

Multi Sectoral Actions towards Sustainable Tourism in the Philippines: A Case of Boracay Island

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Abstract:- Sustainable tourism considers the industry's long-term benefits, costs, and economic, social, and environmental impacts. It requires competent managers to run sustainable management and social participation. Boracay Island, a top tourist destination in the Philippines, has faced tremendous challenges in tourism management. The Philippine government stopped all business operations in the Island in six months in 2018. This paper explores tourism management and the actions of many sectoral groups that promote sustainable tourism on Boracay Island. It uses the framework of sustainable tourism management. It utilizes the available web articles for the assessment of its tourism management. The tourism industry in Boracay has passed through a complex management process. Headed by the Department of Tourism (DOT) in 1978, the administration was ineffective when Republic Act No. 7160 of 1991 was legislated, shifting the Island's administration from DOT to the Local Government Unit of Malay, Aklan province. Unprepared for the task, the master plan was abandoned, and the LGU was portrayed as largely failing to do its task for 26 years. A water supply problem culminated in the coliform crisis in 1997. Poor sewage systems, solid waste management problems, and corruption compromised the environment. Massive rehabilitation was needed when the DOT was restored to running Boracay in 2009, which intensified in 2018 by closing all business operations. Sustainable tourism is deemed unrealistic with the non-completion of the rehabilitation and non-compliance with the restriction policies. Thus, this paper has provided key recommendations to promote sustainable Boracay's comprehensive sustainable tourism for the future.

Keywords:- *Ati people, Boracay Foundation, Inc., Department of Tourism, sustainability, White Beach.*

I. INTRODUCTION

Tourism generates revenues as a community and economic development strategy. Many communities have ventured into this industry to capture those economic benefits. The tourism industry induces positive community changes with the correct approach and well-designed strategies (Chhabra & Phillips, 2009). Well-planned tourism sustains the industry to continue the benefit from it for future generations. Ensuring positive changes in the industry needs a sustainable development strategy. Long-term benefits, costs, and impacts of the tourism industry are considered in the strategy to make tourism sustainable (Flint, 2013). The United Nations Environment Programme and United Nations World Tourism Organization defines sustainable tourism, that is, as one that

takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities (Postma et al., 2017).

The advocates for sustainable tourism management further contextualize it in terms of organizational management that monitors and implements the rules and regulations that protect the environment. It requires professional managers that do the task (Canoy, 2020). Such management is much needed for tourism in the Global South, where there are common tourism-related issues such as land grabs and displacement. The study of Andreas Neef (2019) has provided a right-based and inclusive approach in his recommendations in response to such a situation, aligned with the UN Sustainable Development Goals. Tourism businesses have to be accountable to people whose access to land and other natural resources and rights to property and housing have been impacted directly or indirectly by it. The government also shall provide a clear regulatory framework that ensures the active involvement of the stakeholders and the marginalized peoples. In terms of financing, commercial banks are needed to refrain from financing the business when it leads to forced displacement and dispossession of legitimate landowners on the site. Instead, it shall monitor its clients' adherence to international human rights standards and environmental and social safeguards. The tourism offices and associations also need to develop sensitivity among their stakeholders to foster respect for the local community's rights. At the same time, the tourists shall also be conscious of the possible land rights and displacement issues.

Similarly, in Europe, Rodzik (2019) articulated a sustainable approach when the industry is confronted with mass tourism. Mass tourism has commonly escalated, and the environment is at stake when it is not properly managed. A sustainable approach requires all those implicated in the outcome to participate widely and be committed. The stakeholders should be informed by the latest and best knowledge available to take preventive action to avoid damage to the environment and society. Tourists must be conscious, especially of the harm they inadvertently cause. Technology is important in informing and guiding them (Rodzik, 2020).

Sustainable tourism has a profound implication for Boracay Island in Aklan, Philippines. Its white beaches are one of the top ten beautiful beaches worldwide. It has been the top destination in many surveys, including the World Travel and Tourism Council's and TripAdvisor's Traveler's Choice (Rivera & Gutierrez, 2016; Boracay White Beach..., 2021; Covid Free..., 2022; El Nido..., 2022). However, Boracay has frequently faced environmental and social issues

that culminated in 2018. The Philippine government placed Boracay Island under a state of calamity, declared it a "cesspool," and closed all business operations on the Island on 26 April 2018. The government has deployed police and military forces to stop its operation from rehabilitating it fully. The government took a six-month intervention on the Island from its closure until 26 October 2018 (Canoy, 2020).

The tourism industry issues have called out this paper to tackle the tourism management in Boracay Island. This paper explores tourism development and actions that promote sustainable tourism products in Boracay. It uses the framework of sustainable tourism management to discuss it. To meet this aim, this paper elaborates on the following:

- Characteristics and assets of Boracay Island
- Tourism developments on the Island focused on environmental and social changes
- Stakeholders' responses to those changes
- Post-closure developments

Those aims were used to discuss and assess sustainable tourism management on the site.

