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**SUSTAINABLE TOURISM IN HUNDRED ISLANDS NATIONAL PARK:
BALANCING ECONOMIC DEVELOPMENT AND ENVIRONMENTAL
PROTECTION**

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October 18, 2022 / May 17, 2023

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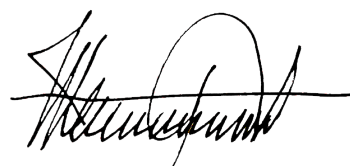
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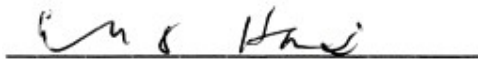


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Date: October 25, 2023

Acceptance Page:

This Special Project titled: “**Sustainable Tourism in Hundred Islands National Park: Balancing Economic Development and Environmental Protection**” is hereby accepted by the Faculty of Management and Development Studies, U.P. Open University, in partial fulfillment of the requirements for the degree Course.

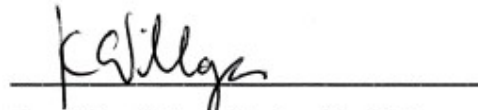


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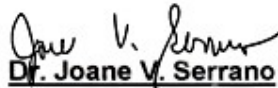


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DECLARATION

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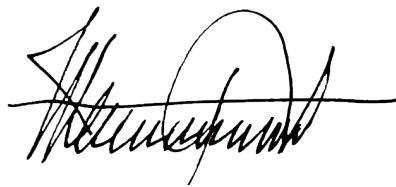
The special problem comprises only my original work towards the MENRM except where indicated in the Preface.

II.

Due acknowledgment has been made in the text to all other material used.

III.

The special problem is fewer than 25,000 words in length, exclusive of tables, maps, bibliographies and appendices.

A handwritten signature in black ink, appearing to read 'Michael G. De Castro', with a large, stylized loop at the end.

Michael G. De Castro

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TABLE OF CONTENTS

Title Page	i
University Permission Page	ii
Acceptance Page	iii
Declaration	iv
Acknowledgment	v
Table of Contents	vi
List of Tables	viii
List of Figures	ix
ABSTRACT	x
1. INTRODUCTION	1
1.1 Background of the Study	3
1.2 Statement of the Problem	4
1.3 Objectives of the Study	5
1.4 Scope and Limitations of the Study	7
2. REVIEW OF LITERATURE	8
3. SUSTAINABLE TOURISM	11
3.1 Definition and Concepts	11
3.2 Three Pillars of Sustainable Tourism	12
3.3 Types of Sustainable Tourism	14
3.4 Economic Development and Environmental Protection	16

4. CHALLENGES, THREATS AND OPPORTUNITIES	18
4.1 Gender Development	18
4.2 Number of Ferry Boats	19
4.3 Solid Waste Management	20
4.4 Pandemic Preparedness	21
4.5 Over-crowding (Carrying Capacity)	22
4.6 Enhance Payment Efficiency	25
4.7 Habitat Destruction	25
4.8 Climate Change	26
5. HUNDRED ISLANDS NATIONAL PARK (HINP)	27
5.1 History and Background	27
5.2 Tourism Development	30
6. METHODOLOGY	33
6.1 Research and Development	33
6.2 Data Collection Method	34
7. RESULTS	35
7.1 HINP Benefits	43
8. ANALYSIS AND DISCUSSION	44
8.1 Proposed Management Activities	44
8.2 Existing Laws, Policies, and Regulations	48
8.3 Existing Projects and Proposals	53
9. RECOMMENDATIONS AND CONCLUSION	59
9.1 Recommendations	59
9.2 Conclusion	60

10. REFERENCES	62
11. APPENDICES (PHOTOS, INTERVIEWS, MAPS, POSTERS)	68

List of Tables

Table 1: Number of coastal Barangays	37
Table 2: Land area by population	38
Table 3: Demographics of respondents	39
Table 4: 5 year indicative management plan	45
Table 5: 5 year indicative habitat management plan	46
Table 6: 4 year income statement	55
Table 7: Total Revenue of HINP	58

List of Figures

Figure 1: 3 pillars of sustainable tourism	11
Figure 2: Samples of sustainable tourism	13
Figure 3: Sample of economic development and environmental protection	16
Figure 4: Female to male ratio	19
Figure 5: Map of Hundred Islands National Park (HINP)	28
Figure 6: Alaminos Website (2018) Hundred Islands National Park, Alaminos LGU	29
Figure 7: Cover page of City of Alaminos book	35

Figure 8: Chart on if management is functional	41
Figure 9: Chart on how they can support the management	41
Figure 10: Age distribution graph	42
Figure 11: Tourist arrival graph	42
Figure 12: Annual growth of tourism	43
Figure 13: SDG 8 and SDG 14	44
Figure 14: Environment Social Economic ordinances	49

ABSTRACT

Hundred Islands National Park is one of the most popular tourist destinations in the Philippines, attracting thousands of visitors every year. However, the rapid growth of tourism in the area has led to environmental degradation, cultural displacement, and economic inequality.

This thesis examines the balance between economic development and environmental protection in sustainable tourism in Hundred Islands National Park, a popular tourist destination in the Philippines. The study aims to identify the main sustainability challenges facing the park, analyze the current tourism management practices, and propose strategies for enhancing sustainable tourism in the park.

Using a mixed-methods approach that combines qualitative and quantitative research methods, the study found that while tourism in the park has brought economic benefits to the region, it has also caused negative environmental impacts such as pollution, habitat destruction, and biodiversity loss. The study also revealed that the park's current tourism management practices are inadequate in addressing these challenges, and that there is a need for a more integrated and participatory approach that involves local communities, government agencies, and other stakeholders.

To address these challenges, the study suggests strategies like ecotourism, community-based tourism and sustainable indicators to enhance sustainable tourism in HINP. It emphasizes the need for robust policies, contributing to knowledge on sustainable tourism in developing countries with practical recommendations for HINP and similar places.

1. INTRODUCTION

Tourism is one of the most important sectors of the global economy, accounting for around 10% of the world's GDP and providing employment for millions of people (Copal Publishing | Copal Publishing, 2019). However, tourism can also have significant negative impacts on the environment and local communities. As a result, sustainable tourism has become an increasingly important issue for policymakers, tourism operators, and local communities around the world.

One destination in the Philippines that faces significant challenges in balancing economic development and environmental protection is the Hundred Islands National Park (HINP) in Alaminos, Pangasinan. The HINP is a collection of 124 small islands and islets surrounded by pristine waters, which has become one of the country's most popular tourist destinations. The park attracts a large number of visitors each year, which has brought significant economic benefits to the local community. However, this growth in tourism has also put the park's delicate ecosystem at risk. The Hundred Islands National Park (HINP) confronts a multitude of environmental challenges, including pollution resulting from tourist activities, overfishing, and habitat degradation. These issues pose a substantial threat to the park's long-term sustainability as a tourist destination. Simultaneously, the local community relies heavily on tourism for its livelihoods, making any decline in tourist activity potentially devastating for the local economy.

This research study primarily aimed to assess the sustainability of tourism within the HINP, emphasizing the delicate balance between economic

growth and environmental preservation. It undertook a comprehensive evaluation of the park's current tourism status, investigating its economic and environmental impacts. Additionally, the study sought to propose sustainable tourism strategies to mitigate negative consequences both in the present and the future.

To gather data, a mixed-method approach was employed, involving surveys, interviews, and field observations. An extensive literature review was conducted, exploring existing research on sustainable tourism development, environmental management, and community engagement. This review furnished crucial background information, defining the research problem, objectives, and the chosen methodology.

Within the literature, various studies were analyzed, dissecting different facets of sustainable tourism development in HINP, Philippines. These works discussed the potential of ecotourism and sustainable practices while highlighting obstacles such as limited awareness, inadequate infrastructure, and the necessity for institutional support and capacity building. The studies underscored the significance of collaboration among stakeholders and the importance of a participatory approach to achieving sustainable tourism in HINP.

The research findings section presented a comprehensive analysis of the current state of tourism in HINP. It delved into its economic and environmental repercussions, alongside stakeholder perceptions. Key environmental issues facing the park, economic benefits and costs of tourism, and stakeholder views on sustainable tourism development were identified.

A proposed management activity for sustainable tourism development in HINP was introduced, addressing the importance of an area's natural and physical characteristics, along with considering demographics, livelihoods, infrastructure, and cultural factors. Collaboration among stakeholders and governments is crucial for sustainable development, while efficient transportation and waste management practices are vital components.

Finally, the study summarized its significant discoveries and contributions, underlining the importance of sustainable tourism in HINP. It stressed the necessity for ongoing research and action to ensure that tourism continues to provide economic advantages while safeguarding the environment and supporting the local community. This research contributes to the growing body of literature on sustainable tourism development, offering valuable insights for policymakers, tourism planners, and local communities striving to promote sustainable tourism in HINP and similar natural attractions. These efforts aim to ensure the long-term viability of such resources for future generations.

1.1 Background of the Study

The Hundred Islands National Park in the Philippines, celebrated for its natural beauty and marine life, faces challenges due to tourism. While it benefits the local economy, it harms the environment (Jelannie Yanquiling, 2017). To address this, sustainable tourism practices are essential. Strategies include visitor limits, eco-friendly transportation, supporting local businesses, and visitor education (Cocal, 2021, pp. 85). These measures can promote sustainable tourism and mitigate environmental concerns:

1.1.1 Island Carrying Capacity: Implementing visitor limits per island can prevent overcrowding and reduce environmental impact.

1.1.2 Eco-friendly Transportation: Encouraging non-polluting transport like electric boats minimizes pollution and disturbance to marine life.

1.1.3 Local Business Support: Boosting local businesses sustains the economy and enhances sustainability.

1.1.4 Visitor Education: Educational programs foster responsible behavior, including waste disposal and wildlife respect.

1.1.5 Stakeholder Engagement: Collaborating with communities, government, and NGOs ensures collective efforts for environmental preservation and cultural heritage protection in HINP.

1.2 Statement of the Problem

Environmental degradation in HINP encompasses several aspects, including pollution of air, water, and soil due to improper waste disposal, sewage discharge, and chemical runoff. Additionally, habitat destruction, caused by human activities like coastal development, destructive fishing practices, and illegal logging, leads to the loss of critical ecosystems such as coral reefs, sea grass beds, and mangrove forests. Overfishing exacerbates the issue, depleting fish stocks and disrupting marine ecosystems. Furthermore, the park faces climate change impacts, including rising sea levels, ocean acidification, and coral bleaching resulting from global warming.

Unsustainable tourism practices, such as overcrowding, inadequate waste management, and disturbance of natural habitats, contribute to ecological imbalances. This environmental degradation has dire consequences, leading to the decline or disappearance of various species and habitats within the park, thereby threatening biodiversity.

On the social and economic front, HINP grapples with challenges like limited employment opportunities for local communities within the tourism industry. Income inequality persists among different stakeholders involved in tourism, with certain groups benefiting more than others. The influx of tourists and external influences may induce changes in the local culture. Inadequate infrastructure, lack of environmental friendly transportation, sanitation facilities, and public amenities, affects the quality of life for residents and visitors alike. Additionally, accessibility barriers hinder the participation of persons with disabilities, the elderly and marginalized groups in tourism activities. The heavy reliance on tourism as the primary income source renders the local economy susceptible to fluctuations and external shocks.

To improve these social and economic challenges, inclusive planning, active community engagement, and sustainable development practices are important. These efforts should prioritize the well-being of local communities while ensuring a balanced approach to reaping the benefits of tourism.

1.3 Objectives of the Study

The study aims to achieve several key objectives related to sustainable tourism development in Hundred Islands National Park (HINP). Firstly, it seeks to assess the current status of tourism development in HINP and

identify environmental and socio-economic issues and challenges associated with it. This assessment includes evaluating the economic benefits and costs of tourism, particularly its impact on local employment, income generation, and business opportunities.

Additionally, the study examines the environmental effects of tourism activities in HINP and proposes potential strategies to mitigate these negative impacts on the park's delicate ecosystem. It also explores the perceptions and attitudes of various stakeholders, including tourists, local residents, government agencies, and private sector actors, regarding sustainable tourism development in the park.

To achieve these objectives, the study draws on best practices and policies from other countries facing similar challenges in promoting sustainable tourism in protected areas. Ultimately, the study aims to provide recommendations and guidelines for advancing sustainable tourism development not only in HINP but also in other protected areas across the Philippines. These recommendations are grounded in the study's findings and analyses, encompassing a comprehensive assessment of sustainable tourism practices in HINP.

Specifically, the study also assesses how HINP's sustainable tourism program contributes to achieving Sustainable Development Goals (SDGs) in the Philippines, with a focus on SDG #8, "Decent Work and Economic Growth," and SDG #14, "Life Below Water." This examination helps understand the broader societal and environmental implications of HINP's sustainable tourism initiatives.

