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## Ecotourism and Community Transformation in Baluchistan: Unveiling the Socioeconomic Shifts Along the Coastal Belt

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### Acknowledgment

This work is dedicated to Balochistan, the land I hold dearest. Your rich heritage, resilience, and beauty have been the heart of this research. In every corner of your landscapes, I found inspiration, and in your people, I found stories that shaped my path.

To the people of Balochistan, your encouragement in moments of doubt was a gift I will cherish forever. And to all the voices that shared their truths with me, this work is a reflection of your experiences. I am deeply thankful.

### Abstract

*Ecotourism has been widely promoted as a sustainable alternative to mass tourism, offering the potential to conserve natural environments, preserve cultural heritage, and promote local economic development. However, the success of ecotourism initiatives largely depends on the perceptions and participation of local communities who are directly impacted by such projects. This research explores the socioeconomic and environmental impacts of ecotourism development along Balochistan's coastal belt, a region rich in biodiversity and cultural heritage. The study addresses the central question: How does ecotourism influence community transformation in Balochistan's coastal areas? Grounded in a quantitative research framework, the study utilized purposive sampling to collect primary data from a diverse target population, including fishermen, women, youth, and local traders. Data collection was conducted using structured, questionnaire-based surveys disseminated through Google Forms, focusing on key themes such as environmental awareness, cultural preservation, economic impact, and community empowerment. Descriptive statistical analysis revealed that local communities generally perceive ecotourism as a positive force for cultural preservation, environmental education, and social inclusion. High agreement was observed on statements relating to tourists' respect for local customs and ecotourism's role in*

*raising environmental consciousness. These findings offer actionable insights for stakeholders aiming to promote sustainable tourism practices in underdeveloped coastal regions. The research concludes that while ecotourism has the potential to catalyze community pride, economic inclusion, and conservation, its long-term success depends on inclusive planning, policy intervention, and robust infrastructure. Recommendations include strengthening local governance, enhancing community participation, and addressing environmental concerns through formalized systems. The study contributes valuable insights for policymakers, development practitioners, and academic scholars interested in sustainable tourism models rooted in local community engagement.*

**Keywords:** Ecotourism, Local Perceptions, Sustainable Tourism, Community Empowerment, Institutional Support, Factor Analysis, Environmental Awareness

## Chapter 1 Introduction

### 1.1 Background of the Study

Tourism refers to the movement of individuals beyond their usual environment for leisure, cultural exchange, or professional purposes, engaging a wide range of sectors including hospitality and transport. The tourism sector comprises an extensive array of services, which include transportation, lodging, attractions, and tour management. For local communities living near the coast, tourism plays a pivotal role in generating employment. While traditional tourism often harms the environment, the main objective of a new approach remains to clean the offshore areas and beaches. To counter the negative impacts of traditional tourism, researchers have suggested 'ecotourism.'

Ecotourism directly impacts the physical, social, economic, psychological, and natural aspects of a region. It underscores the symbiotic relationship between environmental preservation and improving the lives of local populations residing along coastal belts. To safeguard marine life, promote sustainable fishing, reduce carbon emissions, and ensure cultural preservation, the government should advocate for and strictly impose certain key measures. The goal is to foster the economic growth of local communities while ensuring the enduring viability of natural resources.

The International Ecotourism Society defined Ecotourism as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" (TIES, 2015). One of the areas of the sustainable tourism industry that is expanding the fastest is ecotourism, which prioritizes economic development, environmental preservation, wildlife conservation, and poverty alleviation (UNEP, 2013). There isn't a single, widely recognized definition

of ecotourism. According to Anup et al. (2015), it clashes from nature-located touristy in that it advances tenable rural incident and form biodiversity conservation advantageous for nearby societies. However, ecotourism is a type of tourism established natural resources namely regionally focused, depressed-impact, instructional, and no consumptive; in consideration of guarantee

sustainable growth, residents must run the business and harvest the most of the rewards (D'Angelo et al. 2010). According to Vishwanatha and Chandrashekara (2014), ecotourism can be defined as any tourism program that is (a) centered on nature, (b) environmentally sustainable, (c) heavily reliant on education and interpretation, and (d) beneficial to the local population.

