

Exploring the Knowledge, Attitudes, and Practices (KAP) of locals towards ecotourism in Samar, Philippines: Insights for sustainable development

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ABSTRACT

The pandemic highly impacted the ecotourism sector. And the income of these sectors also suffered from the health crisis. This paper explores the Knowledge, Attitudes, and Practices (KAP) of locals in the countryside of Samar, Philippines. The study utilized a survey design to explore the Knowledge, Attitude, and Practices (KAP) and assess the respondents' understanding, beliefs, and behaviors about ecotourism. The respondents were all adults who met the inclusion criteria, residents in the community, and were 18 years old and above, employing purposive sampling to ensure a representative sample. The findings revealed that the locals have a positive perception regarding ecotourism. On one hand, the majority believed in the potential benefits of ecotourism, indicating a recognition of its positive impact on the community. However, many respondents were unaware of the specific advantages associated with ecotourism. Despite this knowledge gap, most respondents were optimistic about ecotourism and actively engaged in conservation practices. The study underscores the need for targeted educational and community-based policies and interventions to enhance residents' awareness and understanding of ecotourism. Strengthening these policies is essential for fostering sustainable development in the countryside by promoting and managing ecotourism initiatives.

1. Introduction

The Covid-19 pandemic created devastating impacts on the ecotourism industry globally. The pandemic-induced reduction in human activity has adversely affected wildlife tourism destinations, impacting local communities, wildlife populations, and the environment (Jones et al., 2023). However, the pandemic has also created opportunities for developing and promoting ecotourism, as it has affected mass tourism more than ecotourism (Enache, 2022). Studies have identified various effects of the pandemic on ecotourism, including decreased tourist numbers, reduced hotel and resort activity, and positive and negative environmental impacts.

However, if not managed strategically and sustainably, ecotourism can negatively affect natural resources and host communities, and effective legal frameworks are essential to ensure that resource revenues are allocated to local development projects (Aziza et al., 2023). Similarly,

community-based tourism initiatives emphasize local participation, equitable income distribution, and decision-making, which are crucial for sustainable development (Vélez et al., 2023). Moreover, communities' Local Ecological Knowledge (LEK) can provide vital data and information on local threats and impacts on conservation management (Ternes et al., 2023). Governments in less developed regions should adopt scientific approaches to modern governance and sustainable development, explicitly emphasizing integrating ecological principles into industry and promoting the industrialization of environmental practices. Ecotourism is a perfect tool for sustainable development, especially in underdeveloped and developing communities, such as the countryside, and can impact locals' income. According to King (2009), economic development and conservation efforts can and must coexist harmoniously. Additionally, it emphasizes the importance of learning experiences provided by small-scale businesses to small groups, with a strong focus on local ownership, especially for rural communities.

Moreover, previous studies on the economic, environmental, and social aspects of ecotourism in the Philippines highlighted the significance of continual caution and ecological preservation for sustainable development in regions like Lobo and Batangas (Gupta et al., 2023). Furthermore, a similar study on ecotourism performance in Davao City revealed a positive relationship between quality tourism experiences, sustainable consciousness, and ecotourism performance, emphasizing the need for visitors to be conscious of sustainability for an enhanced tourism experience and improved ecotourism practices (Olivar et al., 2023). These studies underscore the importance of understanding and promoting sustainable practices, knowledge, and attitudes in ecotourism contexts for long-term environmental conservation and community resilience.

In addition, Puspitasari et al. (2020) highlighted the significance of assessing tourism operators' Knowledge, Attitudes, and Practices (KAP) to comprehend their readiness and response to the Covid-19 pandemic. Understanding how these operators adapt and prepare is crucial for effective crisis management in the tourism industry. The scarcity of KAP studies in the context of tourism and health has been recognized by Shrestha and Shrestha (2021). A similar survey conducted by Kaderi et al. (2024) emphasizes assessing the reliability and validity of Knowledge, Attitude, and Practice (KAP) assessments related to Covid-19 transmission knowledge and preventive measures among ecotourism operators. By understanding KAP dynamics, ecotourism operations can implement adequate preventive measures to protect ecosystems and support local indigenous communities that rely on tourism.