II. REVIEWS OF THE ACTIONS TOWARDS SUSTAINABLE TOURISM IN THE PHILIPPINES

Sustainable tourism has cast a huge social responsibility on the stakeholders. The literature on the effort toward sustainable tourism in Boracay helps this paper assess the sustainable tourism of the place. The Philippine government has laid out the legal bases for protecting and conserving the natural resources and the community in the tourism sites to ensure sustainable tourism. Laws have been implemented since the 1990s (Table 1). The Republic Act No. 7160 in 1991 empowered the Local Government Units (LGUs) to regulate the economic enterprises in their respective area with full autonomy. It includes procuring equipment used in the regulation and supervision, particularly for tourism

businesses. The Joint Department of Environment and Natural Resources (DENR)-Department of Tourism (DOT) Memorandum Circular No. 98-02 in 1998 prepared a viable ecotourism project for sustainable development. The Circular also assures the accreditation of the ecotourism developers and multisectoral participation. A year after, the Executive Order No. 111 of 1999 fleshed out the previous Circular by which it created the National Ecotourism Development Council (NEDC), which was composed of the DENR, DOT, Department of Interior and Local Government (DILG), and other Philippine agencies that materialized the sustainable ecotourism goals of the Memorandum Circular No. 98-02 in the previous year. The NEDC spearheads policy making, particularly in creating the national ecotourism strategy and program and providing the accreditation of the projects and consultation of the local population (Sandhu & Berse, 2022).

Moreover, the Republic Act No. 9593 in 2009 empowered the DOT as the main government agency to plan, coordinate, implement, and regulate the tourism industry. It monitors the LGUs' compliance with national standards for business licensing. As the main agency, it eliminates overlapping functions of the different government agencies. Further, two laws govern disaster-related problems. The Republic Act 9729 in the same year created the Climate Change Commission (CCC), which ensures disaster risk reduction and climate change mitigation and adaptation. It promotes broader multi-stakeholder participation. In 2010, Republic Act No. 10121 was enacted, mandating the National Disaster Risk Reduction and Management Council (NDRRMC) to provide policies on disaster risk reduction and management systems (Sandhu & Berse, 2022). The literature has shown that for about twenty years since the 1990s, consecutive legal actions addressed the environmental and social issues aiming for sustainability in the Philippines.

Legal bases	Substance	Year enacted
Republic Act No. 7160	Empowered the LGU to regulate the tourism industries in its respective areas with full autonomy.	1991
Joint DENR-DOT Memorandum Circular No. 98-02	Provided the guidelines for ecotourism development in the Philippines	1998
Executive Order No. 111, series of 1999	Created the NEDC for policy-making for the national ecotourism strategy.	1999
Republic Act No. 9593	Created the DOT as the main government agency for planning, programming, coordinating, implementing, and regulating the tourism industry.	2009
Republic Act No. 9729	Created the CCC to work on disaster reduction and climate change mitigation.	2009
Republic Act No. 10121	Mandated the NDRRMC to provide the policies on reduction.	2010

Table 1: Legal Bases for the Sustainable Tourism in the Philippines

In addition to the Philippine government sustainability programs, there was also a Philippine Development Plan (PDP), 2017-2020. The PDP generally addresses inequalities and water management in line with its commitment to the Global Agenda 2030 and Sustainable Development Goals. Along with the PDP, the Asian Development Bank initiated the Asia Water Development Outlook 2020 (AWDO), which

addresses water supply challenges and ensures national water security. It is imperative for improving the quality of life; thus, it underscores water management and infrastructure for water sanitation. As a result, the AWDO found that the Philippine water services improved, from ranking 38 in 2016 to 16 in 2020 (Sandhu, 2021).

Though the government generally attended the natural environment in the country at the onset, the study of Limates et al. (2016) gives the contrasting environmental conditions in Boracay. It raised the water quality issue, called out for rehabilitating the mangrove swamps, relocating all informal settlers, and increasing the mangrove cover. Most importantly, it recommended establishing a wastewater treatment facility and all residential and commercial establishments be connected to the Island's sewerage system. The seagrass beds need protection and rehabilitation to continue their role in nutrient recycling and water purification. A comprehensive monitoring system was needed, which is an important proactive strategy to prevent further degradation of the coastal water of Boracay Island, especially for the phosphates and nitrates levels (Limates et al., 2016).

The recent study of Sandhu and Berse (2022) is consistent with Limates et al.'s recommendation. Other than the tourism-related infrastructure such as airports, harbors, roads, ports, ferry systems, local boats, buses, open spaces, natural resources, and local ecological-based attractions, inns, camps, hotels, and resorts that are needed for sustainability, they demanded the organization and skills in the process. The Department of Tourism will lead the implementation of the national policy and the development of the tourism plan, held together with the private sector and civil society.

The reviews on sustainable development and studies have provided insights into Boracay Island's environmental and social issues that need further inquiry into its tourism management situation from the beginning of its operations to the present.

III. METHODOLOGY

Exploring tourism management in Boracay Island, this paper utilizes the available web articles that pertain to the issues. This paper availed the Z-Library, Google Scholar, and ProQuest articles. It found and reviewed the numerous scholarly papers on Boracay's environmental and social issues from the Z-library and Google Scholar, which were published earlier before the 2018 closure. Similarly, it also found articles discussing the recent developments on the island, mostly on the recommendations for Boracay's rehabilitation. ProQuest, on the other, has provided recent news reports on current Boracay tourist events. This study consolidates the findings of the studies and the recent social and environmental issues in Boracay to assess the responses of the multisectoral groups. Finally, this paper discusses assessing such management using the sustainable tourism framework.

