

Restoration of Ecological Management Practices among Keys Attractions in 2nd District of Albay: A Basis for Sustainable Tourism Operations

JUSTIN M. LONGAZA¹

¹Bicol College, Daraga, Albay, Philippines
<https://orcid.org/0000-0002-5033-4653>

Corresponding Author: justinlongaza1993@gmail.com

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ABSTRACT

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Restoration of Ecological Management Practices involves activities for the accessibility and protection of Tourist Attraction sites and the benefits of stakeholders for sustainability and development. This study dealt with restoring the environment and health safety, restoring increasing problems concerning natural calamities in the Tourist Attraction sites in the Second District of Albay, particularly in Manito, Daraga, Legazpi City, and Camalig. The data gathered were analyzed and interpreted employing the mixed method of research. Descriptive quantitative was used to analyze the data collected through the use of a questionnaire, constructed interviews to validate gathered data, and analysis of reports and documents. The study revealed the relevance and benefits



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of Eco-Tourism Management and Sustainability as they proposed Eco-Tourism Plans and activities to address the issue. Analyzed data revealed an Average level of awareness using given variables as proven and identified. Furthermore, there was a Moderate Impact on Indicator: Eco-Tourism Management Sustainability of Ecotourism with fully practiced and practiced. Tourist Sports owners and people in the community demand environmental awareness to protect Tourism Destinations in Albay, particularly in the Second District, as well as the other forms of maintaining Tourist Attractions. Tourism activities vary depending on stakeholders and government officials managing the activities.

INTRODUCTION

Today, the world is in a profound crisis and on the verge of extinction, the sixth mass extinction. The vicious destruction of rich forest regions and biological diversity to build concrete jungles has resulted in Global Warming and Greenhouse Effects. Major conferences and summits have adopted the global theme of sustainable development. Policymakers and development experts consider eco-tourism an ideal economic activity for promoting sustainability and development. Travel and tourism are two of the world's fastest-growing economic businesses. Tourism has become the economic powerhouse of our country (Shaftel, 2023).

Sustainability has evolved into a broad term that can refer to almost all aspects of life on Earth, from the local to the global, and over multiple historical periods. Sustainable biological systems include wetlands and forests that have a long and healthy life. Water, oxygen, nitrogen, and carbon are transported through invisible chemical cycles throughout the world's living and nonliving systems (Patterson, 2022).

A "sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace" is what the Earth Charter aspires to. Restoration of ecological management methods necessitates a shift in mindset, which is what humanity wants to survive today and tomorrow. Many environmental movements arose as individuals grasped the link between an unfavorable environment and unsustainable behavior. We must save our environment like a school, necessitating open and transparent worldwide dialogue between industry and government (Samuelsson & Kaga, 2008).

According to Chaudhary and Piracha (2021), the restoration of the environment and public health is a major issue nowadays, as floods are becoming more of a problem, particularly during natural disasters such as typhoons, volcanic eruptions in oceans that cause tsunamis, and many others. Studies

revealed that humans destroyed the ecosystem and were entirely responsible for the degradation of ecological imbalance.

Laws are important in our efforts to solve and restore Ecological Management Practices. The Philippine Clean Act of 1999, Republic Act 8749, strives to develop and maintain clean air that fulfills the National Air Quality Guidelines. Values for criterion pollutants throughout the Philippines while reducing potential economic implications. Presidential Executive Order 1586. EIS (Environmental Impact Statement) Statement from 1978. The EIS was formed in 1978 by Presidential Decree No. 1586 to aid in attaining and maintaining national and environmental preservation. The EIS is a planning and management instrument that will assist the government, decision-makers, proponents, and impacted communities in addressing negative environmental repercussions or hazards. It ensures the implementation of environmentally beneficial practices.

The City of Ilagan in the Province of Isabela was recognized as one of the two cities in the Philippines that were recently awarded the Association of Southeast Asian Nations (ASEAN) Clean Tourist City for 2021. The award was given after the city complied with the requirements of the ASEAN Clean Tourist City Standard (ACTCS), which was received by the Philippine Ambassador in Phnom Penh, Cambodia, on behalf of the City Local Government Unit on January 19, 2022. Baguio City in the Cordillera Administrative Region was among the recipients of the same award. Both cities were assessed in their commitment to sustainable tourism, particularly in the seven indicators: Environmental Management, Cleanliness, Waste Management, Awareness-Building about Environmental Protection and Cleanliness, Green Spaces, Health Safety, Urban Safety and Security, and Tourism Infrastructure and Facilities. Other awards were the ASEAN Green Hotel Standard, MICE Venue Standard (Category Meeting Room), and MICE Venue Standard (Category Exhibition venue). Ilagan City is a component city known as the Corn Capital of the Philippines.

Waste management habits and experiences are evident in the barrio (village) in Manila, Philippines. Information provided was acquired through a free-flowing discussion with family members. There, interviews with scavengers and rubbish collectors were conducted. The most common types of waste include yard/garden waste, paper, PET bottles, metals, cans, boxes/cartons, glass bottles, and food/kitchen waste. PET bottles, glass bottles, and other items are how participants classify their waste (combined wastes). None of the participants engaged in composting. However, it is important to note that the responders do not burn trash. The Government's waste collection benefits the residents, according to the Waste Management Act of 2000.

Deforestation of forest covers, landslides, loss of soil productivity, and flash flooding are among the documented environmental challenges in highland areas. Over-exploitation of forest resources has resulted in the deforestation of upland areas. Pio Duran hills and mountains have been deforested. This problem was greatly exacerbated by upland agriculture and *kaingin* cultivation. Surficial erosion occurs when the soil is exposed, bringing down fertile deposits and reducing the land's production. This state contributes to landslides, river siltation, and flash floods.

The deposition of materials transported down by creek and river discharges to coastal areas causes coastal sedimentation. Flooding and inundation occur at low altitudes along the coast during storms due to the swelling of coastal water. Water quality caused by discharges from residential areas due to poor sanitation can contaminate coastal waters and reduce their quality. Residents along the coast who engage in unsustainable fishing techniques destroy marine environments. Mangrove clearing and harvesting also harm marine creatures' habitats. Finally, the intrusion of commercial fishermen in municipal waterways leads to overfishing and the impoverishment of fisher folk in coastal barangays.

