

# Proposed Nature-based tourism sustainability plan for Balite Falls in Amadeo Cavite

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**Abstract:** Nature-Based tourism promotes effective management of protecting natural attractions which is one of the causes for its rapid growth in the tourism market. In the historical province of Cavite the Majestic Balite Falls lies in Barangay Halang and Barangay Banay-Banay in Amadeo, it comes with a variety of natural resources, species, and natural beauty which is considered as one of the Nature Wonder tourist attractions in Cavite. This qualitative research focused on obtaining information from experts to document their perspective on the potentiality of Nature-based tourism in Balite falls and on the areas that could be of help for a Nature-Based Sustainability Plan. Using the purposive sampling ten experts from Amadeo Cavite were interviewed online. The Balite Falls has high potentiality for Nature-Based tourism according to the five categories that were answered by the experts. The researchers have proposed a sustainability plan that would help sustain the economic, cultural, attraction, market, and accommodation sector of the area where Balite Falls belongs.

**Keywords:** Nature-based tourism, Sustainability plan, Purposive Sampling, Nature-based tourist attraction.

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## I. INTRODUCTION

Nature-based tourism is an astonishing subject to study, it has become an important source of monetary income for many local communities throughout the world. It can be seen and experienced all around the world due to its demand. According to the research carried out by (Björnsdóttir, 2018), it is one of the fastest-growing aspects of tourism, Due to the fact that the awareness of protecting nature has been rising all over the world. In addition, nature-based tourism is presented through different forms such as eco-tourism, adventure tourism, wildlife tourism, geo-tourism, and outdoor tourism (Fredman et al., 2020). It covers a lot of tourism activities in natural areas, (Albayrak, 2016) stated that nature-based tourism attractions are an important source that provides great economic benefits to both host communities and tourism business. Nature-based tourism can also give an opportunity that may create an investment that can promote tourism products such as natural resources, activities, and facilities (Padma et al., 2019).

Nature-based tourism can be seen in Bogor of West Java province, where it is the capital of nature-based tourism operation in Indonesia (Rahayuningsih, et al. 2016). As stated by (Rocamora, 2020) the demand for nature-based tourism in the Philippines is rapidly increasing given the fact that the Philippines has an advantage of its numerous nature-based assets that is also a factor for the increase in the economy. Batangas is one of the tourist destinations that offer appealing and breathtaking nature-based attractions to visit. The nature-based tourist destination offers activities like stargazing, trekking, and hiking as well as camping. (Cariño, M., et. al., 2019).

Balite Falls is located in Amadeo province of Cavite which is known as the historical capital of the Philippines, also prominent in the areas of history, culture, and leisure (pna.gov.ph, 2019). As claimed by the economic sector tourism of (cavite.gov.ph, 2017), Cavite offers eleven natural wonders and one of those is Balite falls.

Balite Falls is owned by the Local Government and it is currently being managed by two resorts which are the MSSSL Resort and Iyong's Resort. The Balite Falls has no existing sustainability plan therefore this study aims to create a nature-based sustainability plan for the Balite Falls. The Fall's potentiality for Nature-based tourism has not been assessed therefore the researchers aim to assess the potential of nature-based tourism in Balite Falls.

This study aims to assess a potential nature-based tourism attraction through the five (5) main characteristics of the Basic Fundamentals of Environmental Sustainability approach that can enhance the sustainability of nature-based waterfalls. Upon assessing the potentiality of the Balite Falls as a nature-based tourist destination, the researchers came up with a nature-based sustainability plan.

This research has given benefit to the residents for it is proven that the local community of a nature-based tourist destination has an increase in job opportunities and income (Kobayashi, 2017) and (Palafox JR. F., 2017). With nature-based tourism activities in the area, the tourist's behavior about climate change solutions can be changed and they will be interested to be involved in solving the problem, (Han et al., 2016). This study has helped with the impact of economic growth and it has added new knowledge about nature-based tourism in Balite Falls. Nature-based attraction has a big impact on the management that leads to an increase of tourist arrivals in their establishment, (Fefer et al., 2016).

