

EVALUATING COMPLIANCE AND SUSTAINABILITY IN POTENTIAL ECOTOURISM SITES IN AKLAN: INSIGHTS FOR POLICY

De Jose T*

*Department of Tourism and Hospitality Management, Aklan State University – Iba Jay
Campus, Philippines*

Abstract: This Study explores the role of ecotourism in Aklan, focusing on its societal impact, the importance of monitoring and evaluation, and compliance levels at ecotourism sites monitored by the Department of Environment and Natural Resources (DENR) and the Provincial Tourism Office of Aklan. Aligned with Sustainable Development Goal (SDG) 15, the research assesses adherence to ecotourism standards across potential ecotourism sites in Aklan, emphasizing sustainability. Using a mixed-methods approach, data were collected through surveys and interviews with Tourism Officers, Barangay Captains, locals, and tourists from seven municipalities. The Ecotourism Tracking Tool, developed by the Department of Environment and Natural Resources (DENR) in collaboration with the Department of Tourism (DOT) and other relevant stakeholders, with eight standards, was used for site assessments. Findings revealed that the participant demographic was predominantly local, educated, and female. Compliance with ecotourism standards was moderate, with gaps identified in waste management and environmental education. Statistical analysis showed a significant correlation between compliance and the implementation of best practices, such as community involvement and sustainable resource management. Challenges included inconsistent enforcement of regulations, limited monitoring capacity, and the need for coordination among stakeholders. However, best practices, particularly in community-based tourism, were identified as key drivers of sustainability, environmental conservation, and local economic benefits. The Study provides insights into the enhancement of monitoring by the DENR and strategies by the Department of Tourism (DOT). It offers a foundation for policy recommendations to promote Aklan's sustainable development as an ecotourism destination and improve its global competitiveness.

Keywords: ecotourism compliance, sustainable tourism, policy development, Aklan ecotourism, best practices, challenges in ecotourism

Introduction

Ecotourism has emerged as a crucial economic driver globally, especially in natural regions, offering tourists the opportunity to deepen their understanding of nature and local cultures while fostering biodiversity conservation. According to Nash (2001), Ecological Tourism involves responsible travel to natural areas to protect environmental integrity while generating economic benefits for local communities. This concept has become increasingly relevant for governments in developing nations, including the Philippines, as they seek to attract international investment and create sustainable growth

*Corresponding Authors' Email: *dejose.tonylen@asu.edu.ph



opportunities. Ecotourism is characterized by its commitment to preserving natural spaces, promoting sustainability education, and supporting conservation efforts (Epler Wood, 2002). However, the successful implementation of ecotourism requires strong governance, active community participation, and coordinated efforts across stakeholders.

Aklan, a province in the Philippines, is poised to be a prominent ecotourism destination due to its abundant natural resources and globally recognized tourist attractions, such as Boracay Island. 2014, Aklan hosted over 1.6 million tourists, contributing significantly to the local economy. However, as Aklan aims to become a “Progressive and Sustainable Aklan,” the province faces the challenge of balancing tourism growth with sustainable development. While tourism has contributed to economic growth and poverty reduction, Aklan needs to address gaps in implementing and monitoring ecotourism policies, especially regarding sustainability.

One example of successful ecotourism in Aklan is the Bakhawan Eco-Park in Kalibo, which serves as both a conservation area and an ecotourism destination. This mangrove forest reserve highlights the importance of community-based management, environmental education, and the integration of local knowledge in conservation efforts. Despite the success of sites like Bakhawan, ecotourism standards and monitoring practices must be enforced across the province. The lack of coordinated efforts and limited monitoring capacity remain significant challenges that hinder further progress in developing Aklan as a sustainable ecotourism hub.

This Study aims to address these gaps by assessing the compliance of ecotourism sites in Aklan using the Ecotourism Tracking Tool, which evaluates environmental, social, and economic sustainability standards. The research seeks to identify areas where compliance is lacking and propose policy recommendations to improve ecotourism governance in the province. Central to the proposed framework for enhancing sustainability in Aklan is the active involvement of local communities in managing ecotourism sites, ensuring that they benefit economically and contribute to environmental conservation. A resource allocation framework will also be developed to prioritize investments in infrastructure, capacity-building, and conservation efforts.

Furthermore, digital tools can be vital in monitoring and enhancing the visitor experience. Real-time data collection through mobile apps and GIS (Geographic Information Systems) can track visitor numbers, environmental impacts, and resource use. These digital platforms can provide visitors with educational information on local culture, sustainability practices, and eco-friendly tourism, helping to foster a more environmentally conscious tourism experience. Integrating IoT (Internet of Things) sensors will also allow for continuous monitoring of ecological conditions, enabling timely interventions to protect natural resources.

This Study will provide valuable insights into the current state of ecotourism in Aklan and offer actionable recommendations to enhance sustainability. By addressing compliance gaps, promoting community engagement, and utilizing digital tools for monitoring, Aklan can strengthen its ecotourism policies and become a global model for sustainable tourism, ensuring long-term environmental, social, and economic benefits for the region.

Objectives

1. What are the characteristics of the respondents when classified according to variables
2. To evaluate the compliance of the potential ecotourism sites in Aklan in terms of policies, operations and management, socio-cultural, ecotourism products and services, economic benefits, financing/enterprise building, biological and facilities.
3. To evaluate the compliance of the potential ecotourism sites in Aklan in terms of policies, operations and management, socio-cultural, ecotourism products and services, economic benefits, financing/enterprise building, biological and facilities when respondents are classified according to gender and type of respondents.
4. To evaluate the challenges encountered in the potential ecotourism sites in Aklan.
5. To evaluate the challenges encountered in the potential ecotourism sites in Aklan when respondents are classified according to gender and type of respondents.
6. To determine the best practices applied in the potential ecotourism sites in Aklan.
7. To determine the best practices applied in the potential ecotourism sites in Aklan when respondents are classified according to gender and type of respondents.
8. To identify the significant relationships among compliance, challenges, and best practices of potential ecotourism sites.
9. To identify what policy can be crafted and developed.

Materials and Methods

Research Design

This Study employs an embedded qualitative-quantitative research design, integrating quantitative and qualitative data in a nested structure. The rationale for choosing this approach lies in its ability to address the research questions requiring numerical measurements and contextual insights to fully understand the compliance and challenges of ecotourism sites in Aklan. While other mixed-methods designs, such as the concurrent or explanatory sequential approach, could also provide valuable insights, the embedded design is most suitable here because it allows the quantitative data to drive the overall analysis while embedding qualitative data to offer deeper explanations and context.

In this Study, the quantitative data from surveys on ecotourism compliance forms the primary dataset, providing measurable insights into the level of adherence to ecotourism standards. However, the qualitative data from interviews is crucial for unpacking the underlying reasons behind these compliance levels and exploring challenges that may need to be fully captured by numerical data alone. This combination of data types enhances the depth and richness of the findings, allowing for a more comprehensive analysis of the ecotourism sites' status and sustainability challenges. Triangulation is

employed to ensure the robustness and validity of the findings. Survey data on compliance and challenges are cross-validated with qualitative interview data, offering a more nuanced understanding of the issues. For example, while the quantitative data might show moderate compliance with ecotourism standards, the qualitative interviews provide context, such as the logistical challenges in implementing sustainable practices or the socio-cultural factors influencing compliance. The embedded approach is efficient in this Study, as it enables a balanced focus on the measurable aspects of ecotourism (e.g., compliance rates, economic impacts) and the complex, contextual factors that influence those measures (e.g., community attitudes, governance challenges). This design ensures that the Study captures the “what” and the “why” of ecotourism success and challenges, providing actionable insights for policy development and site management in Aklan.

Locale of the Study

This study will be conducted among Provincial and Municipal Tourism Officers, Barangay Captain, Locals and Tourists in the seven (7) municipalities in Aklan: Madalag, New Washinton, Kalibo, Tangalan, Ibajay, Nabas and Buruanga.

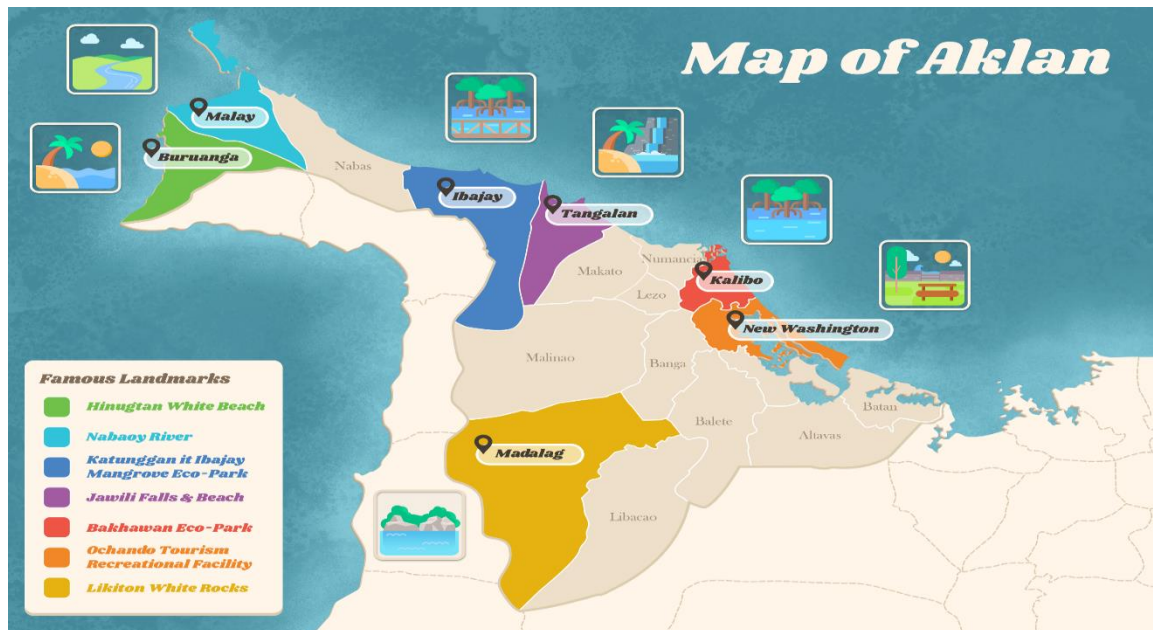


Figure 2. Shows the Map of Aklan Province

Scope and Limitations of the Study

The purpose of this study is to assess the participation in, impact of, and monitoring of ecotourism in Aklan, focusing on its social and community effects, the nature of monitoring and evaluation, and the identification of ecotourism sites that have been assessed by the Department of Environment and Natural Resources (DENR) and recognized by the Department of Tourism (DOT) and local tourism offices. The study was conducted during the second quarter of 2022-2023, and the respondents included Provincial and Municipal Tourism Officers, Barangay Captains, local residents, and tourists from seven municipalities in Aklan: Madalag, New Washington, Kalibo, Tangalan, Ibajay, Nabas, and Buruanga. These municipalities were selected due to their recognition as potential ecotourism sites by DENR and DOT. Each respondent completed the same set of questionnaires to ensure consistency in data

collection. This study's findings will benefit a wide range of stakeholders, including the DENR, DOT, local government units (LGUs), provincial and municipal tourism offices, local businesses, community members, tourists, other government agencies such as the Department of Trade and Industry (DTI) and Bureau of Internal Revenue (BIR), as well as future researchers. The primary data sources for this study include surveys using the Ecotourism Tracking Tool (ETT) for monitoring and evaluation of ecotourism sites, alongside interviews guided by an Interview Guide. Given that both survey and interview data are perception-based, potential biases in responses, such as social desirability bias or individual subjectivity, are acknowledged. To mitigate these biases, the study employs several strategies: ensuring anonymity and confidentiality for all respondents, emphasizing the importance of honest and candid feedback, and using multiple data sources (surveys and interviews) to triangulate the findings. By cross-validating survey responses with interview insights, the study aims to provide a more balanced and accurate understanding of ecotourism practices and challenges in Aklan. Additionally, involving a diverse range of respondents from different stakeholder groups (government officials, local community members, and tourists) helps reduce the risk of bias by capturing multiple perspectives on the issues at hand.