1.4 Scope and Limitations of the study

Scope - The study was conducted in the Hundred Islands National Park located in Alaminos City, Pangasinan, Philippines. The study covered the period from 2010 to 2022, focusing on the current state of tourism development in the park. Using both qualitative and quantitative research methods, such as past surveys from researchers, interviews, and literature reviews. The study involved various stakeholders, including tourists, local residents, government agencies, and private sector actors.

Limitations - The study's findings and recommendations is specific to Hundred Islands National Park and may not be applicable to other protected areas or tourism destinations in the Philippines. The study's sample size may not represent the entire population of stakeholders involved in tourism activities in the park. The study's results may be influenced by external factors, such as changes in government policies or natural disasters that are beyond the researcher's control. Additionally, the study may be limited by the availability and accuracy of data and information, especially regarding the economic benefits and costs of tourism development in the park. Finally, the study may not be able to provide a comprehensive analysis of all the environmental and socio-economic impacts of tourism activities in Hundred Islands National Park, given the complex nature of the issues involved. By acknowledging the study's scope and limitations, the researcher ensures that the study is feasible, relevant, and credible, and that the findings and recommendations are appropriately contextualized and interpreted.

2. REVIEW OF RELATED LITERATURE

A critical analysis and synthesis of the relevant literature on the topic, providing a comprehensive overview of the research conducted on the topic.

Cocal, C.J. (2021). Ecotourism Development and Conservation of the Hundred Islands National Park, Philippines. International Journal of Scientific and Management Research by CJ Cocal in 2021

The study found that ecotourism has the potential to provide economic benefits to local communities while promoting the conservation of natural resources and cultural heritage. However, the implementation of ecotourism in HINP faces several challenges, including the lack of awareness and understanding of ecotourism principles among stakeholders, inadequate infrastructure, and the need for institutional support and capacity building.

Yanquiling (2016) entitled "Sustainable Tourism Practices: The case of Hundred Islands National Park"

It aims to evaluate the sustainable tourism practices in the Hundred Islands National Park (HINP), Philippines. The study reviews the literature on sustainable tourism, its principles, and its potential benefits for conservation and local communities. It was found that sustainable tourism practices have the potential to provide economic benefits to local communities while promoting the conservation of natural resources and cultural heritage. However, the implementation of sustainable tourism practices in HINP faces several challenges, including the lack of awareness and understanding of

sustainable tourism principles among stakeholders, inadequate infrastructure, and the need for institutional support and capacity building.

World Tourism Organization and International Labour Organization.
(2014). *Measuring Employment in the Tourism Industries – Guide with Best Practices.*

The guide also outlines best practices for data collection, analysis, and dissemination, including recommendations for survey design, data validation, and reporting. In addition, the guide includes case studies from various countries that highlight best practices in measuring employment in the tourism industry. It is a valuable resource for those working in the tourism industry or related fields who are interested in understanding and measuring the employment impacts of tourism. The guide provides a thorough overview of the methodologies for measuring employment in the tourism industry and offers practical guidance for data collection, analysis, and reporting.

Liu, Z. (2003). Sustainable Tourism Development: A Critique. Journal of Sustainable Tourism.

The author provides a critical analysis of the concept of sustainable tourism development. The author argues that the notion of sustainability in tourism has been overused and often lacks a clear definition, resulting in confusion and ambiguity in its application. Liu suggests that sustainable tourism development should prioritize the well-being of local communities and the environment, rather than solely focusing on economic benefits for the tourism industry. The author also discusses the challenges in implementing sustainable tourism practices, including the lack of government support,

inadequate resources, and the tension between economic development and environmental protection. Liu suggests that these challenges can be addressed through collaboration between the public and private sectors, involving local communities in decision-making processes, and utilizing alternative tourism models such as ecotourism and community-based tourism.

Escaño Cabotaje, C. (2010). Assessing the Feasibility of Adopting Payments for Environmental Services (PES) Framework in Protected Area Conservation: The Case of Hundred Islands National Park, Philippines.

The study found that PES has the potential to provide economic incentives to local communities to conserve the environment while promoting sustainable development. However, the implementation of PES in HINP faces several challenges, including the lack of awareness and understanding of PES among stakeholders, limited financial resources, and the need for institutional support and capacity building. It recommends the need for a comprehensive and participatory approach to PES implementation that involves all relevant stakeholders, including the local communities, government agencies, and private sector. The study also highlights the importance of establishing a clear legal and institutional framework for PES implementation in HINP.

3. SUSTAINABLE TOURISM

Figure 1

De Castro, M.G.(2023d). Three Pillars of Sustainable Tourism



3.1 Definition and Concepts

Sustainable tourism is a type of tourism that takes into account the current and future impact on the environment, community, and economy. It is defined by the UN Environment Program and the UN World Tourism Organization as tourism that considers the preservation of natural resources, cultural heritage, and local communities (Stefi, J. 2023).

“Environmentally responsible travel and visitation to natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features, both past and present) in a way that promotes conservation, has a low visitor impact, and provides for beneficially active socio-economic involvement of local peoples.” (Spenceley et al., 2017).

3.2 The Three Pillars of Sustainable Tourism:

These three pillars are interconnected and must be considered together to ensure that tourism development is sustainable in the long term.

3.2.1 Economic Sustainability involves generating economic benefits for local communities and businesses while minimizing negative impacts on the local economy.

3.2.2 Environmental Sustainability involves minimizing the negative impacts of tourism on the natural environment and preserving natural resources for future generations.

3.2.3 Social Sustainability involves promoting social inclusiveness, cultural diversity, and community well-being, while respecting the cultural and social values of the local community.

Figure 2

De Castro, M.G.(2023c). Samples of Sustainable Tourism



The Hundred Islands National Park is an example of sustainable tourism, as it relies on donations and a trust fund for financial support and has made energy-efficient investments, such as using solar-powered facilities (Spenceley et al., 2017). The park also has programs in place for waste management and wastewater filtration to minimize its environmental impact. The park is protected under Republic Act No. 7586, which designates it as a marine sanctuary, prohibiting fishing activities, floating cottages, and fish pens within the area (National Integrated Protected Areas System Act of 1992).

Based on “Concepts and Practices of Sustainable Marine Tourism: A Handbook for Marine Protected Areas”, National Oceanic and Atmospheric Administration (NOAA) Office of National Marine Sanctuaries (2017), and “The simple user’s guide to certification for sustainable tourism and ecotourism.” The International Ecotourism Society, (Bien, Amos. (2004): Sustainable tourism strives to minimize adverse effects on the environment, culture, and society by reducing resource usage, curbing pollution and waste, and preventing negative social and cultural impacts. Its goal is to optimize the positive outcomes of tourism, such as economic growth, community empowerment, and cultural interchange. This approach involves active participation from various stakeholders, including local communities, tourists, and the tourism industry, in decision-making and planning. The focus is on safeguarding natural and cultural resources through conservation, preservation, and sustainable utilization. Sustainable tourism ensures visitors enjoy authentic, meaningful experiences that respect local cultures and traditions. It also educates them about the local environment, culture, and history while promoting responsible behavior.

3.3 Types of Sustainable Tourism

There are several types of sustainable tourism that focus on different aspects of sustainability, including:

3.3.1 Ecotourism - tourism that focuses on experiencing and learning about natural environments, with an emphasis on conservation and minimizing impact on the environment. (What Is Ecotourism - the International Ecotourism Society, 2019)

3.3.2 Cultural Tourism - tourism that focuses on experiencing and learning about the customs, traditions, and lifestyle of a particular community or region, with an emphasis on promoting cultural preservation and understanding. (Education for Sustainable Development, 2022)

3.3.3 Adventure Tourism - tourism that involves physical activities and challenges, such as hiking, rafting, or climbing, with an emphasis on promoting sustainable tourism practices that minimize impact on the environment and benefit local communities. (Huddart & Stott, 2020)

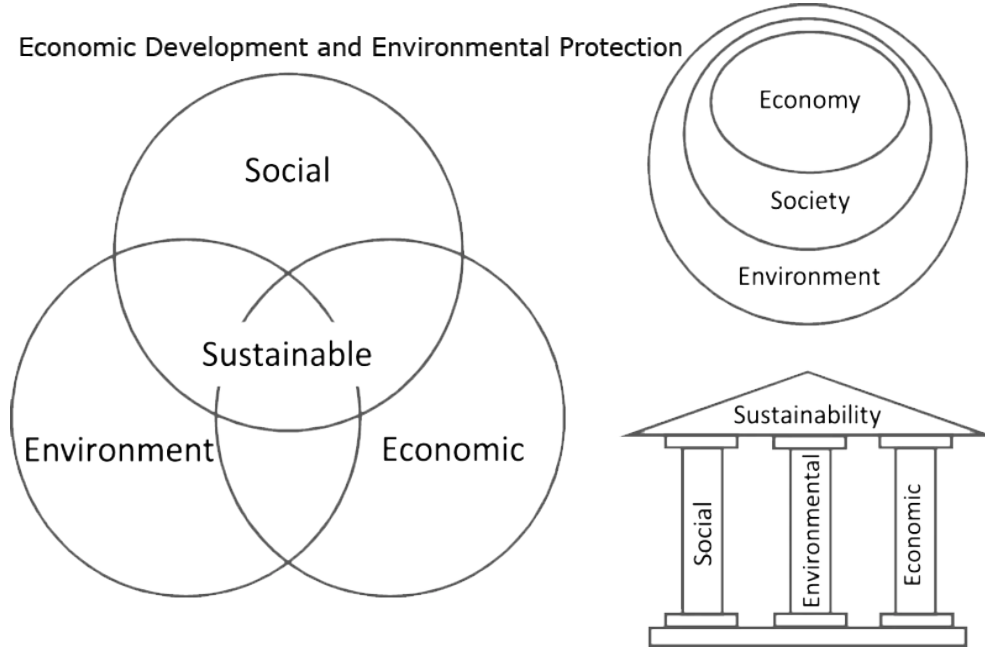
3.3.4 Community Based Tourism - tourism that involves local communities in the development and management of tourism activities, with an emphasis on creating economic benefits for the community and promoting cultural preservation. (TourismMV, 2022)

3.3.5 Sustainable Beach Tourism - tourism that focuses on the responsible management of coastal areas and beaches, with an

emphasis on promoting environmental protection, social well-being, and economic benefits for local communities. (Hocking, 2023). Protection of natural habitats by enforcing regulations to safeguard coral reefs, mangrove forests, and other fragile ecosystems from damage caused by tourism activities. By promoting responsible snorkeling and diving practices to prevent damage to underwater environments. Beach cleanup Initiatives by organizing regular beach cleanup events involving tourists and local communities to maintain the cleanliness of the area. Creating sustainable Infrastructure by developing eco-friendly infrastructure like eco-resorts that incorporate green building practices and utilize renewable energy sources. Lastly, community Involvement by engaging local communities in decision-making processes related to beach tourism development and ensuring they benefit from tourism-related opportunities.

Figure 3

Purvis, B. (2015) Economic Development & Environmental Protection, Wikipedia



3.4 Economic Development and Environmental Protection

Tourism and economic development have a strong and positive relationship. Tourism can stimulate economic growth and development by generating employment opportunities, increasing foreign exchange earnings, promoting local entrepreneurship, and stimulating infra-structure development. Tourism can also contribute to the diversification of the economy by creating new industries and businesses. In turn, economic development can lead to the growth of the tourism industry by improving infrastructure, creating a more favorable investment climate, and increasing the disposable income of potential tourists.

As stated by the United Nations World Tourism Organization, tourism plays a vital role in fostering economic growth and development by creating employment opportunities, generating income, and encouraging investments in infrastructure.

It has the capacity to yield substantial economic advantages for both advanced and emerging nations. For instance, in 2019, tourism contributed to 10.4% of the global GDP, supported one out of every ten jobs, and constituted 7% of the world's total exports. (World, 2019).

Research conducted by the World Travel and Tourism Council indicates that the tourism sector's contribution to the global GDP is projected to increase by 3.5% annually in the next ten years, surpassing the overall growth of the global economy. (World, 2019).

The connection between tourism and economic development is complex. While tourism can boost economies, its benefits are often unevenly distributed, favoring multinational corporations. Moreover, tourism can harm communities and natural resources, leading to long-term economic drawbacks, like community displacement and environmental degradation. These negative social and environmental impacts challenge the straightforward relationship between tourism and economic progress.

Moreover, while tourism has the potential to contribute significantly to economic development, it is important to manage tourism in a sustainable and responsible manner to ensure that the benefits are shared equitably and that negative impacts are minimized.

