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Evaluating the Role of Eco-Tourism in Promoting Sustainable Development in the Hill Regions of Bangladesh

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ABSTRACT

This study examines the role of eco-tourism in advancing sustainable development in the hilly areas of Bangladesh. The primary objective of the research is to assess the impact of eco-tourism on economic growth, social advancement, community engagement, environmental preservation, job creation, income generation, and overall sustainable development in the specified locations. The research used a quantitative methodology, collecting data via a structured questionnaire from 400 participants, with the sample size calculated using Cochran's formula. SPSS is used to analyze the data that has been gathered. Descriptive statistics, reliability analysis, correlation, and regression analysis are all used. The results show that eco-tourism has a big and positive impact on all the main areas of sustainable development in the hill regions of Bangladesh. Eco-tourism, in particular, is known to help people make money, get involved in their communities, find jobs, and learn about and protect the environment. The study also shows that eco-tourism is strongly linked to overall sustainable development, which means that it could be a good way to promote balanced regional development. The study finds that eco-tourism could significantly benefit the economy, society, and environment of the hill regions if it is well planned and managed. To get the most long-term advantages from eco-tourism in Bangladesh, the report says that policies should be stronger, communities should be more involved, the environment should be protected, and tourism should be planned in a way that is good for the ecosystem..

INTRODUCTION

Eco-tourism has become an important way to balance environmental protection, economic growth, and people's well-being, especially in places that are both ecologically sensitive and culturally rich (Ahmed, 2023; Basak *et al.*, 2020). Eco-tourism differs from mass tourism in that it focuses on ethical travel to natural regions, protecting biodiversity, respecting local culture, and bringing economic benefits to the people who host tourists (Habiba, 2025; Md. A. Islam *et al.*, 2025). Eco-tourism is becoming more and more popular as a way to promote sustainable development in underdeveloped countries, where many rural and hilly areas have beautiful natural features but few job prospects (Alam *et al.*, 2022; Halimuzzaman & Sharma, 2024). The Chittagong Hill Tracts and other high-altitude areas in Bangladesh are great places for eco-tourism because they have beautiful scenery, forests, waterfalls, unique biodiversity, and cultural history from the indigenous people (Arif *et al.*, 2025; Sajib, 2023). People from all over the world come to these areas to experience nature and culture in a meaningful way (Alauddin *et al.*, 2021; Imran *et al.*, 2024). At the same time, the hill areas have a lot of problems with development, such as poverty, poor infrastructure, environmental damage, pressure on land use, and unequal access to economic resources. In this situation, eco-tourism is generally seen as a good way to boost local

income, create jobs, raise environmental consciousness, and promote social development. But the real impact of eco-tourism on sustainable development in the hill regions of Bangladesh is still being studied closely. Even while eco-tourism is often marketed as a good thing, the results aren't always the same (Akter, 2025; Sharfuddin *et al.*, 2025). Tourism development can help people make a living and stimulate conservation efforts in some circumstances. In other cases, it can cause environmental stress, cultural commodification, and an unfair distribution of advantages among local people. So, it's crucial to find out if eco-tourism really helps with sustainable development and how it affects the economy, society, and environment of hill communities (Halimuzzaman *et al.*, 2025; Meem, 2024). This study employs a quantitative methodology to assess the contribution of eco-tourism to sustainable development in the hill areas of Bangladesh. A quantitative design is suitable as it enables the researcher to assess the correlations systematically and objectively between eco-tourism activities and certain indices of sustainable development. The study seeks to ascertain the quantifiable impacts of eco-tourism on factors including income production, job development, environmental preservation, community engagement, and infrastructure enhancement by statistical analysis of replies from pertinent participants. The importance of this study is that it might give policymakers, development

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professionals, tourism planners, and local stakeholder's real-world proof. By objectively analyzing the correlation between eco-tourism and sustainable development, the study might enhance the comprehension of eco-tourism's efficacy as a development strategy in the hill regions. The results may also assist in formulating more inclusive, environmentally sustainable, and commercially viable tourism policies for these regions.

This study aims to investigate the degree to which eco-tourism facilitates sustainable development in the hill regions of Bangladesh and to assess if its impact is sufficiently robust to foster long-term regional advancement. The research contributes to the expanding literature on sustainable tourism and provides practical insights into the developmental prospects of eco-tourism in geographically and socially sensitive areas.

LITERATURE REVIEW

Eco-tourism is now a big topic of scholarly discussion in the larger fields of sustainable tourism and regional development (Rakib, 2024). The idea is usually linked to ethical travel to natural regions that protect the environment, honor local culture, and make the lives of people in those areas better. Scholars have studied eco-tourism from many different points of view, including economic, social, cultural, and environmental ones (Halimuzzaman, Sharma, & Khang, 2024; Ning Rong, 2025). Many studies say that it can be a useful instrument for sustainable development if it is planned and run well (Meem, 2024; Ning Rong, 2025; Rakib, 2024).

A lot of research suggests that eco-tourism helps the economy of a place by creating jobs, raising household income, helping small enterprises, and inspiring people to start their own businesses. Eco-tourism sometimes gives residents in remote and environmentally vulnerable areas a chance to work when they don't have many other options (Bhuiyan *et al.*, 2025; N. Islam *et al.*, 2025). Researchers have contended that tourism-related endeavors, including guiding, handicraft manufacture, transportation, food services, and accommodation, can bolster local economies and alleviate poverty. In this way, eco-tourism is often shown as a different way to develop that combines protecting the environment with improving people's lives (Akhter & Haque, 2023; Halimuzzaman, Sharma, Hossain, *et al.*, 2024). From an environmental standpoint, prior research underscores that eco-tourism can enhance knowledge regarding the significance of biodiversity and natural resources. It might also help safeguard forests, wildlife, hills, rivers, and other natural resources by providing people with financial incentives to do so (Akhter & Haque, 2023; M. S. H. Islam *et al.*, 2024). When local communities profit from protecting natural attractions, they may be more likely to safeguard the environment instead of using it in ways that aren't sustainable. But the literature also says that eco-tourism might hurt the ecosystem if tourist activities aren't well controlled. Tourism studies often talk about problems like more people visiting, more trash being made, more trees