In line with the deforestation acts, the proponent conducted the study to restore the Ecological Management Practices in the 2nd District of Albay, aiming to know if the various local tourist destinations actualize safe habits for tourists and the environment. With the results garnered, programs and regulations may be implemented to better the ecology of the place or maintain its ecological state, and these options depend on the destination's situation.

FRAMEWORK

The study applies the CIPP (Context, Input, Process, and Product) evaluation model. CIPP is an evaluation model that requires the evaluation of context, input, process, and product in concluding a program's value. The Context component consists of the conceptual basis of the study, "The Restoration of Ecological Management Practices in Camalig, Albay: A Basis for Sustainable Tourism Operations."

The input component consists of the Status of Ecological Management Practices of Key Attractions in the 2nd District of Albay along with the following variables: product, facilities, connectivity, services, safety and security, issues encountered along with the mentioned variables, and the impact of Ecological Management.

The Process component consists of preparing the instrument (survey instrument), data gathering (distribution and retrieval of research instrument),

tabulation, and analysis and interpretation of data collected. The Output proposed an Eco-Tourism Management Plan to address the issues.

OBJECTIVES OF THE STUDY

The primary objectives of this study are to (1) determine the status of Ecological Management practices of Key Attractions in the 2nd District of Albay along with the following variables: Products, Facilities, Connectivity, Services, Safety, and Security. Identify the issues encountered along with the variables mentioned above, (2) evaluate the impact of Ecological Management practices, (3) propose an Eco-Tourism Management Plan that aims to establish connections with concerned individuals and organizations to address the issues which will benefit the tourists, the management of tourism sites and the environment.

METHODOLOGY

Research Design

A sustainable biological system has what our world nowadays is founded on: respect for nature. Restoration of Ecological Management Practices for our Tourism sites is what humanity wants in order to survive.

The study applies the Context, Input, Process, and Product evaluation model. The input component consists of the Status of Ecological Management Practices of key attractions in the 2nd District of Albay along with the following variables: Product, facilities, Connectivity, Services, Safety, and Security, along with issues encountered and the Impact of Ecological Management Practices. The variables used by the researcher have been provided by the Department of Tourism, Albay, with Validation and Pilot testing procedures from the department for the research. The process component consists of preparing said instrument, data gathering, tabulation, and analysis and interpretation of data collected.

The researcher used mixed methods, qualitative and quantitative methods. The study used quantitative for the tourists as the respondents in the survey questionnaire. Qualitative design is used to gather data to validate Owners of the Key Attractions in the 2nd District of Albay. It was appropriate considering the nature of the study, wherein the focus is on restoring the Key Attractions' ecological practices. This study describes a situation to discover how a local tourist destination operates regarding Ecological Management practices to improve its operation and give incentives and interest to visit and revisit the Tourist Spots. It involves collecting data to test hypotheses and answer questions

concerning the insurgent status of Tourist destinations in different places.

Respondents

The respondents of the study were the Tourists, Owners, and Managers of the Key Attractions sites in the 2nd District of Albay. 16 Key Attractions Sites were randomly chosen. The researcher decided to have five (5) Tourists for each Key Attractions Site and 16 Owners totaling 96 respondents. The respondents for Tourists were randomly chosen while visiting the Tourist Sites.

Table 1
Respondents of the Study

Key Attractions per Municipality	Number of Respondents
Legazpi- 1	5
Manito- 5	25
Daraga- 5	25
Camalig- 5	25
Owners	16
Total	96

Instrumentation

The researcher utilized an interview and survey questionnaire to tourist site owners as well as Tourists to gather data. A survey questionnaire is a type of research tool made up of a list of questions to gather responses from tourists as respondents and an interview guide for the owners of key attraction sites, the main instrument in data gathering as the major source of data for respondents to honestly answer the questions about the study and assist the respondents in gathering the data. This was disseminated to a random respondent of tourists. Destination sites are the 2nd District of Albay, particularly in Camalig, Daraga, Manito, and Legazpi City. The contexts of the questionnaire were taken from the Department of Management Operation Manual of the Department of Tourism, Albay. Analyzed data revealed an average level of awareness using given variables as proven and identified. Furthermore, there was a Moderate Impact on Indicators: Eco-Tourism Management, Sustainability of Eco-Tourism with Fully Practiced as its adjectival description. Tourist owners and people in the community demand environmental awareness to protect Tourist destinations in Albay.

The questionnaire has three parts designed to validate the questionnaire prepared by the researcher. Part I determines the status of ecological management practices and variables such as products, facilities, connectivity, services, safety, and security. Part II identifies issues encountered, and Part III evaluates the impact of ecological management practices on Eco-Tourism, Tourism Management, Sustainability of Eco-Tourism, and tourism sites. An eco-tourism management plan was proposed to address the issues. Such variables have a list of Indicators that respondents might use to assess using the Likert Scale. Moreover, challenges are encountered by the tourism site owners as well as the tourists. The data gathered has been approved by the Department of Tourism and the Provincial Tourism Culture and Arts of Albay.

This research utilized the mixed method using the descriptive quantitative /qualitative method. The questionnaire was used to survey the responses from the 4 Albay towns—a total of 96 respondents whose responses to the questionnaire were validated through an interview. Analysis of responses and documents was also employed. Frequency, rank, and weighted mean were used to interpret the gathered data.

Data Collection

The researcher conducted the study, prepared the survey questionnaire, wrote a letter affixing his research professor's signature and research adviser's signature, and sent the Department of Tourism to the Provincial Tourism Culture and the Arts Office of Albay to gather data. The Tourists, as the respondents, have given a copy of the interview guide questions to the Owners of the Key attractions. It is a way to determine other issues and problems encountered by the Management of the Tourist Destination sites.

The survey questionnaires are retrieved on the same day by the researcher—retrieval of the questionnaire. A total of 96 respondents answered the survey questionnaire. All answers were tallied by the researcher with the help of a statistician. The result and conclusion were formulated after the computation.

The results were tabulated, analyzed, and interpreted using appropriate tools. The following statistical tools were used to analyze and quantify the interpretation of the data.

Likert Scale. Used to determine the Ecological Management Practices in the different tourist attractions for its continuing sustainability of Tourism Management in Albay.

