

Sustainability Model for Natural Tourist Destinations in Bohol

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ABSTRACT

Bohol, a renowned province in the Central Visayas region of the Philippines, is home to a wide array of natural tourist destinations that draw both local and international visitors. Attractions such as the Chocolate Hills, Cambuhat Oyster Farm, and Hinagdanan Cave offer not only scenic beauty but also ecological and cultural value. However, the increasing volume of tourism presents significant challenges, including environmental degradation and socio-economic imbalance. To address these issues, this study aims to develop a sustainability model that promotes responsible tourism practices while preserving Bohol's natural resources for future generations.

This study aimed to assess the sustainability of selected natural tourist destinations in Bohol, Philippines, to ensure long-term environmental, economic, and sociocultural balance. Using a descriptive research method, data were gathered from 50 purposively selected respondents, 25 international and 25 local tourists, through a survey questionnaire. Findings indicated that Bohol's natural destinations are generally rated as *highly sustainable* across multiple indicators. Based on these results, a sustainability model was proposed, emphasizing a holistic approach that integrates environmental stewardship, economic development, and community involvement to maintain the viability and appeal of these natural assets.

Keywords: *sustainable tourism, environmental conservation, socio-economic impact, natural attractions, tourist perceptions, sustainability model*

INTRODUCTION

Tourism is one of the fastest-growing industries worldwide, and in the Philippines, it is a vital contributor to the national and local economy. Bohol, a prominent province in the Central Visayas, boasts iconic natural attractions such as the Chocolate Hills, Cambuhat Oyster Farm, and Hinagdanan Cave. These sites offer rich ecological and cultural experiences, making them highly attractive to domestic and international tourists. However, increased tourism activity has begun to strain Bohol's natural resources and local communities. Unregulated tourism often leads to environmental degradation, cultural dilution, and unequal economic benefits.

This study is vital as it aims to develop a sustainability model that balances environmental preservation, economic viability, and community welfare. By establishing a framework for responsible tourism, this research contributes not only to academic knowledge but also to practical policy-making and tourism management in Bohol and similar regions.

Bohol is renowned for its rich natural heritage and diverse ecosystems, making it a key destination for ecotourism in the Philippines. Its natural tourist spots have received widespread attention, yet the tourism pressure continues to pose serious sustainability concerns. While tourism offers economic opportunities, it also brings environmental challenges such as pollution, overuse of resources, and socio-cultural disruption.

This study seeks to assess the sustainability of selected natural tourist destinations in Bohol and propose a comprehensive sustainability model. Through data collection from local and international tourists, the research evaluates the current state of these destinations across environmental, economic, and socio-cultural dimensions. The ultimate goal is to create a framework that encourages sustainable tourism practices that benefit all stakeholders, ensuring that Bohol's natural treasures are conserved for future generations.

The researcher is a dedicated educator with a background in tourism, environmental studies, and community development. Her academic training and teaching experience have equipped her with the knowledge and analytical skills necessary to undertake research involving sustainability, tourism management, and socio-economic evaluation. She has facilitated various community-based tourism projects and engaged in environmental awareness campaigns, demonstrating her commitment to academic inquiry and social responsibility.

Her ability to design and implement surveys, analyze data, and draw policy-relevant conclusions supports the validity and reliability of this study. Furthermore, her experience mentoring students and collaborating with local stakeholders gives her a practical understanding of the dynamics between tourism development and community welfare.

As an educator actively involved in tourism and environmental education, the researcher has observed both the positive and negative impacts of tourism in Bohol. On the one hand, tourism has improved livelihoods and provided educational opportunities for local communities. On the other hand, she has witnessed unsustainable practices such as littering, overcrowding, and the exploitation of natural resources.

She has also observed a gap in tourists' awareness and local capacity for sustainable practices. Stakeholders are interested in protecting natural areas, but long-term planning and concerted effort are lacking. These experiences have inspired her to pursue this research and contribute a model that empowers both tourists and local communities to take part in sustainable tourism development.

Theoretical Background

This study is anchored on the Sustainable Development Theory of Gro Brundtland (1987). This is also supported by Environmental Stewardship Theory of Anderson (1998) and the Responsible Tourism Approach of Goodwin (1998).

The Sustainable Development Theory by Brundtland (1987) emphasized the balance between economic growth, environmental protection, and social equity, positioning sustainability as an integrated approach rather than a purely environmental or economic goal. It marked a shift from viewing development and ecological conservation as conflicting priorities to seeing them as complementary.

The theory recognizes that natural resources are limited and that human wellbeing depends not only on economic prosperity but also on a healthy environment and equitable social structures. This approach calls for long-term thinking in policy and development, encouraging governments, businesses, and societies to incorporate ecological limits and social justice into decision-making. It highlights the interconnectedness of issues such as poverty, environmental degradation, and resource management, stressing that sustainable development requires systemic change rather than isolated fixes.

This theory has profoundly influenced global policies, including the United Nations' Sustainable Development Goals (SDGs), which expand upon his vision with specific targets for addressing climate change, poverty, education, and health. The theory continues to guide international discussions and actions to achieve more balanced and inclusive future, making it one of the most important frameworks for addressing the complex challenges facing the planet and humanity today.

The Environmental Stewardship Theory by Anderson (1998) centers on the idea that individuals and organizations have a moral responsibility to manage natural resources and the environment with care, respect, and long-term sustainability in mind. Stewardship, in this context, goes beyond mere resource management to emphasize ethical accountability and the duty to preserve ecological integrity for future generations. This theory frames environmental stewardship as an active, value-driven commitment rather than a passive or purely economic one, highlighting the interconnectedness of humans and the world.

The theory builds on traditional stewardship concepts rooted in religious, ethical, and ecological thought, which contextualized within organizational and environmental management. This environmental stewardship requires integrating ecological concerns into the core objectives of institutions and policies, promoting sustainable practices that minimize harm while enhancing the resilience of ecosystems. This approach encourages organizations and individuals to act as caretakers rather than exploiters of the environment, fostering a sense of shared responsibility for environmental health.

The Environmental Stewardship Theory of Anderson (1998) has informed various fields, including business ethics, conservation biology, and sustainability governance. It has inspired frameworks where environmental responsibility is embedded in corporate social responsibility and public policy, stressing stewardship as a guiding principle for ethical and sustainable decision-making. Ultimately, the theory

underscores the importance of stewardship as a holistic, moral foundation for addressing the urgent environmental challenges faced globally.

The Responsible Tourism Approach by Goodwin (1998) emphasizes tourism that maximizes the positive impacts on local communities, economies, and environments while minimizing the negatives. Unlike mass tourism, which often prioritizes profits over people and places, responsible tourism seeks to ensure that tourism benefits equitably distributed and that local stakeholders have a voice in planning and management. This approach stresses that responsibility lies with all tourism actors, from governments and businesses to tourists themselves, to act ethically and sustainably.

This theory helped formalize the concept through academic work and policy development, particularly with the 1997 International Conference on Responsible Tourism in Destinations and the 2002 Cape Town Declaration. These efforts outlined key principles such as minimizing environmental damage, respecting local cultures, supporting the local economy, and enhancing the wellbeing of host communities. What distinguishes responsible tourism from other sustainable tourism models is its focus on practical, localized action rather than broad, top-down frameworks. It empowers destinations to define their own sustainability goals and develop context-specific solutions.

The Responsible Tourism Approach of Goodwin (1998) is still used today to influence travel laws and procedures worldwide. It has become a cornerstone in discussions about ethical travel, destination management, and sustainable development within the tourism sector. His leadership and advocacy have transformed responsible tourism from an idea into a global movement, pushing the industry to become more transparent, inclusive, and environmentally conscious.

The theories collectively emphasize the importance of integrating ethical, environmental, and social considerations into policymaking, business practices, and community development. They highlight the need for long-term plans that balance economic growth with environmental preservation and social equity, encouraging governments and institutions to create inclusive and sustainable strategies. At the organizational level, they promote adopting responsible behaviors, such as sustainable resource management, ethical tourism, and corporate accountability. These ideas also empower local communities by advocating for participatory decision-making and recognizing the value of indigenous knowledge and cultural heritage. Additionally, they call on individuals, whether as consumers, tourists, or citizens, to act with awareness and responsibility toward the environment and society. Altogether, these approaches have significantly influenced global development agendas, conservation strategies, and educational initiatives, fostering a more just and resilient future for both people and the planet.

Environmental impacts of tourism activities for sustainability in natural tourist destinations have increasingly become a focal point in tourism research. Scholars agree that environmental sustainability is essential to preserve the ecological integrity of destinations that attract tourists for their natural beauty and biodiversity (Buckley, 2009). The foundation of most environmental sustainability models lies in minimizing negative environmental impacts such as pollution, habitat destruction, and resource depletion

while promoting conservation and responsible visitor behavior (United Nation World Tourism Organization, 2004).