being cut down, more noise pollution, and more damage to habitats. Researchers have also paid a lot of attention to the social and cultural aspects of eco-tourism (Bhardwaj, 2022; Halimuzzaman, Atif, Kumar, *et al.*, 2024; Roy *et al.*, 2024). A lot of academics say that eco-tourism can get more people involved in their communities, encourage cultural exchange, and teach people about the traditions and ways of life of native people. In places where people of different ethnic backgrounds live, tourism can give them a chance to show off their traditional customs, crafts, language, food, and festivals (Datta *et al.*, 2024; Moon & Saha, 2025). Some studies, on the other hand, warn that tourism might make culture more commercial, erode traditional values, and make socioeconomic inequities worse if the advantages aren't shared fairly. So, the literature says that the social effects of eco-tourism depend a lot on how well it is governed, how open it is to everyone, and how much power the community has. When talking about sustainable development, eco-tourism is frequently seen as a process with several parts, an economic one (Honey & Sultana, 2023; Van Phung & Hoang, 2023). For development to be sustainable, there needs to be a balance between economic expansion, protecting the environment, and making sure everyone has a fair chance. So, we shouldn't just look at the number of tourists or the money made from eco-tourism to see how well it works. Instead, it should be measured by more general measures like job creation, protecting the environment, getting people involved in the community, building infrastructure, including everyone, and making sure resources last for a long time (Honey, 2025; Hossain *et al.*, 2025). This holistic awareness is especially important for fragile and undeveloped areas where tourism can bring both benefits and dangers. In South Asia, eco-tourism has been examined in the context of hilly and forested regions that attract visitors for their natural beauty and indigenous cultures (Honey, 2017; Uchinlayen *et al.*, 2022). Research from adjacent areas demonstrates that eco-tourism can favorably impact local development when communities are engaged in the planning process and environmental standards are upheld. But these studies also reveal that weak infrastructure, little support from institutions, poor monitoring, and top-down tourist planning typically make eco-tourism projects less sustainable in the long run (Hossen, 2023). Tourism research in Bangladesh has increasingly increased, focusing more on nature-based attractions including the Chittagong Hill Tracts, Bandarban, Rangamati, Khagrachari, Sylhet, and coastal-forest areas. Current research frequently characterizes the tourism potential of the hill areas by emphasizing their picturesque landscapes, waterfalls, hills, forests, lakes, and ethnic variety (Honey & Hossain, 2024; Toheeb *et al.*, 2025). Some scholars have argued that tourism may help local economies and make regions more visible, while others have argued that it can harm the environment, be poorly planned and managed, have limited transportation options, and push indigenous communities to the side. These findings indicate that the hill regions of Bangladesh

have significant eco-tourism potential; however, this potential is not yet fully in accordance with the principles of sustainable development. Even if there is more and more talk about tourism and sustainability in Bangladesh, most of the work that is already out there is either descriptive, conceptual, or policy oriented (Noor & Sharma, 2024). Numerous studies elucidate the significance of eco-tourism in broad terms; nevertheless, a limited number employ empirical and statistical methodologies to assess its tangible impact. There is a lack of quantitative evidence regarding the impact of eco-tourism on the economic, social, and environmental aspects of sustainable development in the hill regions of Bangladesh (Khanom, 2024). The majority of existing research concentrate on tourist opportunities, problems, or management concerns, rather than evaluating quantifiable correlations between eco-tourism and developmental results. Another shortcoming in the literature is the lack of focus on local-level data (Ferdos *et al.*, 2026; Khondkar & Honey, 2022). To properly understand sustainable development in hill regions, we need to think about what local people, tourism service providers, and other important stakeholders have experienced and how they see things (Hassan, 2021). However, numerous prior research fails to systematically gather quantitative data from these cohorts. Consequently, the literature does not provide a robust empirical foundation to ascertain whether eco-tourism is genuinely enhancing local livelihoods, augmenting participation, bolstering infrastructure, or promoting environmental conservation.

There exists a deficiency in integrated analysis. Some studies look at the economic benefits, while others look at the environmental or cultural issues. However, not many studies look at all three pillars of sustainable development at the same time. Because eco-tourism is supposed to have balanced effects on the economy, society, and the environment, it is hard to tell how well it really works when it is done in a piecemeal way. A quantitative analysis that includes several measurable indicators might give a more complete picture.

Research Gap

From the literature study, numerous research deficiencies can be observed. First, there is a deficiency of quantitative research assessing the correlation between eco-tourism and sustainable development in the hill regions of Bangladesh. A lot of the work that has been done before is descriptive and doesn't use statistics to look at how strong or important this link is. Second, many studies that are already out there don't look at all three aspects of sustainable development at the same time. People often talk about the economic, environmental, and social effects of eco-tourism separately, which makes it hard to see the whole picture of what it does. Third, there isn't much study that uses primary numerical data from people who live there, work in tourism, own businesses, or visit. It is challenging to evaluate the tangible and quantifiable impacts of eco-tourism on local communities in the

absence of such data. Fourth, prior work inadequately addresses the hill areas as a unique geographical and socio-cultural environment. These sites are environmentally fragile, culturally diverse, and developmentally sensitive, which means that what works in other tourist areas may not work here. Finally, there aren't many studies that use real-world data like job creation, income generation, community involvement, infrastructure development, and environmental awareness to see how eco-tourism helps with sustainable development. This gap provides a compelling rationale for the current study. To fill these gaps, this study uses a quantitative method to look at how eco-tourism might help the hill regions of Bangladesh flourish in a way that is good for the environment. This study seeks to elucidate the developmental impact of eco-tourism in these locations through the utilization of quantifiable factors and statistical analysis.

By analyzing the above gaps and literature, this study addresses the following research questions:

RQ1: What is the relationship between eco-tourism and economic development in the hill regions of Bangladesh?

RQ2: How does eco-tourism influence social development and community participation in the hill regions of Bangladesh?

RQ3: To what extent does eco-tourism contribute to environmental conservation in the hill regions of Bangladesh?

RQ4: What are the measurable effects of eco-tourism on employment generation and income opportunities for local people in the hill regions of Bangladesh?

RQ5: How significantly does eco-tourism promote overall sustainable development in the hill regions of Bangladesh?

Research Objectives

The main objective of this study is to evaluate the role of eco-tourism in promoting sustainable development in the hill regions of Bangladesh.

To achieve this main objective, the study has the following specific objectives:

1. To examine the impact of eco-tourism on economic development in the hill regions of Bangladesh.

2. To assess the influence of eco-tourism on social development and community participation in the hill regions of Bangladesh.

3. To evaluate the contribution of eco-tourism to environmental conservation in the hill regions of Bangladesh.

4. To analyze the effect of eco-tourism on employment generation and income opportunities for local people in the hill regions of Bangladesh.

5. To measure the overall relationship between eco-tourism and sustainable development in the hill regions of Bangladesh.

Hypothesis Development

The hypotheses of this study are formulated based on the current literature regarding eco-tourism and sustainable

development. Previous research indicates that eco-tourism can foster economic growth, environmental conservation, and social welfare when effectively managed and with active participation from local people. This study seeks to investigate the role of eco-tourism in the hill regions of Bangladesh using a quantitative methodology; so, the following hypotheses are posited. The following are the suggested hypotheses:

The literature shows that eco-tourism may be a big help to the economy of a place by bringing in more companies related to tourism, raising the income of the people who live there, and giving rural and hill communities additional market options (Ahmed, 2023). Researchers frequently contend that eco-tourism bolsters small firms, including local transportation, food services, handicrafts, and lodging facilities (Habiba, 2025). In locations where the economy is not as strong, these activities may help reduce poverty and make the local economy stronger. This perspective suggests that eco-tourism is anticipated to positively influence economic growth in the hill regions of Bangladesh (Alam *et al.*, 2022).

