be seen from Table 4.15.

Table 4.15:
Responses of Participants on Ratings for Individual Destination Attribute

Group	Attribute	Very Poor N (%)	Poor N (%)	Fair N (%)	Good N (%)	Excellent N (%)
Local Community Members	1. Natural/Wildlife Attractions	19 (4.7%)	2 (0.5%)	14 (3.5%)	113 (28.2%)	83 (20.7%)
	2. Eco-Friendly Facilities	11 (2.7%)	10 (2.5%)	24 (6.0%)	112 (27.9%)	74 (18.5%)
	3. Environment Conservation Increase	24 (6.0%)	20 (5.0%)	4 (1.0%)	96 (23.9%)	87 (21.7%)
	4. Environment Conservation Enhancement	13 (3.2%)	8 (2.0%)	14 (3.5%)	109 (27.2%)	87 (21.7%)
	5. Economic Benefits Increase	11 (2.7%)	13 (3.2%)	31 (7.7%)	163 (40.6%)	13 (3.2%)
	6. Professional Tour Guides	14 (3.5%)	12 (3.0%)	8 (2.0%)	107 (26.7%)	90 (22.4%)
	7. Local Coordination	44 (11.0%)	48 (12.0%)	52 (13.0%)	48 (12.0%)	39 (9.7%)
	8. Toilets	11 (2.7%)	87 (21.7%)	65 (16.2%)	53 (13.2%)	15 (3.7%)

	9. Dustbins	10 (2.5%)	70 (17.5%)	84 (20.9%)	56 (14.0%)	11 (2.7%)
	10. Laybys	10 (2.5%)	86 (21.4%)	82 (20.4%)	41 (10.2%)	12 (3.0%)
	14. Signboards	12 (3.0%)	63 (15.7%)	82 (20.4%)	57 (14.2%)	17 (4.2%)
	15. Drinking Water	13 (3.2%)	72 (18.0%)	67 (16.7%)	63 (15.7%)	16 (4.0%)
	16. Drainage Systems	14 (3.5%)	72 (18.0%)	94 (23.4%)	47 (11.7%)	4 (1.0%)
	18. Scenery	11 (2.7%)	83 (20.7%)	81 (20.2%)	41 (10.2%)	15 (3.7%)
	20. Eating Places	10 (2.5%)	77 (19.2%)	72 (18.0%)	51 (12.7%)	21 (5.2%)
	21. Tourist Information Centre	25 (6.2%)	65 (16.2%)	89 (22.2%)	42 (10.5%)	10 (2.5%)
	22. Accommodation Satisfaction	16 (4.0%)	78 (19.5%)	91 (22.7%)	36 (9.0%)	10 (2.5%)
	23. Activities/Things to Do	17 (4.2%)	72 (18.0%)	86 (21.4%)	45 (11.2%)	11 (2.7%)
	24. Accessibility	15 (3.7%)	6 (1.5%)	79 (19.7%)	84 (20.9%)	47 (11.7%)
	25. Transportation	13 (3.2%)	160 (39.9%)	10 (2.5%)	25 (6.2%)	23 (5.7%)
	26. Maintenance for Eco-Tourism	12 (3.0%)	77 (19.2%)	89 (22.2%)	41 (10.2%)	12 (3.0%)
Tourists	1. Natural/Wildlife Attractions	0 (0.0%)	0 (0.0%)	10 (2.5%)	123 (30.7%)	37 (9.2%)
	2. Eco-Friendly Facilities	0 (0.0%)	0 (0.0%)	43 (10.7%)	94 (23.4%)	33 (8.2%)
	3. Environment Conservation Increase	0 (0.0%)	0 (0.0%)	6 (1.5%)	117 (29.2%)	47 (11.7%)
	4. Environment Conservation Enhancement	0 (0.0%)	0 (0.0%)	8 (2.0%)	110 (27.4%)	52 (13.0%)
	5. Economic Benefits Increase	0 (0.0%)	0 (0.0%)	17 (4.2%)	116 (28.9%)	37 (9.2%)
	6. Professional Tour Guides	0 (0.0%)	0 (0.0%)	0 (0.0%)	24 (6.0%)	146 (36.4%)
	7. Local Coordination	0 (0.0%)	1 (0.2%)	53 (13.2%)	105 (26.2%)	11 (2.7%)
	8. Toilets	2 (0.5%)	107 (26.7%)	54 (13.5%)	7 (1.7%)	0 (0.0%)
	9. Dustbins	3	80	83	4	0 (0.0%)

		(0.7%)	(20.0%)	(20.7%)	(1.0%)	
	10. Laybys	0 (0.0%)	15 (3.7%)	125 (31.2%)	30 (7.5%)	0 (0.0%)
	14. Signboards	4 (1.0%)	96 (23.9%)	59 (14.7%)	11 (2.7%)	0 (0.0%)
	15. Drinking Water	36 (9.0%)	110 (27.4%)	23 (5.7%)	1 (0.2%)	0 (0.0%)
	16. Drainage Systems	1 (0.2%)	24 (6.0%)	128 (31.9%)	17 (4.2%)	0 (0.0%)
	18. Scenery	155 (38.7%)	12 (3.0%)	3 (0.7%)	0 (0.0%)	0 (0.0%)
	20. Eating Places	2 (0.5%)	71 (17.7%)	84 (20.9%)	13 (3.2%)	0 (0.0%)
	21. Tourist Information Centre	1 (0.2%)	23 (5.7%)	126 (31.4%)	20 (5.0%)	0 (0.0%)
	22. Accommodation Satisfaction	0 (0.0%)	5 (1.2%)	53 (13.2%)	99 (24.7%)	13 (3.2%)
	23.Activities/Things to Do	0 (0.0%)	0 (0.0%)	66 (16.5%)	76 (19.0%)	28 (7.0%)
	24. Accessibility	3 (0.7%)	124 (30.9%)	35 (8.7%)	8 (2.0%)	0 (0.0%)
	25. Transportation	6 (1.5%)	125 (31.2%)	36 (9.0%)	2 (0.5%)	1 (0.2%)
	26. Maintenance for Eco-Tourism	0 (0.0%)	3 (0.7%)	68 (17.0%)	89 (22.2%)	10 (2.5%)

Source- Author

Local Community Members' Ratings

For the Local Community Members, natural and wildlife attractions were evaluated, with 19 respondents (4.7%) rating it as "Very Poor" and 2 respondents (0.5%) as "Poor." A small number, 14 respondents (3.5%), found the attractions "Fair," while a significant portion, 113 respondents (28.2%), rated them as "Good," and 83 respondents (20.7%) considered them "Excellent."

When it comes to eco-friendly facilities, 11 community members (2.7%) rated them as "Very Poor" and 10 (2.5%) as "Poor." A larger group, 24 respondents (6.0%), found them "Fair," with 112 (27.9%) rating them as "Good" and 74 (18.5%) considering them "Excellent." For the increase in environment conservation, 24 respondents (6.0%) rated it "Very Poor" and 20 (5.0%) as "Poor." Only 4 respondents

(1.0%) found it "Fair," while 96 (23.9%) rated it as "Good" and 87 (21.7%) as "Excellent."

Looking at the enhancement of environmental conservation, 13 respondents (3.2%) rated it as "Very Poor," 8 (2.0%) as "Poor," and 14 (3.5%) as "Fair." A substantial 109 respondents (27.2%) found it "Good," and 87 (21.7%) deemed it "Excellent." Economic benefits increase was rated "Very Poor" by 11 community members (2.7%) and "Poor" by 13 (3.2%). Thirty-one respondents (7.7%) rated it "Fair," while the majority, 163 respondents (40.6%), considered it "Good" and 13 (3.2%) found it "Excellent."

Professional tour guides were rated "Very Poor" by 14 respondents (3.5%) and "Poor" by 12 (3.0%). Only 8 respondents (2.0%) found them "Fair," while 107 (26.7%) rated them "Good" and 90 (22.4%) "Excellent." Local coordination received a mixed review, with 44 respondents (11.0%) rating it as "Very Poor" and 48 (12.0%) as "Poor." Fifty-two respondents (13.0%) found it "Fair," 48 (12.0%) considered it "Good," and 39 (9.7%) rated it "Excellent."

Toilets received "Very Poor" ratings from 11 community members (2.7%) and "Poor" from 87 (21.7%). Sixty-five respondents (16.2%) found them "Fair," 53 (13.2%) rated them "Good," and 15 (3.7%) considered them "Excellent." Dustbins were rated "Very Poor" by 10 respondents (2.5%) and "Poor" by 70 (17.5%). Eighty-four respondents (20.9%) found them "Fair," 56 (14.0%) considered them "Good," and 11 (2.7%) rated them "Excellent."

Laybys were rated "Very Poor" by 10 respondents (2.5%) and "Poor" by 86 (21.4%). Eighty-two respondents (20.4%) found them "Fair," 41 (10.2%) rated them "Good," and 12 (3.0%) considered them "Excellent." Signboards were rated "Very Poor" by 12 respondents (3.0%) and "Poor" by 63 (15.7%). Eighty-two respondents (20.4%) found them "Fair," 57 (14.2%) rated them "Good," and 17 (4.2%) considered them "Excellent."

Drinking water facilities were rated "Very Poor" by 13 respondents (3.2%) and "Poor" by 72 (18.0%). Sixty-seven respondents (16.7%) found them "Fair," 63

(15.7%) rated them "Good," and 16 (4.0%) considered them "Excellent." Drainage systems were rated "Very Poor" by 14 respondents (3.5%) and "Poor" by 72 (18.0%). Ninety-four respondents (23.4%) found them "Fair," 47 (11.7%) rated them "Good," and 4 (1.0%) considered them "Excellent."

Scenery was rated "Very Poor" by 11 respondents (2.7%) and "Poor" by 83 (20.7%). Eighty-one respondents (20.2%) found it "Fair," 41 (10.2%) rated it "Good," and 15 (3.7%) considered it "Excellent." Eating places were rated "Very Poor" by 10 respondents (2.5%) and "Poor" by 77 (19.2%). Seventy-two respondents (18.0%) found them "Fair," 51 (12.7%) rated them "Good," and 21 (5.2%) considered them "Excellent."

The tourist information center was rated "Very Poor" by 25 respondents (6.2%) and "Poor" by 65 (16.2%). Eighty-nine respondents (22.2%) found it "Fair," 42 (10.5%) rated it "Good," and 10 (2.5%) considered it "Excellent." Accommodation satisfaction was rated "Very Poor" by 16 respondents (4.0%) and "Poor" by 78 (19.5%). Ninety-one respondents (22.7%) found it "Fair," 36 (9.0%) rated it "Good," and 10 (2.5%) considered it "Excellent."

Activities and things to do were rated "Very Poor" by 17 respondents (4.2%) and "Poor" by 72 (18.0%). Eighty-six respondents (21.4%) found them "Fair," 45 (11.2%) rated them "Good," and 11 (2.7%) considered them "Excellent." Accessibility was rated "Very Poor" by 15 respondents (3.7%) and "Poor" by 6 (1.5%). Seventy-nine respondents (19.7%) found it "Fair," 84 (20.9%) rated it "Good," and 47 (11.7%) considered it "Excellent."

Transportation was rated "Very Poor" by 13 respondents (3.2%) and "Poor" by 160 (39.9%). Ten respondents (2.5%) found it "Fair," 25 (6.2%) rated it "Good," and 23 (5.7%) considered it "Excellent." Maintenance for eco-tourism was rated "Very Poor" by 12 respondents (3.0%) and "Poor" by 77 (19.2%). Eighty-nine respondents (22.2%) found it "Fair," 41 (10.2%) rated it "Good," and 12 (3.0%) considered it "Excellent."

Tourists' Responses

Similarly, tourists' ratings for each individual attribute can be seen from Table 4.4.3. For natural and wildlife attractions, none rated them as "Very Poor" or "Poor." Ten tourists (2.5%) rated them as "Fair," 123 (30.7%) found them "Good," and 37 (9.2%) considered them "Excellent." Eco-friendly facilities were not rated as "Very Poor" or "Poor" by any tourists. Forty-three (10.7%) found them "Fair," 94 (23.4%) rated them "Good," and 33 (8.2%) considered them "Excellent."

For the increase in environment conservation, no tourists rated it "Very Poor" or "Poor." Six tourists (1.5%) found it "Fair," 117 (29.2%) rated it "Good," and 47 (11.7%) considered it "Excellent." Similarly, for the enhancement of environmental conservation, no tourists rated it "Very Poor" or "Poor." Eight tourists (2.0%) found it "Fair," 110 (27.4%) rated it "Good," and 52 (13.0%) considered it "Excellent."

Economic benefits increase was not rated as "Very Poor" or "Poor" by any tourists. Seventeen tourists (4.2%) found it "Fair," 116 (28.9%) rated it "Good," and 37 (9.2%) considered it "Excellent." Professional tour guides were not rated as "Very Poor," "Poor," or "Fair" by any tourists. Twenty-four tourists (6.0%) rated them "Good," and 146 (36.4%) considered them "Excellent."

Local coordination received a rating of "Poor" from one tourist (0.2%). Fifty-three tourists (13.2%) found it "Fair," 105 (26.2%) rated it "Good," and 11 (2.7%) considered it "Excellent." Toilets were rated "Very Poor" by 2 tourists (0.5%) and "Poor" by 107 (26.7%). Fifty-four tourists (13.5%) found them "Fair," 7 (1.7%) rated them "Good," and none considered them "Excellent."

Dustbins were rated "Very Poor" by 3 tourists (0.7%) and "Poor" by 80 (20.0%). Eighty-three tourists (20.7%) found them "Fair," and 4 (1.0%) rated them "Good," with none considering them "Excellent." Laybys were rated "Very Poor" by 0 tourists and "Poor" by 15 (3.7%). One hundred twenty-five tourists (31.2%) found them "Fair," 30 (7.5%) rated them "Good," and none rated them "Excellent."

Signboards received "Very Poor" ratings from 4 tourists (1.0%) and "Poor" from 96 (23.9%). Fifty-nine tourists (14.7%) found them "Fair," 11 (2.7%) rated them "Good," and none considered them "Excellent." Drinking water facilities were

rated "Very Poor" by 36 tourists (9.0%) and "Poor" by 110 (27.4%). Twenty-three tourists (5.7%) found them "Fair," 1 (0.2%) rated them "Good," and none considered them "Excellent."

Drainage systems were rated "Very Poor" by 1 tourist (0.2%) and "Poor" by 24 (6.0%). One hundred twenty-eight tourists (31.9%) found them "Fair," 17 (4.2%) rated them "Good," and none considered them "Excellent."

Scenery was rated "Very Poor" by 155 tourists (38.7%) and "Poor" by 12 (3.0%). Three tourists (0.7%) found it "Fair," with none rating it "Good" or "Excellent."

Eating places were rated "Very Poor" by 2 tourists (0.5%) and "Poor" by 71 (17.7%). Eighty-four tourists (20.9%) found them "Fair," 13 (3.2%) rated them "Good," and none considered them "Excellent."

The tourist information center was rated "Very Poor" by 1 tourist (0.2%) and "Poor" by 23 (5.7%). One hundred twenty-six tourists (31.4%) found it "Fair," 20 (5.0%) rated it "Good," and none considered it "Excellent."

Accommodation satisfaction was rated "Very Poor" by 0 tourists and "Poor" by 5 (1.2%). Fifty-three tourists (13.2%) found it "Fair," 99 (24.7%) rated it "Good," and 13 (3.2%) considered it "Excellent."

Activities and things to do were rated "Very Poor" by 0 tourists and "Poor" by 0 (0.0%). Sixty-six tourists (16.5%) found them "Fair," 76 (19.0%) rated them "Good," and 28 (7.0%) considered them "Excellent."

Accessibility was rated "Very Poor" by 3 tourists (0.7%) and "Poor" by 124 (30.9%). Thirty-five tourists (8.7%) found it "Fair," 8 (2.0%) rated it "Good," and none considered it "Excellent."

Transportation was rated "Very Poor" by 6 tourists (1.5%) and "Poor" by 125 (31.2%). Thirty-six tourists (9.0%) found it "Fair," 2 (0.5%) rated it "Good," and 1 (0.2%) considered it "Excellent."

Maintenance for eco-tourism was rated "Very Poor" by 0 tourists and "Poor" by 3 (0.7%). Sixty-eight tourists (17.0%) found it "Fair," 89 (22.2%) rated it "Good," and 10 (2.5%) considered it "Excellent."

4.4.3. Differences in Perception of Individual Destination Attributes Between Local Communities and Tourists

A series of Mann-Whitney U Tests were conducted to determine the differences in the perceptions of local community members and tourists for various destination attributes (Table 4.16). The analyses revealed significant and non-significant differences across multiple aspects.

For the attribute "Natural/Wildlife Attractions," no significant difference was found between the rankings of local community members ($M = 205.71$) and tourists ($M = 194.59$), $U = 18546.00$, $Z = -1.08$, $p = .28$, $r = -0.05$. This indicates that both groups have a similar appreciation for natural and wildlife attractions at the destination.

Significant differences were observed in the attribute "Eco-Friendly Facilities," where local communities rated the attribute higher ($M = 211.04$) compared to tourists ($M = 187.35$), $U = 17315.00$, $Z = -2.21$, $p = .03$, $r = -0.11$. This suggests that local residents place more importance on the availability of eco-friendly facilities than tourists do.

The attribute "Environment Conservation Increase" showed no significant difference between local communities ($M = 198.03$) and tourists ($M = 205.03$), $U = 18949.50$, $Z = -0.66$, $p = .51$, $r = -0.03$. Similarly, "Environment Conservation Enhancement" also showed no significant difference in rankings, with local communities ($M = 200.20$) and tourists ($M = 202.08$), $U = 19451.00$, $Z = -0.18$, $p = .86$, $r = -0.01$. These findings suggest that both groups similarly value environmental conservation efforts.

For the attribute "Economic Benefits Increase," tourists rated it significantly higher ($M = 231.45$) than local communities ($M = 178.59$), $U = 14458.00$, $Z = -5.56$,

p = .00, r = -0.28. This suggests that tourists perceive greater economic benefits from the destination compared to local residents.

In the case of "Professional Tour Guides," local communities rated it significantly lower (M = 159.35) than tourists (M = 257.59), U = 10014.00, Z = -9.61, p = .00, r = -0.48. This indicates that tourists place a higher value on the availability and quality of professional tour guides.

The attribute "Local Coordination" also showed a significant difference, with local communities (M = 172.20) rating it lower than tourists (M = 240.14), U = 12981.50, Z = -6.04, p = .00, r = -0.30. This suggests that tourists have a greater expectation for effective local coordination.

For the attribute "Toilets," local communities rated it significantly higher (M = 224.46) than tourists (M = 169.12), U = 14216.00, Z = -5.10, p = .00, r = -0.25. This indicates a greater concern for the availability and condition of toilets among local residents.

A significant difference was also found in the attribute "Dustbins," with local communities rating it higher (M = 223.19) than tourists (M = 170.85), U = 14509.00, Z = -4.79, p = .00, r = -0.24. This highlights a higher prioritization of waste management facilities by local residents.

For "Laybys," local communities rated it lower (M = 182.65) than tourists (M = 225.94), U = 15395.00, Z = -4.03, p = .00, r = -0.20, suggesting that tourists place more importance on the availability of laybys.

A significant difference was observed in the attribute "Signboards," with local communities rating it higher (M = 229.36) compared to tourists (M = 162.47), U = 13084.50, Z = -6.06, p = .00, r = -0.30. This indicates that locals prioritize clear and adequate signboards more than tourists do.

In the case of "Drinking Water," local communities rated it significantly higher (M = 249.06) than tourists (M = 135.69), U = 8533.00, Z = -10.26, p = .00, r =

-0.51. This suggests a greater concern for the availability of drinking water among local residents.

The attribute "Drainage Systems" showed a significant difference, with local communities rating it lower (M = 192.10) than tourists (M = 213.09), U = 17579.50, Z = -1.99, p = .05, r = -0.10, indicating tourists have higher expectations for effective drainage systems.

For "Scenery," a large and significant difference was found, with local communities rating it much higher (M = 277.84) than tourists (M = 96.59), U = 1886.00, Z = -16.26, p = .00, r = -0.81. This demonstrates a substantial divergence in the appreciation of scenic beauty between the two groups.

The attribute "Eating Places" also showed a significant difference, with local communities rating it higher (M = 215.94) than tourists (M = 180.70), U = 16184.00, Z = -3.20, p = .00, r = -0.16, suggesting a greater concern for dining options among local residents.

A significant difference was found for "Tourist Information Centre," with local communities rating it lower (M = 189.54) than tourists (M = 216.57), U = 16988.00, Z = -2.53, p = .01, r = -0.13, indicating tourists place more importance on the availability of tourist information centers.

