

**ECONOMIC BENEFIT OF ECOTOURISM IN KANCHANJHUNGA
CONSERVATION AREA**

A Thesis

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Submitted By

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DECLARATION

I hereby declare that this MA thesis entitled ECONOMIC BENEFIT OF ECOTOURISM IN KANCHANJUNGA CONSERVATION AREA submitted to the Central Department of Rural Development of Tribhuvan University, is entirely my original work prepared under the guidance and supervisor of the thesis supervisor assigned by the department. I have made due acknowledgments to all ideas and information borrowed from different sources during the preparation of this thesis. The result of this research work has not been presented, published, or submitted anywhere else for the award of any degree or for any purposes. I assure that not part of the content has been published in any form before. I shall be solely responsible if any evidences found against my thesis.

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RECOMMENDATION LETTER

The thesis entitled ECONOMIC BENEFIT OF ECOTOURISM IN KANCHANJUNGA CONSERVATION AREA has been prepared and submitted by Mr. Manoj Basnet under my guidance and supervision. I hereby forward this thesis to the evaluation committee for final evaluation and approval.

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APPROVAL LETTER

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ABSTRACT

The purpose of this thesis is to review the economic benefits of ecotourism in the Kanchenjunga Conservation Area in the Eastern Himalayas using a descriptive research approach and survey methodology.

This study aims to examine Resource Allocation and Buffer Zone Management practices within the Kanchenjunga Conservation Area. Analyze Economic Benefits of Ecotourism Pre- and Post-Conavirus Pandemic. Assess the Sustainability of Ecotourism activities in the study area. Explore Relationships Between Respondents' Characteristics and Buffer Zone Management and Entrepreneurship.

Grounded in post-positivism and postmodernism research paradigms, the findings of the study reveal that ecotourism revenues are directed toward buffer zone management, biodiversity preservation, supporting wildlife protection, habitat restoration, and conservation initiatives. Ecotourism significantly contributes to economic growth and poverty reduction in the region. It fosters job creation, income generation, and capacity building within local communities. While ecotourism has brought benefits it also poses challenges to overcome, in light of external factors such as the COVID-19 pandemic. The pandemic has caused fluctuations in income sources and spending patterns significantly impacting the landscape. The level of education seems to influence the types of tourism services available, it shows that females in grade 10 were more likely to offer guest house services, while males in grade 10 were more inclined to offer homestay services. Also, females in grade 8 were more likely to offer both homestay and guest house services, while males in grade 8 tended to concentrate on hotel and restaurant services.

There are achievements to be proud of and difficulties to overcome for tourism development, including the limited technical and financial assistance, from local authorities. By addressing these challenges head-on, we can ensure a future that values richness preserves natural wonders, and promotes equitable economic growth, for everyone involved.

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ABBREVIATIONS AND ACRONYMS

KCA: Kanchenjunga Conservation Area

TAR: Tibet Autonomous Region

MOCTCA: Ministry of Culture, Tourism, and Civil Aviation

NPC: National Planning Commission

UNDP: United Nations Development Program

UNIDO: United Nations Industrial Development Organization

ADB: Asian Development Bank

CBS: Central Bureau of Statistics

GDP: Gross Domestic Product

HDI: Human Development Index

PPT: Pro-Poor Tourism

WTTC: World Travel and Tourism Council

COVID-19: Coronavirus Disease 2019

SPSS: Statistical Package for the Social Sciences

ANOVA: Analysis of Variance

WHO: World Health Organization

NGOs: Non-Governmental Organizations

GNI: Gross National Income

IFAD: International Fund for Agricultural Development

FAO: Food and Agriculture Organization

USD: United States Dollar

TIES: The International Ecotourism Society

WWF: World Wide Fund for Nature

WTO: World Tourism Organization

OECD: Organization for Economic Co-operation and Development

UNESCO: United Nations Educational, Scientific and Cultural Organiza

CHAPTER I

INTRODUCTION

1.1 Background of the Study

According to the current definition of ecotourism, it is "responsible travel to natural areas that preserves the environment, sustains the well-being of the local people, and incorporates learning and interpretation." (TIES, 2015). It represents one of the most rapidly expanding sectors of the environmentally conscious tourism market, which prioritizes economic development, preservation of the environment, wildlife conservation, and poverty alleviation. Anup K. C. (May 4th 2016) argues that tourism can recognize, safeguard, publicize, and promote the nation's historical, cultural, religious, archeological, and ecologic assets in order to boost the country's economy. Therefore, locals' community people should also have priority in sharing of the tourism industry's advantages even in rural areas.

The federal democratic republican constitution 2015 has envisioned holiday business as a priority area for upgrading the state economy. One of the fastest growing industries is tourism. Additionally, ecotourism is one of the hot topics. From a Nepalese viewpoint, tourism is in transition and moving steadily in the direction of large-scale tourism. So, now is the ideal time to put ecotourism's core values into practice to ensure its sustainability. Ecotourism is identified as the key vehicle for sustainable tourism in Nepal Tourism Policy 2009 and Vision 2020. Ojha, N. (2020). Potential for Ecotourism in Nepal. *Interdisciplinary Journal of Management and Social Sciences*, 1(1), 104–112.

Nepal is regarded as one of the major tourism destinations in the globe. One of the primary sources for tourist charms is its natural beauty, which includes stunning mountains, rivers, waterfalls, lakes, verdant forests, caverns, natural sceneries, panoramic vistas, unusual flora and fauna, and mystic natural as well as cultural heritages (Bista, 1967) (Joshi, 2008, p. 130). Nepal has a unique natural environment and culture which is an advantage in ecotourism. Local people get jobs and local products get marketed through ecotourism. Balancing the conflicting goals of economics, creating a sustainable economic development and conserving biodiversity ecotourism helps to achieve environmental conservation.

Designed as a conservation area in 1997, the Kangchenjunga was opened to foreign trekkers in 1987. It was designated a conservation area in 1997. In nations like Costa Rica and Guatemala ecotourism is already the largest source of foreign exchange. This serves as one of the main engines for generating economic growth and employment. Proof from all across the world shows that tourism generates a range of small-scale occupations for the underprivileged, the young, the female gender, and native populations. Nepal, a developing country with a natural environment and culture unique to it, has an advantage when it comes to ecotourism. Through tourism activities led by communities in rural areas, it provides employment for unskilled workers. The High mountains, unspoiled nature, areas under protection, abundant wildlife, breathtaking

scenery, and mosaic of ethnicities are just a few of Nepal's many well-known features. It also boasts a wonderful cultural legacy.

Nepal is among the utmost fascinating destinations for both ecological and cultural travel, depending on the state of the natural environment. In addition to the tallest peaks in the globe, there are several cultural and ecological attractions. There are also natural beauty places and trekking paths for eco-tourism throughout the region, from the Kanchenjunga Conservation Area and Illam in the east to Khaptad and Shuklaphanta National Park in the west.

Known for its second highest peak in Nepal and the third highest in the world, Kanchenjunga Conservation Area is named after Mt. Kanchenjunga (8,586 meters). It was opened to foreign trekkers in 1987. Kanchenjunga was classified as a protected reserve in March 1998. A total of 2035 square kilometers are covered by it in Taplejung district, located in the northeast corner of Nepal. High peaks (eleven peaks higher than 7,000m) and glaciers make the Taplejung district renowned. Tibet Autonomous Region (TAR) of China and Sikkim, India form a tri-national peace park as part of the conservation area with unique mountain ecosystems.

It is hoped that ecotourism can be established and developed in the Kangchenjunga area before disordered development has a chance to ruin it (Anup K. C. May 4th 2016). Based on the constitutional framework, the federal government also has prepared the National Tourism Strategic Plan (2016-25) that targets to receive 25, 22000 tourists in 2025. Its share of contribution to GDP will be 9.29% equivalent to US\$ 3401 million revenue and it will create 6, 32000 employment opportunities (MoCTCA, 2017). During the plan period, province wise structural tourism development plan will be developed and tourism development areas (TDAs) also will be identified in potential locations. The federal government has also devolved power/jurisdictions related to tourism development through market management, conservation of biodiversity and preservation of language culture and fine arts and collection of tourism fee to the local government (Constitution, 2015).

Despite multiple benefits of eco-tourism to the rural people, eco-tourism activities have been performing only in selected villages of Kanchenjunga Conservation Area. Some of the tourism services such as hotel, resort, guest house and restaurant also have been operating by incoming entrepreneurs or outsiders (P. Sharma¹, PhD personal communication, October 4, 2016). Out of those regions, the Provincial government of Province Number One set a target to receive 5, 00000 international tourists within five years. In this context, this study is going to explain economic benefits such as the economy of eco-tourism in the Mountain Region of Province Number One.

¹Dr Sharma has been working as a key advisor in the Homestay Association of Nepal (HOSAN), Village Tourism Promotion Forum (VITOF) and also working as an emeritus in Tribhuvan University, Central Department of Rural Development, Kirtipur.

Traveling for entertainment through numerous tourism activities in a short amount of time is what is meant by tourism (World Tourism Organization [WTO], 2013). Without any doubt the world is aware of Nepal as a significant tourist destination. Its breathtaking natural features, including its stunning mountains, rivers, waterfalls, lakes, lush woods, caverns, natural panoramas, expansive vistas, and uncommon wildlife and plants (Bista, 1967) and mystique natural as well as cultural heritages are one of the major products of tourism attractions (Joshi, 2008, p. 130). In fact, development of tourism is not only for generating employment opportunities but it can also accelerate cultural worth, opportunities and significance for the rural and urban residents (Weaver, 1998; Pao, 2005).

In this consideration, it can be said that development stakeholders are still conceptualizing the transformative role of eco-tourism in economic development. The term "ecotourism", coined by Hector Ceballos Lascurain in 1983, describes nature-based tourism in relatively undisturbed areas.

Eco-tourism has been viewed as a major method to revive rural areas since it is a key facilitator for social and economic development as well as community cohesiveness in rural communities (Dashper, 2014). Since traditional economic pillars like agriculture, cattle, and hunting are incompatible with protected areas, changing traditional economic activities can be accomplished through changing cultural attitudes in favor of ecotourism enhancement. Eco-tourism, where locals developed, own, and run tourism services and facilities themselves, thrives thanks to tourists' participation in villagers' everyday lives and learning about their way of life in isolated village locations (Brown, 2006). To design and implement eco-tourism, it takes more localized effort than significant financial investment (Kunwar, 1997).

Promotion of tourism is seen as a chance to start development processes by governments of poor nations, international development organizations, and Non-Governmental Organizations (NGOs) (Organization for Economic Cooperation and Development [OECD], 2016). The World Travel and Tourism Council (WTTC) estimates that the tourism industry now contributes 9.5% of the worldwide GDP, generating a total of US\$7 trillion and 266 million employment directly and indirectly in 2016 (World Travel and Tourism Council [WTTC, 2017]). The volume of foreign visitors peaked in 2012 at 803,092 and has since been on the decline. 538970 foreign visitors had come to Nepal as of mid-January 2016, staying an average of 13.1 days. The tourism industry contributed US\$ 48634100 or 2.9 percent, to the overall national income (GDP) (MoCTCA, 2016).

According to the National Planning Commission (NPC), the generation of jobs, economic growth, and the reduction of poverty all depend on the tourism industry (NPC, 2010). Travel and tourism generated 10.6% of all new jobs nationwide and 10.4% of the world's GDP (\$9.2 trillion) before the epidemic. According to Economic Impact Reports (n.d.), foreign tourism expenditure reached US\$1.7 trillion in 2019 (6.8% of all exports

and 27.4% of all service exports). In 2009, the worldwide ecotourism industry brought in \$77 billion and accounted for 5-7% of the total travel and tourism sector. The global ecotourism market was valued at 181.1 billion US dollars in 2019. With a growth rate of 10% to 30%, it is one of the tourism market's most rapidly expanding segments (Sustainability Watch, 2009).

Up until the fiscal year 2018/19, the tourism sector's GDP contribution is expected to rise by 4% (NPC, 2017). For this reason, the Nepali government created Tourism Vision 2020, which intends to boost community participation in tourism activities and increase yearly international tourist arrivals to 2 million by 2020 (Ministry of Culture, Tourism, and Civil Aviation) [MoCTCA], 2009).

The growth of tourism and travel to uncommon locations has demonstrated notable resilience on a worldwide scale. Iceland, Kenya, Palau, and Nepal are the popular tourist locations with distinctive eco-tourism offerings around the world. At the conclusion of the year, Nepal had over 1,173,072 travelers, a staggering 24% rise (Himanshu Vig, 2021). Nepal doesn't need to do much to attract tourists from its neighboring countries of China and India. It only needs to concentrate on its two enormous bordering nations, China and India. Citizens of these two adjacent countries are vacationing more due to increases in disposable income and significant economic growth. Similarly, along with changes in the lifestyle of many Nepalese, Nepal's domestic tourism has been developing. Growing disposable incomes of the middle class and a rising number of nuclear families have created a more cosmopolitan younger generation, creating a higher demand for domestic tourism. Nepal is well suited for ecotourism, since its tourist attractions are nature and culture based, (Nepal Economic Forum, 2013)

Over the past 25 years, there has been an increase in active rural travel around the world to encounter rurality and, frequently, controlled risk and excitement as a substitute for the alleged pressures and limitations of metropolitan life (Costa & Chalip, 2005). Presently pro-poor tourism (PPT) strategy has been implementing for sharing the tourism benefits to marginalized members of the community (Hall, 2007) through community participation to cope with socio-economic, environmental and cultural issues (Richards, 2009).

Simply by expanding employment prospects and improving living conditions, rural ecotourism contributes to farmers' increased profitability. Agriculture and tourism are combined in rural ecotourism. The development of the rural economy and rural culture is positively influenced by agricultural sightseeing, familiarity with traditional lodging, and inexpensive amusement (KC, 2017). Rural development serves as a plan for the general development of rural areas and includes the development of agriculture and related activities, village industries and crafts, as well as socio-economic infrastructures in rural areas (Singh, 1999).

In Nepal, out of a total population of 29,660,568 as of Tuesday, August 14, 80.4% (i.e., 5,811,187 people) reside in rural areas (CBS, 2018). Because of poor networking of

infrastructure, service delivery, subsistence farming and vicious circle of poverty 80% of the people mostly from Nepal's rural communities over the years are facing poverty. (CBS, 2012) in 3157 rural village development committees (Ministry of Federal Affair and Local Development [MOFALD], 2015). There is total 26,494,504 ethnic populations from 125 ethnic and 123 lingual groups in which Mountain constitutes 1,781,792 populations, Hill and Terai constitute 11,394,007 and 13,318,705 population (CBS, 2012).

In this situation, the ultimate goal of tourism and rural ecotourism development show much convergence with single aim rural transformation. Even these disparate constructs are now acknowledging similar involvement principles, such as concentrating on minimizing poverty, appreciating the value of indigenous wisdom, emphasizing community involvement, adopting an all-encompassing perspective on the enhancement of the rural space, educating rural people for job opportunities outside of farming by constructing their expertise and ability, acknowledging the cooperation of urban/rural linkages, developing collaborations with NGOs and the civil society, and so on. (UNESCO & FAO, 2003, p.52). Therefore, it is inevitable to explain and analyze multiple benefits of tourism activities in Nepal.

1.2 Rationale of the Study

In education, knowledge is acquired intentionally and the ability to apply it is developed (competencies). Regardless of how knowledge is acquired, its creation and control must be addressed (Deneulin & Townsend, 2007). Education was recognized as the main catalyst for development in the Incheon Declaration (Education Framework 2030). The proclamation also advised academics to carry out transformational research agendas to improve rural people's day-to-day activities (UNESCO, 2016).

Being academicians and professionals, above literature thus encouraged researchers to analyze multiple benefits of rural tourism from rural development perspectives. Along with that during the beginning of career development the researchers also worked as tourism entrepreneurs that were motivated to analyze policy and practices of rural tourism and its benefits to the rural people as well.

1.3 Statement of the Problem

Despite multiple benefits of tourism most of the empirical researches conducted in Nepal are focusing on negative impacts of eco-tourism. Even local intellectuals, planners and politicians are not yet appraising the economic benefits of eco-tourism from a rural development perspective. Rural areas face challenges related to economic opportunities, health, education, gender equality and basic services. Ecotourism can be potential driver to drive the rural areas out of poverty particularly in naturally sensitive area like KCA. This is where our research make sense to study the economic benefit of ecotourism. However, ecotourism does not deal only with the economic aspect but also with the conservation of nature and preservation of culture. Therefore, not only economic aspect but also the resource management, sustainability of ecotourism and relation of

respondents' characteristics to buffer zone management are studied. To make it clearer the major problems are stated below:

- i) Resource Management: How do current practices impact biodiversity in Kanchenjunga Conservation?
- ii) Economic Impact: How did COVID-19 affect ecotourism's economics in the area?
- iii) Sustainability: What measures ensure ecotourism's long-term sustainability?
- iv) Respondent Characteristics: How do characteristics influence buffer zone management?

These are in fact surmounting research problems of this study. It is significant for these questions to be studied for various reasons.

Buffer Zone Management and Sustainability: In order to ensure the long-term sustainability of ecotourism in the KCA, resource allocation and buffer zone management practices must be examined. In balancing economic gains with environmental protection, it addresses the challenge of preserving the environment.

Local Community Well-being: Ecotourism can reduce poverty and improve living standards by providing employment opportunities and income generation. KCA is a rural area, so this is especially relevant.

COVID-19 Impact: Tourism industry across the globe has been deeply affected by the COVID-19 pandemic. Ecotourism in the KCA must be assessed for its effects during and after the pandemic and how it can recover and adapt.

Sustainable Development: Particularly in ecologically sensitive places like conservation zones, ecotourism has been seen as a potential driver of sustainable development. Assuring the needs of today are met without compromising the needs of tomorrow.

The Kanchenjunga Conservation Area (KCA) is a renowned biodiversity hotspot. A variety of plants and animals, including numerous endangered species, call it home. Understanding the significance of earlier research on ecotourism in this region is essential to ensuring an effective ecotourism study. Generally, very few research studies have been carried out on eco-tourism, particularly in Kanchenjunga Conservation Area.

“Biodiversity in the Kangchenjunga landscape” discusses the connections between climate change and biodiversity in the eastern Himalayan region known as the Kangchenjunga Landscape. It remains silent about the economic aspect of ecotourism.

Parallely, the paper "Transboundary Ecotourism in the Kangchenjunga Landscape: Opportunities for sustainable development through regional cooperation" highlights the potential for important transboundary ecotourism products in the Kangchenjunga landscape. But it doesn't give much space being specified to the Kanchenjunga Conservation Area only.

Similarly, the paper “Ecotourism and its role in the sustainable development of Nepal” has been extensively studied and documented in various research papers. These

studies highlight the importance of ecotourism projects in promoting sustainable development while minimizing negative impacts on the environment and local communities. But it cannot answer the question, “How the covid pandemic has affected ecotourism, and how to overcome it”?

Researcher personally sense the lack of research in the field of ecotourism focusing on its economic benefit along with the pre-post impact of Covid-19 particularly in KCA. Briefly reviewing this relevant literature, we come to the conclusion that the research problems set out by the researcher have not been fully addressed or that there is a gap in knowledge that this research will fill.

1.4 Research Objectives

The general objective of this study is to analyze multiple benefits of rural tourism from rural development perspectives. In this stance, below are the specific research objectives that will be expanded to the general objective of this study.

- i) To examine resource allocation and buffer zone management practices in Kanchenjunga Conservation Area.
- ii) To analyze the economic benefits of ecotourism before and after the coronavirus pandemic.
- iii) To assess sustainability of ecotourism development activities in the study area.
- iv) To explore the relationships between characteristics of the respondents with respect to buffer zone management and entrepreneurship.

1.5 Statistical Hypotheses

This study proposed the following hypotheses for testing purposes:

- i) Tourism has increased saving and credit habits of the entrepreneurs.
- ii) After the Coronavirus pandemic, the economic benefits of ecotourism in Kanchenjunga Conservation Area significantly decreased.
- iii) Environmental conservation and community well-being are both promoted by ecotourism development in KCA.
- iv) Entrepreneurship and buffer zone management are connected to People's personal characteristics.
- v) Conservation funds are investing in community infrastructure development projects.

1.6 Significance of the Study

Approximately 9.5% of global GDP comes from tourism, generating US\$ 7 trillion, and supporting 266 million direct and indirect jobs (World Travel and Tourism Council [WTTC], 2017). Tourism has increasingly become an essential component of the economy for economic development, job creation, and poverty alleviation (National Planning Commission [NPC], 2010

With a growth rate of 10-30%, eco-tourism is one of the fastest growing sectors in the travel industry, (Sustainability Watch, 2009). In 2019, 181.1 billion U.S. dollars were

estimated to be generated by the ecotourism industry worldwide. By 2027, the sector is predicted to generate 333.8 billion U.S. dollars at a CAGR (compound annual growth rate) of 14.3%. (Lock, 2021).

Internationally, Nepal is a renowned destination for eco-tourism. The economic impact of tourism on the country has also been substantial. Tourism is a major source of foreign currency earnings in the country. Kanchenjunga Conservation Area has a lot of potential for ecotourism, but not enough research has been done concerning ecotourism and its economic benefit.

This area has everything necessary to develop into a top ecotourism destination. We intend to examine the micro and macroeconomic benefits of eco-tourism with a study on this topic. KCA is the land of the indigenous people. Cultural festivals, religion, spiritual beliefs, rituals and customs, dance, food, dress and ornaments, language, dialects, traditional way of life, and traditional farming practices of indigenous groups are more appealing as ecotourism subjects

1.7 Limitation and Delimitation

The following are the construct limitations of this study:

- i) Findings are limited to the Kanchenjunga Conservation Area, so they may not be generalizable to other regions.
- ii) Time constraints limited the study's completion, which may have limited its depth of analysis and data collection.
- iii) Limited financial and other resources limited exploration of certain aspects of ecotourism in depth.
- iv) Information was collected from respondents, and it is possible the answers may not be as accurate and complete as they claim.
- v) This study relied on the availability and willingness of respondents, so some bias might have been introduced.
- vi) This study's findings may not be directly applicable to other regions or situations outside of the study area and conditions studied.

The construct delimitations associated with this study are as follows:

- i) The study is conducted only in the Mountain Region of the Province Number One.
- ii) Kanchenjunga Conservation Area is selected from the Mountain Region.
- iii) This study dealt with socio-economic and occupational status of the households.
- iv) The economic benefits of tourism and its impact on agriculture production also have been focused.
- v) The researching issues related to economic benefits of ecotourism have been analyzed and interpreted through the lens of cultural reproduction and production theory, eco-tourism theory, postmodern tourism and UN sustainability approach on development.

1.8 Organization of the Study

This thesis has been organized into six chapters. First chapter deals on background of the study, problem statement, rational of the study, research objective, and significance of the study, delimitation of the study and organization of the study. The second chapter deals with literature review. It deals with theoretical review, policy review, empirical reviews and conceptual framework of the study. Similarly, the third chapter deals with research methodology. The fourth chapter present brief information about Kanchenjunga Conservation Area. The fifth chapter includes data analysis and presentation. The sixth chapter presents summary of findings, conclusion and recommendation drawn on the basis of study.

CHAPTER II

LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Tourism

Though tourism is recent phenomenon, traveling is as old as human civilization. From the nomadic stone age to present age of technology people have been traveling from one place to another with different purposes. Traveling in search of food and shelters to early pilgrimages to travelling for pleasure in leisure, mankind has travelled a long way. Is travelling a tourism? What actually is tourism? According to WTO (1993), “The term tourism refers to the activities of people who travel and stay in places other than their usual environment for no longer than one consecutive year for leisure, business, or other purposes.”

Tourists are people who travel to places outside their usual environment for personal, professional, or business reasons. Tourism is a social, cultural, and economic phenomenon that involves the activities of tourists including some tourism expenditures (GLOSSARY OF TOURISM TERMS, n.d.). Tourists have diverse interests, so the tourism industry includes a wide variety of forms. A prominent and increasingly popular kind of tourism is ecotourism. Ecotourism is the act of living in harmony with nature and is primarily aimed at destinations where nature, animals, and cultural heritage are the primary attractions. Travel that involves responsible tourism in order to conserve the environment, sustain the wellbeing of the locals, and educate the public (TIES, 2019).