The Respondents

The respondents of this study were taken from the selected seven (7) municipalities of Aklan tourism cluster. The 85 respondents were the Provincial and Municipal Tourism Officers, Barangay Captain, Locals and Tourists. Table 1 Shows the distribution of respondents.

Table 1. The Total Number of Respondents from Seven Municipalities

Selected Municipalities in Aklan	Aklan Provincial Tourism Officer	Municipal Tourism Officer	Barangay Captain	Locals	Tourist	Total
Liktinon White Rocks, Madalag		1	1	5	5	12
Ochando Tourism Recreational Facility, New Washington		1	1	5	5	12
Bakhawan Eco Park, New Buswang, Kalibo		1	1	5	5	12

Jawili Falls and Beach, Tangalan	1	1	5	5	12
Katunggan it Ibajay, Ibajay	1	1	5	5	12
Nabaoy River, Malay	1	1	5	5	12
Hinugtan White Beach, Buruanga	1	1	5	5	12
Total	1	7	7	35	85

Research Instrument

To get the appropriate data needed, the researcher will have questionnaires with two (2) parts. Part I will ask for the profile of the respondents. The tool for profile was made by the researcher; it will determine the age, sex, civil status and educational attainment. Part II will use a survey using the Ecotourism Tracking tool, a monitoring/tracking document, consists of eight (8) sets of standards and parameters (i.e. policies, operations and management, socio-cultural, ecotourism products and services, economic benefits, financing/enterprise building, biological, facilities) used in evaluating ecotourism sites and projects. Another instrument is an interview guide. In the interview, a recorder will be used after securing a consent. The instruments are validated by five (5) experts.

Data Gathering Procedure

Before conducting the test, the researcher will secure a permit from the College Dean. Communication letters to the Department of Environment and Natural Resources, Department of Tourism, Provincial Tourism Office, Municipal Mayor, Municipal Tourism Office of each municipality identified and to the respondents were given to obtain permission to conduct the study. In conducting interview, a recorder will be used.

Data Analysis

The data obtained through a validated survey form using the Ecotourism Tracking Tool in Monitoring and Evaluation of Ecotourism Sites or Projects in the Philippines developed by the Department of Environment and Natural Resources – Ecosystems Research and Development Bureau (DENR-ERDB). As well as Interview using Interview Guide. The embedded research design was used in this study. To interpret the obtained data, the researcher employed frequency count, mean and percentage analysis.

Frequency count: This is used to establish the number of respondents who belong to a category.

Mean: This is used to find out the respondents' level of participation in ecotourism development.

Percentage Analysis: This is used to determine what percent of the respondents belong to a class or category.

The qualitative data in the interview will be analysed using thematic analysis where themes are employed.

Ethical Consideration

In the conduct of survey, the researcher secured a consent from the respondents. A consent form was used. The key informants are also asked for their consent. Before the interview, the purpose of the study, instructions on how to answer, and their willingness to respond were taken into account.

Confidentiality of the responses was also maintained by way of securing each questionnaire in an individual folder. Each respondent was given enough time to answer the survey. With an interview, the key informants were given enough time to express their ideas, thoughts and experiences.

Results and Discussion

This chapter presents the results, the analysis and interpretation of data gathered from the answers to the questionnaires distributed to the field. The said data were presented in tabular form in accordance with the specific questions posited on the statement of the problem. This covers the following: Age, Gender, Civil Status and Educational Attainment.

Characteristics of the Respondents when Classified According to Age, Gender, Civil Status and Educational Attainment

Table 2 presents the characteristics of the respondents in Aklan and were further categorized according to age, gender, civil status and educational attainment. As indicated, the respondents age: 45 years old and below (F=3, P=20.00), 46 to 55 years old (F=9, P=60.00) and 56 years old and above (F=3, P=20.00). The respondents gender: Male (F=6, P=44.67), Female (F=7, P=44.67) and LGBTQA+ (F=2, P=13.33). The respondents Civil Status: Single (F=6, P=40.00), Married (F=8, P=53.33) and Widowed (F=1, P=6.67). The respondents Educational Attainment: Master's Degree (F=4, P=26.67), College Graduate (F=9, P=60.00) and High School Graduate (F=2, P=13.33).

Table 2. Characteristics of the respondents when classified according to age, gender, civil status and educational attainment.

Category	Frequency	Percentage
Age		
45 years old and below	3	20.00
46 to 55 years' old	9	60.00
56 years old and above	3	20.00
Gender		
Male	6	40.00
Female	7	44.67
LGBTQA+	2	13.33
Civil Status		
Single	6	40.00
Married	8	53.33
Widowed	1	6.67
Educational Attainment		
Master's Degree	4	26.67
College Graduate	9	60.00
High School Graduate	2	13.33
Total	15	100.00

Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Policies

Table 3 presents the evaluation of compliance of the potential ecotourism sites in Aklan in terms of polices. As indicated, the respondents strongly agree that the site or project is located within identified ecotourism site based on the mean of 4.38.

Table 3. Evaluation of compliance of the potential ecotourism sites in Aklan in terms of policies.

Item	Mean	Interpretation
The site or project is located within identified ecotourism site	4.38	Extremely Extensive
The site or project and its operation are approved by PAMB by virtue of the rules and regulation pursuant to the provision RA 7586 ² and DAO 2008-26.	3.76	Highly Extensive
National/Local permits and licenses (e.g., DTI registration, Mayor's permit, health sanitation certificate, Flag T, PAMB resolution, etc.) are issued to legalize operations	3.81	Highly Extensive
Environmental Compliance Certificate (ECC) is required, has it been issued	3.68	Highly Extensive
Over-all Mean	3.91	Highly Extensive

Legend: 1.00-1.80-Strongly Disagree; 1.81-2.60- Disagree; 2.61-3.40- Moderately Agree; 3.41-4.20- Agree; 4.21-5.00-Strongly Agree

This also means that the evaluation is extremely extensive. Moreover, they agree that the site or project and its operation are approved by PAMB by virtue of the rules and regulation pursuant to the provision RA 7586² and DAO 2008-26 based on the mean of 3.76 which means that it is highly extensive. They also agree that national/Local permits and licenses (e.g. DTI registration, Mayor's permit, health sanitation certificate, FlagT, PAMB resolution, etc.) are issued to legalize operations based on the mean of 3.81 and the Environmental Compliance Certificate (ECC) is required, has it been issued based on the mean of 3.68. These areas are highly extensive in its evaluation of compliance taken as a whole, they agreed that it is compliant in terms of policies.

According to Weaver (2002: 15), ecotourism is a form of tourism that fosters learning experiences and appreciation of the natural environment, or some component thereof, within its associated cultural context. It has the appearance (in concert with best practice) of being environmentally and socio-

culturally sustainable, preferably in a way that enhances the natural and cultural resource base of the destination and promotes the viability of the operation.

This has been verified by participants during focus group discussion that they observed and conformed with the regulation, certification, licenses and permits. In fact, one participant said:

“So with regards to our licenses ag permits since it is an ecotourism site, usually ang permits man sa munisipyo, so ang permits nila ag ang permits ngara hay through permits man mismo it office of the Mayor or through licensing man gihapon nga permits.” *(With regards to licenses and permits, since it is an Ecotourism site, the Municipal Office will give them. Their permits will come from the Office of the Mayor or through licensing. Whether LGU owned or private, permits will come from the Municipal Office.)*

Additionally, one participant also stated that:

“Since 2008 gin buligan abi kami it Zoological Society of London nga mag apply kami it Community Based Management Agreement and Community Base Forest Agreement para amon nga daywa nga people’s organization which is the BFA ag Naisud Mangrove and Aquatic Organization tag We always invite and requested from the DENR when we held our public hearing in barangay Bugtong-bato for which their office is just nearby, tapos iba man among meetings and preparation for the operation of Katunggan it Ibajay. Ag speaking naman as the license officer it LGU hay uwa man kami nag required pa kasi parang it is Municipal owned manan yung ecotourism nga na identified namon which is the Katunggan it Ibajay.” *(Since 2008, Zoological Society of London helped us to apply Community Base Management Agreement and Community Base Forest Agreement for our two people’s organization which is BFA and Naisud Mangrove and Aquatic Organization. As the License officer of LGU, I did not require anything because the Ecotourism that we identified which is the Katunggan it Ibajay is Municipally owned.)*

Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Operations and Management.

Table 4 presents the evaluation of compliance of the potential ecotourism sites in Aklan in terms of operations and management. As indicated, the respondents agree that the management goals, objectives, vision and mission are aligned with the principles of ecotourism (e.g. natural and cultural area, community participation, protection and management of the environment, cultural and indigenous knowledge, education and ethics, local benefits, visitor management, responsible marketing and financing/enterprise building) has a mean of 4.00 which indicates of highly extensive compliance. Moreover, they also agree that the management/operational plan is aligned with the principles of ecotourism and if applicable, aligned with the existing NES and DAO 2013-19 with 3.81; highly extensive e. Furthermore, the respondents also agree that the system is in place to control access/ use of natural resources in the project site, with a mean of 3.76 or highly extensive.

Table 4. Evaluation of compliance of the potential ecotourism sites in Aklan in terms of operations and management.

Item	Mean	Description	Interpretation
<p>The management goals, objectives, vision and mission are aligned with the principles of ecotourism such as:</p> <ul style="list-style-type: none"> Natural and Cultural Area Community Participation Protection and Management of the Environment, Cultural and Indigenous Knowledge Education and Ethics Local Benefits Visitor Management Responsible Marketing Financing/Enterprise Building 	4.00	Agree	Highly Extensive
<p>The management/operational plan is aligned with the principles of ecotourism and if applicable, aligned with the existing NES and DAO 2013-19.</p>	3.81	Agree	Highly Extensive

System is in place to control access/ use of natural resources in the project site.	3.76	Agree	Highly Extensive
There are enough people employed to manage and protect the environment of the area.	3.52	Agree	Highly Extensive
Employees/staff are trained by DENR, DOT, and other certified training providers to fulfil/ apply ecotourism activities.	3.29	Moderately Agree	Extensive
Measures/Mechanism are in place and practiced to ensure security of the visitors.	3.43	Agree	Highly Extensive
There is specific budget (per annum) dedicated for environmental management and ecotourism application.	3.38	Moderately Agree	Extensive
The budget allocated for environment is adequate relative to the needs of the ecotourism project	3.33	Moderately Agree	Extensive
Fee collection system is in place and approved by authorities	3.52	Agree	Extensive
There is any fee system (e.g. environmental user's fee) implemented in the area and extends contribution to the environmental management/ ecotourism activities	3.38	Moderately Agree	Extensive

Operations and activities monitored, and evaluated internally against performance.	3.52	Agree	Highly Extensive
There IEC and awareness campaigns are implemented to support ecotourism activities (for visitors).	3.67	Agree	Highly Extensive
Over-all Mean	3.55	Agree	Highly Extensive

Legend: 1.00-1.80-Strongly Disagree; 1.81-2.60- Disagree; 2.61-3.40- Moderately Agree; 3.41-4.20- Agree; 4.21-5.00-Strongly Agree

With regards to having people employed to manage and protect the environment of the area, they also agree with a mean of 3.52; highly extensive. In addition, the respondents moderately agree that employees/staff are trained by DENR, DOT, and other certified training providers to fulfill/apply ecotourism activities and this has a mean of 3.29 or extensive. The respondents also agree that measures/mechanism are in place and practiced to ensure security of the visitors, and it has a mean of 3.43; highly extensive. In addition, they moderately agree that there is specific budget (per annum) dedicated for environmental management and ecotourism application with a mean of 3.33; extensive. Correspondingly, they agree that the fee collection system is in place and approved by authorities and this has a mean of 3.52; extensive. The respondents moderately agree that there is any fee system (e.g., environmental user's fee) implemented in the area and extends contribution to the environmental management/ ecotourism activities and it has a mean of 3.38; extensive. In the area of operations and activities, the respondents agreed that it is monitored, and evaluated internally against performance and it has a mean of 3.52; highly extensive. Moreover, they agree that there IEC and awareness campaigns are implemented to support ecotourism activities (for visitors) with a mean of 3.67; highly extensive.