For the attribute "Accommodation," local communities rated it significantly lower (M = 153.08) than tourists (M = 266.11), U = 8566.50, Z = -10.14, p = .00, r = -0.51. This suggests that tourists have higher expectations for accommodation facilities.

The attribute "Activities/Things to Do" showed a significant difference, with local communities rating it lower (M = 155.97) than tourists (M = 262.18), U = 9234.00, Z = -9.50, p = .00, r = -0.47, indicating tourists have a greater interest in available activities and things to do.

For "Accessibility," local communities rated it significantly higher (M = 262.16) than tourists (M = 117.90), U = 5508.00, Z = -12.78, p = .00, r = -0.64. This suggests a greater concern for accessibility among local residents.

No significant difference was found for the attribute "Transportation," with local communities (M = 205.12) and tourists (M = 195.40) having similar rankings, U = 18682.50, Z = -1.04, p = .30, r = -0.05, indicating both groups have similar views on transportation.

Finally, for the attribute "Maintenance for Eco-Tourism," tourists rated it significantly higher (M = 256.95) than local communities (M = 159.83), U = 10124.00, Z = -8.75, p = .00, r = -0.44, revealing a discrepancy in perceived or actual maintenance efforts for eco-tourism activities.

Table 4.16:
Results of the Mann-Whitney U Test along with the mean rankings of the ratings provided by the participants for each aspect of the destination attribute

Aspect	Local Communities' Mean Rankings of Attribute	Tourists' Mean Rankings of Attribute	U	Z	p-value	Effect Size (r)
1. Natural/Wildlife Attractions	205.71	194.59	18546.00	-1.08	0.28	-0.05
2. Eco-Friendly Facilities	211.04	187.35	17315.00	-2.21	0.03	-0.11
3. Environment Conservation Increase	198.03	205.03	18949.50	-0.66	0.51	-0.03
4. Environment Conservation Enhancement	200.20	202.08	19451.00	-0.18	0.86	-0.01
5. Economic Benefits Increase	178.59	231.45	14458.00	-5.56	0.00	-0.28
6. Professional Tour Guides	159.35	257.59	10014.00	-9.61	0.00	-0.48
7. Local Coordination	172.20	240.14	12981.50	-6.04	0.00	-0.30
8. Toilets	224.46	169.12	14216.00	-5.10	0.00	-0.25
9. Dustbins	223.19	170.85	14509.00	-4.79	0.00	-0.24
10. Laybys	182.65	225.94	15395.00	-4.03	0.00	-0.20
14. Signboards	229.36	162.47	13084.50	-6.06	0.00	-0.30
15. Drinking Water	249.06	135.69	8533.00	-10.26	0.00	-0.51
16. Drainage Systems	192.10	213.09	17579.50	-1.99	0.05	-0.10
18. Scenery	277.84	96.59	1886.00	-16.26	0.00	-0.81
20. Eating Places	215.94	180.70	16184.00	-3.20	0.00	-0.16
21. Tourist Information Centre	189.54	216.57	16988.00	-2.53	0.01	-0.13
22. Accommodation	153.08	266.11	8566.50	-10.14	0.00	-0.51
23. Activities/Things to Do	155.97	262.18	9234.00	-9.50	0.00	-0.47
24. Accessibility	262.16	117.90	5508.00	-12.78	0.00	-0.64
25. Transportation	205.12	195.40	18682.50	-1.04	0.30	-0.05
26. Maintenance for Eco-Tourism	159.83	256.95	10124.00	-8.75	0.00	-0.44

Source- Author

Differences in Overall Perception of Individual Destination Attribute Between Local Communities and Tourists

An Independent Samples Welch's t-test was conducted to compare the overall perception of the study area as a tourist destination between local community

members and tourists. The results of the analysis are shown in Table 4.17. Local community members (N = 231) had a mean overall rating of 67.30 (SD = 11.85), while the tourists (N = 170) had a mean overall rating of 66.96 (SD = 4.57). Levene's test for equality of variances was significant, F = 144.36, p < .001, indicating a violation of the assumption of equal variances. Therefore, Welch's t-test was used to compare the means.

The Welch's t-test showed no significant difference in the overall perception of the study area between local community members and tourists, t (314.81) = 0.391, p = 0.70. The effect size, calculated using Glass's Delta, was 0.07, indicating a small effect. The results of the analysis suggests that there is no significant difference in the overall perception of the region as a tourist destination between local community members and tourists, with both groups having similar overall ratings

Table 4.17:
Results of the Independent Samples Welch's *t* Test showing the difference in the overall perception of local community members and tourists on Mamit district as a Tourist Destination

Sample	N	Mean	SD	Levene's F	p	DF	Welch's t	p	Effect Size (Glass's Delta)
Local Communities	231	67.30	11.85	144.36	< .001	314.81	0.391	0.70	0.07 (Very Small)
Tourist	170	66.96	4.57						

Source- Author

4.5 Objective 5: To conduct a situational analysis of community-based ecotourism development and related infrastructure development in the study area.

To conduct a situational analysis of community-based ecotourism development and related infrastructure development in the study area, a new batch of samples were recruited as participants for this particular objective. Their

demographic data are given in Table 4.18. The gender distribution among the participants is relatively balanced, with 89 males (49.17%) and 92 females (50.83%).

Age wise, the largest age group is those aged 35-44 years, comprising 68 participants (37.57%). The second largest group is the 18-24 age bracket, with 67 participants (37.02%). Participants aged 25-34 years make up 20.44% of the sample, with 37 individuals. The 45-54 age group includes 8 participants (4.42%), and there is a single participant (0.55%) in the 55-64 age group.

Based on their role as stakeholders, the largest group comprises of Tour Operators and Business Owners, with 50 participants (27.62%). Local Community Members form the next largest group with 46 participants (25.41%). Tourists account for 45 participants (24.86%), while Administrators at both local and state levels comprise 40 participants (22.10%). Assam, Uttar Pradesh, and West Bengal contribute 4 tourists (2.21%) in the current study. Bihar and Manipur each contribute 5 tourists (2.76%). States with 2 tourists (1.10%) include Maharashtra and Rajasthan. Several states have one representative, each constituting 0.55% of the tourist group. These states include Delhi, Gujarat, Jharkhand, Kerala, Madhya Pradesh, Punjab, Sikkim, Tamil Nadu, Tripura, and Uttaranchal. Also, 4 tourists (2.21%) did not specify their home states.

Table 4.18:
Demographic Profile of Participants

Demographic	Category	N	%
Gender	Male	89	49.17
	Female	92	50.83
Age	18 - 24	67	37.02
	25 - 34	37	20.44
	35 - 44	68	37.57
	45 - 54	8	4.42
	55 - 64	1	0.55
Role as Stakeholder	Tourist	45	24.86
	Tour Operator/Business Owner	50	27.62
	Administrator (Local & State)	40	22.10
	Local Community Member	46	25.41
Home State (Only Tourists)	Assam	4	2.21
	Bihar	5	2.76
	Delhi	1	0.55
	Gujarat	1	0.55
	Jharkhand	1	0.55
	Kerala	1	0.55
	Madhya Pradesh	1	0.55
	Maharashtra	2	1.10
	Manipur	5	2.76
	Meghalaya	5	2.76
	Punjab	1	0.55
	Rajasthan	2	1.10
	Sikkim	1	0.55
	Tamil Nadu	1	0.55
	Tripura	1	0.55
	Uttar Pradesh	4	2.21
	Uttaranchal	1	0.55
	West Bengal	4	2.21
	Not Specified	4	2.21

Source- Author

Responses of Participants on Indicator/Items of SWOT Survey Questionnaire

The responses of the participants on the questionnaire asking their perceived importance of various SWOT (Strengths, Weaknesses, Opportunities, and Threats)

indicators for ecotourism in the study area can be seen from Table 4.19 and are discussed in detail.

Strengths

Cultural richness was highly valued among respondents, with 48.1% rating it as extremely important. Only a small fraction, 3.3%, considered it quite unimportant, and none rated it as extremely unimportant. Similarly, natural beauty was deemed crucial, with 47.0% of respondents rating it as extremely important. Community engagement also stood out, with 55.8% of participants recognizing the importance of active involvement and responsible ownership by local communities. Sustainable practices were highly valued, with 45.9% rating them as extremely important. Government support was another significant strength, with 54.7% rating it as extremely important showing that the various stakeholders recognize the positive impact of favourable government policies on ecotourism development.

Weaknesses

In terms of weaknesses, infrastructure limitations were a major concern, with 58.0% of respondents rating this aspect as extremely important, which indicate the need for improved infrastructure, such as better roads, accommodation facilities, and tourist amenities, to support the growth of ecotourism in the study area. Limited awareness among tourists about the region's offerings was also rated as extremely important by 47.5 of the participants, which shows that enhanced marketing and awareness initiatives may be necessary. The skills gap within the community was another significant weakness, with 55.2% of participants rating it as extremely important, which indicates the need for training and capacity-building programs to empower local residents. Seasonal dependency of tourism activities was a notable issue, with 59.1% rating it as extremely important. Also, the competitive landscape was a concern, with 64.6% of respondents rating it as extremely important, which indicates the need for innovative marketing strategies to attract visitors in the face of competition from neighbouring regions.

Opportunities

In terms of opportunities, diversification of offerings was seen as a significant opportunity, with 66.3% of participants rating it as extremely important. Forming collaborative partnerships was another key opportunity, with 63.0% rating it as extremely important. Infrastructure development was considered highly important by with 58% of the participants. Promotion of sustainable practices was seen as an important opportunity, with the majority (56.4%) rating it as extremely important. Cultural exchanges were also valued by the majority (56.4%), who rated it as extremely important.

Threats

Threats to ecotourism such as environmental degradation was a significant concern, with 56.4% of respondents rating it as extremely important, which shows the participants' worries about the impact of unsustainable tourism practices and overexploitation of natural resources. Natural disasters were another threat, with 45.3% rating this aspect as extremely important, given the vulnerability of the region to landslides, floods and droughts. Political instability was a notable threat, with 58.0% rating it as extremely important. This is owing to the potential impact of political unrest or conflicts within the area. Changing consumer preferences were also a concern, with 62.4% rating this threat as extremely important. These people are probably aware of the challenge of maintaining demand for ecotourism offerings in the face of shifting tourist preferences towards mass tourism destinations or urban experiences. Finally, regulatory challenges were identified as a significant threat, with 58.0% rating it as extremely important, pointing to the difficulties posed by bureaucratic hurdles in implementing CBET initiatives and attracting investment.

Table 4.19:
Responses of the Participants on the Indicators of SWOT

Indicator (Code)	Category	Extremely Unimportant	Quite Unimportant	Neither Unimportant nor Important	Quite Important	Extremely Important
Cultural Richness (Q1)	Strengths	0 (0.0%)	6 (3.3%)	20 (11.0%)	68 (37.6%)	87 (48.1%)
Natural Beauty (Q2)	Strengths	0 (0.0%)	5 (2.8%)	29 (16.0%)	62 (34.3%)	85 (47.0%)
Community Engagement (Q3)	Strengths	0 (0.0%)	2 (1.1%)	20 (11.0%)	58 (32.0%)	101 (55.8%)
Sustainable Practices (Q4)	Strengths	0 (0.0%)	6 (3.3%)	17 (9.4%)	75 (41.4%)	83 (45.9%)
Government Support (Q5)	Strengths	0 (0.0%)	3 (1.7%)	16 (8.8%)	63 (34.8%)	99 (54.7%)
Infrastructure Limitations (Q6)	Weaknesses	0 (0.0%)	2 (1.1%)	17 (9.4%)	57 (31.5%)	105 (58.0%)
Limited Awareness (Q7)	Weaknesses	0 (0.0%)	4 (2.2%)	22 (12.2%)	69 (38.1%)	86 (47.5%)
Skills Gap (Q8)	Weaknesses	2 (1.1%)	4 (2.2%)	19 (10.5%)	56 (30.9%)	100 (55.2%)
Seasonal Dependency (Q9)	Weaknesses	0 (0.0%)	3 (1.7%)	13 (7.2%)	58 (32.0%)	107 (59.1%)
Competitive Landscape (Q10)	Weaknesses	0 (0.0%)	1 (0.6%)	12 (6.6%)	51 (28.2%)	117 (64.6%)
Diversification of Offerings (Q11)	Opportunities	2 (1.1%)	3 (1.7%)	19 (10.5%)	37 (20.4%)	120 (66.3%)
Collaborative Partnerships (Q12)	Opportunities	0 (0.0%)	6 (3.3%)	26 (14.4%)	35 (19.3%)	114 (63.0%)
Infrastructure Development (Q13)	Opportunities	1 (0.6%)	2 (1.1%)	24 (13.3%)	49 (27.1%)	105 (58.0%)
Promotion of	Opportunitie	1	0	26	52	102

Sustainable Practices (Q14)	s	(0.6%)	(0.0%)	(14.4%)	(28.7%)	(56.4%)
Cultural Exchanges (Q15)	Opportunities	2 (1.1%)	2 (1.1%)	24 (13.3%)	51 (28.2%)	102 (56.4%)
Environmental Degradation (Q16)	Threats	2 (1.1%)	3 (1.7%)	13 (7.2%)	61 (33.7%)	102 (56.4%)
Natural Disasters (Q17)	Threats	0 (0.0%)	7 (3.9%)	24 (13.3%)	68 (37.6%)	82 (45.3%)
Political Instability (Q18)	Threats	0 (0.0%)	4 (2.2%)	16 (8.8%)	56 (30.9%)	105 (58.0%)
Changing Consumer Preferences (Q19)	Threats	1 (0.6%)	3 (1.7%)	20 (11.0%)	44 (24.3%)	113 (62.4%)
Regulatory Challenges (Q20)	Threats	1 (0.6%)	1 (0.6%)	16 (8.8%)	58 (32.0%)	105 (58.0%)

Source- Author

Results of the Principal Component Analysis

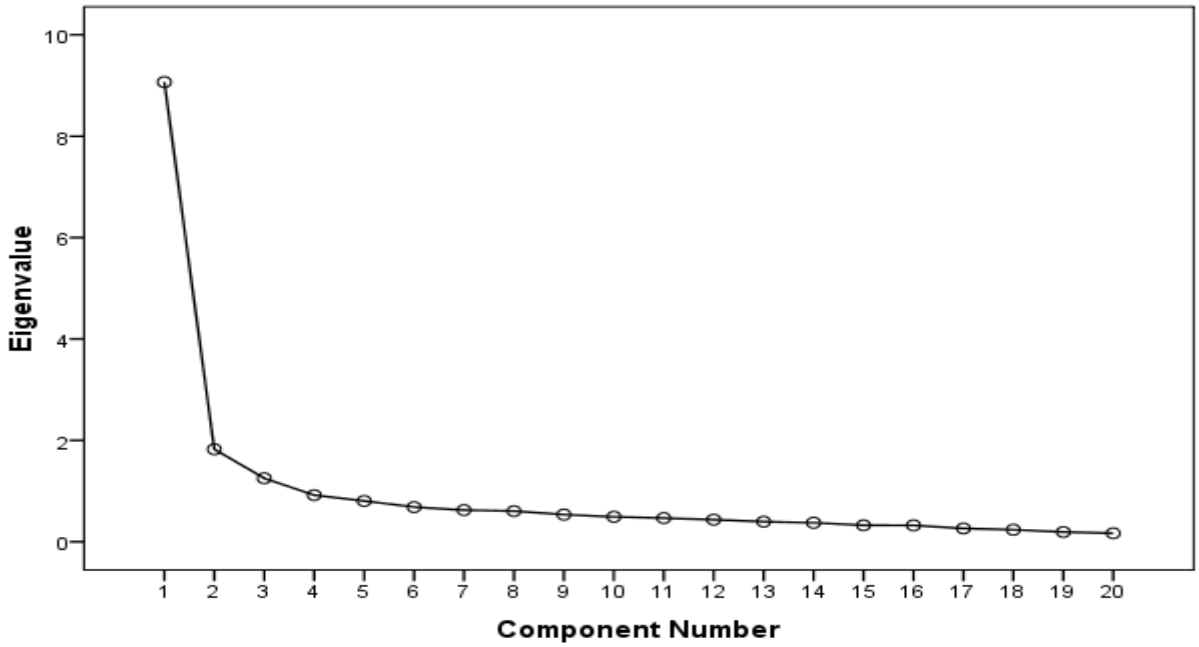
The proportion of variance explained by each of the principal components identified in the PCA can be seen from Table 4.20. There were three principal components extracted through the analysis. The first component (Component 1) explains 22.70% of the total variance in the data. When the variance explained by the second component (20.25%) is added, a total of 41.14% of the variance is explained by the first two components combined. Adding the third component, which explains 17.80% of the variance, results in a cumulative variance of 60.73%. This means that these three components together account for 60.73% of the total variance in the dataset. In conjunction, to determine the optimal number of components to retain, the scree along with these percentages was considered (Figure 4.3), where we can see the explained variance by each component, which helps to identify a point where the additional variance explained by subsequent components becomes negligible.

Table 4.20:
Total Variance Explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	4.50	22.70	22.70
2	4.05	20.25	42.96
3	3.56	17.80	60.76

Source- Author

Figure 4.3: Scree plot



Source: Author

The structure of the data can be understood from the extracted communalities and rotated component matrix (Table 4.21). Each SWOT indicator was associated with one of the three components, reflecting the underlying structure of strengths, weaknesses, opportunities, and threats in community-based ecotourism development. The indicators with significant loadings on each component elucidate the critical factors influencing community-based ecotourism in study area. The strengths predominantly loaded onto the third component, while opportunities were well

represented in the second component. The weaknesses and threats were associated with the first component as shown in the table.

Table 4.21:
Results of the PCA

Sl.	Indicator	Extracted Communalities	Rotated Matrix Component		
			1	2	3
1	Cultural Richness (S)	0.55			0.70
2	Natural Beauty (S)	0.56			0.61
3	Community Engagement (S)	0.56			0.71
4	Sustainable Practices (S)	0.64			0.71
5	Government Support (S)	0.57			0.60
6	Infrastructure Limitations (W)	0.67	0.78		
7	Limited Awareness (W)	0.75	0.83		
8	Skills Gap (W)	0.54	0.60		
9	Seasonal Dependency (W)	0.58	0.71		
10	Competitive Landscape (W)	0.50	0.64		
11	Diversification of Offerings (O)	0.71		0.70	
12	Collaborative Partnerships (O)	0.76		0.84	
13	Infrastructure Development (O)	0.63		0.68	
14	Promotion of Sustainable Practices (O)	0.71		0.80	
15	Cultural Exchanges (O)	0.72		0.81	
16	Environmental Degradation (T)	0.42	0.46		
17	Natural Disasters (T)	0.58	0.65		
18	Political Instability (T)	0.66	0.54		
19	Changing Consumer Preferences (T)	0.54	0.45		
20	Regulatory Challenges (T)	0.50	0.45		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Source- Author

The results of the PCA reveal three principal components that explain 60.76% of the total variance. A SWOT matrix was developed based on the analysis to reveal the internal and external factors that impact ecotourism in the region (Table 4.22). The first step involved identifying the internal strengths and weaknesses of ecotourism in the study area. These are factors within the control of the local community and stakeholders.

Internal Strengths (Factor 3):

1. The region has a rich cultural heritage that can provide tourists with authentic cultural experiences (Cultural Richness).
2. The district boasts beautiful landscapes, lush forests, and scenic waterfalls, caves and lakes (Natural Beauty).
3. The local community is actively involved and takes responsible ownership of ecotourism initiatives (Community Engagement).
4. There is a strong interest in conserving natural resources and preserving cultural heritage (Sustainable Practices).
5. Favourable policies and support from the government promote ecotourism development (Government Support).

Internal Weaknesses (Factor 1):

1. Inadequate infrastructure, such as roads and accommodation facilities, hinder the growth of ecotourism (Infrastructure Limitations).
2. There is a lack of awareness among tourists about the ecotourism opportunities in study area (Limited Awareness).
3. Some community members lack the necessary skills to manage and operate ecotourism ventures effectively (Skills Gap).
4. Ecotourism activities may be seasonal, leading to inconsistent tourist arrivals (Seasonal Dependency).
5. The study area faces competition from neighbouring regions and established tourist destinations (Competitive Landscape).

The next step involved identifying the external opportunities and threats. These are factors outside the control of the local community but can impact ecotourism.

External Opportunities (Factor 2):

1. Expanding the range of ecotourism activities will attract a diverse group of tourists (Diversification of Offerings).

2. Forming partnerships with NGOs, educational institutions, and private stakeholders can enhance capacity-building and financial sustainability (Collaborative Partnerships).