3.4.1 Sustainable Tourism Practices for Economic Development and Environmental Protection

To promote sustainable tourism practices for economic development and environmental protection in Hundred Islands National Park, several measures can be taken:

- 3.4.1.1** Adopting an ecosystem-based management approach to tourism development, this considers the ecological and socio-economic aspects of the park.
- 3.4.1.2** Implementing waste management systems to minimize the impact of tourism on the environment. This includes proper collection, segregation, treatment, and disposal of waste generated by tourism activities.
- 3.4.1.3** Promoting sustainable transportation options, such as electric-powered boats or bicycles, to reduce greenhouse gas emissions and noise pollution.
- 3.4.1.4** Establishing regulations for the use of natural resources, such as fishing and harvesting of corals, to ensure their sustainability.
- 3.4.1.5** Engaging local communities in tourism development and empowering them to participate in decision making processes, which can enhance their socio-economic status and sense of ownership towards the park.
- 3.4.1.6** Encouraging tourists to engage in responsible tourism practices, such as proper waste disposal and respect for local culture and traditions.

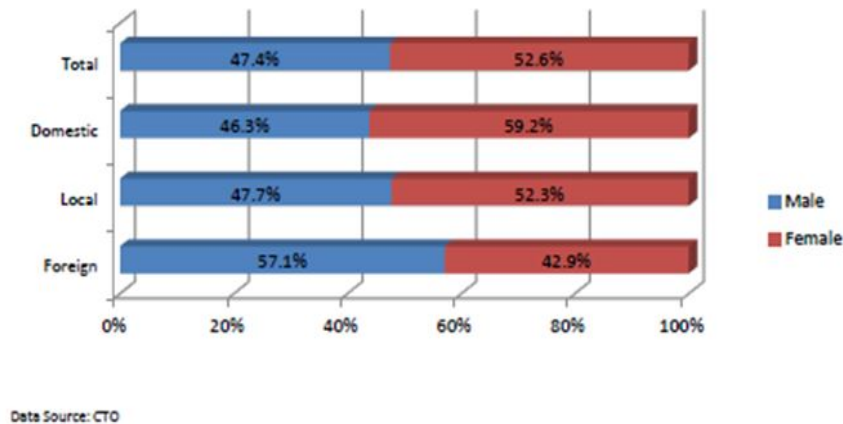
4. CHALLENGES, THREATS AND OPPORTUNITIES

4.1 Gender and Development: Current motorboat design and passenger embarkation practices are not user-friendly to women, persons with

disabilities, and senior citizens. Improvements will have to be made to the wharf and pier to address these issues to prevent wasted opportunities.

Figure 4

Female to Male Ratio (2018) ATOP-DOT



Opportunities for improving the motorboat embarkation system include accessible design, gender-inclusive facilities, staff training, community engagement, technology integration, and data collection. By incorporating features like ramps and wider entrances, enhancing facilities for women travelers, providing sensitivity training, involving the local community, and utilizing technology for communication and data collection, we can create a more inclusive and user-friendly system. These measures aim to accommodate passengers with disabilities, senior citizens, and all genders, enhancing the travel experience for everyone and fostering a culture of inclusion within the transportation sector.

4.2 Number of Ferryboats: Insufficient transportation, especially in the form of ferryboats, during peak periods results in congestion for arriving tourists and a decline in the number of visitors.

Expanding the ferryboat fleet, upgrading infrastructure, and fostering partnerships with private operators can alleviate peak period transportation shortages. Government incentives and technological innovations further optimize operations, ensuring smooth passenger flow. Exploring alternative transportation modes, flexible scheduling, and eco-friendly vessels reduce congestion while aligning with sustainability goals. Engaging the local community and tourists provides valuable insights for deploying additional ferryboats strategically. These opportunities collectively address ferry shortages, enhance transportation services, and support tourism growth, ultimately delivering an efficient and convenient travel experience for visitors.

4.3 Solid Waste Management Practices: Out of 35 Barangay Material Recovery Facilities, only 25 are functional. They implemented measures that include using banana leaves as plates and mandating waste collection by motorboats.

Enhancing solid waste management involves several key opportunities. Firstly, sustainable practices like composting and source reduction, building on the success of banana leaf plates, can be adopted to reduce waste generation. Secondly, maintaining efficient waste collection through motorboats while optimizing coverage is crucial. Thirdly, community engagement fosters better waste management practices and greater participation.

Education and awareness programs can promote proper waste disposal and recycling, establishing a culture of responsible waste management. Collaborating with private sector organizations can provide technical expertise and financial support for modernizing waste facilities.

Encouraging waste segregation at the source simplifies recycling and waste management. Lastly, instituting data-driven decision-making systems informs future improvements, resulting in a cleaner and more environmentally sustainable community through enhanced waste collection and recycling.

4.4 Pandemic Preparedness: The City tourism office reported a PHP25 million loss in HINP's tourism industry during the three-month Covid-19 quarantine. Capacity was reduced by 50%.

To enhance pandemic preparedness, the city should consider several key strategies. First, establishing an emergency fund is crucial to offset potential financial losses during future pandemics, ensuring stability in the tourism industry. Additionally, diversifying revenue streams through virtual experiences and online events can reduce dependence on physical tourism and offer financial buffers during capacity reductions.

Flexible capacity management plans, including phased closures and occupancy adjustments, can minimize economic impacts while prioritizing public safety. Robust health and safety protocols, along with effective communication, are essential for maintaining visitor confidence and mitigating financial losses.

Expanding digital marketing efforts to reach wider audiences and collaborating with healthcare institutions for rapid response are crucial steps. Tourism resilience training and global crisis response coordination further contribute to quicker recovery and reduced losses. Implementing data-driven decision-making systems provides early warnings and informs timely interventions, enhancing pandemic preparedness and securing the city's tourism industry.

4.5 Over-crowding: Lack of Carrying Capacity Study

HINP faces challenges of overcrowding and biodiversity destruction. They have yet to determine the Carrying Capacity of HINP. Also, Manual payment systems cause delays and hinder tourism statistics.

Firstly, conducting a comprehensive Carrying Capacity study can offer insights into sustainable tourism levels, aiding in the prevention of overcrowding and ecological damage. Resolution no. 2018-10 was passed year 2018, approving and awarding to the University of the Philippines-Los Banos (UPLB) to conduct a carrying capacity study in the Hundred Islands National Park (HINP) allocating thereto funds amounting to not more than One Million One Hundred Fifty Thousand Pesos (Php 1,150,000.00). However, we have not seen the final product of the study as of yet. Secondly, integrating digital payment systems can streamline transactions, reduce delays, and enhance the collection of accurate tourism data, enabling better decision-making. Thirdly, developing visitor management strategies based on the study findings can help strike a balance between tourism and environmental preservation. Fourthly, investing in infrastructure upgrades and launching educational campaigns for tourists can improve the visitor experience while minimizing environmental impact. Fifthly, partnering with conservation organizations and establishing efficient data collection and analysis systems can support biodiversity preservation and enable responsive visitor management. Lastly, engaging the private sector can foster responsible tourism practices and aid in infrastructure development. Seizing these opportunities can lead to improved tourism management, natural resource

preservation, and a more sustainable and enjoyable experience for visitors while addressing overcrowding and environmental concerns in HINP.

Calculating Carrying Capacity: By using the analyzed data and thresholds to calculate the carrying capacity for different aspects of HINP. This may involve estimating the maximum number of visitors, the allowable intensity of specific activities, or the sustainable use of resources. Calculating the physical carrying capacity (PCC):

*An equation is used: $PCC = S/sp * NV$ where S is available*

surface, sp is the area used per person and NV number of times

the site can be visited in a given day.

For the sake of comparison, the four primary islands of HINP open to tourists – namely, Marcos Island (17,305.93 sqm), Governor Island (73,019.31 sqm), Quezon Island (18,243.61 sqm), and Children's Island (30,636.21 sqm) collectively cover an area of 0.14 km² although the entire HINP has a coverage area of 16.76 km². In contrast, Siargao has a total land area of 437 km², and Boracay Islands cover 10.32 km². (De Castro, Google Earth Pro, 2023). In 2022, the Hundred Islands National Park (HINP) welcomed 389,006 tourists, a significant increase after easing pandemic restrictions. Of these, 267,567 were domestic, 118,459 were local, and the rest were foreign tourists. Although not yet at pre-pandemic levels (520,000 in 2019), this surpasses 2020 (93,000) and 2021 (50,000) visitor numbers. Additionally, HINP plans to open Ramos Island in Q1, offering a retreat area and a function hall for up to 100 people, enhancing visitor experiences. (Tourism Infrastructure and Enterprise Zone Authority, 2023).

Following the pandemic and the impact of Typhoon Odette in 2021, Siargao experienced a notable decline in tourism. According to the Provincial Tourism Office, during the first semester of 2021, Siargao hosted only 14,404 visitors, predominantly domestic tourists (12,870) with 1,534 international guests. This marked a significant decrease from the pre-pandemic annual visitor count of 181,100. However, there was a partial recovery, with over 176,500 local and foreign visitors recorded the following year. The Department of Tourism in Caraga region anticipates a further increase in tourism for the current year. Up until September 2022, Siargao received 75,132 tourists, with 94% of them being domestic travelers, as per official records from the Department of Tourism in 2022. To-date, the Island of Siargao has no carrying capacity limit.

Before the pandemic, the Boracay Inter-Agency Task Force (BIATF) had established the island's carrying capacity at 19,000 per day. However, during Holy Week, the number exceeded the limit, reaching 21,000 on one day and 22,000 on another, which was significantly higher than the usual capacity. Then former Secretary Romulo-Puyat of the Department of Tourism emphasized that even before the pandemic, they were actively monitoring the island's capacity. Every visitor was logged into the database to ensure compliance, and the capacity had never been surpassed prior to those instances during Holy Week. Boracay registered 1,759,592 tourists in 2022. Earlier, Malay Mayor Floribar Bautista said they are targeting at least two million tourists this year. (DOT Statement on BIATF Measures for Boracay - Love the Philippines! Welcome to the DOT's Corporate Site, 2022)

4.6 Enhancing Payment Efficiency: An Ecotourism Management Plan is currently in operation, and efforts have been made to tackle payment-related issues with the introduction of their new system known as Palenge QR. However, there is a strong desire for an even more efficient payment system to prevent delays in tourist arrivals. One potential solution could involve integrating additional payment methods into their system, such as Gcash, Paymaya, or debit/credit card payment options. Additionally, implementing an online booking system and providing discounts for advance bookings could prove beneficial.

4.7 Habitat Destruction: The development of tourism infrastructure such as in-land hotels, cottages, and other facilities has resulted in the destruction of natural habitats, which is affecting the biodiversity of the park. The marine ecosystem in the park also faces threats from unsustainable fishing practices like dynamite and cyanide fishing. Additionally, rising temperatures and pollution have led to coral bleaching, posing significant risks to the park's marine life.

To address these challenges, it is vital to implement sustainable practices and conservation efforts. This includes efficient waste management, water conservation in accommodations, and promoting renewable energy sources. Tourist education on respecting natural habitats and supporting biodiversity conservation through reforestation are essential. Developing sustainable tourism plans that balance economic growth with environmental preservation, encouraging eco-friendly activities and accommodations, is crucial for long-term environmental protection.

Implement stringent enforcement of anti-destructive fishing laws, increase patrols, and impose penalties. Promote community-based marine conservation, educate local fishermen on sustainable practices, and emphasize the importance of preserving marine ecosystems. Develop ecotourism by investing in research and education, collaborate with organizations, preserve cultural traditions, seek government support, empower fishermen through training, and establish marine protected areas for long-term conservation, enhancing biodiversity and community well-being. By seizing these opportunities, communities can not only preserve their marine ecosystems but also foster economic growth and create a sustainable future for generations to come.

4.8 Climate Change: The effects of climate change such as rising sea levels, increasing temperatures, and extreme weather events are also affecting the park. These changes can alter the marine ecosystem and affect the wildlife and habitats in the park.

Climate change challenges include rising global temperatures causing health problems and agricultural issues. Extreme events like typhoons and wildfires threaten communities and ecosystems. Melting ice raises sea levels, endangering coastal areas. Climate change disrupts ecosystems, leading to biodiversity loss and habitat threats. Altered precipitation patterns affect food and water availability, causing shortages. Additionally, it worsens air pollution, triggering health problems and impacting mental health due to natural disasters.