Very few studies are conducted on ecotourism in Samar Island and the Philippines, which can be attributed to several factors. Firstly, the country's lag in ecotourism development due to many untapped natural resources in rural areas may lead to a lack of interest in researching this sector (Brillo, 2021). Moreover, the focus on assessing the effectiveness of ecotourism in meeting conservation goals and the varying outcomes based on tourism types, as evidenced by the study on whale shark tourism sites in the Philippines, may highlight the need for more research to understand the impact of different ecotourism activities on conservation efforts (Ziegler et al., 2021).

Samar, located in the Eastern Visayas region of the Philippines, is the third-largest island in the country. It boasts a wealth of potential ecotourism destinations, including over 20 grand-sized waterfalls and more than 100 caves, with countless others waiting to be discovered (Orale, 2014). Notably, within the Samar Island Natural Park (SINP) are iconic natural landmarks such

as Sohoton Cave, Natural Bridge National Park, and Calbiga Cave- the largest cave in the Philippines and the second-largest in Asia. The Ulot River in Paranas, Samar, also stretches over 100 kilometers, offering a scenic and adventurous experience.

Although the province of Samar is gaining popularity because it promotes ecotourism sites and the “*Spark Samar Project*,” there are still undiscovered tourist sites, such as waterfalls found in the upland barangays, which can be developed as ecotourism sites. While these ecotourism sites are not a direct responsibility of local authorities, including barangay officials, promotion, conservation, and development efforts must be strengthened at higher-level policy-making bodies.

Hence, the study aims to explore the knowledge, attitudes, and practices of the locals in the countryside of Paranas, Samar, Philippines, towards ecotourism and derive significant findings for promoting and conserving the local ecotourism site.

2. Literature review

2.1. Benefits of ecotourism

Ecotourism is recognized as a key tool for economic development and conservation, offering sustainable tourism experiences that benefit local communities economically and socially (Rana, 2021). Moreover, research highlights common challenges in ecotourism development, such as lack of government support, infrastructure, local knowledge, and specialized personnel (Sahahiri et al., 2023). Recent studies emphasize the importance of managing sustainable tourism destinations through governance and stakeholder involvement, integrating concepts and frameworks for ecotourism development (Siregar & Siregar, 2022).

Besides, Philippine ecotourism showcases the nation’s abundant natural and cultural attractions, emphasizing the significance of sustainable tourism for economic prosperity, environmental preservation, and community engagement (Brillo, 2021). The interplay between formal and informal institutions in ecotourism decision-making processes is also critical. While formal institutions often receive more attention, the role of informal institutions is equally vital, influencing governance and sustainability efforts in various tourist destinations (Malogdos & Yujuico, 2015).

Moreover, Samar Island, in the Philippines, boasts diverse ecotourism destinations like forests, reefs, caves, waterfalls, and beaches, attracting tourists globally, although hindered by poor local government intervention (Orale, 2014). Despite the government’s ecotourism promotion efforts, Samar Island is left behind compared to other regions.

2.2. Ecotourism after pandemic

Post-pandemic ecotourism is undergoing significant transformations globally. Studies highlight the impact of the Covid-19 pandemic on tourism sectors, emphasizing the need for sustainable recovery strategies (Novita & Hermana, 2024). Research indicates that community participation, economic benefits perception, social capital, and local policies are crucial in enhancing community involvement in ecotourism activities (Huynh et al., 2024).

Ecotourism in the Philippines has faced challenges due to the pandemic, impacting visitor numbers and economic activities (Biclar et al., 2023). Despite the country’s rich natural-cultural attractions and the potential for ecotourism development, there is a lag in progress, with many rural tourism resources remaining untapped (Brillo, 2021). Hence, focusing on conservation,

community engagement, and infrastructure development will be crucial for ecotourism's post-pandemic recovery and growth in the Philippines.

Furthermore, the infusion of ecotourism principles into destination-level practices is essential for responsible travel, emphasizing community benefits and environmental conservation (Muriithi & Ileri, 2024). The evolution of business tourism in the post-pandemic era includes a shift towards virtual platforms, driving innovation and creativity while enhancing industry resilience and adaptability (Coutinho, 2024). These insights underscore the importance of integrating sustainable practices, community engagement, and digital technologies to rebuild and sustain ecotourism post-pandemic, ensuring long-term viability and resilience.

2.3. Future of ecotourism in the Philippines

The future of ecotourism in the Philippines is crucially tied to sustainable practices, economic growth, and environmental conservation (Ocampo et al., 2018). Research indicates that ecotourism can lead to sustainability and economic development in the tourism sector, but expansion poses threats to the environment, necessitating a balance between growth and conservation efforts (Khan et al., 2020).