More recent frameworks emphasize adaptive management and community-based conservation, highlighting the importance of involving local communities in environmental monitoring and decision-making. For instance, the Responsible Tourism Approach promotes practices that reduce environmental footprints while enhancing biodiversity protection, especially in ecologically sensitive areas (Goodwin, 2011). Additionally, eco-certification systems like Green Globe and Earth Check have emerged to guide and assess tourism businesses and destination's environmental performance. These models integrate tools like environmental impact assessments, waste management systems, and renewable energy usage to foster environmentally sustainable operations.

Overall, literature on sustainability models for natural tourist destinations underscores the need for integrated, flexible, and participatory frameworks. Environmental sustainability is not just about protecting nature but also about ensuring that tourism does not undermine the very ecosystems it relies on. The successful implementation of such models requires the collaboration of governments, private stakeholders, local communities, and tourists to create resilient and ecologically balanced destinations.

Economic sustainability in natural tourist destinations is a critical area of study, focusing on how tourism can generate lasting economic benefits while avoiding over-dependence or exploitation of local resources. Scholars emphasize that sustainable tourism development should ensure that economic gains contribute to the long-term prosperity of local communities and the destination itself (Sharpley, 2009). Sustainable financial models seek to balance profitability with the income distribution, preventing economic leakage where profits flow out of the host region without benefiting local stakeholders (Ashley & Roe, 2002).

Ecotourism principles in natural destinations promote responsible nature-based travel that balances environmental protection with socioeconomic gains for local populations. The literature emphasizes that true ecotourism integrates low-impact operations, educational outreach, and direct community benefits to advance conservation while bolstering host community resilience (Buckley, 2009). A central tenet is the meaningful involvement of local stakeholders in enterprise development and management, honoring their cultural values and traditional stewardship roles to avert pitfalls such as resource overexploitation, economic disparities, and erosion of indigenous heritage often linked to unregulated adventure tourism.

Another key economic concept is the multiplier effect, which captures how tourist spending circulates within the local economy, creating jobs and stimulating secondary economic activities (Fletcher, 1989). However, the multiplier's effectiveness depends on the local economy's ability to absorb and retain tourism income. Hence, sustainability models emphasize building local entrepreneurship, skills development, and supply chain linkages to enhance economic retention. Moreover, sustainable tourism economic frameworks increasingly incorporate diversification strategies to reduce reliance on tourism alone and build more robust, mixed economies that can withstand seasonal fluctuations and external shocks.

Lastly, economic sustainability is closely linked to environmental and social sustainability, as environmental degradation or social inequity can undermine long-term financial viability. Literature suggests that integrated models, which incorporate environmental protection and community empowerment alongside economic goals, offer the most promise for sustaining natural tourist destinations (United Nation Environment Programme, 2011). Such models encourage policies that support responsible investment, fair wages, and transparent governance, ensuring that tourism remains a driver of inclusive and sustainable economic development.

Social sustainability in natural tourist destinations ensures that tourism development supports the wellbeing, culture, and social fabric of host communities. The literature highlights that sustainable tourism should foster community empowerment, preserve cultural heritage, and promote social equity (Mowforth & Munt, 2015). A key principle is that local communities must be actively participate in tourism planning and decision-making, ensuring their needs, values, and rights are respected (Murphy, 1985). This participation helps prevent social conflicts, cultural commodification, and displacement, often associated with poorly managed tourism.

In natural tourist destinations, social responsibility highlights the ethical duties of tourism operators and stakeholders to prioritize the well-being, fairness, and cultural authenticity of local communities in light of increasing visitor demands. Research indicates that incorporating corporate social responsibility (CSR) into tourism practices can foster community empowerment, equitable distribution of resources, and the reduction of social disparities, ensuring that the economic benefits of tourism lead to inclusive development (Coles et al., 2013).

The literature also discusses the importance of social carrying capacity, which refers to the maximum level of tourism activity a community can tolerate without negatively affecting social harmony and resident satisfaction (Williams & Lew, 2015). Effective social sustainability models incorporate mechanisms to monitor and manage visitor behavior, mitigate overcrowding, and maintain respectful interactions between tourists and locals. Additionally, models increasingly emphasize the role of equitable benefit-sharing, gender inclusion, and protection of vulnerable groups to ensure that tourism contributes to social justice. Overall, social sustainability models underscore that a thriving tourism destination depends not only on economic and environmental factors but critically on the health, culture, and resilience of its local communities.

Scheyvens (1999) presented a critical framework for evaluating Community-Based Tourism (CBT) with a focus on empowerment and sustainability. He argued that for tourism to be truly sustainable, especially in rural and natural destinations, it must go beyond economic gains and ensure the social empowerment of host communities. Her model identifies four key dimensions of empowerment: financial, psychological, social, and political. This framework enables assessing of whether tourism initiatives are genuinely beneficial to communities or merely exploitative. According to Scheyvens, social sustainability in tourism strengthens community cohesion and promotes cultural pride by ensuring local voices are heard in decision-making processes. If communities have control over tourism development, they are more likely to benefit socially, through improved education, health services, and infrastructure, while preserving their

cultural heritage and values. However, she also warns of the risks of “elite capture”, where benefits are monopolized by a few, undermining broader community wellbeing. Scheyvens' work remains foundational in tourism studies, especially in contexts like the Philippines, where many natural destinations are home to Indigenous and rural communities. Her framework widely used to evaluate tourism projects, particularly those aiming for sustainability and local involvement. By emphasizing people-centered development, Scheyvens (1999) provided a practical and ethical model for understanding how tourism can contribute to long-term social sustainability in natural and culturally sensitive areas.

CNN Travel (2024) highlighted Siargao's remarkable recovery and community resilience following the devastation of Super Typhoon Odette in December 2021. The island, renowned as the surf capital of the Philippines, faced severe damage, but its residents demonstrated exceptional solidarity and determination to rebuild. Local pro surfer Ikit Agudo played a pivotal role by raising over \$50,000 for relief efforts. At the same time, the NGO Lokal Lab established food kitchens and support systems to aid the affected communities. By late 2022, Siargao began to revive, balancing sustainability efforts with tourism growth through initiatives like the Tropical Academy, which assists farmers in diversifying crops beyond coconut palms. Despite ongoing changes such as airport expansion and new hotels, Siargao's strong community spirit continues to thrive, showcasing the power of collective action in the face of adversity. This underscores the importance of community engagement and resilience in achieving social sustainability in natural tourist destinations. It highlights how local leadership, collaborative efforts, and sustainable practices can transform challenges into opportunities for growth and empowerment.

TIME Magazine (2022) featured Boracay Island in its list of the World's 50 Greatest Places, highlighting the destination's remarkable recovery and transformation following its 2018 closure for environmental rehabilitation. Once dubbed a cesspool due to severe ecological degradation, the island underwent a six-month shutdown to address illegal construction and inadequate sewage systems. The Covid-19 pandemic further altered Boracay's tourism landscape, leading to a significant decline in international visitors and a shift towards domestic tourism. This transition allowed the island to experience a quieter, more family-friendly atmosphere, with businesses adapting their offerings to cater to local preferences. Many residents appreciated the less crowded environment and desired to maintain some of these benefits even as international tourism gradually resumed. Boracay's inclusion in TIME's prestigious list underscores the success of its environmental rehabilitation efforts and the resilience of its community. The island's journey from ecological degradation to sustainable tourism is a model for other destinations facing similar challenges.

The study by Moliner-Tena et al. (2021) investigates how various aspects of destination sustainability, namely environmental, economic, and socio-cultural, impact the creation of memorable tourism experiences (MTEs). Drawing from a sample of 1,034 interviews with social media users who had visited five Spanish destinations, the study offers a nuanced look at how different destination types influence tourists' perceptions and experiences. One of the key findings is that environmental sustainability significantly affects tourists' memories and satisfaction in rural and sun-and-sand destinations.

However, economic sustainability was found to influence memorable experiences only in rural areas, likely due to the stronger visibility of local development and community interactions in those settings. Interestingly, socio-cultural sustainability did not show a statistically significant impact on MTEs in either type of destination. The research also highlights generational differences, noting that younger tourists, particularly millennials, are more attuned to sustainability issues, making them more likely to form positive emotional connections with destinations prioritizing environmental care.

