

Mapping the Eco-Tourism Potential of Bato Ferry in Laur, Nueva Ecija: A Foundation for Strategic Development Planning

Roberto V. Reyes Jr., Jessa S. Cutson, Glysel A. Dela Cruz, Joana May G. Mempin, Leona P. Pacson, Arjay G. Solis, Mark Alvin H. Abad

Received: 14 May 2024; Received in revised form: 17 Jun 2024; Accepted: 30 Jun 2024; Available online: 07 Jul 2024

Abstract— This study explores the ecotourism potential of Bato Ferry in Laur, Nueva Ecija, aiming to formulate strategic development plans in collaboration with local tourism entrepreneurs. The research engaged 100 respondents including locals, tourists, tourism businesses, and government officials. It highlights Bato Ferry's natural attractions, cultural richness, and the need for sustainable ecotourism practices. Key findings underscore the significance of rivers, mountains, and cultural landmarks, emphasizing their role in ecotourism experiences while balancing environmental conservation. Local tourism entrepreneurs demonstrate strengths in hospitality but require enhancement in tour guiding and interpretation. Stakeholder collaboration emerges as crucial for maximizing economic benefits while safeguarding cultural heritage. The study advocates for inclusive practices and shared responsibility among stakeholders to ensure sustainable ecotourism development in Bato Ferry.

Keywords— Ecotourism, Development strategies, Local tourism entrepreneurs, Natural attractions, Cultural values, Environmental impact

I. INTRODUCTION

The Philippines is renowned for its stunning natural landscapes, rich biodiversity, and vibrant cultural heritage, making it a prime destination for tourists worldwide. The country's archipelago, comprising over 7,000 islands, offers a unique and diverse array of attractions, including pristine beaches, majestic mountains, lush jungles, and historic cities. Tourism has historically been a significant contributor to the nation's GDP, accounting for approximately 12% of it. Notable attractions such as the rice terraces, an underground river, world-class diving sites, and lively festivals further bolster the Philippines' appeal as a top travel destination.

Among the many potential tourism hotspots, Bato Ferry in Laur, Nueva Ecija, stands out due to its unique natural features and cultural significance. According to Mayor Tupe Christopher B. Daus, Bato Ferry is named after the large rock formations believed by locals to be inhabited by fairies. The decision to develop Bato Ferry as a tourism destination stems from its untapped potential and advantageous location, being closer to the city and possessing abundant water sources.

The development plans for Bato Ferry include constructing bridges to connect different spots along the river, building floating and overnight cottages, and promoting water activities to attract tourists. These initiatives are expected to create numerous job opportunities for local residents and foster community involvement in maintaining and enhancing the area.

Despite the promising potential, several challenges need to be addressed to ensure sustainable and successful ecotourism development in Bato Ferry. These challenges include potential environmental risks, issues with parking and littering, and the need for careful planning to mitigate negative impacts on cultural heritage.

Ecotourism, as defined by the United Nations World Tourism Organization (UNWTO), is a nature-based form of tourism where the primary motivation for tourists is the observation and appreciation of nature and traditional cultures. It involves educational and interpretive features and is typically organized for small groups by specialized tour operators. Ecotourism aims to minimize negative impacts on the natural and socio-cultural environment while

generating economic benefits for host communities and supporting the conservation of natural areas.

This research study aims to assess the ecotourism potential of Bato Ferry, Laur, Nueva Ecija, through a comprehensive analysis of its natural resources, biodiversity, cultural heritage, and infrastructure. The study seeks to identify the strengths and weaknesses of Bato Ferry as an ecotourism destination and to develop sustainable development strategies that maximize the benefits of ecotourism while minimizing its negative impacts on the environment and local communities.

Statement of the Problem

The ecotourism potential of Bato Ferry in Laur, Nueva Ecija presents a promising opportunity for sustainable development. However, realizing this potential requires a comprehensive understanding of the region's specific resources, the needs of local stakeholders, and the challenges involved. This research aims to address the following key issues to formulate a strategic development plan for Bato Ferry:

1. Demographics of the Respondents:

- 1.1 Age
- 1.2 Gender
- 1.3 Civil Status

2. Assessment of Ecotourism Potential in Bato Ferry:

- 2.1 Significance of Natural Features and Cultural Assets
- 2.2 Evaluation of historical landmarks, local crafts, and scenic areas

3. Mapping Ecotourism Potential in Bato Ferry:

- 3.1 Inventory of natural and cultural assets
- 3.2 Identification of sensitive ecological areas to minimize environmental impact
- 3.3 Assessment of skills, experience, and needs of local tourism entrepreneurs
- 3.4 Development of training and support programs
- 3.5 Implementation of a collaborative planning process

4. Propose an Eco-tourism Development Plan: Based on the findings of the study, propose a comprehensive eco-tourism development plan that balances environmental protection, tourist satisfaction, and cultural preservation.

Scope and Delimitation

This study maps the eco-tourism potential of Bato Ferry, Laur, Nueva Ecija, focusing on local stakeholders' insights. It evaluates natural and cultural assets, environmental impacts, and stakeholder capabilities. Conducted during 2023-2024, it aims to inform strategic development plans

that balance conservation, tourist satisfaction, and cultural preservation for sustainable growth.