Ecotourism is growing at a rate of 10% annually on average. The average annual growth rate for tourism as a whole is 4 percent, which is lower than this number

(Hijriati, 2014). A type of tourism with unique characteristics is ecotourism, which requires that environmental preservation, environmental education, local residents' well-being, and cultural sensitivity be given top priority. Many tourists are beginning to show interest in ecotourism, which is connected to their mindset that travel is not just for enjoyment but also for knowledge of other cultures and education (Murianto, 2021). The potential of natural resources, the environment, and natural and cultural uniqueness can make ecotourism one of the most underdeveloped regional industries, according to Minister of Home Affairs Regulation number 33 of 2009. Planning, utilization, control, institutional strengthening, and community empowerment strategies in conjunction with consideration of social, economic, and ecological principles and stakeholder involvement are necessary for the regions' ecotourism to develop as best it can. The term ecotourism was first created in the year of 1960s, and currently it is defined by the international Ecotourism society as "responsible travel to natural areas that preserve the environment". Tourism is highly admired for the fact that it can be useful for job creation, culture integration, and off course its impact for income generation as well as the growth of overall GDP. According to the researchers, tourism is a highly capable industry for third world countries as well as the developed countries (Gumus et al, 2007).

It is also significant to point out that tourism has been labelled as an significant sphere of economic activity. There are always those who see it through a positive lens and those who see it in a negative light. From such people's perception, such respondents mention that an increase in per capita income as well as living standards and employment opportunities along with growth of the economy is promising (Hye & Khan, 2013). As in any other field, tourism also has its negative impacts. For example, cost of living among the native people also increases because of numerous people visiting an area resulting in mobbing, increasing plunder of the specific area by natural resources due to high illegal activities (Nunkoo & Ramkissoon, 2010; Tohid, 2011).

The local economy, culture, environment, and community are all reflected in ecotourism. It encourages natural and cultural diversity in addition to offering a solution for the social, economic, and environmental development of sustainability (Osman et al. 2018). Despite these, community participation and proper assessment are missing in ecotourism, which prevents it from establishing sustainable development (Lonn et al. 2018). For ecotourism to raise and attraction tourists, community engagement and potential tourism assessment are key. (Tseng and associates; 2019) famous that potential travel considers the importance of local possessions, aids, lodging, approachability, foundation, and sites that could be grown into sightseer attractions. In order to draw tourists for their trips, the location should have essential features like lodging, local

communities, and convenience.

Pakistan is one of a handful of countries in the world which are endowed with assorted tourism attractions, four weathers, tall mountains, sand dunes, extensive delta plains and sea. The place comprises of the oldest civilization in the globe, spots with suitable scenic view, magnificent hills and standards, religious and historical places, seasonal preferences, exclusive arts and craftsmanship and wealthy custom and background. Famed Tourist Attractions These tourist attractions are of very potential concern, located on the conditions of four provinces, Gilgit-Baltistan and Azad Kashmir. According to data from 2020, tourism receipts amounted to \$765 million, reflecting its substantial economic contribution, albeit with even greater potential yet to be tapped. The country's ranking on the Travel and Tourism Development Index (TTDI) at 83 out of 140 countries highlights room for growth in infrastructure, accessibility, and service improvements.

### **1.1.1 Area of the study**

Baluchistan stands as the premier destination for tourism in Pakistan, characterized by its stunning landscapes that include beaches, mountains, and desert. This region is celebrated for its breathtaking scenery and rich cultural heritage, housing some of the cleanest coastal belt. Additionally, Baluchistan is recognized for its historical significance, cultural landmarks, and vibrant local communities. Adventure enthusiasts are particularly drawn to the area for activities like climbing, hiking, camping, and relaxing. Tourism significantly contributes to the economic growth of Baluchistan. However, the surge in economic activities has led to increased pollution, noise, and congestion, placing additional strain on essential resources such as gas, water, and energy. Moreover, the rich diversity of Baluchistan traditions, norms, and culture faces threats from the overwhelming number of tourists. Regrettably, the region is gradually losing its natural beauty, tranquility, and cultural essence due to the negative impacts of tourism on both the environment and the local populace. Balochistan is a region rich in heritage and natural beauty; there are many activities in Balochistan. Located in the western part of Pakistan, this region is a mysterious land that attracts adventurers and culture lovers.