Dalgleish et al. (2021) explore how Dark Sky Tourism (DST) can be a sustainable development model in Namibia. The study highlights Namibia's unique potential for DST due to its exceptionally low levels of light pollution and vast, sparsely populated landscapes. These natural advantages make the country an ideal destination for stargazing, yet its potential in this niche tourism sector remains largely untapped. The study outlines an initiative led by the Universities of Oxford and Namibia that uses astronomy for both tourism and local empowerment and education. One of the core components involves training local tour guides in astrophysics, indigenous Namibian star lore, and the environmental consequences of light pollution. This holistic approach positions DST as a tool for promoting environmental stewardship, preserving cultural heritage, and generating economic opportunities, especially in rural and underserved communities.

Stefanica, M. & Vlavian-Gurmeza, M. (2010) delve into ecotourism as a pivotal component of sustainable tourism, emphasizing its rapid global growth and integral role in preserving natural and cultural heritage. The study stated that ecotourism stands out among tourism forms due to its strong connection with the natural and cultural environment, making it a valuable manifestation of sustainable tourism. Ecotourism activities should directly contribute to protecting nature and preserving historical human creations. By focusing on responsible travel to natural areas, ecotourism aims to educate and inspire tourists while supporting conservation efforts and benefiting local communities. This approach fosters environmental awareness, economic development, and cultural appreciation among host populations. Incorporating a SWOT analysis, the authors assess the strengths, weaknesses, opportunities, and threats associated with ecotourism. This analytical tool helps identify the internal and external factors that can influence the success and sustainability of ecotourism initiatives. By understanding these dynamics, stakeholders can develop strategies to enhance the positive impacts of ecotourism while mitigating potential challenges.

The studies collectively underscore the critical role of sustainability in developing and managing natural tourist destinations. From exploring how sustainability dimensions influence memorable tourist experiences, highlighting the transformative potential of dark sky tourism, and promoting ecotourism as a balanced model for conservation and local development, each study offers a unique yet interconnected perspective. These works emphasize that sustainable tourism is not only about environmental preservation, but also about fostering community involvement, cultural heritage protection, and long-term economic resilience. Together, they present a strong case for integrating sustainability principles into tourism policies and practices to ensure that natural destinations remain viable, meaningful, and beneficial for future generations.

Statement of the Problem

This study assessed the sustainability of selected natural tourist destinations in the Province of Bohol, CY 2022-2023. The findings of this study served as the basis for a proposed sustainability model.

Specifically, this study sought to answer the following questions:

1. What is the profile of the respondents in terms of:
 - 1.1 age;
 - 1.2 gender;
 - 1.3 civil status; and
 - 1.4 Highest educational attainment?
2. What is the level of sustainability of selected natural tourist destinations in the Province of Bohol as perceived by the respondents in terms of:
 - 2.1 environment;
 - 2.2 economic; and
 - 2.3 social?
3. Is there a significant relationship between the respondent's profile and their level of sustainability of selected natural tourist destinations in Bohol?
4. Based on the findings of the study, what sustainability model may be proposed?

Null Hypothesis

The following null hypothesis was tested.

H₀: There is no significant relationship between the respondents' profile and their level of sustainability of selected natural tourist destinations in Bohol.

Significance of the Study

To share information and raise awareness based on the study's findings, the following individuals and groups would greatly benefit from this study:

Business Operators/Owners. This will guide business operators and tourism entrepreneurs in identifying and implementing sustainable practices. By understanding which environmentally and culturally responsible activities attract and benefit visitors, they can develop tourism offerings that align with sustainability goals while enhancing customer satisfaction and business profitability.

Tourists. This will give them with valuable insights into how the province promotes sustainable tourism. This knowledge will empower them to make informed travel decisions and engage in activities that contribute positively to preserving natural and cultural resources, thereby supporting the long-term success of the tourism industry.

Local Tourism Office. This will help them serve as a resource for designing and enhancing tourism strategies. It provides models and ideas to motivate community engagement, improve existing tourism assets, and promote the conservation of local traditions and heritage through tourism.

Local Government Unit (LGU). This study offers the LGU a framework for utilizing tourism for regional development. It inspires the formulation of policies and programs that stimulate regional economic growth, enhance community pride, and ensure to protect province's natural and cultural tourism resources.

Department of Tourism (DOT). This will help them design sustainable tourism programs that are development-oriented and community-focused. It offers information to help create programs that optimize the advantages of tourism while guaranteeing the long-term viability of travel destinations.

Community. This will help them emphasize the importance of sustainable daily practices. It encourages residents to actively participate in the stewardship of tourism sites, helping to ensure that natural and cultural attractions remain intact for both current enjoyment and future generations.

Researchers. This will benefit them from the comprehensive exploration of sustainable tourism strategies within this study. It will aid in understanding tourism's impacts, both positive and negative, and in developing approaches that balance tourism growth with environmental and cultural preservation.

Future Researchers. This study lays the groundwork for future academic inquiry into sustainable tourism. It provides relevant data, perspectives, and methodologies that can be expanded upon, encouraging future researchers to explore deeper or emerging issues related to the sustainability of tourist destinations.

METHODOLOGY

Research Design

This study utilized a descriptive-correlational method of research using a survey questionnaire to assess the sustainability of selected natural tourist destinations in the Province of Bohol. The formulation in designing a proposed sustainability model will be the output of the study. The methods used in conducting this study were the profile of the respondents and the level of selected natural sustainability of tourist destinations.

Figure 1 illustrates the formulation of a research paradigm that describes the overall research study with an interplay of the four force elements: input, process, output, and feedback.

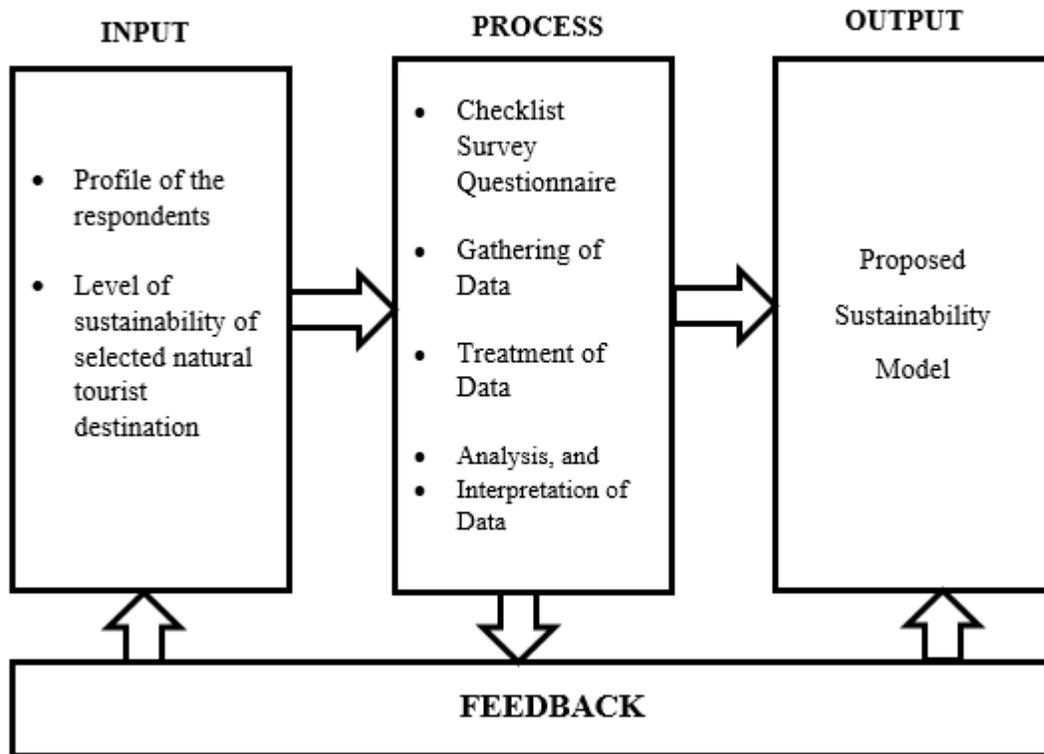


Figure 1. The Research Flow

Research Environment

This study was conducted in the Province of Bohol, considered one of the island provinces in the Philippines, the 10th largest in the country. It is roughly oval, with the major axis trending from the northeast to southwest, with the Camotes Sea at the north and the Mindanao Sea at its south. The province is predominantly hilly and rolling with narrow coastal plains. *Bohol* is a province in the Philippines situated in the Central Visayas region, occupying the central section of the Visayas. Its capital is the City of Tagbilaran. The province has a land area of 4,772.52 square kilometers or 1,842.68 square miles. Its population, as determined by the 2020 Census, was 1,394,329. This represented 17.25% of the total population of the Central Visayas region, 6.77% of the overall population of the Visayas island group, or 1.28% of the entire population of the Philippines. Based on these figures, the population density is 292 inhabitants per square kilometer or 757 inhabitants per square mile. The province of Bohol is a first-class province divided into three congressional districts, comprising 1 component city and 47 municipalities. It has 1,109 barangays.