## **II. RELATED LITERATURE**

The study of (Fernando,2018) is qualitative research with 2 methods for gathering data which are interviews with the experts and questionnaire analysis for the residents living near the waterfalls. They have identified the resources at Duvily Ella Waterfalls in Sri Langka that could establish nature-based tourism using the "Basic fundamentals of environmental sustainability in partial nature-based wetlands" which are the Five (5) main characteristics that can be used to enhance the sustainability of nature-based waterfalls: Market, Attractions, Cultural Values, Accommodation, Economic Status. The study finds waterfalls have a huge potential for the eco-tourism market. Stated by (Bartos et al.,2019), Nature-based tourism destinations in Vietnam national parks are recognized as an effective way to promote "management of natural resources and socio-economic development". This study used the five categories to assess the Vietnamese national park nature-based tourism attributes. The findings show that the lack of management and services is needed to develop the protected sites.

As stated by (Björnsdóttir, 2018), nature-based tourism is one of the fastest-growing aspects of tourism, this study is qualitative research using the Delphi method conducting 3 rounds to know what will impact the commercial opportunities in nature-based tourism. They sent questionnaires to the expert, tourism officers, and divers that are considered experts in this research. It was found that the reason for demand in nature-based activities in the area and analyzed the interest of divers in nature-based tourism. (Han et al., 2016) conducted in-depth studies to encourage the visitors' environmentally capable behavior in nature-based tourism goals. The study finds that the behavior of the tourists depends on their destination mostly if they are immersed with activities that encourage involvement in Climate change during their stay.

The study of (Fefer et al., 2016) is conducted to identify the elements in sustaining the management to manage increased visitation in the areas. The researcher has used the Delphi technique to document their experiences using the conceptual framework. To support long-term development in the area, a strategic plan in limiting visitor capacity is what the study has established.

The study of (Chua,2017), used 2 methods, the online Delphi-based process to assess the information of the experts, and the stratified random sampling using the survey questionnaire to respondents in municipalities of Sorsogon. It was found that Sorsogon needs to strengthen its human resource and local government that would support the investment of the place to enhance the "communication technology" that will help to boost the local nature tourism industry.

(Kobayashi, 2017), conducted a study to identify the improvement in promoting sustainable tourism in Coron from the tourist's increases. They used a qualitative method, specifically a questionnaire survey to the stakeholders to know their views on the suggested measures for promoting sustainable tourism. The study finds that tourists are valued in local communities to increase job opportunities and income. (Cariño, M., et. al., 2019) have assessed the factors that affect the visitor's satisfaction with Nature-based tourism destinations in Batangas. They have used a descriptive method approach and used questionnaires that are adapted from Seegoolam, a set of questions that are designed to evaluate the satisfaction & experiences of the visitors of nature-based tourism destinations. The study has found effective nature-based experiences will result to visitor's loyalty and satisfaction.

The study of (Buan et al.,2016) aimed to create form through carrying capacity, tourist examination, and evaluation of the destination as sustainability that can reduce the overcrowding in different natural attractions specifically in Hulugan falls, they conducted a survey checklist for the tourist and gathered primary data interview with the tourism officials of the municipality of Lusiana and Barangay San Salvador. They came up with an environmental protection policy plan that will help nature-based tourism destinations to avoid overcrowding and deterioration of natural attractions. (Almaden, C.,

2016) have applied the Delphi technique in analyzing the policies fit for tending to the difficulties of achieving nature-based. The significance of this study was that the Delphi approach has allowed them to have reliable data to justify the weigh for the policy to regulate the White-water rafting in Cagayan de Oro, the improvement in the management is needed & providing policy according to the experts.

### CONCEPTUAL LITERATURE

According to the book of (Worldbank, 2020) Nature-based tourism development can cause major rises in total income and decreases poverty throughout the areas within or in nature reserves. It can also give an opportunity that may create investment which can promote tourism products such as natural resources, activities, and facilities. Based on the article entitled "the positive effects of nature-based tourism" (Kirkland H., 2020), the well-managed nature-based tourism to conservation is known with a lot of benefits to local stakeholders. Nature-based tourism businesses have been set up to effectively assist rewilding efforts and to make the tourists involved within the culture in a significant way that can help through the entire experience in a way that involves all manner of local people in the area. According to the journal article of (National Trust for Nature Conservation, 2020), the quickest developing component of the travel industry is 'nature-based'. The advancement of nature-based in the travel industry will have a multi-layer of advantages such as connecting communities, lessening deforestation and corruption, social legacy rebuilding, foundation improvement, and public economy. As claimed by (Ecotourism Australia, 2016) article, Australia recognizes nature-based tourism as a significant contributor to the growth of regions with greater diversity, sustainability, and resilience. Nature-based tourism potential development globally offers a significant solution in the income of the tourism industry, it is one of the important motivators for foreign and investors visitors to travel to Australia and other parts of the world.