Weighted Mean. The average of the data set is calculated by giving different weights to different data points. Applicable in objectives number 1 and 3.

Frequency Distribution. The researcher used the frequency distribution to identify the number of responses in each category to analyze the data.

Ranking. A ranking process will determine the extent of the variable's positional importance. It will also be used to determine the order of the responses based on the frequency or percentage obtained. Applicable in objective number 2

Thematic Analysis. A process to analyze qualitative data. The researcher used this to decode themes and analyze the thoughts of the respondents in connection to the themes involved in the study.

RESULTS AND DISCUSSION

The researcher provides the thematic analysis for the result and discussions of the following variables. Table 1 (Product) for Indicators providing eco-friendly recreational activities, accommodation, products/services and given procurement policy on selecting products to our business, produce goods and services has as average of 3.50-4.49 = (FP) Fully Practiced. At the same time, the promotional and visitor information, the use of international eco-system ions, and upgrade standards for accreditation have an average of 3.48, which falls on (P) Practiced.

For Table 2 (facilities), providing room and Information Signage got an average of 3.52, which is (FP) fully practiced while maintaining sewage and waste disposal, providing green restrooms for males/females, providing facilities for the elderly has an average of 3.49, which is Practiced.

For connectivity, promote services for communication networking with 3.57, which is fully Practiced. For services, performing the best services that benefit a safeguarded guest is P (Practiced).

Safety/Security: With 3.44 (P) Practiced to be implemented for Safety, Healthy infrastructure requirements are closely coordinated. Table 4 - Services: For Services, It is suggested that ecological management practices be regularly practiced, especially on Tourism sites. For products, based on the survey, this suggests that environmental awareness is used for tourists visiting Eco-Tourism awareness because it may reduce the quality of products/ services and damage the ecological system. Environmental education would help stakeholders to work together to address the issue. For facilities and equipment used to be improved as perceived by the respondents, poor internet services deprive the doorway for greater awareness and penetrator immediacy of the tourism industry. There is a poor connection to the internet in every establishment where tourists need to upload or give reviews to places they visit. On safety and security, the local government's commitment to strengthened institutionalized linkage and

coordination with authorities regarding safety and security for guests should be given priority and attraction by the tourist owners. We need to train security, provide surveillance cameras, and have community watchmen be educated on things to be done for safety and security. It is revealed that Eco-Tourism provides tangible social and economic benefits to local communities and improves the economy of the place as producing goods, cultural enrichment, and educational significance are examples of social benefits. Tourism Management and Sustainability of Eco-Tourism have a Total Weighted Mean of Moderate Impact. Greening the establishment industries will help continue to account for more employment and pose safety and health risks; we offer a significant opportunity to make safer, healthier, more energy-efficient, and environmentally sustainable places to go. Collaboration with government agencies is implemented, especially with the Department of Public Works and Provincial Tourism Culture and Arts. Eco-tourism site owners are to provide dissemination and awareness to the community, adopt tourism development plans on issues, challenges, and impact, and conduct training for skills in the tourism industry, hospitality management and conduct sustainable research activities.

The Status of Ecological Management Practices

Table 1
Product

Indicators	Legazpi City	Manito	Daraga	Camalig	WM	A.I
	TWM	TWM	TWM	TWM		
Provide eco-friendly recreational activities, accommodations, and products/ services.	4.00	3.72	3.24	3.44	3.60	FP
Produce promotional and visitor information materials for product/service sites.	4.00	3.56	3.36	2.96	3.47	P

The use of internationally recognized ecotourism icons/symbols is a key factor for the marketing and development of the industry.	4.00	3.36	3.44	2.96	3.44	P
Upgrade standards for accreditation to ensure a high-quality visitor's experience to global marketing.	3.60	3.40	3.48	3.08	3.39	P
Green procurement policy on selecting products to run business, producing goods and services based on impact to environment and human health.	3.80	3.52	3.36	3.36	3.51	FP
Average					3.48	P

3.50-4.49=Fully Practiced (FP) 2.50-3.49=Practiced (P) 1.50-2.49=Partially Practiced (PP) 1.00-1.49 = Not Practiced (NP)

Tourism Products is a collection of products and services travelers need while visiting and staying. Based on Table 1, the variable "Provide eco-friendly recreational activities, accommodations, and products/services" has an average weighted mean of 3.60 as Fully Implemented. The Green procurement policy on selecting products to run a business is also fully practiced with an average weighted mean of 3.51 as Fully Implemented. Other bits, such as the production of promotional and visitor information materials for product/service sites, the use of internationally recognized ecotourism icons/ symbols, key factors for marketing and development of industry, and the upgrade standards for accreditation, all fall under the "Practiced" classification. Derived from this first theme's result, products within the tourism grasp are safe for the environment and humans; however, some aspects still need improvement.

This suggests that the City of Legazpi and the Municipalities of Camalig,

Daraga, and Manito are the centers of tourism products since they cater to many tourists, being the service center and tourism hub, especially Legazpi City. Being a member of eco-tourism sites, accommodation, and primary and secondary establishments gives them the edge to be chosen by tourists.

Table 2
Facilities

Indicators	Legazpi City	Manito	Daraga	Camalig	AWM	A.I
	TWM	TWM	TWM	TWM		
B. Facilities						
Information signage – a noticeable sign that contains information about the site, such as the history of the site, description of attractions, purpose, direction to various parts of the destination, etc.	4.00	3.48	3.32	3.40	3.55	FP
Well-maintained standard sewage and waste disposal facilities.	3.80	3.40	3.26	3.48	3.49	P
Accessible tourist green restroom for men and women.	4.00	3.16	3.28	3.44	3.47	P
Provisions of friendly facilities to cater elderly and persons with special needs such as ramp access entrance, higher-level toilets or toilets with grab rails, reserved parking spaces, etc.	3.80	3.44	3.24	3.32	3.45	P
Provide gender-neutral green restrooms for guests and service providers/ staff.	4.00	3.68	3.52	3.28	3.62	FP
Average					3.52	FP

3.50-4.49=Fully Practiced (FP) 2.50-3.49=Practiced (P) 1.50-2.49=Partially Practiced (PP)
1.00-1.49 = Not Practiced (NP)

Tourism Facilities are place that offers accommodations for vacationers or recreational activities, including a boat shed, boat landing facilities, camping area, caravan park, vacation cabins, hotels, houseboats, marina, motels, playgrounds, refreshment rooms, shops, water sports facilities, or a club that is used in conjunction with any of these activities.