A. *The Characteristics and Assets of Boracay Island*

Boracay is a small tropical island of about 1,006 hectares located in the Aklan province in the Western Visayas Region and is 315 km south of Manila, the capital of the Philippines. The island has 7 km in length and 1 km in width and is famous for its 'powdery' white beaches. The Philippine government has declared the island a national 'gem' for its economic significance. In 2018, it attracted 634,363 tourists and generated 11.66 billion pesos, or approximately USD 250 million, for the Philippines' economy (Ong et al., 2014).

The Beach resorts on the island are core tourist attractions. The white beach spans 4 km, described in official advertising as the "finest in the world" (Figure 1). The Island offers boating, windsurfing, diving and golfing, trekking, biking, and caving in the hills to the north and south, and the tourists enjoy constant party hopping. Boracay is the preferred destination after the capital of Metro Manila. In 2005, most visitors were from the USA, Japan, and South Korea. In 2007, foreigners reached 40%. South Korea supplied 128,909 visitors; the USA, 13,158; China, 12,720, the UK, 5,996; and Germany, 4,354 (Smith et al., 2011).



Fig. 1: The White Beach of Boracay Island

Source: DOT. Best of the Best Philippines, n.d., p.138.

The pristine white sand beach was due to the dominant limestone that eroded and formed the white sand on the island's western side. The climate engulfing the Island and the surroundings is warm all year. Foreign tourists are especially attracted to come during the northern hemisphere winter months and the austral winter season of June to September (Smith, 1990). The white beach attraction is added with crystal clear waters, abundant fresh seafood, rich marine biodiversity, and a tranquil environment. These are perfect for a relaxing escapade. The whole island is comprised of barangays Manoc-Manoc, Balabag, and Yapak. The White Beach is divided into three sections called

Stations. Station 1 is in the northernmost area of White Beach, which has the widest beachfront. The luxurious accommodations are in this Station. Station 2 is in the central part of White Beach, where the tourists usually eat, shop, and party. It is the busiest place, and the D'Mall hub and D'Talipapa, a huge wet market, are located (Figure 2). Station 3 is in the southern part of the island. It is the most inconspicuous area on the Island. The beach offers the opportunity to lounge in the early morning and watch the sunset before dark (Smith et al., 2011; Shangri-La Boracay...2022; Vasko, 2015).



Fig. 2: The D'Mall Hub and the Surrounding Area

Source: DOT. Best of the Best Philippines, n.d., p.147.

The seasons affect the climatic conditions of the beach. During the *Amihan* (northeast monsoon) season from November to May, the beach's waters are calm, and the climate is conducive to daylight beach activities. On the other hand, the rainy season begins during the *Habagat* (southwest monsoon) season from June to October (Rivera & Gutierrez, 2016). March to June is the peak season for tourist visits (Smith et al., 2011).

The beach asset in Boracay that attracted thousands of visitors from many countries around the world has been the best product of the tourism industry on the Island. With this asset, the Island was changed rapidly through the tourism industry, which affected its people's lives and environment.

B. The Tourism Developments in Boracay Island

Boracay, a remote island, was originally inhabited by a relatively small black population of Ati people. Reportedly, foreign backpackers discovered Boracay in the 1970s. They were overseas nationals (Americans and Europeans) working and living in the Philippines who heard about the beauty of the Island, so they visited there for short vacations. The fame of Boracay then spread quickly by word-of-mouth to the expatriates living in the Philippines and to their co-nationals residents in Hong Kong, Tokyo, and Singapore. When tourism developed then, Boracay was cheap for a family vacation and started with small accommodations (Smith, 1990; Smith et al., 2011; Ong et al., 2014).

In the 1980s, television promotion increased the number of tourists. When Scuba diving was introduced, the accommodation expanded. Tourism grew rapidly in the 80s and 90s. In 1997, the first 4 to 5-star resort was opened on the southern point of the island (Figure 3) (Carter, 2004). Until 2007, foreigners constitute 40% of tourists. South Korea supplied 128,909; the USA 13,158; China 12,720; the UK 5,996; and Germany 4,354 (Smith et al., 2011). The increase in tourists has resulted in many changes on the Island.



Fig. 3: Boracay’s Hotel Accommodations at Night

Source: DOT. Best of the Best Philippines, n.d., p.141.

a) Environmental Changes

The 1980s continued the rise of the tourism industry in Boracay. Yet, the place was not fully developed for such growth. Boracay had an inadequate infrastructure, so it could not accommodate the tourists enough. With the continued growth of tourist arrivals, Boracay started the apparent environmental issues. The island lacked electricity, a central water supply, and no sewage disposal system. These issues have reportedly brought Gastroenteritis and venereal disease (Smith, 1990). As a result, sophisticated tourists depended on bottled water to drink. Without major investments in infrastructure in 1987, Boracay could not sustain a large number of tourists, such as 26,000 people that year. Helber’s study (1984) recommended a pipe connection from the main island of Aklan through the isthmus to its nearest portion in the south of the island for water supply. He also recommended sewage treatment and garbage landfill. Those demands required millions of pesos (Smith, 1990). However, Ong et al. (2014) reported that the plan responding to Helber’s recommendation and the so-called Boracay Development Master Plan in 1990 are widely portrayed as largely failing. (Ong et al. 2014). The

rapidly growing tourism market remarkably led to an influx of uncontrolled development and commercial activity (Zafra, 2021).