For the evaluation of compliance of the potential ecotourism sites in Aklan in terms of operation and management, it has an overall mean of 3.55 which means highly extensive.

According to Lee & Jan (2019), ecotourism is the practice of traveling to relatively less exploited natural destinations to appreciate the natural settings, acquire knowledge about wildlife, and enjoy local cultures in authentic settings while conserving the environments of the destinations. While ecotourism has been widely facilitated by the authorities of protected areas in many countries that promote the sustainable development of tourism (Buckley, Cater, Linsheng, & Chen, 2008). Therefore, support from the local community is integral for balanced ecotourism (Nunkoo & Gursoy, 2012). When well planned, ecotourism may deliver substantial economic benefits to local residents (Deery, Jago, & Fredline, 2012). For example, fishermen living in an ecotourism destination may explore related occupations, such as boatmen, scuba drivers, and seafood stall owners, to boost their earnings (Plummer & Fennell, 2009).

This has been tackled by participants during focus group discussion. They observed with the operations and management the challenges and best practices occurred. In fact, one participant said:

“Sa part namon sa Katunggan sa management, nag start malang kami by declaring a portion it among eco-park nga anu imaw as eco-park agud di eon imaw matabing lang gid, tapos igto sa sueod may mga provisons lang igto it ordinance nga kung siin asta du ga warang kasi may mga activities mat-a du community nga like fishing, mga gabuol it shells. May mga area lang nga gin identify para man mana igto, then our eco-park abi also part man it NPA it bugtong bato area kaya kami lat-ah sa among part sa LGU hay we created that ordinance para ma protects namon ma recreate du activities para sa pamueoyo as well sa guest nga nagasueod.” (In Katunggan, in the management perspective, we started by declaring a portion of our eco-park as an eco-park so it will not be damaged. In the inner part, there are provisions of ordinance if until where can tourist go. Our eco-park is also part of Bugtong Bato so the LGU created ordinances to protect and recreat activities for the community and guests they will visit.)

Moreover, one participant also shared that:

“Tanan abi nga tourism site hay gina require nga mag collect visitors’ arrival. Importante gid ah du statistics ngara since source imaw it inputs it atong mga investors on how to plan sa sangka lugar ngarun, nga abu gid man baea nga turista nga gaagto? Parang may reason baea nga ma develop more businesses in the areas? To support baea nga infrastructure so importate gid nga declare gid naton du statistic.” (All Tourism sites are required to collect visitor’s arrival. Statistics is very important. This is the source of inputs of our investors of how to plan in that area: is it a tourist attraction? Could it be developed into a business area? Are there infrastructures? Bakhawan eco-park is managed by people’s organization of KASAMA. The LGU Kalibo and the Province only monitor if they follow the regulations.)

In addition, one local participant also shared that:

“Sa Malay naman sir may difference talaga form the different Barangay sir kasi almost Barangay hay may ecotourism sites. So, Barangay Nabaoy sir hay tag dati nilang strategy sa bawat resort doon sila naniningil nga entrance fee, but now ang ginawa nila is papasok ka palang sa Narangay Nabaoy doon na sila naglagay nga output po for enviromental fee which is 20 pesos. Wala na pong entrance fee, environmental lang po.” (In Malay there are different fees in different Barangay, because almost All the Barangay has their own ecotourism site. But in Barangay Nabaoy, their previous strategy was in every resort they have their own entrance fee, but now did was they have put an outpost before you enter the barangay for the collection of environmental fees worth 20 pesos each per person. There is no entrance fee collected only environmental fee.)

Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Socio-cultural.

Table 5. Presents the evaluation of compliance of the potential ecotourism sites in Aklan in terms of socio-cultural.

Table 5. Evaluation of compliance of the potential ecotourism sites in Aklan in terms of socio-cultural.

Item	Mean	Description	Interpretation
------	------	-------------	----------------

Local labour is utilized in establishing the area.	3.95	Agree	Highly Extensive
Local people are engaged/employed in tshe operations of the site/resort.	4.05	Agree	Highly Extensive
Local leaders have input in management decision making.	4.00	Agree	Highly Extensive
The ecotourism site or project gender is responsive as indicated in the test score result using the “Gender Analysis Tool for Ecotourism enterprise Development”.	3.48	Agree	Highly Extensive
The indigenous People (IP) is considered in ecotourism activities.	3.19	Moderately Agree	Extensive
There is any feedback mechanism being implemented.	2.95	Moderately Agree	Extensive
Based on feedback mechanisms, visitors satisfied in their visit and activities undertaken in the site.	3.05	Moderately Agree	Extensive
Carrying capacity is being implemented.	3.52	Agree	Highly Extensive
Overall Mean	3.52	Agree	Highly Extensive

Legend: 1.00-1.80-Strongly Disagree; 1.81-2.60- Disagree; 2.61-3.40- Moderately Agree; 3.41-4.20- Agree; 4.21-5.00-Strongly Agree

As indicated, the respondents agree that the local labor is utilized in establishing the area with a mean of 3.95 and with an interpretation of highly extensive This also means that the respondents also agree that the local people are engaged/employed in the operations of the site/resort with a mean of 4.05 and with an interpretation of highly extensive. Moreover, the respondents agree that the local leaders have input in management decision making with a mean of 4.00 with an interpretation of highly extensive.

The respondents also agree that the ecotourism site or project gender is responsive as indicated in the test score result using the “Gender Analysis Tool for Ecotourism Enterprise Development” with a mean of 3.48 and with an interpretation of highly extensive.

Additionally, the respondents moderately agree that the indigenous People (IP) is considered in ecotourism activities with a mean of 3.19 and is considered extensive. The respondents moderately agree that there is any feedback mechanism being implemented with a mean 2.95 and is considered extensive. The respondents also moderately agree that based on feedback mechanisms, visitors satisfied in their visit and activities undertaken in the site with a mean of 3.05 and is considered extensive. In addition, the respondents agree that the carrying capacity is being implemented with a mean of 3.52 and is considered highly extensive. The evaluation of compliance of the potential ecotourism sites in Aklan in terms of socio-cultural has a total mean of 3.52, with a description of agree and interpretation of highly extensive.

According to a comprehensive model of ecotourism includes sustainable characteristics that are supportive of environmental enhancement, global in scope, and inclusive of both environmental and sociocultural dimensions (Weaver, 2005). Conceptually, a fine line exists between ecotourism and sustainable tourism. Ecotourism is a concept driven by demand from tourists, while sustainable tourism incorporates measures to conserve the environment from the supply side, meaning by tourism service providers (Dolnicar & Leisch, 2007).

This has been validated by participants during the focus group discussion; their experiences and practices in regard with the socio-cultural aspect. In fact, one participant said:

“In terms of socio-cultural way back 2015 ASEAN, ginbul-an kami it performers nga authentic Malaynons gid baea. Gin ubra mismo it CPP nag link kami it CPP nga mag call kami it amon nga cultural mapping. Nag cultural mapping kami in 1 and half year together with 17 Barangays plus Ati village so identified mat-a ah imaw dun. With the authentic dance steps. May research base da imaw with UP Diliman even with our Malay cave. Even sa amon nga programs sa tourism office mismo, baskog ang amon nga council mismo. They are very concern in planning man mismo and as of now atleast may una gid nga authentic malayanon dance steps.” (In terms of Socio-cultural, way back 2015 ASEAN, they invited performers who are authentic Malaynons. We linked with the CPP and they asked us to make a cultural mapping. We did a cultural mapping for 1 and half year with the 17 barangays including the Ati Village. There’s a research about this in UP Diliman even with our Malay Cave. We also have the Ati Village in Boracay and in Mainland Malay. Even in our programs in tourism office, we are very concerned with the planning. At least now, we have an authentic Malaynon dance steps.)

Additionally, one participant also shared that:

“Kung may mga big events mana we coordinated with the LGU gina aeaw-aeaw mat-ah namon dun it Ati-ati groups kon amat dun hay may una mat-ah dun nga pilang bilog nga ginapasaot sa Katunggan. We have mga souvenir items nga funded by CSL Souvenir nga mga kaeo, shirts, but this year hay manaba gid ah du fund it LGU’s paearehos man kami dun nga manaba du amon nga fund so uwa kami dun produce it makato nga mga souvenirs items. Say to it mga promotional materials. But we encourage our skilled craftsmen nga pagka may schedule igto hay napa agto man namon sanda to display their

creations, gin senyas ni sir amon nga jeweller like mga shells, nga ASU gid du amon nga avid supporter sa coco shells.” (During big events, we coordinate with the LGU, we welcome and there are some members of the Ati community who dance. We have souvenir items funded by CSL souvenirs like hats and shirts. But this year, the LGU has very low funding so we are also affected and we can’t produce the same souvenir items. But we encouraged our skilled craftsmen during events to attend and display their creations like shell jewelries. ASU is our bid supporter when it comes to coco shells.)

Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Ecotourism Products and Services.

Table 6 presents the evaluation of compliance of the potential ecotourism sites in Aklan in terms of ecotourism products and Services. As indicated, the respondents agree that the Tourism products and service are nature/environment friendly with a mean of 3.86 and is considered highly extensive. The respondents also agree that the tourist products and services are culture-based with a mean of 3.62 and is considered highly extensive. Moreover, the respondents agree that the products and services are hazard and danger free with a mean of 3.71 and is considered highly extensive. The respondents also agree that eco-guides are accredited per provisions of Rules and Regulations to govern the accreditation of eco-guides, ecotours, ecolodge, and ecotour facilities with a mean of 3.48 and is considered highly extensive as well. On the other hand, the respondents moderately agree that eco-tours are accredited per provision rules and regulations to govern the accreditation of eco-guides, ecotours, ecolodge, and ecotour facilities with a mean of 2.86 and is considered extensive.

Table 6. Evaluation of compliance of the potential ecotourism sites in Aklan in terms of ecotourism products and services.

Item	Mean	Description	Interpretation
Tourism products and services are nature/environment friendly.	3.86	Agree	Highly Extensive
Tourist products and services are culture-based.	3.62	Agree	Highly Extensive
The products and services are hazard and danger free.	3.71	Agree	Highly Extensive
Eco-guides are accredited per provisions of Rules and Regulations to govern the accreditation of eco-guides, ecotours, ecolodge, and ecotour facilities.	3.48	Agree	Highly Extensive

Eco-tours are accredited per 2.86 Moderately Agree Extensive provision Rules and Regulations to govern the accreditation of eco-guides, ecotours, ecolodge, and ecotour facilities.

Nature interpretation and learning 3.52 Agree Highly Extensive experience offered.

Overall Mean 3.51 Agree Highly Extensive

Legend: 1.00-1.80-Strongly Disagree; 1.81-2.60- Disagree; 2.61-3.40- Moderately Agree; 3.41-4.20- Agree; 4.21-5.00-Strongly Agree

The respondents agree that the nature interpretation and learning experience is being offered with a mean of 3.52 and is considered highly extensive.

Overall, the respondents agree that the evaluation of compliance of the potential ecotourism sites in Aklan in terms of ecotourism products and services with an overall mean of 3.51 and is considered highly extensive.

According to Nor'Aini Yusof, Faiz Abd Rahman, and Mohammad Iranmanesh (2014) when service quality is thought of as an important factor to the success of tourism service providers, the importance of estimating service quality provided to tourists becomes apparent. Estimating service quality provides tourism service providers with the necessary information needed to manage their marketing operations appropriately. Therefore, this estimation should be performed with the right measurement scales. In addition, recognizing the importance of the tourism industry in the economic well-being of a country, governments have paid attention on campaigning for specific tourism products and destinations, with special promotions undertaken to market niche tourism products, such as ecotourism. In spite of the growing effort to attract tourists, these ecotourism destinations continue to struggle to attract visitors for an unknown reason.