Observation, learning, discovery, experience, and appreciation of biological and cultural diversity are the fundamental goals of ecotourism, which is a form of nature-based tourism. Visitors are encouraged to take a responsible attitude to conserve the integrity of the ecosystem and enhance local community well-being. As a result of ecotourism, locals, and visitors become more aware of the value of biodiversity, natural environments, and cultural assets, and special management processes must be implemented to minimize the environmental impact of ecotourism (GLOSSARY OF TOURISM TERMS, n.d.).

2.1.2 Principles of Ecotourism

In accordance with the principles of ecotourism as developed by the International Ecotourism Society (IES), we present the following information:

It is important to avoid damaging or destroying the natural or cultural environments by keeping negative impacts to a minimum.

- i) Travelers are educated about conservation and its importance.
- ii) Protected areas and natural areas are conserved by directing revenues to their management.

- iii) Protected areas benefit local communities and direct revenues to the surrounding community.
- iv) Aims to ensure that tourism development does not exceed the social and environmental 'carrying capacity', and stresses the need for planning and sustainable tourism growth.
- v) Focuses on using locally owned facilities and services so that a large percentage of revenues are kept in the host country.

Based on the above listed principles ecotourism is recognized as one of the sustainable green economy sectors by UNEP because of its role in conserving biological, cultural, and built resources, enhancing quality of life, and enhancing visitors' experience. Ecotourism thus establishes a balance between sustainability principles of tourism that is related to economic, environmental and socio-cultural aspects of tourism development in any protected area of any particular country (WWF Global, 2017).

Ecotourism is simply the use of environmentally-friendly methods in tourism activities aimed at enhancing socio-economic, cultural and environmental development. Hence, the terms "ecotourism," "ethical tourism," and "eco-citizenship" all refer to practices that minimize human impact on the environment while promoting its sustainability (Villepontoux, 2013). It was biologists who founded the term ecotourism in the 80s because they were concerned about the negative effects tourism practices were having on the environment. WTO has been promoting ecotourism as the new alternative model for sustainable tourism since the 2000s. During this time, the suffix "eco" serves as a metaphor for the dual logic of ecology and economy and shows that tourism can be both environmentally conscious and economically viable.

In Nepal, the idea of ecotourism is also being put into practice, particularly in protected places like national parks and buffer zones. In addition to administrative costs, the conservation fund has been awarding funds for income-generating activities (20%), community development (30%), physical development of infrastructure (30%), and preservation-related awareness raising training (10%) at the same time (Pradhan & Gradon, 2008). The researcher will go into further detail about ecotourism practices (i.e., respecting rural ecology and economics) in general and how they affect the life of the locals living close to Kanchenjunga protected area in light of this theoretical perspective.

“Ecotourism is a fast-growing sector within the tourism industry that prioritizes the protection and conservation of the natural environment” (What Is Ecotourism? (2023 Ultimate Guide) - Hidden Lemur, 2021). It is not merely a form of tourism but a responsible approach that aims to minimize negative impacts on natural and cultural environments, while also promoting their preservation. At its core, ecotourism focuses on the principles of conservation, community engagement, and education. It involves visiting natural areas with the intent to learn about the environment, support local communities, and contribute to their well-being. “In order to build a sustainable ecosystem and construct long-term sustainability programs, ecotourism aims to bring

together nature, wildlife, conservationists, visitors, and local residents. This is in contrast to short-term profit-making enterprises.” (What Exactly Is Ecotourism? 2019).

Unlike conventional tourism that often exploits resources without regard for long-term sustainability, ecotourism strives to foster a harmonious relationship between tourists, host communities, and nature. Responsible travel lies at the heart of ecotourism. It emphasizes minimizing carbon footprints through sustainable transportation choices such as walking or cycling whenever possible. Additionally, it encourages visitors to stay in eco-friendly accommodations that prioritize energy efficiency and waste reduction practices. “These programs often include conservation efforts such as habitat restoration, wildlife monitoring, and waste management campaign” (The Power of Collaboration: The Importance of Community Participation in Ecotourism Planning, 2023). They respect local cultures and traditions while embracing opportunities to learn from indigenous communities about their relationship with nature.

“Ecotourism is a term that has gained significant prominence in recent years, representing a sustainable and responsible approach to travel. It encompasses a holistic approach that embraces sustainable principles, such as conserving natural resources, supporting local economies, preserving cultural heritage, and fostering community engagement” (The Ultimate Eco Travel Guide: Exploring Eco-Lodges, Eco-Hotels, and Eco-Resorts — Ecowiser, 2023). “By prioritizing nature-based experiences and supporting local communities, ecotourism can help minimize the negative impacts of tourism while maximizing benefits to the environment and local people” (Ecotourism, 2023).

It promotes responsible travel practices that support biodiversity conservation, protect fragile ecosystems, and contribute to the well-being of indigenous cultures. One key aspect of ecotourism is its emphasis on education and awareness. Travelers are encouraged to engage in activities that facilitate learning about local ecosystems, traditional customs, and environmental challenges. This educational component provides an opportunity for visitors to develop a deeper understanding of the importance of conservation efforts and encourages them to become advocates for sustainable practices even after their trip ends. “Thus, members of the community, as well as those not directly involved in the tourism industry, should also benefit from the economic benefits” (2020). “That can occur in a variety of ways, all of which involve some sort of monetary aspect, such as through creating jobs or by assisting small businesses in the area” (What Is Ecotourism, 2022).

2.1.3 Resource Allocation

In 1.4 research objectives we have encountered the term, “resource allocation”. Generally, question might arise what does researcher mean by resource allocation. In the context of Kanchenjunga Conservation Area, resource allocation refers to the accessibility of local people for collection of forest product, providing space for livestock grazing, channeling of water to agriculture land, investing of conservation fund in community development projects and physical infrastructure development.

2.1.4 Sustainability of Ecotourism Development Activities

One of our four objectives of research aims to assess sustainability of ecotourism development activities in the study area. Therefore, it is essential to be clear about the concept of sustainability to understand the objectives and its finding in dept. Sustainability of ecotourism development activities in the study area refers to management of natural environments and cultural environments for sustaining tourism, Use of solar power, biogas and micro hydro to decrease deforestation, organic farming and Wastage management practices.

2.1.5 Conservation and Biodiversity

“Sustainable ecotourism should be guided by three core principles: conservation, communities, and education” (What Is Ecotourism? Definition, Examples, and Pros and Cons, 2022). Ecotourism aims to promote sustainable practices that contribute to the preservation of natural habitats, protection of wildlife, and maintenance of biodiversity. One fundamental principle is the minimization of negative impacts on the environment. Ecotourism seeks to reduce pollution, waste generation, and habitat destruction caused by tourism activities. It emphasizes responsible resource use and encourages visitors to adopt eco-friendly behaviors. “Hence, conservation actions must become the guiding principle” (Wuddivira et al., 2023). Ecotourism often collaborates with local communities, conservation organizations, and authorities to support initiatives such as habitat restoration, wildlife rehabilitation centers, or protected area management. By engaging tourists in these activities through educational programs or volunteering opportunities, ecotourism enhances awareness about conservation challenges and fosters a sense of responsibility towards nature. Furthermore, ecotourism places great importance on preserving biodiversity. It recognizes that diverse ecosystems are essential for ecological balance and ensures that tourism activities do not harm or disrupt fragile ecosystems. Instead, it encourages visitors to appreciate natural diversity while providing economic incentives for local communities to protect their natural resources.

2.1.6 Community Involvement and Empowering

Community involvement is a key principle of ecotourism, aiming to empower local communities through sustainable tourism practices. By actively engaging and involving the community, ecotourism seeks to ensure that local people are active participants and beneficiaries of the tourism activities taking place in their area. Sustainability, capacity building, social benefits and cultural benefits are the outcome of aligning the tourism

activities in line with principles of ecotourism.

Social Benefits: Ecotourism can help local communities by providing employment opportunities and supporting local businesses. One way to empower local communities through ecotourism is by providing opportunities for meaningful employment. This can be achieved by hiring local residents as guides, staff members, or artisans, enabling them to directly benefit from the economic opportunities created by tourism.

Cultural Benefits: "By encouraging people to learn about and engage with local traditions and cultures, ecotourism can aid in their preservation" (2022). Another aspect of community involvement in ecotourism is fostering cultural exchange and preserving traditional practices. Encouraging visitors to interact with locals, learn about their customs, and participate in cultural activities not only enriches the tourist experience but also helps preserve indigenous traditions.

Capacity Building: "Empower locals through skills training programs, such as guided tours, so that they can contribute positively to ecotourism initiatives" (The Power of Collaboration: The Importance of Community Participation in Ecotourism Planning, 2023) This can include promoting handicrafts made by local artisans or organizing cultural performances that showcase traditional music and dance. Furthermore, community involvement should extend beyond economic benefits. Ecotourism initiatives should aim to support local infrastructure development projects such as schools or healthcare facilities. Investing in these areas improves the quality of life for community members while also enhancing their ability to provide authentic experiences for tourists.

Sustainability: "Ecotourism encourages environmentally friendly tourism methods that reduce harmful effects on the surroundings and aid the local economies" (What Is Ecotourism? | iGMS, 2023). Community involvement is a key principle of ecotourism, aiming to empower local communities through sustainable tourism practices. By actively engaging and involving the community, ecotourism seeks to ensure that local people are active participants and beneficiaries of the tourism activities taking place in their area.

"Therefore, by balancing conservation with economic development, ecotourism protects the natural environment while empowering local communities" (The Power of Collaboration: The Importance of Community Participation in Ecotourism Planning, 2023).

2.1.7 Embracing Ecotourism for Sustainable Future

Embracing the principles of ecotourism is crucial for ensuring a sustainable future for our planet. As we have explored, ecotourism offers a unique opportunity to strike a balance between environmental conservation and economic development. By following these principles, we can minimize the negative impacts of tourism on natural resources and local communities, while maximizing the positive outcomes. Firstly, by promoting responsible travel practices and supporting local economies, ecotourism encourages sustainable development in rural areas. This not only provides economic benefits but also helps preserve cultural heritage and traditional knowledge. Additionally, through education and

awareness programs, ecotourism empowers both tourists and local communities to take active roles in conservation efforts. Furthermore, ecotourism places an emphasis on protecting biodiversity and ecosystems.

By visiting protected areas responsibly and supporting wildlife conservation initiatives, tourists contribute to preserving fragile habitats for future generations. By adopting these principles of ecotourism in our travel choices and encouraging others to do the same, we can pave the way towards a sustainable future where economic prosperity goes hand in hand with environmental stewardship.

2.1.8 Contributions of Tourism in Rural Development

According to Sharma (2008), rural tourism is an intersection of the resources of the surroundings (Lr), the readiness of the locale (RL) and the interests of extravagant people (LEP) that can be used to develop and promote village tourism potentialities (see figure 1). To promote village tourism, it is necessary to have both national and local policies, plans, and projects. Tourism in villages must therefore focus on local interests and needs. The ideal tourist destination is one that satisfies the interests of its visitors and

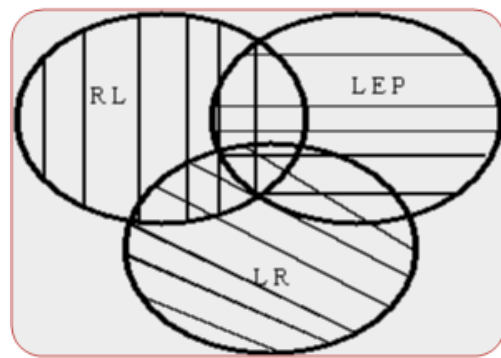


Figure 1: Meaning of Rural Tourism

provides them with facilities and services like food, shelter, local hospitality, knowledge gained through heritage, ultimate eternal peace, and the thirst for youth. And tourists love to visit such places. (Sharma, 2008, p. 15).

Tourism is currently considered to be the largest growth industry in developed countries, with no sign of slowing over the long term. (World Trade Organization [WTO], 1998). The number of tourists worldwide has grown by nearly 9 percent annually since 1980, reaching 940 million in 2010 and expected to reach nearly 1.6 billion by 2020 (UNWTO, 2010). A total of 235 million people are employed in the tourism industry globally (Tourism Bureau Statistics [TBS]), supporting 412,500 direct jobs and 952,500 indirect jobs (TBS, 2012). Similarly, United States, Spain, France, China and Italy are top five revenue generated countries from tourism activities who generated 126.2, 55.9, 53.7, 50.0 and 41.2 billion US\$ respectively (WTO, 2013).

Tourism in the developing world is a noteworthy theme like; pass port of development and pro-poor strategy for promoting community development that does not lead to drastic environmental and social change (Binns&Nel, 2002). In case of Nepal, total 790118 tourists were visited in 2014 and the country generated 46375 crore NRS receipts that contributed only 2.6 percent in national GDP (MOCTCA, 2015).

Locally, Nepal receives 0.1% of the global tourists and 5.7 % of the Asian tourists

(WTO, 2015). This has created employment opportunities for the people and generated the economy of the country. Latest figure indicates that the tourism sector successfully created 945000 employment (39th position in global rank) and contributed 6.2% to GDP (43rd position in global rank) (WTTC, 2017). Both male and female are involved in tourism sectors as an employer or employee. Tourism employment Survey, 2014 claimed that out of total 138148 employments, 80% were male and 20% were female. At the micro level, tourism has created earning opportunities for the rural people including women and transformed their livelihoods. Through in/formal employment, entrepreneurship, training and community prosperity, tourism helps women to break the poverty trap (UNWOMEN, 2014). At a macro level, the tourism sector has been becoming a priority sector of the national economy. Natural, cultural and religious heritages of the country have attracted a number of inter/national tourists. That has ultimately generated the national economy and created employment opportunities for the thousands of people living in urban/rural areas (See in Table 1).

Table 2.1: Economic of Tourism in Nepal

Result Indicator	Unit	Base Year	Target Year		
			2016	2017	2018
Foreign Currency Income	Us Dollar (In lakh)	4978	5940	8004	10800
Arrival of Tourist	Per Lakh	7.1	8	10	12
Time Duration of Tourist	Day	12.4	13.5	14	15
Expenditure of per Tourist per day	Us Dollar	53	55	58	60
Employment Opportunities	(Per 1000)	20	25	40	45
Growth Rate of Agro product	Percent	1.4	4.5	4.7	4.9
Contribution in GDP	Percent	31.7	31.1	30.4	9.5

Source: NPC, 2019

As a matter of fact, the government of Nepal declared 2016 as a domestic tourism year and 2018 as an international tourism year (NPC, 2016). By analyzing the economic benefits of tourism, the federal government has targeted to receive 200,000 international tourists till 2020. For that purpose, the government allocated 5 arb 20 crore 34 lakh to the Ministry of Culture, Tourism and Civil Aviation (Nagrik News Daily, Wednesday, 30th May, 2018). 50 subject related experts (think tanks) have been appointed in the department of tourism. Government is planning to establish a Tourism University in the capital city.

Despite its popularity as an economic growth tool, conventional mass tourism can cause numerous negative effects, such as ecological destruction and cultural erosion (Lansing & Vries, 2007). As a consequence, mass tourism encourages cultural commodification, raises living costs for local residents, displaces traditional residents, increases crime, undermines local traditions and ways of life, and is environmentally destructive (Joshi, 2008). Along with that given table presented benefits of rural tourism:

Table 2.2: Benefits of Eco-tourism Development

Area	Potential Development Benefits
Economic	<input type="checkbox"/> Ensures the development of communities by generating independent funds. <input type="checkbox"/> The tourism industry creates jobs. <input type="checkbox"/> Increment in the income of households.
Social	<input type="checkbox"/> Raises quality of life. <input type="checkbox"/> Promotes community pride. <input type="checkbox"/> Promotes gender and age equality. <input type="checkbox"/> Builds capacity for community organizations.
Cultural	<input type="checkbox"/> Respect diverse cultures. <input type="checkbox"/> Promote cross-cultural exchange. <input type="checkbox"/> Integration of development and local culture.
Environmental	<input type="checkbox"/> Promotion of responsibility towards the environment. <input type="checkbox"/> Conservation awareness among tourists and villagers. <input type="checkbox"/> Foster waste management.
Educational	<input type="checkbox"/> Aids in acquiring new job skills. <input type="checkbox"/> Uses new knowledge to encourage innovation. <input type="checkbox"/> Promote exchange of ideas and mutual respect with other cultures.
Political	<input type="checkbox"/> Enhance people's participation. <input type="checkbox"/> Intensifications of community power. <input type="checkbox"/> Safeguards rights to natural resource management in the community.
Health	<input type="checkbox"/> Stimulates good hygiene. <input type="checkbox"/> Food production for tourists is increased and diversified, improving nutritional status.

Source: REST, 2003, p.22

2.2 Ecotourism and Conservation

Several studies have explored the interconnectedness between ecotourism and conservation efforts. Lindberg and Hawkins (1993) investigated the role of ecotourism in biodiversity conservation, concluding that ecotourism, when managed effectively, can contribute to the protection of sensitive ecosystems and endangered species. Similarly, Buckley (2004) conducted a global review of ecotourism destinations, revealing how successful ecotourism initiatives have helped conserve natural resources and fostered local support for conservation.

Ecotourism, the practice of responsible travel to natural areas that conserves the environment and improves the well-being of local communities, has emerged as a promising strategy for biodiversity conservation. By aligning the interests of tourists, local communities, and conservation efforts, ecotourism offers a win-win approach that not only protects fragile ecosystems but also promotes sustainable economic development.

“Ecotourism is a new kind of tourism that encourages responsible travel to natural places with a focus on protecting the environment, helping local communities stay healthy, and educating visitors on conservation and protection efforts” (Team, 2019). The tourism industry plays a crucial role in environmental conservation. One key aspect is the

promotion of environmental awareness among tourists. By experiencing firsthand the beauty and fragility of natural landscapes, visitors become more conscious of their impact on the environment. “Ecotourism has been recognized as a way to promote efforts to preserve and protect ecosystems that are important for animals, as well as reduce waste and pollution, all of which are very beneficial to the environment” (Team, 2019). By valuing intact ecosystems for their tourism potential rather than exploiting them for short-term gains, communities have a long-term incentive to protect these resources. “The main goal of ecotourism is to bring together local people, environmental and wildlife conservation groups, and the environmentally friendly travel sector to promote development that is more concerned with long-term sustainability than with immediate financial gain” (Mary, 2018).

One of the key advantages of ecotourism in biodiversity conservation is its ability to generate economic incentives for protecting natural habitats. By providing financial benefits to local communities who act as custodians of these areas, ecotourism encourages them to actively participate in conservation efforts. Income generated from tourism activities can be used to fund initiatives such as habitat restoration, anti-poaching patrols, and environmental education programs.

In this way, ecotourism creates a direct link between the economic benefits derived from tourism and the preservation of biodiversity.

Another important aspect of ecotourism is its emphasis on community involvement and empowerment. Local communities are often engaged in various aspects of tourism operations such as guiding services or handicraft production. By actively participating in these economic activities, community members develop a sense of ownership over their natural resources while experiencing improved livelihoods. This not only strengthens their commitment to preserve these resources but also reduces pressures on ecosystems caused by unsustainable practices like logging or hunting.

Furthermore, ecotourism can contribute to the diversification of local economies, reducing their dependence on activities that harm biodiversity. By providing alternative livelihood opportunities, such as eco-lodges or nature-based tourism enterprises, ecotourism helps communities transition from extractive industries to sustainable practices. “In order to preserve biodiversity in the region and advance sustainable local livelihoods, the Kibale Association for Rural and Environmental Development engages in tourist activities in Kibale National Park” (*Nine GEF Small Grants Programme Grantees Win Equator Prize*, 2010). This shift towards sustainable activities provides a tangible incentive for communities to protect their natural resources, ensuring long-term conservation benefits.

However, it is essential to recognize that effective implementation of ecotourism requires careful planning and management. Proper regulations must be in place to ensure that tourism activities do not exceed the carrying capacity of fragile ecosystems or disrupt wildlife behavior. Local communities should also be involved in decision-making processes and receive a fair share of the economic benefits derived from tourism. “In this

piece of writing, we contend that in order to successfully conserve Colombia's forests and accompanying biodiversity, conservation efforts must take into account local communities and emphasize scenarios that benefit both nature and people” (Múnera-Roldán & Ocampo-Peñuela, 2022).

2.3 Ecotourism and Economic Development Models

“The Government of Nepal has also identified ecotourism as a part of contributing to environmental conservation and economic development in a significant way” (*Ecotourism as a Tool for Sustainable Community Development*, n.d.). In recent years, the concept of ecotourism has gained significant attention as a promising strategy for both environmental conservation and economic development. This sustainable form of tourism not only offers unique opportunities for individuals to connect with nature but also holds immense potential in stimulating economic growth in regions rich in natural resources. Research by Honey (2008) and Scheyvens (2002) indicates that ecotourism can significantly contribute to the economic development of local communities. Other studies also have shown that ecotourism has positive impacts on local communities by creating employment opportunities and generating income through the utilization of natural resources. By promoting conservation efforts, creating employment opportunities, and supporting local businesses, ecotourism can contribute to the overall socio-economic development of communities.

Ecotourism plays a crucial role in fostering economic development within local communities. By capitalizing on the unique natural resources and biodiversity of an area, ecotourism initiatives generate income, employment opportunities, and infrastructure development. The presence of eco-friendly tourists brings an infusion of funds into the region, stimulating economic growth and development. Direct income is generated through various sources such as entrance fees, tour services, and accommodation provided by local entrepreneurs. This revenue contributes to job creation, resulting in alternative job prospects for individuals residing in rural areas. Moreover, ecotourism enhances household income and improves standards of living for local residents.

Moreover, ecotourism enhances household income and improves standards of living for local residents. By promoting various ecotourism activities, successful destinations create employment opportunities, reducing unemployment rates and contributing to economic resilience. Additionally, ecotourism can boost handicraft production and hospitality services in local communities. By providing opportunities for tourists to engage in cultural activities and purchase locally-made handicrafts, ecotourism increases market access for these industries. This not only generates income for the community but also preserves traditional craftsmanship and cultural heritage. Ecotourism has emerged as a promising tool for sustainable economic development. It presents an opportunity to preserve and protect natural resources while simultaneously generating income and improving local livelihoods.

Ecotourism also contributes to diversification of the economy, reducing economic vulnerabilities by creating alternative sources of income. Research by Andereck and Nyaupane (2011) highlights how ecotourism can help diversify local economies that are heavily dependent on a single industry. This resilience allows communities to withstand external shocks and dependence on a single industry. Ecotourism and economic development go hand in hand, as the former contributes to the latter's growth by providing numerous economic benefits. However, striking a balance between these two is crucial to avoid potential negative impacts. Equitable distribution of profits among local stakeholders is imperative to ensure sustainable development.

Here I would like to present the case studies of a few successful ecotourism and economic development models.

1. Costa Rica: Renowned for its commitment to sustainability, Costa Rica has successfully integrated ecotourism into its economic development strategy. By preserving its natural resources and promoting responsible tourism practices, the country has attracted millions of visitors annually, generating significant revenue. This has led to job creation and improved livelihoods for local communities involved in ecotourism activities.

2. Bhutan: Adopting a unique approach called "high-value, low-impact" tourism, Bhutan focuses on attracting a limited number of discerning travelers who appreciate the country's pristine environment and rich cultural heritage. By charging high daily fees per visitor, Bhutan ensures sustainable revenue generation while minimizing negative impacts on the environment.

One of the major challenges for ecotourism-driven economic growth is balancing economic development with environmental sustainability. The rapid increase in tourism can lead to overexploitation of natural resources, degradation of ecosystems, and loss of biodiversity. Additionally, there is often a lack of infrastructure and services in remote areas, hindering the development of ecotourism projects. To address these challenges, potential solutions include implementing sustainable practices such as waste management systems and renewable energy sources.