Due to the unattended inadequacy of the sewerage system, leaking and overflows of the septic tank commonly occurred that contaminated the seawater, particularly with high coliform levels. Coliform, the bacteria that originated from animals and human feces (Geldreich et al., 1962), had reached its critical level. In 1997, the DENR announced that White Beach was polluted with coliform bacteria (Carter, 2004). However, wastewater management remains ineffective. In addition, many resort operators’ illegal connection of sewage pipes made up for the poor sewerage system (Smith et al., 2011).

Limates et al. (2016) found that only some areas in the three barangays of Boracay were served. There were houses and establishments where only their kitchen and bathroom wastewater were connected to the sewerage system. Further, much of commercial and residential buildings’ waste was not connected to the sewerage system, as seen in Table 2.

Barangay	Building	No. of Buildings connected to the sewerage	No. of Buildings not connected to the sewerage
Manoc-manoc	Commercial	211	--
	Residential	46	--
Balabag	Commercial	--	28
	Residential	167 (this figure is shared with Manoc-manoc)	34
Yapak	Commercial	2	--
	Residential	--	--

Table 2: Buildings with and without Connection to the Sewerage System in 2016

Specifically, the houses in Barangay Yapak that used septic tanks were not connected to the sewerage system. In most septic tanks, no seepage tile could purify the effluents. During the peak season, the problem causes the septic tank to overflow. The residents themselves discharged the overflows to the ground or the drainage canal. The inadequacy of the sewage system, aggravated by flooding, overthrew the waste to the beach. Thus, Gastroenteritis and other similar illnesses were prevalent among the residents (Limates et al., 2016).

On the other, Boracay generated daily 7-10 tonnes of solid waste, another cause of environmental degradation. The huge amount of solid waste came from overcrowding, especially during the peak season. A particular event, the celebration of the “LaBoracay,” is an example that caused overcrowding. LaBoracay is the biggest event that happens within the week when Philippine Labor Day is commemorated, every first of May. In 2015, as many as 80,000 tourists were estimated to have arrived on Boracay

during the Labor Day weekend (Rivera & Gutierrez, 2016). A huge gathering of partygoers contributed to the large solid waste accumulation in the week. Solid waste increased the nitrate level in the seawater. Limates et al. (2016) investigated seven sites 150 meters from the shoreline and mangrove areas to test the water quality. It found that Long Beach has the lowest nitrate level at 0 mg L⁻¹ while the Logotan Cove site has the highest nitrate level at 8 mg L⁻¹. The highest nitrate level occurred during the peak season in April and September, while there was a low nitrate level in June. The excess nitrate in the water resulted from leaking the septic tanks that percolated from the ground into the sea (Limates et al., 2016). Excess nitrate caused significant water quality problems, especially the frequency of the green algal bloom (Rivera & Gutierrez, 2016). Algal blooms affect the food of fish and other aquatic life, leading them to leave the area or die (Chislock et al., 2013). The timeline of the environmental changes is shown in Table 3.

Year	Environmental Changes
The 1970s	The discovery of Boracay. Tourism developed.
The 1980s	Television promotion and Scuba diving were introduced. Boracay had no electricity, water supply, and waste or sewage disposal. There were Gastroenteritis and venereal disease due to polluted waters. Tourism grew rapidly. Infrastructure was inadequate for a large number of tourists.
1984	Heber's study recommended a water supply connecting Aklan, sewage treatment, and a garbage landfill.
1990	Master Plan was widely portrayed as largely failing.
1997	Episodic business constructions continued. The DENR announced that the beach was polluted with coliform bacteria.
2016	The sewage system remains inadequate. There was an excess of nitrate in the seawater. Frequency of the green algal bloom due to the solid waste

Table 3: Timeline of Environmental Changes

The problem worsened as the construction of business projects continued without comprehensive planning. Though there was a 6-month ban on a new building, it led only to episodic changes. Limates et al. (2016) argued that these changes refer to the unplanned physical development of facilities and infrastructure. Some buildings were erected over a natural lagoon and other waterways. These were illegal reclamation and occupation of the wetlands (mangrove swamps). This reclamation reduced the floodplain areas that disrupted the biological and chemical processes that diminished the organic and inorganic load of the waters before they were discharged into the coastal waters (Limates et al., 2016). Along with this, beach erosion was also apparent, especially in Bulabog Beach, where the roots of the coconut trees were highly exposed, and the paved road had been damaged (Carter, 2004).