This has been ratified by the participants during focus group discussion with what they observed and practiced with the ecotourism products and services. In fact, one participant said:

“Like for us amon nga product the Boracay itself ag pag abot sa services hay daya do tourism front liners. Sanda raya hay atong mga tourism front liners like mga tricycle drivers, vendors, and waiters, that offer services. For example, we consider from the IPs like sa amon mga Ati do andang products and usually hay mga nito and accessories.” (For us the products and services of Boracay are the tourism front liners like tricycle drivers, vendors and waiters/waitresses that offer services. One example also is the products of IPs like the Ati Village. They have nito accessories.)

Additionally, one participant also shared that:

“Sa bakhawan may una eagi sa entrance nga shops, one stop shops it mga locally made products. Tapus may offering man sanda it tamilok, per request malang man du tamilok. Tapus hay if may mga tourist kami nga na welcome gina request gid namon nga mag offer it tamilok para ma experience nanda.” (In Bakhawan, there is a one stop shop of locally made products. They also offer tamilok, but this only by request. If there are tourist, we always request them to offer tamilok for their experience.)

Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Economic Benefits.

Table 7 presents the Evaluation of compliance of the potential ecotourism sites in Aklan in terms of economic benefits. As indicated, the respondents agree that the site providing economic benefits to local communities, e.g., income, employment, payment for environmental services with a mean of 3.48 and is considered highly extensive.

Table 7. Evaluation of compliance of the potential ecotourism sites in Aklan in terms of economic benefits.

Item	Mean	Description	Interpretation
The site providing economic benefits to local communities, e.g. income, employment, payment for environmental services.	3.76	Agree	Highly Extensive
The system of revenue sharing in place (including payment of tax).	3.48	Agree	Highly Extensive
Value adding to local products/ resources is being practiced.	3.57	Agree	Highly Extensive
The local products patronized.	3.86	Agree	Highly Extensive
Overall Mean	3.67	Agree	Highly Extensive

Legend: 1.00-1.80-Strongly Disagree; 1.81-2.60- Disagree; 2.61-3.40- Moderately Agree; 3.41-4.20- Agree; 4.21-5.00-Strongly Agree

The respondents also agree that the system of revenue sharing in place (including payment of tax) with a mean of 3.48 and is also considered highly extensive. Moreover, the respondents agree that the value adding to local products/ resources is being practiced with a mean of 3.86 and is considered highly extensive. In addition, the respondents also agree that the local products are being patronized with a mean of 3.86 and is considered highly extensive.

According to Eshun, Adjei, Knust & Segbefia, 2016; Hugo & Nyaupane, 2016. Ecotourism, first and foremost, has been associated with positive economic impacts on the destination economies concerned, with the sector being noted as being the fastest growing within the tourism industry.

Positive economic impacts are generally linked to the creation of jobs (Andereck, Valentine, Knopf & Vogt, 2005; Venkatesh & Gouda, 2016) within the sector, which encourages the diversification of community livelihood strategies (Duffy, 2006; Nsukwini & Bob, 2016; Stone & Nyaupane, 2017; Stronza, Hunt & Fitzgerald, 2019). Through such diversification, locals gain an opportunity to be less reliant on traditional livelihood activities, like agriculture, than they have been in the past.

This has been affirmed by a participant during the focus group discussion with what he has observed and experience with the economic benefits in ecotourism sites in Aklan. In fact, one participant said:

“Every time a site has developed, example may hotel nga bag-o, may attraction nga bag-o hay naga provide gid imaw it employment sa palibot, ga provide gid it economic activity, gatao it oportunidad sa mga livelihood may mga nagaubra dayun it mga souvenir items, ga ubra it mga kaeen-unon. I also believe nga every time a tourism activity or an attraction nga nagabukas hay may una gid imaw nga benefit nga ginatao sa host LGU. So duyon ngane nga ga tinguha gid aton nga LGU’s nga magkaroon gid it mga makaraya nga initiatives, may mga tourism attractions may mga bag-o nga hotels, mga bag-o nga restaurants para makabulig gid sa mga pumueoyo it LGU mana o bilog gid nga Aklan.” (Every time a site has developed, for example, there’s a new hotel, new attractions, they will surely provide employment for the community, economic activity and opportunities for livelihood. People will make souvenir items and local foods. I also believe that every time a tourism activity or an attraction open, the LGU surely benefit. That’s why the LGUs strive to have these kinds of initiatives: tourism attractions, new hotels, new restaurants, to help the community and the whole Aklan.)

Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Financing/Enterprise Building.

Table 8 presents the evaluation of compliance of the potential ecotourism sites in Aklan in terms of financing/enterprise building. As indicated, the respondents moderately agree that financing is sourced locally with a mean of 3.33 and is considered extensive. Moreover, the respondents agree that the establishments were locally owned with a mean of 3.67 and is considered highly extensive.

Table 8. Evaluation of compliance of the potential ecotourism sites in Aklan in terms of financing/enterprise building.

Item	Mean	Description	Interpretation
Financing is sourced locally.	3.33	Moderately Agree	Extensive
The establishment is locally owned.	3.67	Agree	Highly Extensive

How the marketing/ promotion 3.38 Moderately Agree Extensive
strategy with the principles of
ecotourism are consistently applied.

There are concessionaires operating 3.24 Moderately Agree Extensive
in the site.

Overall Mean	3.40	Moderately Agree	Extensive
--------------	------	------------------	-----------

Legend: 1.00-1.80-Strongly Disagree; 1.81-2.60- Disagree; 2.61-3.40- Moderately Agree; 3.41-4.20- Agree; 4.21-5.00-Strongly Agree

Moreover, the respondents moderately agree that the marketing/ promotion strategy with the principles of ecotourism are consistently applied with a mean of 3.38 and is considered extensive. The respondents also moderately agree that there are concessionaires operating in the site with a mean of 3.24 and is considered extensive. Overall, the evaluation of compliance of the potential ecotourism sites in Aklan in terms of financing/enterprise building has an overall mean rating of 3.40 and is considered extensive.

According to de Lima, I.B., Kumble, P.A., de Almeida, M.G. *et al.* Ecotourism community enterprises and ethno development: modelling the Kalunga empowerment possibilities in the Brazilian savannah. *Braz J Sci Technol* 3, 1 (2016) community expects ecotourism to serve as a development as a catalyst for economic development by propitiating financial independence through ecotourism community enterprises.

This has been shared and discussed by a participant during a focus group discussion in relation to their financing/enterprise building practices. In fact, one participant said:

“In our office, may division office abi for research and improvement, ang usual pa lang namon nga financial support especially sa emerging with that area is seminar and workshop ag ang product development mismo, sa community base may budget nga 3 million whole year so sa mga potential tapos planning research hay ga put up sanda it training. So sa amon nga LGU tanan nga training hay libre gid ah pero ma umpisa imaw sa assessment nga sueod imaw sa 4 A’s nga gina tawag, tag mga accommodation, access, amenities and attractions. In terms of the accessibility masueod imaw sa Mayor’s office eota ma include sa 20% development plan o budget fund kung бага.” (*In our office, there’s a Division Office for research and improvement. We only have seminars and workshops as support. In community base, there’s a budget of 3 million for the whole year. It is for potential projects and planning research. In our LGU, all trainings are free, starting from assessment until the 4A’s or accommodation, access, amenities and attractions. In terms of accessibility, it will go to the Mayor’s office, and will be included in the 20% development plan or budget.*)

Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Bio-ecological and Facilities.

Table 9 presents the evaluation of compliance of the potential ecotourism sites in Aklan in terms of bioecological and facilities. As indicated, the respondents agree that the site is located near or within the habitat of critical biodiversity species with a mean of 3.86 and is considered highly extensive. The respondents also agree that the rules and regulation on gathering and collection of wildlife species are set per provisions of RA 9147 with a mean of 3.90 and is considered highly extensive. Moreover, the respondents moderately agree that there are information/baseline about biodiversity in the area with a mean of 3.38 and is considered extensive. In addition, the respondents agree that the native species are used in the design of ecotourism culture with a mean of 3.52 and is considered highly extensive.

Table 9. Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Bio-ecological and Facilities.

Item	Mean	Description	Interpretation
The site is located near or within the habitat of critical biodiversity species.	3.86	Agree	Highly Extensive
Rules and regulation on gathering and collection of wildlife species are set per provisions of RA 9147.	3.90	Agree	Highly Extensive
There are information/baseline about biodiversity in the area.	3.38	Moderately Agree	Extensive
Native species are used in the design of ecotourism culture.	3.52	Agree	Highly Extensive
The (tourism) activities pose threats to biodiversity and physical attributes of the ecotourism site.	2.86	Agree	Highly Extensive
Maintenance/Improvement/Rehabilitation activities are practiced.	3.38	Moderately Agree	Extensive
Overall Mean	3.48	Agree	Highly Extensive

Legend: 1.00-1.80-Strongly Disagree; 1.81-2.60- Disagree; 2.61-3.40- Moderately Agree; 3.41-4.20- Agree; 4.21-5.00-Strongly Agree

Moreover, the respondents agree that the (tourism) activities pose threats to biodiversity and physical attributes of the ecotourism site with a mean of 2.86 and is considered highly extensive. For the maintenance/improvement/rehabilitation activities that were practiced, it was moderately agree with a mean of 3.38 and is considered extensive. Overall, the respondents agree that the evaluation of compliance of the potential ecotourism sites in Aklan in terms of bioecological and facilities has an overall rating of 3.48 and is considered highly extensive.

According to Mangala De Zoysa (2022), biodiversity conservation and sustainably utilizing natural resources improve the benefits of ecotourism development. Ecotourism development makes values for sustainably using biodiversity creating economic development opportunities. It is also mentioned that Degradation and destruction of habitat, overexploitation and illegal extraction of species, emissions of greenhouse gasses for climate change, contamination and pollution of the environment, and spread of exotic species are identified as the main conflicts. Conservation resolutions are discussed on education and awareness-raising activities for biodiversity conservation, *in-situ* conservation and *ex-situ* preservation of species, integrating biodiversity into ecotourism development, integrating management of biodiversity and ecotourism, linking ecotourism industry and conservation organizations, ecotourism policy and legislations for biodiversity conservation, and imposition of rules and regulations. Policy solutions and building capacity among institutions and other stakeholders for governance and sustainable conservation of biodiversity are key for sustainable ecotourism development.

This has been confirmed and discussed by the participants during the focus group discussion what they have observed and practice in regard with the bio-ecological and facilities. In fact, one participant said:

“Du Bakhawan eco-park abi hay protected eota imaw da since recognize imaw nationally so preserve ag protected, ag duyon ngane may in-house eota ngane dun ina PENRO nga naka station una, may days nga una imaw naka station, naka base gid sa Bakhawan gid ah. May una abi nga for example may mga shoots abi para sa mga Pageants, or national pageants, una dun sanda nga ga bantay kung alin du pwedi i-allow sa mga mangroves kung alin du pwedi tabingon, ga tao man sanda it permits.” (Bakhawan eco-park is already a protected area and there’s already an in-house PENRO stationed in the area. There are times when there are shoots for pageants or national pageants, they are monitoring if what is allowed in the mangroves and they also give permits.”

Additionally, one participant also stated that:

“Sa wildlife do amon nga mud lobsters hay naging subjects it research dun dati ag gin-alalayan gid ah dun ni sir Rey kasi ngane most of them are nocturnal kaya gabii sanda ga guwa ag gin studyhan nada dun life gid ah it duyon nga mga animals. Then we have a bird ina, syempre maeagako du kakahuyan kaya du birds una karun hay maabo, the LGU purchased a binocular for Katunggan eang gid para maka observe, kasi kon una ka eating sa footwalk hay maeayo man indi man makita, ag may mga spotted una dun nga nga bayawak, tag aton gid species iya sa Panay hay ina imaw dun ag gina hinyo gid nga

proteksyonan kasi rare na siya tapos ro mga mangroves are regrown also for fishes kaya sambilog imaw sa nakabulig sa pag-abo it mga fishes una sa Barangay Bugtong-bato ag Naisud area, abu nga nga plants naton nga wild imaw ag mabahoe ta imaw sa ecotourism kaya protected na siya dyan.” (*Our mud lobsters became subject for research. Most of them are nocturnal so they have to go out during the night. Birds are abundant because we have lush woods. The LGU purchased binoculars for Katunggan to observe them. We also have a spotted bayawak which is a species found only in Panay. Mangroves are regrown also for fishes and it helped a lot with the growing population of fishes in Barangay Bugtong-bato and Naisud area. We also have wild plants in the area which plays a big role in the ecotourism that is why it is being protected.*)

Evaluation of Compliance of the Potential ecotourism sites in Aklan in terms of Facilities.