II. RESEARCH METHODOLOGY

This study employs a mixed-methods research design to comprehensively map the eco-tourism potential of Bato Ferry, Laur, Nueva Ecija. By integrating qualitative and quantitative approaches, the research aims to gather robust data from diverse stakeholders including tourists, tourism business owners, and government officials. The methodology focuses on purposive random sampling to ensure representation across different demographics and stakeholder groups.

III. RESULTS AND DISCUSSION

1. Profile of the Respondents

Table 1: Age of the Respondents

Age of All Respondents	Frequency	Percentage (%)
25 and below	21	21%
26-30 years old	9	9%
31-35 years old	10	10%
36-40 years old	14	14%
41-45 years old	9	9%
46 and above	37	37%
Total	100	100%

Table 1 illustrates the age distribution of respondents. The largest age group is those 46 and above, comprising 37% of respondents, indicating a significant representation of older individuals. The next prominent group is those 25 and below, accounting for 21% of respondents, reflecting a notable presence of younger individuals. The intermediate age groups (26-45 years) exhibit varying frequencies: 14% for 36-40 years, 10% for 31-35 years, and 9% each for 26-30 and 41-45 years. This diverse age distribution ensures the survey results encompass a wide range of perspectives and experiences, enhancing the validity and applicability of the findings to a broader audience. Including a mix of younger and older respondents captures the diverse needs and viewpoints of the target population, making the survey more representative and comprehensive.

Table 2: Gender of the Respondents

Gender of All Respondents	Frequency	Percentage (%)
Male	55	55%
Female	43	43%
LGBTQ+	2	2%
Total	100	100%

Table 2 displays the gender distribution of the survey participants. Males constitute 55% of the respondents, females 43%, and individuals identifying as LGBTQ+ make up 2% of the total. This distribution ensures a reasonably balanced representation across different gender groups, which is crucial for obtaining diverse perspectives on the research topic. With males forming the majority at 55%, followed by females at 43%, and a smaller representation of LGBTQ+ individuals, the survey achieves a broad spectrum of insights from different gender viewpoints.

The near-equal representation between males and females, along with the inclusion of LGBTQ+ respondents, enhances the reliability and validity of the survey data. This balance mitigates the risk of gender bias, ensuring that the findings reflect the views and experiences of a diverse population. A balanced gender representation in research is essential for fairness and inclusiveness, demonstrating a commitment to considering diverse perspectives and producing accurate, representative statistics.

Furthermore, studies by Boley et al. (2017) emphasize the importance of considering gender dynamics in tourism, highlighting that perceptions and experiences can vary significantly between genders. This consideration is crucial for effective destination marketing and management strategies. Similarly, research by Rinaldi and Salerno (2020) underscores the tourism gender gap and its potential impact on the development of emerging countries, stressing the need for gender-balanced research in tourism development.

Table 3: Civil Status of the Respondents

Civil Status	Frequency	Percentage (%)
Single	58	
Married	40	
Widowed	2	
Total	100	100%

Table 3 presents the civil status distribution of the respondents. The majority of respondents, 58%, are single, indicating that over half of the survey participants are unmarried. Married respondents constitute 40% of the

sample, representing a substantial portion of the population. Only a small fraction, 2%, are widowed.

This distribution suggests that single individuals are the most represented group in the survey, followed closely by married individuals. The presence of widowed respondents, although minimal, adds to the diversity of perspectives captured in the survey.

The significant representation of both single and married respondents ensures that the survey results reflect a broad spectrum of experiences and viewpoints related to civil status. This diversity is important for understanding the varying needs and preferences of different demographic groups within the community. The data highlights the necessity of considering civil status in developing comprehensive and inclusive ecotourism strategies that cater to the diverse population of Bato Ferry.

By including respondents from various civil status categories, the research findings are more likely to encompass a wide range of perspectives, thereby enhancing the validity and applicability of the study to the broader community.

2. Assessment of Ecotourism Potential in Bato Ferry

Table 2.1: Significance of Natural Features and Cultural Asset

Significance of Natural Features and Cultural Asset	Frequency	Percentage (%)
Eco friendly Cottage	20	20%
Bamboo rafting	19	19%
Wildlife viewing areas	2	2%
Recreational activities	34	34%
Fishing	11	11%
River	88	88%
Man made Lake	5	5%
Mini-Forests	6	6%
Mountains	58	58%

The table above illustrates the perceived significance of various natural and cultural assets in Bato Ferry, Laur, Nueva Ecija, as identified by respondents. Here are the key insights:

Highly Valued Natural Assets:

River (88%): The river is overwhelmingly recognized as a crucial natural feature, highlighting its importance for

ecotourism activities such as bamboo rafting and recreational activities.

Mountains (58%): Significant emphasis is placed on the mountains, indicating their potential for hiking, wildlife viewing, and possibly eco-friendly cottage stays.

Moderate to Lower Significance:

Recreational Activities (34%): While popular, recreational activities like fishing and eco-friendly cottages receive moderate attention compared to the river and mountains.

Mini-Forests (6%) and Man-made Lake (5%): These features are seen as less central to Bato Ferry's ecotourism potential, suggesting they may require more development or promotion.