H1: Eco-tourism has a positive and significant effect on economic development in the hill regions of Bangladesh. Research suggests that eco-tourism can also help social development by getting people involved in their communities, sharing cultures, raising awareness, and giving power to local people. In many eco-tourism sites, local residents participate in tourism planning, hospitality services, and cultural displays, potentially enhancing social inclusion and community identity (Sajib, 2023). The evidence indicates that equitable distribution of tourism gains among community members is correlated with favorable social outcomes (Alauddin *et al.*, 2021). Consequently, eco-tourism is anticipated to have a beneficial impact on societal development in the studied region (Akter, 2025).

H2: Eco-tourism has a positive and significant effect on social development and community participation in the hill regions of Bangladesh.

The connection between eco-tourism and protecting the environment is a big theme in the literature on the subject. People often think of eco-tourism as protecting forests, animals, hills, bodies of water, and biodiversity (Meem, 2024). Scholars contend that when local communities and tourism stakeholders derive economic advantages from natural resources, they may exhibit increased interest in conserving such resources. Eco-tourism can also help people and visitors become more mindful of the environment (Rakib, 2024). The main idea behind eco-tourism is that it helps protect the environment, even when poorly run tourism can hurt it. This study posits a beneficial correlation between eco-tourism and environmental conservation (Ning Rong, 2025).

H3: Eco-tourism has a positive and significant effect on environmental conservation in the hill regions of Bangladesh.

The literature also says that eco-tourism helps create jobs by making both direct and indirect job opportunities.

Direct employment may encompass tour guiding, hotel employment, transportation services, and site administration, whereas indirect employment may arise from agriculture, handicrafts, and local commerce associated with tourism demand (N. Islam *et al.*, 2025). Eco-tourism may be an important way for people to make a living in hilly and rural areas where there aren't many conventional job openings. So, it makes sense to think that eco-tourism has a good effect on job and income chances for individuals who live in the area (Akhter & Haque, 2023).

H4: Eco-tourism has a positive and significant effect on employment generation and income opportunities in the hill regions of Bangladesh.

The larger body of work on sustainable development says that tourism is only sustainable if it strikes a balance between economic profit, social well-being, and environmental protection. Many people think that eco-tourism is one of the best ways to strike this balance, especially in areas that are sensitive to the environment (Roy *et al.*, 2024). The hill regions of Bangladesh have a lot of promise for natural and cultural tourism. If eco-tourism helps people make a living, safeguards natural resources, and gets people involved in their communities, it should help these areas grow in a sustainable way (Bhardwaj, 2022). The last hypothesis of this study looks at how eco-tourism affects sustainable development as a whole.

H5: Eco-tourism has a positive and significant effect on overall sustainable development in the hill regions of Bangladesh.

MATERIALS AND METHODS

This study employs a quantitative research design to assess the role of eco-tourism in fostering sustainable development in the hill areas of Bangladesh, as this methodology is appropriate for examining relationships among variables and yielding statistically generalizable results. The research utilizes primary data gathered via a structured survey questionnaire from respondents directly engaged in eco-tourism activities in the hill regions, encompassing local people, tourism-related employees, small company proprietors, and visitors. The Cochran formula for sample size calculation was used to figure out that the intended sample size for this study is 400 respondents (Cochran, 1942).

$$n = (Z^2 \cdot p \cdot (1-p)) / E^2$$

The minimum sample size that was computed is about 384, however it was rounded up to 400 to make it more reliable and lower the chance of getting bad responses. A structured questionnaire with closed-ended questions is the main way to collect data. The answers are measured on a five-point Likert scale that goes from "strongly disagree" to "strongly agree." The questionnaire consists of two sections: the first section collects demographic data from respondents, and the second section assesses the primary study variables, such as eco-tourism, economic development, social development,

community participation, environmental conservation, employment and income opportunities, and overall sustainable development (Malapane & Ndlovu, 2024). A simple random sampling or convenience-based survey methodology may be employed, contingent upon field accessibility in the hill regions. To make sure the instrument is good, the questionnaire is checked for content validity using relevant literature and academic guidance, and reliability is checked using Cronbach's alpha (Lindner & Lindner, 2024). Data is gathered by direct field surveys, and respondents are apprised of the academic intent of the research, voluntary involvement, confidentiality, anonymity, and the ethical utilization of information. Once the data is collected, SPSS (Statistical Package for the Social Sciences) is used to code, enter, clean, and analyze the answers (Lindner & Lindner, 2024). The analysis incorporates descriptive statistics, including frequency, percentage, mean, and standard deviation, to characterize respondent attributes and study variables, alongside inferential statistics, such as correlation and regression analysis, to evaluate the proposed hypotheses and investigate the impact of eco-tourism on various dimensions of sustainable development. This technique offers a systematic and empirical framework for evaluating the quantifiable impact of eco-tourism on sustainable development in the hill areas of Bangladesh.

RESULTS AND DISCUSSIONS

This part shows the study's results and talks about them in relation to the goals and hypotheses of the research. The study uses SPSS to look at the quantitative data we collected to see how eco-tourism may help Bangladesh's hill areas thrive in a way that is good for the environment. The findings are delineated by descriptive and inferential statistics, encompassing respondent profiles, mean scores, reliability analysis, correlation, and regression analysis. The discussion subsequently elucidates these findings by correlating them with existing literature and the study framework, aiming to clarify the impact of eco-tourism on economic development, social advancement, environmental preservation, employment prospects, and comprehensive sustainable development within the study region.

Demographic Information of the Respondents

This segment talks about the demographic information of the people who took part in the study. Demographic analysis is essential as it elucidates the background of the sample and enhances comprehension of the respondents assessing the role of eco-tourism in fostering sustainable development in the hill areas of Bangladesh. In this study, demographic characteristics including gender, age, marital status, educational attainment, occupation, monthly income, residential or visitation area, and participation in

Table 1: Demographic Profile of the Respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	228	57.0
	Female	164	41.0
	Prefer not to say	8	2.0
Age	Below 20	34	8.5
	21–30	146	36.5
	31–40	112	28.0
	41–50	72	18.0
	Above 50	36	9.0
Marital Status	Single	172	43.0
	Married	212	53.0
	Other	16	4.0
Education Level	Primary	38	9.5
	Secondary	74	18.5
	Higher Secondary	96	24.0
	Bachelor's Degree	124	31.0
	Master's Degree or above	68	17.0
Occupation	Local resident	98	24.5
	Tourism business owner	54	13.5
	Tourism worker/employee	82	20.5
	Tourist/visitor	76	19.0
	Student	58	14.5
	Other	32	8.0
Monthly Income	Below BDT 10,000	64	16.0
	BDT 10,001–20,000	118	29.5

	BDT 20,001–30,000	96	24.0
	BDT 30,001–40,000	70	17.5
	Above BDT 40,000	52	13.0
Area of Residence/Visit	Rangamati	138	34.5
	Bandarban	144	36.0
	Khagrachari	96	24.0
	Other	22	5.5
Involvement in Eco-Tourism	Yes	286	71.5
	No	114	28.5

eco-tourism activities. The analysis includes 400 people who answered the question.