Furthermore, collaboration between local communities, government bodies, and private sector stakeholders is crucial to ensure that ecotourism benefits are shared equitably among all stakeholders. Capacity building programs that provide training and education to local communities can also enhance their participation in the ecotourism industry. Governments and stakeholders must prioritize conservation efforts, invest in infrastructure development, and implement effective policies to regulate tourism activities. Collaboration between local communities, businesses, and tourists is crucial to ensure that ecotourism remains environmentally friendly and socially responsible. While challenges exist in striking a balance between economic growth and environmental conservation, the potential benefits of ecotourism make it worth pursuing.

2.5 Theoretical Review

Theoretical perspectives assist researchers in exploring the knowledge battlefields that shape the relationships among local actors, stakeholders, and beneficiaries, including me (Long & Long, 1992). Therefore, in this study researchers will bring theoretical perspectives or insights from Bourdieu's theory of practice, postmodern tourism, eco-tourism and UN's sustainability approach on development.

2.4.1 Cultural Reproduction and Production Theory:

Bourdieu developed the theory of cultural reproduction as a concept for explaining how cultures reproduce. Culture is transmitted from generation to generation by means of existing forms, values, behaviors, and norms (i.e., cultural norms) (*Cultural Reproduction* - *Wikipedia*, 2008). This theory is a sociological and anthropological framework that explores how culture is transmitted and perpetuated across generations and how it is continually produced and transformed through social practices and interactions.

Key Concepts of Cultural Reproduction and Production Theory:

Cultural Reproduction and Production: This concept examines the ways in which cultural production and reproduction shape and maintain cultural norms within a particular cultural context. It highlights the ongoing process by which individuals are socialized into their respective social groups, acquiring shared beliefs, meanings, and values. This theory emphasizes that new cultural expressions are not created in isolation but rather built upon existing practices and concepts passed down from one generation to another. It signifies the importance of cultural elements in society and how they are transmitted from one generation to another. It recognizes that cultural reproduction involves the creation and adaptation of cultural artifacts, as well as the role of social institutions in transmitting these elements. Agents such as family, education, media, and religion play a crucial role in socialization, shaping individuals' values, attitudes, and behaviors.

This theory examines how dominant cultural norms are perpetuated and maintained by dominant groups in society. It emphasizes the agency of social groups in the production and dissemination of these norms through various institutions such as family, education, media, and religion. These institutions exercise control over individuals by influencing their values, attitudes, and behaviors. However, cultural reproduction theory also recognizes the existence of alternative cultural expressions that challenge dominant norms and resist hegemonic power structures.

This theory, rooted in sociology and anthropology, explores how cultural capital and resources are transmitted from one generation to another within a society. Sociologist Pierre Bourdieu developed this concept, highlighting the role of education in reproducing social hierarchies and maintaining power dynamics. Cultural reproduction theory examines how individuals from different social backgrounds have unequal access to cultural resources, opportunities, and success based on their social status.

Applications of Cultural Reproduction and Production Theory:

By understanding the mechanisms through which cultural reproduction occurs, researchers can gain a deeper understanding of various social phenomena. The framework provided by cultural reproduction theory enables scholars to analyze the complex issues surrounding social inequality and its impact on individuals and society as a whole. In an era of globalization, this theory also sheds light on the dynamics of cultural identity construction and how it is influenced by interactions with different aspects of local cultures and practices. The theory of cultural reproduction and production is being utilized in diverse fields, such as sociology, anthropology, education, and cultural studies. This framework is being employed by researchers to analyze a variety of topics, including social inequality, cultural identity, educational attainment, media representation, and the impact of globalization on local cultures. By comprehending how culture is produced and reproduced, scholars are able to gain insights into the ways in which cultural change occurs, identities are formed, and social norms and practices are either reinforced or challenged. Furthermore, it assists in analyzing the interactions between culture and other facets of society, leading to a more profound comprehension of social phenomena.

Analyzing the economic benefits of ecotourism through the lens of cultural reproduction and production theory sheds light on how ecotourism activities contribute to the transmission and transformation of local cultural elements within the context of the Kanchenjunga Conservation Area. Here's an interpretation of the economic benefits of ecotourism in the area from the perspective of cultural reproduction and production theory:

1. Cultural Reproduction through Economic Benefits:

Visiting the Kanchenjunga Conservation Area for ecotourism purposes can help maintain the local cultural practices and traditions. The area's distinct cultural offerings such as festivals, crafts, and rituals appeal to tourists, which could encourage local communities to preserve and pass on these practices. The economic benefits from tourists' interest in cultural activities may motivate elders to impart cultural knowledge and skills to the younger generation, ensuring the continuation of cultural practices.

Ecotourism can bring economic benefits that support the preservation of indigenous languages and customs. When tourists appreciate local cultural expressions, it can increase community members' sense of pride and reinforce their cultural identity and heritage. This can lead to a stronger commitment to preserving and promoting their cultural heritage through ecotourism.

2. Cultural Production and Innovation:

The Kanchenjunga Conservation Area can benefit economically from ecotourism, which can also spur cultural production and innovation. As the number of tourists increases, local communities can create new cultural products, performances, or events that cater to the interests of visitors. This creative output can enhance the overall tourism experience and promote cultural diversity.

Tourists can also stimulate cultural exchange and creativity by introducing new ideas and perspectives to the area. Local artisans and performers may adapt their cultural expressions

to suit the preferences of different tourist groups, leading to the emergence of new cultural forms and interpretations.

3. Challenges and Considerations:

Ecotourism has the potential to positively impact cultural reproduction and production. However, there are certain challenges that must be addressed. Commercialization and commodification of cultural elements to cater to tourist demands can lead to a loss of cultural authenticity or an overemphasis on certain aspects of culture at the expense of others. Additionally, the influx of tourists can put pressure on cultural sites and practices, leading to potential conflicts between the desire for economic benefits and the need to preserve the integrity of cultural heritage. To prevent these issues, sustainable tourism practices must be implemented to respect cultural values and practices, ensuring that economic gains from ecotourism do not compromise the authentic representation of local cultures. It is also essential to distribute economic benefits equitably among local communities to prevent cultural production and representation from being dominated by external stakeholders, preserving community agency in shaping their cultural heritage.

In conclusion, ecotourism in the Kanchenjunga Conservation Area can support the preservation of cultural practices while fostering cultural innovation. Economic gains can contribute to the reproduction and continuation of local traditions and create opportunities for cultural creativity and exchange. However, responsible tourism practices and community involvement are vital to ensure that economic benefits align with the preservation of authentic cultural heritage and promote cultural diversity in the context of ecotourism.

2.4.2 Eco-tourism

Ecotourism theory guides the principles and practices of responsible and sustainable tourism within natural and cultural environments. It emphasizes the integration of environmental conservation, community development, and visitor experiences to ensure that tourism activities contribute positively to both the destination and the well-being of local communities. Ecotourism theory balances economic benefits, environmental protection, and social empowerment, creating a model of tourism that is ethical, environmentally friendly, and culturally sensitive.

Key Principles of Ecotourism Theory:

Environmental Conservation: The concept of ecotourism prioritizes the preservation of natural environments and biodiversity. It advocates for responsible tourism practices that minimize negative impacts on ecosystems and wildlife, with the goal of protecting natural resources and habitats for long-term sustainability.

Community Involvement and Empowerment: Local communities play a significant role in ecotourism, with emphasis placed on their involvement in decision-making processes, benefit sharing, and capacity building. By empowering local residents, ecotourism aims to create a sense of ownership and responsibility for sustainable tourism practices.

Education and interpretation: They are critical components of ecotourism, with efforts made to educate both tourists and local communities about the environment, culture, and conservation efforts. Interpretation programs aim to raise awareness and foster a deeper appreciation of the natural and cultural heritage of the destination.

Responsible visitor behavior: It is promoted in ecotourism, with tourists encouraged to follow ethical guidelines and respect local customs, traditions, and conservation rules. The "leave no trace" concept is emphasized to minimize the ecological footprint of visitors.

Economic Benefit Sharing: Economic benefits of ecotourism should be distributed equitably among local communities, ensuring that they receive fair compensation for their participation and contributions to the tourism industry. This fosters economic empowerment and poverty reduction.

Cultural sensitivity: It is emphasized in ecotourism, with tour operators and tourists encouraged to engage in cultural exchange while being mindful of the potential impact of tourism on cultural heritage.

Sustainable Tourism Development: Finally, ecotourism is based on sustainable development principles that advocate for tourism practices that meet the needs of the present without compromising the ability of future generations to meet their own needs.

Applications of Ecotourism Theory:

Ecotourism theory is a popular approach used in many tourism destinations across the world, particularly in areas with rich natural and cultural heritage. National parks, wildlife reserves, and cultural heritage sites often adopt ecotourism principles to promote responsible and sustainable tourism practices. This includes activities such as eco-lodges, community-based tourism initiatives, and eco-certification programs.

By following the principles of ecotourism theory, destinations and tourism operators can create a tourism model that benefits the local economy while also promoting environmental conservation, cultural preservation, and social empowerment. This contributes to a more sustainable and responsible tourism industry.

Analyzing the economic benefits of ecotourism in the Kanchenjunga Conservation Area through the lens of ecotourism theory provides valuable insights into how ecotourism can positively impact the local economy, promote environmental conservation, and community development. Ecotourism theory emphasizes the principles of responsible and sustainable tourism that aim to minimize negative impacts and maximize positive outcomes for both the environment and local communities. With this approach, the economic benefits of ecotourism can be interpreted as a positive force for environmental conservation and community development in the area.

Economic Contribution to Local Communities:

Ecotourism is a key contributor to the local communities in the Kanchenjunga Conservation Area, generating revenue through several channels like accommodation, food services, guided tours, handicraft sales, and transportation. This funding helps small businesses and individuals, thereby contributing to reducing poverty and improving

livelihoods. Local communities are actively involved in ecotourism activities, providing services, guiding tours, and showcasing their cultural heritage. This involvement empowers communities and enables them to participate actively in the economic benefits of tourism.

Conservation Funding and Sustainable Management:

The economic benefits of ecotourism are often directed towards conservation efforts and protected area management. Entrance fees and other revenue sources can be allocated to wildlife protection, habitat restoration, and conservation projects. This funding helps preserve the unique biodiversity and natural assets that attract ecotourists in the first place.

Capacity Building and Empowerment:

Ecotourism theory emphasizes capacity building and community empowerment. Training programs and skill development initiatives enable local communities to actively participate in the ecotourism industry, fostering a sense of ownership and responsibility for sustainable tourism practices.

Positive Destination Image and Branding:

Ecotourism offers economic diversification in the Kanchenjunga Conservation Area by promoting tourism alongside traditional livelihoods. This diversification strengthens local economies and reduces vulnerability to economic fluctuations. Emphasizing sustainable and responsible practices, ecotourism enhances the destination's image and brand. The reputation for eco-friendly tourism attracts environmentally conscious travelers, boosting tourist arrivals and creating a niche market for the area.

In conclusion, ecotourism acts as a sustainable economic driver, supporting local communities, funding conservation efforts, and fostering responsible tourism practices. By adhering to the principles of ecotourism, the Kanchenjunga Conservation Area can achieve a balance between economic growth, environmental preservation, and community development, ensuring that ecotourism remains a viable and positive force for the region's sustainable future.

2.4.3 UN's Sustainability Approach on Development

The sustainability strategy adopted by the UN is centered on the idea of sustainable development, which has been characterized as growth that satisfies current demands without jeopardizing the capacity of future generations to satisfy their own needs (The Sustainable Development Agenda, n.d.). The UN has been a key advocate for sustainable development, and its approach is based on several fundamental principles and frameworks. The most notable and influential framework in this regard is the 2030 Agenda for Sustainable Development, which includes the Sustainable Development Goals (SDGs). The 17 SDGs are a universal call to action to end poverty, protect the planet, and improve the lives and prospects of everyone, everywhere (The Sustainable Development Agenda, n.d.). Here are the key elements of the UN sustainability approach on development:

The 2030 Agenda for Sustainable Development is a worldwide plan of action adopted by

all UN Member States in September 2015. It aims to achieve sustainable development by 2030 by addressing global challenges and promoting peace and prosperity for all countries. The Sustainable Development Goals (SDGs) are a set of 17 interlinked goals that cover social, economic, and environmental issues. They are universal and apply to all countries, regardless of their level of development. The UN sustainability approach emphasizes inclusivity and equity, aiming to "leave no one behind" by addressing the needs of vulnerable and marginalized populations. It integrates the three dimensions of sustainability: economic, social, and environmental. Collaboration and collective action are seen as essential to address global challenges effectively. Climate action and environmental protection are integral parts of the UN sustainability approach. Human rights, democratic governance, and the rule of law are emphasized. Data and monitoring are important to track progress and inform evidence-based policy decisions. The UN encourages integrated approaches that address interconnected challenges and promote cooperation, solidarity, and shared responsibility among nations and stakeholders.

Analyzing the economic benefits of ecotourism through the lens of the UN sustainability approach on development highlights how ecotourism aligns with the principles and goals of sustainable development, contributing to economic growth, poverty reduction, and environmental conservation. Here's an interpretation of the economic benefits of ecotourism from the perspective of the UN sustainability approach:

1. Inclusive Economic Growth:

The promotion of ecotourism has a positive impact on local communities in the Kanchenjunga Conservation Area as it creates employment opportunities and generates income. A variety of job roles are available in ecotourism, including trekking guides, lodge staff, artisans and service providers. This diversified economic base benefits the communities involved.

Ecotourism is a type of sustainable tourism that focuses on involving local communities in decision-making and revenue-sharing. This helps to distribute economic benefits more equally and ultimately contributes to reducing poverty.

2. Community Empowerment and Capacity Building:

The United Nations' approach to sustainability places a strong emphasis on empowering communities and building their capacity. Ecotourism is seen as an effective means of achieving these goals, as it encourages active participation from local communities. By taking ownership of the tourism industry in their area, these communities can contribute to its sustainable development.

In the Kanchenjunga Conservation Area, ecotourism offers a chance for local communities to preserve and showcase their cultural heritage. This serves to foster cultural pride and reinforce their sense of identity.

3. Sustainable Resource Management:

The concept of ecotourism is in line with the United Nations' emphasis on sustainable resource management. Ecotourism promotes responsible tourism practices that generate

economic benefits while also encouraging the conservation of natural resources and ecosystems in the region.

The proceeds from ecotourism can be utilized for conservation efforts, such as supporting wildlife protection, restoring habitats, and other environmental conservation initiatives.

4. Inclusive Tourism Development:

The UN's sustainability approach strives to ensure that no one is left behind, and ecotourism plays a vital role in promoting inclusive tourism development. By involving local communities in decision-making and actively engaging them in the process, ecotourism provides opportunities for marginalized communities to benefit from tourism revenues and economic growth.

5. Climate Action and Green Initiatives:

Ecotourism helps in combating climate change and promoting environmental initiatives by advocating for sustainable tourism practices. This includes encouraging the use of eco-lodges and eco-friendly transportation modes that help in reducing the carbon footprint of tourism in conservation areas.

Ecotourism aligns with the UN's objective of environmental conservation by emphasizing the importance of preserving the natural environment and raising awareness among tourists about the significance of adopting sustainable practices.

6. Partnerships and Collaboration:

The promotion of ecotourism encourages cooperation among governments, local communities, NGOs, and the private sector. This collaboration is in line with the UN's sustainability approach, which focuses on collective action and shared responsibility to achieve sustainable development goals.

In summary, when examining the economic benefits of ecotourism through the lens of the UN's sustainability approach to development, it becomes clear that ecotourism and sustainable development goals are aligned. The example of ecotourism in the Kanchenjunga Conservation Area demonstrates how responsible tourism practices can contribute to economic growth, community empowerment, environmental conservation, and inclusive tourism development. By embracing the principles of sustainable development, ecotourism provides a model for responsible tourism that brings economic benefits to local communities while preserving the natural and cultural heritage of the region for current and future generations.

2.4.4 Postmodern Tourism

Postmodern tourism, or postmodernity in tourism, describes a modern way of traveling that is influenced by postmodernism. This philosophical and cultural movement emerged in the late 20th century. Postmodern tourism is a popular trend that rejects mass tourism and prioritizes individuality, unique experiences, and exploration of lesser-known destinations. Postmodernism has changed how tourists and destinations are perceived and experienced in the context of tourism. Below are some of the main characteristics and

features of postmodern tourism.

Individuality: The concept of postmodern tourism revolves around putting the individual at the focal point of their travel experience, highlighting their personal interests and motivations.

Rejection of mass tourism: Postmodern tourism is a departure from mass tourism's standardized and commercialized approach. Instead, it prioritizes discovering unique and authentic destinations.

Exploration of "otherness": In postmodern tourism, people are motivated to seek out "otherness" which refers to new and unique experiences. This could entail visiting uncommon or less popular destinations, as well as partaking in cultural or natural activities that are not commonly associated with traditional tourism.

Emphasis on experience: Postmodern tourism places a great emphasis on the travel experience, highlighting the emotional and sensory connection with the destination.

Active greening: Tourism in the postmodern era prioritizing the preservation of the environment and responsible travel behaviors, which include minimizing carbon footprints and providing support to local communities.

Media and Virtual Tourism: Tourism in the postmodern era is greatly impacted by media and technology. Virtual tourism experiences and online representations have a crucial influence on how tourists perceive and anticipate their travels.

Critique of Modernist Tourism: Postmodern tourism challenges the traditional approach to tourism, which focused on mass tourism and the idea of linear progress and development.

In general, postmodern tourism is a shift away from mass tourism towards a more personal, immersive, and genuine travel experience. It highlights the discovery of new and distinctive places, as well as a focus on ecological sustainability and conscientious travel behavior.

Looking at the financial advantages of ecotourism using postmodern tourism as a framework reveals how postmodernism affects the actions of tourists, marketing efforts of destinations, and economic prospects within ecotourism. Here is an explanation of the monetary benefits of ecotourism through the lens of postmodern tourism:

1. Fragmentation of Tourist Preferences:

Tourism in the postmodern era gives significance to the diversity of tourist preferences, where visitors look for customized and exclusive experiences. This trend is particularly evident in ecotourism, where a wide range of activities and attractions are available to cater to individual interests, such as observing wildlife, hiking, cultural interactions, or adventurous experiences.

The financial advantages come from the ability of destinations to develop unique ecotourism offerings that appeal to various segments of tourists, resulting in increased revenue streams and reducing dependence on a single attraction.

2. Fluidity of Identity and Authenticity:

The idea of a fixed tourist identity and the concept of authenticity in travel experiences are being challenged by postmodern tourism. Tourists are now more likely to explore their identity in a fluid manner, seeking experiences that align with their evolving interests and values.

In ecotourism, this means that tourists are more willing to try alternative and off-the-beaten-path experiences. They may seek authenticity in their interactions with local communities and nature, which can contribute to the economic well-being of indigenous and local populations through authentic cultural encounters.

3. Hyperreality and Experience Economy:

When engaging in postmodern tourism, tourists often encounter simulated versions of reality that have been constructed for their enjoyment. This can be especially true in ecotourism, where nature and culture are presented as curated experiences. However, the benefits of ecotourism lie not just in the physical destinations themselves, but in the creation of memorable and transformative experiences for tourists. By offering unique, immersive, and emotionally engaging ecotourism experiences, destinations can command premium pricing and attract repeat visitors, thus contributing to the rise of the experience economy.

4. Media and Virtual Tourism:

Tourism in the postmodern era is heavily influenced by media and technology. This extends even to ecotourism, where virtual tours, online representations of destinations, and social media all have a significant impact on how tourists perceive and anticipate their experiences.

By leveraging media and technology effectively, ecotourism destinations can enhance their visibility and marketing reach, attracting a larger and more diverse audience of potential visitors. This, in turn, can drive economic growth through increased bookings and visitor arrivals.

5. Globalization and Deterritorialization:

Tourism in the postmodern era is affected by globalization and deterritorialization, allowing travelers to go beyond the usual geographic limits. In the case of ecotourism, this can result in more international visitors and an influx of foreign money to the place.

The exchange of cultures, concepts, and economic activities between tourists from different parts of the globe and locals can bring about economic advantages. Gains from foreign currency in ecotourism can help with the overall progress of the destination.

In conclusion, analyzing the economic benefits of ecotourism through the lens of postmodern tourism underscores the importance of embracing diversity, authenticity, and innovative experiences in destination marketing and development. By catering to the fragmented preferences of tourists and capitalizing on the experiential and virtual aspects of postmodern tourism, ecotourism destinations can enhance their economic

competitiveness and sustainability. However, responsible and ethical practices must also be employed to ensure that the economic benefits align with the preservation of natural and cultural heritage in the postmodern context of ecotourism.

2.5 Empirical Review

The Kanchenjunga Conservation Area (KCA) is a renowned biodiversity hotspot. A variety of plants and animals, including numerous endangered species, call it home. Understanding the significance of earlier research on ecotourism in this region is essential to ensuring an effective ecotourism study.

Generally, no research studies are carried out on eco-tourism, particularly in Kanchenjunga Conservation Area. However, ICIMOD has carried out different research time and again on transboundary ecotourism and biodiversity conservation in the Kanchenjunga landscape.

Nevertheless, the paper "Kangchenjunga Landscape Nepal: From Conservation and Development Perspective" explores development priorities in the region, emphasizing the need for sustainable conservation approaches. It highlights the current status of species, animals, plants, and floral diversity within the landscape. The importance of wetlands and their role in maintaining ecosystems is also emphasized. The paper addresses various issues and gaps in conservation efforts and proposes an assessment of the landscape to identify potential solutions.

The paper "Kangchenjunga Landscape Nepal: From Conservation and Development Perspective" presents a comprehensive framework for sustainable landscape development in the Hindu Kush Himalaya region. Similarly, the paper titled 'Biodiversity Conservation In The Kangchenjunga Landscape' by Nakul Chettri, Bandana Shakya, and Eklabya Sharma highlights the importance of effective conservation through a landscape approach. The authors emphasize the need to integrate knowledge from a series of experts and research activities. They stress the significance of establishing corridors to promote transboundary cooperation among member countries, namely Bhutan, India, and Nepal. The paper emphasizes sustainable development in the Kangchenjunga Complex while involving local communities.

The Kangchenjunga Landscape has witnessed significant growth in biodiversity conservation through the establishment of protected areas (PAs).

Correspondingly, the paper "Transboundary Ecotourism in the Kangchenjunga Landscape: Opportunities for sustainable development through regional cooperation" highlights the potential for important transboundary ecotourism products in the Kangchenjunga landscape. The region offers unique opportunities for sustainable development and responsible growth, benefiting both communities and diverse stakeholders. Regional cooperation is crucial to harnessing these opportunities, as it ensures meaningful participation and capacity building at both local and regional scales. The development of ecotourism value chains can create jobs and generate income for communities, particularly

in the tea, spice, and large cardamom sectors.

Insights from the study on 'Transboundary Ecotourism in the Kangchenjunga Landscape: Opportunities for sustainable development through regional cooperation ' highlight the potential of this form of tourism to benefit local communities and boost the tourism industry. With tourists increasingly seeking unique and sustainable experiences, transboundary ecotourism can contribute significantly to the total GDP and GDP contributions of countries in South Asia such as Bhutan, India, and Nepal.

Likewise, the paper “Understanding the linkages: climate change and biodiversity in the Kangchenjunga landscape” discusses the connections between climate change and biodiversity in the eastern Himalayan region known as the Kangchenjunga Landscape. Insights into climatic variability patterns and projections, how people perceive climate change, and how climate change affects biodiversity and socioeconomic systems in the landscape are all provided in this study. The paper identifies vulnerable ecosystems and species in the landscape and suggests that natural resource management, afforestation, and forest protection programs can support biodiversity management. The article also emphasizes the significance of examining and evaluating indigenous knowledge and technology in relation to coping mechanisms and lists a number of cutting-edge farming techniques being used in the area. In general, the study advances knowledge of how climate change affects biodiversity and socioeconomic systems in the Kangchenjunga Landscape and offers suggestions for potential adaptation measures.