The Province of Bohol is the home of the famous Chocolate Hills. Bohol is one of the most visited destinations in the Central Visayas region of the Philippines. The island province offers breathtaking spots

for history buffs, beach lovers, and adrenaline junkies. Bohol has been declared one of the National Geological Monuments of the Philippines due to the unusually shaped limestone hills found in the center of the island. The grass on these marine limestone structures turns brown in summer, which explains their unique name, chocolate hills. The name Bohol derived from the name of the barrio of Bo-ol, a barangay found in Tagbilaran City, which was among the first places visited by the Magellan expedition. Many traditional dances, music, dishes, and other aspects of the culture have considerable Hispanic influence. While that is true, Bohol's native artistic heritage is even older. Boholanos already had a culture of their own, as evidenced by artifacts unearthed at Mansasa, Tagbilaran, and in Daus and Panglao.

The Sandugo Festival is an annual historical celebration that takes place every year in Tagbilaran City on the island of Bohol in the Philippines. This festival commemorates the Treaty of Friendship between Datu Sikatuna, a chieftain in Bohol, and Spanish conquistador Miguel López de Legazpi.

Bohol is best known for its ubi kinampay, an aromatic purple yam native to the province. Meanwhile, "kinampay" is a variety of ubi that is native to Bohol. Its flesh is a marbled purple color and is well-known for its aroma. Given its natural beauty and rich biodiversity, Bohol is a refreshing place to live. But there are even more reasons to love Bohol. For one, living in Bohol is cheaper than its neighboring cities and cities in the Philippines.

The island of Bohol is famous for several things, including its rich culture, beautiful landscapes, stunning buildings, and amazing people. It doesn't matter how many days you spend on this beautiful island; once you experience its beauty, you won't want to leave the island, where the study conducted in one of the twelve (12) selected natural tourist destinations, namely:

Natural Tourist Destination A is located in Barangay Buenos Aires, Carmen, Bohol, Philippines, which is owned and run by Camanayon Hill Development Corporation. The Chocolate Hills are a slight mystery to locals and visitors alike. Sometimes called the "Eighth Wonder of the World," the Chocolate Hills are the Philippines' third National Geological Monument, established in 1988, and even appear on Bohol's local flag. The Chocolate Hills are a geological formation in the Bohol province of the Philippines. There are at least 1,260 hills, but as many as 1,776 hills may be spread across the area. over an area of more than 50 square kilometers. They covered in green grass that turns brown during the dry season, hence the name. They look like giant mole hills, or as some say, women's breasts, and remind us of the hills in a small child's drawing. People who first see pictures of this landscape can hardly believe that these hills are not an artificial. The entrance fee at the Chocolate Hills Viewpoint Complex is PHP 100. Visitors then need to climb up around 200+ steps to reach the viewing deck, which is mounted on two chocolate hills, offering a 360-degree view of the magnificent hill formations. The entrance fee at the Chocolate Hills Viewpoint Complex is PHP 100. Visitors then need to climb up around 200+ steps to reach the viewing deck, which is mounted on two actual chocolate hills, offering a 360-degree view of the magnificent hill formations. It covers ten square kilometers, with a total area of 726 hectares. It's one of the most visited attractions in the Philippines. It attracts more than one million tourists each year. It's typical for tourists to climb the hills, among them the two km-long Three Sisters Hill, which is accessible for public ascent. To travel to Bohol and visit the Chocolate Hills, it's best to go between December and April to avoid the rainy season. If you

visit during the spring, specifically in late April, the surrounding vegetation will be greener, increasing the contrast with the hills' chocolate-brown color.

Natural Tourist Destination B is a mountain resort and recreation center located in Sagbayan, about 45 miles northwest of Tagbilaran City. Offering a 360-degree view of the famed Chocolate Hills plus the distant blue sea separating Bohol from the island of Cebu, the place has captured the interest of nature-loving tourists. This peak is managed by Mrs. Myrna Torrefranca, a member of a famous political family that has done an excellent job promoting the town. The word Sagbayan, which means "place for hanging," comes from the Visayan word sagbay, meaning "to hang." According to local stories, people would hang deer hides on trees to dry after hunting expeditions. So, the place became known as Sagbayan, meaning a place for hanging. Sagbayan later became the center of trade for people from the interior and coastal towns. Sagbayan is a quaint town in Bohol, laden with natural attractions. One of its proudest attractions is Sagbayan Peak, an observation platform and children's playground overlooking a scenic valley. The resort is an excellent vantage point for viewing both the Chocolate Hills and the sea. Sagbayan Peak is a five-hectare mountain resort offering a 360-degree panoramic view of the famed Chocolate Hills and the distant blue sea separating Bohol from Cebu. The peak through the years continues to draw the attention of nature-loving tourists.

Natural Tourist Destination C is an island located in the Camotes Sea, between Olango and Bohol, in the Visayas Region, Philippines. The island is locally administered by Barangay Pandanon, Municipality of Getafe, Bohol. Pandanon situated in the Danajon Bank, the only double-barrier reef in the country, and is famous for its rich marine wildlife and diversity. It is 9 km (5.6 mi) northwest of the port of Getafe and 13 km (8.1 mi) southeast of Cordova, Cebu. Most of the residents on the island engage in fishing, some are employed in the tourism sector, working in the beach resorts of the island and providing island-hopping tours for travelers. In the 2020 Census, the population of Pandanon is 2,362. With a very small area of only 0.07 km² (0.027 sq mi), the island has a very high population density. It is believed that Pandanon Island got its name from the plant, pandan. A long time ago, the pandan plant grew abundantly on the island. Pandan is known for its flavoring property which is used for desserts, drinks, and baked pastries. It's a mystery to locals how the pandan plant made its way to the island long ago, as it typically grows freely in Australia, Madagascar, and the Asia Pacific.

Natural Tourist Destination D is situated in the Municipality of Buenavista, Bohol. It is part of an eco-friendly tourism enterprise by the Cambuhat Enterprise Development & Fisheries Association (CEDFA). On this tour, tourists can see how oysters are planted and harvested and learn about their preservation. Due to its location, Buenavista locals engage in farming and fishing as their primary livelihood source. With its brackish water, locals could develop oyster farms along the Cambuhat River. The people are also into weaving, basket making, and broom making. The local government has developed some of its natural attractions and is now gaining revenue from tourism. Cambuhat is a small village located in Buenavista, a 4th-class municipality in the province of Bohol. It is 82 kilometers away from Tagbilaran City. You can get to Cambuhat by boat or bus from Tagbilaran. You may even rent a private car or join a tour that will take you to nearby attractions in Cambuhat. Boat transfers are also available down the Daet to Cambuhat Village, where the Oyster Farm located. Joining a Cambuhat River Village & Oyster Farm

tour is worth its price. The entrance fee is 300 pesos per person. However, additional activities like boat paddling and loom weaving might incur an extra cost, depending on the tour package. Cambuhat Village is available for tourists all year round. However, it is encouraged to visit during the to board a small boat. They will paddle down the river to see the oyster farm, witness a demo of planting and harvesting, and even taste fresh oysters. Their tour guide will also take them through the mangroves and nipa palms, where the guests will learn more about the river's preservation and management.

Natural Tourist Destination E is a cave in the Municipality of Dauis on Panglao Island, Bohol Province, Philippines. It is a naturally lit cavern with a deep lagoon and many large stalactites and stalagmites. The cave lit by sunlight, which filters through holes in the ceiling. Aside from its awe-inspiring natural beauty, Hinagdanan also holds some history from the Second World War. The cave was once used as a hideout by the locals to escape from the Japanese Imperial army, but unfortunately, they are still found. A farmer accidentally discovered the cave when he found two holes while clearing his land. Curious, he dropped a stone and heard a splash. He built a ladder, or "hagdan," to access the cave and find its hidden beauty, which is the origin of the name Hinagdanan. Hinagdanan translates to "laddered" cave. As the story goes, the cave was accidentally discovered by a farmer while clearing his land. The farmer then built a ladder down the hole for the village to enjoy the cool waters below. The entrance fee is 50 pesos, with an additional 75 pesos to swim inside the cave.

Natural Tourist Destination F is located in Barangay Magtangtang, Danao, Bohol. The park offers three types of experiences for its guests. Extreme Adventure Tour for tourists who want to try exciting rides, such as the Plunge (free-fall), sui-slide, cable cars, and rappelling. The Educational Adventure Tour focuses on the cultural heritage and preservation efforts of the local community. For example, it highlights their organic farming methods and the historical importance of Francisco Dagohoy, a native of Danao, Bohol, who led the longest rebellion in Philippine history. Lastly, the Ecological Adventure Tour is for those tourists who wish to connect more to their surroundings. Here, they offer calm activities such as bird watching, kayaking, and visits to the on-site organic farm.