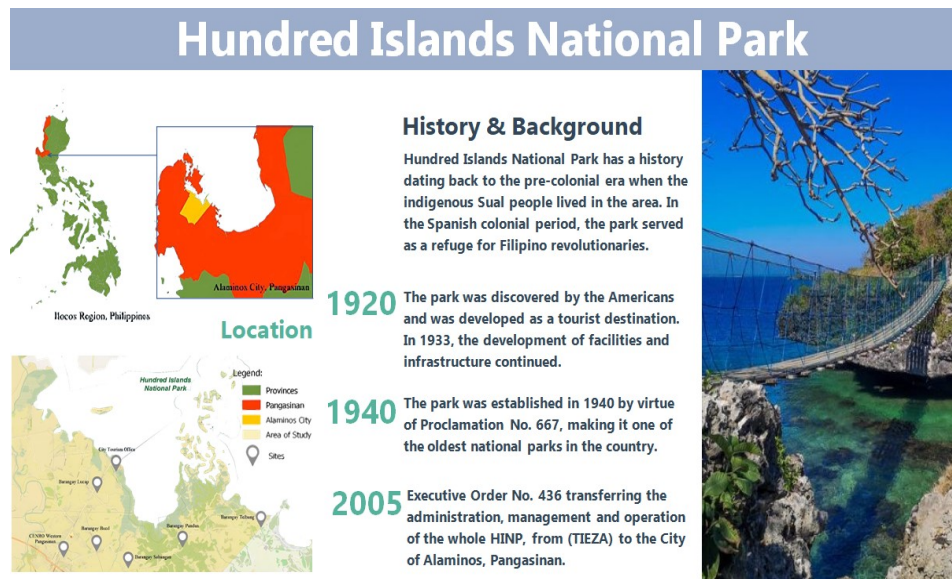
Opportunities amidst challenges are embracing clean energy sources like solar, wind, and hydroelectric power is pivotal in curbing greenhouse gas

emissions and combating climate change. Additionally, Investing in resilient infrastructure and nature-based solutions protects communities from extreme weather and rising sea levels, providing environmental safety. This shift also creates jobs in sectors like solar energy, eco-tourism, and conservation. Technological advances, such as carbon capture and sustainable agriculture, aid in combating and adapting to climate change. International agreements like the Paris Agreement promote collective efforts. Public awareness and education empower communities to advocate for eco-conscious choices and sustainable policies.

5. HUNDRED ISLANDS NATIONAL PARK (HINP)

Figure 5

De Castro, M. G. (2023b). Map of HINP, Alaminos LGU



5.1 History and Background

Situated in Pangasinan, Philippines, Hundred Islands National Park encompasses 124 islands and islets over 1,844 hectares. Established in 1940

by Proclamation No. 667, it stands as one of the Philippines' oldest national parks, providing a diverse natural habitat for curious visitors to discover and enjoy.

Figure 6

Alaminos Website (2018) Hundred Islands National Park, City Government of Alaminos.



Hundred Islands National Park has a rich heritage dating back to the pre-colonial era when it was inhabited by the Sual indigenous community. In the Spanish colonial period, it served as a refuge for Filipino revolutionaries.

Discovered by Americans in the 1920s, the Hundred Islands Park became a tourist spot. Opened to the public in 1933, it was officially declared a national park in 1940, leading to ongoing development.

In 1940, President Quezon established the Hundred Islands National Park (HINP) in Alaminos, Pangasinan, through Proclamation No. 667. This declaration placed HINP under the management of the Bureau of Forestry Development, intending it for the enjoyment of the Filipino people.

Republic Act No. 3655, signed by President Macapagal in 1962, shifted management of Hundred Islands National Park from BFD to Hundred Islands Conservation and Development Authority (HICDA).

In 1974, under Section 35 of Presidential Decree No. 564, President Ferdinand E. Marcos moved the management of HINP, along with Lucap Bay, from HICDA to the Philippine Tourism Authority (PTA).

Additionally, on April 27, 1982, President E. Marcos issued Proclamation No. 2183, designating HINP, along with Lucap Bay and its foreshore areas from Sitio Telbang to Sitio Recudo, as a Tourist Zone and Marine Reserve managed by the Philippine Tourism Authority (PTA).

In September 14, 2001, the Hundred Islands National Park was declared as a National Geological Monument by the National Committee on Geological Sciences.

On June 24, 2005, Executive Order No. 436, signed by President Gloria M. Arroyo, transferred the entire administration, management, and operation of HINP, along with all related activities and facilities, from PTA (now TIEZA) to the City of Alaminos, Pangasinan. This move aligned with the Local Government Code of 1991, promoting decentralization in line with the constitutional devolution program.

Today, Hundred Islands National Park is one of the major tourist destinations in the Philippines, attracting both local and foreign visitors. It offers a variety of activities, including island hopping, snorkeling, and kayaking, among others.

5.2 Tourism Development

The tourism industry has gained increasing importance for its capacity to stimulate economic growth and create job opportunities. Tourism not only stimulates demand across various sectors but also generates revenue, making it a vital contributor to economic progress. In Alaminos, Pangasinan, the local government has enacted strategic plans and policies to nurture the tourism sector within the community. Consequently, the city has enjoyed economic benefits, providing additional resources for the government to deliver essential services to its residents. The City of Alaminos acknowledges the advantages of tourism and has implemented collaborative measures and benchmarks to strengthen its local tourism industry for the betterment of all stakeholders involved.

5.2.1 Indicators of Sustainable Development for Tourism

Indicators serve as vital tools for assessing current problems, anticipating potential issues, and evaluating the necessity for action in tourism development and management. They play a crucial role in detecting significant changes within the tourism sector, both internally and externally, as well as measuring the impacts brought about by tourism activities. Sustainability indicators can encompass both quantitative and qualitative data, selected based on their relevance to the core challenges faced by tourism managers. These indicators are instrumental in foreseeing and preventing unfavorable or unsustainable circumstances at tourist destinations.

In the context of sustainable tourism development, indicators represent time-series data essential for ensuring the sustainability of a

destination, its assets, and the prosperity of the tourism sector. Effective indicators are those that directly address the key risks and concerns associated with tourism sustainability, offering insights to clarify issues and gauge responses. These indicators address issues related to natural resources, environmental impact, economic sustainability, cultural assets, social values, and the organizational and managerial aspects of the tourism sector and destination as a whole. Consequently, the selection of indicators should be strategic, aligned with the destination's needs and concerns, and geared towards mitigating the primary risks associated with sustainable tourism development.

There have been several tourism developments in Hundred Islands National Park (HINP) over the years, including the construction of various tourist facilities and the promotion of ecotourism. Some of these developments include: (Tourism Infrastructure and Enterprise Zone Authority, 2023)

Development of Accommodations: The government has built various lodging options for tourists in the national park, such as cottages, picnic areas, and camping grounds. Additionally, visitors have the option to stay in hotels and resorts in nearby locations like Alaminos City.

Infrastructure Enhancement: To accommodate the increasing tourist influx, several infrastructure upgrades were executed, including the establishment of a new pier, public lavatories, and additional tourism amenities.

Ecotourism Promotion: The LGU government has been actively advocating ecotourism in HINP, emphasizing responsible tourism that safeguards the environment while offering visitors distinctive experiences. Ecotourism endeavors within HINP encompass activities like island exploration, snorkeling, kayaking, scuba diving, and hiking.

Island Rehabilitation: Collaborating with various organizations, the government has initiated rehabilitation initiatives on select islands within HINP. These efforts seek to revive the islands' natural habitats and enhance their ecological resilience for long-term sustainability.

5.2.2 Tourism-Related Services and Activities

The Hundred Islands National Park boasts abundant resources and a diverse array of flora and fauna. Park visitors can marvel at the beauty of giant clams, sea grasses, fish, coral reefs, wild birds, fruit bats, caves, and mangroves. Furthermore, the park offers a plethora of activities, including swimming, cliff diving, banana boating, jet skiing, zip-lining, snorkeling, helmet diving, kayaking, rock climbing, rappelling, team building, trekking, fruit bat and bird watching, and boat tours. With its wide range of activities and natural assets, the park serves as an ideal destination for tourists seeking adventure, relaxation, and a deep connection with nature.

On the island, several amenities have been set up to promote ecotourism in the area. These include pavilions, gazebos, guest houses, a 24/7 tourism office and information center, souvenir stores, and a cruise ship port. Each visitor is required to pay a total fee of 80

pesos, which includes a 30-peso IPAF Entrance fee, a 40-peso LGU Environmental Fee, and a 10-peso insurance fee. (See Appendix V) (Pangasinan Eyes 2019 ATOP-DOT Pearl Award - the Official Website of the Province of Pangasinan, 2019)

To address these environmental issues and challenges, the local government and other stakeholders have initiated several programs and projects, such as the implementation of sustainable tourism practices, the rehabilitation of damaged areas, and the promotion of responsible tourism. These efforts aim to promote the preservation and sustainable use of the park's natural resources while ensuring the protection of its unique biodiversity. (ATOP-DOT, 2019)

6. METHODOLOGY

For this paper, I employed a mixed-methods approach to my research. I conducted a qualitative content analysis of printed publications including news and feature articles, journals, and related literature. Additionally, I utilized an unstructured qualitative interview format to gather data from key informants, local stakeholders, and government officials. The interviews were recorded and supplemented with field notes and observations.

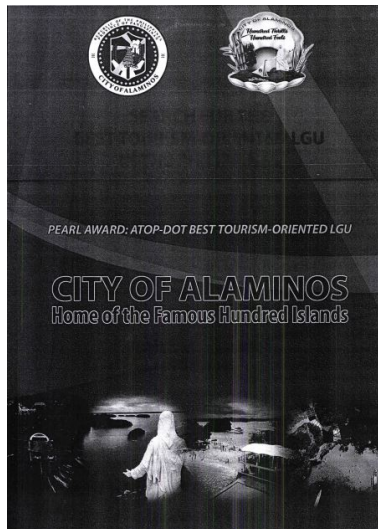
The qualitative method used for interviews involved a question-and-answer approach and conversational form with the respondents. Additionally, research was conducted through expo workshops facilitated by BFAR officials, where they shared significant and up-to-date information.

6.1 Research Design

The gathered secondary data available from the Tourism Office of Alaminos, Pangasinan which includes the book entitled, “Search for the Best Tourism-Oriented LGU in the Philippines” highlighted the various tourism plans, policies, and programs of HINP in addition to the data gathered copies of reports, drafted resolutions, management plans from the Office of the LGU and DENR-CENRO Alaminos.

Figure 7

Cover page of Book of City Of Alaminos (ATOP-DOT, 2019)



A comprehensive review of the existing literature on sustainable development tourism was conducted to identify key concepts, theories, and best practices in these areas. The review also included case studies of successful sustainable practices in different countries and regions, and analyzed the key features and lessons learned from these practices. (See chapter 2)

6.2 Data Collection Methods

This study made use of qualitative research. In particular, it made use of the case study method. The method was complemented by documentary analysis of the Tourism Development Plan of Alaminos City as well as semi-structured interview from local leaders, fisher folks, and tourists who visited the area.

6.2.1 Interviews

I conducted interviews with several key individuals including Mayor Bryan C. Celeste, City Mayor of Alaminos, Executive Assistant and Department Head of Tourism Mr. Miguel Sison. I also spoke with Ms. Rosalie Aruelo Assistant City Government Head, Dir. Nestor Domenden Regional Director BFAR, and Mr. Jugo Paraan - Fisheries Coordinator Environmental Department of Pangasinan. In addition, I attended and interviewed delegates of 4th Pangasinan Umaani Expo and other stakeholders. (See Appendices)

6.2.2 Existing Surveys

For this study, I gathered data from existing surveys that were available on the internet, as well as from a book called "Search for the Best Tourism-Oriented LGU in the Philippines" published by the Tourism Office of Alaminos. These surveys and the book provided valuable insights into the tourism practices of various LGUs in the Philippines and allowed me to use, compare and analyze the performance of Hundred Islands National Park in terms of sustainable tourism development.

7. RESULTS

The findings of this research paper had several implications for promoting sustainable development in tourism and coastal management. First, the importance of stakeholder engagement and participation was emphasized, as different stakeholders have different interests and perspectives on the use of coastal resources and the development of tourism. Building partnerships and promoting collaboration between governments, local communities, and private sector actors can facilitate the implementation of sustainable practices and ensure that the benefits of these practices are shared equitably.

Secondly, the need for increased public awareness and education is highlighted, as many people are not aware of the negative impacts of unsustainable practices on the environment and local communities. Education and awareness-raising can help to promote sustainable practices and create a culture of sustainability in tourism and coastal management.

Thirdly, the importance of providing incentives for sustainable practices is emphasized. Financial and non-financial incentives, such as tax breaks, grants, and certifications, can encourage tourism and coastal management stakeholders to adopt sustainable practices and promote innovation in these sectors.

In particular, the analysis and discussions presented in this research paper suggest that sustainable development is critical to the long-term management of natural resources in the tourism and coastal management sectors. The findings highlight the economic, environmental, and social

benefits and challenges of sustainable practices, and provide recommendations for promoting sustainable development in these sectors. By adopting a sustainable development approach, stakeholders can ensure the sustainability of these sectors, while also preserving the natural and cultural resources that are essential for the well-being of local communities and the economy.

The findings of this research paper had several implications for promoting sustainable development in sustainable tourism. Alaminos has a total of 39 barangays and 19 of which are within the HINP area. The whole HINP area has a land area of approximately 164.26 square kilometers. In terms of population, the city had an estimated population of around 89,708 people. The involved parties in Hundred Islands National Park (HINP) include Local Government Units, National Government Agencies, local communities, tourism stakeholders, Civil Society Organizations, Academic Institutions, visitors, Indigenous communities, business enterprises, and environmental advocacy groups.