Busy roads also deteriorated the air quality brought by the motorbikes and motorized tricycles that were the common transport in Boracay. In addition, the roads themselves are narrow, so they are congested with traffic. Further, the resident population from 3,000 in the early 1980s rose to over 12,000 in 2000. These changes degraded

or altered Boracay's assets, the market, and the host community (Carter, 2004; Smith et al., 2011).

b) Social Changes

The Ati ethnic group is the locals that live on Boracay Island. They lived by subsistence fishing and farming. By farming, they used the island's interior, which is arable. But in the 1990s, the demise of the copra industry made people find alternatives. Reportedly, the people on the island had raised chickens as broilers and sold them for 25-26 pesos per kilogram. Fishing remains a subsistence activity of the people on the island. Finding better conditions, people were leaving the island to seek more upward mobility, like getting a high school education. Many had moved away to other provinces or Manila permanently, looking for wage employment that weakened family ties (Smith, 1990).

When the tourism industry developed in Boracay, 25% of the island was bought by outsiders (Carter, 2004). Foreigners themselves exploited the selling of land in Boracay. Although there was a deed restriction prohibiting non-Filipinos from outright selling land, it was easy for them to get a common-law wife or a business partner to buy and acquire the land (Smith, 1990). As the business grew on the island, the labor demand imported the construction workers outside. Job opportunities opened for the local migrants, swelling the island's population. In 2017, migrant workers made up as much as 40 percent of the population. Migrant workers typically operate outtriggers and work as vendors, mostly in the informal sector and act as construction workers (Carter, 2004). The encroachment of the outsiders forced the original Ati to leave Boracay. As a result, there were sustainability issues and Atis' displacement on the island (Mayo, 2019). By 2014, the less advantaged people had to contend with the comparatively low wages from more menial jobs, while those who acquired the land with capital and skill gained the most (Smith, 2011).

On the beach, the traditional residents were embarrassed by the Western norms of nude bathing. At night, the parties disturbed them. There were complaints on the din that disrupted their sleep, and their roosters were confused. In the 1980s, the island had no resident police (Smith, 1990). From 1995 to 2005, criminal arrests increased from 10 to 540. Common offenses were theft and burglary. In addition, there have been reports of violence and prostitution (Smith et al., 2011). Indigenous communities, tourism, and infrastructure development are often associated with a decline in cultural integrity (Carter, 2004).

C. Responses to the Environmental and Social Changes in Boracay

The coliform bacteria crisis in Boracay seawater marked 1997's critical environmental condition of the environment. But before the crisis, sectoral groups conducted sustainability programs and rehabilitations.

It was in 1978 that the central government started to embark on actions for the tourism industry in Boracay Island. Although the DOT and Philippine Tourism Authority (PTA) were founded in 1975, the PTA prompted to assist the tourism growth in Boracay in 1978. The PTA formally declared Boracay Island a Tourist Zone (Smith, 1990; Smith et al., 2011). Limited to tourist accommodation, the government's tourism management intensified when it considered future planning with the private sector around the mid-1990s (Carter, 2004). The DOT took the lead and formulated the Boracay Island Master Plan in 1990. However, this master plan was never materialized because the DOT managing Boracay was cut short. The local Government Code of 1991 was legislated that decentralize government programs. In 1992, the responsibility for managing Boracay Island was transferred from the DOT to

the Local Government Unit (LGU) of Malay. But then, the LGU was inadequately prepared to perform the task. Lack of human and financial resources, the LGU failed. In addition, the corruption among local officials led to the worsening condition of Boracay. When the local authorities imposed the 6-month ban on the new building, the LGU could not fully enforce it (Carter, 2004, Smith et al., 2011).

From 1992 to 2004, the functions shifted from LGU-Malay back to DOT for about twelve years. Executive Order No. 377 was issued in 2004 and mandated the DOT to oversee the sustainable development of Boracay. Two years later, the DOT was given the mandate to exercise administrative control over Boracay Island under Memorandum No.4 in 2006. From then on, DOT focused exclusively on the beach's physical structure and aesthetic quality, not on the social and livelihood aspects of the people in the community. The project included solid waste management and water and electricity supply imported from Aklan through underwater cables. The DOT also instituted water recycling for watering the plants and tourists' water savings. In response to the coliform crisis in 1997, a centralized water treatment plant was installed in Boracay to improve water quality. The water treatment plant resulted in a decrease in the coliform level. However, the uncontrolled development and deforestation of the island hindered the full implementation of the treatment plant. The new and smaller businesses were those mostly unconnected to the treatment plant. This inefficiency caused sewage outflow, contamination and mosquito breeding, and water-borne infectious diseases (Carter, 2004).

Meanwhile, the DENR implemented the 25+5-meter easement rule, a 30-meter setback from the shoreline high-water mark. It prevented infrastructure and establishments in the 30-meter perimeter. In August 2013, the BRTF made the self-demolition project for those business operators that violated the 25+5-meter perimeter. Further, the LGU imposed Municipal Ordinance No. 144, declaring Boracay Island a Noise-Sensitive Zone (Rivera & Gutierrez, 2016).

Moreover, the Boracay Foundation, Inc. (BFI) is another body attending interventions. BFI was founded in 1996 as a nonprofit, non-stock association to sustain Boracay's environmental, business, and social needs. It is dynamically involved in numerous restoration and environmental preservation initiatives such as underwater environment protection, solid waste management, preservation of the seagrasses, protection of corals through mangrove planting, coral transplantation, deployment of artificial reefs, constant monitoring of coral growth, regular beach and underwater clean-ups, information education, communication campaigns to the youth, and development of communities surrounding the island through programs. In 2015, it had over fifty members from resorts, hotels, restaurants, water sports, market stalls, airlines, banks, island organizations, residents, and expatriates (Rivera & Gutierrez, 2016). The BFI has topped the government agencies and private sectors in its interventions.