Natural Tourist Destination G is located in Barangay Cambitoon, Inabanga, Bohol, and is a realization of a dream of Atoy and Cading to build a self-sustaining farm that will serve and give back to its community. With the help of several dedicated people, including the Bohol Explorers group, Johanna's Farm has become a place where people can connect with nature's beauty and development. The group's passion for the environment has been instrumental in this transformation.

Natural Tourist Destination H is located three hours' drive away from Tagbilaran City, has popularized by social media, and has persuaded curious travelers to pay a visit to this off-the-beaten-track destination in the central highlands of the island province.

Natural Tourist Destination I is found at the peak of Barangay (Village) Sua in Inabanga town, at least 84 km from the capital city of Tagbilaran, and offers unique landscapes and vistas.

Natural Tourist Destination J is in Buenavista, Bohol province, and is a favorite summer destination because of its fine white sand. The area is about an hour away by pump boat.

Natural Tourist Destination K rises just above the cloud “sea level” overlooking Nueva Fuerza, Carmen. Its flat, level top makes it the perfect place for guests and visitors to stay and enjoy the view. Taytay Hills Kubo maintains an enthralling view of the tops of the clouds. The lazily swirling fog creates a mesmerizing effect that can keep you glued to your seat for hours.

Natural Tourist Destination L is located in Libertad Norte, Sagbayan, Bohol. Aside from the wondrous view of the hills, the small hike is also worth it. Along with this activity, they offer horseback riding and hill-climbing at Captain’s Peak Garden and Resort. At night, you can pitch your tents at the camping ground and enjoy the night sky while getting warm around the bonfire.

Research Respondents

This study employed purposive sampling to select a total of fifty (50) participants, comprising twenty-five (25) local tourists and twenty-five (25) international tourists. The sample was chosen to ensure the inclusion of individuals with relevant experience and knowledge about the natural tourist destination under investigation. Additionally, the study collected demographic data from the respondents, including age, gender, civil status, and highest educational attainment, to provide a comprehensive profile of the participants.

Research Instruments

The study used a researcher-made survey instrument to assess the sustainability of selected natural tourist destinations in the Province of Bohol. The survey questionnaire consisted of two parts: the first part gathered the respondents’ profiles. In contrast, the second part employed a researcher-made checklist to determine the level of sustainability of the selected destinations. Respondents utilized the checklist questionnaire based on a rating scale with categorical responses: 4 – Highly Sustainable (manifesting a high level or extent of sustainability practices), 3 – Moderately Sustainable (manifesting an average level or extent of sustainability practices), 2 – Less Sustainable (manifesting a low level or extent of sustainability practices), and 1 – Not Sustainable (manifesting no level or extent of sustainability practices). Furthermore, the researcher conducted a pilot test of the survey instrument to ensure the validity, reliability, and appropriateness of the questionnaire and responses, verifying that they were free from bias.

Research Procedures

The researcher developed a survey questionnaire divided into two parts: respondents’ profiles and a checklist to assess the sustainability levels of natural tourist destinations in Bohol. After conducting a pilot test to ensure validity and reliability, purposive sampling is used to select 25 local and 25 international tourists. Researchers administered the finalized survey to these participants, then collected and analyzed their responses to determine the sustainability status of the destinations.

Data Gathering

The researcher asked permission by addressing a letter to the Local Tourism Office and Provincial Tourism Operators, which is noted by the Adviser and endorsed for approval by the Dean of the Graduate School before the actual conduct and data gathering of the study. After the letter was approved, the survey questionnaires is distributed to the respondents over two weeks. Upon completing of the survey, the researcher collected and manually tabulated the data. The gathered data was then examined, analyzed, and interpreted.

Treatment of Data

The following statistical tools were used in the study:

Frequency Count and Per Cent were used to summarize, analyze, and interpret the profile of the respondents.

Weighted Mean was used to summarize, analyze, and assess the level of sustainability of selected natural tourist destinations in the Province of Bohol.

Chi-square was used to determine the significance of the relationship between the respondents' profiles and the level of sustainability of selected natural tourist destinations in Bohol.

Definition of Terms

To help readers clearly understand the study's components and the presentation of its findings, the following terms are operationally defined as follows:

Level of Sustainability of Selected Natural Tourist Destinations. This term describes the environmental, economic, and social impact of the natural tourist destinations in the Province of Bohol.

Profile of the Respondents. This term describes the respondents to this survey in terms of their age, gender, civil status, and educational attainment.

Proposed Sustainability Model. This term describes the structure or model that helps guide tourism operators on how to practice sustainability in order to promote long-term engagement with natural tourist destinations.

RESULTS AND DISCUSSION

Profile of the Respondents

This section summarizes the data gathered regarding the respondents' profiles, specifically regarding age, gender, civil status, and highest educational attainment.

Table 1 presents the findings related to the demographic profile of the respondents, including their age, gender, civil status, and highest educational attainment. These characteristics provide context for interpreting their responses regarding the sustainability of natural tourist destinations.

Table 1. Profile of the Respondents

Variables	Frequency (N=50)	Per Cent (%)
Age (in years)		
• 18 - 29	12	24.00
• 30 - 39	14	28.00
• 40 - 49	17	34.00
• 50 - 55	7	14.00
Gender		
• Male	23	46.00
• Female	27	54.00
Civil Status		
• Single	23	46.00
• Married	25	50.00
• Widow	2	4.00
Highest Educational Attainment		
• Master's Degree Graduate	5	10.00
• College Degree Graduate	33	66.00
• High School Graduate	12	24.00

Age

As shown in Table 2, the profile of the respondents in terms of age, which the majority of them got the highest proportion of 34.00% were aged between *40 and 49 years old*, followed by *30 - 39 years old* with 28.00%; and *those aged between 50 and 55 years old* got the lowest proportion of 14.00%.

This indicates that a majority of Generation X travelers are motivated to visit destinations that align with their specific interests. This group of tourists is multifaceted, combining financial stability, personal interest, family dynamics, and desire for new experiences and personal growth. Moreover, the availability

of travel resources and technology makes planning and booking trips more convenient and accessible, encouraging more frequent travel among this age group.

Individuals aged 30 to 39 years old, often categorized as millennials or younger Generation X, exhibit a variety of reasons why they tend to be moderate travelers. Many individuals in this age group focused on building their careers and financial stability. As a result, they may have limited time and resources for extensive travel. Their travel choices often reflect a balance between satisfying their wanderlust and managing their professional responsibilities.

Individuals between 50 and 55 years old, often referred to as early baby boomers, tend to travel less frequently than younger age groups. Many individuals in this age group may focused on saving for retirement or managing financial commitments such as mortgage payments, children's education, or healthcare expenses. This financial prudence can lead to less discretionary income available for travel. As people enter their 50s and early 60s, they may become more conscious of their health and wellbeing. Concerns about health issues or physical limitations can discourage them from embarking on extensive travel adventures.

Traveling Theory of Said (1982), supports this finding, arguing that the transfer of ideas in the humanities and social sciences is influenced by both conditions of acceptance and resistance. People organize their time to meet their needs while considering various constraints such as time, cost, and social obligations. This touches many aspects of travel demand modeling and forecasting.

Gender

The profile of the respondents shows a majority of females, who made up 54% of the total, while males accounted for the remaining 46%.

The result of females being the majority of the tourists can be attributed to several factors, reflecting broader societal changes and individual motivations. The increasing number of female travelers demonstrate a combination of economic empowerment, changing societal attitudes, safety improvements, technological advancements, and personal motivations that encourage women to explore the world and embrace travel as a meaningful aspect of their lives.

Khoo-Lattimore & Gibson (2018) had a study on female tourists are not a uniform group; there are differences between women who travel for business and those who travel for leisure. It is also important to note that motivations develop throughout a person's life (Gibson, Berdichevsky, and Bell, 2012).

Civil Status

The profile of respondents in terms of civil status showed that the majority of the respondents, got the highest frequency of 50.00%, were *married couples*, while *widows* got only a frequency of 4.00%.

The findings show that most are married couples tend to be majority travelers because their decision to travel often stems from a combination of shared interests, financial stability, family dynamics, and the desire to strengthen their relationship through meaningful experiences and shared adventures.

According to Social Learning Theory of Bandura (1973), people learn by observing, modeling, and imitating the behaviors, attitudes, and emotional reactions of others. Social learning theory examines how environmental and cognitive factors interact to influence human learning and behavior.

Educational Attainment

The highest proportion in the profile of the respondents in terms of educational attainment was *college degree graduates* with a proportion of 66.00%, followed by *high school graduates* with 24.00%, and the lowest proportion was 10.00% for *master's degree graduates*.