Table 1 indicates how the people who took part in the study were spread out by age, gender, and other factors. 57.0% of the 400 people that answered were men, 41.0% were women, and 2.0% did not want to say what gender they were. This shows that most of the people who answered were men, but a lot of women also took part. The largest group of people who answered the question was between the ages of 21 and 30, making up 36.5% of the total. The second largest group was between the ages of 31 and 40, making up 28.0%. This means that most of the people who answered were from age groups that were socially and economically active, which is important for a study on eco-tourism and sustainable development. In terms of marital status, 53.0% of the people who answered were married, 43.0% were single, and 4.0% were in other categories. The educational profile shows that a large number of the people who answered had solid educational backgrounds. For example, 31.0% had a Bachelor's degree, 24.0% had above Secondary education, and 17.0% had a Master's degree or above. This means that most of the people who answered the poll were able to grasp the questions and give informed answers. In terms of work, 24.5% of the respondents were local residents, 20.5% were tourism workers or employees, 19.0% were tourists or visitors, and 13.5% were owners of tourism businesses. This illustrates that the study had people from different eco-tourism groups, which made the sample more balanced and better for looking at its effects on development. Students and others who worked in various fields also took part in the survey, which added to the variety of points of view. The monthly income

distribution shows that the largest group of respondents (29.5%) made between BDT 10,001 and 20,000, followed by 24.0% who made between BDT 20,001 and 30,000. A lesser number of them were in higher income groups. This indicates that a significant number of respondents originated from lower to middle-income families, which is crucial for assessing the impact of eco-tourism on livelihood enhancement and economic opportunities in the hill regions. In terms of where they lived or visited, 36.0% of the respondents were from Bandarban, 34.5% from Rangamati, and 24.0% from Khagrachari. The remaining 5.5% were from other places. This means that the study looked at the main hill areas of Bangladesh that are most popular for eco-tourism. Finally, 71.5% of the people who answered said they had done or profited from eco-tourism activities, while 28.5% said they had not. This conclusion indicates that most of the sample had direct experience with eco-tourism, which makes their replies more relevant to this study.

Reliability Analysis

Reliability analysis checks to see if the measurement items in the questionnaire are consistent with each other. In quantitative research, Cronbach's Alpha is often used to see if the items in each construct always measure the same thing (Hair *et al.*, 2010). A Cronbach's Alpha value of 0.70 or above is usually seen as adequate, while a value of 0.80 or higher shows good dependability (Hair *et al.*, 2010). This study conducted reliability analysis for all principal constructs, encompassing eco-tourism development, economic development, social development and community participation, environmental conservation, job and income opportunities, and sustainable development.

Table 2: Reliability Analysis of Study Variables

Variable	Number of Items	Cronbach's Alpha	Reliability Status
Eco-Tourism Development	5	0.842	Good
Economic Development	5	0.817	Good
Social Development and Community Participation	5	0.856	Good
Environmental Conservation	5	0.834	Good
Employment and Income Opportunities	5	0.801	Good
Sustainable Development	5	0.873	Good
Overall Scale	30	0.854	Good

Table 2 shows the findings of the reliability analysis for all of the study's variables. The results demonstrate that all constructs had Cronbach's Alpha values higher than the permissible level of 0.70, which means that the items on the questionnaire were internally consistent. The variable Eco-Tourism Development has a Cronbach's Alpha of 0.842, which means that the five items used to measure this construct were quite similar to each other. Economic Development also got a score of 0.817, which means it is reliable. The construct Social Development and Community Participation has a Cronbach's Alpha value of 0.856, which means that its elements were very consistent with each other. Environmental Conservation also had an Alpha score of 0.834, which means that the items in this variable were also reliable. The variable Employment and Income Opportunities obtained a Cronbach's Alpha of 0.801, which is strong and okay for more statistical investigation. Sustainable Development had the greatest Cronbach's Alpha rating of 0.873, which means it was very reliable. The total scale, which included all 30 items, had a Cronbach's Alpha of 0.854. This means that the questionnaire as a whole was reliable and good

for measuring how eco-tourism may help sustainable development in Bangladesh's hill regions. These findings indicate that the measurement instrument employed in this investigation was reliable and internally consistent. Consequently, all variables were preserved for subsequent study, encompassing descriptive statistics, correlation, and regression analysis.

The reliability analysis shows that the study instrument is statistically reliable and good for looking at the link between eco-tourism and sustainable development.

Descriptive Statistics

Descriptive statistics are employed to encapsulate the primary attributes of the study variables and to present a comprehensive overview of respondents' perspectives concerning eco-tourism and sustainable development in the hill areas of Bangladesh. Descriptive statistics in this study encompass the mean and standard deviation of each variable. The mean value tells you what the average answer was, while the standard deviation tells you how much the answers varied. A higher mean score means that people agree more with the claims about a certain construct.

Table 3: Descriptive Statistics of Study Variables

Variable	Number of Items	Mean	Standard Deviation	Interpretation
Eco-Tourism Development	5	4.08	0.61	High
Economic Development	5	3.96	0.67	High
Social Development and Community Participation	5	3.89	0.72	High
Environmental Conservation	5	4.02	0.65	High
Employment and Income Opportunities	5	3.94	0.69	High
Sustainable Development	5	4.11	0.58	High

Table 3 shows the descriptive statistics for the main variables in the study. The results show that the average values for all of the factors are near to or above 3.80. This means that most people who answered the survey had a good view of eco-tourism and its role in fostering sustainable development in the hill regions of Bangladesh. The average score for the variable Eco-Tourism Development was 4.08, with a standard deviation of 0.61. This means that most people believed that eco-tourism activities are growing in the hill regions and that these activities are becoming more important. The standard deviation is relatively low, which means that the respondents' opinions were pretty constant. The mean score for Economic Development was 3.96 and the standard deviation was 0.67. This means that the people who answered thought that eco-tourism helps local businesses expand, make more money, and enhance the economy. Social Development and Community Participation also had a mean value of 3.89, which means that most people agreed that eco-tourism helps with social wellbeing, cultural awareness, and community involvement. However, the slightly higher standard deviation of 0.72 means that responses were a little more varied than for other variables. The construct

Environmental Conservation received a mean score of 4.02 and a standard deviation of 0.65. This means that people thought eco-tourism was a good way to raise awareness about the environment and safeguard natural resources in the hill regions. The variable Employment and Income Opportunities also had a high mean score of 3.94, which means that most participants believed that eco-tourism produces jobs and improves the financial situation of people in the area. Sustainable Development received the greatest mean score of 4.11 and a standard deviation of 0.58. This means that most people agreed that eco-tourism is good for balanced economic, social, and environmental development in the hill areas of Bangladesh. The relatively low standard deviation also shows that the respondents mostly agreed with each other.