3. Investing in infrastructure projects, like road improvements, may improve the overall tourist experience (Infrastructure Development).

4. Promoting sustainable practices among the locals may attract eco-conscious travelers (Promotion of Sustainable Practices).

5. Cultural exchange programs can promote socio-economic development (Cultural Exchanges).

External Threats (Factor 1):

1. Unsustainable tourism practices can lead to environmental damage (Environmental Degradation).

2. The areas within the region, like any other areas in Mizoram are prone to natural disasters, such as landslides, floods and droughts etc. (Natural Disasters).

3. Political unrest within the region may deter tourists and investors (Political Instability).

4. Shifts in consumer preferences may reduce the demand for ecotourism (Changing Consumer Preferences).

5. Bureaucratic hurdles can deter the implementation of ecotourism initiatives (Regulatory Challenges).

Table 4.22:
SWOT Matrix of Ecotourism in Mamit

SWOT	Internal Strength	Internal Weakness
	1. Cultural Richness (S)	1. Infrastructure Limitations (W)
	2. Natural Beauty (S)	2. Limited Awareness (W)
	3. Community Engagement (S)	3. Skills Gap (W)
	4. Sustainable Practices (S)	4. Seasonal Dependency (W)
	5. Government Support (S)	5. Competitive Landscape (W)
External Opportunity	Maxi-Maxi (SO strategy)	Mini-Maxi (WO strategy)
1. Diversification of Offerings (O)	(SO1) Expand ecotourism activities to attract diverse tourists by advertising natural beauty and cultural richness.	(WO1) Enhance infrastructure to support diversified offerings and improve tourist experience.
2. Collaborative Partnerships (O)	(SO2) Form partnerships to support community engagement and sustainable practices.	(WO2) Increase awareness through collaborative marketing strategies.
3. Infrastructure Development (O)	(SO3) Develop infrastructure projects with government support to enhance tourism.	(WO3) Address skills gaps through training programs supported by partners.
4. Promotion of Sustainable Practices (O)	(SO4) Highlight sustainable practices to attract eco-conscious travelers.	(WO4) Implement sustainable infrastructure to mitigate seasonal dependency.
5. Cultural Exchanges (O)	(SO5) Promote cultural exchanges to foster community engagement and socio-economic benefits.	(WO5) Use cultural events to improve competitive positioning.
External Threat	Maxi-Mini (ST strategy)	Mini-Mini (WT strategy)
1. Environmental Degradation (T)	(ST1) Strengthen sustainable practices to combat environmental threats.	(WT1) Develop emergency response plans for natural disasters.
2. Natural Disasters (T)	(ST2) Improve infrastructure resilience against natural disasters.	(WT2) Diversify tourism offerings to reduce dependency on single-season tourism.
3. Political Instability (T)	(ST3) Lobby for government support to stabilize political environment for tourism.	(WT3) Implement robust marketing to adapt to changing consumer preferences.
4. Changing Consumer Preferences (T)	(ST4) Continuously update offerings to align with consumer trends.	(WT4) Simplify regulatory processes through policy advocacy.
5. Regulatory Challenges (T)	(ST5) Work with government to streamline regulations for sustainable tourism.	(WT5) Strengthen internal capacities to navigate regulatory challenges.

Source- Author

Using the identified strengths (Factor 3), opportunities (Factor 2), and weaknesses-threats (Factor 1), a list of strategies were created to leverage strengths (S) and opportunities (O) while addressing weaknesses (W) and threats (T), leading to the

formation of four strategic areas: Maxi-Maxi (SO), Mini-Maxi (WO), Maxi-Mini (ST), and Mini-Mini (WT). The Maxi-Maxi (SO) strategy focuses on leveraging strengths to maximize opportunities, such as expanding ecotourism activities to attract diverse tourists by leveraging natural beauty and cultural richness. The Mini-Maxi (WO) strategy addresses weaknesses to maximize opportunities, for example, by enhancing infrastructure to support diversified offerings and improve the tourist experience. The Maxi-Mini (ST) strategy leverages strengths to minimize threats, such as strengthening sustainable practices to combat environmental degradation. Finally, the Mini-Mini (WT) strategy addresses weaknesses to minimize threats, exemplified by developing emergency response plans for natural disasters to mitigate the impact of skills gaps.

The study area has a strong tourism potential due to its natural beauty and cultural heritage. However, challenges like poor infrastructure, seasonality, and inconsistent government support limit growth. The local community is actively involved in tourism, particularly through homestays and cultural events, but there is a need for skill development in hospitality. While tourism has boosted the local economy, competition from larger outlets remains. Environmental sustainability is a focus, with efforts to minimize negative impacts. Reiek village and Ailawng village show potential for growth, but both areas need more investment and better marketing.

The Structural Equation Modeling (SEM) analysis shows that community awareness, motivation, and sustainability are key to successful ecotourism. Strong local participation, with high ratings for environmental conservation and economic benefits, such as job creation were also found to be necessary for long-term success of community-based ecotourism development.

Concerning the levels of understanding, attitude, and satisfaction regarding ecotourism, around 33.8% of participants had low understanding, indicating a need for education. While 39% had a moderate attitude, 26.8% were positive about ecotourism. Satisfaction levels were mixed, with 38.5% dissatisfied, suggesting more community engagement is needed.

The comparison between local communities and tourists revealed differences in perceptions of destination attributes. Locals valued eco-friendly facilities and local amenities more, while tourists focused on economic benefits and activities. However, both groups rated the study area similarly overall as a tourist destination.

The SWOT analysis identified strengths like cultural richness and community engagement, and weaknesses like infrastructure gaps and limited awareness. Opportunities include diversifying activities and improving infrastructure, while threats like environmental degradation and political instability remain. The study suggests focusing on strengths, addressing weaknesses, and promoting sustainable growth through community involvement.

CHAPTER – 5

FINDINGS, CONCLUSION AND RECOMENDATIONS

CHAPTER 5
FINDINGS, CONCLUSION AND RECOMMENDATIONS

The current chapter discusses the findings, conclusion and suggestions from the previous chapter in a stepwise manner, aligning with the objectives of the study.

5.1 FINDINGS

Objective 1: To investigate the status and potential of tourism development in Mizoram including in the study area

Evaluation of the Findings from the Thematic Analysis

One of the most prominent themes that emerged from the thematic analysis was the poor infrastructure in the study area. Interviewees, including government officials and community members, frequently mentioned inadequate road conditions, lack of proper facilities, and limited accessibility as major issues hindering tourism development. Observations confirmed these concerns, with visible signs of underdeveloped infrastructure at key tourist sites.

Community involvement was highlighted as a crucial element for the success of tourism in region. Community leaders and residents emphasized their active participation in tourism through activities such as homestays, cultural events, and guiding tourists. However, the level of involvement varied, with some community members more engaged than others. This theme shows the importance of empowering locals and encouraging their active participation to boost tourism in the area.

The economic impact of tourism was another major theme. Many stakeholders, including business owners and local residents, noted both positive and negative economic effects. On one hand, tourism has created new job opportunities, supported local businesses, and provided additional income for families. On the other hand, some expressed concerns about unequal benefits and competition with larger, government-run outlets that offer similar products at lower prices.

Environmental issues were a recurring topic among community leaders and some government officials. The expansion of tourism has raised concerns about the impact on local ecosystems, especially regarding waste management and preserving the natural landscape. Observations at the tourism sites also highlighted some visible environmental impacts, such as littering and degradation of natural areas, suggesting the need for sustainable practices.

Seasonality emerged as a significant challenge affecting tourism in the study area. Business owners and tourism operators noted that tourist activity significantly drops during off-peak seasons such as in the middle of the year, leading to inconsistent income and difficulties in sustaining tourism businesses year-round. This highlights the need for strategies to promote tourism during the less busy times of the year to maintain economic stability for those involved.

The stakeholders had mixed views on government support for tourism development. While some acknowledged efforts made by the government, such as funding and policy support, others felt that more needs to be done in terms of quicker implementation, better marketing, and increased investment in infrastructure. The interviews reflected a strong belief in the high potential for future tourism development, given Mizoram's natural beauty, unique culture, and the interest from both domestic and international tourists.

The themes identified from the analysis highlight both the strengths and weaknesses of tourism development in the study area. While there is clear potential for growth, significant challenges like inadequate infrastructure, environmental concerns, and seasonality need to be addressed. Greater community involvement, improved government support, and sustainable practices will be essential to unlocking the full potential of tourism in the area and ensuring that its benefits are widely shared among the local communities.

Evaluation of the Findings of the Case Studies

To better understand tourism development in the study area, two villages Reiek and Ailawng were studied.

Reiek village is already a well-known tourist destination with several developed facilities, including a resort, an adventure theme park, a convention center, and traditional Mizo village setups that attract tourists. The village hosts popular events like the Anthurium Festival, which brings in many visitors and promotes cultural exchange. Tourists can enjoy activities like trekking on Reiek Mountain, eco-adventure sports such as zip lines and mountain biking, and cultural experiences in a traditional Mizo village. The Adventure Festival is also a big draw for adventure enthusiasts and those interested in Mizo culture.

Ailawng village, on the other hand, is still developing as a tourist spot. The local community is very involved in promoting tourism by building homestays, trekking routes, and watchtowers. Tourists visiting the region can participate in activities like trekking and camping on Ailawng Tlang, exploring Khuangchera Puk (a cave with historical significance), and experiencing local culture through dances and cuisine. The village also offers guided nature walks showcasing local plants and wildlife.

The communities in both villages are highly involved in tourism development. In Reiek, a tourism board that includes members from local organizations like the Village Council and Young Mizo Association manages tourism activities. They organize events, promote sustainability, and ensure that the community benefits from tourism. In Ailawng, the Ailawng Village Ecotourism Development Society (AVEDSOC) involves local residents in running homestays, guiding tours, and maintaining tourist sites. This community-based approach ensures that everyone benefits from tourism.

Environmental sustainability is a priority in both villages. Reiek focuses on protecting the environment through initiatives like anti-plastic campaigns, tree planting, and regular clean-ups. They also conserve natural and cultural resources. Ailawng is equally committed to sustainability, with community-driven efforts to maintain trekking routes, promote eco-friendly practices, and protect wildlife habitats.

Both villages also work toward social inclusion and equity. In Reiek, young locals are trained to offer services like guiding and operating adventure equipment, and women manage homestays, eateries, and stalls, promoting gender equality and financial independence. In Ailawng, the tourism model includes all social groups, ensuring broad participation and fair distribution of benefits. Men and women are involved in tourism-related activities, enhancing community income.

Tourism is a major economic driver in Reiek, supporting local businesses like artisan markets and traditional craft stalls. The Reiek Tourism Board collaborates with the State Government to create jobs and foster entrepreneurship through tourism. In Ailawng, the economy is primarily agrarian, but ecotourism is becoming an important source of income. Homestays, guided tours, and other tourism-related services provide additional income opportunities for residents.

Despite these positive aspects, both villages face challenges. Reiek has limited healthcare facilities, which can be problematic during medical emergencies, and relies heavily on rainwater harvesting, which can be unreliable. Ailawng has low visitor numbers, possibly due to limited promotion and awareness, and needs better infrastructure to support growing tourism activities.

Reiek has high potential for further development in eco-tourism, adventure tourism, and cultural tourism. By introducing more activities and improving marketing strategies, the village could attract more visitors. Ailawng also has significant potential for growth in community-based ecotourism because of its natural beauty and cultural heritage. More investment in marketing and infrastructure could boost its tourism sector.

In summary, Reiek is a more developed tourist destination with established infrastructure and events, while Ailawng is still emerging, focusing on ecotourism with strong community involvement. Both villages have challenges but also great potential for future tourism development.

Evaluation of the Visual Observations

The visual observations made in Reiek and Ailawng villages show the positive efforts of local communities while also revealing significant issues that need attention, such as infrastructure challenges, community involvement, environmental initiatives, and ways to improve the overall tourism experience.

One of the biggest issues observed is poor infrastructure. Roads leading to key tourist sites are often in bad shape, making it difficult for visitors to access and enjoy the attractions. There are also limited facilities such as restrooms, proper parking areas, and waste bins. Many locals and stakeholders have identified these as major hurdles for tourism growth in the area. Improving these basic amenities would significantly enhance the area's appeal and overall visitor experience.

Despite these challenges, the local community's involvement in tourism stands out as a strong positive. Various initiatives show the active engagement of the community in enhancing tourism. For example, in Ailawng, a cable footbridge has been constructed to make the site more appealing to tourists. Additionally, locals offer homestays and organize cultural events, reflecting their commitment to creating unique and memorable experiences. These efforts not only help attract more tourists but also provide new income opportunities for residents.

There is also strong evidence of the community's awareness of environmental protection. Signages reminding tourists not to litter and to avoid starting fires demonstrate the local commitment to keeping the environment clean and safe. Designated parking areas help minimize the impact on natural surroundings, highlighting a proactive approach to preserving the landscape, which is a major draw for visitors. However, further measures, such as improved waste management systems, are needed to ensure these environmental protections are effectively enforced.

The community's understanding of the importance of enhancing the visitor experience beyond natural attractions is also evident. By creating structures like the cable footbridge and developing engaging activities, the area offers more than just

scenic views, catering to tourists seeking diverse experiences. This kind of initiative is crucial in maintaining interest and ensuring the area remains competitive as a tourist destination.

While the efforts of the community are commendable, there are still challenges that must be addressed to support sustainable tourism growth. Improved infrastructure, particularly in roads and facilities, remains a top priority. Increased government investment in these areas would greatly benefit tourism development. Additionally, better training and resources are needed to help local residents develop skills in tourism management and customer service, enhancing the quality of experiences for tourists and maximizing economic benefits for the community.

Marketing the area through social media and other digital platforms could also help attract more visitors, especially during off-peak seasons. Promoting the unique attractions and community-driven experiences would elevate the profile of Reiek and Ailawng villages, positioning them as must-visit destinations in Mizoram.

Overall, these observations confirm that while there is a strong foundation of community involvement and environmental awareness, substantial improvements in infrastructure and support are necessary to fully realize the potential of tourism in the study area. With targeted investments and ongoing community engagement, the area can evolve into a sustainable and thriving tourist destination that benefits all stakeholders.

Objective 2: To assess the functions and performance of existing community driven tourism development society in the study area

Functions and Performance of Existing Community Driven Ecotourism Development Society

The assessment of community-driven tourism development in the study area shows that tourism development societies are making a significant impact through their involvement in tourism initiatives. The results show that most people in the area feel well-informed about the tourism projects happening around them. They

appreciate the clear and timely information they receive, which helps them stay engaged with these initiatives. This suggests that local individuals are successfully sharing and communicating important details about tourism activities.

The survey reveals that local people are highly supportive of participating in tourism projects. Many are eager to get involved and show strong enthusiasm for activities that benefit both the environment and their community. This indicates that local individuals are effectively encouraging and maintaining high levels of community involvement.

Community members' efforts to conserve the environment are clearly recognized. The survey shows that people value the work done to protect local wildlife and natural habitats. The positive feedback reflects the success of these conservation efforts and the community's commitment to integrating environmental protection into tourism.

The impact of community-driven tourism development also extends to social aspects. Participants note that these efforts have helped strengthen community relationships and preserve local culture. This indicates that people are effectively building a sense of unity and pride through their tourism activities.

Economically, local people feel that tourism projects are benefiting their area. The results show that they believe these initiatives are helping local businesses to grow and creating job opportunities. This demonstrates that community involvement in tourism is supporting the local economy and enhancing residents' financial prospects.

In summary, the assessment confirms that people in the study area are making a positive impact through their engagement in community-driven tourism. Their efforts are effective in communication, community involvement, environmental conservation, social cohesion, and economic development. The positive feedback from residents indicate the success of these tourism initiatives and their meaningful contributions to the community.

Testing of Hypotheses

Hypothesis HI: Destination community in the study area are significantly informed and motivated towards "Community-based ecotourism development."

The SEM results strongly support this hypothesis. The path coefficient of 0.78, with a standard error of 0.05, indicates a strong and positive relationship between the community's awareness and motivation towards community-based ecotourism development. The T-value of 15.60 and a p-value less than 0.01 shows that this relationship is statistically significant. This means the majority of the community feels well-informed and motivated by the tourism societies' efforts.

Hypothesis H2: Community-based ecotourism development is significantly related to conservation, preservation and promotion of destination attributes.

The SEM analysis shows that community-based ecotourism development is significantly related to conservation, preservation, and the promotion of local attributes. The path coefficient for this relationship is 0.85, and the standard error is 0.04. With a T-value of 21.25 and a p-value below 0.01, these results indicate a very strong and positive impact of ecotourism development on these areas. This supports the idea that the tourism initiatives are effectively contributing to environmental conservation and the promotion of destination attributes.

Hypothesis H3: Ecotourism development is significantly related to sustainable development (Social, Economic, and Environmental) of the study area.

The findings of the SEM also support this hypothesis. The path coefficient of 0.82, with a standard error of 0.06, reflects a significant and positive relationship between ecotourism development and the sustainable development of the area in social, economic, and environmental terms. The T-value is 13.67, and the p-value is less than 0.01, confirming the statistical significance of this relationship. This suggests that the ecotourism development efforts are making a meaningful contribution to sustainable development in the study area.

Objective 3: To assess the understanding, attitude and satisfaction of destination community towards ecotourism development;

The findings of the assessment of the understanding, attitude and satisfaction levels of local community members towards community-based ecotourism reveal that:

- Community members show a generally high level of understanding of ecotourism, particularly recognizing that it involves responsible travel that benefits both the environment and local communities.
    - This shows that people understand ecotourism as travel that helps both the environment and local communities. This understanding is important for making ecotourism initiatives successful, as it aligns community values with the goals of sustainable tourism.
- There is a strong awareness of the need to minimize the impact of visitors on natural resources, reflecting a well-developed recognition of the importance of environmental conservation.
    - This indicates that the community is aware of the need to reduce the negative effects of tourism on nature. This awareness helps in creating practices that protect the environment while allowing tourism to thrive.
- Many community members see the economic benefits of ecotourism, recognizing its potential to improve the local economy.
    - This shows that people believe ecotourism can boost the local economy. Recognizing these benefits helps in gaining support for ecotourism projects and using them to enhance local economic conditions.
- The importance of preserving local culture and heritage, along with the need for sustainable tourism practices, is well understood by many.

    - This indicates that many community members value both the preservation of their culture and sustainable tourism. Understanding this helps ensure that tourism development respects local traditions and promotes sustainability.

- People not only grasp the core ideas of ecotourism but also acknowledge its broader implications, such as the significance of cultural preservation and sustainability.

    - This shows that community members understand both the basic principles and the wider effects of ecotourism, including its role in cultural preservation and sustainability.

- There is good awareness of local ecotourism initiatives, and many people can differentiate between ecotourism and traditional mass tourism.

    - This suggests that people know about local ecotourism efforts and can distinguish them from traditional tourism. This awareness helps in promoting ecotourism and understanding it as a distinct, beneficial alternative.

- A significant portion of the community has a limited understanding of ecotourism concepts, showing the need for more educational efforts to ensure comprehensive understanding.

    - This indicates that while some people understand ecotourism well, others do not. More educational efforts are needed to fill these knowledge gaps and support effective ecotourism.

- Most community members have a positive attitude towards ecotourism, believing that it improves livelihoods and contributes to local infrastructure development.

    - This shows that many people see ecotourism as a positive force for enhancing their lives and local infrastructure. Positive attitudes are essential for the success and growth of ecotourism projects.

- Many believe that ecotourism benefits local people and enhances their economic conditions, reflecting a generally positive outlook.

    - This suggests that people think ecotourism helps improve local economic conditions, leading to a supportive outlook on ecotourism.

- Despite this positivity, there is a portion of the community that remains skeptical or indifferent towards ecotourism, possibly due to a lack of awareness or doubts about its benefits.

    - This indicates that some community members are not fully convinced of the benefits of ecotourism. Addressing their doubts and improving awareness can help increase overall support.

- A smaller group of people views ecotourism very positively, seeing it as a key driver of community empowerment and environmental conservation.

    - This shows that a smaller segment of the community strongly supports ecotourism for its potential to empower local residents and protect the environment.

- Satisfaction with current ecotourism initiatives is mixed; many people are satisfied but others feel there is room for improvement.

    - This indicates that while some aspects of ecotourism are appreciated, there are areas where improvements are needed to meet community expectations.

- Many community members feel their opinions are considered in ecotourism planning processes, leading to a sense of inclusion.

    - This shows that involving community members in planning helps them feel included and valued, which can lead to greater support for ecotourism.

- There is general happiness with the economic benefits brought by ecotourism, though satisfaction with environmental and cultural preservation efforts is less consistent.