In parallel “Recognizing the characteristics of the Kangchenjunga Conservation Area as a potential World Heritage Site”, this paper highlights its unique features. Situated in Nepal, this small area boasts exceptional altitudinal range and is home to diverse flora and fauna. Pristine habitats within the conservation area emphasize its ecological importance. Additionally, the strategic location of this site allows for cultural entities and stakeholder participation in its management approach. Being aware of the qualities of the Kangchenjunga Conservation Area as a possible area for cooperation between India, China, and neighboring countries, this paper suggests that there is a need for improvements in its management to ensure the area's functional integrity. Major threats such as habitat degradation and unsustainable resource extraction require progressive reforms and an appropriate balance between conservation and development.

Being aware of the qualities of the Kangchenjunga Conservation Area as a world heritage site, this paper aims to deepen our understanding of its potential, challenges, and opportunities.

Comparably, “Ecotourism Development in the Kangchenjunga Landscape: Potentials and Challenges” bring out that for the eastern Himalayas, sustainable tourism methods have been devised to reduce negative effects on the environment and local culture while producing money for the inhabitants there. The Sikkimian government has created a Master Plan for Tourism Development after realizing the importance of tourism as a tool for eradicating poverty. Bhutan and the Darjeeling region of West Bengal have both made

strides in encouraging ecotourism for environmental protection and sustainable growth. Diversifying tourism in rural and protected regions and reducing concentration in towns are being prioritized. Mountain ecotourism sites have seen a rise in visitors, thanks to the popularity of outdoor pursuits including hiking, camping, rafting, mountaineering, and rock climbing.

Similarly, the paper “Ecotourism and its role in the sustainable development of Nepal” have been extensively studied and documented in various research papers. These studies highlight the importance of ecotourism projects in promoting sustainable development while minimizing negative impacts on the environment and local communities. The role of ecotourism in Nepal is crucial as it not only contributes to the conservation of biodiversity but also provides economic opportunities for local entrepreneurs. Ecotourism projects in Nepal play a vital role in promoting sustainable development. While offering tourists a chance to explore the country's rich biodiversity, these projects also ensure that local communities benefit economically. However, it is important to address the potential negative impacts of ecotourism and ensure its sustainable implementation. Different research studies have provided an overview of the benefits of ecotourism in Nepal and emphasized the need for cooperation among different stakeholders. Training programs are necessary to enhance the understanding of appropriate management policies and economic aspects.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design:

In addition to providing an understanding of the study's methodology, research design is also critical to constructing the appropriate methods for addressing established research questions that investigate social phenomena (Scotland, 2012). Researchers knew that one of the goals of the quantitative research approach is to investigate objective knowledge. Therefore, based on research philosophy and paradigm, researchers have followed a descriptive research approach and survey methodology to address researching issues.

Simply said, a survey is a numerical summary of essential characteristics of a research population. It is a technique for gathering information by posing a series of questions to a predetermined audience. (Gupta & Gupta, 2015). It is planned that the researchers will follow the quasi-experimental design which assumes the true experimental conditions without manipulating or controlling the variables in the experiment. (Sharma, 2007).

3.2 Research Paradigm

Research paradigm is a philosophical lens for viewing researching phenomena. It is a fundamental set of beliefs for guiding the actions and interactions of researchers during field study (Creswell, 2009). Basically, two types of paradigms viz. positivistic and non-positivistic are applying in social science. This study will apply post-positivism and post-modernism research paradigms as well.

Post-positivist paradigm in fact, represents the traditional form of research by following quantitative methods to explore objective reality or absolute truth of knowledge (Phillips & Burbules, 2000). This is a deterministic viewpoint that believes in experimental knowledge by developing numeric measurements of the response of the individuals that exist outside the field (Creswell, 2012). In this paradigm, respondents can be regarded as a paramount to the researchers whose information helps to test relationships between variables (Phillips & Burbules, 2000).

Postmodernism is a cultural movement that can be applied in academia to raise the powerful arguments against all forms of the essential elements of modernism (Hicks, 2004). It rejects taken-for-granted knowledge through socio-cultural and theoretical interpretation within varying socio-cultural context, time and space (Creswell, 2012). Researchers knew that epistemologically postmodernism advocates for subjective truths, individual and social identity. Therefore, researchers applied this paradigm to explore cultural knowledge in the multiple perspectives of class, race, gender and group affiliations, their identity and studying their turning points, problematic situations in ever changing cultural contexts (Brogatta & Borgatta, 1992 as cited in Creswell, 2012). In

doing so, researchers applied the postmodernism approach as an epistemology of constructivism that helped researchers to generate multiple forms of performative and reflective genres during my observation and conversations with participants.

3.3 The Field and Rationale

This study selected Kanchenjunga Conservation Area (KCA) as a field of study. Even so, there are a number of other tourism destinations located equally in Mountain, Hill and Terai Regions of this Province. No doubt, KCA is significantly rich in terms of natural, cultural and religious attractions as compared to other local governments of Taplejung District. In honor of Mt. Kanchenjunga (8,586m), which is the second highest peak in Nepal and the third highest in the world, this conservation area is named Kanchenjunga Conservation Area. In March 1998, Kanchenjunga was designated a conservation area. KCA lies in Taplejung district in the northeast corner of Nepal with an area of 2035 sq.km. (Kanchenjunga Conservation Area, n.d.). It has a diverse climate and topography that contribute to its tremendous floral diversity. There are approximately 2,000 species of flowering plants. Aside from Mt. Kangchenjunga being the world's third tallest peak, this region is also one of the world's best places for plant diversity. As far as ethnic groups are concerned, mainly Tibetan-Burman groups live in the KCA, including the Rai, Limbu, Tamang, Jirel, Thakali, Magar, Gurung and Sherpa groups. The Sherpa inhabit the highest areas and are the only people that can live there permanently. The Sherpa are following traditional cultural practices with Buddhist religion. Tourism impact is reported to be lower in the Kanchenjunga Conservation Area than in Sagarmatha (Everest) National Park and Annapurna Conservation Area, as the Kanchenjunga Conservation Area receives fewer tourists (Nepal et al. 2002).

3.4 Data Collection Techniques

Data collection techniques are the method to collect information that offers one more instance or method for assessing research design within each approach to inquiry (Creswell, 2009). Data collection methods, according to Denzin & Lincoln (2011), are secondary to questions of paradigm that guide the investigator not only in methodological choices, but in fundamental ways both ontologically and epistemologically as well. Keeping these philosophical propositions reflectively, researcher applied observation, household survey and interview techniques for data collection.

By observing the surrounding environment of the field of research, researchers can gain firsthand experience and understanding (Creswell, 2012). Before filling up questionnaires and conducting structured interviews, researcher used the observational method to identify researching issues by participating in the field.

This study focuses on tourism entrepreneurs operating within the Kanchenjunga Conservation Area. An ecotourism population includes 30 individuals/entities involved in a wide range of activities. The researcher plans to survey all 30 tourism entrepreneurs in this region. In this case, a census will be conducted rather than a sample. A census

involves collecting data from the entire population rather than just a subset (sample). Regarding household survey, to collect numeric information the study has collected data from all 30 tourism entrepreneurs who have been involving in ecotourism development activities right from the beginning.

Interview signifies the process of viewing inside of the interviewee by interviewer during conversation (Rubin & Rubin, 1995). This study has used this technique to collect information as well as to gain knowledge from feelings and experiences of the seven selected key informants (i.e., hotel entrepreneurs, social workers, representatives of local government, guides, porters and farmers and handicraft makers).

3.5 Data Analysis and Interpretations

Data analysis is the process of arranging data so that researchers can accumulate to increase his or her understanding and enabling them to present generalized knowledge to the others (Creswell, 2012). However, analysis and interpretation of data can be generated by triangulating. During triangulation, researchers drew insights from description, analysis, and interpretation of the data (Yin, 2014). Similarly, researchers also used SPSS software for managing and statistical interpretation of collected data. Further, the concept of descriptive, illustrative and inferential (corelation, normality test and multiple regression) statistical tools have been applied.

3.6 Ethical Consideration

The researcher heartily maintained all the forms of ethical aspects of the researchers' viz. sharing the research proposed upfront, maintaining the privacy of respondents, informed consent for information collection, and rapport build-up with respondents. During data collection there was no any compulsion to the respondents at any point if they preferred to decline to respond. Researcher has considered privacy and consent issues to avoid biases in the study, in order to maintain ethical consideration (Creswell, 2012). Thereby, privacy of respondents and their attitude towards income, and self-employment were the matter of confidentiality. Finally, reflecting upon the ideas of Kvale, the study was guided by mainly two ethical aspects: (i) scientific responsibility; that helped to commit with academic and professional career in order to yield body of knowledge and, (ii) independence of research that encouraged and motivated researcher to conduct study independently (Kvale, 1996).

CHAPTER IV INTRODUCTION OF THE STUDY AREA

4.1 Brief Introduction

Kanchenjunga Conservation Area, Nepal's first community-managed conservation area, is set in the sacred Himalayan landscape and hosts the world's third-highest peak.

A Gift to the Earth: The Kanchenjunga region was designated a Living Planet Campaign 2000 gift by the Nepalese government in April 1997. WWF Nepal provided technical and financial support for the Kanchenjunga Conservation Area Project (KCAP), which was launched on March 22, 1998. Besides conserving existing wildlife species such as the snow leopard, the project promoted health services, informal education, and income generating activities. A

conservation area covering 2035 sq.km was designated in March 1998 on Kanchenjunga. Located in Nepal's northeast corner, Taplejung district is home to this gem. Among Nepal's most beautiful landscapes are found here. In addition to its high peaks, Taplejung district boasts glaciers that sparkle in the sun and eleven peaks that rise above 7,000 meters. The conservation area has one of the most unique mountain ecosystems in the world. In the north, it borders the Tibetan Autonomous Region (TAR) of China, and in the east, it borders Sikkim, India. The Kanchenjunga National Park exists in Sikkim, India. The KCA of Nepal is adjacent to this area.

Currently, the third part of the proposed peace park is the Qomolungma Nature Reserve in the Tibet Autonomous Region of China.

The KCA is home to more than 6,500 residents, who live in 1,257 households. Limbus, Rais, and Sherpas constitute the majority of the population. Among all protected areas in the world, this conservation area has the widest altitudinal range. Tempting flora and fauna



Figure 2: Location map of the Kangchenjunga Conservation Area
(Credit: Hem Raj Acharya 2019)

have found pristine habitats in an area of just 2,035 km², thanks to the extraordinary vertical sweep of over 7 km on Mt. Kangchenjunga. Mt. Kangchenjunga inspired the name of this protected area. Almost half of the area is covered by rocks, and the other two-thirds by snow and glaciers, which reflect the high mountain physiographic regions. Agricultural land makes up 5%, forest makes up 16%, shrubland is 10%, grassland is 9%, and lakes make up 0.1% (UPRETY, 2020).

4.2 Biodiversity

With approximately 2,000 species of flowering plants, the Kangchenjunga area has a diverse climatic and topographic environment. There is no doubt that this region is the most diverse on the planet, as it is home to the third-highest peak in the world (Mt. Kangchenjunga). In the area, 23 different species of rhododendrons have been identified by botanists. The Kangchenjunga Conservation Area is home to the following families: Compositae, Leguminosae, Orchidaceae, Rosaceae, Ericaceae and Graminae. Rhododendron, Rubus, Pedicularis, and Primula are the largest genera of plants. A variety of medicinal and aromatic plants can be found in the KCA forest,



particularly Himalayan Larch (*Larix griffithiana*) strands. A total of 23 endemic flowering plants are found in Kangchenjunga out of 246 species recorded for Nepal. Several hundred species of birds live in the Kangchenjunga Conservation Area, along with 22 species of mammals, 82 species of insects, five species of fish, and six species of amphibians. Additionally, the Himalayan black bear, clouded leopard, serow, and assamese macaque are vulnerable species and endangered species found there. Kangchenjunga is home to a variety of wildlife, including rhesus macaques, gray langurs, porcupines, yellow-throated martens, smooth otters, foxes, jackals, jungle cats, leopard cats, common leopards, beach martens, pikas, musk deer, gorals, and barking deers. It is common to see many of these mammals in the local area, according to the locals. Although, in terms of total flora in Nepal, the Kangchenjunga area covers just 1.48 percent of the total land area. It is estimated there are 69 types of orchids, 30 types of rhododendrons, and 15 endemic

Figure 4: Almost 50% of the red panda's habitat is in the Eastern Himalayas. The loss of nesting trees and bamboo is causing a decline in red panda populations across much of their range because their forest home is being cleared. (Courtesy David Lawson/WWF-UK)



Figure 3: The area around Kanchenjunga, is home to, snow leopard, sometimes called "God's pet," or "the ghost of the mountains." Yalung, is fitted with a GPS collar in Kanchenjunga region. (Courtesy WWF Nepal/Sanjog Rai).

plants indigenous to Nepal in Kangchenjunga. This nature reserve appeals to trekkers due to its dramatic altitude variation, not only due to its rainfall but also due to its deep subtropical gorges and glacial valleys.

4.3 People

According to the local Limbu language, Kanchenjunga is called Sewalungma, meaning 'Mountain that we greet.' Kirant religion regards Kanchenjunga as sacred. In addition, they claim that the name Kanchenjunga originated from the Sanskrit word kanchana, which means gold, and the word junga means river. During the sunrise hour, the meandering water body is said to look golden, thereby indicating the name means "river that shines like gold." One of Kanchenjunga's outliers is Mount Kumbhakarna. According to Kirant religion, Phoktanglungma - literally "mountain with shoulders" - is regarded as a sacred site. Phoktang means shoulder and lungma means mountain. It is on this peak that most important events in Limbu myths and legends are located, even the creation of the human race, or the Limbu people, in their version of the story. A Limbu folklore relates that Sirijonga was a religious and pious person who followed Nisammang Ningwaphuma, the goddess of wisdom and learning. It is said that he prayed for the goddess to be invoked and meditated upon her (Courtesy Alice S Kandell). The mountain directly to the right of Kanchenjunga, Phoktanglungma, appeared to him in his dreams. On reaching the deepest realms of the mountain, she directed him to a stone slab onto which the Rig Veda (holy scripture of modern times) had been copied. A blessing of knowledge was granted upon the Limbu at the foothills of the great mountain. There was an imperceptible movement in the pace of life as long as the rhythms of life remained intact; the daily rituals and religious beliefs remained unbroken. Festivals dictate the never-ending rhythms of rural life even today, when villages resound to the music and chants of Hindu Brahmin priests and Buddhist monastic choruses. There is an irregular and steep relief of the land/surface in Nepal Mountain regions, which requires high oxygen pressure, a low humidity of air, a fragile ecology, and a limited choice of crops. (Upadhyaya, 2006). A variety of adaptations have been developed by people living at high altitudes in order to survive harsh mountain ecosystem conditions. There are terraces dedicated to cultivating rice, wheat, maize, millet, mustards, and vegetables. Cattle, water buffalo, sheep, and goats make up the majority of cattle breeds on many farms, and their grazing areas change seasonally, including long-distance migration to alpine pastures in summer. Transhumant herding of yak, cattle-yak crossbreeds, sheep, and goats is practiced. As well as trading grain, Tibetan salt and wool are also practiced between groups at middle altitudes. Their culture and lifestyle resemble Tibetans', and they are almost exclusively Buddhist. There are a variety of occupations performed by people of mountain regions for their livelihoods and subsistence, including seasonal agriculture,

cardamom farming, animal husbandry, transhumance, trans-Himalayan trading, seasonal trading, foreign employment, and mountain tourism.

4.4 Tourism History in Kanchenjunga Conservation Area

A British expedition team led by Charles Evans successfully submitted the mountain in 1955 after several attempts were made. The first ascent was by George Band and Joe Brown, although out of respect for the religious feelings of the people of Nepal and Sikkim, they stopped 3m below the actual summit. Until recent years the tradition continued and the summit was considered to be virgin.

The Kangchenjunga area was opened to foreign trekkers in 1987. Actually, there are two approaches that show Kanchenjunga's best faces. The northern trek heads to the myriad of glaciers adjacent to Pang Pema, following the route taken by climbers along the Kanchenjunga Glacier. The route is shadowed by a vast array of soaring peaks and spires – beauty beyond belief. The southern approach crosses high ridges and worms its way to the Yalung Glacier, where the stupendous South West Face of Kanchenjunga dominates the approach. Those with time can link the two base camps by crossing the Selele La between Ghunsa and Tseram. However, The Kanchenjunga region is remoter than most trekking areas, requiring a longer march in. Only 1100-1300 persons per year trek to this hidden gem. In comparison to Annapurna Conservation Area and Sagarmatha National Park, the number of visitors is negligible. And it is because the infrastructures are not well developed which compels the trekkers to spend more time and money to access. The infrastructure and accessibility of the area will likely improve in the future, which could increase the number of trekkers. If this happened, the area might see similar development to Sagarmatha National Park, another high Himalayan destination. Those developments could mean the end of traditional mountain cultures and practices, as well as the destruction of the Kangchenjunga ecosystem. The Kangchenjunga area should be developed and established as an ecotourism destination before disordered development spoils it. As Messerli and Ives (1984) show in China, human activities may also cause hazards. The occurrence of hazards may also disrupt human activities, including ecotourism. It is therefore imperative to implement safety measures against hazardous processes in areas suffering from high levels of relief in order to establish and develop ecotourism.

CHAPTER V

DATA ANALYSIS AND INTERPRETATION

5.1 Characteristics of the Respondents

Table 5.1: Categories of Respondents

Age	Category	Frequency	Percent
	<35	9	30.00
	35-45	16	53.33
	>45	5	16.66
Sex group	Female	9	30.00
	Male	21	70.00
Caste ethnicity	Sherpa	30	100.00
Mother tongue	Sherpa	30	100.00
Religion	Buddhist	30	100.00
Marital status	Married	27	90.00
	Separated	3	10.00
Agriculture	no	8	26.70
	yes	22	73.30
Local shop	no	17	56.70
	yes	13	43.30
Tourism	Yes	30	100.00
Total		30	100.00

Source: Field Survey, 2022

Table 5.1 depicts information about characteristics of the respondents. The majority (53.33%) falling within the age group of 35-45 years. Those under 35 accounted for 30% of respondents, while individuals above 45 made up the remaining 16.66%. In terms of gender, 70% of participants were male, while the remaining 30% were female. All respondents belonged to the Sherpa ethnic group and spoke Sherpa as their mother tongue. Additionally, all respondents identified as Buddhists. Regarding marital status, 90% of respondents were married, while 10% were separated. In terms of occupation, 73.30% of respondents were involved in agriculture, while 26.70% were not. Approximately 43.30% of respondents operated local shops, while 56.70% did not. All participants had some form of involvement in tourism, indicating a strong connection between the local community and the ecotourism industry in the area.

The data suggests that the respondents predominantly belong to the Sherpa ethnic group, are of Buddhist faith, and are actively engaged in tourism-related activities. The majority are middle-aged, married individuals, with a significant proportion involved in agriculture and local shop businesses. The data highlights the importance of tourism for the livelihoods and economic activities of the Sherpa community in the Kanchenjunga Conservation Area.

Table 5.2: Gender and Age of the Family Members

	Female			Male		
	Number	Frequency	Percent	Number	Frequency	Percent
0-14	0	21	70.0	0	16	53.30
	1	8	26.7	1	12	40.00
	1	1	3.3	2	2	6.70
15-64	0	3	10.0	1	9	30.00
	1	12	40.0	2	16	53.30
	2	9	30.0	3	3	10.00
	3	2	6.7	4	2	6.70
	5	2	6.7			
	8	2	6.7			
>65	0	14	46.7	0	25	83.30
	1	12	40.0	1	5	16.70
	2	4	13.3			
Total		30	100.00		30	100.00

Source: Field Survey, 2022

Descriptive Statistics					
	N	Min	Max	\bar{X}	σ
Age respondent	30	28	60	39.66	8.61
0-14	30	0	3	0.36	0.66
15-64	30	0	8	2.06	1.99
65+	30	0	2	0.66	0.71
0-14	30	0	2	0.53	0.62
15-64	30	1	4	1.93	0.82
65+	30	0	1	0.16	0.37

Source: Field Survey, 2022

Table 5.2 provides details of family members based on the gender and age group: Females: 70% of the respondents have no female family members in the age group of 0-14 years, while 26.7% have one female family member and 3.3% have two in this age group. In the age group of 15-64 years, 10% have no female family members, 40% have one, 30% have two, 6.7% have three, and 6.7% have five female family members. For those above 65 years old, 46.7% have no female family members, 40% have one, and 13.3% have two.

Males: 53.3% of the respondents have no male family members in the age group of 0-14 years, while 40% have one male family member and 6.7% have two in this age category. In the age group of 15-64 years, 30% have one male family member, 53.3% have two, 10% have three, and 6.7% have four male family members. For those above 65 years old, 83.3% have no male family members, 16.7% have one, and no respondents have two male family members. This report presents data on the age distribution of respondents and their family members. The average age of the 30 respondents is around 39.66 years, with the youngest being 28 and the oldest being 60. The standard deviation indicates that the ages are moderately spread out around the mean ($\bar{X}= 39.66, \sigma= 8.61$).

The data also shows the average number of family members in different age categories. For the 0-14 age group, the average is 0.36 with a standard deviation of 0.66. For the 15-64 age group, the average is 2.06 with a standard deviation of 1.99. For those above 65, the average is 0.66 with a standard deviation of 0.71. Overall, this information provides insights into the family composition and demographic characteristics of the respondents. It helps to understand the distribution of family members by age group and provides descriptive statistics for the age of both respondents and their family members.

Table 5.3: Educational Status of the Respondents

Grade	Frequency	Percent
0	6	20.00
3	2	6.70
4	1	3.30
7	4	13.30
8	5	16.70
9	1	3.30
10	6	20.00
11	3	10.00
12	1	3.30
16	1	3.30
Total	30	100.00

Source: Field Survey, 2022

Table 5.3 reveals information about the education levels of the respondents and whether or not they have children currently attending school. Here is a breakdown of the details. Around 20% of respondents have never attended school (Grade 0), 6.7% of respondents have completed Grade 3 education and 3.3% of respondents have completed Grade 4 education. Likewise, 13.3% of respondents have completed Grade 7 education, 16.7% of respondents have completed Grade 8 education, 3.3% of respondents have completed Grade 9 education and 20% of respondents have completed Grade 10 education. Similarly, about 10% of respondents have completed Grade 11 education, 3.3% of respondents have completed Grade 12 education and 3.3% of respondents have completed Grade 16 education.

Table 5.4 : School Going Status of the Children

Category	Number	Frequency	Percent
School going children	No	8	26.70
	Yes	22	73.30
	0	26	86.70
	1	2	6.70
	2	2	6.70
Private boarding school	0	5	16.70
	1	5	16.70
	2	19	63.30
	3	1	3.30
Private Campus	0	20	66.70
	1	10	33.30
Total		30	100.00

Source: Field Survey, 2022

Table 5.4 shows the information on school-going status of the children, about 26.7% of respondents do not have children currently attending school, 73.3% of respondents have children currently attending school. Of those with school-going children, around 86.7% have one child attending school, 6.7% have two children attending school, and 6.7% have no children attending school. In terms of the type of school their children attend, 16.7% have children attending private boarding schools, 63.3% have children attending private campuses, 20% have children attending non-private campuses and 3.3% have children attending three private campuses.

Overall, this data provides a valuable insight into the educational background and choices of the respondents and their families. It shows the distribution of respondents across different education levels and the fact that most respondents have school-going children attending private campuses.