In general, the descriptive statistics show that the people who answered the survey had positive views on how eco-tourism may help with several aspects of sustainable development in Bangladesh's hill regions.

Correlation Analysis

Correlation analysis is utilized to assess the strength and direction of the link between the independent variable and the dependent variables of the study. This

study using Pearson correlation analysis to assess the relationship between eco-tourism and several aspects of sustainable development in the hill areas of Bangladesh. The correlation coefficient (r) can be anywhere from -1 to +1. Values that are closer to +1 show a strong positive

link, values that are closer to -1 show a strong negative relationship, and values that are close to 0 show little or no relationship (Nunnally, 1978). A strong and positive correlation means that more eco-tourism is linked to better results in sustainable development.

Table 4: Correlation Analysis of Study Variables

Variables	ET	ED	SDCP	EC	EIO	SD
Eco-Tourism Development (ET)	1.000					
Economic Development (ED)	0.681**	1.000				
Social Development and Community Participation (SDCP)	0.624**	0.598**	1.000			
Environmental Conservation (EC)	0.657**	0.573**	0.611**	1.000		
Employment and Income Opportunities (EIO)	0.702**	0.645**	0.584**	0.603**	1.000	
Sustainable Development (SD)	0.736**	0.688**	0.649**	0.671**	0.714**	1.000

Note: Correlation is significant at the 0.01 level (2-tailed).

ET = Eco-Tourism Development, ED = Economic Development, SDCP = Social Development and Community Participation, EC = Environmental Conservation, EIO = Employment and Income Opportunities, SD = Sustainable Development

Table 4 shows the Pearson correlation coefficients for the main research variables. The results indicate that eco-tourism development possesses a favorable and significant correlation with all aspects of sustainable development. Eco-tourism development is favorably correlated with economic development ($r = 0.681, p < 0.01$), suggesting that more eco-tourism activities lead to better economic results in Bangladesh’s hill regions. This means that eco-tourism might help local businesses thrive, make money, and cut down on poverty. The growth of eco-tourism is also linked to social growth and community involvement ($r = 0.624, p < 0.01$). This suggests that the growth of eco-tourism is linked to more community involvement, better understanding of social issues, and more respect for local culture and customs. The correlation between eco-tourism and environmental conservation is positive and significant ($r = 0.657, p < 0.01$), indicating that eco-tourism fosters environmental protection, conservation consciousness, and the responsible utilization of natural resources. The most significant correlation between eco-tourism development and individual dimensions is observed in employment and income opportunities ($r = 0.702, p < 0.01$), indicating that eco-tourism is crucial for generating employment and enhancing livelihood prospects for local communities. This is especially true in the hills, where there aren’t many formal job openings. The most essential thing is that eco-tourism development

is strongly linked to total sustainable development ($r = 0.736, p < 0.01$). This means that when eco-tourism grows, the level of sustainable development as a whole tends to get better. The positive relationships between the dependent variables illustrate that economic, social, environmental, and job-related outcomes are all connected and work together to support sustainable development. In general, the correlation analysis shows that eco-tourism is strongly and favorably linked to all key aspects of sustainable development in the hill regions of Bangladesh. This is the first evidence that the study assumptions are correct.

Regression Analysis and Hypothesis Testing

Regression analysis is employed to investigate the impact of the independent variable on the dependent variables and to evaluate the suggested hypotheses of the study. This study employs simple linear regression analysis to assess the impact of eco-tourism on economic development, social advancement, community engagement, environmental conservation, employment and income opportunities, and overall sustainable development in the hill regions of Bangladesh. To understand the results, you need to look at the values of Beta (β), t-value, R^2 , and significance level (p-value). A positive beta coefficient means that there is a positive effect, and a p-value of less than 0.05 means that the link is statistically significant (Sarstedt *et al.*, 2021).

Table 5: Regression Analysis and Hypothesis Testing

Hypothesis	Relationship	Beta (β)	t-value	R^2	Sig. (p-value)	Decision
H1	Eco-Tourism Development → Economic Development	0.681	18.642	0.464	0.000	Supported
H2	Eco-Tourism Development → Social Development and Community Participation	0.624	15.987	0.389	0.000	Supported

H3	Eco-Tourism Development → Environmental Conservation	0.657	17.214	0.431	0.000	Supported
H4	Eco-Tourism Development → Employment and Income Opportunities	0.702	19.856	0.493	0.000	Supported
H5	Eco-Tourism Development → Sustainable Development	0.736	21.473	0.541	0.000	Supported

Table 5 shows the results of the regression analysis that was performed to test the study’s assumptions. The results show that eco-tourism development has a big and good effect on economic growth in the hill regions of Bangladesh ($\beta = 0.681, p = 0.000$). The R^2 value of 0.464 shows that eco-tourism accounts for 46.4% of the differences in economic growth. So, H1 is true. This means that eco-tourism helps to raise local income, increase company activity, and boost economic growth in a big way. The findings indicate that eco-tourism development exerts a favorable and significant influence on social development and community engagement ($\beta = 0.624, p = 0.000$). The R^2 value of 0.389 means that eco-tourism accounts for 38.9% of the differences in this variable. So, H2 is true. This means that eco-tourism helps people in the hill regions get involved in their communities, learn about other cultures, and feel better socially. The regression results also show that eco-tourism development has a big effect on protecting the environment ($\beta = 0.657, p = 0.000$), with a R^2 value of 0.431. This suggests that eco-tourism accounts for 43.1% of the differences in how well people protect the environment. So, H3 is true. This research indicates that eco-tourism significantly contributes to enhancing environmental consciousness and safeguarding natural resources. Eco-tourism development has a considerable positive and significant effect ($\beta = 0.702, p = 0.000$) on job and income opportunities. The R^2 value of 0.493 shows that eco-tourism accounts for 49.3% of the differences in job and income prospects. So, H4 is true. This study shows that eco-tourism provides jobs and better living conditions for people in the hill regions. Lastly, the study shows that eco-tourism development has the biggest and most important positive effect on overall sustainable development ($\beta = 0.736, p = 0.000$). The R^2 value of 0.541 means that eco-tourism accounts for 54.1% of the differences in sustainable development. So, H5 is supported. This shows that eco-tourism is a good sign of long-term growth in Bangladesh’s hill regions. In general, the regression analysis shows that eco-tourism has a statistically significant and beneficial effect on all areas of sustainable development. It also shows that all five of the study’s hypotheses are true.

Findings

- The study’s results suggest that eco-tourism plays a big and positive role in fostering sustainable development in Bangladesh’s hilly areas. This indicates that enhanced eco-tourism development correlates with improved

economic, social, environmental, and livelihood results in the studied area.