This means that college graduates often make up a significant portion of tourists in a certain destination. The motivation for college graduates to travel usually encompasses a blend of educational, personal, professional, and recreational factors. Their experiences and insights from traveling contribute to their personal development and worldview, making travel a significant aspect of their post-graduate lives. In addition, having invested in education, they often have a curiosity about the world and a desire to apply their learning to real-world experiences. Travel offers opportunities to explore different cultures, histories, and landscapes, enriching one's understanding beyond academic knowledge.

According to the Theory of Education by Dewey (1930), human beings learn through a hands-on approach. This places Dewey in the educational philosophy of pragmatism. Pragmatists believe that reality must be experienced. From his educational point of view, students must interact with their environment to adapt and learn.

The findings is supported by a study which found that majority of the individuals were middle-aged and educated. This aligns with the sustainability model of Buckley (2018) for natural tourist destinations. These traits suggest a strong awareness and support for sustainable tourism, prioritizing long-term environmental and community benefits. It was emphasized the need for strict environmental regulations and eco-friendly tourism, which educated respondents will likely support. Additionally, their stable family units and community interests make them more inclined to support initiatives that involve community engagement and sustainable development. Thus, this group is well-positioned to endorse sustainable tourism practices that balance development with preserving natural and cultural resources.

Level of Sustainability of Selected Natural Tourist Destinations

This section presents the results of the respondents' perceptions regarding the level of sustainability of selected natural tourist destinations in the Province of Bohol. The findings are categorized and analyzed based on three key dimensions of sustainability: environmental, economic, and social.

Level of Sustainability of Selected Natural Tourist Destinations in Terms of Environment

Table 2 reveals the data on the level of sustainability of selected natural tourist destinations in terms of environmental aspects. Environmentally sustainable destinations appeal to travelers who prioritize eco-friendly practices, interaction with nature, and opportunities to learn about conservation. These destinations enhance the travel experience while also protecting natural resources and preserving cultural heritage for future generations. The data highlights how the selected sites in the Province of Bohol perform in promoting environmental sustainability based on respondents' perceptions.

Table 2. Level of Sustainability of Selected Natural Tourist Destinations in Terms of the Environment

Indicators	Mean	Description
1. Presence of infrastructures to manage and minimize solid and liquid wastes.	3.26	Highly Sustainable
2. Adoption of technologies that reduce consumption of natural resources, production of waste, and incidence of pollution.	3.26	Highly Sustainable
3. Park fees are used to manage habitat and species.	3.32	Highly Sustainable
4. Compliance with best practice guidelines in designing, planning, and constructing buildings.	3.40	Highly Sustainable
5. Proper monitoring of tourism activities can help positive impact in the area.	3.56	Highly Sustainable
Overall Mean:	3.36	Highly Sustainable

As shown in Table 2, the overall mean of the level of sustainability of selected natural tourist destinations in terms of environment is 3.36%, which is interpreted as highly sustainable, as the respondents perceived that the indicators significantly impacted the sustainability of the selected natural tourist destinations. Highly sustainable tourist destinations prioritize the long-term well-being of their natural environments, cultural heritage, and communities while offering enriching travel experiences. These destinations demonstrate leadership in sustainable tourism practices and serve as models for others in the tourism industry to emulate.

Proper monitoring of tourism activities had the highest mean score (3.56%), indicating it is perceived as highly sustainable. This means that proper monitoring of tourism activities is essential to ensure sustainable development, minimize negative impacts, and maximize benefits for local communities and environments, *followed by compliance with best practice guidelines in designing, planning, and constructing buildings* with a mean of 3.40% which interpreted as *highly sustainable*, and the lowest mean got 3.26% in *presence of infrastructures to manage and minimize solid and liquid wastes*; and *Adoption of technologies that reduce consumption of natural resources, production of wastes, and incidence of pollution* which interpreted as both *highly sustainable*.

This means that infrastructure in the tourism environment plays a crucial role in supporting and enhancing the overall tourism experience. Infrastructure refers to the physical and organizational structures and facilities necessary for the functioning of a society or enterprise. In tourism, infrastructure includes various elements that contribute to visitors' comfort, convenience, safety, and enjoyment. Likewise, the adoption of technologies in the tourism environment continues to evolve, offering opportunities for innovation, sustainability, and enhanced customer experiences. It enables tourism stakeholders to adapt to changing consumer expectations, market dynamics, and global trends while promoting responsible and inclusive tourism practices. Further, infrastructure in natural tourist destinations plays a vital role in supporting accessibility, safety, and overall visitor experience. Well-developed infrastructure, including transportation systems, visitor centers, sanitation facilities, waste management systems, and eco-friendly accommodations, enables destinations to manage tourist flow effectively while minimizing environmental impact. In the context of sustainability, infrastructure should be designed and maintained with minimal disruption to the natural environment, ensuring that tourism development supports long-term ecological balance and benefits both the local community and visitors.

The findings is supported by Weaver (2017), who emphasizes adaptive management for dynamic environments and evolving tourist behavior. Effective monitoring reflects that informed management maintains ecological integrity and promotes sustainable tourism. He also highlights the role of education, suggesting that well-informed tourists support conservation. The high monitoring scores indicate that educated tourists and stakeholders prioritize sustainability, reinforcing the emphasis on education. This also aligns with Holden (2019), who stated that protecting natural resources and preserving cultural heritage are intertwined, ensuring tourism respects and promotes local cultures.

Level of Sustainability of Selected Natural Tourist Destinations in Terms of Economic

Table 3 presents the data on the level of sustainability of selected natural tourist destinations in terms of their economic dimension. The financial impact of tourism is a critical component of sustainability, as it contributes significantly to both global and local economies. Sustainable tourism supports income generation, job creation, and the infrastructure development, all while promoting cultural preservation. To ensure long-term benefits, economic gains from tourism must be balanced with responsible and inclusive practices that prevent overdevelopment, resource depletion, and social inequality. The data reflects how well the selected destinations in the Province of Bohol are fostering economically sustainable tourism.

Table 3. Level of Sustainability of Selected Natural Tourist Destinations in Terms of Economic

Indicators	Mean	Description
1. The proportion of jobs generated by tourism in the local economy has increased.	3.34	Highly Sustainable
2. The island's condition has improved, such as with less poverty.	3.24	Moderately Sustainable

3. The local linkages, as indicated by the percentage of inputs, including souvenirs and handicrafts, obtained from within the local economy, or within a certain distance from the site of a certain tourism project	3.32	Highly Sustainable
4. Job accessibility to the local community, indigenous people, the handicapped, and women at all levels	3.44	Highly Sustainable
5. Number of tourism businesses operated and managed by local people's organizations and cooperatives	3.34	Highly Sustainable
Overall Mean:	3.34	Highly Sustainable

As shown in Table 3, the overall mean on the level of sustainability of selected natural tourist destinations in terms of economic is 3.34%, which is interpreted as *highly sustainable*. Sustainability in the economic dimension of the tourism environment requires a balanced approach that prioritizes economic growth alongside environmental stewardship and social inclusivity. By adopting sustainable practices, destinations can enhance competitiveness, attract responsible tourists, and create lasting economic benefits for local communities while safeguarding natural and cultural assets for future generations.

Job accessibility for local community members, including indigenous people, the handicapped, and women, received the highest mean score (3.44%), indicating it is highly sustainable. By prioritizing job accessibility and fostering inclusive growth, tourism can become a powerful tool for poverty reduction, economic empowerment, and sustainable development in local communities. Sustainable tourism practices that prioritize local hiring, capacity building, cultural preservation, and community engagement are essential for maximizing the positive socio-economic benefits of tourism while minimizing potential negative impacts. Followed by the indicator, the *proportion of jobs generated by tourism in the local economy has increased*, and *Number of tourism businesses operated and managed by local people's organizations and cooperatives*, with a mean of 3.34%, which is interpreted as *highly sustainable*.

The indicator stating that *the island's condition has improved, such as with less poverty*, received the lowest mean score of 3.24%, which falls under the interpretation of moderately sustainable. This means that while there are perceived improvements in the economic condition of the island, particularly in poverty reduction, the progress is not yet strongly evident or consistent across all areas. Since the rating is moderate, more effort is needed to ensure tourism activities contribute more significantly and inclusively to poverty alleviation and the economic well-being of local communities.

This study is supported by Bramwell et al. (2018), who stated that multi-stakeholder partnerships are crucial for developing and implementing resilient and adaptable sustainable tourism practices. While tourism in Bohol significantly benefits local economic development and job accessibility, further collaborative efforts are needed to address poverty on the island fully.