### **1.2 Research Problem**

The Baluchistan coastal area, with its high biodiversity, distinctive cultural identity, and unexplored natural environments, holds immense potential for ecotourism development. Over the last decade, efforts have been made towards the promotion of tourism in the region UNDP Pakistan (2021). Tourism is popularly seen as a means of economic development for the locals; its effect on local communities, especially in inaccessible and socioeconomically disenfranchised areas like coastal Balochistan, is not well researched..

The present research attempts to bridge this lacuna by examining the multifaceted impacts of ecotourism on Baluchistan's coastal communities. It hopes to probe the socioeconomic changes underway, examine the awareness and perception of local stakeholders, and determine the advantages and drawbacks of ecotourism development at the grassroots level. In the process, the research hopes to provide insightful recommendations for policymakers, development practitioners, and tourism planners in devising inclusive and sustainable ecotourism practices for the region.

## Research Gap

Balochistan is a region with vast ecotourism potential due to its geography, rich biodiversity diverse cultural heritage. Despite the potential of ecotourism in Balochistan there is little research available on the impact of ecotourism on household's income, environment and sociocultural in coastal belt in Balochistan. To evaluate the effects of ecotourism on household income, environmental preservation, and sociocultural preservation in Balochistan, this study is crucial. The results will help harness the province's ecotourism potential by guiding policies that support sustainable livelihoods, safeguard natural resources, and maintain local culture.

### 1.3 Research Objectives

The overall aim of this research is to analyze the potential role of ecotourism in directing socioeconomic change in the Balochistan coastal communities. Generally, the objectives of the study are:

- 1: To check the relationship between eco-tourism and household's income in Balochistan.
- 2: To check the relationship between eco-tourism and environmental impacts in Balochistan.
- 3: To check the relationship between eco-tourism and Socio-cultural impacts in Balochistan.

### 1.4 Research Questions

To attain the aforementioned goals, the research aims to answer the following research questions:

- What is the relationship between eco-tourism and household income in Balochistan?
- What is the relationship between eco-tourism and environmental impacts in Balochistan?
- What is the relationship between eco-tourism and socio-cultural impacts in Balochistan?

### 1.5 Scope of the Study

The present research is geographically limited to coastline of Balochistan, a location where ecotourism has been growing in recent years. The research examines community members directly or indirectly affected by tourism activities. The analysis is based on data collected through structured questionnaires comprising 16 Likert-scale items addressing various aspects of ecotourism, including environmental awareness, cultural preservation, community empowerment, and perceived risks.

The study does not include in-depth stakeholder interviews, government policy reviews, or longitudinal data. While perceptions offer valuable insights, the study does not measure objective environmental or economic outcomes of ecotourism. Thus, result(s) reflect the subjective viewpoints of local respondents at the time of the survey.