    - This indicates that while people appreciate the economic benefits of ecotourism, they are less satisfied with efforts to preserve the environment and cultural heritage. Addressing these issues can improve overall satisfaction.

- Satisfaction with community involvement, educational opportunities, and safety measures is generally positive.

    - This shows that people are generally happy with how community involvement, education, and safety are managed in ecotourism. Positive feedback in these areas contributes to the success of ecotourism initiatives.

- A significant portion of the community is not entirely satisfied with certain aspects of ecotourism development, indicating areas where initiatives may need refinement.

    - This suggests that there are specific areas of ecotourism development that need improvement to better meet community needs and expectations.

- Overall support for ecotourism is strong within the community, but there are notable areas for improvement.

    - This shows that while there is strong support for ecotourism, some areas need attention and enhancement to ensure continued success and acceptance.

- Enhancing engagement and educational efforts could help address the concerns of those with lower levels of understanding, attitude, and satisfaction.
    - This indicates that improving community engagement and education can help address concerns and gaps in understanding, leading to better support and satisfaction with ecotourism.
- Addressing these gaps may create a more universally supportive environment for ecotourism development.
    - This suggests that by tackling the identified issues, the community's overall support for ecotourism can be strengthened, creating a more favorable environment for its growth.
- Community members recognize the need for tourism that conserves natural areas while improving the well-being of local people.
    - This shows that people understand the importance of balancing environmental conservation with local benefits in tourism.
- The recognition of low visitor impact on protected areas suggests that many understand the delicate balance needed in ecotourism.
    - This indicates that community members are aware of the need to minimize tourism's impact on protected areas, helping maintain ecological balance.
- There is acknowledgment among community members of the necessity for resource conservation in ecotourism development.
    - This shows that people recognize the importance of conserving resources as part of ecotourism, ensuring its sustainability.
- A notable portion of the community understands the importance of sustainability practices in tourism.

    - This suggests that many community members value sustainability practices, supporting the goal of making tourism more responsible and environmentally friendly.

- Local ecotourism initiatives are familiar to many, with a clear distinction made between ecotourism and traditional mass tourism.

    - This shows that people are aware of local ecotourism efforts and can differentiate them from traditional tourism, aiding in effective promotion and support.

- Despite the high levels of understanding, a significant portion of the community has lower comprehension, indicating a need for targeted educational outreach.

    - This shows that although many understand ecotourism, there are still gaps in knowledge that need targeted educational efforts to address.

- Positive attitudes towards ecotourism are widespread, but there is a need to address skepticism among a portion of the community.

    - This indicates that while many people support ecotourism, addressing the skepticism of others is necessary to increase overall acceptance.

- Satisfaction with the current state of ecotourism varies, with specific areas needing more attention to meet community expectations.

    - This shows that satisfaction with ecotourism is not uniform and that certain areas need improvement to better align with what the community expects.

- The findings suggest that continuous improvement in education, engagement, and satisfaction efforts is essential for the future success of ecotourism in the area.

- This indicates that ongoing efforts to improve education, community engagement, and satisfaction are crucial for the long-term success of ecotourism.

Objective 4: To evaluate the destination attributes in the perspective of both tourists and destination community

On comparing the perspectives of the local community members and tourists about the destination attributes, several key findings were made.

- Local community members and tourists have different views on natural and wildlife attractions. Local residents might rate these attractions lower because they see them as part of their everyday environment and may not perceive them as special. They might take these attractions for granted or feel that their value is not as high. Tourists, however, encounter these attractions as new and exciting experiences. For them, the natural and wildlife attractions can be unique highlights of their visit, leading them to rate them more positively and with greater enthusiasm.
- Tourists generally rate eco-friendly facilities positively, with no ratings of "Very Poor" or "Poor." Tourists might have lower expectations for these facilities, or they might focus more on their overall experience rather than specific facilities. They might be less critical of minor issues since their primary goal is enjoying their visit. On the other hand, local community members, who use these facilities more regularly, might have higher standards and are more likely to notice and be affected by any deficiencies. They might rate these facilities lower if they encounter problems or if the facilities do not meet their expectations.
- Both local community members and tourists show similar levels of appreciation for environmental conservation efforts. This suggests that both groups value the importance of maintaining and improving the environment. They both recognize the need for conservation and support efforts to protect natural resources. This common ground indicates that environmental

conservation is a shared priority, and efforts in this area likely resonate with both locals and tourists.

- Tourists rate economic benefits from the destination more positively than local community members. Tourists directly experience the advantages of tourism, such as improved infrastructure, better services, and new opportunities during their visit. These tangible benefits lead to higher ratings from tourists. In contrast, local residents might have mixed feelings about these benefits. They may experience benefits differently or feel that they do not always directly receive the advantages that tourists do, which can lead to more varied and less positive ratings from locals.
- Tourists place significant value on professional tour guides. Tourists often view professional guides as essential to enhancing their travel experience. Guides provide valuable information, context, and assistance, making the visit more enjoyable and informative. Local community members might not rate guides as highly because they might have different expectations or may not rely on them as much. Locals might be more familiar with the areas being toured and thus might not see the added value that tourists do.
- Tourists have higher expectations for local coordination and services. Tourists rely heavily on well-organized services and smooth operations to ensure a pleasant and stress-free visit. They expect clear communication, efficient services, and well-managed operations. Local community members, who are accustomed to the local setup, might not rate coordination as highly because they are familiar with the existing arrangements and may not have the same level of expectation or dependency on these services.
- Local community members rate toilets and dustbins more critically than tourists. This could be because locals use these facilities more frequently and are more aware of any issues or shortcomings. They might have higher standards and expectations due to their regular use. Tourists, who only use these facilities during their short stays, might not notice or be as affected by minor issues, leading them to rate these facilities more favorably.
- Tourists value laybys and signboards more highly. These amenities are important for tourists as they enhance the convenience and ease of travel.

Proper signage and resting areas are crucial for a pleasant travel experience. Local community members might not rate these amenities as highly because they are more familiar with the area and might not rely on these features as much during their daily routines.

- Drinking water facilities and drainage systems receive mixed reviews from both groups. Both locals and tourists have varied opinions on these facilities, which might stem from different levels of use or expectations. Locals might be more critical based on their everyday experiences, while tourists might have different needs or experiences, leading to a range of ratings for these facilities.
- The large difference in ratings for scenery suggests that locals may have a deeper appreciation for their environment. Local community members might find their surroundings more beautiful or valuable because they are more connected to the area. Tourists, after their initial visit, might not perceive the same level of appeal and might focus on different aspects of their experience.
- Eating places receive more positive ratings from local community members. Locals are likely to rate these places more favorably due to their familiarity and regular use. They might have a better understanding of the quality and value of local dining options. Tourists, with different dining experiences and expectations, might rate these places lower if they do not meet their expectations or if they compare them to other dining experiences from their travels.
- Tourists rate the tourist information center and accommodation more favorably than local community members. Tourists might have higher expectations for these services, seeking comprehensive information and comfortable accommodations. Local community members might rate these services differently based on their local knowledge and different priorities, which might not align with the expectations of tourists.
- Tourists show more interest in activities and accessibility. They rate these aspects positively because they seek engaging and easily reachable options during their visits. They value activities and accessibility as crucial components of their overall travel experience. Local community members

might rate these aspects differently based on their daily lives and less reliance on tourist-centric activities.

- Both groups give mixed reviews on transportation and eco-tourism maintenance. This indicates that there are ongoing concerns or varying expectations about these aspects. Tourists might expect higher standards or notice deficiencies more due to their less frequent visits. Locals might have different experiences or expectations, leading to a range of ratings for transportation and maintenance.
- Overall, both local community members and tourists have similar perceptions of the destination. Despite specific differences in ratings for individual attributes, both groups generally share a comparable view of the destination's overall appeal and value. This suggests that, in general, both locals and tourists find the destination to be valuable and appealing, even though their views on specific aspects might differ.

Objective 5: To conduct a situational analysis of community-based ecotourism development and related infrastructure development in the study area.

The key findings from the PCA and SWOT analysis for ecotourism in the study area shows some important details about the region's potential and challenges.

Strengths and Opportunities

Cultural and Natural Resources: Mamit district's cultural heritage and beautiful landscapes are key stakes for the development of community-based ecotourism, and this aligns with previous research findings. A study by Germaine and his colleagues in 2022 highlights that forests and anthropogenic landscapes (formed by agricultural activity in particular) are important in attracting tourists, while Gao et al. (2021) found that villagers play the greatest role in local villagers in preserving these cultural landscapes to ensure their sustainability for future generations. The region's rich culture and stunning nature fit well with these ideas because they not only demonstrate how these elements enhance its appeal, but also create a unique and captivating experience for visitors.

Community Engagement: The local community's involvement in ecotourism is a big strength, and this aligns with the findings of other researchers. Palmer and Chuamuangphan (2018) showed that local participation is crucial for making ecotourism work well. Local community is actively involved and cares about conservation, which supports these ideas and shows that local engagement is important for ecotourism success.

Government Support and Sustainable Practices: Government support and a focus on sustainable practices are also strengths for the study area which fits with what other studies say. Palmer and Chuamuangphan (2018) argued that having a strong government backing is important for the successful development of ecotourism, as it provides the necessary resources, policy frameworks, and incentives to support sustainable practices. Their research reveals that government involvement not only facilitates the implementation of ecotourism projects but also enhances their long-term viability by ensuring that sustainability principles are integrated into planning and execution. In case of the current study, the region's support from the government and commitment to sustainability are positive factors that make ecotourism more promising.

Weaknesses and Threats

Infrastructure Limitations and Seasonal Dependency: The region's problems with infrastructure and seasonal tourism are common issues faced by many ecotourism destinations. Mohiudin (2023) in his doctoral thesis pointed out that economic growth and tourism revenue can be negatively impacted by poor infrastructure. The study area's struggles with roads and seasonal tourist numbers which are the main infrastructural challenges are factors that need to be addressed.

Lack of Awareness and Skills Gap: The lack of awareness about ecotourism and skill gaps among locals are also noted in other studies. King et al. (2022) highlight that skill deficiencies and insufficient knowledge about ecotourism opportunities can significantly limit the effectiveness of local participation in tourism. The region's issues with awareness and skills align with these studies, suggesting that more

comprehensive training programs and targeted marketing strategies are needed to address these gaps and enhance community engagement in ecotourism.

External Threats: Mamit faces several significant external threats that hinder its tourism and ecotourism development. Environmental damage, including unsustainable tourism practices and deforestation, threatens the region's natural resources and biodiversity, potentially deterring eco-conscious travelers (Mamit District Disaster Management Authority, 2019). The area is also vulnerable to natural disasters such as landslides and floods, which can damage infrastructure, disrupt communities, and create safety risks for tourists, leading to revenue losses and increased recovery costs. Compounding these issues, periodic ethnic conflicts, as noted by Lalengkima (2020), introduce instability that can affect local safety, disrupt travel plans, and deter visitors. Addressing these threats effectively requires robust disaster management, sustainable environmental practices, and conflict resolution to ensure the long-term viability and attractiveness of the region as a tourism destination.

Strategic Implications

SWOT analysis is a widely used tool for evaluating both organizational and personal situations, helping to identify strengths, weaknesses, opportunities, and threats. SWOT can guide decision-making by highlighting factors that influence potential actions, assisting in strategic planning, and providing information of the operational environment. After analysis, use the insights to determine strategic and actionable steps (Halaychik, 2016).

To navigate the challenges identified through the SWOT analysis, several strategic approaches can be implemented. The Maxi-Maxi (SO) strategies focus on leveraging the study area’s strengths to maximize opportunities. This involves expanding ecotourism activities by utilizing the region’s natural beauty and cultural richness, forming collaborative partnerships to support community engagement and sustainable practices, and investing in infrastructure with government support to

enhance tourism. Additionally, promoting sustainable practices and cultural exchanges can further boost the region's appeal.

The Mini-Maxi (WO) strategies aim to address weaknesses while taking advantage of opportunities. Enhancing infrastructure to support diverse tourism offerings and improve visitor experiences is crucial. Increasing tourist awareness through joint marketing efforts and providing training to address skills gaps will also be beneficial. Mitigating seasonal tourism dependency by developing varied attractions and improving competitive positioning through cultural events can further strengthen the region's ecotourism sector.

The Maxi-Mini (ST) strategies use the region's strengths to minimize threats. Strengthening sustainable practices can help combat environmental degradation, while improving infrastructure resilience can better protect against natural disasters. Seeking government support to stabilize political conditions and regularly updating tourism offerings to align with consumer trends will address potential threats. Working with authorities to streamline regulatory processes will also facilitate smoother tourism operations.

Finally, the Mini-Mini (WT) strategies focus on addressing weaknesses to minimize threats. Developing emergency response plans for natural disasters and diversifying tourism offerings to reduce reliance on seasonal visitors are essential steps. Advocating for simpler regulatory processes and building internal capacities to handle bureaucratic challenges will further support the region's ecotourism development.

Therefore, the findings about ecotourism in Mamit district match well with what experts have mentioned in previous research. The strengths and opportunities in the study area align with established ideas about successful ecotourism, while the weaknesses and threats reflect common challenges. The recommended strategies for improving ecotourism in the study area are consistent with best practices and offer a solid plan for moving forward.

5.2 CONCLUSION

This study has investigated the potential for ecotourism development in Mamit district, Mizoram. Based on the findings, several recommendations have been made to improve infrastructure, involve the community, protect the environment, strengthen marketing and get government support. These steps are important for long-term success and will help both local people and visitors.

One of the most important findings of this study is the vital role of the local community in making ecotourism successful. Ecotourism can only thrive when local people actively participate and feel a sense of ownership over tourism initiatives. Providing proper training and skill development opportunities for residents is necessary to enable them to take part in tourism-related activities. When locals are well-prepared, they can contribute as tour guides, hospitality workers, handicraft vendors and eco-lodge operators. This not only creates employment opportunities but also ensures that tourism directly benefits the people living in the region.

Also, working with local businesses and the government can create sustainable jobs and support the regional economy. Encouraging the community to participate in planning and decision-making helps build a strong foundation for ecotourism. When residents see tangible benefits, they are more likely to protect and preserve the environment. Educating locals on sustainable tourism practices, business management and customer service can improve the overall quality of ecotourism in the region.

Infrastructure Development

Improving infrastructure is equally important for tourism growth. Visitors are more likely to travel to the study area if they can access the area easily and enjoy a comfortable stay. Upgrading road networks ensures smoother transportation, making travel more convenient for tourists. Safe and well-maintained roads can also reduce travel time and improve the overall experience of visitors.

Sanitation and waste management are other key aspects of infrastructure development. Clean and well-maintained public spaces, restrooms and waste disposal systems create a more pleasant environment for tourists. Placing waste bins in key locations, implementing recycling programs and promoting cleanliness can enhance the appeal of tourist spots.

Additionally, putting up clear and informative signs helps tourists navigate the area more easily. Tourists appreciate having access to well-marked trails, maps and information boards about the history and significance of different locations. Establishing tourist information centers staffed by knowledgeable locals can provide visitors with essential guidance, enhancing their overall experience. Better transportation services, including local taxis, buses and rental options can also make travel within the study area easier and more enjoyable.

Environmental Conservation

Protecting the environment is a fundamental part of ecotourism. Without careful management, tourism can lead to environmental degradation, harming the attractions that draw visitors in the first place. Therefore, waste management, conservation projects and eco-friendly initiatives should be prioritized.

One of the ways to protect the region's natural beauty is by enforcing strict waste disposal policies. Tourists should be encouraged to minimize waste and recycling initiatives should be promoted among both locals and visitors. Educational campaigns about the importance of protecting the environment can help create a culture of sustainability.

Another key approach is ensuring the protection of wildlife and natural habitats. Regulations should be put in place to prevent activities that could damage delicate ecosystems. For example, tourists should be restricted from feeding or disturbing animals. Guided nature walks can be introduced to help visitors appreciate the local biodiversity while following responsible tourism practices.

Reforestation programs and community-led conservation initiatives can also make a big difference. By involving locals in tree-planting drives and forest preservation activities, the study area can strengthen its commitment to sustainability. Encouraging eco-friendly accommodations, such as lodges that use solar energy and promote water conservation can further enhance its appeal as an ecotourism destination.

Marketing and Promotion

Marketing plays an important role in attracting tourists to the study area. Even if the region has beautiful landscapes and rich cultural heritage, visitors will only come if they know about it. Digital marketing strategies, including social media promotions, travel blogs and influencer partnerships can help increase awareness about its unique attractions.

A well-designed tourism website can provide potential visitors with detailed information about available activities, local experiences, travel tips and accommodation options. High-quality images, engaging videos and virtual tours can make the region more appealing to tourists from different parts of the world.

Another effective marketing strategy is working with travel agencies and tour operators to develop specialized travel packages. These can include eco-friendly adventure tours, cultural experiences and nature retreats. Seasonal offers such as discounts during off-peak months can help attract more visitors year-round.

Community storytelling is another powerful marketing tool. Sharing the stories of local people, their traditions and their relationship with nature can create an emotional connection with potential visitors. Organizing cultural festivals and events can also help showcase their unique heritage and bring in more tourists.

Government Support

Government support is necessary for ecotourism to succeed. Policies that encourage sustainable tourism practices, financial aid for local businesses and investments in tourism infrastructure can accelerate ecotourism development in the study area.

Local governments should collaborate with tourism boards and private investors to create favourable conditions for tourism growth. Simplifying regulations and offering incentives for eco-friendly businesses can encourage responsible development. Providing grants or low-interest loans to small businesses involved in ecotourism can also help boost the industry.

Public-private partnerships can be instrumental in implementing large-scale tourism projects, such as eco-lodges, visitor centers and conservation areas. Additionally, government involvement in conservation efforts, including the protection of forests and wildlife will help maintain the region's ecological balance.

Understanding Tourist and Community Perceptions

This study has also looked at how both tourists and locals perceive ecotourism. Understanding what visitors expect from their experience can help improve tourism services. Tourists value well-maintained attractions, informative guides and high-quality accommodations. Providing clear itineraries, comfortable lodging and engaging experiences can enhance their overall satisfaction.

On the other hand, local communities should be involved in decision-making to ensure that ecotourism aligns with their needs and values. If tourism projects do not consider community interests, they may face resistance or fail to bring meaningful benefits to residents. Open communication and regular feedback sessions can help address concerns and make tourism development more inclusive.

Long-Term Strategies for Success

The SWOT analysis in this study provides a clear roadmap for future growth. By building on the region's strengths such as its natural beauty and cultural heritage while addressing current challenges, the region can take advantage of new opportunities and avoid potential threats. Investing in skill-building programs, preparing for environmental and economic challenges and fostering strong leadership will contribute to the long-term success of ecotourism in the study area.

To ensure sustainability, ecotourism initiatives must balance economic growth with environmental conservation. Monitoring tourism's impact on local communities and ecosystems will help guide responsible development. Implementing regular assessments and adjusting policies as needed will make the study area a model for sustainable tourism.

5.3 RECOMMENDATIONS

Based on the findings of the study, suggestions can be made concerning ecotourism development Mamit district, Mizoram. The suggestions are presented in order of the objectives of the study as below.

Objective 1: To investigate the status and potential of tourism development in Mizoram including in the study area

A few suggestions can be made to improve the status and potential of tourism in Mizoram including in the study area based on the study findings. These are:

Infrastructure Improvements

- Fix and maintain roads leading to tourist spots to make travel smoother and more enjoyable.
- Add restrooms, parking areas and waste bins at key sites to enhance visitor convenience.
- Ensure clear and informative signs to guide tourists to attractions and facilities.

Community Involvement

- Provide training and resources to help residents improve their skills in tourism and hospitality.
- Encourage more community-driven activities like festivals, guided tours and cultural events.
- Develop and promote more homestays to offer authentic local experiences.

Environmental Sustainability

- Implement better waste disposal systems and recycling programs.

- Encourage eco-friendly practices among tourists and locals such as reducing plastic use and conserving resources.
- Establish measures to safeguard local wildlife and natural habitats from tourism-related impacts.

Marketing and Promotion

- Use social media and digital marketing to promote Reiek village and Ailawng village especially targeting off-peak seasons.
- Showcase unique attractions and community-driven experiences to stand out from other destinations.
- Partner with travel bloggers and influencers to reach a wider audience.

Economic Development

- Introduce new activities and experiences to attract different types of tourists.
- Encourage collaboration between tourism operators and local businesses to boost the local economy.
- Develop strategies to attract tourists during off-peak seasons like special events or discounts.

Government Support

- Advocate for more government funding and support for infrastructure and tourism development.
- Push for quicker implementation of tourism policies and better coordination between agencies.
- Work with the government to improve marketing strategies and promote Mizoram more effectively.