Table 1

City Government of Alaminos, (2007). Number of Coastal Barangays

Coastal Barangays	Land Area (hectares)	Population
Barangay Baley-adaan	302.0	1,340
Barangay Bued	412.4	2,791
Barangay Cayucay	267.5	1,409
Barangay Lucap	853.6	5,296
Barangay Mona	539.3	1,544
Barangay Pandan	174.0	1,044
Barangay Pangapisan	653.8	2,003
Barangay Sabangan	420.8	1,659
Barangay Telbang	869.8	2,839
Barangay Victoria	593.0	2,287
Total	5086.2	22,212

Table 2

City Government of Alaminos, (2007). Land Area by Population

Coastal Barangays	Number of Respondents	Percent
Barangay Baley-adaan	4	6.7
Barangay Bued	2	3.3
Barangay Cayucay	10	16.7
Barangay Lucap	10	16.7
Barangay Mona	10	16.7
Barangay Pandan	5	8.3
Barangay Pangapisan	8	13.3
Barangay Sabangan	4	6.7
Barangay Telbang	2	3.3
Barangay Victoria	5	8.3
Total	60	100

60 respondents participated in this study, coming from 10 coastal barangays (see Table above). The barangays of Cayucay, Lucap, and Mona had the most number of respondents among the coastal barangays, which can be attributed to their geographic location. The typhoons that affected the study area also limited the researcher's ability to interview more respondents. This study was based on the Management Effectiveness Assessment Tool (MEAT) research conducted by Nicole Apolinario (UPLB) in the barangays of Lucap, Bued, Sabangan, Pandan, and Telbang in the city of Alaminos, Pangasinan. The assessment of Hundred Islands National Park (HINP) was carried out through on-site evaluation and interviews with key informants involved in its management.

Table 3

City Government of Alaminos, (2007). Demographics of the respondents based on their survey.

Variables	All Respondents (n=60)	Willing to Accept alternative employment (n=46)*	Not Willing to Accept alternative employment (n=14)
Age:			
25-39	21 (35%)	20 (43%)	1 (7%)
40-54	30 (50%)	21 (46%)	9 (64%)
Over 54	9 (15%)	5 (11%)	4 (29%)
Educational Attainment:			
Some Elementary	16 (27%)	12 (26%)	4 (28%)
Elementary Graduate	14 (23%)	9 (20%)	5 (36%)
Some High school	7 (12%)	7 (15%)	0 (0%)
High school graduate	16 (27%)	13 (28%)	3 (21%)
Some college	4 (7%)	4 (9%)	0 (0%)
Vocational graduate	1 (1%)	1 (2%)	0 (0%)
College graduate	2 (3%)	0 (0%)	2 (15%)
Household size:			
2-5	34 (57%)	26 (57%)	8 (57%)
6-9	24 (40%)	18 (39%)	6 (43%)
Over 9	2 (3%)	2 (4%)	0 (0%)
Household dependents:			
0-4	37 (62%)	29 (63%)	8 (57%)
5-9	23 (38%)	17 (37%)	6 (43%)

The survey assessed respondent demographics and were categorized into two age groups: the labor force (14-64 years old) and the elderly (65 years and above) as shown in Table 3. A significant portion of the respondents (25% of the sample) were residents of Alaminos City aged 50 and above. Among them, 60% were fisher folks whose livelihoods depended on fishing and boating. The remaining 40% comprised non-fisher folk stakeholders, including operators of eco-lodges and restaurants, as well as government and private employees, laborers, tricycle drivers, construction workers, and homemakers.

Figure 8

Apolinario, N. (2021). Answers if the management group is functional. UPLB

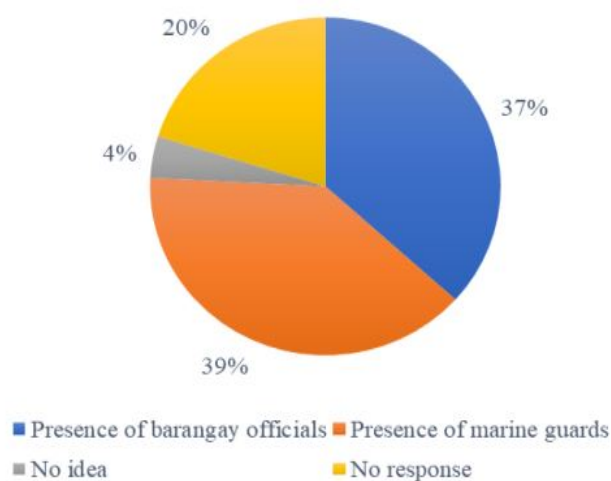
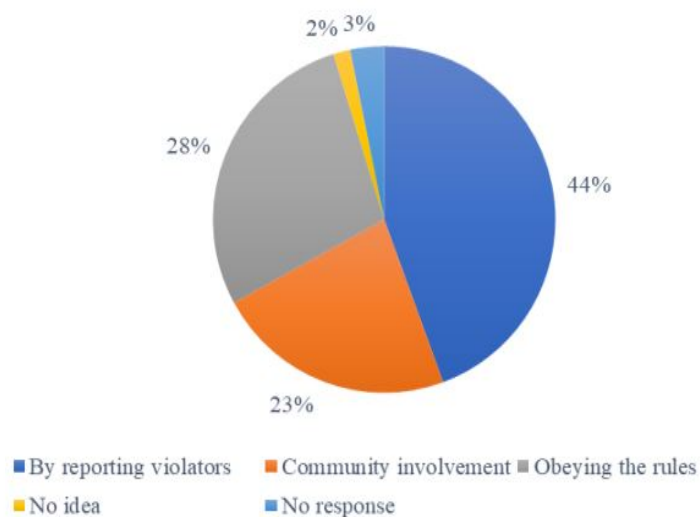


Figure 9

Apolinario, N. (2021). Answers on how they could support the management. UPLB

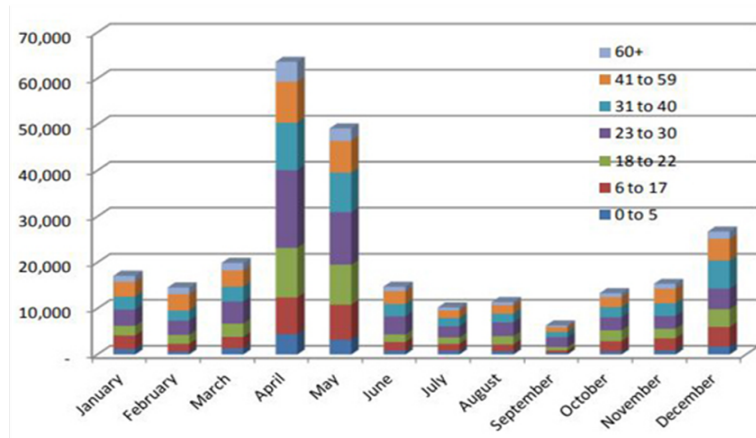


The survey on community perceptions aimed to assess local understanding of HINP. Among the respondents, 31% were aware of HINP, primarily learning about it from friends and colleagues. 59% viewed the protected area as vital for fish shelter and breeding. Regarding benefits,

33% were unaware of any. 50% attributed reduced illegal fishing to marine guards' presence, while 39% saw it as an indicator of effective management (Figure 11). 40% believed regular patrolling would sustain HINP efforts, and 44% supported continued management by reporting violators (Figure 12).

Figure 10

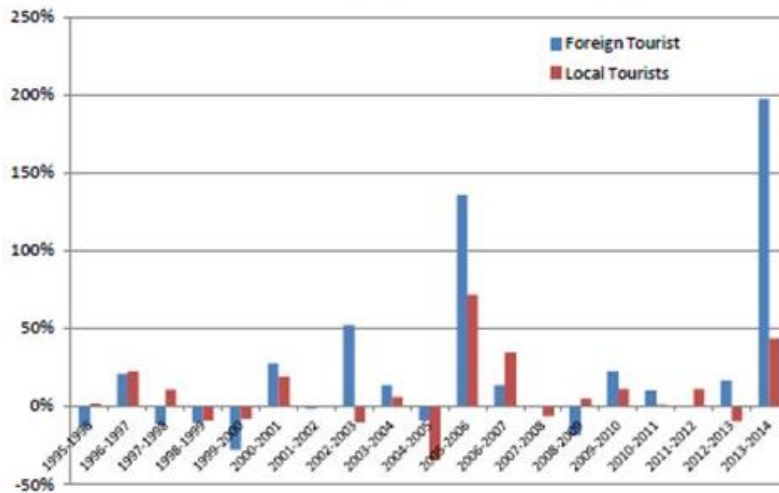
City Government of Alaminos, (2007). Age Distribution. ATOP-DOT



The actual distribution of tourists among these age groups can vary depending on factors such as the time of year, holidays, and the types of activities and attractions offered at HINP. It's important to note that these age groups are not mutually exclusive.

Figure 11

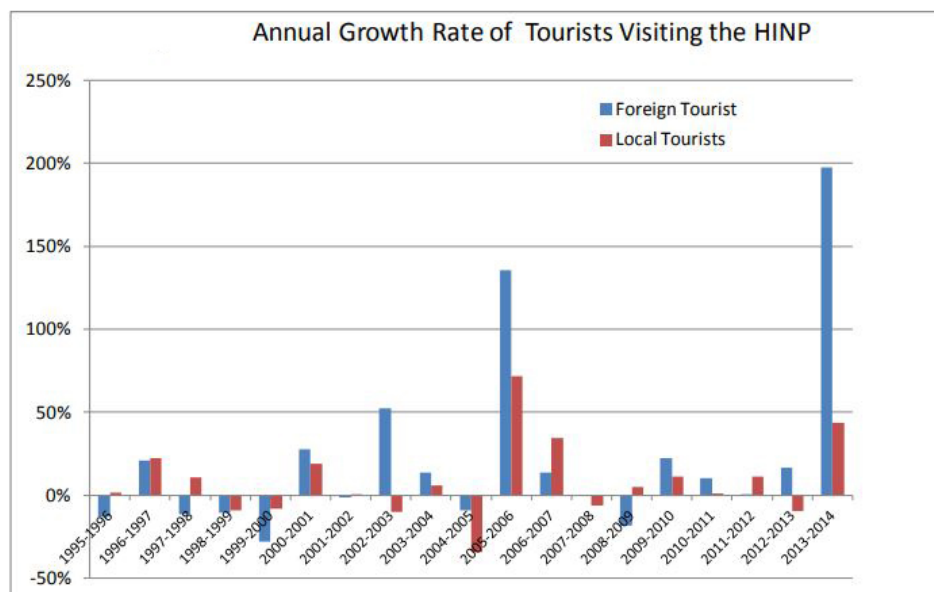
City Government of Alaminos, (2007). Tourist Arrivals. ATOP-DOT



Annual growth of tourism in HINP has grown exponentially except during the Pandemic. It has grown 200% since 1996. To-date, it has reached a 150% increase after the pandemic.

Figure 12

City Government of Alaminos, (2007). Annual Growth of Tourism. ATOP-DOT



7.1 HINP Benefits includes:

1. Ecotourism opportunities
2. Economic growth in the area
3. Conservation and preservation
4. Cultural heritage preservation
5. Education and research, and environmental conservation.
6. Recreational activities
7. Community development

Figure 13

De Castro, M. G. (2015). *SDG 8 & SDG 14, United Nations*



SDG 8: They have boat tours, sustainable activities, festivals, and historical sites that generate jobs, entrepreneurship, and economic growth for sustainable development.

SDG 14: They have programs like Scubasurero, Bantay Dagat, Mangrove planting, and MRFs that protect marine resources, promote awareness, and support conservation for marine biodiversity.

The HINP programs contribute to SDG 8 by creating employment opportunities, entrepreneurship, and economic growth through boat tours, sustainable activities, festivals, and historical sites. They also support SDG 14 by protecting marine resources, raising awareness, and promoting conservation through localized programs.

8. ANALYSIS AND DISCUSSIONS

8.1 Proposed Management Activities

Following the analysis of the results, the proposed management activities have been classified into nine thematic areas as outlined below:

1. Bio-physical aspect: focusing on biodiversity conservation and enhancement.
2. Socio-Economic and Cultural: emphasizing community development and livelihood.
3. Political Governance: involving law enforcement and operating standards.
4. Community Partnership and Livelihood: promoting community development and livelihood.

5. Infrastructure and Other Facilities: developing infrastructure for the area.
6. Transportation: improving navigation systems for public order and safety.
7. Policy and Law Enforcement: enforcing policies and laws to protect the HINP.
8. Comprehensive Waste Management: addressing solid and liquid waste management.