## CHAPTER 2: LITERATURE REVIEW

This section of the article evaluates and organizes previous literature on ecotourism and sustainable development and its socio-economic and environmental effects on the locals. Previous studies have highlighted tourism's impact on economic growth and development. Azmat et al. (2024) explored ecotourism in Chitral (Northern Pakistan), finding that tourism stimulated local incomes and cultural engagement, albeit with challenges in governance and equitable benefit-sharing. Similarly, Marwat and Faryal (2022) in Hunza Valley noted ecotourism's dual role in income generation and cultural disruption. Malik, Ashraf, and Murtaza (2023) record the influence of climate change—e.g., rising sea levels, erosion, pollution—on livelihoods in Balochistan's coastal region. They argue that adaptation strategies and ecotourism could mitigate economic loss while preserving ecosystems. The expansion of ecotourism is noteworthy, with recent projections suggesting that it could represent as much as 25% of the global tourism market by 2012. Nevertheless, the diversity of definitions and interpretations surrounding ecotourism has raised concerns regarding its capacity to deliver on its commitments, as it may lead to the mismanagement of ecotourist activities (Coles et al., 2014). The results emphasized how significant it is to have clear laws, support from the government, and public support for ecotourism. In another research effort, Heshmati et al. (2022) looked into the main success criteria for the development of ecotourism in Iran using the SWOT analysis technique. They found that the two main factors influencing the growth of ecotourism in Iran are legislative frameworks and private participation. In line with other studies, Hosseini et al. (2021) used SWOT analysis to determine the main elements driving ecotourism in Iran. They proved that attracting investors is essential to boosting Iran's ecotourism efforts. Hasana et al. (2022) conducted a literature analysis to assess earlier ecotourism result(s). The importance of ecotourism for environmental preservation was underlined in their result(s). It presents a difficult task for the government, nevertheless, and calls for the adoption of a number of laws aimed at promoting ecotourism. The significant outcomes confirmed that ecotourism can yield optimistic benefits. Ecotourism conserves the natural environment and raises the community's living standards. The socio-economic impacts, however, may vary due to different economic statuses among the local community groups Chew, Goh & Zainol (2023).

### 2.1 Role of ecotourism in the conservation of the environment

It is accepted that ecotourism is a form of sustainable tourism mostly used for the betterment of the environment, reducing energy consumption, water footprint, plastic usage, and so on. But on the other hand, it is also used to empower the local communities financially and socially. In the 1990s, scientists and the general public became aware of ecotourism, which is a type of nature-focused tourism that contributes to social, economic, and environmental benefits. Gathering experience about natural attractions, local culture and traditions, maintaining sustainability, providing tourists with educational and interpretive facilities, managing the active involvement of locals and ensuring their well-being, preserving conservation, and protecting the environment from degradation are the primary components of ecotourism. While the guarantees of ecotourism are

alluring, it's miles significant to study the quantity to which those claims preserve true, and to recognize the nuanced methods wherein ecotourism can form the financial and social realities of nearby populations and allows to preserve surroundings smooth. (Erdoğan & Erdoğan, 2016).

## **2.2 Eco-tourism as a tool for supporting local communities**

Ecotourism is highly being indorsed as a tool for supporting local communities in resolving their economic and social problems, especially in those areas which are viewed as being peripheral to the nation or the world at large. Moreover, it is progressively being suggested as a fitted and efficient environmental conservation tool. Though ecotourism projects rarely include complete and real input of local communities and project planning and overall management. At best, ecotourism projects aim to obtain locals "involved," but even then, the basis for that "involvement" is often weak. The issue of local involvement may be fully ignored by tourism project, effectively Excluding of locals from ecotourism development planning and management processes. Ecotourism is increasingly being promoted as a method for assisting local communities in resolving economic and social issues, particularly those in areas that are regarded as being peripheral to the nation or the world at large.

development at a rate that is comparable. wildlife, mountains, beaches, and more. Tourism activities generate numerous additional benefits that can be controlled in the local economy and other industries (Telfer and Sharpley, 2015). For example, because tourists want a variety of items and services at their destinations, such as lodging, food and beverages, entertainment, local transportation services, presents, and so on, locals can meet their financial requirements. To address the necessities for movement.