Table 10 presents the evaluation of compliance of the potential ecotourism sites in Aklan in terms of facilities. The results indicated that the respondents moderately agree that there are necessary tourism facilities within the site in accordance with DAO 2009-09⁷ (e.g. protected area information center, entrance/exit gates, ticket booth, guard station, view deck, board walk, lodging facility/cottage, toilets, parking area, trails, camping facilities, materials recovery facility and water pumps/catchment/facility) with a mean of 3.29; extensive. In addition, they moderately agree when it comes to visitor’s facilities being adequate and it has a mean of 3.33; extensive. When it comes to the design of the site and its structures/ facilities is in harmony with the environment per provision of DAO 2009-09 (e.g. tourism carrying capacity is considered in the design, density of the structure in comparison to total area (not too crowded), took advantage of natural lights and vegetation and allowed natural fragrance of the environment to be enjoyed) the respondents agree with the mean of 3.52; high extensive. Likewise, they also agree that the design of the site and its structure/facilities shows cultural considerations and it has a mean of 3.67; highly extensive. Furthermore, they moderately agree that there are necessary tourism signage leading to and within the site in accordance with DAO 2009-09 (e.g., administrative sign, directional sign, interpretative sign, restrictive sign) with a mean of 3.33; extensive.

Table 10. Evaluation of compliance of the potential ecotourism sites in Aklan in terms of facilities.

Item	Mean	Description	Interpretation
There are necessary tourism facilities within the site in accordance with DAO 2009-09 ⁷ such as:	3.29	Moderately Agree	Extensive
a. Protected Area Information Centre			
b. Entrance/Exit Gates			
c. Ticket Booth			
d. Guard Station			

e. View Deck

f. Board Walk

g. Lodging Facility/Cottage

h. Toilets

i. Parking area

j. Trails

k. Camping Facilities

l. Materials Recovery Facility

m. Water pumps/catchment/facility

Visitors facilities are adequate	3.33	Moderately Agree	Extensive
----------------------------------	------	------------------	-----------

The design of the site and its structures/ facilities is in harmony with the environment per provision of DAO 2009-09 such as:	3.52	Agree	Highly Extensive
--	------	-------	------------------

a. Tourism carrying capacity is considered in the design

b. Density of the structure in comparison to total area (not too crowded)

c. Took advantage of natural lights and vegetation

d. Allowed natural fragrance of the environment to be enjoyed.

The design of the site and its structure/facilities shows cultural considerations.	3.67	Agree	Highly Extensive
--	------	-------	------------------

There necessary tourism signage leading to and within the site in accordance with DAO 2009-09 such as:	3.33	Moderately Agree	Extensive
--	------	------------------	-----------

a. Administrative sign

b. Directional sign

c. Interpretative sign

d. Restrictive sign

The site is located near hazardous and disaster-prone areas such as:	3.24	Moderately Agree	Extensive
--	------	------------------	-----------

a. Active volcanoes

b. Fault lines

c. Avalanches/Landslides

d. Erosion and situation/ deposition
(e.g. shoreline or riverbed changes)

e. Drought

f. Temperature extremes

g. Storms and flooding

h. Oils and gas drilling

i. Mining and quarrying

j. Energy generation, including from hydropower dams.

Are the materials used in the structures and facilities natural?	3.43	Agree	Highly Extensive
--	------	-------	------------------

The materials are used in the structures and facilities locally source such as:	3.62	Agree	Highly Extensive
---	------	-------	------------------

a. Primary building material like stone, earth, plants, wood that are available locally are prioritized

b. Use of recyclable product and materials are also prioritized

c. Tertiary materials that are man-made (i.e., artificial, synthetic, non-renewable) that are minimized, if not totally avoided

d. Toxic and hazardous materials are avoided.

The conservation practices in the designing of structure and facilities.	3.57	Agree	Highly Extensive
--	------	-------	------------------

Source of water is sustainable.	3.52	Agree	Highly Extensive
---------------------------------	------	-------	------------------

The site is practicing proper waste management such as:	3.38	Moderately Agree	Extensive
---	------	------------------	-----------

a. For solid waste, there is already an MRF

b. Wastewater treatment facilities are installed and operational

c. Leakages of oil, gasoline, diesel are avoided

d. No hazardous and toxic substances are; used and if they are used waste are brought out from the site for proper disposal.

Overall Mean	3.45	Agree	Highly Extensive
--------------	------	-------	------------------

Legend: 1.00-1.80-Strongly Disagree; 1.81-2.60- Disagree; 2.61-3.40- Moderately Agree; 3.41-4.20- Agree; 4.21-5.00-Strongly Agree

On the other hand, the respondents moderately agree that the site is located near hazardous and disaster prone areas such as: active volcanoes, fault lines, avalanches/landslides, erosion and situation/deposition (e.g. shoreline or riverbed changes), drought, temperature extremes, storms and flooding, oils and gas drilling, mining and quarrying and energy generation, including from hydropower dams with a mean of 3.23 and is considered extensive. The respondents agree that the materials used in the structures and facilities are natural with a mean of 3.43 and is considered highly extensive. When it comes to the materials used in the structures and facilities locally source such as: primary building material like stone, earth, plants, wood that are available locally are prioritized, use of recyclable product and materials are also prioritized, tertiary materials that are man-made (i.e., artificial, synthetic, non-renewable) that are minimized, if not totally avoided and toxic and hazardous materials are avoided. The respondents agree with a mean of 3.62 and is considered highly extensive. In addition, the respondents agree that the conservation practices in the designing of structure and facilities with a mean of 3.57 and is considered highly extensive. The respondents also agree that the Source of water is sustainable with a mean of 3.52 and is considered highly extensive. The respondents moderately agree that the site is practicing proper waste management such as: for solid waste, there is already an mrf, wastewater treatment facilities are installed and operational, leakages of oil, gasoline, diesel are avoided and no hazardous and toxic substances are; used and if they are used waste are brought out from the site for proper disposal with a mean of 3.38 and is considered extensive. The respondents agree that evaluation of compliance of the potential ecotourism sites in Aklan in terms of facilities with an overall mean of 3.45 and is considered highly extensive.

According to Mosayeb Heshmati, Mohammad Gheitury, Samad Shadfar, (2022), ecotourism destinations mostly included some parts of attractive mountains, forests, rangelands, caves, rivers, springs, tourism villages and urban gardens. Moreover, the strategy solutions based on opportunities-strengths (S-O) included legal documentation and cadastral mapping of natural resources, increasing public participation and awareness, livelihood resilience and job creation for inhabitants through development of local markets, and construction of welfare facilities for visitors. Meanwhile, considering strengths that can curtail vulnerability to the external threats (S-T strategies) include combating corruption and lobbying forces, regular and strict field monitoring, heavy penalties on

degradation activities (mainly arson fire, tree cutting and rubbish disposal), security guaranty and financial support for investors, increasing protected reserve areas, preserving the traditional village, and proper pathways building for public walking in the natural heritages. These strategies can assist the governments in balancing ecotourism development and sustainability of natural resources at local scale such as KPI.

This has been validated by a participant during focus group discussion that they complied and practiced in terms of facilities. In fact, one participant said:

“When it comes sa facilities, proud gid ako dahil almost well maintained do among facilities sa Bakhawan eco-park. May among signages, receiving area para sa mga guest, may amon man nga board walk nga ma appreciate mo gid ro kanami it Bakhawan ag may amon man nga parking area ag comfort rooms para sa amon bisita. Since kilaea nga ecotourism site do Bakhawan eco-park sa Kalibo hay gina tinguhaan gid nga ma maintain ro manami nga facilities para sa mga bisita.” *(When it comes to facilities, I am proud to say that our facilities in Bakhawan Eco-park are almost well maintained. We have signanges, receiving area for our guests, we also have a board walk for tourists to appreciate the beauty of Bakhawan and we also have parking area and comfort rooms for our visitors. Since Bakhawan Eco-park is a well know ecotourism site in Aklan, we make sure to maintain the facilities for our visitors.)*

Challenges Encountered in the Ecotourism Sites in Aklan.

Table 11 presents the challenges encountered in the ecotourism sites in Aklan. The results indicated that the respondents experienced/encountered that there is difficulty in securing permits and licenses with a mean of 2.80. The respondents also indicated that they have experienced/encountered that the costs for securing permits and licenses are too high with a mean of 2.74. Moreover, the respondents also experience/encountered that the ecotourism sites are not well-maintained with a mean of 2.89.

Table 11. Challenges encountered in the ecotourism sites in Aklan.

Item	Mean	Description
Difficulty in securing permits and licenses.	2.80	Experienced/Encountered
Costs for securing permits and licenses are too high.	2.74	Experienced/Encountered
Ecotourism sites are not well-maintained.	2.89	Experienced/Encountered
Infrastructure development are not sustained as planned.	2.89	Experienced/Encountered
Less involvement and participation of the community towards ecotourism industry.	2.87	Experienced/Encountered

Locals are not priority as to employment opportunity.	2.01	Somewhat Experienced/Encountered
Products in the area are not made of locally-sourced materials.	2.38	Somewhat Experienced/Encountered
No accredited ecotour-guide, ecotours, ecolodge, and ecotour facilities in the area.	2.72	Experienced/Encountered
Limited investment and development to ecotourism site	2.73	Experienced/Encountered
Local and foreign tourists are not availing locally-made products.	2.34	Somewhat Experienced/Encountered
Ecotourism sites are not owned and/or managed by locals or Filipinos.	2.44	Somewhat Experienced/Encountered
There are no marketing/promotional efforts or strategies made by the ecotourism site owners/manager.	2.44	Somewhat Experienced/Encountered
The wildlife in the site is disturbed.	2.29	Somewhat Experienced/Encountered
Activities in the ecotourism sites threatened the biodiversity and attributes of nature.	2.38	Somewhat Experienced/Encountered
Medical facilities are not accessible and available within the ecotourism site for tourist and local.	2.24	Somewhat Experienced/Encountered
There are no available signage, placards, warning signs and similar posting in the area for precaution and advises.	2.29	Somewhat Experienced/Encountered
Overall Mean	2.53	Somewhat Experienced/Encountered

Legend: 1.00-1.80- Not Experienced/Encountered; 1.81-2.60- Somewhat Experienced/Encountered; 2.61-3.40- Experienced/Encountered; 3.41-4.20-Highly Experienced/Encountered; 4.21-5.00- Extremely Experienced/Encountered

Also experienced/encountered infrastructure development are not sustained as planned with a mean of 2.89. Additionally, the respondents experienced/encountered that there are less involvement and participation of the community towards ecotourism industry with a mean of 2.87. On the other hand, the respondents somewhat experienced/encountered that locals are not priority as to employment opportunity with a mean of 2.01. The respondents also experienced/encountered products in the area that are not made of locally-sourced materials with a mean of 2.38. Additionally, the respondents experienced/encountered that there are no accredited ecotour-guide, ecotours, ecolodge, and ecotour facilities in the area with a mean of 2.72. The respondents also experienced/encountered that there are limited investment and development to ecotourism site with a mean of 2.73. It is also somewhat experienced/encountered by the respondents that the local and foreign tourists are not availing locally-made products with a mean of 2.34. It is also somewhat experienced/encountered by the respondents that ecotourism sites are not owned and/or managed by locals or Filipinos and there are no marketing/promotional efforts or strategies made by the ecotourism site owners/manager with a mean of 2.44. Moreover, the respondents somewhat experienced/encountered that the wildlife in the site is disturbed with a mean of 2.29. The respondents also somewhat experienced/encountered that the activities in the ecotourism sites threatened the biodiversity and attributes of nature with a mean of 2.38. In addition, the respondents also somewhat experienced/encountered that the medical facilities are not accessible and available within the ecotourism site for tourist and local with a mean of 2.24. It is also somewhat experienced/encountered by the respondents that there are no available signage, placards, warning signs and similar posting in the area for precaution and advises with a mean of 2.29. Overall, the evaluation of compliance of the potential ecotourism sites in Aklan in terms of facilities has an overall mean 2.53 and is somewhat experienced/encountered by the respondents.