Cultural and Recreational Activities:

Bamboo Rafting (19%) and Fishing (11%): These activities, although popular, receive less attention than broader categories like recreational activities and the river itself.

This data underscores the importance of prioritizing sustainable development around the river and mountain landscapes for ecotourism initiatives in Bato Ferry. It also suggests potential opportunities to enhance activities like bamboo rafting and recreational offerings to further attract tourists.

Table 2.2 Evaluation of historical landmarks, local crafts, and scenic areas

Evaluation of historical landmarks, local crafts, and scenic areas	Frequency	Percentage (%)
Scenic Areas	74	74%
Historical Landmarks	62	62%
Local Crafts	60	60%

Table 2.2 presents the preferences of respondents regarding historical landmarks, local crafts, and scenic areas in Bato Ferry, Laur, Nueva Ecija.

Scenic areas received the highest approval rating, with 74% of respondents acknowledging their significance. This suggests a strong demand for natural landscapes that offer aesthetic appeal and opportunities for relaxation and recreation.

The high percentage underscores the importance of preserving and promoting scenic spots to enhance Bato Ferry's ecotourism appeal. It also indicates potential

economic benefits, as scenic areas often attract tourism and contribute to local economies.

Historical landmarks are also highly valued, with 62% of respondents expressing appreciation for them. These landmarks likely play a significant role in preserving cultural heritage and attracting tourists interested in history and heritage tourism.

The slightly lower percentage compared to scenic areas still reflects their importance as attractions that contribute to the overall tourism experience in Bato Ferry.

Local crafts received a 60% approval rating, indicating a substantial interest in authentic artisanal products among respondents. This suggests a market for locally-made goods that showcase cultural identity and craftsmanship.

Supporting local crafts can contribute to economic diversification and community empowerment, aligning with sustainable tourism principles that emphasize local participation and cultural preservation.

The data highlights distinct preferences among respondents in Bato Ferry, with scenic areas garnering the highest approval, followed closely by historical landmarks and local crafts. This diversity in preferences underscores the need for a balanced approach to tourism development that integrates natural, cultural, and artisanal elements. Enhancing scenic areas, preserving historical sites, and promoting local crafts can collectively enrich the ecotourism experience in Bato Ferry while supporting sustainable economic growth and cultural heritage preservation.

3. Mapping Ecotourism Potential of Bato Ferry

Table 3.1 : Inventory of natural and cultural assets

Indicator	Mean	Descriptive Rating
Engaged relevant stakeholders for input and collaboration.	4.39	Perfectly Suitable
Conducted surveys and field observations to gather data.	4.28	Perfectly Suitable
Provided opportunities for community participation in data collection.	4.39	Perfectly Suitable
Developed strategies to minimize environmental impact of ecotourism activities	4.37	Perfectly Suitable
Collaborated with local authorities to implement inventory recommendations	4.42	Perfectly Suitable

Legend: 3.50 – 4.00 Perfectly Suitable; 2.50 – 3.49 Very Suitable; 1.50 – 2.49 Not Very Suitable; and 1.00 – 1.49 Unsuitable

Table 3.1 outlines the assessment of various indicators related to inventorying natural and cultural assets for ecotourism development in Bato Ferry, Laur, Nueva Ecija. Here are the key insights:

Collaboration with Local Authorities (4.42): The highest mean rating and a descriptive rating of "Perfectly Suitable" indicate that stakeholders highly value collaboration with local authorities. This partnership ensures that inventory recommendations align with regulations and guidelines, facilitating efficient and compliant sustainable development projects.

Community Participation (4.39): Stakeholders also rated opportunities for community participation in data collection as "Perfectly Suitable." This approach fosters community involvement and ownership in ecotourism initiatives, enhancing local support and sustainability.

Environmental Impact Strategies (4.37): Developing strategies to minimize environmental impact received a high mean rating, highlighting stakeholders' commitment to sustainable practices in ecotourism development.

Surveys and Field Observations (4.28): While slightly lower in mean rating compared to other indicators, conducting surveys and field observations is still rated as "Perfectly Suitable." This method provides essential firsthand data on Bato Ferry's natural and cultural resources, informing informed decision-making.

The data from Table 3.1 underscores critical aspects of compiling a comprehensive inventory for sustainable ecotourism in Bato Ferry. Collaboration with local authorities is pivotal for regulatory compliance and effective project implementation. Community participation enhances local engagement and support. Developing environmental strategies ensures sustainable practices, while surveys and field observations provide essential data for informed decision-making.

These findings align with principles emphasized in tourism research, highlighting the importance of stakeholder collaboration and data-driven approaches for sustainable tourism development (Boley et al., 2017; Kanika, 2024). By integrating these strategies, stakeholders can establish a robust framework for maximizing the ecotourism potential of Bato Ferry while preserving its natural and cultural heritage.