## **2.3 The obstacles for the development of ecotourism**

However, the development of ecotourism is not without its challenges. Local communities may observe the industry in a negative light, due to concerns about environmental damage and harmful socio-cultural influences. The "tourism development dilemma" is a term used to describe the complex and often conflicting attitudes of local communities towards ecotourism. The balancing act between promoting tourism for its economic benefits and managing its social, environmental, and cultural effects is known as the tourism development dilemma; Like job creation, infrastructure development, Cultural Erosion, Community Displacement, and Waste Management. The improvement of the tourism industry, especially ecotourism, has the capability to seriously affect the financial well-being of local communities

Furthermore, research on the link between ecotourism in society and the economy has revealed an increase in arts and crafts in the Eskimo and Indian communities in eastern or western Canada of the United States (Deitch, 2012). This is due to the increased demand for souvenirs from the tourism industry. These data show that tourists encourage the revival of the arts and encourage innovation (Mathieson and Wall, 1982: 167). Therefore, the relationship between ecotourism and cultural preservation is significant for the development of ecotourism. Pride and sometimes awareness of the skills and values of the younger generation (Wearing, 2001). In addition, this environmental preservation can also provide an significant business opportunity for ecotourism. In other words, Mason (2020) believes that ecotourism can have a large financial impact as long as it contributes

to foreign income, government revenue, job creation, and regional development. Tourism Arts and crafts activities are increasing.

#### **2.4 Economic impact**

The concept of ecotourism involves benefits for Native communities and although ecotourism is small-scale and seasonal, it can provide economic benefits at many levels. This includes foreign earnings, increased employment, infrastructure development and local economic diversification (Lindberg, 2001; Wight, 1994). Direct effects include income from tourism expenditure such as food and accommodation. For example, when restaurants and hotels purchase local products and services, there is an indirect impact on the community. Although local communities sometimes receive all the income from tourism, most of the profits from local communities end up in the hands of local elites, outsiders or government agencies (Scheyvens, 1999). One of the most significant factors reflecting the sustainability of ecotourism management is its economic component. Every interaction and flow in the economic system benefits from the added value and advantages that measures in the economic aspect offer. In addition to benefiting tourists, the government, the private sector, and its backers, economic factors also help to empower local communities and preserve the environment. The development of ecotourism requires the cooperation of all stakeholders, as the failure of one will hinder other economic endeavors and cause negligible losses for the local populace. Numerous factors, including micro and macroeconomic ones, can be used to measure economic aspects. These factors directly measure or benefit ecotourism activities and the support they receive.

#### **2.5 Social impact**

Native communities must be involved in all phases of planning and execution for ecotourism development strategy to be successful in the long run. Local communities are not included in the planning, development, and implementation phases of ecotourism, which are mostly carried out at the national level (King et al., 1996). It has been acknowledged that the degree of support and consent from nearby communities is critical to the long-term viability of tourism. Nonetheless, residents of these protected regions frequently lack awareness of ecotourism's potential for the environment, economy, and society, and as a result, they oppose its growth.

#### **2.6 Environmental Impact**

Although there are many examples of ecotourism that have positive effects on the environment, there may also be negative environmental effects such as overuse of natural resources, destruction of wild animals, and overcrowding of natural areas by people due to the increase in Eco tourists (Herbig et al., 2012). Regarding the positive environmental effect, Weaver (2006) stated that ecotourism plays a significant role in providing the best benefit to the environment. Ecotourism provides direct financial support for the conservation of natural ecosystems. Some environmental consequences may be unavoidable given the region's environmental sensitivity. These consequences can be mitigated with adequate planning, such as carrying capacity and zoning, construction licenses, and activities (Bagul 2009).

## **Chapter 3 Methodology**

### **3.1 Research Design**

In the present research, the study utilized quantitative research complemented by firsthand data collection to analyze the link between ecotourism and community change in Baluchistan's coastal region. This research aims to study the problem: "Balochistan's Ecotourism Development and Community Change: A Socioeconomic Transformation Study Along the Coastal Belt."

The study area includes about 760 square kilometers of coastline around Balochistan, which is undergoing gradual, yet marked transformation due to new ecotourism developments. The chosen quantitative approach was appropriate for studying social, economic, cultural, and environmental effects of ecotourism on various community segments.