Based on Table 2, the variable “Providing gender-neutral green restroom for guest and service providers/staff” has an average weighted mean of 3.62 as Fully Implemented. Also, the Information signage – a noticeable sign that contains information about the site such as history of the site, description of attractions, purpose, and direction to various parts of the destination has an average weighted mean of 3.55 as Fully Implemented. Accessible tourist green restrooms for men and women and Provisions of friendly facilities to cater to the elderly and persons with special needs with the category of Tourism Facilities adhere to Ecological Management Practices.

This suggests that the four named cities and municipalities have much to offer regarding the facilities where guests’ convenience is important. They offer good comfort rooms, function halls, camping grounds, transport facilities, PWD areas, and recreational facilities, where most can be found in the different destinations in Legazpi, Camalig, Manito, and Daraga. It also implies that respondents see no problem with the surveyed places’ service regarding their facilities. However, this may be seen as a bit of an irony since some sites may be seen to have some flaws in these aspects. The results show that the facilities are feasible for use, or the respondents do not pay much attention to the real state of the facilities.

Since signage is a practical means for disseminating environmental information, it has been deemed vital for navigating. Wayfinding in complex institutional environments is impacted by several elements, including but not limited to the visual preference and style of information signage. Depending on cultural and personal preferences, wayfinding signage has various visual styles. This study examines how different navigational signpost designs and aesthetic preferences vary and what factors influence them (Ifrikhar et al., 2021).

Table 3

Connectivity

Indicators	Legazpi City	Manito	Daraga	Camalig	AWM	A.I
	TWM	TWM	TWM	TWM		
Sufficient power supply and standby generator.	3.80	3.40	3.44	3.16	3.45	P
Organize special events to reinforce the market image.	3.80	3.56	3.40	3.12	3.47	P
Building tie-ups with international tourism organizations and tour operators to sell the ecotourism destination/s.	3.60	3.24	3.36	3.12	3.33	P
Establish communication services that include the elderly and persons with special needs.	3.80	3.56	3.32	3.28	3.49	P
Promote product/ service and communication networking between and among domestic and global stakeholders.	3.80	3.68	3.44	3.12	3.51	FP
Average					3.45	P

3.50-4.49=FULLY PRACTICED (FP)
 3.50-4.49=FULLY PRACTICED (FP)
 PRACTICED (PP)

2.50-3.49=PRACTICED (P)
 2.50-3.49=PRACTICED (P)

1.50-2.49=PARTIALLY PRACTICED (PP)
 1.50-2.49=PARTIALLY PRACTICED (PP)

Tourism Connectivity: Social media interaction is crucial because it allows for utilization throughout the vacation process.

Based on Table 3, the variable “Promote product/service and communication networking between and among domestic and global stakeholders.” has an average weighted mean of 3.51 as Fully Implemented. This reveals that there is somehow trouble when it comes to connectivity. One way to look at it is the already existing connection problem in the country; however, the distance of the tourist sites may also be a factor.

This implies that a tourist destination in Albay Community is a grave factor in its marketing strategy, specifically in Manito, wherein the farthest barangay is part of the research concentration, especially in Nagaso Boiling Lake. Connectivity is provided with sufficient power supply to organize events and establish communication services promoting product/ service and communication networking between and among domestic and global stakeholders where foreign tourist stakeholders visit the place. Incorporating the results into the soon-to-be-developed strategies will target the needs of the places.

Coordinating efforts by various actors to promote the debate by including all pertinent stakeholders through various communication channels and networking activities, simplifying the stocktaking on what has been accomplished thus far, and planning dissemination events are the main general measures (Signore & Fazio, 2018).

Table 4
Services

Indicators	Legazpi City	Manito	Daraga	Camalig	AWM	A.I
	TWM	TWM	TWM	TWM		
Clean and quality catering operations	4.00	3.48	3.48	3.76	3.68	FP
Extensive wastewater and safe drinking water management	4.00	3.40	3.44	3.48	3.58	FP

Perform best practices that benefit and safeguard guests, service employees, and the community.	3.80	3.24	3.56	3.36	3.49	P
Staff, business, and facilities delivering the services are skilled and fitted to the task	4.00	3.56	3.36	3.16	3.52	FP
Respect culture and behave ethically toward guests, subsidizing stakeholders and the community	4.00	3.60	3.40	3.44	3.61	FP
Offer green products/ services that reduce businesses' negative environmental footprints, such as food production management, eco-friendly tourist activities, etc.	4.00	3.64	3.52	3.44	3.65	FP
Average					3.59	FP
3.50-4.49=Fully Practiced (FP) 2.50-3.49=Practiced (P) 1.50-2.49=Partially Practiced (PP)						
1.00-1.49 = Not Practiced (NP)						

Tourism-related services are typically labor-intensive, with numerous links to other major segments of the economy, such as transport, cultural and creative services, or financial and insurance services.

This reveals that the respondents analyzed six indicators. These included clean and quality catering operations, with the highest satisfaction rate identified as “Fully Practiced” with a 3.68 average. On the same note, clean and quality catering operations, extensive wastewater and safe drinking water management,

Staff, business, and facilities delivering the services are skilled and fitted to the task, respect culture and behave ethically toward guests, subsidizing stakeholders and to the community also garnered enough rating also to be identified as “Fully Practiced.” On the other hand, performing best practices that benefit and safeguard guests, service employees, and the community only fell under the “Practiced” category.

This suggests that the respondents see that Services adhere to Ecological Management Practices as they are “Fully Practiced.” One lens is the innate Filipino value of accommodating, which may be practiced regularly, even on tourism sites.

To some extent, though not in all cases, all guests are satisfied with the degree of quality service the tourism industry offers, according to a comparison of the guest assessment of the service quality dimensions (Munkaila et al., 2018).