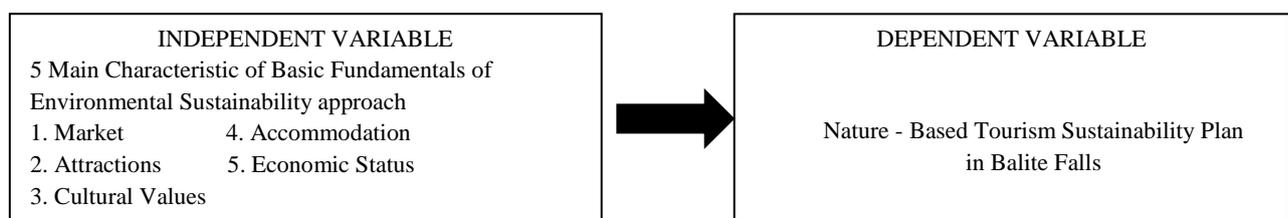
As stated in the magazine article of (Bangkok Tribune, 2020). The government has introduced a new concept which is "carrying capacity" as a solution to the long-term destruction and spoilage of nature-based tourism in national parks and has taken the COVID-19 as an opportunity to establish the new norm and normal on the national parks.

In the article of (SunStar Philippines, 2020), with the return of the travel industry in Cebu, the Department of Tourism (DOT) 7 has been promoting nature-based tourism in Cebu. Because of the way that the Cebuanos are continuously getting out from their homes and carefully appreciating nature after the quarantine.

According to (Palafox JR. F., 2017) in The Manila Times newspaper, it is necessary to engage the local community in creating an environment to build a sustainable connection between the community and activities tourism. In most developing areas this provides work openings for locals for they will supply manpower to protect and preserve the area.

(Mejia,2019), stated in the Manila times newspaper that having a lot of tourist arrival in a nature-based tourism destination has a good impact on the tourism industry of a particular country. However, it causes over-tourism that leads to the deterioration of natural attractions such as mountains, coast, beaches, and forests. This article aimed to express that we need more "eco" in tourism highlighting the fact that dream vacation is in natural places but that dream vacation will be a dream "if we do not have nature in the first place". As stated by (Rocamora,2020) in the article "Boom in Nature-Based Tourism Seen Under New Normal" article that the demand for nature-based tourism in the Philippines is rapidly increasing given the fact that the Philippines has an advantage of its numerous nature-based assets. However, foreign, and local tourists are searching for a safer nature-based tourism destination to visit amidst the pandemic.

### CONCEPTUAL PARADIGM



This study used two variables which are the Independent variable and the Dependent variable. The independent variable has 5 main characteristics of basic fundamentals of the environmental sustainability approach which are the market, attractions, cultural values, accommodation, and Economic Status. The Dependent variable is Nature-Based Tourism Sustainability Plan in Balite Falls. It determined the process applied and results of the study, through this stage it has shown the areas and the process to assess under the 5 main characteristics.

The legal basis for this research study is the Presidential Decree P.D 1151 or also known as “Philippine Environmental Policy” wherein it is related in the study for it deals with the environment along with the establishment of the management policies and quality standards for air and water quality management, land use management, natural resources management, conservation, utilization of the surface, and waste management, in order to ensure the attainment of environmental quality of the waterfalls.

### **III. METHODOLOGY**

The researchers used qualitative research. The study used interviews with experts as the method for data gathering. Due to the fact that we are currently in a pandemic and gathering data from the tourists is difficult therefore, the researchers decided to conduct completely online methods of collecting data.