### **3.2 Target Population and Sampling**

The target population for the present research consists of different parties who may or may not be directly affected by the development of ecotourism, such as:

- Informal small traders and market sellers
- University students and youth in the region
- Women from the coastal communities

In order to guarantee the engagement of different visions, a purposeful sampling methodology was utilized. Participants were drawn from the selected characteristics of the occupation, sex, age brackets, and neighborhoods near ecotourism facilities to ensure community-level changes at a detailed understanding level.

#### **Sample size**

The study used a finite population sampling technique to determine a sample size of 240 respondents. Data was collected through interviews and structured questionnaires administered via Google Forms. To ensure that participants were relevant to the research objectives, purposive sampling was applied, targeting individuals directly involved or affected by ecotourism activities in the Balochistan coastal region.

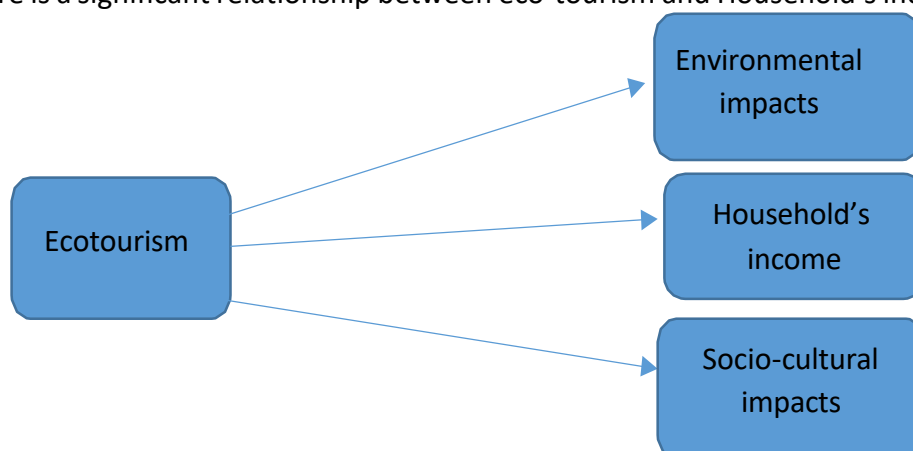
### **3.3 Data Collection Tools and Procedures**

Primary data were gathered through a systematically designed questionnaire-based survey, developed in line with internationally accepted guidelines for ecotourism impact assessment. The questionnaires were conducted via Google Forms, allowing for ease of dissemination, particularly in far-flung or inaccessible areas. The questionnaire was organized into the following thematic topics:

- Perception and Awareness of Ecotourism
- Economic Impact on Local Livelihoods
- Social and Cultural Transformations
- Environmental Awareness and Ecological Impact
- Challenges and Recommendations for Sustainable Ecotourism

### Conceptual framework

H1: There is a significant relationship between eco-tourism and Household's income in Balochistan.



H2: There is a significant relationship between eco-tourism and Environmental impacts in Balochistan

H3: There is a significant relationship between eco-tourism and Socio-cultural impacts in Balochistan.

## CHAPTER 4

### Results and Discussion

#### 4.1 Demographic and Descriptive Analysis of Survey Respondents

This section presents a descriptive analysis of the survey respondents' demographic characteristics and background information. These variables are crucial for understanding the contextual relevance and diversity of perspectives within the study area.

##### Gender Distribution

The survey included both male and female participants, with males comprising the majority of respondents. This gender distribution reflects the typical community engagement dynamics in the region and may influence perceptions related to tourism development and local participation