Objective 2: To assess the functions and performance of existing community driven tourism development society in the study area

Suggestions for improving the functions and performance of existing Community-Driven Tourism Development are as follows:

- Continue providing clear and timely information to keep the community informed about ongoing and upcoming tourism projects.
- Implement regular surveys or forums to gather community feedback on tourism initiatives and address concerns promptly.
- Offer more diverse opportunities for community members to get involved in tourism activities, ensuring inclusivity.
- Provide training programs to enhance local skills in hospitality, guiding and tourism management.
- Partner with environmental organizations to develop and implement conservation projects.
- Increase efforts to educate tourists and locals about environmental sustainability and conservation practices.
- Organize and promote cultural festivals and events to celebrate and preserve local traditions.
- Facilitate workshops or community gatherings to strengthen relationships and foster a sense of unity.
- Encourage collaboration between tourism operators and local businesses to stimulate economic development.
- Focus on creating more job opportunities through tourism projects and support local entrepreneurship.

- Develop and implement educational programs to further increase community awareness and motivation towards ecotourism.
- Introduce incentives or recognition programs for community members who actively participate in and contribute to tourism development.
- Share successful conservation and promotion initiatives to inspire and motivate other communities and stakeholders.
- Ensure that tourism development projects are designed with built-in conservation and promotion strategies.
- Regularly assess the sustainability of tourism projects to ensure they contribute positively to social, economic and environmental aspects.
- Strive for a balanced approach that supports economic growth while maintaining environmental and social sustainability.

Objective 3: To assess the understanding, attitude and satisfaction of destination community towards ecotourism development

- Since some community members have a limited grasp on what community-based ecotourism is, it may be helpful to introduce more educational programs focusing on ecotourism concepts, as this may enhance their understanding.
- There is a need to minimize visitor impact on natural resources, organizing workshops that emphasize low-impact tourism practices could be beneficial, since this may promote more sustainable behaviors among locals.
- Considering the skepticism or indifference towards the economic benefits of ecotourism, it may be useful to implement targeted information campaigns that explain these benefits clearly, as this may increase awareness and acceptance.

- Given the importance of involving locals in ecotourism planning, it could be advantageous to initiate community-led projects that foster participation, which may cultivate a stronger sense of ownership.
- Since effective communication is crucial, strengthening the channels between the community and ecotourism developers may help ensure that local opinions are more frequently incorporated into decision-making, leading to greater satisfaction.
- Recognizing the significance of cultural preservation, it will be beneficial to implement programs that highlight the value of local heritage within ecotourism, as this may encourage sustainable practices.
- Considering the livelihood opportunities that ecotourism presents, offering more chances for community members to engage directly in tourism activities may be helpful, as this could improve their economic situation.
- Since infrastructure development is a common benefit of ecotourism, ensuring that new infrastructure also meets local needs may be advantageous, as this can create a balance between tourism and community well-being.
- Acknowledging the dissatisfaction among some community members, addressing specific concerns through focused improvements could be effective, as this may lead to greater overall contentment.
- Given the mixed feelings about environmental preservation, increasing community involvement in these efforts may be beneficial, as this could boost satisfaction with conservation results.
- Since there is a need to distinguish ecotourism from mass tourism, implementing clear marketing strategies that highlight the differences may be useful, as this could attract tourists who are more aligned with sustainable values.
- Recognizing the importance of sustainability, providing training in sustainable practices to local residents may be beneficial, as this could improve their contributions to ecotourism development.

- Since community-driven projects are likely to gain more support, expanding the scope of such initiatives within ecotourism may be helpful, as this may lead to greater local benefits.
- Considering the potential for local entrepreneurship, offering financial incentives or grants to small businesses that align with ecotourism goals may be advantageous, as this could encourage more community-based enterprises.
- Since partnerships can provide valuable support, fostering collaborations between local government, NGOs and the private sector may be beneficial, as this could secure funding and resources for community-focused ecotourism.
- Given the importance of natural and cultural resources in ecotourism, fostering a stronger community role in their preservation may be helpful, as this could ensure that these assets remain central to tourism efforts.
- Since safety concerns can affect satisfaction, addressing any gaps in safety measures may be useful, as this could improve community confidence in ecotourism activities.
- Recognizing the value of community feedback, implementing regular mechanisms for locals to express their views on ecotourism may be helpful, as this could lead to more responsive and inclusive planning.
- Trust in ecotourism development can be built through success stories, promoting these within the community may be advantageous, as this could demonstrate the tangible benefits of sustainable tourism.
- Since the younger generation plays a crucial role in the future of ecotourism development, introducing youth-focused programs may be beneficial, as this could ensure long-term community support.
- Considering the importance of attracting responsible tourists, developing localized marketing strategies that target this demographic may be useful, as this could enhance the community's experience with ecotourism.
- Since not all community members have the same level of literacy, it will be helpful to ensure that educational materials about ecotourism are accessible to everyone, as this could promote more widespread understanding.

- Given the need to protect community interests, establishing clear guidelines and policies for ecotourism projects may be advantageous, as this could ensure fair distribution of benefits.
- Since visibility can influence tourist interest, enhancing the accessibility of local ecotourism sites may be beneficial, as this could attract more visitors while maintaining sustainability.
- Recognizing the value of mentorship, creating programs where experienced community members can guide others in ecotourism practices may be useful, as this could build local capacity.
- Considering lingering doubts about the economic benefits of ecotourism, promoting these benefits through community forums may be helpful, as this could address misconceptions and increase support.
- Since infrastructure development should not disrupt local life, ensuring that new projects are community-friendly may be advantageous, as this could balance tourism growth with resident comfort.
- Given the need for continuous education, expanding opportunities related to ecotourism, such as scholarships or training, may be beneficial, as this could further enhance local expertise.
- Since long-term sustainability is key, implementing environmental education programs that focus on the benefits of conservation may be useful, as this could reinforce the community's role in these efforts.
- Recognizing the evolution of community needs and expectations over time, assessing and adapting ecotourism strategies at specific time intervals may be beneficial, as this could ensure ongoing support and satisfaction.

Objective 4: To evaluate the destination attributes in the perspective of both tourists and destination community

Based on the study findings, there are a few important points that need to be addressed to enhance the overall experience for both local community members and tourists. Some of these suggestions can help align both local people's and visitors' experiences.

- To enhance the appeal of natural and wildlife attractions, it is crucial to invest in improving facilities. This can include upgrading walking paths to ensure they are safe and easy to navigate. Adding interesting displays and interactive features such as informational signs and wildlife observation points will make these attractions more engaging. Regular maintenance of these areas will ensure they remain clean and inviting. Engaging local experts to provide educational talks or guided tours can also enrich the visitor experience, making these attractions more enjoyable for both locals and tourists.
- To improve eco-friendly facilities, focusing on increasing their efficiency is key. Installing more recycling bins in high-traffic areas and using energy-saving lighting throughout the facilities can significantly reduce environmental impact. Clear, easy-to-understand signs about how to use these facilities correctly will encourage proper recycling and waste management. Regularly updating and maintaining these facilities will ensure they continue to meet the community's needs. Providing educational programs about the importance of eco-friendly practices can also raise awareness and promote better environmental stewardship among both locals and visitors.
- Enhancing environmental conservation efforts involves several steps. Establishing effective waste management practices such as sorting and recycling will help keep the environment clean. Organizing community events like tree planting drives or clean-up campaigns can engage residents in conservation activities. Distributing information on the importance of conservation and practical ways to contribute can increase community involvement. Implementing these measures will help protect natural resources and foster a culture of environmental responsibility among community members.
- To demonstrate the economic benefits of tourism more effectively, it is beneficial to invest in local businesses and infrastructure improvements. Directing some of the tourism revenue to enhance public spaces such as parks and community centers will benefit the whole community. Regularly sharing updates on how tourism funding is used through community meetings or

newsletters will help locals see the positive impacts. This transparency will build support for tourism and highlight its role in improving local facilities and services.

- Improving the quality of tour guides involves hiring knowledgeable individuals who are well-versed in local history, culture and attractions. Offering regular training sessions will help tour guides stay informed and provide engaging and accurate information. Recognizing and rewarding tour guides for exceptional performance can motivate them to maintain high standards. Enhancing the overall quality of guided tours will create a more memorable experience for visitors and increase their satisfaction with the destination.
- To boost local coordination, simplifying the booking and reservation processes is essential. Implementing user-friendly online systems for booking tours and accommodations can make it easier for visitors to plan their trips. Ensuring clear communication between service providers will help coordinate services effectively. Providing updated and accurate information about local attractions and services will help tourists make informed decisions. These improvements will streamline the visitor experience and enhance overall satisfaction.
- To address issues with toilets and dustbins, increasing the frequency of cleaning and maintenance is crucial. Adding more toilets in high-traffic areas and ensuring they are well-stocked with supplies will meet the needs of more people. Upgrading waste management systems to handle higher volumes of waste will keep the environment cleaner. Implementing regular checks and addressing any issues promptly will improve the overall cleanliness and convenience of these facilities.
- To improve laybys and signboards, expanding the number of rest areas along major routes will provide travelers with more places to stop and rest. Ensuring that signboards are clear, well-lit, and easy to read will help guide tourists effectively. Regularly updating and maintaining these signs will keep

them visible and informative. Providing additional amenities, such as picnic tables or information kiosks at laybys can enhance the travel experience.

- To enhance drinking water facilities and drainage systems, installing more water stations at key locations will ensure visitors have access to clean water. Regular maintenance and inspections of drainage systems will prevent issues such as flooding. Providing clear signage about the location of water stations and the importance of proper drainage will inform visitors and residents alike. These improvements will contribute to a more comfortable and enjoyable experience.
- To highlight and improve the natural scenery, creating special viewing areas with benches and informative plaques will allow visitors to enjoy the best views comfortably. Organizing guided tours or scenic drives will showcase the most picturesque spots. Including beautiful landscapes in promotional materials will attract more visitors. Ensuring that these areas are well-maintained and accessible will enhance the overall enjoyment of the natural beauty.
- To improve dining options, offering a diverse range of high-quality food that caters to different tastes and dietary needs is essential. Maintaining clean and pleasant dining environments will enhance the overall dining experience. Addressing any complaints or issues quickly will help maintain high standards. Regularly updating the menu with fresh and seasonal options will keep dining experiences interesting and enjoyable for both locals and visitors.
- Upgrading tourist information centers and accommodations involves ensuring these facilities are clean, comfortable and well-organized. Providing accurate and helpful information about local attractions, transportation options and services will assist tourists in planning their visits. Improving the quality of accommodations including amenities and customer service will enhance the overall comfort of stays. These updates will contribute to a more positive experience for tourists.
- To expand activities and improve accessibility, offering a wide variety of attractions and making them easy to reach is important. Enhancing

transportation options such as shuttle services or better signage will make it easier for visitors to access different activities. Providing clear information about how to get to various attractions will help tourists plan their trips effectively. Including engaging and diverse activities will make the destination more attractive and enjoyable for visitors.

- To address transportation and eco-tourism maintenance, upgrading transportation options to cover more areas and provide better service is crucial. Ensuring that eco-tourism facilities are well-maintained and regularly checked will meet visitors' expectation. Addressing any maintenance issues promptly will improve the quality of the experience. Enhancing these aspects will contribute to a more pleasant and satisfying visit for everyone.
- Gathering feedback from both locals and tourists and acting on their suggestions is vital for continuous improvement. Regularly conducting surveys or holding feedback sessions will provide valuable insights into what works well and what needs improvement. Communicating how their feedback is used to make changes shows that their input is valued. This approach will help create a more positive experience and ensure that the destination meets the need and expectation of all visitors.

Objective 5: To conduct a situational analysis of community-based ecotourism development and related infrastructure development in the study area

Based on the key findings of the SWOT analysis, and the strategic plan developed, some suggestions for effective strategic planning for ecotourism in Mamit district can be made which requires a comprehensive understanding of the region's strengths, weaknesses, opportunities and threats:

Maxi-Maxi (SO) Strategies

- Expand Ecotourism Activities: To maximize the region’s ecotourism potential, it is essential to develop new and diverse ecotourism experiences that highlight the region's natural beauty. This could include guided nature walks that educate tourists about local flora and fauna, wildlife safaris that

offer opportunities to observe native species in their natural habitats and the establishment of eco-lodges that provide immersive experiences while minimizing environmental impact. By broadening the range of ecotourism activities, it can attract a wider audience and enhance its appeal as a premier ecotourism destination.

- Promote Cultural Tourism: Integrating cultural tourism into the region's offerings can significantly boost its attractiveness. Developing cultural exchange programs that invite tourists to engage with local traditions, arts, and crafts will create a richer, more engaging experience. This can involve organizing workshops where visitors can learn traditional crafts, hosting performances of local music and dance and creating cultural tours that explore historical sites and local customs. Such initiatives will not only enrich the tourist experience but also foster greater appreciation and respect for its cultural heritage.
- Form Strategic Partnerships: Building strategic partnerships with local communities, non-governmental organizations (NGOs) and international entities is crucial for advancing sustainable tourism practices. Collaborations with local stakeholders will ensure that tourism development aligns with community needs and values, while partnerships with NGOs can provide valuable expertise in sustainable practices and conservation efforts. Additionally, working with international organizations can help the district gain access to broader markets and funding opportunities, further supporting the region's ecotourism growth.
- Enhance Infrastructure: Investing in infrastructure is a key component of supporting and growing ecotourism. Upgrading and building facilities such as eco-friendly hotels, modern visitor centers and improved transportation networks will enhance the overall tourist experience. High-quality infrastructure not only makes the region more accessible and comfortable for visitors but also demonstrates a commitment to sustainability and environmental stewardship.

- Leverage Government Support: Seeking support from government programs and initiatives can provide significant benefits for the region's ecotourism sector. This includes applying for grants, subsidies or other forms of financial assistance aimed at boosting tourism and infrastructure development. Government support can also help in advocating for favorable policies and regulations that facilitate the growth of the tourism industry.
- Develop Marketing Campaigns: To effectively promote the district's unique natural and cultural attractions, targeted marketing campaigns are essential. These campaigns should emphasize its distinctive features such as its scenic landscapes, diverse wildlife and rich cultural heritage. Utilizing digital marketing, social media and collaborations with travel influencers can increase visibility and attract a global audience interested in ecotourism.
- Encourage Community Engagement: Actively involving local communities in the planning and operation of tourism activities ensures that the benefits of ecotourism are widely distributed. Engaging residents in decision-making processes, providing opportunities for local entrepreneurship and promoting community-led initiatives can enhance the authenticity of the tourism experience while fostering local support for the industry.
- Promote Sustainable Practices: Advocating for and implementing sustainable practices among tourists and local businesses is critical for preserving region's natural and cultural resources. This includes promoting waste reduction, energy conservation and responsible behavior among visitors. Educating both tourists and local stakeholders about the importance of sustainability will help ensure that tourism development does not compromise the environment or cultural integrity.
- Host Cultural Festivals: Organizing cultural festivals and events can serve as a major draw for tourists while celebrating and preserving local traditions. Festivals that showcase traditional music, dance, food and crafts provide an opportunity for visitors to immerse themselves in Mamit's cultural life. Such events also contribute to the local economy and foster a sense of pride within the community.

Mini-Maxi (WO) Strategies

- Upgrade Tourism Infrastructure: To enhance the tourist experience and accommodate diverse needs, it is important to continuously upgrade and improve tourism infrastructure. This includes renovating existing facilities, expanding services and ensuring that infrastructure is accessible to all visitors. High-quality amenities and services will improve overall satisfaction and attract a wider range of tourists.
- Develop Varied Attractions: Creating a diverse array of attractions and activities helps to appeal to different types of tourists and reduce the dependency on seasonal tourism. This might involve developing indoor activities, cultural experiences, adventure sports or wellness retreats. By offering a range of options, the region can attract visitors year-round and balance out the seasonal fluctuations in tourism.
- Boost Tourist Awareness: Increasing awareness of the region as a top ecotourism destination through joint marketing efforts is essential. This can involve collaborating with travel agencies, tourism boards and media outlets to promote its unique offerings. Engaging in targeted advertising campaigns and participating in international tourism fairs can also help elevate its profile and attract more visitors.
- Provide Training Programs: Investing in training programs for local businesses and tour guides will enhance the quality of service and improve visitor satisfaction. Training can cover areas such as customer service, environmental stewardship and cultural sensitivity. Well-trained staff will contribute to a more positive experience for tourists and can help boost repeat visits.
- Enhance Competitive Positioning: To stand out from other ecotourism destinations, the region must highlight its unique cultural and natural features. This could involve creating specialized tour packages, developing exclusive experiences or showcasing rare wildlife and landscapes. Differentiating it from its competitors will help attract tourists looking for unique and memorable experiences.

- Create Off-Season Activities: Developing attractions and events for the off-season can help to mitigate the impact of seasonal tourism dependency. This might include hosting winter festivals, offering special promotions or creating themed experiences that draw visitors during less busy periods. By diversifying offerings throughout the year, the region can maintain a steady flow of tourists and stabilize revenue.
- Implement Feedback Mechanisms: Establishing systems to gather and act on visitor feedback is crucial for continuous improvement. Feedback mechanisms can include surveys, suggestion boxes and online review platforms. Analyzing this feedback will provide valuable insights into visitor preferences and areas for improvement, helping to enhance the overall tourism experience.
- Strengthen Local Capacity: Building skills and knowledge within the local community is vital for effective tourism management. This can involve providing education and training opportunities, supporting local businesses and fostering entrepreneurship. Strengthened local capacity will enable communities to better support and manage tourism activities, leading to more sustainable development.

Maxi-Mini (ST) Strategies

- Strengthen Environmental Protections: To address environmental threats, it is essential to enforce regulations and practices that protect the region's natural resources. This includes implementing conservation measures, monitoring environmental impact and promoting eco-friendly tourism practices. Strong environmental protections will help preserve the area's natural beauty and biodiversity for future generations.
- Improve Infrastructure Resilience: Building or upgrading infrastructure to withstand natural disasters and environmental challenges is crucial for safeguarding tourism operations. This can involve constructing disaster-resistant buildings, improving drainage systems and implementing early

warning systems. Resilient infrastructure will help ensure that tourism activities can continue even in the face of adverse conditions.

- Seek Political Stability: Engaging with government and local authorities to ensure a stable political environment is important for the successful development of tourism. Political stability contributes to a secure and predictable environment for tourists and businesses. Advocacy efforts and collaboration with policymakers can help create favorable conditions for tourism growth.
- Adapt to Consumer Trends: Keeping tourism offerings up-to-date with changing consumer trends is essential for maintaining visitor interest. This involves regularly reviewing and refreshing tourism products and services to align with evolving preferences and expectations. Staying attuned to trends such as eco-conscious travel, digital experiences and personalized services will help the region remain competitive in the global market.
- Streamline Regulations: Working with authorities to simplify and expedite regulatory processes can reduce bureaucratic hurdles and facilitate smoother tourism operations. Streamlining regulations will make it easier for businesses to comply with requirements and for tourists to navigate the legal landscape. This can contribute to a more efficient and attractive tourism environment.
- Promote Safety and Security: Enhancing safety measures for tourists is crucial for building confidence and ensuring a positive experience. This includes implementing effective security protocols, providing clear safety information and maintaining high standards of health and safety. Ensuring a secure environment will help attract and retain visitors.
- Develop Disaster Preparedness Plans: Creating comprehensive emergency response plans to manage natural disasters and other crises is essential for protecting both tourists and local communities. These plans should include clear procedures for evacuation, communication and recovery. Well-prepared responses will help mitigate the impact of disasters and ensure a swift recovery.

Mini-Mini (WT) Strategies

- Create Emergency Response Protocols: Establishing clear and effective emergency response protocols is vital for managing natural disasters and other emergencies. This includes developing procedures for evacuation, communication and coordination with emergency services. Well-defined protocols will enable a rapid and organized response to crises, minimizing their impact on tourism.
- Diversify Tourism Offerings: Reducing reliance on a few seasonal attractions by diversifying tourism offerings is key to mitigating seasonal dependency. This involves developing a range of activities and experiences that appeal to different types of tourists throughout the year. A diverse range of attractions will help stabilize visitor numbers and revenue across all seasons.
- Advocate for Regulatory Reform: Pushing for policy changes that simplify regulatory requirements and make it easier for businesses and tourists to navigate the legal landscape is important for overcoming bureaucratic challenges. Advocacy efforts can focus on reducing red tape, streamlining procedures and creating a more business-friendly environment.
- Build Internal Capabilities: Strengthening the skills and knowledge of local tourism operators is essential for effectively managing bureaucratic and operational challenges. This includes providing training, resources and support to help local businesses and staff handle administrative tasks and regulatory requirements. Enhanced internal capabilities will contribute to smoother and more efficient tourism operations.
- Enhance Risk Management: Implementing risk management strategies to identify and address potential threats and vulnerabilities is crucial for protecting the tourism sector. This involves assessing risks, developing mitigation plans and monitoring potential issues. Effective risk management will help ensure that tourism activities can continue despite unforeseen challenges.
- Foster Collaboration: Working closely with other tourism stakeholders to share resources, knowledge and strategies can help overcome common

challenges and enhance overall effectiveness. Collaboration among local businesses, government agencies and community organizations can lead to innovative solutions and more coordinated efforts in addressing issues and promoting tourism development.