Table 3.2: Sensitive ecological areas and minimize environmental impact

Indicator	Mean	Descriptive Rating
Gathered existing data from environmental organizations, government agencies, and previous studies	4.42	Perfectly Suitable
Utilized aerial surveys, satellite imagery, and drones to gain a comprehensive understanding of the landscape	4.27	Perfectly Suitable
Organized workshops and focus group discussions to gather insights from experts on key ecological indicators.	4.28	Perfectly Suitable
Engaged local communities and indigenous groups to gather traditional knowledge about ecologically sensitive areas.	4.31	Perfectly Suitable
Implemented sustainable land management practices, such as reforestation and erosion control, to enhance ecosystem resilience.	4.33	Perfectly Suitable

Legend: 3.50 – 4.00 Perfectly Suitable; 2.50 – 3.49 Very Suitable; 1.50 – 2.49 Not Very Suitable; and 1.00 – 1.49 Unsuitable

Table 3.2 evaluates methods for identifying sensitive ecological areas and minimizing environmental impact in Bato Ferry for ecotourism development. Here are the key insights:

Gathered Existing Data (4.42): Gathering existing data from various sources received the highest mean rating, indicating its effectiveness in informing ecological mapping efforts. This approach leverages prior knowledge and information to streamline mapping processes and ensure accuracy.

Implemented Sustainable Land Management Practices (4.33): Implementing sustainable land management practices, such as reforestation and erosion control, received the second-highest mean rating. This approach emphasizes proactive measures to protect and restore ecosystems, promoting resilience and sustainability.

Community Engagement (4.31): Engaging local communities and indigenous groups to gather traditional knowledge about ecologically sensitive areas was also

highly rated. This participatory approach enriches understanding of local ecosystems and fosters community ownership in conservation efforts.

Workshops and Focus Groups (4.28): Organizing workshops and focus group discussions with experts on key ecological indicators was rated as "Perfectly Suitable," providing valuable insights for ecological mapping and conservation planning.

The ratings in Table 3.2 underscore effective strategies for ecologically sensitive mapping and environmental management in Bato Ferry. Utilizing existing data sources, engaging local communities, and implementing sustainable practices are essential for minimizing environmental impact and promoting ecosystem health. These approaches align with global recommendations for sustainable tourism development, emphasizing the importance of informed decision-making and community involvement (World Bank, 2021; De Zoysa, 2021).

By integrating these strategies, stakeholders can enhance ecotourism development while preserving Bato Ferry's natural heritage and promoting long-term environmental sustainability.

Table 3.3: Skills, experience, and needs of local tourism entrepreneurs

Skills, experience, and needs of local tourism entrepreneurs	Mean	Descriptive Rating
Business management skills	4.35	Perfectly Suitable
Marketing and promotional strategies	4.31	Perfectly Suitable
Knowledge of ecotourism principles	4.28	Perfectly Suitable
Sustainable practices implementation	4.25	Perfectly Suitable
Cultural heritage presentation	4.22	Perfectly Suitable
<i>Legend: 3.50 – 4.00 Perfectly Suitable; 2.50 – 3.49 Very Suitable; 1.50 – 2.49 Not Very Suitable; and 1.00 – 1.49 Unsuitable</i>		

Table 3.3 assesses the skills, experience, and needs of local tourism entrepreneurs in Bato Ferry, Laur, Nueva Ecija.

Business Management Skills (4.35): Local tourism entrepreneurs are highly proficient in business management skills, indicating a strong foundation in operational and financial management crucial for sustainable business practices.

Marketing and Promotional Strategies (4.31): Entrepreneurs exhibit strong capabilities in marketing and promotional strategies, essential for attracting tourists and enhancing destination visibility.

Knowledge of Ecotourism Principles (4.28): There is a solid understanding of ecotourism principles among local entrepreneurs, highlighting their commitment to sustainable tourism practices that respect and preserve natural and cultural resources.

Sustainable Practices Implementation (4.25): Implementing sustainable practices is rated highly, showcasing efforts to minimize environmental impact and promote responsible tourism development.

Cultural Heritage Preservation (4.22): Preservation of cultural heritage is also recognized as important, indicating efforts to maintain and promote local traditions and identities through tourism initiatives.

Table 3.3 illustrates that local tourism entrepreneurs in Bato Ferry possess strong skills and knowledge in business management, marketing, ecotourism principles, sustainable practices, and cultural heritage preservation. These competencies are crucial for fostering sustainable tourism development that benefits both the local community and visitors.

By continuing to support and enhance these skills, entrepreneurs can effectively contribute to the growth of ecotourism in Bato Ferry while ensuring the preservation of its natural and cultural assets.

Table 3.4: Training and support programs

Training and support programs	Mean	Descriptive Rating
Ecotourism Education and Training	4.4	Perfectly Suitable
Business Management Skills	4.34	Perfectly Suitable
Access to Resources and Networks	4.28	Perfectly Suitable
Building in Community Engagement	4.03	Perfectly Suitable
Environmental Conservation Practices	4.39	Perfectly Suitable
Market Development and Promotion	4.23	Perfectly Suitable
Monitoring and Evaluation	4.43	Perfectly Suitable
Policy and Compliance Assistance	4.48	Perfectly Suitable

Legend: 3.50 – 4.00 Perfectly Suitable; 2.50 – 3.49 Very Suitable; 1.50 – 2.49 Not Very Suitable; and 1.00 – 1.49 Unsuitable

Table 3.4 highlights the effectiveness of various training and support programs crucial for ecotourism development in Bato Ferry:

Policy Advocacy and Compliance Assistance (4.48): This indicator received the highest mean rating, emphasizing its critical role in supporting local entrepreneurs to navigate regulatory frameworks and advocate for policies that foster sustainable ecotourism practices.