Moreover, the prospects for ecotourism in the Philippines involve the development of various research themes, government support, and private initiatives to ensure the long-term viability of ecotourism while safeguarding the natural environment (Fang et al., 2024).

3. Methodology

3.1. Research design

This research utilized a quantitative-descriptive design. The researchers gathered data using a survey questionnaire, the Knowledge, Attitude, and Practice (KAP) model by Roger (1995), which was modified to focus on the respondents' awareness, beliefs, and practices towards ecotourism in Paranas, Samar, Philippines. Furthermore, the survey design aimed to unveil their awareness, beliefs, and practices where questions were simplified and translated from English into the mother tongue, the "*Waray-Waray*" dialect.

3.2. Respondents

Purposive sampling was utilized; twenty-six (26) respondents of this study were identified who are all adults (18 years old and above) and are currently residing at Santo Niño, Paranas Samar, Philippines that are aware of the existing local waterfalls as a potential ecotourism site. Moreover, given the study's exploratory nature, a sample size of 26 was considered adequate for obtaining preliminary insights.

3.3. Data collection and analysis

After securing clearance to conduct the study from the Samar State University - Institutional Human Research Ethics Committee (SSU-IHREC), a letter of approval was sought from the municipal mayor of Paranas, Samar, stating the study's objectives. Data were gathered using a survey questionnaire and administered to the respondents at their convenience. In addition, respondents also received written and oral information about the objectives of the study.

Furthermore, before the researchers initiated the data gathering, the proposed procedure and protocol were submitted and approved by the SSU-IHREC for the review of ethical

considerations relative to the interview, interpretation, handling, and disposal of data. Data were collected, sorted, and interpreted using descriptive analyses such as frequency counts and percentages. Lastly, the survey was conducted at their most convenient time.

3.4. Ethical consideration

This study conformed to the national and institutional guidelines of the research conducted for human samples. Ethical approval was obtained from the Samar State University - Institutional Human Research Ethics Committee (SSU-IHREC) before the commencement of the study. The respondents received written and oral information on the study's objective through a general orientation at the said locale. The respondents were also informed that their participation is voluntary and they can opt to withdraw at any time without explanation. Confidentiality and anonymity were assured according to ethical research guidelines. Moreover, informed consent was obtained from the municipal mayor, barangay officials, and respondents.

4. Results and discussion

The following tables present the salient data and findings from the study on locals' Knowledge, Attitudes, and Practices (KAP) toward ecotourism. These tables encapsulate the essential information gleaned from the research. They highlight the key aspects of how locals perceive and engage with ecotourism.

Table 1

Knowledge towards Ecotourism

Indicators	Frequency (f)	Percentage (%)
Knowledgeable about ecotourism	12	46.15
Not knowledgeable about ecotourism	14	53.85
<i>Total</i>	26	100%
Awareness of the potential of ecotourism	14	53.85
Not aware of the potential of ecotourism	12	46.15
<i>Total</i>	26	100%
Awareness of the benefits of ecotourism	12	46.15
Not aware of the benefits of ecotourism	14	53.85
<i>Total</i>	26	100%

Source. The data are from Authos's source

As gleaned in Table 1, 14 out of 26 respondents are not knowledgeable about ecotourism, or 53.85 percent. Additionally, the same number of respondents are unaware of the potential and benefits of ecotourism. This implies that people living in the countryside of Samar, Philippines, are not well-informed about the impacts of ecotourism. As highlighted in various research papers, the lack of knowledge on ecotourism is a significant barrier to its promotion and development. Studies have shown that inadequate information about ecotourism is a key constraint preventing domestic tourists from visiting eco-destinations, with issues such as insufficient waste disposal and lack of resources being major concerns (Tešin et al., 2020). This implies that addressing the lack of knowledge on ecotourism through education and awareness initiatives is crucial for fostering its growth and ensuring long-term sustainability (Abuhay et al., 2023).

Additionally, it is crucial in community contexts to ensure that diverse interest groups, such as women and youths, have meaningful representation in decision-making bodies. To enable local communities to influence ecotourism activities, the authority related to ecotourism must shift from the national level to the community level, as proposed by Akama (1996).

Furthermore, Stronza (2007) posited that ecotourism elicits sentiments that extend beyond what economic analyses can easily measure. These sentiments include individuals' willingness to engage in ecotourism work, even with relatively modest economic returns. This perspective suggests that ecotourism serves as a financial vehicle for conservation and a catalyst for the emergence of new values and social relationships.