##### Structural Equation Modelling

Table 4.1: Factor loading and reliability

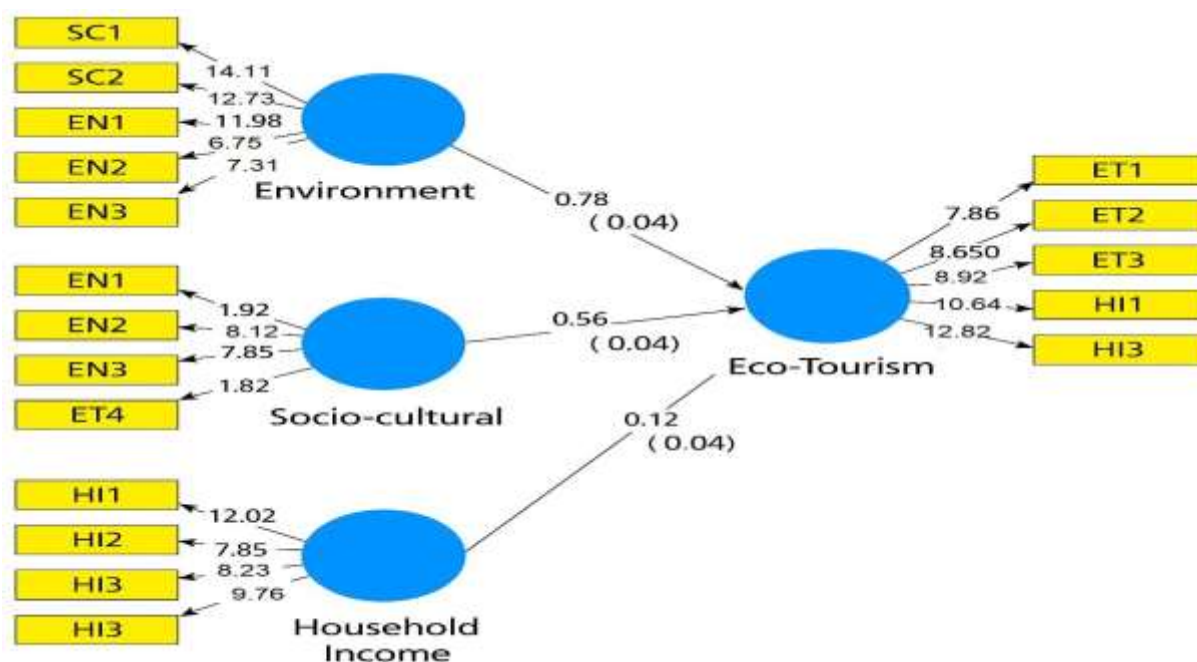
| Construct   | Indicator | Loadings | Cronbach's Alpha | CR   | AVE  |
|-------------|-----------|----------|------------------|------|------|
| Environment | SC1       | 0.88     | 0.87             | 0.91 | 0.67 |
|             | SC2       | 0.84     |                  |      |      |
|             | EN1       | 0.81     |                  |      |      |
|             | EN2       | 0.79     |                  |      |      |

|                  |     |      |      |      |      |
|------------------|-----|------|------|------|------|
|                  | EN3 | 0.76 |      |      |      |
| Sociocultural    | EN1 | 0.83 | 0.81 | 0.88 | 0.64 |
|                  | EN2 | 0.85 |      |      |      |
|                  | EN3 | 0.80 |      |      |      |
|                  | ET4 | 0.75 |      |      |      |
| Household income | HI1 | 0.86 | 0.83 | 0.89 | 0.63 |
|                  | HI2 | 0.82 |      |      |      |
|                  | HI3 | 0.80 |      |      |      |
| Ecotourism       | ET1 | 0.84 | 0.85 | 0.90 | 0.66 |
|                  | ET2 | 0.86 |      |      |      |
|                  | ET3 | 0.81 |      |      |      |
|                  | HI1 | 0.79 |      |      |      |

Table 4.1 show that all loadings are greater than 0.7, the values of Cronbach's alpha and CR are also greater than 0.70 while the value of AVE are greater than 0.5 indicating convergent validity.