Table 4

City Government of Alaminos, (2007). 5 year indicative Management Plan

Hundred Islands National Park

Areas of Concern	Activities	Y1	Y2	Y3	Y4	Y5
Community Partnership and Livelihood	Review permitting requirements and policies to include provision on livelihood projects esp.in coastal areas					
	establish value-adding system, promotion and marketing of local products/services					
Infrastructure and other facilities	Tourism Infrastructure Facilities Program					
	Establish uniform standard signages in HINP					
Transportation	Establish special transport system for human waste/wastewater from HINP to mainland					
	Establish common docking area for motorboats					
	Establishment of Protocol regarding transport of tourists and visitors to the HINP					
	Establishment of navigational route to and from HINP					
Policy and Law Enforcement	Establishment of Watchtowers in Strategic Points					
	Establishment of Communication Facilities in the HINP					
	Capability Building of Bantay Dagat					

Table 5

City Government of Alaminos, (2010). 5-year Indicative Management Plan

Hundred Islands National Park

Areas of Concern	Activities	Y1	Y2	Y3	Y4	Y5
Bio-Physical Aspect	Coral Reef Mapping					
	Coral Reef Assessment					
	Seagrass Mapping					
	Seagrass Assessment					
	Conduct of Siltation and Sedimentation Study					
	Formulation of Policy in Conducting Research in the HINP					
	Island Resource Inventory and Assessment for Flora and Fauna					
	Conduct of Fish Density Monitoring					
	Expand the existing Mangrove Sites in the HINP					
	Conversion of BOLODECO into mangrove forest					
	Formulation of an inter tidal flat management plan					
Socio-Economic and Cultural	Formulation of HINP Management Zones					
	Formulation of Tourism Package Tours					
Political Governance	Approval of the HINP Management Plan by the SP					
	Formulation of Coastal Water Zones thru Ordinance					
	Installation of Markers, Directional Signs					
	Naming of Islands					
	Formulation of Ordinance regarding charges and fees of facilities					
Research and Scientific Studies	Water Quality Monitoring					
	Formulation of Policy in Networking with Educational Institutions and Private Sector for the implementation of Corporate Social Responsibility based programs					
Operationalization of PAMB	Renewal of Appointment of PAMB Members					
	Conduct Regular meeting of PAMB					

The comprehensive approach to sustainable development involves assessing natural and physical attributes, demographics, livelihoods, education, and cultural aspects. Government roles and scientific studies are pivotal, necessitating collaboration among communities and stakeholders. Infrastructure, including eco-friendly transportation, is vital, with an emphasis on accessible pathways. Regulations and waste management strategies are crucial, focusing on minimizing waste, maximizing resource recovery, and ensuring proper disposal. Implementation demands coordinated efforts, aiming for economic growth, enhanced quality of life, and environmental

preservation through sustainable practices and responsible management.

To ensure continuity in the management of the protected area, institutionalizing the Protected Management Board operations is vital. This guarantees the implementation of the management plan, even amid changes in local government leadership. Additionally, adopting a policy that allocates a percentage of revenue for activities outlined in the plan is essential. The implementation of the City Tourism Code emphasizes strengthening the City Tourism Council and involving stakeholders such as motorboat operators and hotel owners. Due to tourism's environmental impact, enhancing the City Agriculture Office's Coastal Resource Management Unit is crucial, focusing on improved monitoring, evaluation, and resource assessment capabilities.

Following the issuance of EO 436, management of HINP shifted to the City Government of Alaminos, as mandated by the NIPAS Law. A Protected Area Management Board was established to formulate policies for HINP. The City Tourism Office, established as a separate department in 2014, oversees tourism-oriented programs in the area. Currently led by the City Cooperative Officer, the department comprises 109 personnel and is supported by various offices, including Coastal Resource Management, Agriculture, General Services, Engineering, and Public Order and Safety, which includes the Bantay Dagat Section.

8.2 Existing Laws, Policies and Regulations

Hundred Islands National Park (HINP) provides a wide range of activities, supported by several ordinances aimed at improving the area's environmental, social, and economic aspects.

Certainly, the aforementioned ordinances reflect a proactive approach by the local government to safeguard the marine ecosystem and promote sustainable practices within Hundred Islands National Park (HINP).

Figure 14

De Castro, M. G. (2023a). Environment Social Economic Ordinances. Alaminos LGU website

Hundred Islands National Park (HINP) offers diverse activity options, and multiple ordinances have been developed to enhance the environmental, social, and economic aspects of the area.

ENVIRONMENT	SOCIAL	ECONOMIC
<ul style="list-style-type: none">• Ordinance 2005-18 : Banning the Operation of Danish Seine (hulbot-hulbot), dynamite fishing, Giant Clam harvesting.• Ordinance 2006-01: Banning Coral exploitation and Exportation.• Ordinance 2009-04 : provides protection, conservation, sustainable management and development of the fisheries, aquatic and coastal resources.• Ordinance 2009-05 : Zero Waste Ordinance.• Ordinance 2011-08 : Anti-Littering Ordinance• Ordinance 2008-089: Banning motor boats illegally operating in HINP.	<ul style="list-style-type: none">• Ordinance 2005-16: To install/provide waste receptacle with cover inside their motor vehicle/motorboat/pedaled tricycle or pushcart .• Ordinance 2005-13: Implementation of RA9262 known as "Anti-violence Against Women and Children Act of 2004" in the city of Alaminos, Pangasinan• Ordinance 2009-05 : Zero Waste Ordinance of the city of Alaminos• Ordinance 2017-15 : Establishing HINP emergency fund to indemnify guests in cases of accident or death.• Ordinance 2019-03: Establishing proper sewage treatment & seepage management	<ul style="list-style-type: none">• Ordinance 2017-04 : Revised investment and incentives code of Alaminos City.• Ordinance 2017-12 : Adopting a Public-Private-Partnership (PPP) approach towards development.• Ordinance 2018-09 : Amending Sec 69 of Tourism Code increasing environmental fees.• Ordinance 2022-18 : Enjoining all business establishment & local transportation to adopt digital payments with Paleng-QR PH Program. <p>http://www.alaminoscity.gov.ph/city-ordinances.html</p>

It explicitly prohibits the use of Danish Seine (hulbot-hulbot), dynamite fishing, and Giant Clam harvesting. By banning these destructive fishing methods, the ordinance aims to preserve marine biodiversity and protect the delicate balance of the underwater ecosystem. It addresses the critical issue of coral exploitation and exportation. By banning these activities, the ordinance prevents the

depletion of coral reefs, which are vital for marine life and act as natural barriers against shoreline erosion.

It is designed to ensure the protection, conservation, sustainable management, and development of fisheries, aquatic, and coastal resources. By focusing on sustainability, the ordinances promote responsible fishing practices and the preservation of aquatic habitats, contributing to the long-term health of the marine environment.

The Zero Waste Ordinance underscores the importance of waste management within HINP. By promoting a zero-waste approach, the ordinance encourages recycling, composting, and reduction of single-use plastics. This initiative aims to minimize environmental pollution, especially within the park's sensitive coastal areas.

The Anti-Littering Ordinance addresses the issue of littering within the park. By imposing strict regulations against littering, the ordinance maintains the cleanliness of the park, ensuring that visitors and residents alike respect the natural environment. This initiative not only enhances the park's aesthetics but also prevents harm to wildlife and marine species.

The specified ordinances reflect a range of critical initiatives undertaken by the local government in Alaminos, Pangasinan, aimed at ensuring the well-being of both residents and visitors, as well as the preservation of the environment.

The ordinance mandates the installation of waste receptacles with covers inside vehicles and boats. By enforcing this regulation, the city promotes responsible waste disposal, preventing littering and

contributing to the overall cleanliness of public spaces and water bodies.

Implementation of the national law, RA9262, focuses on the "Violence against Women and Children Act of 2004." By applying this law at the local level, the ordinance aims to protect women and children from various forms of violence, ensuring their safety and well-being within the city.

By adopting a zero-waste approach, the ordinance encourages practices like recycling, composting, and reduction of single-use plastics.

The ordinance establishes an emergency fund specifically for Hundred Islands National Park (HINP). The fund serves as a financial safety net, providing compensation to guests or their families in cases of accidents or unfortunate incidents within the park. This initiative ensures that visitors are protected, promoting a sense of security and trust in the park's facilities and services.

Focused on environmental conservation, this ordinance emphasizes the establishment of proper sewage treatment and seepage management systems. By implementing these systems, the city mitigates the environmental impact of wastewater, safeguarding local water bodies and ecosystems from contamination and ensuring a sustainable environment for both residents and tourists.

The ordinance, known as the Revised Investment and Incentives Code, demonstrates the city's commitment to fostering economic growth. By revising this code, the local government aims to create a business-friendly environment, attracting investments and stimulating economic activities within the city. The ordinance likely outlines incentives and benefits for businesses, encouraging both local and foreign entrepreneurs to establish and expand their ventures in Alaminos City.

The legislation signifies the city's embrace of Public-Private Partnerships (PPPs) as a development strategy. By adopting a PPP approach, the city collaborates with private entities on various projects, leveraging their expertise and resources for the overall development of public infrastructure and services. This partnership model enhances efficiency, accelerates project implementation, and often results in improved services for residents and visitors.

The ordinance focuses on environmental conservation and sustainable tourism. By amending Section 69 of the Tourism Code to increase environmental fees, the city generates additional revenue dedicated to environmental preservation initiatives. These funds are crucial for the maintenance and protection of natural attractions like the Hundred Islands National Park, ensuring their long-term sustainability and the enjoyment of these sites by future generations.

In response to the digital era, this ordinance mandates the adoption of digital payment methods, specifically through the Paleng-QR PH Program. By encouraging businesses and local transportation

services to embrace digital payments, the city promotes financial inclusivity, enhances transaction efficiency, and reduces reliance on cash transactions. This move aligns with global trends toward a cashless society, fostering convenience and security for residents and visitors alike.

In addition to the existing laws and ordinances, as special Management Zoning Plan were proposed following the guidelines outlined in DAO No. 2008 26 or the revised IRR of the NIPAS Act, Rule 10, and the Hundred Islands National Park will be divided into two major zones: the Strict Protection Zone and the Multiple Use Zone. The guidelines clearly state the permissible activities for each zone.

The Strict Protection Zone (SPZ) includes areas with significant biodiversity and is closed to all human activities except for scientific research or ceremonial/religious use by Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs). It may also include habitats of endangered species or degraded areas designated for restoration and future protection, even if they are still in the process of regenerating (as defined in Rule 10.3.1 of the NIPAS Act).

Multiple Use Zone (MUZ) - In accordance with the protected area management plan, settlement, traditional and/or sustainable land-use, including agriculture, agro forestry, and other income-generating or livelihood activities, shall be allowed within the MUZ. The MUZ shall also include areas of high recreational tourism, educational or environmental awareness values, and areas consisting of existing installations of national significance/interest, such as development of

renewable energy sources, telecommunication facilities, and electric power lines (Rule 10.3.2 of the NIPAS Act).

8.3 Existing Projects and Proposals

HINP has a comprehensive sustainable tourism program that also promotes economic growth and the cultural heritage of the province. This was achieved by forging a special partnership with different organizations that commits to the sustainability of the island. It was also designed to boost the local livelihood of the people and promote more jobs.

8.3.1 Stakeholder Engagement - Engage stakeholders, including government agencies, local communities, tourism operators, and environmental groups, in the planning and management of tourism and coastal development. Encourage open communication and collaboration between stakeholders to ensure that the interests of all parties are considered.

8.3.2 Sustainable Tourism Practices - Encourage sustainable tourism practices, such as ecotourism and responsible tourism, to reduce the negative impacts of tourism on the environment and local communities. Promote education and awareness-raising among tourists to encourage responsible behavior and promote sustainable tourism practices.

8.3.3 Coastal Management - Promote sustainable coastal management practices, such as beach nourishment, dune restoration, and wetland protection, to preserve natural resources and protect coastal infrastructure and tourism

facilities. Develop coastal management plans that are based on scientific data and community input, and promote their implementation through partnerships and collaborations.

8.3.4 Community participation and empowerment: Encourage community participation and ownership in tourism and coastal development, particularly through community-based tourism initiatives. Empower local communities to manage and benefit from tourism and coastal resources, and promote the preservation of cultural heritage and traditional knowledge.

8.3.5 Incentives for sustainable practices: Provide incentives for tourism operators and coastal management stakeholders to adopt sustainable practices, such as tax breaks, grants, and certifications. Encourage innovation and entrepreneurship in sustainable tourism and coastal management practices.

8.3.6 Monitoring and evaluation: Develop monitoring and evaluation systems to track the effectiveness of sustainable development activities in tourism and coastal management. Use these systems to identify successes and challenges, and adjust strategies accordingly.