Level of Sustainability of Selected Natural Tourist Destinations in Terms of Social

Table 4 reveals the data on the level of sustainability of selected natural tourist destinations in terms of the social dimension. In tourism, the social aspect focuses on the impacts, benefits, and challenges that arise from the interaction between tourism activities and local communities, cultures, and societies.

Achieving social sustainability requires a balanced approach that emphasizes the wellbeing of residents, preservation of cultural heritage, and inclusive growth. By promoting positive social outcomes and addressing potential negative effects, sustainable tourism helps build stronger, more resilient communities and encourages shared responsibility toward long-term sustainable development.

Table 4. Level of Sustainability of Selected Natural Tourist Destinations in Terms of Social

Indicators	Mean	Description
1. Promoting conservation of natural resources and indigenous culture.	3.55	Highly Sustainable
2. Supporting the preservation of local culture.	3.63	Highly Sustainable
3. Provisions of health, safety, and security measures to both locals and tourists.	3.59	Highly Sustainable
4. Access to financial and natural resources, and intergenerational opportunity.	3.41	Highly Sustainable
5. Adequate salaries, healthy work environments, and the absence individual employee discrimination.	3.39	Highly Sustainable
Overall Mean:	3.51	Highly Sustainable

As shown in Table 4, the overall mean on the level of sustainability of the selected natural tourist destination in terms of social is 3.51%, which interpreted as *highly sustainable*. For tourism to be truly socially sustainable, it must involve a continuous commitment, cooperation, and a flexible management approach. This ensures that economic gains from tourism are balanced with the social welfare of local communities and the preservation of their cultural heritage. By prioritizing community engagement, cultural preservation, equitable economic benefits, and responsible tourism practices, destinations can create positive social impacts that endure over time and contribute to sustainable development goals.

The indicator with the highest mean score is *supporting the preservation of local culture*, which got 3.63%, which interpreted as *highly sustainable*. Supporting the preservation of local culture in tourism fosters sustainable development by promoting inclusive growth, enhancing visitor experiences, and safeguarding cultural heritage for future generations. By embracing cultural authenticity and promoting responsible tourism practices, destinations can achieve sustainable tourism growth that respects and celebrates cultural diversity, followed by the indicators *promoting conservation of natural resources and indigenous culture*, which got 3.55%, which is still interpreted as *highly sustainable*.

Even though the indicator for adequate salaries, healthy work environments, and the absence of discrimination received the lowest mean score of 3.39%, it is still considered highly sustainable. This means that while respondents recognize these factors as important aspects of social sustainability, they may not view them as top priorities compared to other social concerns. The high sustainability rating indicates positive perceptions overall. Still, the relatively lower ranking could highlight the need for continued attention to ensure fair labor practices and supportive working conditions within the tourism industry.

This finding supported by Moscardo (2020), who emphasizes the importance of anticipating future trends and potential challenges to develop robust sustainability models. By advocating for scenario planning, she suggests a forward-thinking approach to envision different futures and prepare adaptive strategies capable of coping with uncertainties. The high levels of sustainability across all indicators in Bohol indicate that the social aspects of tourism are well-managed, contributing positively to cultural preservation, community wellbeing, and equitable opportunities. Anticipating future trends and challenges is crucial for ensuring the continued relevance and effectiveness of sustainability models in natural tourist destinations like Bohol.

Summary of the Level of Sustainability of Selected Natural Tourist Destinations

Table 5 presents a summary of the responses along with the overall weighted mean for the level of sustainability of the selected natural tourist destinations across all indicators.

Table 5. Summary of the Level of Sustainability of Selected Natural Tourist Destinations

Indicators	Mean	Description
1. Environment	3.36	Highly Sustainable
2. Economic	3.34	Highly Sustainable
3. Social	3.51	Highly Sustainable
Overall Weighted Mean:		3.41
		Highly Sustainable

As shown in Table 5, the summary of the responses on the level of sustainability of selected natural tourist destinations as perceived by the respondents got an overall weighted mean of 3.41%, which interpreted as *highly sustainable* in all the indicators. This has a significant impact on the sustainability of specific natural tourist destinations, ensuring they remain viable and vibrant for future generations to enjoy.

The highest rank proportion on the level of sustainability of the selected natural tourist destination is *social*, which got 3.51%, which interpreted as *highly sustainable*. This indicates that the study shows social factors often receive a high indicator in sustainability assessments due to their critical role in fostering inclusive, equitable, and resilient communities. Prioritizing social sustainability enhances the wellbeing and prosperity of communities while also contributing to the overall resilience and long-term viability of destinations. By fostering inclusive growth, protecting cultural heritage, promoting equity, and ensuring the well-being of residents, destinations can create environments where both people and nature thrive sustainably.

According to Eagly (1987) socialization, gender stereotypes, gender roles, and physical differences all interact to impact the behaviors of men and women. This theory refers to ideas, arguments, hypotheses,

thought-experiments, and explanatory speculations about how and why human societies or elements or structures of such societies come to be formed, change, and develop over time or disappear.

Followed by the *environment*, which got 3.36%, which is interpreted as *highly sustainable*, and is considered the second highly sustainable, primarily because of its crucial role in supporting life and maintaining ecological balance. The environment's sustainability is critical because it underpins the health and wellbeing of both present and future generations, making it essential to prioritize conservation and sustainable management practices.

Environmental Theory, as described by Honey (2016), focuses on the complex relationship between human activities and the natural world with the goal of protecting the planet's health and sustainability.

Although the economic dimension received a rating of 3.34%, which qualifies it as *highly sustainable*, it ranked the lowest among the three sustainability indicators. This implies that while economic practices in the selected natural tourist destinations in Bohol generally perceived as effective, they may be as strongly felt or visible to respondents compared to environmental protection efforts or social engagement. Factors such as limited local income opportunities, uneven distribution of tourism revenue, or a lack of direct economic benefits for communities could contribute to this perception. It may also reflect concerns about long-term economic stability, affordability, or inclusiveness within tourism operations. Thus, while the economic efforts are commendable, respondents may believe there is room for improvement to ensure that tourism leads to more widespread and equitable economic growth.

According to Economic Theory of Smith (1776) argued that by giving everyone the freedom to produce and exchange goods as they pleased (free trade) and opening the markets up to domestic and foreign competition, people's natural self-interest would promote greater prosperity than could stringent government regulations.

Significant Relationship Between the Respondents' Profile and their Level of Sustainability of Selected Natural Tourist Destinations

This section presents the results of the statistical tests conducted to determine the significant relationship between the respondents' profiles and their perceived level of sustainability of selected natural tourist destinations in Bohol.

Table 6 displays the relationship between the respondents' demographic profiles, specifically age, gender, civil status, and highest educational attainment, and their sustainability assessment. These relationships are crucial in promoting integrated and inclusive approaches to sustainable tourism. By understanding how different demographic groups perceive sustainability, stakeholders can create more effective strategies that better balance environmental protection, social equity, and economic development. Strengthening these connections supports collaborative efforts toward achieving sustainable development goals and generating lasting benefits for current and future generations.

Table 6. Relationship of the Respondent’s Profile and the Level of Sustainability of Selected Natural Tourist Destinations

Paired Variables	df	Computed Value of Chi-Square	Critical Value	Decision on Ho	Significance
Age to:					
• Environmental	6	3.933	12.592	Failed to Reject Ho	Not Significant
• Economic	6	4.787	12.592	Failed to Reject Ho	Not Significant
• Social	9	3.888	16.919	Failed to Reject Ho	Not Significant
Gender in relation to:					
• Environmental	2	0.920	5.991	Failed to Reject Ho	Not Significant
• Economic	2	1.720	5.991	Failed to Reject Ho	Not Significant
• Social	3	3.658	7.815	Failed to Reject Ho	Not Significant
Civil Status to:					
• Environmental	4	1.276	9.488	Failed to Reject Ho	Not Significant
• Economic	4	2.782	9.488	Failed to Reject Ho	Not Significant
• Social	6	3.605	12.592	Failed to Reject Ho	Not Significant
Highest Educational Attainment to:					
• Environmental	4	2.206	9.488	Failed to Reject Ho	Not Significant
• Economic	4	1.481	9.488	Failed to Reject Ho	Not Significant
• Social	6	7.837	12.592	Failed to Reject Ho	Not Significant

As indicated in Table 6, the test of the hypothesis examining the relationship between the respondents’ profiles, specifically age, gender, civil status, and highest educational attainment, and their perceived level of sustainability in selected natural tourist destinations in Bohol yielded no statistically significant result. There is no meaningful correlation between demographic factors and how respondents assess sustainability practices at the destinations.

The lack of a significant relationship underscores the complexity and individualized nature of travel behavior and perceptions, which are influenced by various factors beyond basic demographic categories. How tourists perceive sustainability is more substantially shaped by their personal values, environmental awareness, past travel experiences, cultural background, and individual preferences.