Table 5.5: Household Facilities and Land holding Status

		Frequency	Percent
Sources drinking water	Spring water	5	16.70
	Public tap water	22	73.30
	Surface water	3	10.00
Kitchen fuel wood	Use	30	100.00
Types of Toilet	Flush to septic tank	27	90.00
	Pit latrine with slab	3	10.00
Land occupied by house	<1 Ropani	16	53.30
	1	1	3.30
	2	4	13.30
	3	1	3.30
	4	2	6.70
	5	3	10.00
	8	2	6.70
	>12	1	3.30
Status of Farm land	<1 Ropani	5	16.70
	1	1	3.30
	2	1	3.30
	3	6	20.00
	4	4	13.30
	5	3	10.00
	6	2	6.70
	13	2	6.70
	30	2	6.70
	70	2	6.70
	75	1	3.30
>100	1	3.30	
Pasture land	<1 Ropani	27	90.00
	3	2	6.70
	200	1	3.30
Total		30	100.00

Source: Field Survey, 2022

Table 5.5 depicts information about facilities and land holding status of the households surveyed. In the case of sources of drinking water, 16.7% of respondents use spring water as a drinking source, 73.3% of respondents have access to public tap water for drinking and 10% of respondents use surface water as their drinking source. Likewise, for kitchen fuel, all respondents (100%) use wood as fuel for cooking.

Similarly, for types of toilet, 90% of respondents have a flush-to-septic tank type of toilet and 10% of respondents use pit latrine with a slab. For land occupied by house, 53.3% of respondents have a house occupying less than 1 Ropani of land, 3.3% of respondents have a house occupying 1 Ropani of land, 13.3% of respondents have a house occupying 2 Ropanis of land, 3.3% of respondents have a house occupying 3 Ropanis of land, 6.7% of respondents have a house occupying 4 Ropanis of land, 10% of respondents have a house occupying 5 Ropanis of land, 6.7% of respondents have a house occupying 8 Ropanis of land and 3.3% of respondents have a house occupying more than 12 Ropanis of land.

Regarding status of farm land, 16.7% of respondents own less than 1 Ropani of farm land, 3.3% of respondents own 1 Ropani of farm land, 3.3% of respondents own 2 Ropanis of farm land, 20% of respondents own 3 Ropanis of farm land, 13.3% of respondents own 4 Ropanis of farm land, 10% of respondents own 5 Ropanis of farm land, 6.7% of respondents own 6 Ropanis of farm land, 6.7% of respondents own 13 Ropanis of farm land, 6.7% of respondents own 30 Ropanis of farm land, 6.7% of respondents own 70 Ropanis of farm land, 3.3% of respondents own 75 Ropanis of farm land and 3.3% of respondents own more than 100 Ropanis of farm land.

For pasture land, 90% of respondents have less than 1 Ropani of pasture land, 6.7% of respondents have 3 Ropanis of pasture land and 3.3% of respondents have 200 Ropanis of pasture land.

Overall, this data provides insights into the living conditions and land resources of the households surveyed, including the availability of drinking water sources, kitchen fuel usage, types of toilets, and the extent of land holding for housing, farming, and pasture purposes.

Status of food security

According to the data provided in this chart, the respondents' food security status can be determined. Here are the percentages and their corresponding categories:

- 13.33% of the respondents are considered "highly secure." This group has access to an adequate amount of nutritious food consistently. They are less likely to experience hunger or food shortages.

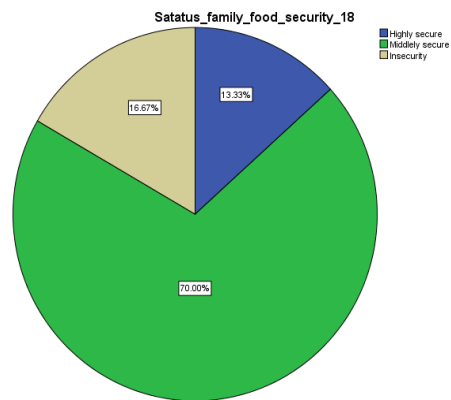


Figure 5: Status of family food security

Around 70% of the respondents are in the "middle secure" category. They usually have acceptable access to food, but they may face occasional challenges in accessing sufficient and nutritious food. About 16.67% of the respondents are classified as "insecure." This group is more vulnerable and may experience chronic food shortages, limited access to nutritious food, and frequent hunger or malnutrition.

Overall, the data indicates that the majority of the respondents fall under the "middle secure" category, which suggests reasonably stable access to food. However, we must address the needs of the "insecure" groups to ensure better food security for all individuals and households. Food security is a crucial aspect of overall well-being and development, and we must make efforts to reduce food insecurity among the affected population.

5.2 Buffer zone Management Practices

Table 5.6: Bufferzone Management

	N	Min	Max	\bar{X}	σ
Bufferzone_managing_nature_46.1	30	2	5	3.66	.84
Managing_culture_46.2	30	1	4	3.00	1.01
Climate_change_impact_tourism_46.3	30	2	5	3.83	.94
Training_understand_impact_climate_change_46.4	30	1	4	1.53	.77
Renewable_energy_decrease_deforestation_46.5	30	1	5	3.56	1.07
Increased_organic_farming_46.7	30	2	5	4.00	.64
Functioning_waste_management_cell_46.7	30	1	5	2.96	1.29
Use_of_garbage_box_46.8	30	1	4	3.13	1.16
Increased_awareness_health_46.9	30	4	5	4.16	.37
Changing_food_habit_46.10	30	3	5	4.10	.54
Increased_awareness_food_nutrition_46.11	30	2	5	4.00	.69
Conservation_fund_community_development_46.12	30	1	5	2.53	1.19
Conservation_fund_physical_infrastructure_46.13	30	1	5	3.03	.99
Conservation_fund_IGA_46.14	30	1	4	2.13	1.07
Conservation_fund_conservation_training_46.15	30	1	4	2.33	.92

Source: Field Survey, 2022

Table 5.6 provided data pertains to buffer zone management in the tourism industry. Respondents rated different aspects of buffer zone management on a scale. Here is a breakdown of the data:

Buffer Zone Management of Nature (46.1): This aspect evaluates the management of natural resources in the buffer zone. The average rating (\bar{X}) was 3.66, indicating a moderately positive perception. The standard deviation (σ) was 0.84, indicating some diversity in responses.

Management of Culture (46.2): Respondents rated the preservation and management of cultural aspects in the buffer zone. The average rating was 3.00, implying

a moderate level of management. The standard deviation was 1.01, indicating relatively diverse views among respondents.

Climate Change Impact on Tourism (46.3): This aspect evaluates the awareness and actions taken regarding the impact of climate change on tourism. The average rating was 3.83, indicating a relatively positive perception. The standard deviation was 0.94, indicating some diversity in responses.

Climate Change Impact Training (46.4): Respondents rated the effectiveness of training programs designed to understand the impact of climate change. The average rating was 1.53, indicating a relatively low level of effectiveness. The standard deviation was 0.77, indicating some diversity in responses.

Renewable Energy to Decrease Deforestation (46.5): This aspect evaluates the efforts to promote renewable energy and reduce deforestation. The average rating was 3.56, indicating a moderately positive perception. The standard deviation was 1.07, indicating some diversity in responses.

Increased Organic Farming (46.7): Respondents rated the promotion and implementation of organic farming practices in the buffer zone. The average rating was 4.00, indicating a relatively positive. The standard deviation was 0.64, indicating relatively consistent views among respondents.

Functioning Waste Management System (46.7): This aspect evaluates the effectiveness of the waste management system in the buffer zone. The average rating was 2.96, indicating a moderately positive perception. The standard deviation was 1.29, indicating some diversity in responses.

Use of Garbage Boxes (46.8): Respondents rated the extent to which garbage boxes are utilized for waste disposal. The average rating was 3.13, indicating a moderate level of utilization. The standard deviation was 1.16, indicating relatively consistent views among respondents.

Increased Health Awareness (46.9): This aspect evaluates the efforts to raise awareness about health in the buffer zone. The average rating was 4.16, indicating a relatively positive perception. The standard deviation was 0.37, indicating consistent views among respondents.

Changes in Food Habits (46.10): Respondents rated the extent to which food habits have changed in the buffer zone. The average rating was 4.10, indicating a relatively high level of change in food habits. The standard deviation was 0.54, indicating consistent views among respondents.

Increased Food Nutrition Awareness (46.11): This aspect evaluates the efforts to promote awareness of food nutrition in the buffer zone. The average rating was 4.00, indicating a relatively positive perception. The standard deviation was 0.69, indicating some diversity in responses.

Conservation Fund for Community Development (46.12): Respondents rated the allocation and utilization of funds for community development in the buffer zone. The

average rating was 2.53, indicating a moderately positive perception. The standard deviation was 1.19, indicating some diversity in responses.

Conservation Fund for Physical Infrastructure (46.13): This aspect evaluates the allocation and use of funds for physical infrastructure development in the buffer zone. The average rating was 3.03, indicating a moderately positive perception. The standard deviation was 0.99, indicating some diversity in responses.

Conservation Fund for Income Generating Activities (IGA) (46.14): Respondents rated the allocation and utilization of funds for income-generating activities in the buffer zone. The average rating was 2.13, indicating a relatively moderate perception. The standard deviation was 1.07, indicating some diversity in responses.

Conservation Fund for Conservation Training (46.15): This aspect evaluates the allocation and use of funds for conservation training in the buffer zone. The average rating was 2.33, indicating a moderately positive perception. The standard deviation was 0.92, indicating some diversity in responses.

Overall, the data provides insights into various aspects of buffer zone management in the context of tourism. It highlights areas where efforts are relatively strong and others that may require more attention and improvement.

5.3 Tourism Entrepreneurship Development

Table 5.7: Ecotourism Entrepreneurship

		Frequency	Percent
Having vocational training	Yes	16	53.30
	No	14	46.70
Hospitality	Yes	3	10.00
Culinary	Yes	16	53.30
Trekking	Yes	3	10.00
Mountaineering	Yes	3	10.00
Types of Tourism Services	Home stay	7	23.30
	Guest house	9	30.00
	Hotel & restaurant	14	46.70
Offering diversified services	Yes	28	93.30
	No	2	6.70
Cultural program	Yes	9	30.00
Ecotourism	Yes	30	100.00
Homestay	Yes	28	93.30
Mountaineering	Yes	5	16.70
Number of self-employment	2	24	80.00
	4	6	20.00
Number of employment	0	15	50.00
	1	4	13.30
	2	9	30.00
Total		30	100.00

Source: Field Survey, 2022

Table 5.7 provides information pertains to tourism entrepreneurship and its various aspects. Let's summarize the key findings:

Vocational Training: 53.30% of respondents have received vocational training related to tourism, equipping them with necessary skills and knowledge for related activities.

Hospitality: Only 10.00% of respondents are involved in hospitality services, indicating a smaller representation in this sector.

Culinary: 53.30% of respondents are engaged in culinary services, highlighting the significance of food-related businesses in tourism.

Trekking and Mountaineering: 10.00% of respondents are involved in trekking and mountaineering services, likely related to adventure tourism.

Types of Tourism Services: Respondents offer various services, including home stays (23.30%), guest houses (30.00%), and hotel & restaurant services (46.70%).

Offering Diversified Services: A majority, 93.30% of respondents, provide diversified tourism services, indicating a wide range of offerings in the sector.

Cultural Program: 30.00% of respondents offer cultural programs, showcasing local culture and traditions to tourists.

Ecotourism: 100.00% of respondents are involved in ecotourism, emphasizing sustainable and environmentally-friendly tourism practices.

Homestay: 93.30% of respondents offer homestay services, giving tourists an opportunity to experience local life by staying with host families.

Mountaineering: 16.70% of respondents are engaged in mountaineering services, catering to adventure-seeking tourists.

Self-Employment: 80.00% of respondents are self-employed in their tourism-related ventures, indicating a significant number of entrepreneurs in the sector.

Employment: 50.00% of respondents have no employees, while 13.30% have one employee, and 30.00% have two employees, highlighting the relatively small scale of many of these tourism businesses.

Overall, the data suggests that tourism entrepreneurship is prevalent and diverse in the area. The majority of respondents offer various services, with a strong emphasis on ecotourism and homestay experiences. However, some areas, such as hospitality and mountaineering, have a relatively smaller representation among the respondents. The sector provides both self-employment and limited employment opportunities, contributing to the local economy and promoting sustainable tourism practices.

Table 5.8: Business Registration status and reasons

		Frequency	Percent
Valid	Registered	11	36.7
	Because our hotel lies on government land.	2	6.7
	Because the concerned authority is not interested in these things.	1	3.3
	Because the land doesn't belong to us.	1	3.3
	I don't know the procedure	1	3.3
	Lack of information.	4	13.3
	Local government haven't come asking for it, we haven't gone our self for it.	5	16.7
	No free time to visit the office.	1	3.3
	Our hotel is not good enough for registration.	1	3.3
	We are not much interested on registering it.	2	6.7
	We are unknow about it.	1	3.3
	Total	30	100.0

Source: Field Survey, 2022

Table 5.8 concerns the business registration status and reasons why some respondents have not registered their businesses. The findings are summarized as follows:

Business Registration Status: Registered: 36.7% (11 respondents) have completed business registration. Reasons for Not Registering: 63.3% (19 respondents) have not registered their businesses for various reasons.

Reasons for Not Registering Business: Government land ownership: 6.7% (2 respondents) cited this as a reason, implying potential legal complications. Authority disinterest: 3.3% (1 respondent) possibly faced difficulties with authorities. Ownership issues: 3.3% (1 respondent) suggests problems with ownership. Lack of knowledge about procedures: 3.3% (1 respondent) lacks knowledge about the registration process. Insufficient information: 13.3% (4 respondents) indicates a common barrier due to a lack of knowledge or awareness. Lack of initiative: 16.7% (5 respondents) suggests a lack of effort from both parties. Time constraints: 3.3% (1 respondent) indicates time limitations as an obstacle. Registration requirements: 3.3% (1 respondent) may have concerns about meeting registration requirements. Lack of interest: 6.7% (2 respondents) lack motivation or interest in the registration process. Lack of knowledge: 3.3% (1 respondent) highlights a lack of knowledge about business registration.

The data shows that a significant portion of respondents have not registered their businesses due to various reasons, including challenges related to land ownership, lack of information and awareness, and limited interest or motivation. Some respondents also cited external factors, such as uninterested authorities or a lack of initiative from both the business owners and local government. Addressing these issues and providing support and information could potentially encourage more businesses to complete the registration

process, which can bring legal recognition, protection, and other benefits to businesses and the local economy.

Table 5.9: Business Startup

Year	Frequency	Percent
Valid 1993	2	6.7
1998	2	6.7
2000	2	6.7
2003	2	6.7
2005	1	3.3
2006	1	3.3
2008	2	6.7
2010	2	6.7
2011	3	10.0
2013	3	10.0
2015	3	10.0
2016	2	6.7
2019	3	10.0
2020	1	3.3
2022	1	3.3
Total	30	100.0

Source: Field Survey, 2022

Table 5.9 makes clear that business startups have occurred in different years, with varying numbers across different time periods. This suggests a notable level of entrepreneurial activity and economic dynamism over the years. Of particular interest is the fact that recent years (2011, 2013, 2015, and 2019) have seen a higher number of startups than others, indicating a possible trend of increased entrepreneurial activity during those periods.

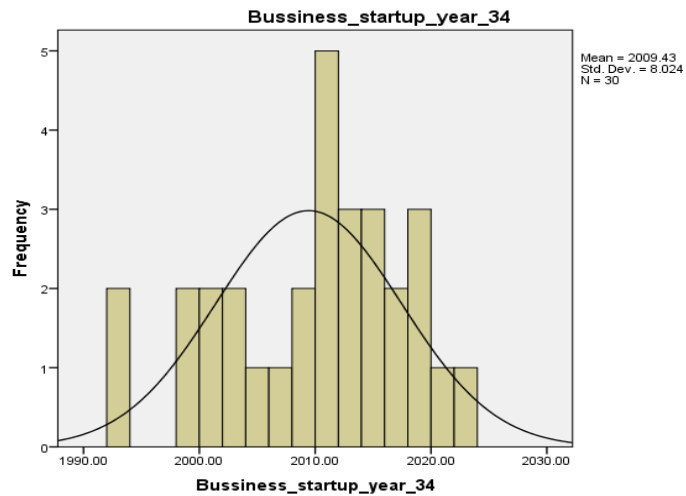


Figure 6: Histogram of Business Startup Year

Table 5.10: Initial Investment

		Frequency	Percent
Valid	8000	1	3.3
	10000	2	6.7
	15000	1	3.3
	50000	2	6.7
	60000	3	10.0
	120000	2	6.7
	150000	2	6.7
	200000	2	6.7
	300000	5	16.7
	400000	2	6.7
	500000	1	3.3
	600000	1	3.3
	1200000	1	3.3
	1400000	2	6.7
	6500000	3	10.0
Total	30	100.0	

Source: Field Survey, 2022

Table 5.10 makes clear that businesses have different initial investment amounts. Some

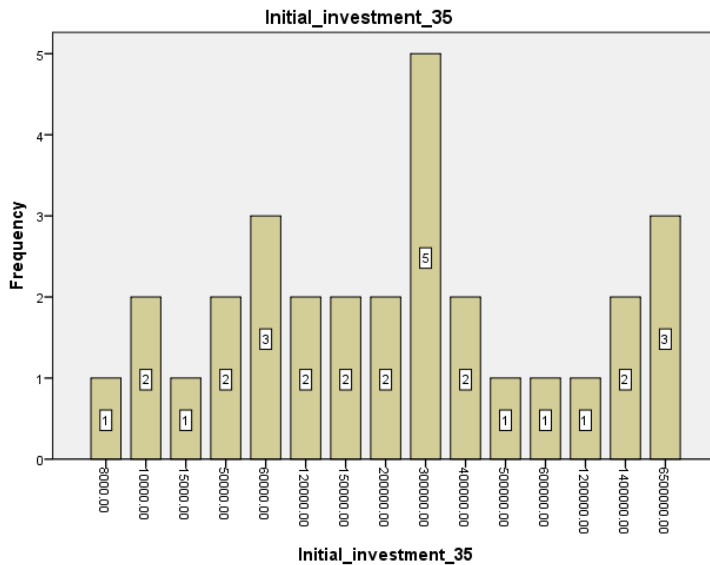


Figure 7: Initial Investment

starting with these amounts.

businesses start with smaller amounts such as 8000, 10000, and 15000, while others invest more significant amounts like 300000, 1400000, and 6500000. This variance in investment implies that entrepreneurs have different business sizes and types, with some opting for smaller ventures and others investing in larger and more ambitious projects. The most common initial investment amounts are between 300000 and 60000, with 16.7% and 10.0% of businesses, respectively,

Table 5.11: Highest Sale before and after Pandemic

Highest sale before pandemic				Highest sale after pandemic_37.1		
Rs.	Frequency	Percent	Rs.	Frequency	Percent	
12000.00	4	13.30	5000.00	1	3.30	
15000.00	2	6.70	6000.00	5	16.70	
17000.00	2	6.70	10000.00	4	13.30	
25000.00	2	6.70	12000.00	2	6.70	
30000.00	2	6.70	14000.00	3	10.00	
32000.00	2	6.70	15000.00	1	3.30	
40000.00	6	20.00	17000.00	2	6.70	
45000.00	1	3.30	18000.00	1	3.30	
50000.00	2	6.70	20000.00	2	6.70	
60000.00	1	3.30	25000.00	6	20.00	
70000.00	3	10.00	30000.00	3	10.00	
80000.00	3	10.00	Total	30	100.00	
Total	30	100.00				

Source: Field Survey, 2022

Table 5.11 appears that the sales figures of businesses before and after the pandemic have varied considerably. While some businesses saw a surge in sales, others suffered a decline. Notably, the sales figures for many businesses were lower after the pandemic hit, indicating that they may have been impacted by the economic fallout of the pandemic. It is worth noting that the percentages mentioned reflect the proportion of businesses that achieved the respective sales figures in each category.

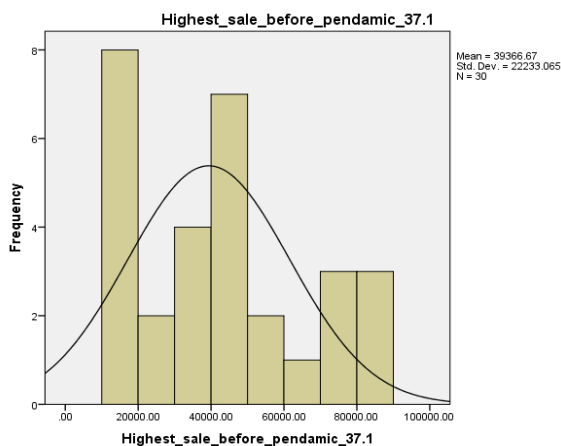


Figure 8: Highest Sale before Pandemic

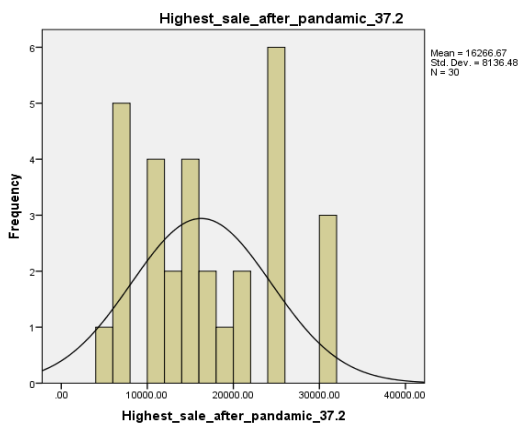


Figure 9: Highest Sale after Pandemic

Table 5.12: Descriptive Statistics of Highest Sale before and after Pandemic

	N	Min	Max	\bar{X}	σ
Initial_investment_35	30	8000	6500000	938766.66	1922835.58
Highest_sale_before_pendamic_37.1	30	12000	80000	39366.66	22233.06
Highest_sale_after_pandamic_37.2	30	5000	30000	16266.66	8136.47

Source: Field Survey, 2022

Table 5.12 reveals that the highest sale before pandemic ranges from Rs 12,000 to Rs 80,000 whereas it drops to Rs 5,000 to Rs30,000 after pandemic. This shows that pandemic have negative effect on the sales at KCA.

5.4 Income and Expenditure Analysis before and after Coronavirus Pandemic

Table 5.13: Distribution of Positive Covid-19 Cases

Category	Number	Frequency	Percent
Covid-19 positive cases	1	7	23.30
	2	7	23.30
	4	2	6.70
	5	1	3.30
	8	1	3.30
Vaccinated_members_47.2	2	1	3.30
	3	2	6.70
	4	12	40.00
	5	6	20.00
	6	3	10.00
	7	1	3.30
	8	1	3.30
	10	2	6.70
	11	2	6.70
	2	1	3.30
	3	7	23.30
	4	10	33.30
	5	4	13.30
7	3	10.00	
9	2	6.70	
Normally_affected_48.2	1	4	13.30
	2	4	13.30
	4	3	10.00
	7	1	3.30
Severely_affected_48.3	1	6	20.00
Total		30	100.00

Source: Field Survey, 2022

Table 5.13 reveals the distribution of positive Covid-19 cases within the group. The results indicate that most members (23.30%) have encountered either one or two positive cases, with only a few instances of higher numbers (four or five people). The data also shows that the majority of the group (40.00%) has received vaccination by the

time the data was collected, with the remaining responses distributed across varying vaccination numbers. Most answers indicate that only one or two people have been affected normally. Additionally, the data indicates that 20.00% of the group members have experienced severe effects due to the virus.

Overall, the data provides an overview of Covid-19's impact on the group, including the number of positive cases, vaccination status, and the severity of the impact experienced by its members. The data provides insights into how Covid-19 has affected the group's health and well-being.

Table 5.14: Annual Family Income before Pandemic

	N	Mini	Max	\bar{X}	σ
Agriculture_38.1	30	0	700000	115000.00	181711.21
Tourism_entrepreneurship_38.2	30	0	2000000	703000.00	691575.66
Local_shop_38.3	30	0	30000	6266.67	8725.44
Remmittance_38.4	30	0	0	.00	.00
Government_job_38.5	30	0	0	.00	.00
Private_job_38.6	30	0	0	.00	.00

Source: Field Survey, 2022

Table 5.14 presents the yearly income of families from different sources both before and after the pandemic. Prior to the pandemic, the average yearly income from agriculture (38.1) was Rs. 115,000.00, with a significant range (σ = Rs. 181,711.21) among 30 respondents. The tourism entrepreneurship sector (38.2) had a substantially higher average income of Rs. 703,000.00, but the income distribution had a high standard deviation (σ = Rs. 691,575.66), indicating a wide range of income levels among respondents. Local shops (38.3) contributed an average income of Rs. 6,266.67, with moderate variation (σ = Rs. 8,725.44). However, respondents reported no income from remittances (38.4), government jobs (38.5), or private jobs (38.6).