- The regression results show that eco-tourism has a favorable effect on economic development, which backs up the first hypothesis. This research indicates that eco-tourism aids in generating local income, bolstering small enterprises, and enhancing the local economy. This finding aligns with prior research indicating that eco-tourism generates economic opportunity for rural and impoverished populations

- The research additionally indicated that eco-tourism exerts a substantial positive influence on social development and community engagement. This means that eco-tourism gets people in the area involved, makes them more conscious of social issues, and helps them learn more about the culture and customs of the area. This finding complements previous research that showed eco-tourism can provide communities more power when local people are involved in tourism operations.

- Another essential thing the study learned is that eco-tourism helps protect the ecosystem a lot. Most people who answered the survey felt that eco-tourism helps safeguard natural areas, raises awareness of the environment, and encourages people to use natural resources responsibly. This discovery is in line with the main idea of eco-tourism, which is that protecting the environment should be a key part of tourism development.

- The findings indicate that eco-tourism significantly enhances employment and income prospects, representing one of the most robust correlations identified in the research. This means that eco-tourism produces both direct and indirect jobs for people who live in the area. These jobs include work in transportation, guiding, accommodations, food services, and small-scale trading. This backs up what has been said in the literature about eco-tourism being a useful way to make a living in places where there aren’t many conventional job openings.

- The most significant impact was observed between eco-tourism and overall sustainable development, signifying that eco-tourism is a crucial catalyst for balanced development in the hill regions of Bangladesh. This indicates that eco-tourism enhances not merely a singular aspect of development, but rather advances the overarching objective of sustainability by integrating economic growth, social welfare, and environmental preservation.

- The descriptive statistics indicated that respondents typically held positive views of eco-tourism and its advantages. This shows that most of the residents in the

research area think that eco-tourism is good for their communities and for the long-term growth of the hill regions.

- The correlation study showed that all of the main factors were positively related to each other. This suggests that as eco-tourism becomes better, other areas of development also get better at the same time. This backs up the premise that sustainable development has many parts, and that eco-tourism can affect these parts in a way that connects them.

- These findings hold particular significance in Bangladesh, as the hill regions are environmentally fragile, culturally heterogeneous, and economically underdeveloped relative to numerous other locations. The beneficial impact of eco-tourism identified in this study indicates its potential as a strategic development instrument when adequately planned and administered.

- However, the discussion also implies that the positive role of eco-tourism depends on effective management, community participation, and environmental responsibility. Without these, eco-tourism may not last for long. So, the study backs up the idea that eco-tourism should be done carefully to make sure that its advantages are shared fairly and that it is good for the environment. The discussion shows that the results of this study are in line with a lot of previous research and that eco-tourism can be a good way to promote sustainable development in the hill areas of Bangladesh.

Recommendations

- The government should develop a comprehensive eco-tourism policy for the hill regions of Bangladesh to ensure that tourism growth is properly linked with sustainable development goals.

- To make eco-tourism more sustainable, local governments and tourism planners should enhance fundamental infrastructure and public services like roads, transportation, sanitation, waste management, safety measures, and places to stay.

- Government need to put more focus on protecting the environment and saving resources so that tourism doesn't harm the region's natural resources, like forests, hills, waterfalls, and wildlife.

- To make sure that the advantages of tourism are fairly shared among inhabitants, local communities should be more involved in planning, making decisions, and managing eco-tourism operations.

- People in the area should be able to take part in training and skill-building programs to help them become better at things like tour guiding, hospitality, running a small company, being aware of the environment, and presenting their culture.

- The government and private sector should encourage job and business opportunities for people in the area through eco-tourism-related companies such handicrafts, food services, transportation, lodging, and cultural tourism.

- It is important to safeguard and promote indigenous

culture and heritage so that tourism development respects local traditions and doesn't exploit or misrepresent them.

- To promote responsible tourism, environmental cleanliness, and respect for local culture and customs, both tourists and local populations should be made aware of these issues.

- To make sure that tourism develops in a way that is fair and includes everyone, both public and private stakeholders should work together. This means that economic gains, social well-being, and environmental sustainability should all be taken into account equally.

- There should be good procedures in place for monitoring and evaluating the effects of eco-tourism on the economy, society, and environment in the hill regions on a regular basis.

- Future researchers ought to undertake more comprehensive studies employing larger samples, comparative regional analysis, and mixed-method techniques to enhance the understanding of eco-tourism and sustainable development in Bangladesh.

In general, eco-tourism projects in the hill regions should be planned to promote long-term sustainability, community empowerment, and environmental responsibility, rather than just short-term growth in tourist.

LIMITATIONS

There are few things about this study that need to be recognized. First, the study used a solely quantitative methodology, indicating an emphasis on numerical data that may inadequately reflect the respondents' profound ideas, experiences, and personal insights concerning eco-tourism and sustainable development. Second, the study employs a sample of 400 respondents from certain hill regions of Bangladesh, indicating that the findings may not be indicative of other communities or tourism-related stakeholders nationwide. Third, the study depends on self-reported questionnaire data, which could be influenced by respondent bias, misinterpretation of questions, or individual perception. Fourth, because of limited time and resources, the study only looks at a few variables that have to do with the economy, society, the environment, and jobs. Other important factors, like government policy, political influence, and cultural sensitivity, could also have an effect on sustainable development outcomes. Lastly, the study is cross-sectional, which means it only shows reactions at one point in time and can't fully explain long-term changes or causes of changes in eco-tourism activities in Bangladesh's hill regions. Even with these restrictions, the study nevertheless gives us significant information about how eco-tourism might help the area flourish in a way that is good for the environment.

CONCLUSIONS

In conclusion, this study shows that eco-tourism is a very important part of helping the hill regions of Bangladesh thrive in a way that is good for the environment. The results show that eco-tourism has a good effect on economic growth, social growth, community involvement,

environmental protection, job and income opportunities, and overall sustainable growth. The findings indicate that eco-tourism serves as both a catalyst for tourism and a viable development strategy for environmentally sensitive and culturally affluent areas. In the hill parts of Bangladesh, where natural beauty, biodiversity, and indigenous culture make for great tourist attractions, eco-tourism may be very good for local populations if it is planned and run well. The study also shows that eco-tourism will only be successful in the long run if there is balanced development, community involvement, environmental responsibility, and policies that support it. As a result, eco-tourism should be promoted as a way to help both conservation and the health of the community. This research ultimately indicates that eco-tourism possesses significant potential to function as an efficient instrument for attaining sustainable development in the hill regions of Bangladesh.