This finding implies that sustainability perceptions are not necessarily determined by who the tourist is demographically, but rather by what they value, observe, and experience during their visit. As such, sustainable tourism strategies should not rely solely on demographic segmentation but should instead consider a broader and more nuanced understanding of tourist behavior.

Therefore, the null hypothesis was accepted, indicating no significant relationship between the respondents’ demographic profiles and their level of sustainability assessment.

Integrating economic, social, and environmental dimensions into tourism management, as advocated by Wood (2017), involves using community engagement and adaptive management strategies to not only promote conservation but also ensure economic benefits for local communities. Moreover, the sustainability practices implemented in the selected natural tourist destinations are consistent and not tailored to specific demographic groups. In essence, the findings support the idea of integrating economic, social, and environmental dimensions into tourism management, ensuring that sustainability initiatives benefit all community members regardless of their demographic characteristics.

SUMMARY

This study assessed the sustainability of selected natural tourist destinations in the Province of Bohol, CY 2022-2023. The findings of this study served as the basis for a proposed sustainability model.

Specifically, this study sought to answer the following questions:

1. What is the profile of the respondents in terms of:
 - 1.1 age;
 - 1.2 gender;
 - 1.3 civil status; and
 - 1.4 Highest educational attainment?
2. What is the level of sustainability of selected natural tourist destinations in the Province of Bohol as perceived by the respondents in terms of:
 - 2.1 environment;
 - 2.2 economic; and
 - 2.3 social?
3. Is there a significant relationship between the respondent's profile and their level of sustainability of selected natural tourist destinations in Bohol?
4. Based on the findings of the study, what sustainability model may be proposed?

The study used a descriptive-correlational method with a researcher-made checklist survey questionnaire to assess the level of sustainability in selected natural tourist destinations in the Province of Bohol. The study's main goal was to create a proposed sustainability model based on its findings. The research was conducted across twelve (12) natural tourist destinations within the province. Fifty (50) respondents, comprising both local and international tourists, were selected using purposive sampling and were asked to participate by answering the survey instrument. The questionnaire consisted of two main parts: the demographic profile of the respondents and their assessment of the level of sustainability of the destinations. Appropriate statistical treatments were applied to ensure the accuracy of data analysis and interpretation.

FINDINGS

Based on the data gathered, the following findings of this study were drawn:

1. Most respondents were aged between *40 and 49 years old, female, married, and college degree graduates*.
2. The level of sustainability in selected natural tourist destinations in terms of *environmental, economic, and social was highly sustainable*.
3. There is *no significant* relationship between the respondents' profile and their level of sustainability in selected natural tourist destinations.

CONCLUSIONS

A sustainability model for natural tourist destinations is a strategic plan that ensures the balanced integration of environmental protection, economic viability, and social responsibility. This model aims to protect natural sites and support long-term tourism by promoting sustainable practices, engaging local communities, and enhancing visitor awareness. As such, it provides a valuable guide for stakeholders in maintaining the ecological, cultural, and economic sustainability of natural destinations for present and future generations.

RECOMMENDATIONS

Given the foregoing conclusions, the following recommendations are given:

1. The researcher recommends adopting the proposed sustainability model.
2. The researcher recommends that further studies done on the following topics:
 - 2.1 Community Involvement in Sustainable Tourism Practices;
 - 2.2 Technological Innovations in Sustainable Tourism;
 - 2.3 Tourism Carrying Capacity and Visitor Management; and
 - 2.4 Economic Benefits and Local Livelihoods.

PROPOSED SUSTAINABILITY MODEL FOR NATURAL TOURIST DESTINATION

Rationale

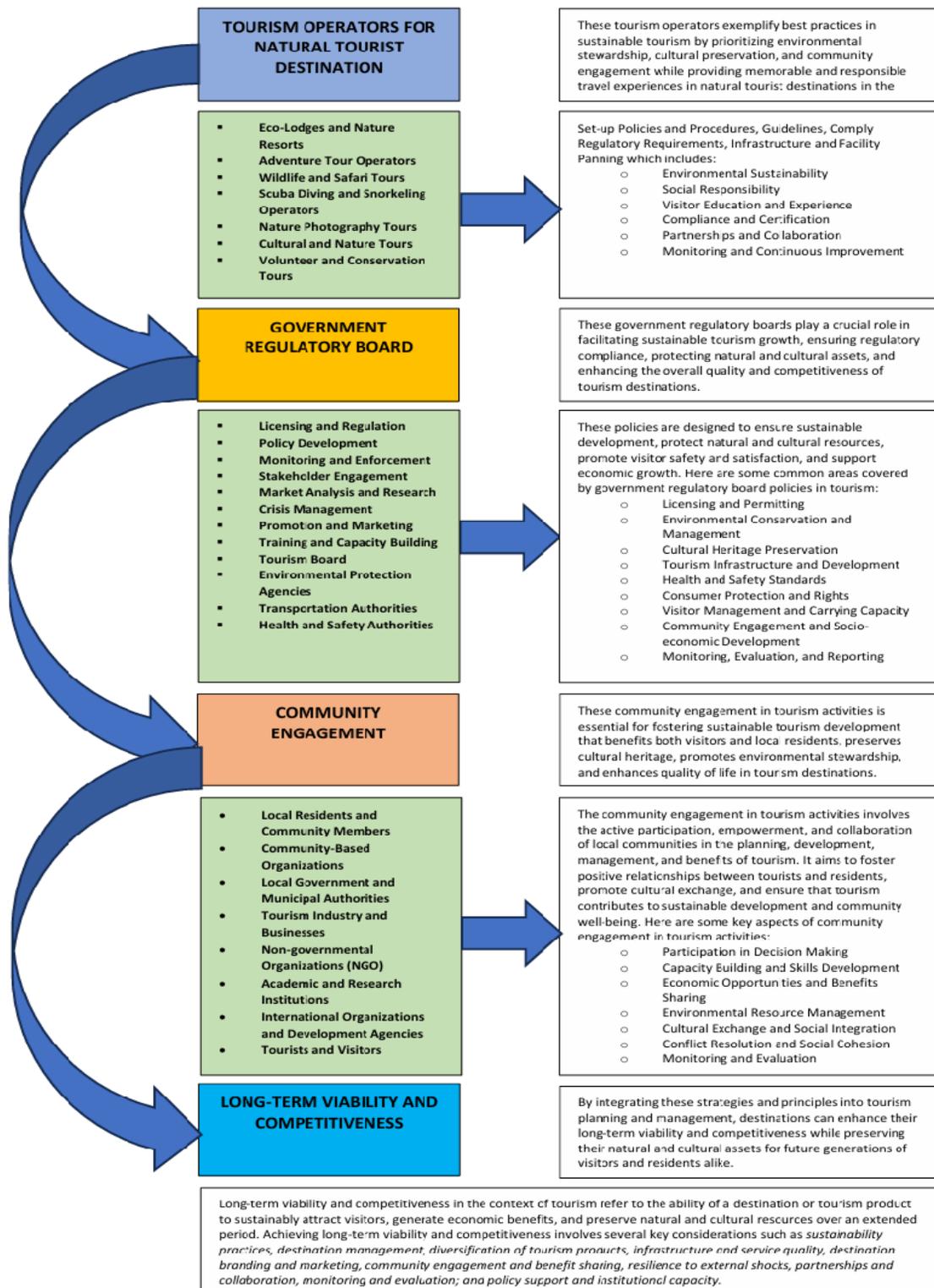
The tourism sustainability model focuses on addressing the unique challenges and opportunities associated with tourism development, while ensuring long-term environmental, socio-cultural, and economic viability. It promotes responsible tourism practices that balance economic gains with environmental protection and cultural preservation. By adopting this model, natural tourist destinations can strengthen their resilience, enhance their competitiveness, and increase their appeal to visitors, while safeguarding natural and cultural heritage for the benefit of present and future generations.

Objective

The main objective of this proposed sustainability model for natural tourist destinations is purposely designed and aimed at ensuring the long-term viability and positive impacts of tourism in the Province of Bohol while minimizing its negative effects. This further aligns with environmental conservation, cultural preservation, and socio-economic development objectives. By adopting sustainable practices and strategies, the Province of Bohol can capitalize on its natural and cultural assets while safeguarding them for future generations and enhancing the well-being of local communities.

Sustainability Model for Natural Tourist Destinations

This sustainability model for natural tourist destinations aims to ensure that tourism contributes positively to environmental protection, cultural preservation, socio-economic development, and overall wellbeing, while also enhancing the long-term viability and competitiveness of tourism destinations



**ESTORGIO'S SUSTAINABILITY MODEL FOR
NATURAL TOURIST DESTINATION**

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