This study used Purposive Sampling (Selective Sampling). There were 10 experts: Mr. Kerwin Lumandas the representative from MSSSL Resort, Mr. Romeo Lumandas the employee from MSSSL Resort, Ms. Maria Fe Niviar the owner of Iyong’s Resort, Ms. Lorraine Perez the Representative from Provincial Environment and Natural Resources Office - Cavite, Florencio A. Dulce & Nilda Amores the 2 stakeholders (lived more than 20 years in Balite falls), SK Chairman Mel Aljaino P. Bayas & Konsehal Alex D. Perey are the Barangay Officials from Banay-banay, Konsehal Emily Valenzuela Barangay Official from Halang and Ms. Mavic L. Calamba Tour operator/Tour guide. The researchers have identified that they are experts in areas that were needed in data gathering for the research study for they are knowledgeable about Balite falls.

The experts were given informed consent and a letter explaining the details, nature, and purpose of this research. They had access to the data and the proposed outcome of the research. They were given a copy of the topic paper and used the platform of MS teams for the interview, the interview guide was sent through email prior to the schedule of the interview. The schedule of the interview with the experts was planned according to the convenient time of both parties (April to May 2021). The researchers administered the interview of the experts and protected the anonymity or the privacy of the experts which contributed to the confidentiality of their responses. The answers and videos of the experts are confidential, it was not released without their approval and was used only for this study.

This study has 5 types of questions in the interview that were based on the 5 main characteristics of the basic fundamentals of the environmental sustainability approach. The result of the interview was validated by three of the experts to come up with a nature-based tourism sustainability plan for the management of Balite falls. This study used narrative analysis on the gathered data.

### **IV. RESULTS AND DISCUSSION**

The online interview of the experts happened in the months of April and May at the convenient time of the experts. The representative from MSSSL Resort management was interviewed online on May 4, 2021 at 10:00 AM Philippine standard time. The employee from MSSSL Resort was interviewed online on April 28, 2021 at 4:00 PM Philippine standard time. The owner of Iyong’s Resort answered the interview guide on May 8, 2021 at 7:00 AM Philippine standard time. The representative from Provincial Environment and Natural Resources Office - Cavite was interviewed online on April 30, 2021 at 10:00 AM Philippine standard time. The Barangay Officials from Banay-banay were interviewed on May 03, 2021 at 10:00 AM & 11:00 AM Philippine standard time. The Barangay Official from Halang was interviewed online on April 28, 2021 at 2:00 PM Philippine standard time. The Tour operator/Tour guide was interviewed on May 14, 2021 at 9:00 AM Philippine standard time. Here are the results of the interview.

The interview guide that was given has 5 categories of questions which were based on the 5 main characteristics of the basic fundamentals of the environmental sustainability approach which are Economic, Cultural, Attraction, Market, and Accommodation. The questions that were given were open-ended questions to further explore the answers of the experts.

#### **ECONOMIC**

The first category is the Economic. For the first question, the experts were asked on which way does the Balite falls be a factor in having plenty of establishments that would benefit the residents' needs, and what are the local job opportunities that have opened in the area. According to Mr. Kerwin Lumandas, local businesses such as restaurants, coffee shops, hotels, and other accommodation establishments have flourished in the area. The MSSSL Resort has hired locals who live within the area to be able to help them have an income which results in increased employment. The Balite Falls have also attracted junk and fruit buyers who buy from the locals at a higher rate which results in another source of income and

another job opportunity for the locals Mr. Romeo Lumandas. For the second question, the experts were asked on what are the effects of the Balite Falls in terms of business investments in the area. Most of the experts answered that due to the increased demand for natural attractions, according to Mr. Kerwin Lumandas both the foreign and local investors have seen the Balite falls as an area with a high potential for investments, and large numbers of foreign investors have invested for businesses in the areas such as restaurants and hotels. The third question for the economic category is how does Balite Falls affect the income of resident's businesses. Mr. Florencio A. Dulce answered that the income of the businesses has flourished simultaneously with the increasing number of tourists. The fourth question asked about the impacts of Balite Falls on the salary for the local jobs and the standard of living of the locals. Most of the experts have answered that the Balite Falls have helped the local residents and businesses in the area have a stable job and income that helps them meet their everyday needs. Ms. Maria Fe Niviar has stated:

*“As the earnings become high and stable, the amount of salary of the employees and income of the business owners could be sufficient to their needs.”*

For the fifth question, the experts were asked what are Balite Falls' impacts on the local businesses' establishments and all of them have answered that the prices of the local goods of local products such as coffee and pineapples have increased due to the rapid growth in demand for the products by the tourists. With this development in the area, according to Mr. Kerwin Lumandas, the prices of the land have also increased from 700 pesos per square meter to 3,000 thousand pesos per square meter.