Table 5.15: Annual Family Income after Pandemic

Agriculture_38.7	28	0	400000	94642.86	128883.58
Tourism_entrepreneurship_38.8	30	40000	1000000	246333.33	282775.44
Local_shop_38.9	30	0	15000	3633.33	5176.09
Remmittance_38.10	30	0	0	.00	.00
Government_job_38.11	30	0	0	.00	.00
Private_job_38.12	30	0	0	.00	.00

Source: Field Survey, 2022

Table 5.15 shows that annual family income from agriculture (38.7) decreased slightly, with an average of Rs. 94,642.86 and a standard deviation of Rs. 128,883.58, indicating some variation among the 28 respondents. The average income in the tourism entrepreneurship sector (38.8) declined to Rs. 246,333.33, with a standard deviation of Rs. 282,775.44, showcasing more variability in income levels. Local shops (38.9) also faced a decrease in average income, reporting Rs. 3,633.33, with moderate variation (σ = Rs. 5,176.09). Remittances (38.10), government jobs (38.11), and private jobs (38.12) did not yield any reported income after the pandemic.

Overall, the data suggest that the pandemic had a significant impact on family incomes from different sources. Agriculture and tourism entrepreneurship sectors experienced a decline in average income, while local shops also faced a decrease in income levels. However, remittances and employment in government and private sectors did not report any income during or after the pandemic. It is evident that the pandemic caused economic disruptions, affecting different sources of family income in different ways.

Table 5.16: Annual Tourism Expenditure before Pandemic

	N	Min	Max	\bar{X}	σ
Vegetablecrop_39.1	30	.00	225000.00	78500.00	57361.97
Meat_product_39.2	30	.00	75000.00	33833.33	20664.95
Diary_product_39.3	30	.00	60000.00	17933.33	20070.45
Staff_salary_39.4	30	.00	150000.00	22733.33	48033.70
Tax_39.5	30	.00	4500.00	570.00	1347.06
Marketing_39.6	30	.00	.00	.00	0.00

Source: Field Survey, 2022

Table 5.16 depicts that there was a significant change in annual tourism expenditure before and after the pandemic in different categories. Prior to the pandemic, among 30 respondents, the average expenditure on vegetable crops (39.1) was Rs. 78,500.00, with a standard deviation of Rs. 57,361.97. Meanwhile, meat products (39.2) had an average expenditure of Rs. 33,833.33, and dairy products (39.3) averaged at Rs. 17,933.33. Staff salary (39.4) accounted for an average of Rs. 22,733.33, with a relatively higher standard deviation of Rs. 48,033.70. Tax (39.5) expenses were around Rs. 570.00 on average, with a moderate standard deviation of Rs. 1,347.06. Notably, there were no reported marketing expenses (39.6) before the pandemic.

Table 5.17: Annual Tourism Expenditure after Pandemic

Vegetablecrop_39.7	30	.00	150000.00	43166.66	30821.04
Meat_product_39.8	30	.00	40000.00	16533.33	10207.27
Diary_product_39.9	30	.00	25000.00	7800.00	7792.12
Staff_salary_39.10	30	.00	20000.00	1233.33	4710.10
Tax_39.11	30	.00	4500.00	840.00	1674.31
Marketing_39.12	30	.00	.00	.00	0.00

Source: Field Survey, 2022

Table 5.17 shows that after the pandemic, the average expenditure on vegetable crop decreased to Rs. 43,166.66, with a standard deviation of Rs. 30,821.04 among the same 30 respondents. Expenditure on meat products also decreased, with an average of Rs. 16,533.33 and a standard deviation of Rs. 10,207.27. The expenditure on dairy products decreased to an average of Rs. 7,800.00, with a standard deviation of Rs. 7,792.12. Staff salary expenses declined significantly, with an average of Rs. 1,233.33 and a standard deviation of Rs. 4,710.10. Tax expenses remained almost the same, with an average of Rs. 840.00 and a standard deviation of Rs. 1,674.31. Similar to before, there were no reported marketing expenses (39.12) after the pandemic.

Overall, the data clearly shows that the pandemic had a significant impact on tourism expenditure. The decrease in expenditure on various categories such as vegetable crops, meat products, dairy products, and staff salary reflects the economic challenges faced by the tourism industry during that time. Furthermore, the absence of marketing expenses suggests a reduction in promotional activities or marketing efforts due to the pandemic's constraints on the tourism industry.

Table 5.18: Annual Family Expenditure before Pandemic

	N	Min	Max	\bar{X}	σ
Foodgrains_40.1	30	25000.00	200000.00	75200.00	45240.65
Vegetable_40.2	30	4000.00	35000.00	10566.66	9107.34
Meat_40.3	30	10000.00	125000.00	50500.00	31768.28
Egg_milk_40.4	30	3000.00	18000.00	8600.00	3953.17
Oil_ghee_40.5	30	7000.00	75000.00	30866.66	22289.21
Sugar_40.6	30	2500.00	70000.00	23300.00	25265.69
Tea_coffee_40.7	30	2500.00	16000.00	7033.33	3960.87
Alcohol_40.8	30	0	50000.00	17666.66	12839.41
Medical_treatment_40.9	30	5000.00	120000.00	39666.66	41187.82
Education_40.10	30	0	500000.00	183166.66	156273.87
Jewellery_40.11	30	0	.00	.00	.00
Insurance_40.12	30	0	158000.00	44182.66	52868.50
Banking_service_40.13	30	0	500.00	283.33	252.00
Cultural_function_40.14	30	10000.00	35000.00	19200.00	6758.90
Travel_40.15	30	5000.00	45000.00	17366.66	10762.26

Source: Field Survey, 2022

Table 5.18 makes clearer that prior to the pandemic, families spent money on various categories, including food grains, vegetables, meat, and other essentials. The average annual expenditure was recorded to show spending patterns of the respondents. Additionally, medical treatment and education expenses varied significantly, likely due to differences in healthcare needs and educational priorities among respondents.

Table 5.19: Annual Family Expenditure after Pandemic

	N	Min	Max	\bar{X}	σ
Foodgrains_40.16	30	25000.00	200000.00	74200.00	45537.70
Vegetable_40.17	30	4000.00	35000.00	11966.66	10665.71
Meat_40.18	30	10000.00	125000.00	51666.66	32118.67
Egg_milk_40.19	30	3000.00	22000.00	10400.00	6349.58
Oil_ghee_40.20	30	7000.00	75000.00	39466.66	22258.25
Sugar_40.21	30	2500.00	70000.00	22750.00	23214.79
Tea_coffee_40.22	30	2500.00	16000.00	8150.00	3952.62
Alcohol_40.23	30	0	50000.00	15833.33	11593.94
Medical_treatment_40.24	30	5000.00	150000.00	175166.66	449830.39
Education_40.25	30	0	550000.00	239833.33	165125.25
Jewellery_40.26	30	0	.00	.00	.00
Insurance_40.27	30	0	158000.00	61949.33	61958.80
Banking_service_40.28	30	0	500.00	333.33	239.73
Cultural_function_40.29	30	10000.00	35000.00	19000.00	6883.26
Travel_40.30	30	5000.00	45000.00	17533.33	10601.66

Source: Field Survey, 2022

Table 5.19 depicts that since the pandemic, family expenditure has changed noticeably. While some expenses have remained relatively stable, others have experienced fluctuations. Medical treatment expenses and education costs have increased significantly, indicating the potential impact of the pandemic on health and education priorities. It's important to note that economic conditions and family budgeting decisions were likely influenced by the pandemic during this period, leading to changes in spending patterns.

Overall, the data suggests that the pandemic had diverse effects on family expenditure. Some categories saw increased expenses, while others showed reduced spending. These changes reflect the shifting priorities and economic challenges faced by families during the pandemic.

5.5 Sustainability of Ecotourism

Table 5.20: Tourism Entrepreneurship

	N	Min	Max	\bar{X}	σ
Entrepreneurship_increased_investment_41.1	30	1	4	2.66	.99
Increased_supply_local_food_41.2	30	2	3	2.23	.43
Increased_supply_local_meat_diary_product_41.3	30	2	4	2.30	.59
Creating_self_employment_41.4	30	1	3	1.80	.61
Creating_employment_41.5	30	1	4	2.13	.50

Source: Field Survey, 2022

Table 5.20 concerns various aspects of tourism entrepreneurship, where respondents have rated different factors on a scale. Here is a brief explanation of the data:

Entrepreneurship Increased Investment: Respondents were asked to rate the extent to which tourism entrepreneurship investment has increased. The average rating (\bar{X}) was 2.66, suggesting a moderate increase in investment, with a standard deviation (σ) of 0.99, indicating some variation in responses.

Increased Supply of Local Food: This aspect measures the perceived increase in the supply of local food in the tourism sector. The average rating was 2.23, indicating a moderate increase, and the standard deviation was 0.43, suggesting relatively consistent responses.

Increased Supply of Local Meat and Dairy Products: Respondents rated the extent of increased supply of local meat and dairy products in the tourism industry. The average rating was 2.30, indicating a moderate increase, and the standard deviation was 0.59, implying some diversity in responses.

Creating Self-Employment Opportunities: This aspect assesses the perceived efforts in creating self-employment opportunities within the tourism sector. The average rating was 1.80, suggesting a relatively low level of effort, and the standard deviation was 0.61, indicating some variation in responses.

Creating Employment Opportunities: Respondents rated the efforts made to create employment opportunities in the tourism industry. The average rating was 2.13,

indicating a moderate level of effort, and the standard deviation was 0.50, suggesting a relatively consistent view among respondents.

The data gathered from the survey presents the opinions of the participants regarding various aspects of tourism entrepreneurship. It sheds light on the industry's perceived changes and the actions taken, which can be useful in analyzing the current situation and identifying areas for improvement or advancement.

Table 5.21: Sustaining Tourism Entrepreneurship

	N	Min	Max	\bar{X}	σ
Sustaining_tourism_services_supplying_local_product_guest_42.1	30	1	3	1.63	.66
Supplying_local_product_market_42.2	30	1	3	1.90	.48
Planning_to_change_service_42.3	30	1	2	1.83	.37
Motivating_children_containing_service_42.4	30	1	2	1.43	.50
Technical_financial_support_local_level_42.5	30	2	2	2.00	.00
Technical_financial_support_Province_42.6	30	2	2	2.00	.00
Technical_financial_support_Central_government_42.7	30	2	2	2.00	.00

Source: Field Survey, 2022

Table 5.21 shows the information pertains to the sustainability of tourism entrepreneurship. Respondents rated various factors on a scale, and the data is explained below:

Sustaining Tourism Services Supplying Local Product to Guests: This factor measures the efforts made to sustain tourism services that provide local products to guests. The average rating (\bar{X}) was 1.63, indicating a relatively low level of effort. The standard deviation (σ) was 0.66, implying some diversity in responses.

Supplying Local Product to the Market: Respondents rated the extent to which local products are supplied to the market. The average rating was 1.90, suggesting a moderate level of effort in supplying local products to the market. The standard deviation was 0.48, indicating relatively consistent responses.

Planning to Change Services: This factor evaluates respondents' plans to change their tourism services. The average rating was 1.83, indicating a moderate level of planning for service changes. The standard deviation was 0.37, implying relatively consistent views among respondents.

Motivating Children for Continuing Services: Respondents rated the efforts made to encourage children to continue tourism services. The average rating was 1.43, suggesting a relatively low level of effort in motivating children. The standard deviation was 0.50, indicating some diversity in responses.

Technical/Financial Support from the Governments: These three factors assess the level of technical and financial support received from different levels of government. The average rating for each of them was 2.00, indicating a moderate level of support. The standard deviation was 0.00, indicating consistent responses with no variation in views.

Overall, the data provides insights into the efforts and plans to sustain tourism entrepreneurship and the level of support received from various governmental levels. It

underscores areas where more attention and effort might be necessary to ensure the sustainable growth of the tourism sector.

Table 5.22: Cross Tabulation Education, Tourism Service and Sex Group

Sex_group_respondent_3			Types_tourism_service_24			Total
			Home stay	Guest house	Hotel & restaurant	
Female	Educational_grade_10	0		2	0	2
		7		1	0	1
		8		0	3	3
		10		2	0	2
		12		0	1	1
	Total			5	4	9
Male	Educational_grade_10	0	2	0	2	4
		3	0	0	2	2
		4	1	0	0	1
		7	0	3	0	3
		8	0	0	2	2
		9	0	0	1	1
		10	3	1	0	4
		11	0	0	3	3
	16	1	0	0	1	
Total		7	4	10	21	
Total	Educational_grade_10	0	2	2	2	6
		3	0	0	2	2
		4	1	0	0	1
		7	0	4	0	4
		8	0	0	5	5
		9	0	0	1	1
		10	3	3	0	6
		11	0	0	3	3
		12	0	0	1	1
	16	1	0	0	1	
Total		7	9	14	30	

Source: Field Survey, 2022

Table 5.22 gives a detailed breakdown of the respondents based on their level of education, the types of tourism activities they offer, and their gender. Each cell in the table shows the number of people in specific combinations of these categories. After analyzing the data, several important points can be noted.

Firstly, the respondents were divided into different educational levels, from grade 10 to grade 16. The majority of the respondents were from grades 10 and 11, with fewer in other grades. Secondly, the types of tourism services offered by the respondents were divided into three categories: home stay, guest house, and hotel & restaurant. The data shows that most respondents offered hotel & restaurant services, followed by guest houses, with home stay services being the least offered. Thirdly, there were slightly more male respondents than female.

The table offers insights into how these variables intersect. For instance, it shows that females in grade 10 were more likely to offer guest house services, while males in grade 10 were more inclined to offer home stay services. Also, females in grade 8 were more likely to offer both home stay and guest house services, while males in grade 8 tended to concentrate on hotel & restaurant services.

This analysis provides a clear picture of how education, types of tourism services, and gender are interrelated among respondents. By understanding these relationships, policymakers and tourism industry stakeholders can make informed decisions that cater to specific groups, leading to the growth and sustainability of the tourism sector.

5.5 Measurement Association

5.1 Normality of Buffer zone Management Index and Types of Tourism Services

Table 5.23: Normality Test

Case Processing Summary							
	Types_tourism_service_24	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
Bufferzone_management_index	Home stay	7	100.0%	0	0.0%	7	100.0%
	Guest house	9	100.0%	0	0.0%	9	100.0%
	Hotel & restaurant	14	100.0%	0	0.0%	14	100.0%

Source: Field Survey, 2022

Table 5.23 shows the number of valid cases and missing cases for each type of tourism service in the buffer zone management index data. The data is categorized into three types of tourism services: home stay, guest house, and hotel & restaurant. For home stay, there are a total of 7 valid cases, and there are no missing cases, indicating that all data points are present and accounted for.

Similarly, for guest house, there are 9 valid cases, and no data is missing, meaning that all data points are available for this category as well.

Lastly, for hotel & restaurant, there are 14 valid cases, and no missing data, signifying that all data points for this type of tourism service are also complete. Overall, the case processing summary demonstrates that the data is complete for all three types of tourism services, with no missing values. This is important for conducting accurate and reliable analyses since missing data can potentially introduce bias and affect the validity of the results. Having complete data for each type of tourism service ensures that the subsequent analyses can be conducted on the entire dataset, providing a comprehensive understanding of the buffer zone management index in relation to different types of tourism services.

Table 5. 13.1: Descriptive Statistics for the Bufferzone Management

Descriptives					
	Types_tourism_service_24		Statistic	Std. Error	
Bufferzone_management_index	Home stay	Mean		2.8667	.09085
		95% Confidence Interval for Mean	Lower Bound	2.6444	
			Upper Bound	3.0890	
		5% Trimmed Mean		2.8630	
		Median		2.7333	
		Variance		.058	
		Std. Deviation		.24037	
		Minimum		2.60	
		Maximum		3.20	
		Range		.60	
		Interquartile Range		.47	
		Skewness		.806	.794
		Kurtosis		-1.109	1.587
	Guest house	Mean		3.2444	.10541
		95% Confidence Interval for Mean	Lower Bound	3.0014	
			Upper Bound	3.4875	
		5% Trimmed Mean		3.2420	
		Median		3.1333	
		Variance		.100	
		Std. Deviation		.31623	
		Minimum		2.80	
		Maximum		3.73	
		Range		.93	
		Interquartile Range		.50	
		Skewness		.683	.717
		Kurtosis		-.384	1.400
	Hotel & restaurant	Mean		3.3381	.07890
		95% Confidence Interval for Mean	Lower Bound	3.1676	
			Upper Bound	3.5086	
		5% Trimmed Mean		3.3460	
		Median		3.5000	
		Variance		.087	
		Std. Deviation		.29522	
Minimum		2.87			
Maximum		3.67			
Range		.80			
Interquartile Range		.60			
Skewness		-.905	.597		
Kurtosis		-1.051	1.154		

Source: Field Survey, 2022

Table 5.23.1 presents descriptive statistics for the buffer zone management index, focusing on three types of tourism services: home stay, guest house, and hotel &

restaurant. Descriptive statistics are essential in summarizing and understanding data, providing valuable insights into the distribution and characteristics of the buffer zone management index for each tourism service type.

For establishments offering home stay services, the average buffer zone management index is approximately 2.87, with a moderate positive skewness suggesting that the majority of home stay facilities have relatively higher buffer zone management scores. The data shows a relatively narrow spread, as indicated by the variance of 0.058 and a standard deviation of 0.24037, implying that home stays generally maintain consistent buffer zone management practices.

Similarly, for guest house services, the mean buffer zone management index is about 3.24, indicating a slightly higher average level of buffer zone management compared to home stay services. The variance of 0.100 and standard deviation of 0.31623 show a greater spread in the data, suggesting some variability in buffer zone management among guest house establishments. The data is slightly positively skewed, indicating a slight bias towards higher buffer zone management scores.

For hotel & restaurant services, the mean buffer zone management index is approximately 3.34, signifying the highest average level of buffer zone management among the three types of tourism services. The data shows a relatively narrow spread, with a variance of 0.087 and a standard deviation of 0.29522. The negative skewness value of -0.905 suggests a slight bias towards lower buffer zone management scores, but the distribution is not heavily skewed.

Overall, the descriptive statistics provide valuable insights into the buffer zone management practices across different types of tourism services. While all three types of establishments generally show a focus on buffer zone management, there are subtle differences in the average scores and variability. This information can be instrumental in making informed decisions and formulating appropriate policies for sustainable tourism management in the area.

Table 5.23.2 : Kolmogorov-Smirnov Test

	Types_tourism_service_24	Kolmogorov-Smirnov ^a			
		Statistic	df	Sig.	Statistic
Bufferzone_management_index	Home stay	.282	7	.098	.823
	Guest house	.304	9	.016	.865
	Hotel & restaurant	.297	14	.002	.755

Source: Field Survey, 2022

Table 5.23.2 presents the results of the Kolmogorov-Smirnov test for normality on the buffer zone management index data for each type of tourism service: homestay, guest house, and hotel & restaurant. The Kolmogorov-Smirnov test is used to assess whether a given sample of data follows a normal distribution. In this context, it helps to determine if the buffer zone management index scores for each type of tourism service are normally distributed or not.

For homestay services, the Kolmogorov-Smirnov test statistic is 0.282, and the associated p-value is 0.098. Since the p-value is greater than the significance level of 0.05

(usually chosen for significance testing), we fail to reject the null hypothesis. This suggests that the buffer zone management index scores for home stay services can be assumed to follow a normal distribution. Similarly, for guest house services, the test statistic is 0.304, and the p-value is 0.016. Again, the p-value is greater than 0.05, indicating that we cannot reject the null hypothesis. Hence, the buffer zone management index scores for guest house services are also assumed to follow a normal distribution.

Lastly, for hotel & restaurant services, the test statistic is 0.297, and the p-value is 0.002. In this case, the p-value is less than 0.05, leading us to reject the null hypothesis. This suggests that the buffer zone management index scores for hotel & restaurant services do not follow a normal distribution.

In summary, based on the Kolmogorov-Smirnov test results, the buffer zone management index scores for home stay and guest house services are normally distributed,

while for hotel & restaurant services, the assumption of normality is not supported. It is important to consider these findings when performing further statistical analyses or making inferences about the data.

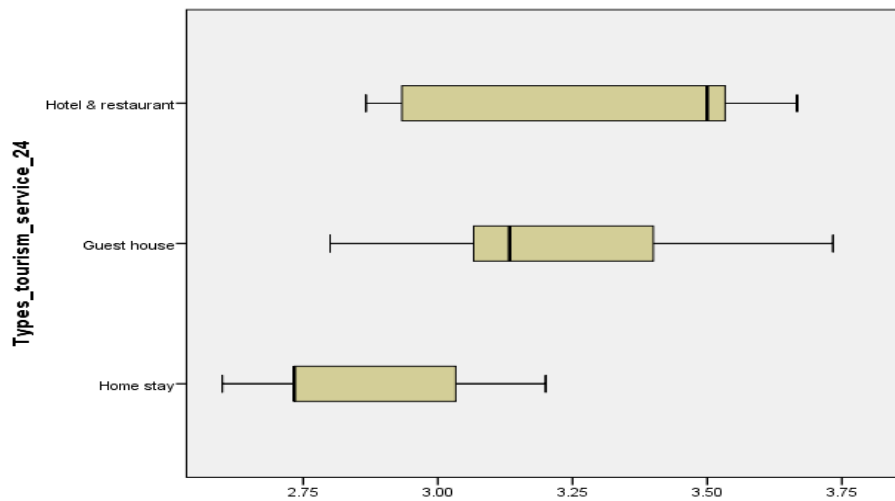


Figure 10: Bufferzone Management Index

5.2 Correlation

Table 5.24: Correlation Coefficients

		Highest_sale_after_pandamic_37.2
Highest_sale_before_pandamic_37.1	Pearson Correlation	.861**
	Sig. (2-tailed)	.000
	N	30
		Annual_family_income_after_pandamic_agriculture_38.7
Annual_family_income_before_pandamic_agriculture_38.1	Pearson Correlation	.980**
	Sig. (2-tailed)	.000
	N	28
		Farm land
Pasture land	Pearson Correlation	.596**
	Sig. (2-tailed)	.001
	N	30

Source: Field Survey, 2022

Table 5.24 depicts information about correlation analysis which examines the relationship between different variables in the dataset. In this context, the provided correlations indicate the strength and direction of associations between specific pairs of variables.

Highest Sale Before Pandemic and Highest Sale After Pandemic: The Pearson correlation coefficient between the highest sale before the pandemic and the highest sale after the pandemic is 0.861, with a significant p-value of 0.000. This strong positive correlation indicates that there is a robust and statistically significant relationship between the highest sales before and after the pandemic. The "r" value of 0.861 suggests that as the highest sales before the pandemic increase, the highest sales after the pandemic also tend to increase.

Annual Family Income before Pandemic (Agriculture) and Annual Family Income after Pandemic (Agriculture): The Pearson correlation coefficient between the annual family income before the pandemic (from agriculture) and the annual family income after the pandemic (from agriculture) is 0.980. The p-value is 0.000, indicating a highly significant relationship. This strong positive correlation suggests that the family income from agriculture remains highly consistent and positively related before and after the pandemic.

Pasture Land and Farm Land: The Pearson correlation coefficient between pasture land and farm land is 0.596, with a significant p-value of 0.001. This positive correlation suggests that there is a moderate relationship between the amount of pasture land and farm land. As the area of pasture land increases, the area of farm land also tends to increase, and vice versa.

In conclusion, the correlation analysis shows strong and significant positive relationships between the highest sales before and after the pandemic and between the annual family income from agriculture before and after the pandemic. Additionally, there is a moderate positive correlation between pasture land and farm land. These findings provide valuable insights into the associations between the studied variables in the dataset.