According to S.E. Mesencho (2012) the future of ecotourism as a tool for sustainable conservation and community development is still uncertain. Ecotourism is not really community-oriented but suppressed by development agenda according to who initiates and implements it. Ecotourism has been imposed by nongovernmental organizations to be developed on community-based level as they need to follow the “greening of aid”, which encourage them to play more roles in spreading participatory development and environmental protection (Kiss,2004). These nongovernmental organizations are fund-oriented and the outcomes their community-based ecotourism projects have to fulfil the agendas of donors, who support them rather than to address the exact needs of communities (Jones, 2005). Communities are not homogenous group and they do not have a single voice. Many ecotourism projects have failed to address the structural inequality within communities that influences local participation in planning and implementation. In their roles as advocates of the local resources management, ecotourism coordinators often collaborate with a small legitimate group which works on behalf of the community constituting the entities and interests they claim to - 24 - represent(Agrawal&Gibson1999). The failure to grasp the complex nature of community means ecotourism paradigms assume shared interests and consent on the preferred outcomes from tourism and conservation initiates.

This has been discussed and agreed by participants during the Focus Group Discussion that they have encountered challenges. In fact, one participant said:

“Siguro du biggest challenge hay du sustainability gid-a sa duyon nga ecotourism sites, pag balik nakon sa Bakhawan du anda nga path walk baea hay bukon eon man gid it manami sa may tunga nga part, duyon ngane nga dapat nga pirme gid nga e-secure nga maayos imaw pirme basi maka cause imaw it accidents. Ag syempre du mahambae mo gid nga challenge hay du abi nga tourism stakeholders hay bukon sanda fully aware it sa aton nga ecotourism site so kada meeting namon with the stakeholders’ hay gina suggest namon kay Mayor pati mismo sa LGU nga magka familiarization tour sa daya nga sites para sayud man it mga stakeholders naton du mga accommodation kun anu man baea du ma-e-offer it mga tourism site iya sa Kalibo.” *(I think the biggest challenge is the sustainability of our Ecotourism sites. When I visited Bakhawan, the wooden path walk is already rotting in the mid portion and it might cause accidents. And the number 1 challenge is that the tourism stakeholders are not fully aware about our ecotourism sites. Whenever we have meetings with our stakeholders, we suggest to the Mayor and the LGU to have a familiarization tour of these sites so they are aware of the accommodation and what we could offer.)*

Additionally, one participant also shared that:

“So mas abu gid nga challenges akon nga na encounter du tawo eagi mismo anda nga level of awareness, especially anda nga attitude kung paano imaw mag isip. Maskin e-eksplikar mo kanda nga daya du sitwasyon nag maskin may gin break nga layi dikarun halimbawa maubra ta sanda it resorts, tapos bawal in the end sanda eota maakig e-relate eon dayun nanda into political issue, kung siin gin apin, gin kontra. The governance the education, budget, duyon du mga pinakamabahoe nga aspects. Tapus di man kimo magpati kasi mas abu pa kimo nga nasayran du atawo sa community kaysa kimo duyon malang du akon.” *(I have a lot of challenges encountered: the people’s level of awareness and their attitude on how to think. No matter how you explain the situation, even if they break the law, they will get mad and link it to politics. I hope that they will change their attitude for the progress of the project. The governance, education, and budget – they are the biggest aspects. They won’t believe you because they thought they know better than you.)*

Best Practices Applied in the Ecotourism Sites.

Table 12 presents the best practices applied in the ecotourism sites. The results indicated that the respondents observed/practiced that the permits and licenses are regularly renewed with a mean of 3.30. The respondents also observed/practiced that the budget is allotted and made available for securing permits and licenses renewals with a mean of 3.12. The respondents highly observed/practice that the maintenance and sustainability of ecotourism sites are considered in the plans of the management with a mean of 3.44. The respondents also highly observed/practiced there is constant monitoring and evaluation of various activities (e.g. infrastructure development, landscaping, road accessibility) with a mean of 3.41. Moreover, the respondents highly observed/practice that they are being encourage to participate and engage in the community like conduct of festivals, coastal clean-up, and tree planting among others with a mean of 3.73. In addition, it was highly observed/practiced that in hiring, locals are priority as to employment with a mean of 3.79.

Table 12. Best practices applied in the ecotourism sites.

Item	Mean	Description
Permits and licenses are regularly renewed.	3.30	Observed/Practiced
Budget is allotted and made available for securing permits and licenses renewals.	3.12	Observed/Practiced
Maintenance and sustainability of ecotourism sites are considered in the plans of the management.	3.44	Highly Observed/Practiced
Constant monitoring and evaluation of various activities (e.g. infrastructure development, landscaping, road accessibility)	3.41	Highly Observed/Practiced
Encourage participation and engagement of the community like conduct of festivals, coastal clean-up, and tree planting among others.	3.73	Highly Observed/Practiced
In hiring, locals are priority as to employment.	3.79	Highly Observed/Practiced
Locally-sourced raw materials are available and utilized for the products.	3.76	Highly Observed/Practiced
Seminars, training, workshops leading to accreditation of ecotour-guide, ecotours, ecolodge, and ecotour facilities are attended both by the owner/managers and employees.	3.34	Observed/Practiced
Linkages and partnership among public and private organizations and investors.	3.29	Observed/Practiced
Souvenir shops are made available in the area.	2.99	Observed/Practiced
Availment of financing options support from banks, financial institutions, and government	2.90	Observed/Practiced

Advertising and promotional efforts are made such as flyer and leaflets, radio campaign, and social media advertisement.	3.13	Observed/Practiced
Conservation of biodiversity and wildlife is observed.	3.80	Highly Observed/Practiced
Reporting to the authority concerned if there are unlawful/illegal activities happening in the ecotourism sites.	3.40	Observed/Practiced
Medical facilities are accessible and available within the ecotourism site for tourist and local.	2.73	Observed/Practiced
There are available signage, placards, warning signs and similar posting in the area for precaution and advises.	3.16	Observed/Practiced
Overall Mean	3.33	Observed/Practiced

Legend: 1.00-1.80-Not Observed/Practiced; 1.81-2.60-Somewhat Observed/Practiced; 2.61-3.40-Observed/Practiced; 3.41-4.20- Highly Observed/Practiced; 4.21-5.00- Extremely Observed/Practiced

It was also highly observed/practiced by the respondents that there are locally-sourced raw materials that are available and utilized for the products with a mean of 3.76. Furthermore, the respondents observed/practiced that seminars, training, workshops leading to accreditation of ecotour-guide, ecotours, ecolodge, and ecotour facilities are attended both by the owner/managers and employees with a mean of 3.34. The respondents also observed/practiced that there are linkages and partnership among public and private organizations and investors with a mean of 3.29. It was also observed/practiced that Souvenir shops are made available in the area with a mean of 2.99. The respondents observed/practiced the availment of financing options support from banks, financial institutions, and government with a mean of 2.90. Moreover, it was observed/practiced that advertising and promotional efforts are made such as flyer and leaflets, radio campaign, and social media advertisement with a mean of 3.13. The respondents also said that conservation of biodiversity and wildlife is observed and was said to be highly observed/practiced with a mean of 3.80. It was also observed/practiced that there are Reports to the authority that concerned the unlawful/illegal activities happening in the ecotourism sites with a mean of 3.40. The respondents also observed/practiced that there are medical facilities are accessible and available within the ecotourism site for tourist and local with a mean of 2.73. Furthermore, the respondents observed/practiced that there are available signage, placards, warning signs and similar posting in the area for precaution and advises with a mean of 3.16. Overall, the best practices applied in the ecotourism sites is observed/practiced with a mean of 3.33.

According to Samia, Diogo & Angeloni, Lisa & Bearzi, Maddalena & Bessa, Eduardo & Crooks, Kevin & D'Amico, Marcello & Ellenberg, Ursula & Geffroy, Benjamin & Larson, Courtney & Loyola, Rafael & Moller, Anders & Reed, Sarah & Sadoul, Bastien & Shannon, Graeme & Tablado, Zulima & Zacarias, Daniel & Blumstein, Daniel (2017) a well-managed ecotourism can prevent destruction of wildlife and their habitats by deterring illegal hunting, illegal logging, and urban development while promoting education and pro-environmental behavior in the tourists. Ecotourism can also benefit human local communities by preserving their cultures and providing revenue and thus incentives for nature conservation. By doing so we may ultimately transform human communities from consumers to stewards of their natural environment. The challenge is getting the balance right, and the key to this is developing and applying best practices that reduce any negative impacts of tourist activities.

This has been asserted by a participant during Focus Group Discussion what best practices were implemented and observed. In fact, one participant said:

“Medyo may formula ako S+P3. Paanu gid baea naton ma sustain du 4 aspect, du socio-economic, socio-cultural, environment, and the tourism itself, the tourism industry itself kabudlay imaw pero kailangan and the other P's is persistence nga du patience kuno hay extended persistence dapat. Governance nga mga related, and the other one is the Political will, kay kamon nga as Tourism Officers biggest linked gid namon dun once nga bag-o eon man du administration, bag-o eon man si tourism designations syempre ang mga programs hay aywnan eon especially kung bukon eon it priority ni legestive, Focal chief, or executive, then another P is for passion kasi kung du ginbutang hay uwa gid it passion hay uwa gid, kasi du passion comes from the heart, sa puso gid ah it trabahanti, imaw gane dun ang passion nga once nga mangin aware eton nga constituents so dapat hay ang word nga “ownership” baea mismo ag du last P hay it is all about the provisionalism, we have to know the currents and trends of ecotourism, so diba its all about digitalization nga diba hay may apps kami. So putting the right person with the right minds, right character, with the right attitude that is what we called provisionalism. Imaw malng dun sir it's all about the sustainability, perseverance, passion and provisionalism gid.” *(I think I have my formula which is the S+P3. The Sustainability of the four aspects: socio-economic, socio-cultural, environment, and the tourism itself. The tourism industry is difficult but need. The other P's is persistence, patience with the process. The other is political will, once the administration change and the Tourism designations, we should abandon some programs. the other p is for passion, people in position should be passionate. the last p is provisionalism, we have to know the trends of ecotourism. Putting the right person with the right minds, right character, with the right attitude that is what we called provisionalism.)*

Management Intervention Plan

Title: Management Intervention Plan

Rationale

The management of ecotourism in local communities and protected areas faces the challenge of contributing to the achievement of sustainable development indicators. Likewise, on the monitoring and evaluation of potential ecotourism sites. This is based on its findings in helping local communities and stakeholders. The objective of this research is to formulate a policy enhancement for the potential

ecotourism sites in the province of Aklan. Thus, Management Intervention Plan was designed. This covers the four areas of improvement: The Compliance on Environmental Compliance, Challenges encountered in the potential ecotourism sites in Aklan, Best practices applied in the potential ecotourism sites in Aklan and Policy to be crafted and formulated which are also mentioned in the statement of the problem.