In 2011, the BFI and the LGU conducted mangrove ocular inspection and regulation. In 2012, the DENR, Tan Yan Kee Foundation, LGU, and the Climate Change Foundation launched a Mangrove Rehabilitation Project planting a total of 2,000 mangroves in a one-hectare area in Manoc-Manoc. The BFI and the Boracay Beach Management Program also rehabilitated the coral reefs of Boracay through regular underwater clean-up, coral transplantation, and coral restoration. In September 2011, the BFI launched the reef domes. It fabricated reef domes made of cement, crushed bottles, and limestones deployed along the island's coastal waters to serve as a coral nursery for the planted corals. In addition, it served as a habitat, a feeding ground for marine organisms, and a wave breaker. From 2012 to 2014, the total percentage of fish thriving in the vicinity is 10.74 percent from 0 percent of marine organisms. In 2016, the BFI, with Nestea Philippines, launched the "Love The Beach" campaign to encourage tourists and celebrities to join a beach clean-up and waste segregation activity. The BFI also has hired its own Bantay Dagat personnel to complement the LGU's Bantay Dagat personnel ensuring that boatmen do not violate the rules against fishing in Boracay's waters (Rivera & Gutierrez, 2016).

However, the organization has a conflict among members. The control of partying affected the interest of the resort owners and businessmen who were BFI members who needed a huge number of tourists. The BFI faced challenges regulating events and parties to address environmental issues with its members (Rivera & Gutierrez, 2016).

Further, more sectors worked for sustainability in Boracay. For example, the Asia Development Bank gave a USD 14.7 million grant to the Boracay Redevelopment Task Force (BRTF). It was tasked with regulating solid waste management. As a result, by 2016, Boracay Water has a 12-kilometer sewer line and 13 lift stations of a sewage treatment plant capable of treating five million liters daily. Further, the Boracay Island Water Company (BIWC) and LGU of Malay launched the Coral REEFurbishment Project (CRP), which collected coral fragments and planted them on rocks to grow (Rivera & Gutierrez, 2016). Conversely, the government also delivered a social response to the Ati people. In 2018, the government distributed Certificates of land ownership to the Ati indigenous people for about one percent of the roughly 1,000-hectare (2,500-acre) area of land (Mayo et al., 2019; DENR juggles..., 2022).

The infrastructure and rehabilitation have been apparent since the 2000s. However, longstanding corruption, neglect, and abuse of the island's resources have been reported that have effectively overturned the interventions of Boracay. Still, establishments failed to comply with environmental standards, especially sewerage systems, because the local government agencies tolerated these violations and substandard practices (Canoy et al., 2020). Before 2018, Boracay was overcrowded with tourists. The irregularities and the overtourism brought a huge accumulation of waste. In 2017, Boracay had as many as 2,001,974 visitors, or a 16% increase (1,725,483 tourists) from 2016 (COVID-19 swab..., 2022). Despite the

interventions, environmental issues remain. In 2018, the Philippine government closed its business operations in Boracay and placed it in a state of calamity. The Boracay closure allowed the full rehabilitation program within six months.

Thousands of hotels, resorts, restaurants, bars, dive shops, street stalls, kiosks, and mom-and-pop stores were closed (Canoy et al., 2020). The closure affected more than 30,000 people working on the island and 17,000 informal workers. The island also lost an estimated USD200 million in tourism income (Zafra, 2021). The police force was deployed to prevent entry to the island from unauthorized people. They effectively helped facilitate the activities, particularly demolitions of the establishments that violated the 25+5 meter perimeter and rehabilitation of the wetlands. In addition, environmental policies were imposed, including cleaning the polluted waters and shores of trash, imposing penalties on the violators, a plastic use ban, several tourist limits, and banning smoking, drinking, and partying (Canoy et al., 2020).

The uncompleted drainage project in 2014 continued until 2021 (ROW issues..., 2022). The DOT prohibited fire dancing (DOT chief..., 2022). In 2020, the Boracay Inter-Agency Task Force (BIATF) recorded the lowest coliform level in the beach waters. The coliform level was only "6.8 mpn/100 ml. The safe level is below 100 mpn/100 ml. In the same year, 73% of the establishments, or 249 out of 339, complied with the 25+5 meter easement rule. Also, five have been recovered in the nine wetlands, including wetlands nos. 2, 3, 4, 6, and 8 (Boracay task..., 2020). The wetland is known as Boracay Wetland Conservation Park. In 2022, the DENR manifests that the 25+5 meter easement rule has 85% completion (Boracay rehabilitation..., 2021).