Table 2

Attitude towards Ecotourism

Indicators	Frequency (f)	Percentage (%)
Believes that the community can benefit from ecotourism	15	57.69
Do not believe that the community can benefit from ecotourism	11	42.31
<i>Total</i>	<i>26</i>	<i>100%</i>
Believes that there are potential ecotourism sites within the barangay	14	53.85
Do not believe that there are potential ecotourism sites within the barangay	12	46.15
<i>Total</i>	<i>26</i>	<i>100%</i>
Believes that ecotourism needs cooperation between the locality and other agencies	16	61.54
Believes that the community can benefit from ecotourism	10	38.46
<i>Total</i>	<i>26</i>	<i>100%</i>

Source. The data are from Authos's source

As observed in Table 2, the majority of the respondents, or 57.69 of them, believe that they can benefit from ecotourism, there is a potential ecotourism site within the locality, and the success of the ecotourism project needs cooperation between the locals and partner agencies. Ecotourism is widely believed to impact the environment, local communities, and economies positively. It is considered a sustainable form of tourism that aims to conserve natural areas, support native cultures, and promote environmental awareness (Saatsakis et al., 2019). Positive impacts of ecotourism include the protection of natural habitats, financial contributions to enhance conservation efforts, and stimulating economic activities in peripheral regions (Weaver, 2002). However, despite some inadvertent adverse effects, such as wildlife stress and intrusion into sensitive areas, the consensus is that ecotourism is crucial in fostering environmental conservation and sustainable development.

In addition, the execution and realization of ecotourism ventures by native networks is not an exception, and it does not consequently infer protection or financial advancement. Ecotourism must be able to make decisions about how to use land in that area and promote deeper social and political justice goals to the local communities. These factors prevent individuals from reaping the economic benefits of ecotourism if left unchecked (Charnley, 2005).

Moreover, ecotourism is a highly fragmented industry that includes both large corporations and small and medium-sized businesses, and this diversity has led to a wide variety of sustainable tourism initiatives (Clarke, 2002). This data implies that the Samar, Philippines, countryside residents are optimistic about ecotourism's benefits.

Table 3

Practices towards Ecotourism

Indicators	Frequency (f)	Percentage (%)
Practices waste segregation and proper waste disposal	26	100%
Does not practice waste segregation and proper waste disposal	-	-
<i>Total</i>	<i>26</i>	<i>100%</i>
Supports the protection and promotion of potential local ecotourism sites	26	100%
Does not support the protection and promotion of potential local ecotourism sites	-	-
<i>Total</i>	<i>26</i>	<i>100%</i>

Source. The data are from Authos's source

As presented in Table 3, all locals also practice waste segregation and proper waste disposal. They are also willing to protect and promote the local ecotourism site for development. A comprehensive waste management plan focusing on reduction, reuse, recovery, and recycling is recommended to enhance sustainability in ecotourism sites and protect the surrounding ecosystems (Ajayi & Ayodele, 2016).

The booming population in the world also entails an increase in material use - such as waste affecting the environment because of degradation (Grassroots Recycling Network, 2000). In addition to safeguarding biodiversity, ecotourism in indigenous communities aims to enhance community members' means of subsistence. However, research data asserts that many indigenous ecotourism endeavors have not significantly affected local livelihoods (Kiss, 2004). This data implies that the people living in the countryside of Samar, Philippines, have good environmental practices, considering that the municipality of Paranas Samar has a good waste segregation program.

5. Conclusions and Recommendations

Even though ecotourism has been around for a long time globally, there are still a lot of gaps in the industry, especially when it comes to using sustainable tourism practices, such as in third-world countries like the Philippines. The development and promotion of potential ecotourism sites should be an agenda of the Local Government Units (LGU) in the countryside and developing communities.

The study findings indicate that Paranas, Samar, Philippines residents exhibit a favorable attitude toward ecotourism. Moreover, they were willing to actively participate in developing, sustaining, protecting, and promoting ecotourism sites. Notably, all residents segregate and dispose of their waste correctly, implying that they care for the environment. Therefore, policies toward developing ecotourism in a countryside setting must be addressed and strengthened, most specifically in areas with potential ecotourism sites.

Lastly, the study suggests that future research must delve into targeted communities and the impacts of educational interventions on ecotourism, specifically on awareness and practices of residents.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest in this paper.

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