Table 13. Management Intervention Plan

Areas of improvement	Activities	Timeline	Persons Involve	Budget	Success Indicator
Compliance on Environmental Compliance	Allot budget for compliance (eg. Certification)	Once a year	-Tourism Officer -Barangay captain	10,000	Certification
Challenges encountered in the potential ecotourism sites in Aklan	Revisiting of Tourism Manual and Plan to avoid misdirection	Quarterly Monitoring	-DENR -DOT -Provincial and Municipal Tourism Office -LGU	5,000	A well-established tourism manual that are practiced uniformly by all stakeholders

Best practices applied in the potential ecotourism sites in Aklan	Constant Monitoring and Evaluation to sustain the best practices observed in the potential ecotourism sites.	Quarterly Monitoring	-DENR -DOT -Provincial and Municipal Tourism Office -LGU	5,000	Updated monitoring and evaluation to keep track with the best practices implemented in the ecotourism sites
Policy to be crafted and formulated	Conduct a stakeholders meeting and collaborate with them to craft and formulate a policy for potential ecotourism sites in Aklan	Three to Six Months	-DENR -DOT -Provincial and Municipal Tourism Office -LGU	50,000	A well-crafted and formulated ecotourism policy

Discussion

This Study focuses on the monitoring and evaluation of potential ecotourism sites in Aklan, aiming to provide data-driven insights that can inform the development of policy recommendations to guide the Aklan Provincial Tourism Office, the Local Government Units (LGUs), and other key stakeholders,

including Non-Governmental Organizations (NGOs), in ensuring the long-term sustainability and growth of the province's ecotourism sector. By analyzing the current state of these sites, the Study seeks to contribute to the effective management and enhancement of ecotourism activities, which will, in turn, help position Aklan as a leading ecotourism destination in the Philippines.

The Study's findings provide an in-depth analysis of the compliance of various ecotourism sites with crucial aspects such as policies, operations and management, socio-cultural impacts, ecotourism products and services, economic benefits, financing, biological concerns, and facilities. The ultimate aim of these findings is to help stakeholders develop better-informed policies and action plans that can ensure these sites are managed in a way that is both sustainable and beneficial to the local community, the environment, and the tourism industry at large.

Key Findings

1. **Respondent Demographics:** The Study found that most respondents were aged 46-55, comprising 60% of the total sample, indicating that the most engaged stakeholders in ecotourism management are typically middle-aged. This group will likely have considerable experience managing or working within the tourism industry. Females comprised 44.67% of the respondents, suggesting significant female involvement in ecotourism-related activities. Regarding marital status, married individuals comprised the most important portion (53.33%), highlighting the stability and family-oriented nature of those involved in ecotourism in Aklan. Regarding educational attainment, 60% of respondents were college graduates, indicating that the stakeholders involved are well-educated and essential for making informed decisions about ecotourism development and its long-term sustainability.
2. **Compliance with Policies:** When evaluating compliance with policies, the Study found that the location of ecotourism sites within identified ecotourism zones was rated the highest (mean of 4.38, described as "strongly agree"). This indicates that these sites generally align with existing environmental and tourism policies. However, compliance with environmental standards, such as the acquisition of Environmental Compliance Certificates (ECCs), was rated more moderately (mean of 3.68, described as "agree"). This suggests that while most sites have met regulatory requirements, there is room for improvement, particularly ensuring that all sites fully comply with environmental standards. Overall, the policy compliance evaluation had a mean score of 3.91, indicating that, by and large, the ecotourism sites in Aklan are highly compliant with established policies but could benefit from continued monitoring to ensure consistent adherence.
3. **Operations and Management Compliance:** In evaluating the operations and management of the ecotourism sites, the Study found that aligning site management goals, objectives, vision, and mission with ecotourism principles was well-established (mean of 4.00, described as "agree"). This alignment includes critical principles such as community participation, environmental protection, and the integration of local culture. However, the Study found that the level of training provided to staff by agencies such as DENR and DOT was rated lower (mean of 3.29, described as "moderately agree"). This suggests that while operational goals are primarily aligned with ecotourism principles, there is still a need for more comprehensive and continuous

training programs for staff to equip them with the skills necessary for effective ecotourism management. Overall, the compliance with operational and management standards had a mean score of 3.55, indicating that operations are generally in line with ecotourism goals, but further enhancements in staff training are needed.

4. **Socio-Cultural Compliance:** The Study found that local community involvement in the operations of ecotourism sites was highly rated, with the engagement of local people in the workforce receiving a mean score of 4.05 (described as “agree”). This suggests that residents actively participate in ecotourism activities, a positive indicator of sustainable community development. However, the implementation of feedback mechanisms, which are essential for maintaining open communication with the community and for improving ecotourism operations, was rated lower (mean of 3.95, described as “moderately agree”). This indicates that while some sites have established feedback systems, they may need to be more widespread and practical. The overall mean for socio-cultural compliance was 3.52, suggesting that while local engagement is strong, there is room for improvement in fostering more robust feedback systems that encourage continuous community input.
5. **Ecotourism Products and Services Compliance:** In terms of ecotourism products and services, the Study revealed that most tourism products were considered nature- and environment-friendly, with a mean score of 3.86 (described as “agree”). However, the accreditation of ecotours, eco-guides, and ecotour facilities was rated more moderately (mean of 2.86, described as “moderately agree”). This indicates that while many sites offer eco-friendly services, the formal recognition and standardization of these services through accreditation processes are still in the early stages. It is recommended that ecotourism sites in Aklan prioritize obtaining accreditation to ensure that their products meet high standards and that tourists can confidently choose accredited services. The overall mean for ecotourism products and services compliance was 3.51, suggesting that while many services are aligned with ecotourism principles, the formalization of these services through accreditation remains an area for improvement.
6. **Economic Benefits Compliance:** The Study found that ecotourism sites in Aklan generally provided financial benefits to the local community, mainly through the patronization of regional products (mean of 3.86, described as “agree”). However, implementing a formal revenue-sharing system, including tax payments, was rated lower (mean of 3.48, described as “agree”). This suggests that while some benefits are reaching local communities, the systems that ensure equitable distribution of financial gains are not yet fully optimized. Strengthening the revenue-sharing mechanism would ensure that the financial benefits of ecotourism are more fairly distributed and that local communities receive a larger share of the income generated by tourism. The overall mean for economic benefits compliance was 3.67, indicating that while positive economic impacts exist, there is room for improvement in ensuring these benefits are more evenly distributed.
7. **Financing/Enterprise Building Compliance:** The Study found that many ecotourism sites were locally owned, with a mean score of 3.67 (described as “agree”), indicating a strong local presence in the ecotourism sector. However, the involvement of concessionaires operating on-site received a lower rating (mean of 3.24, described as “moderately agree”). This suggests that

local ownership is robust and external business interests play a significant role in ecotourism operations, sometimes leading to conflicts of interest or misalignment with community goals. The Study recommends that local government units and tourism offices strengthen partnerships between local stakeholders and businesses to ensure that ecotourism development is community-driven and sustainable. The overall mean for financing/enterprise building compliance was 3.40, indicating that while there is a degree of local ownership, the involvement of external entities remains a challenge.

8. **Bio-Ecological and Facilities Compliance:** The Study found that most sites adhered to rules and regulations concerning the protection of wildlife and biodiversity, with a mean of 3.90 (described as "agree"). However, some tourism activities were identified as potentially threatening biodiversity (mean of 2.86, described as "agree"). This suggests that while the sites generally comply with environmental protection regulations, some activities may still adversely impact the ecosystem. It is recommended that more rigorous monitoring and regulation be implemented to reduce the ecological footprint of ecotourism activities. The overall mean for bio-ecological compliance was 3.48, indicating that while most sites are primarily compliant with biodiversity protection measures, there is a need for further improvements to minimize the negative impacts of tourism on local ecosystems.
9. **Facilities Compliance:** The Study found that the design of the ecotourism sites generally reflected cultural considerations, with a mean score of 3.67 (described as "agree"). However, sites located near hazardous areas such as active volcanoes or fault lines were rated lower (mean of 3.24, described as "moderately agree"), suggesting that there may be insufficient attention to the risks posed by these factors. This highlights the need for more significant consideration of natural disaster risks when planning and designing ecotourism sites. Overall, the mean for facilities compliance was 3.45, suggesting that while the design of most facilities incorporates cultural elements, there is a need for more robust risk management and safety measures, particularly in disaster-prone areas.
10. **Challenges Encountered:** The Study identified several challenges faced by ecotourism sites in Aklan. The most commonly experienced challenges were related to the maintenance of sites and the sustainability of infrastructure development (mean of 2.89, described as "experienced/encountered"). Conversely, the lack of accessible medical facilities was less frequently encountered (mean of 2.24, described as "somewhat experienced/encountered"). These findings suggest that while some challenges are common and require immediate attention, the lack of medical services within ecotourism sites is less pressing. Strengthening infrastructure maintenance practices and ensuring that facilities are well-maintained and resilient.

Conclusion

Based on the findings of the study, the following conclusions were drawn, offering insights into the participation, compliance, challenges, and best practices related to the development of ecotourism in Aklan. These conclusions are contextualized within the broader theoretical frameworks on sustainable

tourism and compliance management, as well as the evolving understanding of ecotourism practices in contemporary literature.

1. Demographic Characteristics and Participation in Ecotourism

The study found that individuals between the ages of 46 to 55 years were more inclined to engage in the development of ecotourism, suggesting that this age group may have a heightened awareness of the importance of sustainability and ecological preservation. This finding is supported by previous research that indicates older individuals often have stronger environmental values and a greater sense of responsibility toward future generations (Nash, 2001). Additionally, female respondents demonstrated a greater inclination to participate in ecotourism activities compared to males and LGBTQIA+ individuals. This trend may be linked to women's heightened sensitivity to environmental and social issues, a finding that aligns with broader theories on gender and sustainability (Christ et al., 2003). In terms of marital status, married individuals were found to be more proactive in ecotourism planning, possibly due to their concern for family welfare and the long-term benefits of sustainable tourism for their communities. Furthermore, respondents with higher education levels were more engaged in ecotourism activities, consistent with studies suggesting that education enhances environmental awareness and encourages involvement in conservation efforts (Torquebiau & Taylor, 2009).

2. Compliance with Ecotourism Standards and Practices

The study found that the potential ecotourism sites in Aklan were highly compliant with various ecotourism principles, including policies, operations, management, socio-cultural impact, and ecotourism products and services. These findings align with Ercan Sirakaya's (1997) conceptual framework, which suggests that compliance with ecotourism guidelines is driven by both intrinsic factors (such as moral obligations) and extrinsic factors (such as economic incentives). The high level of compliance observed in Aklan supports the assertion that effective ecotourism depends on the enforcement of strong policies and operational standards (Christ et al., 2003; ECA, 2011). However, the moderate level of compliance in financing and enterprise-building points to the need for more robust financial mechanisms to support ecotourism ventures. This finding is consistent with critiques of the ecotourism industry, where financial sustainability is often an ongoing challenge (Makindi, 2016). Furthermore, compliance with bio-ecological and facility standards was also reported to be satisfactory, indicating that these sites are effectively managing the natural resources and infrastructure necessary for successful ecotourism (Espiritu, 2020).

3. Challenges Encountered in Ecotourism Development

Participants indicated that they encountered some challenges in the development of ecotourism sites in Aklan. These challenges, while not overwhelming, reflect broader issues documented in the literature, such as insufficient infrastructure, capacity-building deficits, and the potential for socio-cultural and environmental degradation. As noted by Yogi (2010), the increasing importance of ecotourism has brought attention to the complexity of managing such initiatives, which must balance environmental conservation with economic and social development. The challenges faced in Aklan echo the findings of Weaver and Lawton (2007), who highlight the difficulties in achieving sustainable tourism practices

in developing regions. Similarly, the lack of clear regulatory standards and certification processes remains a significant hurdle in managing ecotourism effectively (Lindsay, 2003; Choudhary, 2019).

4. Best Practices in Ecotourism Sites

The study also found that participants observed and practiced best practices in the potential ecotourism sites in Aklan. These practices, such as community participation, biodiversity conservation, and the provision of nature-friendly services and amenities, are consistent with the principles outlined by Espiritu (2020). Community involvement in ecotourism management has been identified as one of the most effective ways to ensure long-term sustainability and socio-economic benefits (Dologlou & Katsoni, 2016). The study's findings also reinforce the importance of aligning ecotourism management plans with the eight principles of ecotourism, which include sustainability, community participation, and biodiversity conservation (IUCN, 1994). This approach is critical to ensuring that ecotourism not only benefits the environment but also the local communities that depend on it for their livelihoods.