5.4 Limitations of the Study

One of the main limitations is the sample size. Although the research includes different types of stakeholders, a larger group of participants could have provided a more complete picture of tourism in the region. Also, since the study focuses only on selected locations, the findings may not apply to other areas with different economic and environmental conditions.

Another limitation is the use of self-reported data from interviews. People's answers may be influenced by personal opinions, memory gaps, or the desire to give socially acceptable responses. While the study includes both qualitative and quantitative methods, the quantitative part is not very detailed. More statistical data could have helped in identifying broader tourism patterns.

Time and resource constraints also affected the research. The study had to be completed within a set period, limiting the chance to conduct follow-up interviews or long-term observations. There were also challenges in accessing certain data and traveling to additional locations. Despite these challenges, the study still provides important findings and creates a base for future research on sustainable tourism in Mamit.

5.5 Future Scope of Study

This study shows that there are many ways to improve community-based ecotourism, opening up opportunities for further research. One important area is finding ways to develop tourism while protecting the environment. Comparing Mamit district's tourism with other successful ecotourism destinations could help identify useful strategies. Future studies could also focus on how to increase community involvement through training programs and skill development.

The economic impact of ecotourism is another area that needs more research. Future studies could measure how tourism affects local jobs, income, and business growth. Exploring additional income sources, such as eco-friendly accommodations, local handicrafts, and guided tours, could provide new ideas for economic sustainability. Cultural preservation is also important, as tourism should support local traditions instead of changing them. Research on responsible tourism practices could help keep cultural heritage intact while allowing for tourism growth.

Infrastructure challenges also need attention. Future research could focus on improving transportation, accommodations, and waste management using eco-friendly solutions. Government policies and financial support for tourism development could also be studied to understand their role in supporting ecotourism. Additionally, technology is becoming an important part of tourism. Research on digital marketing, online booking systems, and data management could help improve tourism operations.

Future studies could also track tourism development over a long period to understand trends and challenges. By exploring these areas, future research can build on this study and help create a more sustainable and community-friendly tourism industry in the study area.

Appendices

Questionnaire

Semi-Structured Interview Questions on Tourism Development in Mizoram

Role as Stakeholder: Govt. Official/Community Leader/Operator/Business Owner /Community Member

Interview Questions	Response (Open-Ended)
1. What is your role in tourism development in Mizoram?	
2. How would you describe the current status of tourism in your area?	
3. What are the main challenges you face in promoting tourism?	
4. How is the local community involved in tourism activities?	
5. What impact has tourism had on the environment and local culture?	
6. What are your thoughts on the government's support for tourism development?	
7. What do you believe is the potential for future tourism development in Mizoram?	
8. How has tourism affected the local economy?	
9. What improvements do you think are needed to enhance tourism in your area?	

Indicators for Assessing Community-Driven Tourism Development

Age: _____ Gender: _____ Village: _____

Instructions

The following statements assess the functions and performance of existing community-driven tourism development societies. Please read each statement carefully and indicate your level of agreement by selecting the most appropriate response.

Use the following scale to respond:

1 = **Strongly Disagree**
2 = **Disagree**
3 = **Neutral**
4 = **Agree**
5 = **Strongly Agree**

No.	Statement	Response (Circle One)
1	Community members are updated about ecotourism activities and projects.	1 2 3 4 5
2	Community members understand the goals and benefits of ecotourism.	1 2 3 4 5
3	Communicates effectively about how ecotourism affects the local environment and community.	1 2 3 4 5
4	Community members are encouraged to participate in ecotourism activities.	1 2 3 4 5
5	Active involvement of community members in ecotourism projects is supported.	1 2 3 4 5
6	Enthusiasm for ecotourism initiatives that benefit the environment and community is promoted.	1 2 3 4 5
7	Interest and participation of community members in ecotourism activities are maintained.	1 2 3 4 5
8	Protection of local wildlife and natural habitats through ecotourism is ensured.	1 2 3 4 5
9	Preservation of natural resources and promotion of environmental sustainability are prioritized.	1 2 3 4 5
10	Unique features of the destination are effectively promoted and showcased.	1 2 3 4 5
11	Protection and preservation of the environment through ecotourism are improved.	1 2 3 4 5

12	Community relationships and cooperation through ecotourism activities are strengthened.	1 2 3 4 5
13	Local culture and traditions are preserved and promoted through ecotourism.	1 2 3 4 5
14	Social services, infrastructure, and overall community well-being are enhanced.	1 2 3 4 5
15	A sense of responsibility and active participation among community members is encouraged.	1 2 3 4 5
16	Economic improvement of community members through ecotourism is contributed to.	1 2 3 4 5
17	Growth of local businesses as a result of ecotourism activities is supported.	1 2 3 4 5
18	Job opportunities and employment prospects in the community are improved.	1 2 3 4 5
19	Income that significantly benefits the local economy through ecotourism is generated.	1 2 3 4 5
20	Community members are updated about ecotourism activities and projects.	1 2 3 4 5

Understanding, Attitude, and Satisfaction of Local Communities on Ecotourism Development

Gender: Male/Female **Age _____**

Education: Below High School/HSS/UG/PG/PHD/Others

Occupation: Govt./Private Business/Student/Unemployed

Monthly Income: _____

Instruction:

Please read each statement carefully and circle the number that best represents your level of agreement using the scale below:

Scale Response

1 Strongly Disagree

2 Disagree

3 Neutral

4 Agree

5 Strongly Agree

No.	Statement	Response (Circle One)
1	Ecotourism is responsible travel to natural areas that conserves the environment and improves the well-being of local people.	1 2 3 4 5
2	Ecotourism development is designed to have a low visitor impact upon a protected area's natural resources.	1 2 3 4 5
3	Ecotourism brings economic benefits to the community.	1 2 3 4 5
4	Conservation of resources is required in ecotourism development.	1 2 3 4 5
5	Ecotourism involves preserving the local culture and heritage.	1 2 3 4 5
6	Sustainable practices are important in ecotourism.	1 2 3 4 5
7	I am familiar with the ecotourism initiatives currently in place in our community.	1 2 3 4 5
8	Ecotourism is a distinct concept from traditional mass tourism.	1 2 3 4 5
9	Different stakeholders, including local community members, NGOs, and tourists, are involved in ecotourism development.	1 2 3 4 5
10	Ecotourism requires environmentally responsible behavior.	1 2 3 4 5
11	Ecotourism activities help in improving livelihoods.	1 2 3 4 5
12	Infrastructure development in the locality has been influenced by ecotourism.	1 2 3 4 5
13	Local people benefit from ecotourism activities.	1 2 3 4 5
14	Economic conditions of local people are enhanced through ecotourism development.	1 2 3 4 5
15	Ecotourism creates awareness about health, education, safety, sanitation, and hygiene.	1 2 3 4 5
16	Empowerment of local people is supported through ecotourism activities.	1 2 3 4 5
17	Conservation and protection of wildlife and sanctuaries are promoted through ecotourism practices.	1 2 3 4 5

No.	Statement	Response (Circle One)
18	Government and tourism staff benefit from ecotourism.	1 2 3 4 5
19	Both local people and tourists benefit from ecotourism.	1 2 3 4 5
20	Local people are positively influenced by ecotourism.	1 2 3 4 5
21	I am satisfied with the current ecotourism initiatives in our community.	1 2 3 4 5
22	My opinions and suggestions are considered in ecotourism planning.	1 2 3 4 5
23	Economic benefits brought by ecotourism make me happy.	1 2 3 4 5
24	Efforts to preserve our natural environment through ecotourism satisfy me.	1 2 3 4 5
25	Ecotourism has helped to promote our cultural heritage.	1 2 3 4 5
26	The level of community involvement in ecotourism projects satisfies me.	1 2 3 4 5
27	I am satisfied with the support provided by the government for ecotourism.	1 2 3 4 5
28	Ecotourism activities are well-managed and organized.	1 2 3 4 5
29	Infrastructure in our community has improved due to ecotourism.	1 2 3 4 5
30	Overall, I am satisfied with the impact of ecotourism on our community.	1 2 3 4 5

Survey on Ecotourism Site Attributes in Mamit District

Gender: Male/Female **State _____**
Age _____

Education: Below High School/HSS/UG/PG/PHD/Others

Occupation: Govt./Private Business/Student/Unemployed

Monthly Income: _____

Instructions

Please rate each attribute based on your experience at the site using the scale below:

Scale	Response
1	Very Poor
2	Poor
3	Fair
4	Good
5	Excellent

No.	Attribute	Rating (Circle One)
1	Natural/Wildlife Attractions	1 2 3 4 5
2	Eco-Friendly Facilities	1 2 3 4 5
3	Environment Conservation Increase	1 2 3 4 5
4	Environment Conservation Enhancement	1 2 3 4 5
5	Economic Benefits Increase	1 2 3 4 5
6	Professional Tour Guides	1 2 3 4 5
7	Local Coordination	1 2 3 4 5
8	Toilets	1 2 3 4 5

No.	Attribute	Rating (Circle One)
9	Dustbins	1 2 3 4 5
10	Laybys	1 2 3 4 5
11	Footpaths	1 2 3 4 5
12	Railings	1 2 3 4 5
13	Interpretation Boards	1 2 3 4 5
14	Signboards	1 2 3 4 5
15	Drinking Water	1 2 3 4 5
16	Drainage Systems	1 2 3 4 5
17	Safety Facilities	1 2 3 4 5
18	Scenery	1 2 3 4 5
19	Family-Friendly Facilities	1 2 3 4 5
20	Eating Places	1 2 3 4 5
21	Tourist Information Centre	1 2 3 4 5
22	Accommodation	1 2 3 4 5
23	Activities/Things to Do	1 2 3 4 5
24	Accessibility	1 2 3 4 5
25	Transportation	1 2 3 4 5
26	Maintenance for Eco-Tourism	1 2 3 4 5

SWOT Analysis of Ecotourism Development

Gender_____ Age_____ Involvement/Role as Stakeholder_____

Home State (For Tourists) _____

Instructions for Participants:

Dear Participant,

This survey aims to assess the Strengths, Weaknesses, Opportunities, and Threats (SWOT) related to ecotourism development in Mamit District. Your feedback will help identify key areas for improvement and sustainable growth.

Please rate each factor based on its importance using the scale below:

Scale	Response
1	Extremely Unimportant
2	Quite Unimportant
3	Neither Unimportant nor Important
4	Quite Important
5	Extremely Important

No.	SWOT Variable	Rating (Circle One)
Strengths		
1	Cultural Richness	1 2 3 4 5
2	Natural Beauty	1 2 3 4 5
3	Community Engagement	1 2 3 4 5
4	Sustainable Practices	1 2 3 4 5

No.	SWOT Variable	Rating (Circle One)
5	Government Support	1 2 3 4 5
Weaknesses		
6	Infrastructure Limitations	1 2 3 4 5
7	Limited Awareness	1 2 3 4 5
8	Skills Gap	1 2 3 4 5
9	Seasonal Dependency	1 2 3 4 5
10	Competitive Landscape	1 2 3 4 5
Opportunities		
11	Diversification of Offerings	1 2 3 4 5
12	Collaborative Partnerships	1 2 3 4 5
13	Infrastructure Development	1 2 3 4 5
14	Promotion of Sustainable Practices	1 2 3 4 5
15	Cultural Exchanges	1 2 3 4 5
Threats		
16	Environmental Degradation	1 2 3 4 5
17	Natural Disasters	1 2 3 4 5
18	Political Instability	1 2 3 4 5
19	Changing Consumer Preferences	1 2 3 4 5
20	Regulatory Challenges	1 2 3 4 5

BIBLIOGRAPHY

Açiksöz, S., Görmüş, S., & Karadeniz, N. (2010). Determination of ecotourism potential in national parks: Kure mountains national park, Kastamonu-Bartin, Turkey. *African Journal of Agricultural Research, 5*(8), 589-599.

Al-Ababneh, M. (2019). Creative cultural tourism as a new model for cultural tourism. *Journal of Tourism Management Research, 6*(2), 109-118.

AP News. (2023, August 20). *Indigenous faithful and Christians work with environmentalists to conserve India's sacred forests*. https://apnews.com/article/765efff8ecf60b9656d1c92486122809

Ashley, C., & Roe, D. (1998). Enhancing community involvement in wildlife tourism: Issues and challenges.

Bagri, S. C. (2004). Ecotourism Planning in Kedarnath Musk deer Sanctuary. *Project submitted to ICSSR, New Delhi*.

Bagri, S. C., & Kala, D. (2020). Identification and Assessment of Offbeat Destinations for Community-Based Ecotourism Development and Promotion in Uttarakhand, India. In *Global Opportunities and Challenges for Rural and Mountain Tourism* (pp. 59-77). IGI Global.

Baldock, D., Dwyer, J., Lowe, P., Petersen, J. E., & Ward, N. (2001). The nature of rural development: towards a sustainable integrated rural policy in Europe. *Synthesis Report*.

Ballantyne, R., & Packer, J. (2013). International handbook on ecotourism.

Baloch, Q. B., Shah, S. N., Iqbal, N., Sheeraz, M., Asadullah, M., Mahar, S., & Khan, A. U. (2023). Impact of tourism development upon environmental sustainability: a suggested framework for sustainable ecotourism. *Environmental Science and Pollution Research, 30*(3), 5917-5930.

Banerjee, A. (2014). Human resource development in tourism industry in India: A case study of Jet Airways India Ltd. *Journal of Tourism: A Contemporary Perspective, 1*(1), 1-6.

Bansal, S.P. & Kumar, J. (2011). Ecotourism for Community Development: A

Stakeholder's Perspective in Great Himalayan National Park. *International Journal of Social Ecology and Sustainable Development, 2*(2), *31-40*.

Barkin, D., & Paillés, C. (2000). Water and forests as instruments for sustainable regional development. *International Journal of Water*, *1*(1), 71-79.

Barua, M. (2013). Ecotourism and conservation: The Kaziranga experience. *Environmental Management Journal*, *45*(2), 312–319.

Barua, M. (2013). *Wildlife tourism and conservation: The case of Kaziranga National Park, India*. Geoforum, *45*, 207-216.

Becken, S. (2007). Tourists' perception of international air travel's impact on the global climate and potential climate change policies. *Journal of sustainable tourism*, *15*(4), 351-368.

Belsky, J. M. (1999). Misrepresenting communities: The politics of community-based rural ecotourism in gales point manatee, Belize 1. *Rural sociology*, *64*(4), 641-666.

Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological methods & research*, *16*(1), 78-117.

Bhatia, A. (2013). SWOT analysis of Indian tourism industry. *International Journal of Application or Innovation in Engineering & Management*, *2*(12), 44-49.

Bhavani, A. (2016). Improving Sustainable Development of Ecotourism in India–a View. *Indian Journal of Research Paripex*, *5*(2).

Bhutia, S. (2020). Sustainable Tourism for Regional Development in North-East States of India: Trends, Problems and Prospects. *Global Journal of Human Social Science*, *20*(2).

Bindu, I. A. (2018). Ecotourism prospects in India: Locals' attitude towards its impact. *Journal of Management Research and Analysis*, *5*(2), 243-246.

Blamey, R. K. (2001). Principles of ecotourism. In *The encyclopedia of ecotourism* (pp. 5-22). Wallingford UK: Cabi Publishing.

Boley, B. B., Nickerson, N. P., & Bosak, K. (2011). Measuring geotourism: Developing and testing the geotraveler tendency scale (GTS). *Journal of Travel Research*, *50*(5), 567-578.

Buckley, R. (2000). Tourism in the most fragile environments. *Tourism Recreation Research*, *25*(1), 31-40.

Buckley, R. (2002). Tourism ecolabels. *Annals of tourism research*, *29*(1), 183-208.

Buckley, R. (2009). *Ecotourism: Principles and practices*. CABI.

Burman, P. D., Cajee, L., & Laloo, D. D. (2007). Potential for cultural and eco-tourism in North East India: A community-based approach. *WIT Transactions on Ecology and the Environment*, *102*.

Burneika, D., & Kriaučiknas, E. (2007). Some premises for balanced development of ecotourism on the territory of Lithuania. *Ekologija*, *53*.

Butcher, J. (2007). *Ecotourism, NGOs and development: A critical analysis*. Routledge.

Butler, R. W. (1980). The concept of a tourist area cycle of evolution: Implications for management of resources. *Canadian geographer*, *24*(1), 5-12.

Butler, R. W. (1999). Sustainable tourism: A state-of-the-art review. *Tourism geographies*, *1*(1), 7-25.

Cetin, G. (2020). Impact of COVID-19 on the tourism industry. *Journal of Tourismology*

Chaudhury, S. K., Sarkar, S., & Patra, M. (2023). Exploring eco-tourism treasure of North-eastern states of India: a sustainability perspective. *BL College J*, *5*(2), 55-68.

Chettri, K. B. (2020). *Ecology and economics of coldwater inland fisheries in Sikkim* (Doctoral dissertation).

Chipumuro, M., Chikobvu, D., & Makoni, T. (2024). A Time Series Approach to Assess the Impact of the COVID-19 Pandemic on the South African Tourism Sector.

Cobbinah, P. B. (2015). Contextualising the meaning of ecotourism. *Tourism Management Perspectives*, *16*, 179-189.

Cohen, E. (1978). The impact of tourism on the physical environment. *Annals of Tourism Research*, *5*(2), 215-237.

Coria, J., & Calfucura, E. (2012). Ecotourism and the development of indigenous communities: The good, the bad, and the ugly. *Ecological Economics*, *73*, 47-55.

Dahmani, B., & Hadjab, M. (2023). Developing heritage tourism using (SWOT) as a tool to identify strategic alternatives. A case study in Bou-Saada. *Technium Soc. Sci. J.*, *39*, 843.

Das, M., & Chatterjee, B. (2015). Ecotourism and empowerment: A case analysis of Bhitarkanika wildlife sanctuary, Odisha, India. *IIM Kozhikode Society & Management Review*, *4*(2), 136-145.

Das, M., & Chatterjee, B. (2015). Ecotourism: A panacea or a predicament?. *Tourism management perspectives*, *14*, 3-16.

Davis, J. S., & Morais, D. B. (2004). Factions and enclaves: Small towns and socially unsustainable tourism development. *Journal of Travel Research*, *43*(1), 3-10.

de Grosbois, D., & Fennell, D. A. (2022). Sustainability and ecotourism principles adoption by leading ecolodges: learning from best practices. *Tourism Recreation Research*, *47*(5-6), 483-498.

Deb, R., & Rout, H. B. (2023). Identifying the determinants of Ecotourism potential: An investigation of Reiek in Mizoram. *Journal of Tourism Insights*, *13*(1), 6.

Deb, R., & Rout, H. B. (2024). Willingness to Participate in Ecotourism Development: Local Community's Perspective. *VOL. LXVI NO. IV December 2024*, *66*(4), 496-512.

Deka, G. (2019). An overview of Mizoram Tourism: Problems and Prospects. *The Journal of India Arts History Congress*, *25*, 92-99.

Devi, S. S. (2017). Loktak lake and ecotourism prospects. *International Journal of Development Research*, *7*(08), 14576-14580.

Dhanalakshmi, N., & Selvanathan, L. (2022). *Basic concepts of tourism* (1st ed.). Tamil Nadu Open University.

Dhiman, M. C., & Dubey, A. K. (2011). Sustainable tourism development in India: An empirical examination of stakeholders' perceptions. *International Journal of Social Ecology and Sustainable Development (IJSESD)*, *2*(2), 41-53.

Diamantis, D. (1999). The concept of ecotourism: Evolution and trends. *Current issues in Tourism*, *2*(2-3), 93-122.

Diamantis, D., & Ladkin, A. (1999). The links between sustainable tourism and ecotourism: a definitional and operational perspective. *Journal of Tourism Studies*, *10*(2), 35-46.

Donohoe, H. M., & Needham, R. D. (2006). Ecotourism: The evolving contemporary definition. *Journal of Ecotourism*, *5*(3), 192-210.

Doxey, G. V. (1975). A causation theory of visitor-resident irritants: Methodology and research inferences. *The impact of tourism*, *3*, 195-198.