Table 5
Safety and Security

Indicators	Legazpi City	Manito	Daraga	Camalig	AWM	A.I
	TWM	TWM	TWM	TWM		
Safety signages to provide information on safety and security procedures in and going to the destination.	3.80	3.84	3.40	3.44	3.62	FP
Safe and friendly facilities that observe the elderly and persons with special needs are suitable to their needs and provide comfort and convenience. (Free from stumbling, slipping hazards, etc.)	4.00	3.72	3.36	3.28	3.59	FP
Eco-friendly design of structures and equipment in accordance with standards required by concerned agencies.	4.00	3.36	3.36	3.40	3.53	FP

Advocate the implementation of safety and healthy infrastructure requirements in close coordination with the LGUs and concerned NGOs	3.60	3.40	3.48	3.28	3.44	P
Presence of specially trained safety and peacekeeping officers in tourist destination sites.	4.00	3.64	3.64	3.49	3.69	FP
Average					3.58	FP
3.50-4.49=Fully Practiced (FP) 2.50-3.49=Practiced (P) 1.50-2.49=Partially Practiced (PP)						
1.00-1.49 = Not Practiced (NP)						

The provision of quality in tourism depends on safety and security. Offering guests a safe and secure environment is more important to a tourism destination's success or failure than any other economic activity.

Based on the table above, the variable “Presence of specially trained safety and peacekeeping officers in tourist destination sites” has an average weighted mean of 3.69 as Fully Implemented and Advocates the implementation of safety and healthy infrastructure requirements in close coordination with the LGUs and concerned NGOs has the lowest average weighted mean of 3.44 which is Practice. The total Average Weighted Mean in this aspect is 3.58, which falls under the Fully Practiced classification. This means that the respondents not only feel safe for themselves but also for the environment.

This suggests that Tourism gives jobs and opportunities to many people. Concerned for the safety and security of the guests in the Province of Albay, trained peace officers and other uniformed men are appointed to every tourist destination for the safety of the guests in the area.

Safety and security are crucial in the travel industry, and any attractions that overlook these responsibilities risk losing out on the fierce visitor competition. Regular evaluation and seeking out stakeholder opinions are two ways to ensure that safety and security are delivered effectively.

Issues Encountered By Key Attractions In Albay Along The Given Variables

Table 6
Product

Issues	Legazpi	Manito	Daraga	Camalig	Total	Rank
	F	F	F	F		
Lack of knowledge on eco-labeling products/services and tourist sites to improve economic and environmental performance.	2	4	9	12	27	2
Environmental education and advocacy for guest and service providers to boost environmental awareness.	3	25	11	14	53	1
Meeting the demands of increasing tourists creates competition especially for those with scarce resources.	2	2	10	6	20	3
A high increase in visitation level may reduce the quality of products/services and damage the ecological system.	2	2	5	6	15	5
Bureaucratic requirements and systems present barriers to securing licenses and permits for the tourism business.	1	5	3	8	17	4

Table 6 revealed that four groups of respondents perceived that Environmental education and advocacy for guests and service providers to boost environmental awareness rank 1, and a High increase in visitation level may reduce the quality of products/services and may damage ecological systems, ranking five under the Product as Variable.

This suggests that there is a need for environmental awareness for tourists visiting Eco-Tourism destinations, which the owners and the government should implement to be aware of and educate them about those restrictions.

Effective environmental education aims to develop and enhance environmental attitudes, values, and knowledge and to build skills that enable people and communities to work together to take positive environmental action. It does not just transfer information in one direction. Environmental education also makes it easier for stakeholders to work together to address changing environmental concerns throughout time by fostering links between practical research findings and real-world applications. Environmental education can directly assist the environment and address conservation challenges because of this dedication to application and iteration (Ardoin et al., 2020).

Table 7
Facilities

Issues	Legazpi	Manito	Daraga	Camalig	Total	Rank
	F	F	F	F		
Training of employees in energy-saving management.	3	5	16	4	28	2
Modern management facilities on reduction of water consumption and water reclamation such as wastewater treatment, greywater harvesting, and resources.	1	16	15	11	49	1
Renewable energy resources.	1	1	15	10	27	3
Government policies and incentives for the tourism industry for the collaboration and development of new and existing facilities.	1	2	10	8	21	4

Understanding of eco-design facilities and equipment use.	1	1	8	4	14	5
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Table 7 revealed that four groups of respondents perceived Connectivity, “Poor internet services deprive doorway for greater awareness and penetration immediacy of the tourism industry” rank one and “Affiliating to eco-tourism product and communication networking- domestic and global,” “Tourism enterprise/s lack technological and digital knowledge on online footprints and sentiments class labeling - key factors in developing services and strategies in marketing styles.” rank 4.5.

It is suggested that Connectivity, as perceived by the respondents’ poor internet services, deprives the doorway for greater awareness and penetration immediacy of the tourism industry. It is a major issue when it comes to connectivity. There is a poor connection to the internet in every establishment where tourists need to upload or give some reviews to places where they visit.

Table 8

Connectivity

Issues	Legazpi	Manito	Daraga	Camalig	Total	Rank
	F	F	F	F		
Poor internet services deprive the doorway for greater awareness and penetration of the tourism industry in an instant.	4	5	12	15	36	1
Lack of knowledge of product/ services networking classification in the marketing tourism industry.	1	15	8	10	34	2

Assertive collaboration and creative governing strategies of different stakeholders-private and public	1	4	9	10	24	3
Affiliating to eco-tourism product and communication networking-domestic and global	1	4	7	5	17	4.5
Tourism enterprise/s lack technological and digital knowledge on online footprints and sentiments class labeling - key factors in developing services and strategies in marketing styles.	1	2	8	6	17	4.5

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It is suggested that Connectivity, as perceived by the respondents’ poor internet services, deprives the tourism industry of a doorway for greater awareness and penetration immediacy. It is a major issue when it comes to connectivity; there is poor internet connection in every establishment where tourists need to

upload or give some reviews of places they visit.

It has demonstrated the relevance of the Internet in the development of Bangladesh's travel and tourist business, as well as researching the current situation of how the Internet is used in the same promotional operations for tourism. The benefits of the Internet. A basic promotion analysis in the modern tourism sector is also provided here. The internet can facilitate vital information on travel places and their services quickly and affordably. Internet access also aids in increasing destination loyalty, enabling message flexibility, ensuring quick information flow and retrieval, and enhancing interactions among people. The research also emphasized the restrictions impacting the increase of Internet usage in Bangladesh's travel and tourism sector. In the paper's conclusion, some policy principles for developing Internet promotion strategically in the tourism industry (Hossain et al., 2020).