Table 4.2: Discriminant Validity – HTMT

| Constructs       | Environment | Sociocultural | Household income | Ecotourism |
|------------------|-------------|---------------|------------------|------------|
| Environment      | --          | 0.72          | 0.68             | 0.80       |
| Sociocultural    | 0.72        | --            | 0.65             | 0.74       |
| Household income | 0.68        | 0.65          | --               | 0.60       |
| Ecotourism       | 0.80        | 0.74          | 0.60             | --         |

**Figure:** Final estimated model

The Structural Equation Model (SEM) shows the relationships between ecotourism, households' income, environment and sociocultural. The model includes four latent variables, i.e., Environment, Socio-cultural, Household Income, and Eco-tourism, each measured by several observed indicators. The measurement model show that all indicators have positive loadings on their respective latent variables which confirmed that they appropriately represent the constructs. Among the environmental indicators, SC1 has the highest loading (14.11), while EN3 has the lowest (6.75). For socio-cultural factors, EN2 is the strongest indicator (8.12), whereas ET4 is the weakest (1.82). In household income, HI1 (12.02) is the most influential indicator. The structural model highlights that there is positive and significant relationship between environment and ecotourism with coefficient being 0.78 and standard error is 0.04. household income and sociocultural are positively associated with ecotourism.

These results indicate that environmental factors are the most significant contributors to eco-tourism, followed by socio-cultural aspects. Household income has a positive but comparatively small influence. Overall, the findings suggest that improving environmental quality, promoting cultural heritage, and enhancing community participation are key strategies for fostering eco-tourism development, while economic factors play a supportive role. Table 4.2 show the HTMT values. All the values are less than 0.90 which show indicate good discriminant validity.

#### 4.2 Discussion:

The findings emphasize ecotourism's perceived benefits in raising environmental awareness, fostering conservation practices, and preserving local culture. Respondents recognize its role in

community pride and empowerment, particularly regarding marginalized groups such as women and youth.

Yet, concerns remain regarding the lack of formal waste management systems, limited institutional support, and the risk of cultural erosion or environmental degradation. These result(s) highlight a nuanced community perspective that supports ecotourism's potential while acknowledging its challenges.

From a methodological perspective, the high internal consistency among positively framed items suggests a coherent measurement scale for perceived ecotourism benefits. The divergence of negatively framed items suggests the scale may be multidimensional, possibly requiring bifactor analysis in future research.

#### **4.3 Recommendations & Policy Implications**

##### **Policy Recommendations:**

- Strengthen Institutional Support: Government and NGO support was rated lowest, indicating a need for more visible and effective involvement in ecotourism initiatives (e.g., funding, regulation, capacity building).
- Formalize Waste & Pollution Management Systems: With a mean of 2.65 and moderate correlation with other items, waste management requires structural investment to align with sustainable tourism principles.
- Engage Local Communities in Eco-Practices: Empowerment and community involvement items scored positively and correlated well with conservation-focused statements. Stakeholders should enhance these programs (e.g., eco-guides, local entrepreneurship).

## **CHAPTER 5**

### **Conclusion**

This study investigates the impact of ecotourism on household's income, sociocultural and environment in coastal belt of Balochistan. The respondent of the data includes different coastal belt areas of Balochistan such as Gwadar, Jiwani, Pasni, Ormara and tourist companies in Karachi who belongs to coastal belt of Balochistan. The sample size of the study is 120 with 65% being male and 35% being female. The study used different statistical techniques to analyze the collected data using mixed method. For quantitative data the study used structural equation modeling (SEM). The estimated results revealed that ecotourism has positive and statistically significant impact on household's income, sociocultural wellbeing and environment in coastal belt of Balohistan. Further to enhance the result the study also reports the frequency distribution of the responses regarding the ecotourism effect on household income, sociocultural change and environment.

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### 5.3 Policy Recommendation:

#### Promote Community Based Ecotourism

- Empower local residents through training, microfinance, and cooperative business models to ensure inclusive economic growth.
- Introduce skill development programs in hospitality, environmental awareness, and language training, with a strong focus on women's and youth participation.

#### Strengthen Environmental Protection and Sustainability

- Enforce strict environmental regulations to control pollution, overfishing, and habitat destruction.
- Invest in eco-friendly infrastructure, including clean water supply, renewable energy solutions, and sustainable transport facilities.

#### Preserve and Promote Cultural Heritage

- Provide financial and technical support for traditional crafts, cultural performances, and heritage-based tourism activities.
- Conduct awareness campaigns to highlight the cultural identity and heritage value of the coastal communities.

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