Monitoring and Evaluation (4.43): Rated as highly effective, monitoring and evaluation enable local businesses to assess the impact of ecotourism activities systematically. This helps in identifying areas for improvement and ensuring accountability in development efforts.

Other Key Areas:

Ecotourism Education and Training (4.40) and Environmental Conservation Practices (4.39) are also highly rated, indicating strong support for educating stakeholders and implementing sustainable practices.

Business Management Skills (4.34) and Market Development and Promotion (4.23) further underscore the importance of entrepreneurial skills and marketing strategies in enhancing ecotourism initiatives.

These findings underscore the importance of comprehensive support systems for local entrepreneurs in Bato Ferry. By focusing on policy advocacy, compliance assistance, and robust monitoring practices, stakeholders can promote sustainable development and innovation in ecotourism.

Table 3.5 Collaborative planning process

Collaborative planning process	Mean	Descriptive Rating
Local community members and residents	4.5	Perfectly Suitable
ious groups and tribal representatives	3.56	Very Suitable
usinesses and tourism entrepreneurs	4.12	Perfectly Suitable
agencies and local authorities	4.28	Perfectly Suitable
nmental organizations and conservation groups	4.2	Perfectly Suitable
stitutions and research organizations	3.97	Very Suitable

Tour operators and travel agencies	3.73	Very Suitable
<i>Legend: 3.50 – 4.00 Perfectly Suitable; 2.50 – 3.49 Very Suitable; 1.50 – 2.49 Not Very Suitable; and 1.00 – 1.49 Unsuitable</i>		

Table 3.5 highlights the importance of collaborative planning involving various stakeholder groups for ecotourism development in Bato Ferry:

Local Community Members and Residents (4.50):

Local community involvement received the highest mean rating, indicating their crucial role in shaping ecotourism initiatives. Their firsthand knowledge of local needs, resources, and cultural values ensures that projects are sustainable, respectful of community values, and beneficial for local well-being.

Government Agencies and Local Authorities (4.28):

Rated second highest, government agencies and local authorities provide essential policy support, infrastructure development, and regulatory oversight. Their participation ensures that ecotourism plans align with broader governmental objectives and policies, fostering coordinated and sustainable development.

Other Stakeholder Groups:

Environmental Organizations and Conservation Groups (4.20) play a significant role in advocating for environmental protection and sustainability in ecotourism projects.

Local Businesses and Tourism Entrepreneurs (4.12) contribute entrepreneurial skills and economic perspectives essential for ecotourism growth.

Academic Institutions and Research Organizations (3.97) and Tour Operators and Travel Agencies (3.73) bring research insights and market expertise, although rated slightly lower, are still considered very suitable for their contributions to planning and promoting ecotourism.

This data underscores the necessity of inclusive decision-making processes that integrate diverse stakeholder perspectives. By involving local communities, government bodies, environmental advocates, businesses, and academic institutions, ecotourism development in Bato Ferry can be holistic, sustainable, and aligned with both local priorities and global sustainability goals.

IV. PROPOSED ECOTOURISM DEVELOPMENT PLAN

Based on the findings from the study conducted in Bato Ferry, Laur, Nueva Ecija, here's a proposed comprehensive eco-tourism development plan that integrates environmental protection, tourist satisfaction, and cultural preservation:

1. Environmental Protection

Identification and Preservation of Ecologically Sensitive Areas:

- Utilize existing data from environmental organizations and conduct aerial surveys, satellite imagery, and field assessments to identify and map ecologically sensitive areas.
- Engage local communities and indigenous groups to gather traditional knowledge about these areas.
- Implement sustainable land management practices such as reforestation, erosion control, and waste management to enhance ecosystem resilience and minimize environmental impact.

Regulatory Framework and Compliance:

- Collaborate closely with government agencies and local authorities to develop and enforce regulations that protect natural resources and biodiversity.
- Provide training and support to local businesses and tourism entrepreneurs on environmental conservation practices and compliance with regulations.

2. Tourist Satisfaction

Infrastructure Development:

- Improve access to key ecotourism sites through responsible infrastructure development, ensuring minimal disruption to natural habitats.
- Enhance facilities such as eco-friendly accommodations, visitor centers, and sustainable transportation options (e.g., ATV, bike rentals).

Diversified Ecotourism Activities:

- Promote activities that highlight Bato Ferry's natural beauty and cultural heritage, such as guided nature walks, bamboo rafting on the river, birdwatching, and cultural tours to historical landmarks.
- Encourage responsible wildlife viewing and photography tours that respect animal habitats and behaviors.

Visitor Education and Interpretation:

- Develop educational programs and interpretive signage at key sites to raise awareness about local ecosystems, biodiversity, and cultural significance.

- Engage tourists in hands-on conservation activities like tree planting or river clean-ups to foster a sense of environmental stewardship.

3. Cultural Preservation

Promotion of Local Culture and Traditions:

- Collaborate with indigenous groups and local artisans to showcase traditional crafts, cuisine, and performances.
- Incorporate cultural experiences into ecotourism packages, such as workshops on traditional farming methods or storytelling sessions.