Ballester (2020) has conducted a study on Boracay's tourism. In evaluating what has been done to Boracay tourism, she referred her assessment to the World Travel & Tourism Council (2017) approaches. She found several approaches that Boracay has taken in the management. Firstly, the BIATF has ensured the tourist limit set to 19,215 tourists per day, which was calculated in terms of the average stay of each tourist to three days (Ballester, 2020; Zafra, 2021; Tourists' arrivals..., 2022). It intends to prevent overcrowding. Secondly, Boracay intensified restrictions against violators through booking and reservation. The booking will check if the hotel is accredited to know if it followed the environmental standard. Thirdly, Boracay has collected for Environmental Fee of Php 75. The fee is used to finance sustainability projects. Fourthly, the DOT has implemented accreditation for every establishment to obtain the necessary permit. Finally, the DOT limits certain tourism-oriented activities. Drinking, smoking, and dining on the beach is forbidden as well as hanging lights in the palm trees and having souvenir shops on the beachfront. A USD50 penalty was imposed against digging sandcastles on the beach. Single-use plastic is prohibited, and the violators would lose their licenses. The LaBoracay party has been banned. Gambling is forbidden. Cruise ships during Chinese New Year and Holy Week are banned from ducking

on the island(Ballester, 2020). The sustainable actions of the

multisectoral groups through the years are listed in Table 4.

Year	Sectoral Group	Function/ Action taken
1978	DOT & PTA	Boracay was declared a Tourist Zone. Facilitated the tourists' accommodation
1990	DOT	Boracay Island Master Plan
1992	Local Government Unit of Malay	Sole power for the management of Boracay Island
2004	DOT	Power shift back from LGU-Malay to DOT. A centralized water treatment plant & 25+5-meter easement rule were implemented. Water and electricity were connected from Aklan through underwater cables.
The 2010s	BFI & Boracay Beach Management Program	Coral reefs rehabilitation
	BFI	Bantay Dagat personnel hired
	Asia Development Bank & Boracay Redevelopment Task Force	USD 14.7 million grant for solid waste management
	Boracay Island Water Company (BIWC) & LGU	Coral REEFurbishment Project
	BIATF	19,215 tourist limit per day imposed.
	--	Booking and reservation imposed.
	LGU	Environmental Fee imposed.
	DOT	Hotel accreditation implementation. Tourism-oriented activities limited. Plastic use, LaBoracay party, & gambling banned.
September 2011	BFI	Reef domes
2011	BFI & LGU	Mangrove ocular inspection and regulation
2012	DENR, Tan Yan Kee Foundation, LGU, & the Climate Change Foundation	Mangrove Rehabilitation Project
August 2013	BRTF	Self-demolition project for violating the 25+5-meter perimeter
2016	BFI & Nestea Philippines	"Love The Beach" campaign (clean-up and waste segregation activity)
2018	Central government	Closure & Rehabilitation. Certificates of land ownership distributed.

Table 4: List of Multisectoral Sustainable Actions

D. Post-Closure Developments in Boracay

Boracay, as the top tourist destination, continued to receive a huge number of tourists after its closure. In 2019, the number of guests increased to 57,205 guests during Holy Week 2019 from 46,610 in 2018 in the same period (Philippines: Boracay..., 2022). However, by 2020, the Philippines was locked down like the rest of the world during the pandemic. Boracay was free from visits until 16 November 2021, when it was reopened (Covid swab..., 2022). 100% of workers on the island were fully vaccinated (Lee, 2022). By 1 April 2022, the Philippines reverted to pre-pandemic entry rules for fully vaccinated foreign nationals from visa-required countries. Visitors must submit health information declarations and vaccination cards online before traveling to the island. In December 2021, Boracay received 113,596 tourists (COVID-19 swab..., 2022). During the Easter break on 15-16 April 2022, over 19,000 international travelers were recorded in Boracay (Lee, 2022, Philippine Years..., 2022; Boracay rehab..., 2022). Boracay has Tourists Police Units that continue to strictly enforce appropriate standards and safety protocols (PNP prepares..., 2022).

From 1-31 January 2022, 35,799 tourists visited Boracay (Boracay lifts..., 2022). On 10 February 2022, the Philippines accepted fully vaccinated tourists from 157 visa-free countries, including South Korea, Australia, Canada, Japan, Malaysia, Singapore, the United Kingdom, the United States, and Germany (Boracay, Palawan..., 2022). From 1 to 12 March alone, there were 56,239 arrivals in Boracay, of which 609 were foreigners, and 462 were overseas Filipinos (Covid swab..., 2022). During Maundy Thursday and Good Friday on 14-15 April 2022, Boracay had 21,252 and 22,519 tourists, respectively. Therefore, Boracay has breached its 19,215 tourists limit that had been implemented (Tourists' arrivals..., 2022; Boracay breaches..., 2022).

IV. DISCUSSION ON SUSTAINABLE TOURISM IN BORACAY

Tourism management in Boracay has been challenged in the development of the Island. When the government started intervening in the planning in 1978, its functions became complex. The DOT took twelve years to draw the master plan in 1990, only to abandon it when managing Boracay tourism was transferred from DOT to the local government of Malay, Aklan, for over 26 years. From 1992 to 2004, the unprepared local government ran the fast-growing tourism industry in Boracay, which only allowed business operators to maximize their profit without the proper sustainable regulations of competent managers.