Drammeh, F. Y. (2024). Managing tourism during the COVID-19 pandemic. A systematic review of crisis management in the tourism industry. *Cogent Social Sciences*, *10*(1), 2311955.

Dubey, A. K., Wangmo, A. P., & Kumar, P. (2022). Understanding local community perspective towards religious tourism in Sikkim. *Journal of Tourism*, *23*(2), 74.

Duong, M. P. T., Lobry de Bruyn, L., Kristiansen, P., Marshall, G. R., & Wilkes, J. (2024). Community-based ecotourism and the challenges of local participation: insights from an ecotourism venture in Cat Tien National Park, Vietnam. *Journal of Environmental Planning and Management*, 1-27.

Dwyer, L. (2015). Globalization of tourism: Drivers and outcomes. *Tourism Recreation Research*, *40*(3), 326-339.

Dzüleke. (2024). *Dzüleke village, Nagaland*. https://en.wikipedia.org/wiki/Dz%C3%BCleke

Easa, P. S., & Sankar, S. (2001). Study on man-wildlife interaction in Wayanad Wildlife Sanctuary. *Kerala, Kerala Forest Research Institute, Peechi*, 82.

EFCCD (2017). Mizoram Ecotourism Policy 2017. *Department of Environment Forest*

and Climate Change, Government of Mizoram, 46(264), 1-8.

Europarc Federation. (2010). *The European Charter for Sustainable Tourism in Protected Areas: Principles and methodology*. https://www.europarc.org

Fennell, D. A. (2008). *Ecotourism: An introduction (2nd ed.).* Routledge.

Fennell, D.A. (1999) Ecotourism: An Introduction. Routledge Publication, London.

Fransson, N., & Gärling, T. (1999). Environmental concern: Conceptual definitions, measurement methods, and research findings. *Journal of environmental psychology*, *19*(4), 369-382.

Gao, J., Lin, H., & Zhang, C. (2021). Locally situated rights and the 'doing'of responsibility for heritage conservation and tourism development at the cultural landscape of Honghe Hani Rice Terraces, China. In *Justice and Tourism* (pp. 51-71). Routledge.

Germaine, M. A., Ducourtieux, O., Orban Stone, J., & Cournet, X. (2022). Landscapes as drivers of ecotourism development: a case study in Northern Laos. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, *43*(3), 370-392.

Giulietti, S., Romagosa, F., Esteve, F., & Schröder, C. (2018). Tourism and the Environment. *Towards a Reporting Mechanism in Europe*.

Gogoi, P., & Maheshwari, A. (2024). Community-Based Tourism as a Sustainable Approach to Tourism Development in Jibhi Valley, Himachal Pradesh, India. *Tourism Cases*.

Gössling, S. (2002). Global environmental consequences of tourism. *Global environmental change*, *12*(4), 283-302.

Gossling, S. (2010). *Carbon management in tourism* (pp. 272-pp). Routledge

Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of sustainable tourism*, *29*(1), 1-20.

Government of Mizoram. (2020). Mizoram Eco-Tourism Policy 2020. Tourism Department.

Guerrero-Moreno, M. A., & Oliveira-Junior, J. M. B. (2024). Approaches, trends, and gaps in community-based ecotourism research: a bibliometric analysis of publications between 2002 and 2022. *Sustainability*, *16*(7), 2639.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field methods*, *18*(1), 59-82.

Gültekin, Y. S. (2022). Ecotourism through the perception of forest villagers: understanding via mediator effects using structural equation

modeling. *Environmental Science and Pollution Research*, *29*(47), 70899-70908.

Gupta, A., Zhu, H., Bhammar, H., Earley, E., Filipski, M., Narain, U., ... & Taylor, J. E. (2023). Economic impact of nature-based tourism. *Plos one*, *18*(4), e0282912.

Gupta, S. K., & Bhatt, V. P. (2009). Community based tourism development: a case-study of eco village Sari in Kedarnath sanctuary region. *International Journal of Hospitality and Tourism Systems*, *2*(1), 135.

Gupta, S. K., Rout, P. C., & Tyagi, P. (2019). Community Based Tourism Development Amid Complex Mountain Issues: A Strategic Analysis of Chakrata Region of Uttarakhand. *International Journal of Hospitality & Tourism Systems*, *12*(1).

Gurung, D. B., & Seeland, K. (2008). Ecotourism in Bhutan: Extending its benefits to rural communities. *Annals of Tourism research*, *35*(2), 489-508.

Hall, D. R. (2011). Tourism development in contemporary Central and Eastern Europe: challenges for the industry and key issues for researchers. *Human Geographies: Journal of Studies & Research in Human Geography*, *5*(2).

Hameed, B., & Khalid, A. (2018). Impact of ecotourism in ensuring the sustainable development of tourism industry in India. *International Journal of Recent Research Aspects*, *5*(2), 46-50.

Harrison, D., & Campus, N. (2004). Working with the tourism industry: A case study from Fiji. *Social Responsibility*, *1*(1-2), 249-270.

Hill, J. L., & Gale, T. (Eds.). (2009). *Ecotourism and environmental sustainability: Principles and practice*. Ashgate Publishing, Ltd.

Hill, J. L., & Gale, T. (Eds.). (2009). *Ecotourism and environmental sustainability: Principles and practice*. Ashgate Publishing, Ltd.

Holden, A. (2016). *Environment and tourism*. Routledge.

Honey, M. (1999). *Ecotourism and sustainable development. Who owns paradise?* (pp. x+-405).

Hundloe, T. J. (2002). Linking Green Productivity to Ecotourism.

Hunter, C., & Shaw, J. (2007). The ecological footprint as a key indicator of sustainable tourism. *Tourism management*, *28*(1), 46-57.

Hunziker, W., & Krapf, H. (1942). Grundriss der allgemeinen Fremdenverkehrslehre.

Zu¨rich: Polygraphischer Verlag.

Hussain, I., & Das, D. (2013). Study of Ecotourism: A Special Reference to Assam. *Indian Journal of Applied Research*, *3*(9), 567-570.

IDAN. (2025). *Sustainable management of natural resources and promotion of cultural diversity through community based rural eco tourism in Nagaland*. https://idan.nagaland.gov.in/csrProjects/252

Ikenweiwe, N. B., Otubusin, S. O., & Oyatogun, M. O. (1995). Fisheries of Oyan Lake, south west Nigeria and potential for ecotourism development.

Irina-Ramona, P. (2016). Ecotourism and sustainable development. *Annals of the 'Constantin Brancusi'University of Targu Jiu', Enginnering Series*, *3*, 189-192.

ITS (2020). India Tourism Statistics at a Glance. Ministry of Tourism, Government of India.

Jacobson, S. K., & Robles, R. (1992). Ecotourism, sustainable development, and conservation education: Development of a tour guide training program in Tortuguero, Costa Rica. *Environmental Management*, *16*, 701-713.

Jalani, J. O. (2012). Local people's perception on the impacts and importance of ecotourism in Sabang, Palawan, Philippines. *Procedia-Social and Behavioral Sciences*, *57*, 247-254.

Jamal, T., & Stronza, A. (2008). Dwelling'with ecotourism in the Peruvian Amazon: Cultural relationships in local—global spaces. *Tourist Studies*, *8*(3), 313-335.

Kandari, O. P., & Gusain, O. P. (2001). *Garhwal Himalaya: nature, culture & society*. TransMedia.

Karunakaran, N. (2018). Ecotourism development and its economic impacts on local population in India. *International Journal of Advanced Multidisciplinary Scientific Research*, 17-20.

Kaur, D., & Sharma, N. (2018). Growth and development of the Indian tourism industry. *JOHAR – Journal of Hospitality Application & Research*, *7*(2), 14-24.

Khaledi Koure, F., Hajjarian, M., Hossein Zadeh, O., Alijanpour, A., & Mosadeghi, R. (2023). Ecotourism development strategies and the importance of local community engagement. *Environment, Development and Sustainability*, *25*(7), 6849-6877.

Khartishvili, L., Mitrofanenko, T., Muhar, A., & Penker, M. (2020). Issues with applying the concept of community-based tourism in the Caucasus. *Mountain Research and Development*, *40*(1), 11-21.

Kiper, T. (2013). Role of Ecotourism in Sustainable Development. *Advances in Landscape*

Architecture, 773-802

Kirkby, C. A., Giudice-Granados, R., Day, B., Turner, K., Velarde-Andrade, L. M., Dueñas-Dueñas, A., ... & Yu, D. W. (2010). The market triumph of ecotourism: an economic investigation of the private and social benefits of competing land uses in the Peruvian Amazon. *PloS one*, *5*(9), e13015.

Kiss, A. (2004). Is community-based ecotourism a good use of biodiversity conservation funds?. *Trends in ecology & evolution*, *19*(5), 232-237.

Kizos, T., & Iosifides, T. (2007). The contradictions of agrotourism development in Greece: evidence from three case studies. *South European Society & Politics*, *12*(1), 59-77.

Koricha, H. G., & Jemal Adem, M. (2024). Investigated the role of community based approaches for biodiversity conservation and socio-economic development in Bale Mountains National Park, Southeast Ethiopia. *Scientific Reports*, *14*(1), 12241.

Krittayaruangroj, K., Suriyankietkaew, S., & Hallinger, P. (2023). Research on sustainability in community-based tourism: a bibliometric review and future directions. *Asia Pacific Journal of Tourism Research*, *28*(9), 1031-1051.

Kumar, P., & Yadav, S. (2024). *Alternate housing (bamboo hut): Cost-effective and eco-friendly tourism accommodation* [Unpublished project report]. Mizoram University.

Kumar, P., Madhurima, Rout, P. C., & Ramasamy, R. (2023). Rural community perspective and the state of tourism development in Mizoram. *Journal of Tourism*, *24*, 61.

Lalengkima. (2020). Ethnic tension and conflict in North East India: Bru crisis in Mizoram. *Research Journal of Humanities and Social Sciences, 11*(4), 365-370.

Lalnunmawia, H. (2013). Development and Impact of Tourism Industry in India. Govt. T. Romana College, Aizaw, Mizoram.

Lalrinawma, J., & Kumar, P. (2021). Prospects of tourism management in Mizoram. *COMPASS*, *3*(1), 65–74.

Lalrosanga. and Sajnani. M. (2017). Status of The Ecotourism in Mizoram: Special Reference to Phawngpui National Park. *International Journal in Management and Social Science, 5*(2), 418-425.

Lee, W. H., & Moscardo, G. (2005). Understanding the impact of ecotourism resort experiences on tourists' environmental attitudes and behavioural intentions. *Journal of sustainable tourism*, *13*(6), 546-565.

Leung, Y. F., Spenceley, A., Hvenegaard, G., Buckley, R., & Groves, C. (2018). *Tourism and visitor management in protected areas: Guidelines for sustainability* (Vol. 27). Gland, Switzerland: IuCN.

Lew, A. A., & Hall, M. C. (1998). The geography of sustainable tourism: lessons and prospects.

Li, K. X., Jin, M., & Shi, W. (2018). Tourism as an important impetus to promoting economic growth: A critical review. *Tourism management perspectives*, *26*, 135-142.

Liu, Y. L., Chiang, J. T., & Ko, P. F. (2023). The benefits of tourism for rural community development. *Humanities and Social Sciences Communications*, *10*(1), 1-12.

Macchiarelli, C. (2022). Update: How is COVID-19 affecting international travel and tourism? *Economics Observatory*.

Mahanta, P. K. (2016). *An Integrated Approach to Management of Wildlife Tourism the Case of Kaziranga National Park* (Doctoral dissertation).

Manyara, G., & Jones, E. (2007). Community-based tourism enterprises development in Kenya: An exploration of their potential as avenues of poverty reduction. *Journal of sustainable tourism*, *15*(6), 628-644.

Mary, A. A. S. (2019). Community–based ecotourism: Trends and prospects in Tamil nadu. *International Journal of Research in Tourism and Hospitality*, *5*(2), 25-35.

McCool, S. F., Moisey, R. N., & Nickerson, N. P. (2001). What should tourism sustain? The disconnect with industry perceptions of useful indicators. *Journal of Travel Research*, *40*(2), 124-131.

Meena, B. L., & Das, N. (2012). A study on eco-tourism potential in Tripura, North-East India. *Indian Streams Research Journal*, *1*(5), 1-4.

Mehta, J. N., & Kellert, S. R. (1998). Local attitudes toward community-based conservation policy and programmes in Nepal: a case study in the Makalu-Barun Conservation Area. *Environmental conservation*, *25*(4), 320-333.

Menon, K.S. (2019). Community participation in ecotourism management with special reference to Athirapilly and Vazhachal Kerala. *Asian Review of Social Sciences*, *8*(1), 49–54.

Ministry of Development of North Eastern Region (DoNER). (2023). NESIDS Project Reports.

Ministry of Environment, Forest and Climate Change. (2017). *National Wildlife Action Plan (2017-2031)*.

Ministry of Tourism, Government of India. (2002). *India Eco-Tourism Policy*.

Ministry of Tourism, Government of India. (2017). *National Ecotourism Policy and Guidelines*

Ministry of Tourism. (2021). *Swadesh Darshan scheme guidelines*. Government of India.

Ministry of Tourism. (2022). Swadesh Darshan 2.0 Guidelines. Government of India.

MoEFCC. (2021). CAMPA Annual Report. Government of India.

Mohan, D., & Athreya, R. (2011). Sustainable bird-based tourism in India's remote north-east frontier. *International Journal of Innovation Science*, *3*(1), 23–28. https://doi.org/10.1260/1757-2223.3.1.23

Mohanty, P. P., Patra, S. K., Kunjuraman, V., & Pathak, D. (2024). Community-based ecotourism in protected areas towards inclusive development: An evidence of Bhitarkanika Wildlife anctuary of india. *International Journal of Business & Society*, *25*(2).

Mohiuddin, M. (2023). Effects of poor infrastructure on tourism in Bangladesh.

Nag, A. (2018). A study of tourism industry of Himachal Pradesh with special reference to ecotourism. *Sumedha Journal of Management*, *7*(1), 85-106.

Nagaraju, L. G., & Chandrashekara, B. (2014). Emergence of Tourism in Sustainable Growth of India. *International Journal*, *1*(3), 30-36.

Nair, V., & Hamzah, A. (2015). Successful community-based tourism approaches for rural destinations: The Asia Pacific experience. *Worldwide Hospitality and Tourism Themes*, *7*(5), 429-439.

Neto, F. (1990). Sustainable tourism, environmental protection and natural resource management: paradise on Earth?. *Growth*, *1999*, 2000.

Neupane, R., KC, A., Aryal, M., & Rijal, K. (2021). Status of ecotourism in Nepal: a case of Bhadaure-Tamagi village of Panchase area. *Environment, Development and Sustainability*, 1-24.

Novelli, M., & Gebhardt, K. (2007). Community based tourism in Namibia:'Reality show'or 'window dressing'?. *Current Issues in Tourism*, *10*(5), 443-479.

Ntibanyurwa, A. (2006). Tourism as a factor of development. *WIT Transactions on Ecology and the Environment*, *97*.

Nunnally, J. C. (1978). Psychometric theory. New York: McGraw-Hills Book Company.

Öztürk, S. (2015). Determining management strategies for the Sarikum nature protection area. *Environmental Monitoring and Assessment*, *187*, 1-9.

Page, S. J., & Connell, J. (2020). Economic impacts. In *Tourism* (pp. 356-374). Routledge.

Palmer, N. J., & Chuamuangphan, N. (2021). Governance and local participation in ecotourism: community-level ecotourism stakeholders in Chiang Rai province, Thailand. In *Stakeholders management and ecotourism* (pp. 118-135). Routledge.

Panasiuk, A. (2007). Tourism Infrastructure as a Determinant of Regional Development. *Economics and Management: Current Issues and Perspectives*,
1(8), 212-215.

Pegas, F. D. V., Coghlan, A., Stronza, A., & Rocha, V. (2013). For love or for money? Investigating the impact of an ecotourism programme on local residents' assigned values towards sea turtles. *Journal of Ecotourism*, *12*(2), 90-106.

Planning & Programme Implementation Department, Mizoram. (2021). Annual Report on Bamboo Link Road under NEDP.

Puri, M., Karanth, K. K., & Thapa, B. (2019). Trends and pathways for ecotourism research in India. *Journal of ecotourism*, *18*(2), 122-141.

Qian, J., Shen, H., & Law, R. (2018). Research in sustainable tourism: A longitudinal study of articles between 2008 and 2017. *Sustainability*, *10*(3), 590.

Queiros, D. R. (2019). Towards pro-conservation attitudes and behaviour by local communities bordering protected areas in South Africa. *University of South Africa: Pretoria, South Africa*.

Ray, C. (2000). The EU LEADER programme: rural development laboratory. *Sociologia ruralis*, *40*(2), 163-171.

Reddy, K. (2018). Tourist Development Dilemmas in Mizoram: A case study of ILR.

Reimer, J. K., & Walter, P. (2013). How do you know it when you see it? Community-based ecotourism in the Cardamom Mountains of southwestern Cambodia. *Tourism Management*, *34*, 122-132.

Rodríguez-Piñeros, S., & Mayett-Moreno, Y. (2015). Forest owners' perceptions of ecotourism: Integrating community values and forest conservation. *Ambio*, *44*(2), 99-109.

Ross, S., & Wall, G. (1999). Evaluating ecotourism: the case of North Sulawesi, Indonesia. *Tourism management*, *20*(6), 673-682.

Saarinen, J., Rogerson, C. M., & Hall, C. M. (2019). *Tourism Planning and Development*. Routledge.

Saha, S., Ahmed, M., Roy, T., & Haldar, P. (2015). Community based ecotourism in income generation: a study on the sundarbans adjacent area of Bangladesh. *International Journal of Business, Management and Social Research*, *2*(01), 80-91.

Sati, V. (2019, July). Potential and Forms of Sustainable Village Tourism in Mizoram, North-East India. Journal of Multidisciplinary Academic Tourism, 4(1), 49-62. doi:10.31822/jomat.527278

Sati, V. (2022, August 8). Assessment of Natural Capital for Sustainable Rural Livelihoods: An empirical Study of Mizoram, India. Asia-Specific Journal of Rural Development, 33(1). doi:https://doi.org/10.1177/10185291221114684

Sati, V. P. (2019). Potential and forms of sustainable village tourism in Mizoram, northeast India. *Journal of Multidisciplinary Academic Tourism*, *4*(1), 49-62.

Scheyvens, R. (1999). Ecotourism and the empowerment of local communities. *Tourism management*, *20*(2), 245-249.

Scheyvens, R. (1999). Ecotourism and the empowerment of local communities. *Tourism management*, *20*(2), 245-249.

Scheyvens, R. (2002). *Tourism for development: Empowering communities*. Pearson Education.

Sekhar, N. U. (2003). Local people's attitudes towards conservation and wildlife tourism around Sariska Tiger Reserve, India. *Journal of environmental Management*, *69*(4), 339-347.

Shang, Y., Bi, C., Wei, X., Jiang, D., Taghizadeh-Hesary, F., & Rasoulinezhad, E. (2023). Eco-tourism, climate change, and environmental policies: empirical evidence from developing economies. *Humanities and Social Sciences Communications*, *10*(1), 1-9.

Shang, Y., Yang, Q., & Pu, Y. (2024). Role of foreign direct Investment and political openness in boosting the eco-tourism sector for achieving sustainability. *Humanities and Social Sciences Communications*, *11*(1), 1-8.

Sharpley, R. (2015). Sustainability: A barrier to tourism development. *W: R. Sharpley, DJ Telfer (red.). Tourism and Development. Concept and Issues, Second Edition. Bristol, Buffalo and Toronto: Channel View Publications*, 428-452.

Sharpley, R., & Roberts, L. (2004). Rural tourism—10 years on. *International Journal of tourism research*, *6*(3), 119-124.

Simpson, M. C. (2008). Community benefit tourism initiatives—A conceptual oxymoron?. *Tourism management*, *29*(1), 1-18.

Singh, J., & Goyal, D. (2014). Sustainable tourism in India – Need of modern tourism industry. *The International Research Journal of Social Sciences & Humanities*, *3*(6), 11-24.

Smith, V. L., & Eadington, W. R. (Eds.). (1992). *Tourism alternatives: Potentials and problems in the development of tourism*. University of Pennsylvania press.

Snyman, S. (2014). The impact of ecotourism employment on rural household incomes and social welfare in six southern African countries. *Tourism and Hospitality Research*, *14*(1-2), 37-52.

Snyman, S. (2020). The role of private sector ecotourism in local socio-economic development in southern Africa. In *Effecting Positive Change through Ecotourism* (pp. 47-68). Routledge.