The findings of this study support several key theoretical frameworks in sustainable tourism and compliance management. Firstly, the high compliance observed in Aklan's potential ecotourism sites aligns with Sirakaya's (1997) conceptual framework, which posits that compliance with ecotourism standards is influenced by a combination of intrinsic moral obligations and extrinsic economic incentives. The study also reinforces the importance of community-based approaches to ecotourism, as highlighted by Christ et al. (2003), which emphasize that the success of ecotourism initiatives depends on integrating environmental conservation, economic development, and social well-being.

The challenges identified in this study, particularly those related to infrastructure and capacity-building, echo the findings of Yogi (2010) and Choudhary (2019), who point out the complexities of managing ecotourism and the need for better planning, resource allocation, and local involvement. Additionally, the moderate compliance in financing and enterprise-building suggests that Aklan's ecotourism sites still face significant challenges in achieving financial sustainability, which is a common issue across ecotourism destinations worldwide (Makindi, 2016).

The best practices observed in Aklan, such as the incorporation of community participation and biodiversity conservation, are consistent with the principles outlined by Espiritu (2020) and Dologlou and Katsoni (2016), who stress the importance of these practices for the success of ecotourism. These findings support the idea that ecotourism must be managed holistically, with attention to both environmental protection and community empowerment.

In conclusion, while Aklan's ecotourism sites show promising compliance with industry standards, there are still challenges that need to be addressed. The study suggests that greater attention should be paid to improving financial mechanisms and ensuring that ecotourism projects are effectively integrated into the local community's development plans. These findings contribute to the growing body of literature on ecotourism and sustainable tourism, offering practical insights for policymakers, operators, and local communities aiming to develop ecotourism in a way that is both environmentally sustainable and socioeconomically beneficial.

Recommendations

1. Department of Environment and Natural Resources (DENR): The findings of this study are valuable for the Department of Environment and Natural Resources (DENR), particularly in Region 6, as they provide a comprehensive assessment of the compliance of ecotourism sites with environmental regulations and sustainability principles. It is recommended that the DENR utilize the results of this study to develop a more structured framework for categorizing and monitoring ecotourism sites, ensuring that sites adhere to essential environmental standards. This will not only strengthen the enforcement of environmental laws but also support the continuous monitoring of ecological impacts, ensuring that Aklan's ecotourism sites maintain their biodiversity and environmental integrity. Additionally, the DENR should invest in training local staff and stakeholders to better understand and implement these environmental standards.
2. Department of Tourism (DOT): The Department of Tourism (DOT), specifically in Region 6, can greatly benefit from this study as it provides an evidence-based understanding of the potential and current state of ecotourism sites in Aklan. It is recommended that the DOT leverage the findings to enhance the development of Aklan as a prime ecotourism destination. The study highlights areas such as policy compliance, operational effectiveness, and socio-cultural engagement, which are key to improving the sustainability and appeal of Aklan's ecotourism offerings. The DOT should work with local stakeholders to develop sustainable tourism development programs that address these key findings, with particular attention to areas such as eco-tourism accreditation, staff training, and the enhancement of eco-friendly tourism products. Additionally, the DOT can utilize the study's results to better position Aklan within the national ecotourism circuit.
3. Local Government Unit (LGU): The Local Government Unit (LGU) of Aklan stands to gain significantly from the study's findings, particularly in terms of fostering future tourism development. The recommendations should emphasize strengthening the capacity of the LGUs to engage with regional, national, and international partners in promoting ecotourism in Aklan. The study suggests that the LGU actively participate in securing funding for infrastructure development, community engagement programs, and capacity-building initiatives. Moreover, the LGUs should consider developing new ecotourism zones based on the identified potential sites and ensuring that these zones comply with ecotourism principles to attract both domestic and international tourists. Developing partnerships with NGOs and international organizations can help the LGUs build a sustainable tourism model that benefits the local economy and protects the environment.
4. Provincial and Municipal Tourism Offices: The Provincial and Municipal Tourism Offices can greatly benefit from the findings of this study, particularly in improving Aklan's positioning as a sustainable ecotourism destination. These offices should use the study's results to create more targeted tourism programs, focusing on improving the operations and management of ecotourism sites, training local tour guides, and ensuring that local businesses align with ecotourism values. Recommendations include improving collaboration with the Department of Tourism (DOT) and Department of Environment and Natural Resources (DENR) to develop unified ecotourism policies that address both local and global standards. Furthermore, these offices should monitor the effectiveness of ecotourism policies and promote ecotourism

awareness campaigns to educate the public on the importance of environmental and socio-cultural preservation.

5. **Business Owners:** Business owners in ecotourism sites across Aklan will benefit from the results of this study by gaining insights into areas where they can improve their operations and better align with sustainable practices. The study emphasizes the importance of local ownership and community engagement in ecotourism, which will allow business owners to enhance their products and services in a way that reflects ecotourism principles. Business owners are encouraged to explore eco-friendly practices and consider eco-certifications for their products, services, and facilities. It is recommended that local businesses collaborate with tourism offices to develop tourism packages that focus on local culture, environmental conservation, and responsible tourism, ensuring long-term sustainability.
6. **Local Communities:** The local communities of Aklan will benefit significantly from this study as it outlines practical ways in which they can participate in and benefit from the growth of the ecotourism sector. The study highlights the importance of community involvement in both the development and management of ecotourism sites. It is recommended that local communities become more actively involved in ecotourism projects by providing input on the design of tourism products, participating in training programs, and ensuring that the benefits of tourism are equitably distributed. Furthermore, the study calls for local community leaders to work closely with government agencies to ensure that local needs and priorities are met through ecotourism development. Local communities can also leverage the findings of this study to advocate for sustainable practices and policies that protect their cultural heritage and environment while promoting economic growth.
7. **Tourists:** The findings of this study provide important insights for tourists visiting Aklan. Tourists will gain a deeper understanding of how local government units, non-government organizations, and businesses are working together to promote sustainable tourism. It is recommended that the study's findings be used to create awareness campaigns for tourists, emphasizing responsible travel practices that minimize environmental impact and respect local cultures. Tourists should also be educated about the accreditation of ecotourism products and services, ensuring they can make informed choices when selecting eco-friendly tours and accommodations. Additionally, tourists should be encouraged to provide feedback on their experiences, which will help local stakeholders further improve and enhance Aklan's ecotourism offerings.
8. **Other Government Agencies (DTI, BIR):** The study is also of value to other government agencies such as the Department of Trade and Industry (DTI) and Bureau of Internal Revenue (BIR). As the ecotourism sector grows, these agencies can play a critical role in supporting business owners through regulatory frameworks, tax incentives, and financial assistance. It is recommended that the DTI and BIR work with the Department of Environment and Natural Resources (DENR) and Department of Tourism (DOT) to provide the necessary incentives and regulatory support to ecotourism businesses, especially those that are locally owned. The study suggests that government agencies support the growth of small businesses by facilitating access to funding for eco-friendly infrastructure and promoting the development of local products that

can be marketed to tourists. Furthermore, these agencies can help streamline the process for businesses to obtain necessary permits and certifications, making it easier for new entrants to join the ecotourism sector.

9. Future Researchers: Future researchers will benefit from the findings of this study, which serve as a reference for further investigation into the development of ecotourism in Aklan or similar regions. The study provides a comprehensive assessment of various compliance indicators and operational challenges, which can be used as a baseline for future research in ecotourism monitoring and evaluation. It is recommended that future research focus on longitudinal studies to track the progress and impact of policy recommendations implemented as a result of this study. Additionally, researchers could explore other dimensions of ecotourism, such as the social impacts on indigenous communities or the role of technology in promoting sustainable tourism practices. This study will also serve as a model for other regions or countries seeking to evaluate and improve their ecotourism policies and practices.

References

- Aklan economy and investment. (2022, December 1). Aklan Provincial Government. <https://aklan.gov.ph/economy-and-investment/>
- Aklan. (2022, December 5). Aklan Profile. Definitions.net. <https://www.definitions.net/definition/Aklan>
- Accreditation. (2023, February 1). Oxford Learner's Dictionaries. https://www.oxfordlearnersdictionaries.com/us/definition/american_english/accreditation
- Aklan. (2023, February 1). Definition of Aklan. Merriam-Webster. <https://www.merriam-webster.com/dictionary/Aklan>

Books:

- Cruz, R. (2014). Tourism planning and development. Rex Bookstore.
- Cruz, R. (2016). Tourism impact and sustainability (1st ed.). Rex Bookstore.
- Cruz, R. (2017). Ecotourism (1st ed.). Rex Bookstore.
- Dost-nrcp identifies best practices, offers policy recommendations for PH ecotourism sites. (2022, December 4). DOST-NRCP. <https://nrcp.dost.gov.ph/latest-news/622-dost-nrcp-identifies-best-practices-offers-policy-recommendations-for-ph-ecotourism-sites>
- Heshmati, M., Gheitury, M., & Shadfar, S. (2022). Factors affecting the possibility of ecotourism development and sustaining natural resources using SWOT approach in west Iran. *International Journal of Geoheritage and Parks*, 10(2), 45–57. <https://doi.org/10.1016/j.ijgeop.2022.03.002>
- Economy and investments. (2022, December 1). Aklan Provincial Government. <https://aklan.gov.ph/economy-and-investment/>

End exploitative travel. (2022, December 1). Population Reference Bureau. <https://www.prb.org/resources/eco-tourism-encouraging-conservation-or-adding-to-exploitation/>

International Monetary Fund. (2022, December 2). Tourism trends and the global recovery. <https://www.imf.org/ /media/Files/Publications/DP/2021/English/TFOTPPWEA.ashx>

Ecosystem Research and Development Bureau. (2022, December 3). Ecotourism tracking tool in monitoring and evaluation of ecotourism sites or projects in the Philippines. <https://erdb.denr.gov.ph/2018/05/28/ecotourism-tracking-tool-in-monitoring-and-evaluation-of-ecotourism-sites-or-projects-in-the-philippines/>

Challenges. (2023, February 1). Cambridge Dictionary. https://dictionary.cambridge.org/us/dictionary/english/challenge_1?q=challenges

Compliance. (2023, February 1). Cambridge Dictionary. <https://dictionary.cambridge.org/us/dictionary/english/compliance>

Ecotourism. (2023, February 1). Ecotourism Society. <https://ecotourism.org/what-is-ecotourism/>

Evaluation. (2023, February 1). Oxford Learner's Dictionaries. <https://www.oxfordlearnersdictionaries.com/us/definition/english/evaluation?q=evaluation>

Facilities. (2023, February 1). Oxford Learner's Dictionaries. <https://www.oxfordlearnersdictionaries.com/us/definition/english/facility?q=facilities>

Financing/Enterprise Building. (2023, February 1). The Project Definition. <https://www.theprojectdefinition.com/financial-enterprise/>

Journal Articles and Research Papers:

Weaver, D. (2022). Ecotourism and sustainable development. Routledge. <https://www.routledge.com/Ecotourism-and-Sustainable-Development-Weaver/p/book/9780367257444>

Monitoring and evaluation. (2023, January 30). Sport and Development. <https://www.sportanddev.org/en/toolkit/monitoring-and-evaluation/what-monitoring-and-evaluation-me>

Policies. (2023, February 1). Oxford Learner's Dictionaries. <https://www.oxfordlearnersdictionaries.com/us/definition/english/policy?q=policies>

Practices. (2023, February 1). Oxford Learner's Dictionaries. https://www.oxfordlearnersdictionaries.com/us/definition/english/practice_1?q=practices

Profile. (2023, February 1). Oxford Learner's Dictionaries. https://www.oxfordlearnersdictionaries.com/us/definition/english/profile_1?q=profile

Socio-cultural. (2023, February 1). Cambridge Dictionary.
<https://dictionary.cambridge.org/us/dictionary/english/sociocultural>

Websites:

Yu, X., & Khazanchi, D. (2017). Using embedded mixed methods in studying IS phenomena: Risks and practical remedies with an illustration. *Information Systems Research*, 28(4), 1003–1023.
<https://doi.org/10.1287/isre.2017.0747>