Support for Community-Based Tourism Initiatives:

- Empower local communities to participate in tourism enterprises through training in hospitality, guiding, and sustainable business practices.
- Ensure equitable distribution of economic benefits from tourism to enhance community well-being and support local livelihoods.

4. Marketing and Promotion

Destination Branding and Marketing Strategies:

- Develop a cohesive brand identity for Bato Ferry as an eco-friendly destination that values sustainability and cultural authenticity.
- Use digital marketing platforms and partnerships with travel agencies to attract responsible travelers interested in eco-tourism experiences.

Tourism Monitoring and Feedback Mechanisms:

- Implement monitoring and evaluation systems to assess the impact of tourism activities on the environment and local communities.
- Regularly solicit feedback from tourists, residents, and stakeholders to continuously improve ecotourism offerings and ensure alignment with community values.

5. Capacity Building and Collaboration

Stakeholder Engagement and Collaboration:

Foster partnerships among government agencies, NGOs, academia, and private sector stakeholders to leverage expertise and resources for sustainable tourism development.

Organize regular forums, workshops, and training sessions to build capacity in ecotourism management, community engagement, and environmental conservation.

V. CONCLUSION

1. The survey captured a broad age range and gender representation among respondents, reflecting a

balanced demographic mix. This diversity ensures that the ecotourism development strategies proposed are inclusive and cater to varied interests and needs.

2. Natural features such as rivers and mountains are highly valued by respondents, indicating significant potential for activities like bamboo rafting, wildlife viewing, and hiking. Cultural assets such as historical landmarks and local crafts also received considerable attention, highlighting their role in enhancing the tourism experience in Bato Ferry.
3. Stakeholders rated collaboration with local authorities, community engagement in data collection, and implementation of sustainable practices as perfectly suitable. These strategies are crucial for minimizing environmental impact and preserving the ecological integrity of Bato Ferry while promoting sustainable tourism practices.
4. Local tourism entrepreneurs demonstrate strong capabilities in business management, marketing, ecotourism principles, and cultural heritage preservation. Continued support through training programs focused on policy advocacy, environmental conservation, and market development will further enhance their capacity to drive sustainable tourism growth.
5. The involvement of local community members, indigenous groups, government agencies, environmental organizations, and academic institutions in the planning process is vital. Their collective input ensures that ecotourism initiatives align with local values, environmental goals, and regulatory frameworks.

Recommendations

1. Foster ongoing dialogue and engagement with local communities and indigenous groups to ensure their active participation in decision-making processes and benefit-sharing mechanisms.
2. Prioritize the protection and sustainable management of sensitive ecological areas through collaborative efforts involving environmental organizations, government agencies, and local stakeholders.
3. Promote the preservation and promotion of cultural heritage sites and local crafts to enrich the tourism experience and support community identity.
4. Provide comprehensive training programs and access to resources for local tourism entrepreneurs to enhance their skills in sustainable business practices and market competitiveness.
5. Advocate for policies that support sustainable tourism development, including incentives for eco-friendly practices and regulations that safeguard natural and cultural resources.
6. Establish robust monitoring and evaluation frameworks to assess the impact of ecotourism activities on the environment, community well-being, and economic growth.
7. Develop targeted marketing strategies that highlight Bato Ferry's unique natural and cultural assets, appealing to responsible tourists interested in eco-friendly travel experiences.

REFERENCES

- [1] ABAC ODI JOURNAL Vision. Action. Outcome. (n.d.). <http://www.assumptionjournal.au.edu/index.php/odijournal/index>
- [2] Alam, I., Khusro, S., Rauf, A., & Zaman, Q. (2014). Conducting surveys and data collection: from traditional to mobile and SMS-based surveys. *Pakistan Journal of Statistics and Operation Research*, 10(2), 169. <https://doi.org/10.18187/pjsor.v10i2.758>
- [3] Ali, B., Gardi, B., Othman, B. J., Ahmed, S. A., Ismael, N. B., A. Hamza, P., Mahmood Aziz, H., Sabir, B. Y., Sorguli, S., & Anwar, K. (2021). Hotel Service Quality: The Impact of Service Quality on Customer Satisfaction in Hospitality [Komar University of Science & Technology Show all 10 authors]. https://www.researchgate.net/publication/351780048_Hotel_Service_Quality_The_Impact_of_Service_Quality_on_Customer_Satisfaction_in_Hospitality
- [4] Bansard, J., & Schröder, M. (n.d.). The Sustainable Use of Natural Resources: the Governance challenge. International Institute for Sustainable Development. <https://www.iisd.org/articles/deep-dive/sustainable-use-natural-resources-governance-challenge>
- [5] Barnett, A., Abrantes, K. G., Baker, R. J., Diedrich, A., Farr, M., Kuilboer, A., Mahony, T., McLeod, I. M., Moscardo, G., Prideaux, M., Stoeckl, N., Van Luyn, A., & Sheaves, M. (2015). Sportfisheries, conservation and sustainable livelihoods: a multidisciplinary guide to developing best practice. *Fish and Fisheries*, 17(3), 696–713. <https://doi.org/10.1111/faf.12140>
- [6] Beatrice, I., Nthiga, R., Sitati, N., & Lenaiyasa, P. (2019). Capacity building for inclusive growth in community-based tourism initiatives in Kenya. *Tourism Management Perspectives*, 30, 11–18. <https://doi.org/10.1016/j.tmp.2019.01.003>
- [7] Brennan, M. (n.d.). Importance of Incorporating Local Culture into Community Development. <https://extension.psu.edu/importance-of-incorporating-local-culture-into-community-development>
- [8] Chauhan, E. (2022). Residents' Motivations to Participate in Decision-Making for Cultural Heritage Tourism: Case Study of New Delhi. *Sustainability*, 14(14), 8406. <https://doi.org/10.3390/su14148406>
- [9] Danielsen, F., Eicken, H., Funder, M., Johnson, N., Lee, O.,