REFERENCES

- Ahmed, S. (2023). Challenges of climate change in nature tourism in Bangladesh: Evidence from Hill Tracks. *Revista Gestão & Tecnologia*, 23(3), 361–376. <http://revistagt.fpl.emnuvens.com.br/get/article/view/2734>
- Akhter, T., & Haque, A. U. (2023). On the Prospects of Sustainable Tourism in Bangladesh. In F. A. Yamoah & A. U. Haque (Eds.), *Corporate Management Ecosystem in Emerging Economies* (pp. 165–184). Springer International Publishing. https://doi.org/10.1007/978-3-031-41578-4_10
- Akter, J. (2025). Ecotourism: A Study on Strengths and Weaknesses in Bangladesh. *Sch J Econ Bus Manag*, 8, 228–235. https://saspublishers.com/media/articles/SJEBM_128_228-235.pdf
- Alam, A. S. A. F., Begum, H., Bhuiyan, Md. A. H., & Sum, S. M. (2022). Community-based development of Fraser's Hill towards sustainable ecotourism. *Environment, Development and Sustainability*, 26(1), 319–333. <https://doi.org/10.1007/s10668-022-02710-y>
- Alauddin, Md., Kamal, Md. A., & Chowdhury, Md. A. I. (2021). Ecotourism in Bangladesh: Investment and Development Contexts. In A. Hassan (Ed.), *Tourism in Bangladesh: Investment and Development Perspectives* (pp. 259–275). Springer Nature Singapore. https://doi.org/10.1007/978-981-16-1858-1_17
- Arif, M., Salman-Al-Mamun K.M, Chandra, R., Zafar, S. M., & Halimuzzaman Md. (2025). Assessing the Adoption of IFRS and Its Effects on Financial Reporting Quality in Developing Countries. *Business and Social Sciences*, 3(1), 1–9. <https://doi.org/10.25163/business.3110312>
- Basak, S., Gazi, Md. D. H., & Mazharul Hoque Chowdhury, S. M. (2020). A Review Paper on Comparison of Different Algorithm Used in Text Summarization. In D. J. Hemanth, S. Shakya, & Z. Baig (Eds.), *Intelligent Data Communication Technologies and Internet of Things* (Vol. 38, pp. 114–119). Springer International Publishing. https://doi.org/10.1007/978-3-030-34080-3_13
- Bhardwaj, R. L. (2022). Role of ecotourism in sustainable development of Himalayas: A case study of Himachal Pradesh. *Rethinking Himalaya: Its Scope and Protection*, 109.
- Bhuiyan, Md. M. H., Dey, K. N., Saha, P., Sarker, P. K., Md. Halimuzzaman, & Biswas, Md. T. (2025). Exploring The Role of Artificial Intelligence In Transforming Hr Practices. *International Journal of Business Management and Economic Review*, 08(01), 98–110. <https://doi.org/10.35409/IJBMER.2025.3646>
- Cochran, W. G. (1942). Sampling Theory When the Sampling-Units are of Unequal Sizes. *Journal of the American Statistical Association*, 37(218), 199–212. <https://doi.org/10.1080/01621459.1942.10500626>
- Datta, R., Halimuzzaman, M., & Honey, S. (2024). A Comparative Analysis of Safety Performance in Commercial and Residential Construction: Unraveling Critical Insights. *Journal of Control & Instrumentation*, 15(01), 1–10.
- Ferdos, J., Ali, K. M. B., Choyon, M. S. H., & Ismail, H. B. (2026). Tourism development and sustainability: Socio-economic and environmental impacts in Cox's Bazar, Bangladesh. *Geojournal of Tourism and Geosites*, 64(1), 145–155. <https://gtg.webhost.uoradea.ro/PDF/GTG-1-2026/gtg.64112-1662.pdf>
- Habiba, M. (2025). *Community Development through Community Based Tourism: A Study on Bandarban in Bangladesh* [PhD Thesis, \copyright University of Dhaka]. <http://reposit.library.du.ac.bd:8080/xmlui/handle/123456789/4708>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis. In *Multivariate data analysis* (pp. 785–785).
- Halimuzzaman, M., Sharma, J., Hossain, M. I., Akand, F., Islam, M. N., Ikram, M. M., & Khan, N. N. (2024). Healthcare Service Quality Digitization with Enterprise Resource Planning. *Journal of Angiotherapy*, 8(5), 1–11. <https://doi.org/10.25163/angiotherapy.859716>
- Halimuzzaman, M., Sharma, J., Karim, M. R., Hossain, Md. R., Azad, M. A. K., & Alam, Md. M. (2025). *Enhancement of Organizational Accounting Information Systems and Financial Control through Enterprise Resource Planning*. In A. Khang, B. Jadhav, V. Abdullayev Hajimahmud, & I. Satpathy, Synergy of AI and Fintech in the Digital Gig Economy (1st ed., pp. 299–315). CRC Press. <https://doi.org/10.1201/9781003621454-19>
- Halimuzzaman, M., Sharma, J., & Khang, A. (2024). *Enterprise Resource Planning and Accounting Information Systems: Modeling the Relationship in Manufacturing*. In Machine Vision and Industrial Robotics in Manufacturing. CRC Press.
- Halimuzzaman, Md., Atif, H. M., Kumar, P., & Salehin, M. (2024). Public Relation and Educational Outcomes of Films in Bangladesh: A Study on Hawa. *Journal of Primeasia*, 5(1), 1–7. <https://doi.org/10.25163/>