Generally, these proposed strategic management activities can contribute to promoting sustainable development in tourism and coastal management. By engaging stakeholders, promoting sustainable practices, empowering local communities, and providing incentives for sustainable practices, the negative impacts of tourism and coastal development can be minimized,

while preserving the natural and cultural resources that are essential for the sustainability of these sectors.

Following the implementation of new activities and approval of the City Tourism Code, improvements to facilities, Alaminos City experienced a significant boost in gross income in CY 2014, amounting to P17.7 million. A substantial portion of this revenue came from entrance fees, which accounted for approximately P8.45 million or 47.5% of total collections. Subsequently, the City's income peaked at P28,883,577 in 2015, followed by P10,487,925 in 2016, and P13,797,505 in 2017. These results demonstrate the positive impact of strategic planning and investment in the tourism sector, indicating potential for continued growth and economic development in the region. (ATOP-DOT, 2009)

Table 6

City Government of Alaminos, (2010). 4-year Income Statement. City Accounting Ofc.

		2013	2012	2011	2010
Income					
	Business Income	6,433,272.66	5,659,374.00	5,169,314.90	6,137,788.75
Expenses					
	PS	2,646,247.50	2,771,519.11	2,217,048.32	2,348,573.75
	MOEE	2,612,483.53	3,496,926.25	2,991,323.70	2,776,304.55
	Total	5,258,731.03	6,268,445.36	5,208,372.02	5,124,878.30
INCOME/LOSS		1,174,541.63	(609,071.36)	(39,057.12)	1,012,910.45

Tourist Arrivals		168,607.00	183,005.00	162,563.00	162,563.00
	Income per Guest	38.16	30.92	31.80	37.76
	Expense per Guest	31.19	34.25	32.04	31.53
		6.97	-3.33	-0.24	6.23

Data Source: City Accounting Office

8.3.7 City Funded Tourism Infrastructure Development

At present, the City has introduced programs and projects aimed to increase attractiveness of the Hundred Islands. These include the renovation of pavilion in the Quezon Island, construction of new pavilion, construction of guesthouse and the like. With the approval of funding from the Land Bank of the Philippines, 12 islands were identified for tourism infrastructure development for 2015.

8.3.8 Partnership with the Philippine Adventure Consultants

Aside from the City's investment, there is also a private sector that was given the permit to operate tourism activity particularly helmet diving activities. At present, the private sector proponent intends to expand its business activity to include aqua sports activities.

8.3.9 Partnership with Pangasinan State University

In partnership with the Pangasinan State University, the City is currently undertaking an experiment that is aimed of developing a technology to enhance restoration of damaged coral reefs. The project is funded by the Department of Science and Technology. This project is being implemented in collaboration with 4Star, a Non-Government Organization.

8.3.10 BFAR Research Facility in the Cariaz Island

Prior to the issuance of EO 436 transferring to the City the management of the HINP from the Philippine Tourism, an

existing breeding facility is being operated by the Bureau of Fisheries and Aquatic Resource Region in the Cariaz Island. These include bangus, grouper, seaweeds and other high value fishery resources.

8.3.11 Biodiversity Conservation and Enhancement Programs

In order to ensure protection and conservation of natural resources within HINP, the City of Alaminos identified some priority programs and activities which at this time are being implemented and continuously observed for its sustainability. Some of these programs are Coral Transplantation Project, Coral Larval Reseeding, and Mangrove Reforestation.

8.3.12 Product Development and Livelihood Programs

Through the City Cooperatives Office, various collaborative programs were forged with the national government agencies to develop the local products of the City and likewise serve as livelihood for the locals where considerable benefits are made through tourist visits. Some of these are the following: Pasalubong Center, Negosyo Center, Organic Trading Post, display of products during cruise-ship visits, product development for e-kawayan products, other product development trainings.

8.3.13 Culture & Heritage Conservation and Preservation Programs

There are also programs implemented in HINP showcasing the cultural traditions as well as the heritage conservation and

preservation in the area such as Hundred Islands Paraw Festival, Cityhood Anniversary Celebration, Observance of Lenten Season, Culture and Arts Revitalization Activities, Cultural Mapping and Inventory, and Tourism Month Celebration.

8.3.14 Existing Business Establishments in the HINP

As of March 2015, there are nine (9) business entity operating in the HINP as reported by the City Tourism Office providing services to tourists visiting the HINP. Most of these establishments offer food and equipment rentals to visitors.

Table 7

City Government of Alaminos, (2018). Total Revenues of HINP. City

Accounting Office

	Sources				Amount
1	Charge in the use of Tourism Facilities in the HINP				10,907,800.00
2	Charge in the Use of Sports Facilities in the HINP				7,220,000.00
3	Space Rentals				1,080,000.00
4	Environmental Fee				12,000,000.00
	4.1 Projected Number of Tourist			300,000.00	
	4.2 Environmental Fee			40.00	
	Grand Total				31,207,800.00

9 Conclusion and Recommendations

9.1 Recommendations

Environment

1. Legal Frameworks and Regulations - Develop and enforce legal frameworks for sustainable development, including waste management and environmental protection policies.
2. Defining Carrying Capacity - Weekends saw high tourist arrivals, with peak days recording 6,791, 4,755, and 4,086 visitors. HINP needs even distribution for sustainable capacity management.
3. Conservation of Critical Habitats - Give priority to conserving and restoring critical habitats through active management, protection, and regular assessments of habitat health.

Social

1. Increase Awareness & Education - Promote sustainable practices through education campaigns via social media, workshops, and seminars.
2. Responsible tourism practices - Ethical travel that minimizes negative impact and supports local communities.
3. Climate Change Adaptation & Mitigation - Incorporate climate change adaptation strategies into marine conservation efforts.

Economic

1. Incentives & Recognition - Provide incentives and recognition for stakeholders who adopt sustainable practices. This can include certifications, awards, and tax breaks.

2. Strengthen Monitoring & Evaluation - Monitor revenue & expenditures, water quality, and biodiversity. Strengthen partnerships with stakeholders for sustainable practices.
3. Computerization of HINP Booking and Registration - To deliver advanced and efficient services to the guest and visitors, there should be a modernized reservation procedure within HINP

9.2 Conclusion:

In conclusion, the sustainable development of Hundred Islands National Park (HINP) necessitates a comprehensive approach across legal, social, and economic dimensions. Establishing and enforcing legal frameworks for waste management and environmental protection is crucial. A thorough evaluation of existing solid waste management practices and policies, encompassing waste generation, collection, transportation, treatment, and disposal methods linked to tourist-generated waste is needed.

Efficiently determining the park's carrying capacity and ensuring equal visitor distribution throughout the year are vital for sustainable management. Implementing a Carrying Capacity ordinance, although not in place yet, is essential for evaluating and monitoring the capacity of the HINP islands, ensuring their sustainable preservation and management.

Conservation efforts should prioritize critical habitats through active management and regular assessments. Currently, there is no specific climate change adaptation policy in place, highlighting the

necessity to invest in research supporting sustainable development, disaster risk management, coastal practices, and understanding climate change's impact on tourism and coastal areas.

Promoting sustainable practices requires social awareness and education campaigns, responsible tourism, and climate change adaptation efforts. Economic incentives and thorough monitoring encourage stakeholders to adopt sustainable approach, fostering long-term environmental and economic benefits.

Implementing advanced reservation systems is crucial for enhancing guest services and sustaining HINP. Despite Ordinance 2022-18, digitalizing electronic payments is essential. Introducing technologies such as Gcash, Paymaya, credit cards, debit cards, and crypto currencies is necessary to prevent delays in tourists' arrivals, ensuring seamless transactions and efficient visitor experiences.

On hindsight, efforts to promote sustainable tourism should not be limited to controlling and managing the negative impacts of the industry. Tourism has the potential to benefit local communities both economically and socially, and to raise awareness and support for conservation of the environment. Economic development and environmental conservation should not be seen as conflicting forces in the tourism sector, but rather as ideals that can and should be mutually reinforcing. Policies and actions should aim to enhance the benefits and minimize the costs of tourism. (UNEP, 2005)

Sustainable tourism efforts must expand beyond mere mitigation of negative impacts originating from the tourism industry.

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APPENDICES

APPENDIX I. PHOTOS OF INTERVIEWS



Ms. Rosalie Aruelo Assistant
City Government Head



Kagawad Mario Baodo of Dagupan



Dir. Nestor Dumenden
Regional Director BFAR - 1



Fisher folk attendees of Umaani Expo



Mr. Jugo Paraa - Fisheries Coordinator
Environmental Department of Pangasinan



Fisher folk attendees of Umaani Expo



Executive Assistant and Department Head of Tourism
Mr. Miguel Sison



With Mayor Bryan Celeste, Mayor of Alaminos



Agricultural Office of Pangasinan Officer

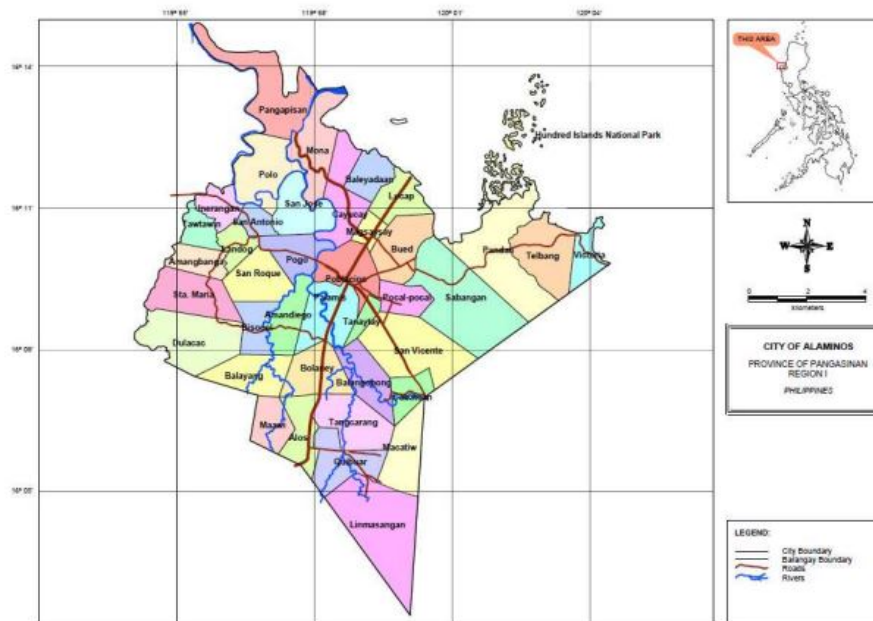
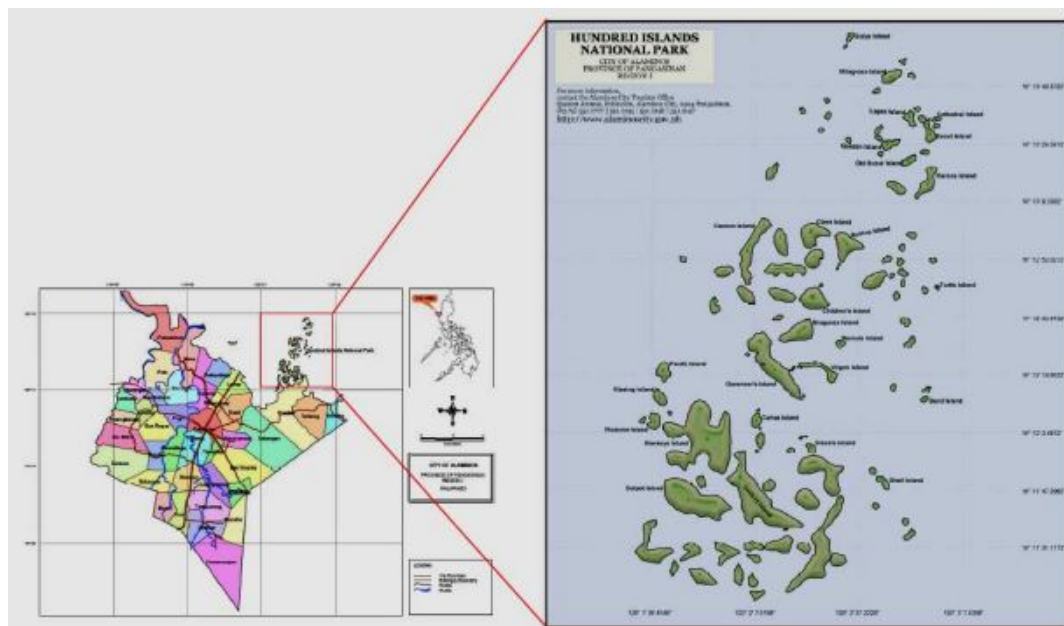
APPENDIX II. ATTENDANCE SHEET OF THE MEETING