Table 9

Services

Issues	Legazpi	Manito	Daraga	Camalig	Total	Rank
	F	F	F	F		
Service providers and management should develop environmental awareness and respect for local culture and values.	2	3	17	7	29	3
Staffing and budgetary constraints for collaborative engagement of different stakeholders in tourism planning and service delivery.	2	20	15	13	50	1

Unmanaged tourist influx may lead to overcrowding, guest negativity experiences, and damaging image of the tourist site/sites.	1	6	1	12	30	2
Maintaining a certain level of housekeeping efficiency and respect, nobleness, and compassion of service providers in dealing with guests.	1	2	10	10	23	4
Inadequate knowledge in optimizing organic food preparation practices and delivery services	1	1	9	10	21	5

For services, they revealed that staffing and budgetary constraints for collaborative engagement of different stakeholders in tourism planning and service delivery rank 1, and inadequate knowledge in optimizing organic food preparation practices and delivery services rank 5. Business owners should engage with different stakeholders to guide them and have an idea for collaborative purposes in their business.

It is suggested that, even with a limited budget, there is little funding to support commitment fundamentals. Acquiring funds that will enable thorough stakeholder involvement may be a big difficulty. Where money is limited, you might need to increase construction efficiency. Mitigating staffing and budgetary constraints, affordable technology can support this effort. Serious games for dementia have become an active research area, including cognitive assessment games, but the games developed thus far have typically been subjected to relatively limited validation (Zhang et al., 2022).

Table 10
Safety and Security

Issues	Legazpi	Manito	Daraga	Camalig	Total	Rank
	F	F	F	F		
Local government's commitment to strengthened institutionalized linkage and coordination to authorities regarding the safety and security of guest tourist sites as service providers.	2	3	14	6	25	5
Government funding is needed to train enough skilled workers for recreation, nature-based tourism, emergency, security, health, and safety.	3	23	20	15	61	1
The presence of well-paid and fittingly trained physical security plus the use of technology, for example, sensitive surveillance cameras in all bases of tourist sites.	1	2	18	10	31	2
Police and community police/watchmen in the area are not well-trained in the tourism industry.	1	4	10	2	27	4
Concerned agencies should educate tourist service providers and management on capabilities and proper protocols in times of emergency.	1	1	15	13	30	3

On safety and security, Government funding for training enough skilled workers for recreation, nature-based tourism, emergency, security, health, and

safety rank one as the highest Commitment of local government to strengthened institutionalized linkage and coordination to authorities about safety and security of guests, tourists sites, as well as service providers, rank 5—lack of funding for skills training for employees working in the tourism industry.

It implies that Government funding is essential to maintain sufficient volume and quality of travel and tourism-related vocational training. There should be training for skilled workers for recreation facilities in the area. Nature-based tourism, emergency, security, health, and safety for the guests are very important in the industry.

The oversight of the development of facilities and infrastructure that are environmentally sound and add economic value to the growth of local communities. The government’s and stakeholders’ awareness of the sustainable tourism industry’s environmental carrying capacity (Tjilen et al., 2022).

The Impact of Ecological Management Practices

Table 11
Eco-tourism

Indicators	4		3		2		1		TWM	Adj. Interp
	F	WM	F	WM	F	WM	F	WM		
Boost the eco-labeling of the tourism industry.	4	1.00	6	1.12	6	0.75			2.87	MI
Lessen organizational risks and damaging image of the tourist site/s.	6	1.50	5	0.93	5	0.62			3.05	MI
Revenue earned is the best source for tourism sectors to meet conservation and biodiversity objectives.	7	1.75	6	1.12	3	0.37			3.24	MI

Make high-quality experiences and educational opportunities for positive social, mental, and health benefits.	5	1.25	7	1.31	4	0.50	3.06	MI
Provide tangible social and economic benefits to local communities	8	2.00	6	1.12	2	0.25	3.37	MI
Average							3.12	MI
4.50-5.49=Highly Impact (HI)			3.50-4.49=Impact (I)			2.50-3.49=Moderate Impact (MI)		
1.50-2.49=Less Impact (LI)			1.00-1.49=No Impact (NI)					

Table 11 revealed that Eco-Tourism provides tangible social and economic benefits to local communities with 3.37 TWM, a Moderate Impact. The average total weighted mean is 3.12.

It implies that Social benefit is the total benefit to society from producing or consuming a good/service. The social benefit includes all the private and external benefits of production/consumption. Cultural enrichment and educational significance are examples of social benefits. It can give employment benefits to the local communities of the area.

The tourism industry can help communities in various ways, both concrete and abstract. The majority of research on festivals and events has been devoted to analyzing visitor behavior or describing the financial effects of attendance on the host cities. Nevertheless, not much research has been done to look at how different festival organizers view the socioeconomic significance of these events from the viewpoint of attendees (Ardaheay, 2014).

Table 12
Tourism Management

Indicators	4		3		2		1		TWM	Adj. Interp
	F	WM	F	WM	F	WM	F	WM		
Better information to society to improve environmental awareness and advocacy	8	2.00	5	0.93	3	0.37			3.30	Moderate Impact
Long-term market opportunities	5	1.25	7	1.31	4	0.50			3.06	Moderate Impact
Provide quality recreation and tourism visitor experiences at the same time while expanding economic opportunities	4	1.00	8	1.50	4	0.50			3.00	Moderate Impact
Better environmental and socio-economic performance	5	1.25	6	1.12	5	0.62			2.00	Moderate Impact
Networking mechanism for sharing experiences and building professionalism in the industry	7	1.75	6	1.12	3	0.37			3.24	Moderate Impact
Average									3.12	Moderate Impact

4.50-5.49=Highly Impact (HI)

1.50-2.49=Less Impact (LI)

3.50-4.49=Impact (I)

1.00-1.49=No Impact (NI)

2.50-3.49=Moderate Impact (MI)

Table 12 revealed that under Eco-Tourism, “Better information to society to improve environmental awareness and advocacy” with 3.30 TWM, Moderate Impact. The average total weighted mean is 3.12.