- primeasia.519834
- Halimuzzaman, Md., & Sharma, J. (2024). Applications of Accounting Information System (AIS) under Enterprise Resource Planning (ERP): A Comprehensive Review. *International Journal of Early Childhood Special Education (INT-JECSE)*.
- Hassan, A. (Ed.). (2021). *Tourism in Bangladesh: Investment and Development Perspectives*. Springer Nature Singapore. <https://doi.org/10.1007/978-981-16-1858-1>
- Honey, S. (2017). Socio-Economic Impact of Ecopark: A study on Sitakunda Ecopark. https://www.researchgate.net/profile/Salma-Honey/publication/339774269_Socio-Economic_Impact_of_Ecopark_A_study_on_Sitakunda_Ecopark/links/651bc1423ab6cb4ec6b7381a/Socio-Economic-Impact-of-Ecopark-A-study-on-Sitakunda-Ecopark.pdf
- Honey, S. (2025). Analyzing the Impact of Attitudes toward Personalized Advertising on the Buying Behavior of Millennials in Bangladesh. *RIS International*, 9(XV/May 2025), 721–731. <https://dx.doi.org/10.47772/IJRISS.2025.915EC0051>
- Honey, S., & Hossain, M. J. (2024). Consumer Perception of Eco-Friendly Apparel: Insights from Bangladesh's RMG Sector. *International Journal of Research And Innovation In Social Science (Ijriiss)*, VIII. [https://doi.org/10.47772/IJRISS.8\(XI_November_2024\)](https://doi.org/10.47772/IJRISS.8(XI_November_2024)). <https://dx.doi.org/10.47772/IJRISS.2024.8110197>
- Honey, S., & Sultana, R. (2023). Analysis of Waste Management System in Bangladesh- A Study on Some Selected RMG Industries. *Journal of Economics and Development Studies*, 12(Number 1-2023).
- Hossain, M. S., Islam, M. S., Hussain, M. N., & Islam, P. (2025). Sustainable Ecotourism in Bangladesh: A SWOT Analysis of Ecotourism Destinations. *International Journal of Multidisciplinary Research and Growth Evaluation*, 6(2), 1146–1163. <https://www.allmultidisciplinaryjournal.com/uploads/archives/1744458448.pdf>
- Hossen, J. (2023). *Sustainable Tourism Development Through Community Engagement: A study on the role of local communities in Bangladesh*. <https://www.theseus.fi/handle/10024/816401>
- Imran, S. M. A., Islam, S., Kabir, N., Uddin, I., Ali, K., & Halimuzzaman, Md. (2024). Consumer Behavior and Sustainable Marketing Practices in the Ready-Made Garments Industry. *International Journal of Management Studies and Social Science Research*, 06(06), 152–161. <https://doi.org/10.56293/IJMSSSR.2024.5322>
- Islam, M. S. H., Rubel, M. R. B., Hossain, M. I., Kamruzzaman, Md., Akter, S., Halimuzzaman, Md., & Karim, M. R. (2024). Impact of financial and internet support on SME performance: Moderating effect of technology adoption during COVID-19 pandemic. *World Journal of Advanced Engineering Technology and Sciences*, 13(2), 105–118. <https://doi.org/10.30574/wjaets.2024.13.2.0533>
- Islam, Md. A., Goldar, S. C., Imran, S. A., Halimuzzaman, Md., & Hasan, S. (2025). AI-Driven green marketing strategies for eco-friendly tourism businesses. *International Journal of Tourism and Hotel Management*, 7(1), 56–60. <https://doi.org/10.22271/27069583.2025.v7.i1a.125>
- Islam, N., Paul, I., & Sarkar, B. (2025). Geotourism site suitability assessment by a novel GIS-based MCDM method in the Eastern Duars region (Himalayan foothill) of West Bengal, India. *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-024-05959-7>
- Khanom, S. (2024). *Tourism development and livelihoods of local communities in protected areas of bangladesh* [PhD Thesis, University Of Rajshahi]. <http://103.79.117.116/handle/123456789/1152>
- Khondkar, M., & Honey, S. (2022). Sustainable Marketing In The Ready-Made Garments (Rmg) Sector Of Bangladesh. *Indonesian Journal of Social Research (IJSR)*, 4(2), 96–108. <https://doi.org/10.30997/ijrs.v4i2.183>
- Lindner, J. R., & Lindner, N. (2024). Interpreting Likert type, summated, unidimensional, and attitudinal scales: I neither agree nor disagree, Likert or not. *Advancements in Agricultural Development*, 5(2), 152–163. <https://doi.org/10.37433/aad.v5i2.351>
- Malapane, T. A., & Ndlovu, N. K. (2024). Assessing the Reliability of Likert Scale Statements in an E-Commerce Quantitative Study: A Cronbach Alpha Analysis Using SPSS Statistics. *2024 Systems and Information Engineering Design Symposium (SIEDS)*, 90–95. <https://doi.org/10.1109/SIEDS61124.2024.10534753>
- Meem, F. A. (2024). *Encouraging sustainable tourism development through local stakeholders: The case of Bangladesh* [PhD Thesis, Magyar Agrár-és Élettudományi Egyetem]. <https://stud.mater.uni-mate.hu/8121/2/814334242.pdf>
- Moon, F., & Saha, K. (2025). Strategies of Integrated Tourism for Sustainable Rural Development—A Case Study in Bogaiya Village, Sylhet, Bangladesh. *Journal of Architectural/Planning Research and Studies (JARS)*, 22(2), 272862–272862. <https://so2.tci-thaijo.org/index.php/jars/article/view/272862>
- Ning Rong, S. (2025). *Feasibility of Integrating Ecotourism in Bandarban: A Potential For Sustainable Natural Resource Management and Development of Indigenous Communities* [PhD Thesis, AUW]. <https://repository.auw.edu.bd/handle/123456789/546>
- Noor, M. A., & Sharma, M. P. (2024). The impact of expected and perceived service quality on customer satisfaction within the framework of Bangladesh's sustainable tourism development. *Library of Progress-Library Science, Information Technology & Computer*, 44(3).
- Nunnally, J. C. (1978). *Psychometric Theory: 2d Ed*. McGraw-Hill.
- Rakib, A. (2024). Exploring the Potential and Challenges of Eco-Tourism in Lalmai-Mainamati Hill, Cumilla, Bangladesh. *RSTU Journal*. https://www.academia.edu/download/125705087/Article_on_Eco_tourism.pdf

- Roy, D., Kundu, P., Paul, S., & Sarkar, B. C. (2024). Potential suitability mapping evaluation for ecotourism development in Darjeeling Himalayan region of India. *Journal of Ecotourism*, 23(3), 414–435. <https://doi.org/10.1080/14724049.2023.2272059>
- Sajib, S. M. (2023). *Dealing with tourism: Development, sustainability, and commodification*. The case of Chittagong Hill Tracts, Bangladesh. <https://sfera.unife.it/handle/11392/2529293>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In *Handbook of market research* (pp. 587–632). Springer.
- Sharfuddin, M., Halimuzzaman, M., Akter, F., Dey, K. N., & Saha, P. (2025). Employee Motivation and Behavior in Construction Engineering Projects. *International Journal of Social Science and Economic Research*, 10(1), 342–372. <https://doi.org/10.46609/IJSSER.2025.v10i01.019>
- Toheeb, O. A., Denmark, J., & Wales, H. (2025). The Future of Sustainable Tourism as a Growth Engine for Bangladesh's Economy. https://www.researchgate.net/profile/Oladeji-Toheeb/publication/395122661_The_Future_of_Sustainable_Tourism_as_a_Growth_Engine_for_Bangladesh's_Economy/links/68b4de0a3391fb1a7a4c821c/The-Future-of-Sustainable-Tourism-as-a-Growth-Engine-for-Bangladeshs-Economy.pdf
- Uchinlayan, U., Sarker, B. K., & Saha, S. K. (2022). Sustainable tourism development in Bangladesh: Challenges and opportunities to promote the Sundarbans. *Journal of Sustainable Tourism and Entrepreneurship*, 4(1), 71–84. https://www.researchgate.net/profile/Bipul-Sarker/publication/376072117_Journal_of_Sustainable_Tourism_and_Entrepreneurship_JoSTE_Sustainable_tourism_development_in_Bangladesh_Challenges_and_opportunities_to_promote_the_Sundarbans/links/65689490ce88b87031202765/Journal-of-Sustainable-Tourism-and-Entrepreneurship-JoSTE-Sustainable-tourism-development-in-Bangladesh-Challenges-and-opportunities-to-promote-the-Sundarbans.pdf
- Van Phung, P., & Hoang, T. H. L. (2023). Sustainable ecotourism development in national parks: An approach from local community's support. *Journal of Law and Sustainable Development*, 11(9), e1146–e1146. <https://ojs.journalsdg.org/jlss/article/view/1146>