- Theilade, I., Argyriou, D., & Burgess, N. D. (2022). Community monitoring of natural resource systems and the environment. *Annual Review of Environment and Resources*, 47(1), 637–670. <https://doi.org/10.1146/annurev-environ-012220-022325>
- [10] De Zoysa, M. (2021). Forest-Based Ecotourism in Sri Lanka: A review on state of governance, livelihoods, and forest conservation outcomes. *Journal of Sustainable Forestry*, 41(3–5), 413–439. <https://doi.org/10.1080/10549811.2021.1943450>
- [11] Department of Tourism. (2024, February 2). Home - Love the Philippines! Welcome to the DOT's Corporate Site. Love the Philippines! Welcome to the DOT's Corporate Site. <https://beta.tourism.gov.ph/>
- [12] Domecq, C. F., & Segovia-Pérez, M. (2020). Application of a gender perspective in tourism research: a theoretical and practical approach. *Revista De Análisis Turístico*, 27(2), 251–270. <https://doi.org/10.1108/jta-02-2019-0009>
- [13] Environmental experts lay the groundwork for a solution-focused GEO-7. (n.d.). UN Environment. https://www.unep.org/news-and-stories/press-release/environmental-experts-lay-groundwork-solution-focused-geo7?fbclid=IwZXh0bgNhZW0CMATAAAR1FDDpdT_wso kV-gFZnN3_12iZYauu8KYUTFFQeYef0TgaGSzAUvDXzbzQ_aem_AZ_N Yw7WxJLT-WPEy6cJa6aXO6M104rT3sIFvohjPsZx4WA69c-RJaxkGKG4fjWuhVCpSHoywiTO_5O67SGIBRb9
- [14] Hicks, J. (2020). Community enterprise: diverse designs for community- owned energy infrastructure. In Edward Elgar Publishing eBooks. <https://doi.org/10.4337/9781788119962.00013>
- [15] Jontotheworld (2024) 15 BEST Nueva Ecija Tourist Spots 2024 (Nature, History & More) <https://jontotheworld.com/best-nueva-ecija-tourist-spots/>
- [16] Kanika. (2024, April 5). Field Surveys: Methods, Survey Questions & Tools. *Field Surveys: Methods, Survey Questions & Tools*. <https://www.zonkafeedback.com/blog/field-surveys>
- [17] Kim, S. (2024, February 13). Research: How Entrepreneurship Can Revitalize Local Communities. *Harvard Business Review*. <https://hbr.org/2022/01/research-how-entrepreneurship-can-revitalize-local-communities>
- [18] Lana, L., Michael, L., & Anieta H. (2024) 19 Top-Rated Tourist Attractions & Things to Do in the Philippines. <https://www.planetware.com/philippines/top-rated-tourist-attractions-things-to-do-in-the-philippines-phi-1-26.htm>
- [19] Learning Resources Division: Government Information Help Guide: Government Agencies. (n.d.). https://udc.libguides.com/c.php?g=670839&p=7813725&fbclid=IwZXh0bgNhZW0CMATAAAR1LxqCWZG8BjNOMDFmiQD5iuTheWxn1hxljJgKoRhZ3viJqlvJAR9wgM_aem_AZ8DxMOB2gSCQKSpbHX7jnonTMNRjW3ZVG-pADFevnzF73jNQ6MP91CA4J1zQfxJY_rnJes-tD6UtnTlhnWJVv
- [20] LOSS OF LIVELIHOOD collocation | meaning and examples of use. (2024). <https://dictionary.cambridge.org/us/example/english/loss-of-livelihood>
- [21] Maches, D. (2022, September 9). 20 Best Nueva Ecija Tourist Spots: Waterfalls, mountains, rivers. Daniel's Eco Travels. <https://danielsecotravels.com/nueva-ecija-tourist-spot/>
- [22] Mestanza -Ramón, C., & Jiménez -Caballero, J. L. (2022). Importance and characteristics of a waterfall for sustainable tourism with a focus on the binational Colombian-Ecuadorian border. *Green World Journal*, 05(2737–6109). <https://idus.us.es/bitstream/handle/11441/152900/028%20Mestanza%20%26%20Jim%C3%A9nez.pdf?isAllowed=y&sequence=1>
- [23] Michelle, P. (CE); Javier, L-M. (CE); Ciria, M. (CE); Lucía, D. (ITC); Erneszt, K.
- [24] (ACR+); Francesco, L. (ACR+); Antonio, A. (RAS); Ivana, R. (SFC); Chiara, S. (SFC); Maxime, K. (L'InstParisReg); Eleftherios, L. (ANEL)(2020)Improving sustainability of tourism SMEs through knowledge transfer, international cooperation and multi-stakeholderengagement <https://tourisme.project.eu/wp-content/uploads/2021/08/D2.1-Literature-Review-on-Sustainable-Tourism.pdf>
- [25] ORR Unaccompanied Children Program Policy Guide: Section 5. (2024, March 11). The Administration for Children and Families. <https://www.acf.hhs.gov/orr/policy-guidance/unaccompanied-children-program-policy-guide-section-5>
- [26] Pierce, K. (n.d.). 10 top tourist attractions in the Philippines. *Touropia*. <https://www.touropia.com/tourist-attractions-in-the-philippines/>
- [27] Research, P. (2023, September 18). 5 Must-Have features of an observation room for focus groups. https://www.linkedin.com/pulse/5-must-have-features-observation-room-focus-groups?fbclid=IwZXh0bgNhZW0CMATAAAR29YtAeG2LK-v8bl55z2srXMLzMUekMHF0nwFXS_hKE_gY-6iT_c6AyNpQ_aem_AZ-PlOb7ORbi8028JHSZdyV6PZ6qnQAVtNPav80frP8wg7XRwce8m4mPS2ssqxRupA0NzyT7eyZXajj8vHUYK
- [28] Salas-Olmedo, M. H., Garcia, P. R., & Gutiérrez, J. (2015). Accessibility and transport infrastructure improvement assessment: The role of borders and multilateral resistance. *Transportation Research. Part a, Policy and Practice*, 82, 110–129. <https://doi.org/10.1016/j.tra.2015.09.009>
- [29] Shang, Y., Bi, C., Wei, X., Jiang, D., Taghizadeh-Hesary, F., & Rasoulinezhad, E. (2023). Eco-tourism, climate change, and environmental policies: empirical evidence from developing economies. *Humanities and Social Sciences Communications*, 10(1). <https://doi.org/10.1057/s41599-023-01777-w>
- [30] Swarbrooke, J. (n.d.). Sustainable Tourism Management. Google Books. https://books.google.com.ph/books/about/Sustainable_Tourism_Management.html?id=1WQtIOqVT3gC&redir_esc=y
- [31] Stainton, H. (2024, February 4). Cultural erosion: A simple explanation - The geography teacher. *The geography*