This suggested that environmental advocacy presents information on ecological issues to encourage audiences to adopt more environmentally sensitive practices and biocentric worldviews. Considering the unsustainable rise in global population, rampant environmental degradation, and unbridled consumption, our planet can use all the environmental advocates it can get.

Liu et al. (2018) incorporate ecotourism into ecological education, and offering ecolodges is advantageous for the design of student learning outcomes; also, locals and visitors can learn the value of environmental protection and education through their experiences while staying in eco-lodges. By taking this action, environmental protection advocacy would succeed in raising public awareness of the need to protect the environment and foster social responsibility.

Table 13
Sustainability of Eco-Tourism

Indicators	4		3		2		1		TWM	Adj. Interp
	F	WM	F	WM	F	WM	F	WM		
Reduction of negative environmental footprints.	1	0.25	9	1.68	6	0.75			2.68	Moderate Impact
Simplify government bureaucracy in policies, regulations, and requirements systems in securing permits and licenses.	3	0.75	8	1.50	5	0.62			2.87	Moderate Impact
Employing	2	0.50	5	0.93	9	1.12			2.55	Moderate Impact

vital choice for industry growth and competitive business development from a global perspective with significant industrial and social impact (Stavroulakis et al., 2022).

To support the results of the above-mentioned variables, the following were the responses of the respondents based on the interview.

1. Will the ecological practices benefit your attention?

All the 5 respondents have similar answers as:

“Marahayon na idea na i-improve an padalagan sa samong business para man sa karahayan kan mga tagsadire, mga Turista at ang gabos na tao sa kumunidad. Kung maaraman kan mga tao na maray an patakaran san samong negosyo, dakul an makaka interes na mag kaigua ki sadire nindang negosyo. (Is it a good idea to improve the business establishment among the five owners of the site? If the people in the community know the businesses on the site. Then, they will decide to begin their businesses. Improvement of ecological practices is leading to a progressive community and country. If there are many improvements, tourists will surely visit the place).

Negative Response:

“Hindi madali an maisaayos an ecological practices. Kaipuhan man giraray an igwang masuporta asin maimplimintar para ma improved an satong ecology at marahay na patakaran kan tagsadiri.” (As we all experience running a business, it is known that there is hardship in its implementation. A budget is needed from the government and other sources like Organizations, NGOs, and others).

2. What are your plans for Solid Waste Management to ensure the sustainability of implementing proper waste disposal?

“Digdi sa sakuyang negosyo, plano kung magkaigua ki sadiring track (1) at 1 driver na maga-kolekta kan mga basura uro aldaw. Kina dadarahon sa site na pigadarahan kan basura. Pero dapat segregated sa mga malalapa asin dai nalalapa. (We have decided on our plans to have one track to be used by tourist site owners for the collection of waste disposal management. If it will not be carried out, we can resolve on renting tracks for this purpose).

“Dapat ang mga tao aram sa segregation policy. Dagdag na empleyado an kaipuhan para inantener an kalinigan sa tourism site”. Education sa mga tao an kailangan. Mga barangay officials magapod ki seminar sa mga organisasyon. (Every community should have an awareness campaign for people to be

aware of the importance of the segregation policy. Labeling of trash boxes to determine which cans are degradable and non-degradable wastes for easy disposal by government workers).

3. Is the government helping your site pertaining to the implementation of solid waste management?

“An samuyang miyembro ng konseho, talaga nindang ni implement an Clean and Green Derive/Program. Palibot sa samong site may mga barangay tupad na naglilinig palibot sa barangay. Gobyerno ang maga shoulder sa pagbayad sa mga naga trabaho sa kalinigan kan samong lugar. (Yes, our municipal government officials implement the Cleanliness drive to collect wastes through trucks. We have the Tupad Program to clean the areas assigned to them. The government shoulders finances).

3. Is the government helping your site pertaining to the implementation of solid waste management?

Respondents 4 gave responses regarding the implementation of Solid Waste Management.

“An samong local na gobyerno magpaapud ki meeting samong may mga tagsadiri ki mga tourism sites. Napag orolayan kan gabos na magkaigwang cooperation sa lambang tourist site owners. Kaipuhan magkaigwang sadiring dump track para dai magpara halat sa track kan municipio ta dakul na barangay an piraga kolektahan. Kung makabakal ki sadit na track sindang gabos or mag arkila ki track para sa madaling paghakot sa basura. Basta isegregate gabos na basura. Sa degradable diretso sa compost pit. Sa mga basurang pwede irecycle may dadarahon na lugar.” (Our local government unit had oriented site managers to cooperate on this aspect. Otherwise, the sites will not be following the cleanliness drive. As observed, only one truck is used by its municipality to collect garbage in the entire barangays).

4. Are the visitors and the community supporting or following the protocols of proper waste disposal?

“ Local tourists saka foreign tourists naga sunod sa patakaran kan business site. Basurahan para sa di nabubulok at nabubulok nakabutang sa lugar na makikita ng mga bisita. Sinages manunungodsa kalinigan nakalaag sa luwas para mabasa at maintindihan ng gabos na nag aagi.” (Local and foreign tourists follow whatever is mandated by the owner of a Tourist

Spot, as proven by the site's cleanliness. Segregation of waste is done, especially during long vacations where people come and dine. Besides, there are employees to check if visitors follow the guidelines that must be implemented during and after their stay).

Negative Response:

“Sa pag interview sa mga tagsadiri may mga tao man na maski may mga dapat masunod na patakaran, igwa man na dai nagsusunod. Mga basura ninda iiwan na lang sa mga lugar na saindang itatago.” (With all the efforts done, some do not want to follow the protocols implemented by the DNR).

Respondent 5. Reacted on Solid Waste Management

“Dapat stricto an management sa pagsunod sa protocol na mandato kay gobyeno. An mga ginamit na facemask dapat sa tamang basura ipagtapon para sa health benefits ng mga turista at sa comunidad. Follow up to employees be done so as to check its implementation. Summer vacation an panahon na dakul na turista an madigdi sa satuyang lugar. Wearing of mask dapat ipasunod kung makikitang dakul an number of turistang nag arabot.” (A strict implementation of policies and regulations regarding solid waste management in different tourism sites).