Stem, C. J., Lassoie, J. P., Lee, D. R., Deshler, D. D., & Schelhas, J. W. (2003). Community participation in ecotourism benefits: The link to conservation practices and perspectives. *Society &Natural Resources*, *16*(5), 387-413.

Stronza, A., & Durham, W. H. (Eds.). (2008). *Ecotourism and conservation in the Americas* (Vol. 7). CABI Publication

Stronza, A., & Gordillo, J. (2008). Community views of ecotourism. *Annals of tourism research*, *35*(2), 448-468.

Stronza, A., & Gordillo, J. (2008). Community views of ecotourism. *Annals of tourism research*, *35*(2), 448-468.

Stronza, A., & Pêgas, F. (2008). Ecotourism and conservation: Two cases from Brazil and Peru. *Human Dimensions of Wildlife*, *13*(4), 263-279.

Su, J., Friess, D. A., & Gasparatos, A. (2021). A meta-analysis of the ecological and economic outcomes of mangrove restoration. *Nature communications*, *12*(1), 5050.

Subramaniam, P. (2008). Outlook for ecotourism in India. *International Forestry Review*, *10*(2), 245-255.

Sujith, T. S., & Jisha, M. K. (2017). Tourism in India: Opportunities and Challenges. *Imperial Journal of Interdisciplinary Research*, *3*(10), 201-204.

Swangjang, K., & Kornpiphat, P. (2021). Does ecotourism in a Mangrove area at Klong Kone, Thailand, conform to sustainable tourism? A case study using SWOT and DPSIR. *Environment, Development and Sustainability*, *23*(11), 15960-15985.

Taro, K. (2021). Biodiversity of Arunachal Pradesh and its Conservation. *Dera Natung Government College Research Journal*, *6*(1), 79-85.

Taylor, J. E., Dyer, G. A., Stewart, M., Yunez-Naude, A., & Ardila, S. (2003). The economics of ecotourism: A Galápagos Islands economy-wide perspective. *Economic Development and Cultural Change*, *51*(4), 977-997.

The International Ecotourism Society (TIES). (2015). *What is ecotourism*

The International Ecotourism Society (TIES). (2015). *What is ecotourism?* https://ecotourism.org/what-is-ecotourism/

Tisdell, C. A. (1997). Ecotourism: Aspects of its sustainability and compatibility.

Tiwari, T., & Abrol, A. (2015). A Research Paper on Eco-Tourism-its sustainability in India. *International Research Journal of Commerce, Arts and Science*, *6*(9), 22-29.

Tortato, F. R., Hoogesteijn, R., Devlin, A. L., Quigley, H. B., Bolzan, F., Izzo, T. J., ... & Peres, C. A. (2021). Reconciling biome-wide conservation of an apex carnivore with land-use economics in the increasingly threatened Pantanal wetlands. *Scientific Reports*, *11*(1), 22808.

Tosun, C. (2000). Limits to community participation in the tourism development process in developing countries. *Tourism management*, *21*(6), 613-633.

Towner, J., & Wall, G. (1991). History and tourism. *Annals of Tourism Research*, *18*(1), 71-84.

UNEP, U. (2005). Making tourism more sustainable: A guide for policy makers. *United Nations Environment Programme, Division of Technology, Industry and Economics. Paris*.

United Nation World Tourism Organization (2020). UNWTO World Tourism Barometer.

United Nations World Tourism Organization (UNWTO). (2019). *International tourism highlights, 2019 edition*. UNWTO.

UNWTO. (2018). *Tourism for sustainable development: A global perspective*. United Nations World Tourism Organization.

UNWTO. (2022). Tourism for Sustainable Development. United Nations World Tourism Organization.

Upadhaya, S., Tiwari, S., Poudyal, B., Godar Chhetri, S., & Dhungana, N. (2022). Local people's perception of the impacts and importance of ecotourism in Central Nepal. *PloS one*, *17*(5), e0268637.

Uprety, I.M. (2015). Prospects and Challenges for Ecotourism in North East India: With special reference to Sikkim Himalaya. Conference Proceedings: International Conference on India's Northeast and Beyond: Challenges and Opportunities" Organized by ICSSR and Indian Council of World Affairs, New Delhi, in Collaboration with Sikkim University.

Urry, J. (1990). Leisure and travel in contemporary societies. *J. Urry.–London: Sage Publications*.

Usher, L. E., & Kerstetter, D. (2014). Residents' perceptions of quality of life in a surf tourism destination: A case study of Las Salinas, Nicaragua. *Progress in Development Studies*, *14*(4), 321-333.

Verma, R. (2024). Ecotourism in Northeast India: An Approach for Sustainable Development. *International Journal of Tourism and Hospitality*, *4*(2), 1-7.

Vethirajan, C., & Nagavalli, S. (2014). Trends and growth of tourism sector in India–A research perspective. *Indian Journal of Research*, *3*(11), 9-11.

Wearing, S., & Larsen, L. (1996). Assessing and managing the sociocultural impacts of ecotourism: revisiting the Santa Elena rainforest project. *Environmentalist*, *16*(2), 117-133.

Wearing, S., & Neil, J. (2009). Ecotourism: Impacts, Potentials and Possibilities, 2nd edn. ButterworthHeinemann.

Wearing, S., & Neil, J. (2009). *Ecotourism*. Routledge.

Weaver, D. B. (2001). Ecotourism as mass tourism: Contradiction or reality?. *Cornell hotel and restaurant administration quarterly*, *42*(2), 104-112.

Weaver, D. B. (Ed.). (2001). *The encyclopedia of ecotourism*. Cabi Publishing.

Weaver, D. B., & Lawton, L. J. (2007). Twenty years on: The state of contemporary ecotourism research. *Tourism management*, *28*(5), 1168-1179.

Weaver, D. B., & Lawton, L. J. (2007). Twenty years on: The state of contemporary ecotourism research. *Tourism management*, *28*(5), 1168-1179.

West, P., Igoe, J., & Brockington, D. (2006). Parks and peoples: the social impact of protected areas. *Annu. Rev. Anthropol.*, *35*(1), 251-277.

Wood, M. E. (2002). *Ecotourism: principles practices and policies for sustainability*. UNEP.

Xu, L., Ao, C., Liu, B., & Cai, Z. (2023). Ecotourism and sustainable development: a scientometric review of global research trends. *Environment, Development and Sustainability*, *25*(4), 2977-3003.

Zapata, M. J., Hall, C. M., Lindo, P., & Vanderschaeghe, M. (2013). Can community-based tourism contribute to development and poverty alleviation? Lessons from Nicaragua. In *Tourism and the millennium development goals* (pp. 98-122). Routledge.

Zhong LinSheng, Z. L., & Liu LiMin, L. L. (2017). Ecotourism development in China: achievements, problems and strategies.

Web Sources

- Mizoram Tourism Department. (n.d.). Retrieved from https://www.tourism.mizoram.gov.in
- Ministry of Tourism, Government of India. (n.d.). Retrieved from https://www.tourism.gov.in
- Mizoram Forest Department. (n.d.). Retrieved from https://www.forest.mizoram.gov.in
- Incredible India. (n.d.). Retrieved from https://www.incredibleindia.org
- World Bank. (n.d.). Retrieved from https://www.data.worldbank.org
- https://mdoners.gov.in
- Census of India 2011. (n.d.) Retrieved from https://www.censusindia.gov.in
- www.ecotourrism.org
- www.pib.gov.in
- www.futuremarketinsights.com
- www.globalforestcoalition.org
- www.devalt.org
- www.planning.mizoram.gov.in
- www.oecd.org
- www.unep.org

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"Sustainable Expeditions: Mapping Ecotourism Pathways in Mizoram, India". Journal of The Assam Valley of International Journal of Humanities and Cultural Studies, Vol. XIII, No. II, July 2024, ISSN No. 2320-0324.

Conference Presentation

Presented a paper entitled "Community based ecotourism development at Ailawng Village, Mizoram" in the International Conference on Emerging Opportunities in Tourism and Hospitality Industry held on 25th June, 2021 organized by Dept. Of Tourism and Hotel Management, Mohanlal Sukhadia University, Udaipur.

Presented a paper entitled "Potential for ecotourism development development in Reiek Village, Mizoram: A community based approach" in the International Seminar on Redefining tourism through G20s key priority areas held on 18th & 19th May, 2023 organized by Dept. Of Tourism & Hospitality, Mizoram University.

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ABSTRACT

COMMUNITY BASED ECOTOURISM IN MIZORAM WITH SPECIAL REFERENCE TO MAMIT DISTRICT

AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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DEPARTMENT OF TOURISM AND HOSPITALITY MANAGEMENT

SCHOOL OF ECONOMICS MANAGEMENT AND INFORMATION SCIENCE

APRIL, 2025

COMMUNITY BASED ECOTOURISM IN MIZORAM WITH SPECIAL REFERENCE TO MAMIT DISTRICT

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INTRODUCTION

The state of Mizoram is characterised by its scenic landscapes, rich biodiversity, and vibrant tribal cultures, making it ideal for ecotourism. The state stands out with its pristine environment, high literacy rate of 91.33%, and strong social cohesion. The 'Mizos', people of Mizoram are known for their warm hospitality and community spirit. These socio-cultural strengths such as warm hospitality and community spirit, combined with the ecological beauty, making it well-suited for Community-based Ecotourism Development (CBET), and enables to balance conservation with community empowerment and engagement. In recognition of these features, the Government of Mizoram, with support from the central government, has implemented three tourism policies such as the Mizoram Tourism Policy (2014), Ecotourism Policy (2017), and Responsible Tourism Policy (2020), all of which encourage sustainable, nature and culture-driven tourism with community involvement. Initiatives like the Reiek Tlang Tourism Development Board and the Ailawng Village Ecotourism Development Society (AVEDSOC) in the study area have been launched to promote community-led tourism efforts.

Despite its natural and cultural richness, tourism in the region remains underdeveloped, facing challenges like poor infrastructure and low visibility. Moreover, academic studies on CBET in this region are limited. Hence, the study titled *"Community-Based Ecotourism in Mizoram with Special Reference to Mamit District"* fills this gap by analyzing the existing practices, potential, challenges, and local perspectives related to ecotourism and community participation in the study area.

Mizoram is a strategically positioned northeastern state in India, bordering Assam and Manipur to the north, Myanmar to the east and south, and Bangladesh and Tripura to the west. It holds importance geopolitically because of its 722 km international border with Bangladesh and Myanmar. Geographically, the state stretches between longitudes 92°15' E to 93°29' E and latitudes 21°58' N to 24°35' N, forming an inverted narrow triangle. Mizoram, which consists of 11 districts, is home to a substantial tribal population, accounting for around 94.43% of the total.

The state's strategic location and socio-demographic profile, which include a high literacy rate and broad English ability, offer promising opportunities for industrial expansion and cross-border trade with Southeast Asia. Mizoram has abundant forest resources, with approximately 9,058 square kilometers of classified forest land, accounting for nearly 43% of the state's entire geographical area. The India State of Forest Report (2021) identifies a positive trend in both forest and tree cover, highlighting the state's potential for sustainable, community-based ecotourism. However, this opportunity must be balanced against ongoing concerns such as shifting farming and rising population pressure.

The state’s ecotourism appeal is significantly enhanced by its diverse forest types including riverine, roadside, and compensatory afforestation, which provide varied natural landscapes ideal for nature-based tourism. The key wildlife protected areas such as the Dampa Tiger Reserve (1,033 sq. km.), Murlen National Park (100 sq. km.), and Phawngpui National Park (50 sq. km.) serve as biodiversity hotspots and major ecotourism destinations. The state’s eleven protected areas span 1,997.75 sq. km. and support endangered species like the clouded leopard, hoolock gibbon, and hornbills, contributing to the Indo-Burma Biodiversity Hotspot. The state is also rich in vegetation, boasting around 22 species of bamboo and over 400 medicinal plants. The climate ranges from humid in the plains to pleasant and cool in the higher altitudes, further enhancing its tourist-friendly appeal.

The Department of Tourism, Govt. of Mizoram has implemented awareness campaigns and capacity-building programs, such as tour guide and service provider training, to strengthen tourism infrastructure and community engagement. Tourism is seen as a catalyst for economic growth, contributing to job creation, skill development, cultural exchange, and improved per capita income. Mizoram is home to the world’s largest bamboo dance, which was recognized by the Guinness Book of Records on March 12, 2010, adding to its unique cultural tourism offerings.

The study area, Mamit district, established in 1998, is situated in the western region of Mizoram. It is adjacent to Tripura to the west, Assam to the north, and the districts

of Kolasib, Aizawl, and Lunglei to the east and south. Covering 3,025.75 square kilometres, the district features exceptional natural beauty, a rich cultural legacy, and robust community involvement, establishing it as a potential ecotourism destination. The district encompasses the Dampa Tiger Reserve and sustains a diverse array of flora and fauna. The distinctive river system, characterized by north-flowing rivers encompassing three-fourths of the district and south-flowing rivers emptying the remainder, preserves local ecosystems and enhances the region's aesthetic appeal. The local populace exists in a state of tranquility, promoting cultural diversity and active community engagement, hence augmenting the district's attractiveness for sustainable, community-oriented ecotourism.

SIGNIFICANCE OF THE STUDY

The significance of this study lies in its timely exploration of the emerging tourism landscape, particularly in the context of community-based ecotourism in Mizoram. Despite the vast natural resources of Mizoram, including lush hills, dense forests, rivers, and a temperate climate, tourism in the state remains in its infancy, whereas states like Assam and Sikkim have achieved significant advancement.

With over 85% forest cover, two national parks, and eight wildlife sanctuaries, Mizoram presents immense potential for nature-based tourism. Recognizing this, the government has introduced progressive tourism policies aimed at promoting sustainable, community-oriented tourism that benefits local livelihoods, conserves biodiversity, and provides meaningful experiences for visitors. This study is significant as it assesses tourism potential, community participation, and existing research gaps, while offering insights and recommendations that can guide policymakers, practitioners, and researchers. It serves as a foundation for future ecotourism development in Mizoram and can be used as a replicable model for similar regions across Northeast India and beyond.

OBJECTIVES

- To investigate the status and potential of tourism development in Mizoram including in the study area;
- To assess the functions and performance of existing community driven tourism development society in the study area;
- To assess the understanding, attitude and satisfaction of destination community towards ecotourism development;
- To evaluate the destination attributes in the perspective of both tourists and destination community; and
- To conduct a situational analysis of community-based ecotourism development and related infrastructure development in the study area.

HYPOTHESIS

H1: Destination community in the study area are significantly informed and motivated towards "Community based ecotourism development".

H2: Community based ecotourism development is significantly related to conservation, preservation and promotion of destination attributes.

H3: Ecotourism development is significantly related to sustainable development (Social, Economic and Environmental) of the study area.

RESEARCH METHODOLOGY

The study investigates community-based ecotourism development in Mizoram with a specific focus on Mamit District, incorporating detailed case studies of Ailawng and Reiek villages. In order to gain comprehensive insights into the dynamics of community-based ecotourism, a mixed-method research design was adopted. The qualitative component involved in-depth interviews and participant observation to evaluate the current status and potential of tourism. Thematic analysis of the qualitative data highlighted key challenges, including infrastructural deficiencies, seasonal limitations, and inadequate community engagement.

Quantitatively, the study employed multiple surveys to assess various dimensions of ecotourism. Residents and tourism operators were surveyed to evaluate the structure and performance of community-driven tourism societies. Structural Equation Modeling (SEM) was applied to identify key determinants, revealing strong economic benefits and conservation awareness as major strengths supporting sustainable tourism practices. A survey of 231 residents assessed the community's understanding, attitudes, and satisfaction regarding ecotourism. Reliability tests showed high internal consistency, with the majority recognizing the benefits of ecotourism, although attitudes varied according to socio-economic conditions.

The research further examined destination attributes from both the tourists' (170 respondents) and local community's (231 respondents) perspectives. Using non-parametric statistical techniques, significant perceptual differences were found between the two groups concerning infrastructure, natural aesthetics, and hospitality standards. To understand the broader context of ecotourism development, SWOT analysis and Principal Component Analysis (PCA) were conducted based on responses from stakeholders. This revealed cultural richness and strong community engagement as major strengths, while highlighting infrastructure limitations and low awareness as persistent weaknesses. Opportunities identified include diversifying tourism offerings and improving infrastructure, while environmental degradation and market competition emerged as potential threats.

RESULTS, DISCUSSION, AND RECOMMENDATIONS

Interviews with key stakeholders reveal underdeveloped infrastructure and limited accessibility as major challenges, though strong community involvement through homestays and cultural programs shows considerable potential in the region. The two villages present contrasting model, Reiek village being more commercialized, while Ailawng village emphasizes eco-friendly, community-based tourism highlighting diverse development pathways. Economic benefits from tourism are evident, particularly for artisans and small businesses.

The assessment of the performance of community-driven tourism societies using Structural Equation Modeling, confirms that awareness, motivation, and sustainability play key roles in successful tourism outcomes.

The evaluation of the community towards their understanding, attitudes, and satisfaction, reveals widespread recognition of tourism's benefits but also knowledge gaps and concerns around safety and environmental impact.

The comparison of perceptions of destination attributes between locals and tourists shows mismatched expectations. While locals prioritize cultural preservation and economic gain, tourists seek better infrastructure and guided experiences, pointing to a need for improved hospitality training and facility upgrades.

A SWOT and Principal Component Analysis provides a situational analysis of community-based ecotourism and related infrastructure. Strengths include cultural richness and community engagement, while weaknesses involve infrastructure, skills, and seasonal limitations. Opportunities exist in diversification and partnerships, but threats like environmental degradation and political instability remain. The study concludes by recommending strategies that utilize local strengths, address weaknesses, and promote sustainable, inclusive tourism development in the study area.

The key challenges in the study area include poor infrastructure, limited facilities, and seasonal tourism, though strong community involvement through homestays and eco-initiatives have great potential. Reiek represents a more developed model, while Ailawng emphasizes sustainable, community-based tourism. Despite progress, disparities in engagement and benefit distribution highlight the need for inclusive development and better government support.

Community-driven tourism societies were found to be highly motivated and effective in promoting conservation and local livelihoods. SEM analysis confirmed that awareness and participation significantly impact sustainable tourism outcomes. While residents generally understand and support ecotourism, knowledge gaps and concerns about inclusivity and environmental impact remain.

Tourists and locals both value the region's culture and nature, though tourists call for better infrastructure and services. A SWOT and PCA analysis identifies strengths like cultural richness and community engagement, and weaknesses such as infrastructure gaps and seasonal dependency. The study recommends strategic investment, capacity-building, and sustainable planning to unlock the region's ecotourism potential.

The study offers comprehensive recommendations for sustainable growth in the study area. A strong sense of community involvement is essential for success, empowering locals through training allows them to take on roles in guiding, hospitality, and crafts, ensuring tourism benefits are locally rooted. Collaboration between communities, businesses, and government, along with inclusive planning, fosters ownership and conservation.

Improving infrastructure such as roads, sanitation, signage, and transport emerges as essential to enhancing visitor experiences, supported by amenities like marked trails and tourist information centers. Environmental protection is a key pillar, with initiatives like waste management, reforestation, habitat preservation, and eco-friendly lodging ensuring sustainability.

Effective marketing, including digital campaigns and partnerships with media influencers and travel agencies, can boost visibility and visitor interest. Government support through policy, funding, and incentives is vital for driving development and protecting natural resources.

Tourist and community insights reveal a need to balance quality services with local engagement and benefit-sharing. A SWOT analysis highlights the district's strengths, such as natural beauty and culture, while pointing to infrastructure and skill gaps as areas for improvement. Overall, the study calls for strategic, inclusive, and adaptive ecotourism planning that aligns economic growth with environmental care and community well-being.

The study provides strategic recommendations for sustainable development. The key areas include improving infrastructure such as roads, restrooms, waste bins, and signage and strengthening community involvement through training, running of

homestays, and local events. Environmental sustainability is emphasized through better waste management, wildlife protection, and eco-friendly practices.

Digital marketing and influencer engagement are recommended to promote destinations like Reiek and Ailawng villages while economic growth can be supported by diversifying tourism activities, fostering local partnerships, and encouraging off-peak travel. Government backing is seen as essential for funding, policy support, and promotion.

The study also evaluates community-based tourism societies which calls for improved communication, skill development, and inclusive participation, along with greater awareness and recognition for local efforts. Community feedback shows a need for more education on ecotourism and increased youth engagement. Both tourists and locals highlight the importance of clean, accessible sites, conservation efforts, and cultural respect.

A SWOT analysis offers strategic planning, recommending approaches such as expanding cultural tourism, improving infrastructure, enhancing safety, and building local capacity. Overall, the study promotes a balanced, community-driven model for ecotourism in the study area, integrating infrastructure, environmental care, economic opportunity, and local empowerment.