- teacher. <https://thegeographyteacher.com/cultural-erosion/>
- [32] TAP Network. (2019, May 8). Engaging with Local Authorities - SDG Accountability Portal. SDG Accountability Portal. <https://www.sdgaccountability.org/working-with-government-institutions/engaging-with-local-authorities/>
- [33] Tin Nwe Wint. (2021, July 23). Role of ecotourism in sustainable development. University for Life and Peace. https://ulp.world/schoolcontent/20-papers/tnw?fbclid=IwAR3QIZiKbS2E6l_JLPvPyD6F1PuXxgZx1G5aguWgbgFZrb4O07GRhSvK0yk
- [34] Tourism industry in the Philippines. (2023, December 21). Topic: Tourism industry in the Philippines Statista. <https://www.statista.com/topics/6012/tourism-industry-in-the-philippines/>
- [35] Vigilia, A. Y. (n.d.). Assessment of Tourism industry in Nueva Ecija. <https://ijaems.com/detail/assessment-of-tourism-industry-in-nueva-ecija/>
- [36] Visitmyphilippines.com. (n.d.). Department of Tourism - the Philippines ultimate travel guide for tourist. https://www.visitmyphilippines.com/index_title_CentralLuzonTravelGuide_func_all_pid_7276_tbl_0.html
- [37] What is monitoring and evaluation (M&E)? | sportanddev. (n.d.). Sportanddev. <https://www.sportanddev.org/research-learning/guiding-toolkits/monitoring-and-evaluation-me/what-monitoring-and>
- [38] Weiler, B., & Walker, K. (2014). Enhancing the visitor experience: Reconceptualising the tour guide's communicative role. *Journal of Hospitality and Tourism Management*, 21, 90–99. <https://doi.org/10.1016/j.jhtm.2014.08.001>
- [39] World bank group. (n.d.). Data for better lives. In [worldbanl.org. https://documents1.worldbank.org/curated/en/248201616598597113/pdf/World-Development-Report-2021-Data-for-Better-Lives.pdf](https://documents1.worldbank.org/curated/en/248201616598597113/pdf/World-Development-Report-2021-Data-for-Better-Lives.pdf)
- [40] Xu, L., Ao, C., Liu, B., & Cai, Z. (2023). Ecotourism and sustainable development: a scientometric review of global research trends. *Environment, development and sustainability*, 25(4), 2977–3003. <https://doi.org/10.1007/s10668-022-02190-0>
- [41] Xu, L., Ao, C., Liu, B. et al. Ecotourism and sustainable development: a scientometric review of global research trends. *Environ Dev Sustain* 25, 2977–3003 (2023). <https://doi.org/10.1007/s10668-022-02190-0>