Negative Response:

“Igwa man siempreng mabalga sa pag implementar. Pag pirmi may naga sabi siguro na edukaran man ang mga tao.” (Information dissemination is important for people to know how to improve ecological management practices' restoration).

CONCLUSIONS

Upon thorough analysis of the findings, it is found that the status of Ecological Management Practices in terms of product facilities, connectivity, services, safety, and security are fully practiced. Therefore, the assumption that ecological welfare is not considered in tourism destinations was debunked. However, it may also be considered that this is not the entirety since only a sample population was asked; thereby, there may have been other opinions beyond the sampled ones.

The findings under Eco-Tourism provide tangible social and economic benefits to local communities. In addition, the Networking Mechanism is of great help for sharing experiences and building professionalism in the industry. The

results were able to identify issues encountered by Key attractions, which mostly lean on the common problems, which are poor Environmental education and advocacy for guest and service providers to boost environmental awareness, lack of modern management facilities on reduction of water consumption and water reclamation, having poor internet services, staffing and budgetary constraints and Government funding for training enough skilled workers. Therefore, it can be concluded that even though these aspects may seemingly be resolved easily, there are factors that hinder the process of doing so. On the other hand, it can also be inferred that some managements overlook such flaws because it is common and people are already used to the inconvenience. Rightfully, neglecting such things should not be the case.

Challenges were encountered on the impact of ecological management practices as it was obvious when the general rating fell under the “moderately implemented” classification. This implies that the respondents find that practices that are implemented only have an average noticeable impact on them. It may be criticized that there is a lack of intensity when implementing ecological rules and practices, thus resulting in minute differences. To improve this, there should be a firm set of standards that each destination would adhere to.

Finally, based on the results, it may be strongly emphasized that formulating an Eco-Tourism Plan is essential. As of writing, various programs to promote attractions in Albay are done to gain tourist traction. However, with all the mentioned hassles and other considerations, some potential tourists might be disappointed when they visit places in Albay. Although the scope only focuses on the second district, it is safe to conclude that, most likely, the same situations occur in other districts in the province and even the whole region. Crafting a plan to combat problems in ecological management will help mold a guide for the management and the tourists, who will better appreciate the destinations if it is ecologically appropriately managed.

TRANSLATIONAL RESEARCH

There should be a collaboration with government agencies of local government units to implement extensive development programs like the Provincial Tourism Culture and the Arts Office, the Department of Public Works and Highways, and the Department of Environmental and Natural Resources.

Eco-tourism site owners should disseminate information to increase awareness of the benefits of tourism in the community.

Adopt a tourism development plan to help cope with sustainable tourism’s issues, challenges, and impacts. Conduct Seminars/Workshops on Skills

Training to nurture Hospitality Management/ Tourism Industry.

Conduct a more reflective, in-depth qualitative research from the regional perspective.

LITERATURE CITED

- Ardahaey, F. T. (2018). Economic Impacts of Tourism Industry. *International Journal of Business and Management*, 6(8). <https://doi.org/10.5539/ijbm.v6n8p206>
- Ardoin, N. M., Bowers, A. W., & Gaillard, E. (2020). Environmental education outcomes for conservation: A systematic review. *Biological conservation*, 241, 108224.
- Chaudhary, M. T., & Piracha, A. (2021). Natural disasters—origins, impacts, management. *Encyclopedia*, 1(4), 1101-1131.
- Hossain, M. A., Suchana, J. J., & Avi, M. A. R. (2020). Promoting Bangladesh tourism through the internet: theoretical perspectives and empirical evidence. *Canadian Journal of Business and Information Studies*, 2(5), 87-95.
- Iftikhar, H., Asghar, S., & Luximon, Y. (2021). A cross-cultural investigation of design and visual preference of signage information from Hong Kong and Pakistan. *Journal of Navigation*, 74(2), 360–378. <https://doi.org/10.1017/s0373463320000521>
- Liu, K., Hsueh, S., & Chen, H. (2018). Relationships Between Environmental Education, Environmental Attitudes, and Behavioral Intentions Toward Ecolodging. *Open House International*, 43(2), 5–12. <https://doi.org/10.1108/ohi-02-2018-b0002>
- Munkaila, A. D., Zakaria, M., & Clifford, B. (2018). Service Quality in Northern Region Tourism Industry: A Case Study of Hotels in Tamale Metropolis in the Northern Region of Ghana. *International Journal of Scientific and Research Publications*, 8(10). <https://doi.org/10.29322/ijsrp.8.10.2018.p8290>
- Patterson, N. (2022). What is environmental sustainability? Goals with examples. *Southern New Hampshire University*. <https://bit.ly/3PMhnMO>

- Samuelsson, I. P., & Kaga, Y. (Eds.). (2008). *The contribution of early childhood education to a sustainable society* (pp. 1-136). Paris: Unesco.
- Shaftel, H. (2023). What is climate change? *Global Climate Change*. <https://bit.ly/3PLbztl>
- Signore, M., & Fazio, D. (2018). A European framework for measuring progress. *Sustainability Accounting, Management and Policy Journal*, 5(3), 313–324. <https://doi.org/10.1108/sampj-11-2013-0046>
- Stavroulakis, P., Toulfatzis, A., Pantazopoulos, G., & Paipetis, A. S. (2022). Machinable Leaded and Eco-Friendly Brass Alloys for High Performance Manufacturing Processes: A Critical Review. *Metals*, 12(2), 246. <https://doi.org/10.3390/met12020246>
- Tjilen, A. P., Sahetapy, W. L., Tambaip, B., & Betaubun, M. (2022). Ecotourism Development Policy, Supporting Capacity and Development of Sustainable Tourism Facilities and Infrastructure in Raja Ampat Regency, West Papua Province. *International Journal of Science and Society*, 4(3), 13–25. <https://doi.org/10.54783/ijssoc.v4i3.493>
- Zhang, X., Zhong, L., & Yu, H. (2022). Sustainability assessment of tourism in protected areas: A relational perspective. *Global Ecology and Conservation*, 35, e02074. <https://doi.org/10.1016/j.gecco.2022.e02074>