5.3 Multiple Regression model 1

Table 5.25: Model Summary A

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.918 ^a	.842	.746	.18293	2.212
a. Predictors: (Constant), Initial_investment_35, Source_drinking_water_14, Sex_group_respondent_3, Educational_grade_10, Types_of_toilet_16, Pasture_land_17.3, Types_of_land_occupied_house_17.1, Bussiness_startup_year_34, Marriatial_status_respdnent_7, Farm_land_17.2, Age_respondent_2					
b. Dependent Variable: Entrepreneurship_index					

Source: Field Survey, 2022

The multiple regression model explores the relationship between the dependent variable "Entrepreneurship index" and several predictor variables. The model summary A (Table 5.25) reveals valuable insights into the model's effectiveness and how well it fits the data. The high value of R (0.918) indicates a strong positive correlation between the entrepreneurship index and the predictors considered in the model. Additionally, the R Square value of 0.842 implies that approximately 84.2% of the variability in the entrepreneurship index can be attributed to the predictor variables. This indicates a significant amount of variability is accounted for by the model. The Adjusted R Square, which is 0.746, considers the complexity of the model and sample size to offer a more reliable estimate of variance explained.

The model's standard error of the estimate (0.18293) indicates the average deviation of observed values from predicted values, and a lower value suggests a better fit of the model. The Durbin-Watson statistic of 2.212 suggests no significant autocorrelation in the model's residuals. The predictor variables, such as "Initial_investment_35," "Source_drinking_water_14," "Sex_group_respondent_3," and others, collectively contribute to the model's ability to predict the entrepreneurship index. However, further investigation is necessary to understand the specific impact and significance of each predictor variable in influencing the entrepreneurship index. Overall, this regression model shows promise in explaining and predicting the entrepreneurship index based on the selected predictors.

Table 5.25.1: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.216	11	.292	8.738	.000 ^b
	Residual	.602	18	.033		
	Total	3.819	29			
a. Dependent Variable: Entrepreneurship_index						
b. Predictors: (Constant), Initial_investment_35, Source_drinking_water_14, Sex_group_respondent_3, Educational_grade_10, Types_of_toilet_16, Pasture_land_17.3, Types_of_land_occupied_house_17.1, Bussiness_startup_year_34, Marriatial_status_respdnent_7, Farm_land_17.2, Age_respondent_2						

Source: Field Survey, 2022

Table 5.25.1 provides important information about the overall significance of the multiple regression model in predicting the dependent variable "Entrepreneurship index." The table shows that the regression model is statistically significant, as indicated by a significant F-statistic of 8.738 and a p-value of 0.000. This means that at least one of the predictor variables in the model has a statistically significant effect on the entrepreneurship index.

The "Regression" row in the table displays the sum of squares (SS) for the regression, which represents the variability in the dependent variable explained by the predictor variables. The SS for the regression is 3.216, and it is divided by the degrees of freedom (df) and results in the mean square (MS) of 0.292.

The "Residual" row shows the SS for the residuals, which represents the unexplained variability in the dependent variable. The SS for the residuals is 0.602, and it is also divided by its degrees of freedom (18) to yield the mean square (0.033). The "Total" row displays the total SS for the dependent variable, which is the sum of the SS for the regression and the residuals.

Overall, the ANOVA results for Model A show that the regression model is effective and provides valuable information for predicting the Entrepreneurship index based on the selected predictor variables. The model as a whole is statistically significant, and it explains a substantial portion of the variability in the dependent variable.

Table 5.25.2: Coefficients

Model		Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.171	18.255		.283	.780		
	Age_respondent_2	-.049	.010	-1.155	-5.029	.000	.166	6.017
	Sex_group_respondent_3	.095	.107	.122	.893	.384	.468	2.137
	Marriatual_status_respndent_7	-.731	.263	-.615	-2.780	.012	.179	5.586
	Educational_grade_10	-.088	.012	-1.053	-7.034	.000	.391	2.559
	Source_drinking_water_14	.027	.096	.039	.281	.782	.458	2.185
	Types_of_toilet_16	-.108	.081	-.181	-1.330	.200	.471	2.121
	Types_of_land_occupied_house_17.1	.046	.015	.388	3.108	.006	.561	1.783
	Farm_land_17.2	.005	.003	.333	1.626	.121	.208	4.797
	Pasture_land_17.3	.000	.001	.048	.333	.743	.421	2.376
	Bussiness_startup_year_34	7.057E-005	.009	.002	.008	.994	.232	4.304
	Initial_investment_35	1.268E-009	.000	.007	.055	.957	.583	1.717

a. Dependent Variable: Entrepreneurship_index

Source: Field Survey, 2022

Table 5.25.2 presents the coefficients for Model A of the multiple regression analysis, along with other relevant statistics. These coefficients represent the relationships between the predictor variables and the dependent variable (Entrepreneurship_index) in both unstandardized and standardized forms. The "Unstandardized Coefficients" column shows the values of the coefficients for each predictor variable. These coefficients indicate the change in the dependent variable for a one-unit change in the corresponding predictor, holding all other predictors constant.

The "Standardized Coefficients" (Beta) column provides the coefficients in a standardized form, representing the change in the dependent variable in terms of standard deviations for a one-standard deviation change in the predictor variable. This allows us to compare the relative importance of different predictors.

The "t" column represents the t-statistic, which assesses the significance of each coefficient. The associated "Sig." column shows the p-value, indicating the statistical significance of the coefficients. A p-value less than 0.05 is considered statistically significant. The "Collinearity Statistics" section provides information about collinearity among the predictor variables. The "Tolerance" measures the proportion of variance in a predictor variable that is not predictable from the other predictors. A Tolerance close to 1 indicates low collinearity. The "VIF" (Variance Inflation Factor) is the reciprocal of the Tolerance and indicates the extent of collinearity. Generally, VIF values above 5 or 10 raise concerns about collinearity.

In this model, several predictor variables show statistically significant relationships with Entrepreneurship_index. Notably, Age_respondent_2, Marital_status_respondent_7, and Educational_grade_10 are significant predictors. The coefficients of Age_respondent_2 and Educational_grade_10 are negative, indicating that as age and educational grade increase, the Entrepreneurship_index tends to decrease. On the other hand, Marital_status_respondent_7 has a negative coefficient, suggesting that respondents who are married tend to have a lower Entrepreneurship_index.

Other predictor variables, such as Types_of_land_occupied_house_17.1 and Farm_land_17.2, also show significant positive relationships with Entrepreneurship_index. However, some predictors, such as Bussiness_startup_year_34 and Initial_investment_35, do not show significant effects on Entrepreneurship_index.

It's important to note that collinearity statistics, such as Tolerance and VIF, should be carefully examined to ensure that multicollinearity is not affecting the interpretation of the coefficients. Low VIF values indicate that multicollinearity is not a significant concern in this model.

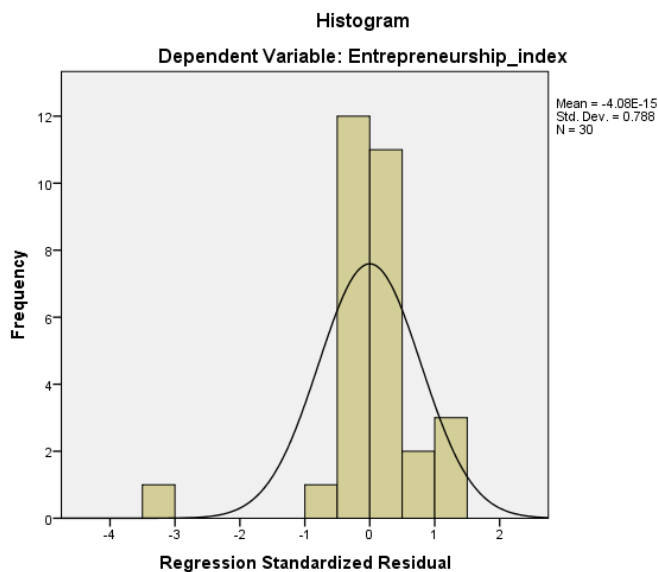


Figure 12: PP Plot A

Overall, this multiple regression analysis provides insights into the relationships between various predictor variables and Entrepreneurship index, offering valuable information for understanding the factors influencing entrepreneurship in the studied context.

Multiple Regression model B

Table 5.26: Model Summary B

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.780 ^a	.609	.369	.26958
a. Predictors: (Constant), Initial_investment_35, Source_drinking_water_14, Sex_group_respondent_3, Educational_grade_10, Types_of_toilet_16, Pasture_land_17.3, Types_of_land_occupied_house_17.1, Bussiness_startup_year_34, Marriatial_status_respdnt_7, Farm_land_17.2, Age_respondent_2				

Source: Field Survey, 2022

Table 5.26 provides important statistics to evaluate the performance of the regression model.

The correlation coefficient (R) represents the strength and direction of the relationship between the predictors and the dependent variable. In this model, the value of R is 0.780, indicating a moderately strong positive correlation between the predictor variables and the dependent variable. The coefficient of determination (R Square) measures the proportion of variance in the dependent variable (Entrepreneurship_index) that is explained by the predictor variables in the model. Here, R Square is 0.609, indicating that approximately 60.9% of the variance in Entrepreneurship_index can be accounted for by the predictor variables.

The Adjusted R Square adjusts the R Square value for the number of predictor variables in the model, penalizing the inclusion of less relevant variables. The Adjusted R Square in this model is 0.369, indicating that around 36.9% of the variance in Entrepreneurship_index is explained by the predictor variables, considering their complexity and number. The Std. Error of the Estimate represents the standard deviation of the residuals (the differences between the actual and predicted values of Entrepreneurship_index). It is a measure of the accuracy of the regression model in predicting the dependent variable. In this model, the Std. Error of the Estimate is 0.26958, suggesting that, on average, the predicted values of Entrepreneurship_index could deviate from the actual values by approximately 0.27 units.

Overall, the model shows a reasonable fit to the data, with a significant R Square indicating that the predictor variables collectively have a considerable influence on the variation in Entrepreneurship_index. However, the Adjusted R Square suggests that there might be room for improvement, and some predictor variables might not be significantly contributing to the model's performance. Further analysis and refinement of the model may be necessary to enhance its predictive power and explanatory ability.

Table 5.26.1: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.034	11	.185	2.544	.038 ^b
	Residual	1.308	18	.073		
	Total	3.342	29			
a. Dependent Variable: Bufferzone_management_index						
b. Predictors: (Constant), Initial_investment_35, Source_drinking_water_14, Sex_group_respondent_3, Educational_grade_10, Types_of_toilet_16, Pasture_land_17.3, Types_of_land_occupied_house_17.1, Bussiness_startup_year_34, Marriatial_status_respdnt_7, Farm_land_17.2, Age_respondent_2						

Source: Field Survey, 2022

Table 5.26.1 provides important information to assess the significance of the regression model.

This represents the total variation in the dependent variable (Bufferzone_management_index) that is explained by the regression model. In this case, the regression sum of squares is 2.034. This indicates the number of predictor variables used in the regression model. In this model, there are 11 predictor variables, so the regression df is 11. This is calculated by dividing the regression sum of squares by the regression degrees of freedom. It represents the average amount of variation in Bufferzone_management_index that is explained by each predictor variable. In this model, the regression mean square is 0.185

The F-statistic is calculated by dividing the regression mean square by the residual mean square (mean square of the error). It assesses whether the regression model is statistically significant. Here, the F-statistic is 2.544. The significance value (p-value) associated with the F-statistic indicates the probability of obtaining the observed F-statistic under the assumption that the regression model has no explanatory power (null hypothesis). A small p-value (typically less than 0.05) suggests that the regression model is statistically significant. In this case, the significance value is 0.038 (marked as "b" in the table), which is less than 0.05.

The results indicate that the regression model is statistically significant in explaining the variation in Bufferzone_management_index, as evidenced by the low p-value (0.038). However, it is important to note that the F-statistic is just one measure, and further evaluation of the model's goodness-of-fit and the individual significance of the predictor variables is necessary to fully understand the model's effectiveness and reliability

Table 5.26.2: Coefficients

Model		Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-3.075	26.902		-.114	.910		
	Age_respondent_2	.015	.014	.377	1.042	.311	.166	6.017
	Sex_group_respondent_3	-.215	.157	-.295	-1.368	.188	.468	2.137
	Marriatial_status_respdent_7	.653	.388	.587	1.684	.109	.179	5.586
	Educational_grade_10	.021	.018	.265	1.124	.276	.391	2.559
	Source_drinking_water_14	.219	.142	.336	1.543	.140	.458	2.185
	Types_of_toilet_16	.113	.119	.204	.950	.355	.471	2.121
	Types_of_land_occupied_house_17.1	-.047	.022	-.427	-2.170	.044	.561	1.783
	Farm_land_17.2	.002	.004	.166	.514	.613	.208	4.797
	Pasture_land_17.3	-.002	.002	-.238	-1.046	.309	.421	2.376
	Bussiness_startup_year_34	.002	.013	.055	.178	.860	.232	4.304
Initial_investment_35	7.455E-008	.000	.422	2.185	.042	.583	1.717	

a. Dependent Variable: Bufferzone_management_index

Source: Field Survey, 2022

Table 5.26.2 reveals that the overall model is moderately good at explaining the variation in Bufferzone_management_index, with an R-squared value of 0.609, indicating that approximately 60.9% of the variance in the dependent variable can be accounted for by the predictor variables. The adjusted R-squared value of 0.369 suggests that the model fits the data reasonably well and has been adjusted to consider the number of predictor variables.

The ANOVA table shows the significance of the regression model as a whole. The F-test indicates that the model is statistically significant ($p < 0.05$), implying that at least one of the predictor variables is significantly associated with Bufferzone_management_index. Analyzing the coefficients table, we can evaluate the impact of individual predictor variables on the dependent variable. Some of the predictor variables, such as Age_respondent_2 and Types_of_land_occupied_house_17.1, appear to be statistically significant based on their t-values and significance levels ($p < 0.05$), indicating that they have a significant effect on Bufferzone_management_index.

On the other hand, some predictor variables, like Source_drinking_water_14 and Types_of_toilet_16, show weak evidence of statistical significance and do not have a substantial impact on Bufferzone management index. The constant term (intercept) is not statistically significant, which is expected in some cases.

It is essential to note that statistical significance does not necessarily imply practical significance. Therefore, further investigation and interpretation are needed to understand the practical implications of the relationships between the predictor variables and Bufferzone management index. Additionally, caution should be exercised when interpreting the results, considering the sample size and the potential for multicollinearity among predictor variables.

Overall, the multiple regression model provides valuable insights into the factors influencing Bufferzone management index, contributing to our understanding of the complex relationship between the predictors and the management

of buffer zones.

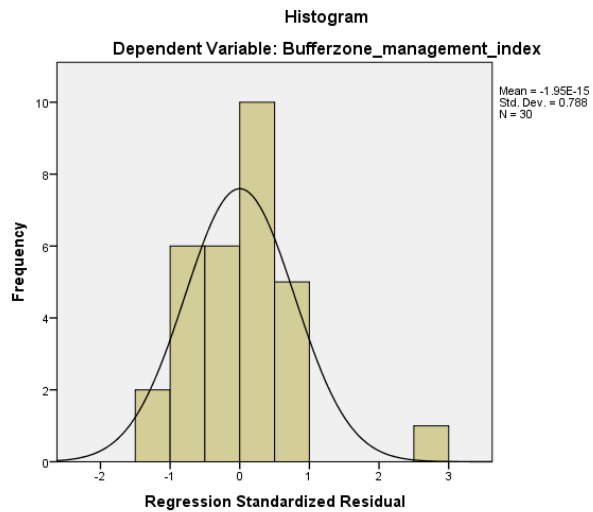


Figure 13: PP Plot B

CHAPTER VI

SUMMARY OF FINDINGS, CONCLUSION AND IMPLICATIONS

6.1 Summary of Findings

Demographic Profile

- Total of 30 participants with the majority (53.33%) falling within the age group of 35-45 years. Those under 35 accounted for 30% of respondents, while individuals above 45 made up the remaining 16.66%.
- In terms of gender, 70% of participants were male, while the remaining 30% were female.
- Regarding marital status, 90% of respondents were married, while 10% were separated.
- In terms of occupation, 73.30% of respondents were involved in agriculture, while 26.70% were not. Approximately 43.30% of respondents operated local shops, while 56.70% did not.
- The average age of the 30 respondents is around 39.66 years, with the youngest being 28 and the oldest being 60.

Social Cultural Status

- 73.3% of respondents have access to public tap water for drinking whereas 16.7% use spring water as a drinking source and 10% use surface water as their drinking source.
- Minority of respondents i.e., 3.3% have a house occupying more than 12 Ropanis of land but 53.3% have a house occupying less than 1 Ropani of land.
- 16.7% of respondents own less than 1 Ropani of farmland and 3.3% of respondents own more than 100 Ropanis of farmland.
- All respondents belonged to the Sherpa ethnic group and spoke Sherpa as their mother tongue. Additionally, all respondents identified as Buddhists.

Economic Status

- 13.33% of the respondents are considered "highly food-secure" whereas 16.67% are classified as highly insecure and 70% are in the "middle secure" category.
- Significant proportion are involved in agriculture i.e., 73.30% of participants, while the remaining 26.70% are not involved in agricultural activities.
- 43.30% of participants own a local shop, while 56.70% do not.
- All participants had some form of involvement in tourism, indicating a strong connection between the local community and the ecotourism industry in the area.

Educational Status

- 20% of respondents have never attended school while 20% of respondents have completed Grade 10 education and 3.3% of respondents have completed Grade 12.
- 26.7% of respondents do not have children currently attending school, however, 73.3% of respondents have children currently attending school.

Employment Level

- 80.00% of respondents are self-employed in their tourism-related ventures

- 50.00% of respondents have no employees, while 13.30% have one employee, and 30.00% have two employees.

Health Status

- Most members (23.30%) have encountered Covid-19 positive cases.
- 20.00% of the group members have experienced severe effects due to the virus
- Majority of the group (40.00%) has received vaccination by the time the data was collected.

Tourism entrepreneurship

- 100.00% of respondents are involved in ecotourism, emphasizing sustainable and environmentally-friendly tourism practices.
- 36.7% (11 respondents) have completed business registration whereas 63.3% (19 respondents) have not registered for various reasons.
- Respondents offer various services, including homestays (23.30%), guest houses (30.00%), and hotel & restaurant services (46.70%).
- 53.30% of respondents have received vocational training related to tourism, equipping them with the necessary skills and knowledge for related activities.
- 30.00% of respondents offer cultural programs, showcasing local culture and traditions to tourists.

Pearson correlation

- The Pearson correlation coefficient between the highest sale before the pandemic and the highest sale after the pandemic is 0.861, with a significant p-value of 0.000.
- The Pearson correlation coefficient between the annual family income before the pandemic (from agriculture) and the annual family income after the pandemic (from agriculture) is 0.980. The p-value is 0.000, indicating a highly significant relationship.
- The Pearson correlation coefficient between pasture land and farmland is 0.596, with a significant p-value of 0.001.

Cross Tabulation Educational Status, Types Tourism Service and Sex Group

- The majority of the respondents were from grades 10 and 11, with fewer in other grades
- The data shows that most respondents offered hotel & restaurant services, followed by guest houses, with homestay services being the least offered.
- There were slightly more male respondents than female
- Females in grade 10 were more likely to offer guest house services, while males in grade 10 were more inclined to offer homestay services. Also, females in grade 8 were more likely to offer both homestay and guest house services, while males in grade 8 tended to concentrate on hotel & restaurant services.

Normality Test

For a homestay, there are a total of 7 valid cases, for the guest house, there are 9 valid cases and for the hotel & restaurant, there are 14 valid cases yet there are no missing cases, indicating that all data points are present and accounted for.

Kolmogorov-Smirnov Test (Buffer zone management index)

For homestay services, the Kolmogorov-Smirnov test statistic is 0.282, and the associated p-value is 0.098. Similarly, for guest house services, the test statistic is 0.304, and the p-value is 0.016. Since both of the p-values, is greater than the

significance level of 0.05 we cannot reject the null hypothesis. In contrast, for hotel & restaurant services, the test statistic is 0.297, and the p-value is 0.002. In this case, the p-value is less than 0.05, leading us to reject the null hypothesis.

6.2 Discussions of Findings

Ecotourism is simply the use of environmentally-friendly methods in tourism activities aimed at enhancing socioeconomic, cultural, and environmental development. A concept of ecotourism is also being implemented in Nepal, especially in national parks, conservation areas, and buffer zones. At the same time conservation fund also has been allocating for administrative costs (10%), conservation-related awareness-raising training (10%), income generate activities (20%), community development (30%), and physical infrastructure development (30%) as well (Pradhan & Gradon, 2008). In light of this theoretical perspective, the finding of research shows that respondents rating the allocation and utilization of funds for community development in the buffer zone was 2.53, indicating a moderately positive perception. The standard deviation was 1.19, indicating some diversity in responses. Similarly, the rating for the use of funds for physical infrastructure development in the buffer zone was 3.03, indicating a moderately positive perception. The standard deviation was 0.99, indicating some diversity in responses. In like manner for income-generating activities in the buffer zone. The average rating was 2.13, indicating a relatively moderate perception. The standard deviation was 1.07, indicating some diversity in responses. Likewise for conservation training in the buffer zone. The average rating was 2.33, indicating a moderately positive perception. The standard deviation was 0.92, indicating some diversity in responses. Though overall it shows a moderate perception still the conservation funds are not sufficiently utilized in the recommended categories at the determined percentage effectively.

The finding of my research regarding resource management and management of culture at the Kanchenjunga Conservation Area shows a moderate level of management. Similarly, the finds show that there is a positive climate change impact on tourism at KCA whereas a relatively low level of effectiveness of training programs designed to understand the impact of climate change. However, there is a moderate positive rating for the effort to promote renewable energy and reduce deforestation. This means that there is a positive climate change impact on tourism at KCA but no training program related to understanding the impact of climate change along with adaptation and mitigation methods are carried out so far by local bodies and the concerned authorities. The good thing about the finding is there is an increased health awareness among the locals along with a positive increment in food nutrition awareness with a relatively high level of change in food habits. There is a moderate positive perception regarding the extent to which garbage boxes are utilized for waste disposal and the effectiveness of the waste management system.

While talking about the sustainability of tourism entrepreneurship in KCA, my research shows that there is a low level of effort in supplying local products to guests and the market, additionally, a sensible number of respondents are planning to change their profession and relatively very few are motivating their children to start their career in the same profession. Further, tourism entrepreneurs receive a low level of

technical and financial support from the local government to sustain their tourism services. I am personally saddened by this fact because it arises a great question mark on sustaining tourism entrepreneurship at KCA.

Further discussing the findings, it revealed that during post-pandemic the medical treatment expenses and education costs have increased significantly, indicating the potential impact of the pandemic on health and education priorities. Economic conditions and family budgeting decisions were likely influenced by the pandemic during this period, leading to changes in spending patterns. Likewise, the annual family income from agriculture (38.7) decreased slightly, with an average of Rs. 94,642.86 and a standard deviation of Rs. 128,883.58, indicating some variation among the 28 respondents. The average income in the tourism entrepreneurship sector (38.8) declined to Rs. 246,333.33, with a standard deviation of Rs. 282,775.44, showcasing more variability in income levels. Local shops (38.9) also faced a decrease in average income, reporting Rs. 3,633.33, with moderate variation ($\sigma =$ Rs. 5,176.09). Remittances (38.10), government jobs (38.11), and private jobs (38.12) did not yield any reported income after the pandemic.

Similarly, after the pandemic, the average expenditure on vegetable crops (39.7) decreased to Rs. 43,166.66, with a standard deviation of Rs. 30,821.04 among the same 30 respondents. Expenditure on meat products (39.8) also decreased, with an average of Rs. 16,533.33 and a standard deviation of Rs. 10,207.27. The expenditure on dairy products (39.9) decreased to an average of Rs. 7,800.00, with a standard deviation of Rs. 7,792.12. Staff salary (39.10) expenses declined significantly, with an average of Rs. 1,233.33 and a standard deviation of Rs. 4,710.10. Tax (39.11) expenses remained almost the same, with an average of Rs. 840.00 and a standard deviation of Rs. 1,674.31. Similar to before, there were no reported marketing expenses (39.12) after the pandemic. The decrease in expenditure on various categories such as vegetable crops, meat products, dairy products, and staff salaries reflects the economic challenges faced by the tourism industry during that time. In such times of adversity, tourism entrepreneurs convey that they received no technical and financial support from any local, provincial, or central government to sustain their tourism services.