The LGU's failure reached the coliform crisis in 1997, in which business constructions had been continuously episodic, putting up a disordered business. The illegal reclamations of the wetlands were the prize of the fragmented development and disorganization. The NGOs, such as the BFI, for instance, though founded earlier in 1996, have made their activities surface most in the 2010s. The obvious lack of sustainable planning and actions went along with the major legislation that came late in 2009. Helber's recommendation on a water treatment plant and adequate water and electric supplies proposed as early as 1984 was only realized after 20 years in 2004.

Tourism management in Boracay has posed great challenges to the stakeholders. The 2018 closure was just the right thing to do, but the process of rehabilitation in the closure needs to have been aligned with the sustainability goal. As postulated in this paper, sustainable tourism has called concerns that can be summarized in three major points. Firstly, the planning should consider the future economic, social, and environmental impact. Noticeably, economic development is not shared among the people. The 2006 changes were focused exclusively on the aesthetic quality of the beach when managing Boracay was back to the DOT. There were continued inequalities. Business operations were carried out at the expense of environmental exploitation resulting in the wetlands' destruction and seawater crisis. Carter (2004) asserted that altered change loses the primary assets. Therefore, since the 2018 closure, the government administration needs more than double the time to rehabilitate Boracay to sustain it and the industry.

Secondly, sustainable planning is an organizational structure that requires competent managers. The 26 years under the LGU supervision have not been good for the industry. The fast-growing tourism in Boracay needs a sophisticated system including complete human and technological resources that can give the best knowledge to take preventive actions against the adversities the encroachment on the environment and the community brings. It needs comprehensive planning, which might have been done after the loss of 26 years. When the DOT took back running Boracay in 2004, important legislation started fleshing out later. Accreditation to businesses, mangrove rehabilitation, tourism activities restriction, and the like was imposed. But then, there were reports of non-compliance and incomplete projects in the post-closure period. This

implies the need to intensify the regulation implementation. Technology is an important tool to help management. Ballester's study in 2020 about the World Travel and Tourism Council's approaches calls for the use of ICT for overcrowding curtailment. These issues need concerted actions under the administration of competent managers, which could be done through coordination with the LGU and the private sectors. Coordination and training are important to deliver the government to the stakeholders. Balan (2021) also sees this need, especially the municipal councilors and private sectors, to coordinate in assessing needs for improving the eco-tourism sites.

Thirdly, the sustainable tourism framework pushes adherence to human rights standards. The social issues in the Boracay community are intense. The people experienced inequalities and Atis' displacement. Although, reportedly, land distribution was afforded to the Ati people, their further share of the economy was unclear. Commitment and social participation in development are necessary to ensure social welfare. Participating people have a vital role in the regulation because it curtails the chances of corrupt individuals, puts the responsibility on the tourists, and increases economic opportunities for the marginalized groups who have a vital role in the conservation of the area. In addition, it restores the cultural integrity of the community. Therefore, comprehensive planning needs to incorporate the community's welfare.

The 2018 closure has been significant to the rehabilitation of Boracay. Ensuring continued benefits for the future, this paper sees the importance of full completion of rehabilitation and maintenance, competent management, and incorporation of social welfare in the Boracay community.

V. CONCLUSIONS AND RECOMMENDATIONS

The government holds the biggest responsibility to restore the assets of Boracay and sustain the tourism industry. The Republic Act No. 7160 of 1991 should have exempted the DOT from localizing Boracay's management, which would not have supposedly wasted 26 years. But that has already passed, and what the present needs is the full completion of rehabilitation to restore the primary assets of the Island. The 2018 closure has been significant in this effort, but the incomplete and lapses of the authorities would defeat the program. The government agencies, such as DOT, DENR, DILG, etc., coordinating each other towards the Island's rehabilitation can escalate the effective rehabilitation. Other sectoral groups are also instrumental in the rehabilitation coordination effort. This paper sees the importance of concerted actions of the multisectoral groups to address the sustained benefits of the primary Island's assets and social welfare. These sustainable actions may give equal benefits to the people that may prolong the assets in the future.

The abandoned master plan in 1990 shall be rehabilitated as well. With the multisectoral groups, the government needs to formulate a comprehensive plan to address sustainable development in Boracay Island. This paper provides key recommendations on multisectoral

enhanced actions towards sustainable tourism in the following:

- Full participation of the stakeholders in the rehabilitation. The business owners, residents, and other concerned individuals shall commit to the rehabilitation efforts. Sewerage connection and wetlands restoration shall be completed at the earliest possible time.
- Tourists' limits shall be completely followed. Campaign for tourists' education shall be delivered to develop tourists' responsibility in the consumption of the tourism products of the Island as well as to the residents, workers, and concerned individuals. It ensures cooperation in the implementation of solid waste management.
- Updated use of technology shall also be applied. This is very useful in spreading tourists to the site. For instance, Artificial Intelligence will give real-time on the crowding in the site so that other tourists to avoid the crowded site and look for another.
- Consistent with the World Travel and Tourism Council's approaches, tourism promotions shall also be enhanced. There shall be a promotion to change accommodation prices and meals in the off-season. It will prevent overcrowding in the most visited months. The government shall also promote the tourist sites in other regions of the country to spread the visit.
- Legal action shall be completely imposed on the violators in Boracay's policy. Police forces shall be maintained to enforce Boracay's environmental laws and policies.
- Livelihood and social services shall be incorporated into the programs.

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