Project Title		Attendance Sheet	
Project Location		Date:	Time:
NO.	NAME	ADDRESS	CONTACT NUMBER/EMAIL
1	Onyiah J. Mollin	L Gu - Dagupan	09355249114
2	Johnny Vargo Pando	2 Gu - San Fabian	092841741167
3	Nestor D. Bantolera	PAT-1	0935511038
4	Hemilio Abong	N. DMW SF	
5	Mario C. Rosado Jr	Tiblano San Fabian	
	Robert Espinosa	Sobol, San Fabian	09304872431
	Dennis Termino	Sobol, San Fabian	
	Jonathan Padilla	Pdo. Pagsanjan	09192731117
	Misael T. Pina	Nibalw West	09204103750
	Marcelo L. Jay	Nibalw West	

APPENDIX III. 17 SUSTAINABLE DEVELOPMENT GOALS



APPENDIX IV. MAP OF HUNDRED ISLANDS NATIONAL PARK (HINP)



APPENDIX V. POSTERS AND FLYERS FOR GUIDE AND MOTORBOAT

TOUR RATES


HUNDRED ISLANDS NATIONAL PARK
 Brgy. Lucap, Alaminos City, Pangasinan
 0968-205-8137 / 0917-828-4001
 

GUIDE RATES

DAY TOUR

REGISTRATION FEE	P 100.00
*ENVIRONMENTAL FEE	P (60.00)
*ENTRANCE FEE/IPAF	P (30.00)
*INSURANCE FEE	P (10.00)

OVERNIGHT

REGISTRATION FEE	P 160.00
*ENVIRONMENTAL FEE	P(120.00)
*ENTRANCE FEE/IPAF	P (30.00)
*INSURANCE FEE	P (10.00)

ISLAND RATES

FACILITIES/AMENITIES	DAY TOUR	OVERNIGHT
Guest House (Electric Fan)	NOT AVAILABLE	
Guest House (Air Conditioned)	10,000.00	
Gazebo	600.00	1,000.00
Pavilion 1 & 2		
1st Floor	5,000.00	7,000.00
2nd Floor	5,000.00	7,000.00
3rd Floor	3,000.00	4,000.00
Picnic Tables & Chairs		
At Pavilion 1	300.00	500.00
At Pavilion 2	200.00	300.00
Rectangle Tables	500.00	700.00
Square Tables	200.00	300.00
Tent Space/Pitching Fee	200.00	

ISLAND ACTIVITIES

Zip-line (546 m) (Governor's)	NOT AVAILABLE
Zip-line (345 m) (Lopez)	250/jump
Zip-line (120 m) Quezon)	100/jump
Banana Boat	250/person
Helmet Diving	NOT AVAILABLE
Kayaking (2 pax)	250/hour
Snorkeling	150/person

NOW IN FULL CAPACITY!

MOTORBOAT RATES

TOUR TYPE (Boat Size)	One-Day Tour with Service Boat	Two-Day Tour with Service Boat
Small - (5 passengers)	1,400.00	3,000.00
Medium - (10 passengers)	1,800.00	3,800.00
Large - (15 passengers)	2,000.00	4,500.00

* Rates are subject to change without prior notice.



*** For Tour Guide assistance contact the Tourism Office.

Tour Guide Rate: PhP 1000.00 (Day Tour)


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APPENDIX VI. POSTERS AND FLYERS FOR GUIDE AND MOTORBOAT

TOUR RATES

HUNDRED ISLANDS NATIONAL PARK

Brgy. Lucap, Alaminos City, Pangasinan

0998-597-5153 / 0917-828-6592
0968-205-8137 / 0945-812-4391

GUIDE RATES

DAY TOUR

REGISTRATION FEE	P 100.00
*ENVIRONMENTAL FEE	P (60.00)
*ENTRANCE FEE/IPAF	P (30.00)
*INSURANCE FEE	P (10.00)

ISLAND RATES

FACILITIES/AMENITIES	DAY TOUR
Guest House (Electric Fan)	NOT AVAILABLE
Guest House (Air Conditioned)	NOT AVAILABLE
Gazebo	600.00
Pavilion 1 & 2	
1st Floor	5,000.00
2nd Floor	5,000.00
3rd Floor	3,000.00
Picnic Tables & Chairs	
At Pavilion 1	300.00
At Pavilion 2	200.00
Rectangle Tables	500.00
Square Tables	200.00

ISLAND ACTIVITIES

Zip-line (546 m) (Governor's)	NOT AVAILABLE
Zip-line (345 m) (Lopez)	250/jump
Zip-line (120 m) Quezon)	100/jump
Banana Boat (min. 4 or 5 pax)	NOT AVAILABLE
Helmet Diving	NOT AVAILABLE
Kayaking (1 pax)	250/hour
Snorkeling	BRING PERSONAL GEARS


MOTORBOAT RATES

TOUR TYPE (Boat Size)	One-Day Tour with Service Boat
Small (2 or 3 passengers)	1,400.00
Medium (4 or 5 passengers)	1,800.00
Large (6 - 8 passengers)	2,000.00

* Rates are subject to change without prior notice.

*** For Tour Guide assistance contact the Tourism Office.

Tour Guide Rate: PhP 1000.00 (Day Tour)


Find us on:

www.facebook.com/AlaminosCityTourism

Please transact your business at the City Tourism Office and designated Satellite Offices
at Bued Mangrove Park & Bolo Beach

**APPENDIX VII. NUMBER OF ACCOMMODATIONS/
ATTRACTIONS/WATERSPORTS**

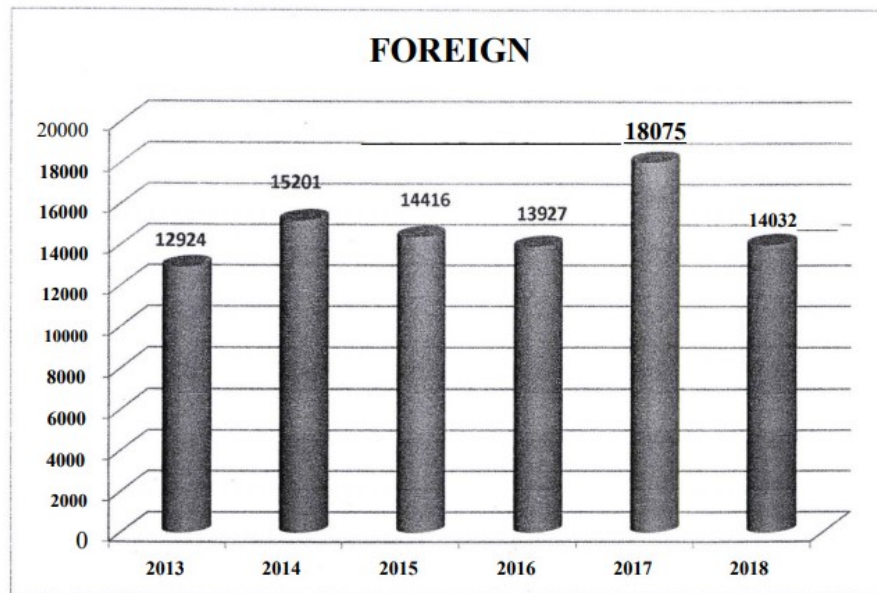
NUMBER OF ACCOMMODATION/ATTRACTION/WATERSPORTS

TOURISM ESTABLISHMENTS	2017	2018
Hotels/Transients/Inns, etc.	109	118
Restaurants	13	18
Concessionaires		
• Water Sports	6	7
• Souvenir Vendors	54	54
• Ambulant Vendors	88	71
• Rolling Vendors	40	51
• Food Court Vendors	6	10
• Island Vendors	28	30

APPENDIX VIII. TOURIST ARRIVALS



APPENDIX IX. TOTAL FOREIGN ARRIVALS



APPENDIX X. CRITERIA & SWOT ANALYSIS

AREA OF CONCERN	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	RECOMMENDATIONS
		Child labor (motorboats)		degraded watershed of Alaminos River	Develop eco-tourism tour packages that will cater to backpackers, researchers, adventurers, etc
		Deteriorated Cultural structures i.e. Limahong at Lucap Wharf		Proposed development of Sual into an industrial state	Commission special projects unit for 'lean month' events organizing
					Implement masterplan for Lucap Wharf
3. Political Governance	LGU-managed/administered/conserved (E.O)			No permanent legislation (e.g. RA) for LGU management of HINP	Institutionalize HINP Management Plan (Ordinance)
				Sustainability of Tourism as an administration thrust	
4. Tourism/eco-tourism	presence of island signages, tourism facilities	No definite transport system for human wastes from the islands to the mainland	research and education tourism	pollution (water, air, land)	balanced eco-tourism (facilities, activities)
	diversity of tourism activities	limited water sports activities/facilities	Fund support from LGU for tourism		Zoning regulation
	presence of identified seating and non-seating area islands	limited tour packages	Disturbance of resources (marine, avian, flora and fauna)		

AREA OF CONCERN	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	RECOMMENDATIONS
	prime tourist destination in the Philippines	lack of standard rest rooms	Decrease aesthetic/natural beauty of HINP		
	one of 3 NES (national ecotourism)	inadequate tourism accommodation facilities			
	with identified tidal flats and open sea water potential for recreation and research tourism	inadequate signages			
	destination of cruise ship tourism				
	presence of potable water for visitors				
	presence of renewable energy for visitors				

AREA OF CONCERN	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	RECOMMENDATIONS
5. Research/scientific studies	with identified tidal flats and open sea water potential for research and special interest activities	no comprehensive study for carrying capacity for HINP	research and documentation of other undiscovered land and water resources in non-developed islands		sustainable allocation of funds for research and education and other purposes (policy)
			research and education tourism		open opportunities for academe/research institutions to avail of fund for research and education
					Networking/linkage with academe/research institutions (institutionalize thru MOAs/agreements)
6. Information and Education	celebration of Hundred Islands Festival		Specialized rainy day events/ activities in HINP		Develop year-round tour packages/activities
			research and education tourism		
7. PAMB/LGU	All stakeholders are represented	Expired PAMB appointments			Renewal of appointment of PAMB
		No regular meeting/s			Strengthen PAMB
AREA OF CONCERN	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	RECOMMENDATIONS
8. Fund Generation	affordable and reasonable fees (entrance fees, environmental fees, etc.)		Increased business opportunities/investors		Prepare eco-tourism business plan
9. Partnership and Linkages	Saleability for Corporate Social Responsibility (CSR) partnerships/projects		Partnership with various institutions/organizations		Social marketing for CSR
10. Community Participation and Livelihood	strong support from communities	Capability development for livelihood		unscrupulous practice of tricycle drivers/motorboat operators/souvenir shops (e.g. Unreasonable fees/price of service/commodities)	Review permitting requirements and policies to include provision on livelihood projects esp.in coastal areas
					Linkage/networking of local service/product providers to existing/potential market/s
					establish value-adding system, promotion and marketing of local products/services

AREA OF CONCERN	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	RECOMMENDATIONS
11. Infrastructure and other facilities	presence of renewable energy (solar) facilities within Marcos, Quezon, Clave, Romulo, Mayor's, Lopez and other Islands	some limestone areas in islands not suitable for concrete and permanent structures (fragile topology)			Establish eco-friendly tourism infrastructure/facilities i.e. Facilities for activities like water sports, communication facilities, accommodation, restrooms, eating & cooking area, observation post that will:a.) Adapt to or complement the HINP's fragile topography & natural beauty and b) Conform to standards set by city (Tourism Code) and DOT
	presence of pipes for potable water	lack of established observation posts			Establish uniform standard signages in HINP
12. Transportation	established jump-off point from the islands to mainland	No definite transport system for human wastes from the islands to the mainland			Establish special transport system for human waste/wastewater from HINP to mainland
		limited docking area for motor boats			Establish water quality monitoring station
		lack of standard rest rooms			Establish common docking area for motorboats
					Establish eco-friendly restrooms
AREA OF CONCERN	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	RECOMMENDATIONS
13. Communication		No communication facilities		Radio frequency/waves affecting echolocation of bats, other wildlife	
14. Monitoring and Protection		many entry points of fishermen		Illegal fishing	Establish watch towers/observation post for monitoring
		no radio equipment/watch tower for security/emergency			Purchase radio monitoring equipment
		lack of established observation posts or ranger stations			
15. Policy and Law Enforcement	Enacted Tourism Code	no established management zones	Presence of Investment-Incentive Code		Review policy on hiring,deployment of bantay daga
	Proclaimed as National Geological Monument (karst topology)	no legal documents to legitimize names of islands	Fund support from LGU for tourism		Capability development
	Partnership with PNP-maritime group	limited police visibility			Approval of IRR of E.O. 436
	Insurance Coverage for tourists	limited no.of bantay dagat enforcers & equipment			
AREA OF CONCERN	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	RECOMMENDATIONS
16. Waste Management		Lack of special transport system for human waste from HINP to mainland			Strict enforcement of waste segregation
					Establish special transport system for human waste/wastewater from HINP to mainland
					Mandatory use of eco-bags by tourists/guests
					Establish Visitor/Tourist Management Plan
					Establish restriction signs