6.3 Conclusion

In conclusion, this study explored the interplay of socio-cultural and entrepreneurial dynamics, in the Kanchenjunga Conservation Area through the lens of ecotourism. The comprehensive analysis of the demographic profiles of participants highlighted the diversified backgrounds that contribute to the socio-economic fabric of the region. The findings provided a portrayal of individuals whose lives and livelihoods are deeply intertwined with the area's cultural heritage and natural landscapes. Furthermore, the research offered insights into the situation of the respondents highlighting their ability to balance traditional occupations like agriculture with newer opportunities in tourism entrepreneurship. While ecotourism has brought benefits it also poses challenges to overcome, in light of external factors such as the COVID-19 pandemic. The pandemic has caused fluctuations in income sources and spending patterns significantly impacting the landscape. The study also

emphasized the connection between residents and their natural environment. The findings shed light on how resource management, cultural preservation, and tourism are linked. However, there is room for improvement in managing resources and cultural assets. Moreover, by exploring tourism entrepreneurship this study highlighted its role, in shaping the lives of those involved. The dedication, to promoting ecotourism and the aim to offer experiences demonstrate a balanced combination of economic goals and cultural conservation. However, there are difficulties to overcome for tourism development, including the limited technical and financial assistance, from local authorities.

The statistical analyses revealed connections, between aspects of people's lives. For example, the level of education seems to influence the types of tourism services available while income patterns have an impact on pandemic realities. These correlations provide insights into the factors that shape the lives of those involved in ecotourism. When discussing the findings, we discovered both successes and areas that need attention. It's clear that ecotourism has an impact on health awareness and cultural interaction. However, there are also gaps in areas such as product supply, technical and financial support and aspirations for generations.

This study emphasizes how economic, cultural and environmental elements are interconnected within the Kanchenjunga Conservation Area. While there are achievements to be proud of it is essential to address challenges and make improvements for a harmonious relationship between the local community, their cultural heritage and the growing ecotourism industry. By addressing these challenges head on we can ensure a future that values richness preserves natural wonders and promotes equitable economic growth, for everyone involved.

6.4 Implications

For Knowledge Level: Enhanced Understanding of Socio-Demographic Factors: The study helps us gain an understanding of the socio factors related to the local population involved in ecotourism. By examining age, gender, education, occupation and other socio-cultural aspects we can develop an understanding of the community. Contribute to academic knowledge, about the people living in this region. Cultural Preservation and Ecotourism: The connection, between preservation and ecotourism is highlighted in the findings. The research explores how local communities engage in practices to enhance tourism experiences contributing knowledge about the relationship between heritage conservation and sustainable tourism. Tourism Entrepreneurship: The study provides insights into the motivations, challenges and aspirations of individuals involved in tourism entrepreneurship. This understanding helps us comprehend the factors that drive locals to enter the tourism industry and the obstacles they encounter. It also informs studies on entrepreneurship dynamics within ecotourism.

For practical Level: Community engagement and empowerment: Involving communities in decision-making processes related to ecotourism is crucial. Practical insights into their participation in tourism activities can guide practitioners and policymakers in fostering a sense of ownership and empowerment among locals.

Tourism Diversification: The study exploration of tourism services vocational training and income sources offers knowledge for expanding and diversifying ecotourism offerings. This can inspire the development of tourism products training programs and income-generating activities that align with strengths and interests.

Resource Management and Climate Resilience: The research also highlights gaps in resource management and climate change adaptation. These findings shed light on areas where improvements should be made regarding managing resources while developing resilience, against climate change impacts. Practitioners and local authorities can use this information to create plans that promote the use of resources enhance climate resilience and protect the environment. These efforts will help ensure the long-term success of ecotourism, in the region.

For policy level: Community-Centric Policies: The study's emphasis on the need for community involvement, technical support, and financial assistance highlights the importance of policies that prioritize local stakeholders. Policymakers can use these insights to design inclusive and community-centric policies that foster sustainable tourism practices and equitable benefits distribution.

Capacity Building: The research underscores the significance of vocational training in enhancing the skills of local entrepreneurs. Policymakers can consider implementing training programs that equip individuals with the necessary knowledge and skills to excel in various tourism-related ventures.

Conservation and Fund Allocation: The findings concerning conservation fund allocation and its utilization provide valuable guidance for policy formulation. Policymakers can revisit fund allocation strategies, ensuring that resources are directed towards both community development and environmental preservation.

Climate Change Mitigation: The study's revelation about climate change awareness and adaptation gaps calls for policies that promote climate resilience. Policymakers can develop initiatives to educate and empower local communities in addressing the challenges posed by climate change.

In essence, this thesis research offers a multifaceted understanding of ecotourism's economic, cultural, and environmental dimensions in the Kanchenjunga Conservation Area. The implications drawn from the findings have the potential to shape knowledge advancement, practical approaches, and policy frameworks, fostering a sustainable and harmonious coexistence between ecotourism, local communities, and the natural heritage of the region.

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APPENDICES

Appendix: Questionnaire

कञ्चनजंघा संरक्षण क्षेत्र वरपर पर्यटन उद्यमशीलता मा कोरोना भाइरस महामारी को प्रभाव

खण्ड क : उत्तरदाताहरुको सामान्य जानकारी

प्र. नं.	सामाजिक-जनसांख्यिकी										
१	तपाईंको स्थाई ठेगाना के हो ?	ठेगाना विवरण									
२	तपाईंको उमेर कति हो ?										
३	तपाईंको लिंग के हो ?	महिला	पुरुष	अन्य							
४	तपाईं कुन जातीयताको परिधिमा पर्नुहुन्छ ?										
५	तपाईंको मातृभाषा के हो ?										
६	तपाईंको धर्म के हो ?	हिन्दु	बौद्ध	इस्लाम	किरात	ईसाई	अन्य				
७	तपाईंको वैवाहिक स्थिति के हो ?	अविवाहित	विवाहित	छुट्टै	सम्बन्ध विच्छेद	विधवा/विधुर	एकल				
८	तपाईंका पारिवारिक पेशा के हुन् ?	कृषि	व्यवसाय	वैदेशिक रोजगार	सरकारी जागिर	निजी जागिर	सेना/पुलिस	निवृत्तिभरण	अन्य		

९	तपाईंको परिवारका कति सदस्य छन् ?	उमेर समूह	महिला	पुरुष	कूल	
		०-१४				
		१५-६४				
		६५+				

१०	तपाईंले पूरा गरेको उच्चतम शैक्षिक योग्यता कति हो ?	शैक्षिक योग्यता	विषय

११	के तपाईंका विद्यालय जाने बच्चाहरु छन् ?	छन् छैनन्
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१२	यदि छन् भने, तपाईंका बच्चाहरु पढ्नका लागि केँहा जान्छन् ?	सार्वजनिक वा सामुदायिक विद्यालय/कलेजमा	निजी वा बोर्डिङ्ग स्कूल/कलेजमा	पढाई छैन
		संख्या:	संख्या:	संख्या:
१३	यदि छन् भने, तपाईंका छोराछोरी कलेज पढ्नका लागि केँहा जान्छन् ?	प्रकारहरु	संख्या	विषय
		सामुदायिक कलेज		
		निजी कलेज		
		सार्वजनिक कलेज / विश्वविद्यालय		
१४	तपाईंले पिउने पानीको श्रोत के हो ?	प्रकारहरु	सुरक्षित	असुरक्षित
		वसन्त पानी		
		सतही पानी		
		ट्यूब वेल		
		इनार		
		सार्वजनिक धारोको पानी		
१५	खाना पकाउनका लागि कस्तो किसिमको उर्जामा निर्भर हुनुहुन्छ ?	प्रकारहरु	प्रतिक्रिया	
		बिजुली	१	
		एलपीजी/प्राकृतिक ग्यास/बायोग्यास	२	
		काठ दाउरा	३	
		पराल/झाडी/घाँस	४	
		पशुको गोबर	५	
		अन्य	६	

१६	शौचालय/शौचालय सुविधा को स्थान/प्रकार	प्रकारहरु	सुधारिएको	नसुधारिएको		
		प्लश/पाइप गरिएको ढल प्रणाली	१	१		
		प्लश/सेप्टिक टैंकमा प्लश हुने	२	२		
		प्लश/पिट शौचालयमा प्लश हुने	३	३		
		खाडलमा हावाको आवत/निकासको व्यवस्था मिलाएको शौचालय(VIP)	४	४		
		स्लैब संहित खाडल भएको शौचालय	५	५		
		कम्पोष्ट शौचालय	६	६		
		खुला दिशापिसाप	७	७		
१७	जग्गा-जमीन छ भने, तपाईंको परिवारको कति जमीन छ ?	जमीनको प्रकार	रोपनी	आना	पैसा	
			बिघा	कठ्ठा	धुर	
		घरद्वारा कब्जा				
		धान क्षेत्र (अब्बल)				
		खेतीयोग्य जमिन(दोयाम)				
		गिलो भूमि (सिम)				
वस्तु चराउने जमिन						

		(चाहार)					

१८	आफ्नै उत्पादन बाट खाद्य सुरक्षा को स्थिति	प्रकारहरु	प्रतिक्रिया
		पूर्ण सुरक्षित	१
		मध्यम सुरक्षित	२
		असुरक्षित	३

प्र. नं.	पर्यटन सम्बन्धित	
१९	के यँहा विविध पर्यटन सेवा छन् ?	छ छैन
२०	यदि छ भने, विविध पर्यटन सेवाहरुको नाम दिनुहोस्	१. सांस्कृतिक पर्यटन २. पर्यावरण पर्यटन ३. होमस्टे ४. पर्वतारोहण/पदयात्रा

२१	के तपाईंले पर्यटन वस्तु उत्पादनहरुको सम्बन्धमा कुनै पनि व्यवसायिक प्रशिक्षण पूरा गर्नुभएको छ?	छ छैन
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२२	यदि छ भने कुन व्यावसायिक प्रशिक्षण तपाईंले अहिले सम्ममा पूरा गर्नुभयो ?	आतिथ्य	पाक कला	पदयात्रा	शिल्प	खेती	पर्वतारोहण	अन्य	
२३	तपाईं कुन प्रकारको पर्यटन लाभार्थी हुनुहुन्छ?	१. प्रत्यक्ष लाभार्थी		२. प्रत्यक्ष र अप्रत्यक्ष लाभार्थी					
२४	यदि सीधा लाभार्थी हो भने तपाईंको सीधा पर्यटन सेवा (डीटीएस) के हो ? (बहु जवाफ)	होमस्टे	भुक्तानी अतिथि	गेस्ट हाउस	होटल	रिसोर्ट	चिया/कफी पसल	भोजनालय	अन्य

२५	के यो सरकारसंग दर्ता छ?	छ	छैन
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२६	दर्ता नगर्नुको मुख्य कारण	१. २. ३.					
२७	के तपाईंका आमा बुबा DTS मा संलग्न हुनुहुन्छ ?	छ	छैन				
२८	यदि छ भने, सम्मिलित हुनुको कारण के हो ?	१. २. ३.					
२९	के तपाईं अप्रत्यक्ष पर्यटन सेवा (IDTS) मा संलग्न हुनुहुन्छ?	छ	छैन				
३०	यदि छ भने, तपाईं कुन IDS मा संलग्न हुनुहुन्छ?	खेती	गाइड/पोर्टर	हस्त शिल्प बनाउने	मेडिकल हीलर	हात्ती सवार	अन्य (निर्दिष्ट)
३१	के यो सरकारसंग दर्ता छ?	छ	छैन				
३२	दर्ता नगर्नुको मुख्य कारण	१. २. ३.					
३३	के तपाईंका आमा बुबा IDTS मा संलग्न हुनुहुन्छ?	छ	छैन				

खण्ड ख : पर्यटन उद्यमशीलता सम्बन्धी जानकारी

३४	तपाईं पर्यटन सम्बन्धी पेशा मा कहिले संलग्न हुनुभयो?	वर्ष		
		महिना		
३५	सुरुमा पर्यटन सेवाको लागी तपाईंको लगानी लागत कति थियो?	रु.		
३६	रोजगारीको संख्या	स्वरोजगारी	रोजगारी	
३७	दिनको उच्चतम बिक्री	महामारी अघि	महामारी पछि	

३८	विभिन्न क्षेत्रबाट तपाईंको परिवारको आम्दानी कति छ ?	प्रकारहरु	महामारी अघि	महामारी पछि
		पर्यटन क्षेत्रबाट आम्दानी	रु.	

	कृषि बाट आम्दानी	रु.		
	रेमिट्यान्स बाट आम्दानी	रु.		
	सरकारी जागिर बाट कमाई	रु.		
	निजी जागिर बाट कमाई	रु.		
	सेना/पुलिस जागिर बाट कमाई	रु.		
	निवृत्तिभरणबाट आम्दानी	रु.		
	अन्य	रु.		

३९	यो विशेष पर्यटन सेवाको लागि तपाईंको वार्षिक खर्च कति छ?				
	स्थानीय उत्पादनहरू	पहिले	दौरान	गैर स्थानीय उत्पादनहरू	पहिले
	तरकारी/बाली उत्पादनहरू			Vegetable/crop products	
	मासु उत्पादनहरू			Meat products	
	दुग्ध - उत्पादन			Dairy products	
	कर्मचारीलाई तलब				
	कर भुक्तानी				
	मार्केटिङ्ग (वेबसाइट, सार्वजनिक सम्बन्ध)				

४०	विभिन्न उद्देश्यहरूका लागि तपाईंको वार्षिक पारिवारिक खर्च कति छ?				
	खानाको परिकार	पहिले	हाल समय	खानाको परिकार बाहेक	पहि
	अन्न तथा बालीहरू	रु.		चिकित्सा खर्च	रु.
	माछा-मासु	रु.		शैक्षिक खर्च	रु.
	अण्डा र दूध	रु.		गहना र घडी	रु.
	तेल र घ्यू	रु.		सामाजिक सुरक्षा	रु.
	फलहरू	रु.		बीमा	रु.
	सागसब्जी	रु.		प्रशासन शुल्क	रु.
	चिनी तथा मिठाई	रु.		सांस्कृतिक र अन्य	रु.
	मसला	रु.		बाहिरको खाना	रु.
	चिया/ कफी	रु.		बैंकिंग सेवा शुल्क	रु.
	गैर-मादक पेय पदार्थ	रु.		अन्य	रु.
	मादक पेय पदार्थ	रु.			
	तंबाकू/सूर्ती	रु.			
	भोजनालय खाना	रु.			
	अन्य	रु.			

		दृढतापूर्व क सहमत	सहमत	तटस्थ	असहमत	दृढतापूर्वक असहमत
		५	४	३	२	१
४१	तपाईं विश्वास गर्नुहुन्छ कि ग्रामीणहरुद्वारा पर्यटन क्षेत्रमा लगानी बढेको छ					
४२	तपाईं विश्वास गर्नुहुन्छ कि पाहुनाहरुलाई स्थानीय तरकारी र बाली उत्पादनहरुको आपूर्तिको प्रवृत्ति बढेको छ ?					
४३	तपाईं विश्वास गर्नुहुन्छ कि पाहुनाहरुलाई स्थानीय मासु र दुग्ध उत्पादनहरुको आपूर्तिको प्रवृत्ति बढेको छ ?					
४४	तपाईंको विचारमा पर्यटनले स्थानीय जनतालाई स्वरोजगार सिर्जना गर्दैछ ?					
४५	तपाईंको विचारमा पर्यटनले स्थानीय जनतालाई रोजगारी सिर्जना गरिरहेको छ ?					

४६	के तपाईंले पर्यटन व्यवसायको संलग्नता पछि कुनै निश्चित सम्पत्ति जस्तै भूमि, घर, गाईवस्तु आदि किन्ने इरादा गर्नुभएको छ ?	छ		योजना छ
		भूमि		भूमि
		घर		घर
		गाईवस्तु		गाईवस्तु

४७. महामारी पछि कुनै इलेक्ट्रोनिक सामानहरु किन्नुभयो ?	
प्रकारहरु	रु..
टेलिभिजन मोबाइल फोन कम्प्युटर ल्यापटप इन्टरनेट फ्रिज	

मोटर बाइक			
४८	महामारी पछिको अवधिमा पर्यटन उद्यमशीलताको प्रवर्द्धनको लागि स्थानीय सरकारको केन्द्रित क्षेत्रहरु के हुन सक्छन् ?	संभाग कार्यालय स्थापना गर्ने	सडक पहुँच सुधार
		सिजन प्याकेज अफर	जैविक खेती लाई बढावा
		होटल र रिसोर्ट्स स्थापित	कृषि आधारित उद्यमहरु स्थापना
		होमस्टे अपग्रेड	बैंकिङ्ग प्रवर्द्धन र रेमिट्यान्स

४९	के तपाईं पाहुनाहरुलाई स्थानीय वा स्वदेशी उत्पादनहरु आपूर्ति गर्दै हुनुहुन्छ?	छ	छैन	योजना छ
५०	के तपाईं अन्तर/राष्ट्रिय बजारहरुमा स्थानीय स्वदेशी उत्पादनहरु आपूर्ति गर्दै हुनुहुन्छ?	छ	छैन	योजना छ
५१	के तपाईं आफ्नो पेशा वा जागिर परिवर्तन गर्ने सोचमा हुनुहुन्छ?	छ कारण	छैन कारण	
५२	के तपाईं आफ्नो बच्चाहरुलाई आफ्नै पेशामा आफ्नो जीवनवृत्ति शुरू गर्नको लागि प्रेरित गर्दै हुनुहुन्छ?	छ कारण	छैन कारण	
५३	के तपाईंले पर्यटन सेवाको प्रवर्द्धनका लागि स्थानीय सरकारबाट प्राविधिक सहयोग प्राप्त गर्नुभयो?	छ कारण	छैन कारण	
५४	के तपाईंले पर्यटन सेवाको लागि स्थानीय सरकारबाट अन्तिम समर्थन प्राप्त गर्नुभयो?	छ रु. कारण	छैन कारण	
५५	के तपाईंले प्रान्तीय सरकार बाट कुनै आर्थिक सहयोग प्राप्त गर्नुभयो?	छ रु. कारण	छैन कारण	
५६	के तपाईंले केन्द्रिय सरकारबाट कुनै आर्थिक सहयोग प्राप्त गर्नुभयो?	छ रु. कारण	छैन कारण	

खण्ड ग: Bufferzone व्यवस्थापन सम्बन्धित जानकारी

		दृढतापूर्वक सहमत	सहमत	तटस्थ	असहमत	दृढतापूर्वक असहमत
		५	४	३	२	१
५७	स्थानीयले पर्यटन कायम राख्नको लागि प्राकृतिक वातावरणको व्यवस्थापन गरिरहेका छन्					
५८	स्थानीयले पर्यटनलाई दिगो बनाउन सांस्कृतिक वातावरणको व्यवस्थापन गर्दैछन्					
५९	पर्यटन विकासमा जलवायु परिवर्तनको नकारात्मक असर छ					

६०	नीय स्तरमा आयोजित प्रशिक्षणले जलवायु परिवर्तनको नकारात्मक प्रभावहरूलाई बुझ्न मद्दत पुर्यायो					
६१	सौर्य उर्जा, बायोग्यास र माइक्रो हाइड्रो को उपयोगले वन कटाई घटाउन मद्दत पुर्यायो					
६२	अर्गानिक खेती अभ्यास को प्रवृत्ति स्थानीयमा बढ्दो छ					
६३	स्थानीय स्तरमा स्थापित फोहोर ब्यबस्थापन कोषले राम्रोसंग काम गरिरहेको छ					
६४	फोहोर संकलन बाकस यहाँ र त्यहाँ वरिपरि सफा र आकर्षक बनाउन राखिएको छ					

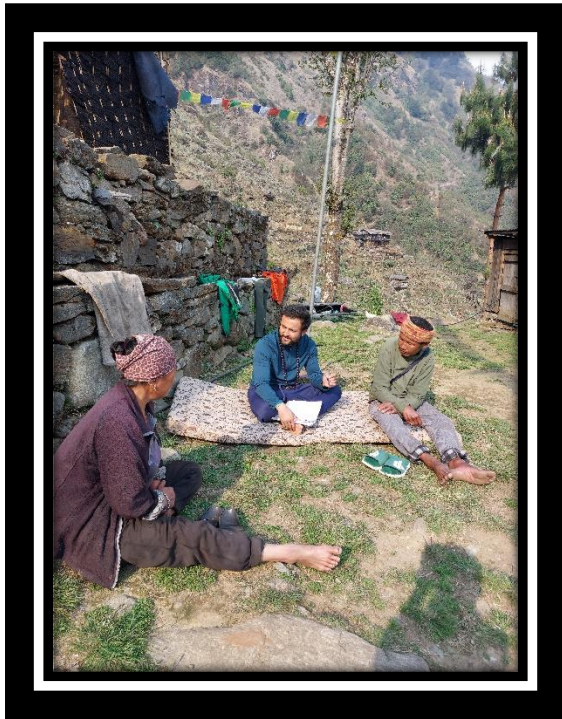
६५	पर्यटनको कारणले गर्दा सुस्वास्थ्य र सरसफाइमा स्थानीय जनताको चेतना स्तर बढेको छ					
६६	स्थानीय मानिसहरू आफ्नो खानाको बानी परिवर्तन गर्दै छन्					
६७	खाद्य र पोषणको बारेमा स्थानीय जनताको चेतना स्तर वृद्धि भएको छ					
६८	संरक्षण कोष सामुदायिक विकास					

	परियोजनामा लगानी गरिएको छ					
६९	संरक्षण कोष भौतिक पूर्वाधार विकासमा लगानी गरिएको छ					
७०	संरक्षण कोष IGAs मा लगानी गरिएको छ					

सर्वेक्षकको तर्फबाट	उत्तरदाताको तर्फबाट

COVID-19 पोजिटिभ केसहरु	गम्भीर असर परेका केसहरु	खोप लगाउने	मृत्युको केसहरु

Appendix B: Glimpses of the Field Study



Questionnairing with tourism entrepreneurs at Gyabla (2730m)



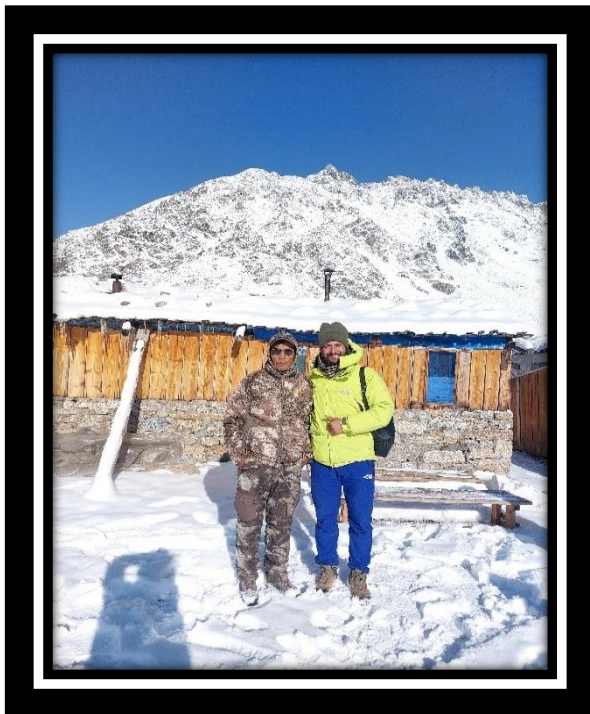
Questionnairing with tourism entrepreneur at Selele Camp (4200m)



Teahouse at Ramche, South Base Camp (4580m)



Questionnaire with tourism entrepreneur at Ramche (4580m)



Researcher posing with the wildlife photographer Chunga Sherpa at Lhonak(4780m)



Local Tourism Entrepreneur from Lhonak(4780m), North Base Camp