The nature-based tourism increases job opportunities for the local communities (Kobayashi, 2017). With the nature-based tourism in Balite Falls, it has proved that many local residents were given the chance for a stable job and income. Nature-based tourism can cause major rises in income and decreases poverty throughout the area (Worldbank, 2020). Nature-based tourist attraction indeed gives job opportunities for the local resident as well as it attracts investments for businesses. According to (Ecotourism Australia, 2016), nature-based tourism offers a significant solution in the income of the tourism industry and is one of the important motivators for foreign and local investors. Nature-based tourism has given a positive impact on the economic sector of the community.

## **CULTURAL**

The second category of the question that was given to the experts is Culture. The first question asked the experts how Balite Falls helped improve the quality of life of the residents. The quality of life of the local residents has improved in a way wherein Balite Falls has given them another way where they could showcase their culture and art crafts. The falls have given the local residents jobs which results in improvement of their quality of life. According to Mr. Kerwin Lumandas:

*“We're providing local jobs to those people who live by the area, nagiging problema ang employment so lumalapit kami sa kanila then we're employing them to be a caretaker in the area as well as tourist guides”*

The second question for the cultural category is how does Balite Falls help to increase the identity and enhance the image of Amadeo. All of the experts have answered that with the tourists in the area the locals have the opportunity to show another image of the culture in Amadeo. The third question is how does the Balite Falls give a positive outcome in the values and customs of the locals and all of the experts have answered that all the local residents and business owners in the area have unity on maintaining the environment clean which enhances the image of the Amadeo as a municipality that cares deeply and truly about the environment for the future generations to come. For the fourth question, the experts were asked how does the Balite Falls help in preserving the cultural identity like beliefs and traditions. All of the experts have answered that the place of Balite Falls has been considered by the local residents as one of the remainders of their cultural identity, which is a community that unites on giving importance to their natural resources. According to Mr. Kerwin Lumandas regarding customs, the Balite Falls is considered a place where the local residents celebrate family gatherings and important milestone achievement celebrations. The official festival of Amadeo which is the Pahimis Festival connects the community as well as the tourists of the Balite Falls to the culture that the place has to offer which serves as another way of preserving it by spreading information about it. All of the experts have stated that there are myths about a guardian in the Balite Falls. The last question for the cultural category was asked to the experts on what are the local delicacies that the Balite Falls community has to offer. All of the experts have answered that the local delicacies in the area are coffee/ coffee beans, ginataang suso, pancit buko, ginataang laing, and kakanin.

The local residents of a nature-based attraction have the opportunity to showcase their culture to the tourists. Nature-based tourism businesses make the tourists involved within the culture of the local community in a significant way that can help through the entire experience in a way that involves all manner of local people in the area (Kirkland H., 2020). One of the cultures of Balite Falls is it has been a place for family gathering and a place for important milestone celebration which connects various local communities. According to (National Trust for Nature Conservation, 2020) one of the nature-based tourism advantages is connecting communities. Most people who visit the Balite falls also visit the destination for its food delicacies such as coffee, pineapple, and kakanin. According to (Güzel, 2016) food serves as an attraction in its own right when indigenous dishes are successfully marketed as a major pull factor to a destination.

## ATTRACTIONS

For the Attraction's category, the first question were asked the Experts on how does Balite Falls provide information for visitors and employees on the importance of water and how to conserve it and use it responsibly, According to Ms. Lorraine Perez, to provide information to the visitors about the importance of the environment as well as signages in the area that state information about the importance of environment and the responsibility of the people to conserve it. The experts were asked in the second question about how Balite Falls follows the rules of proper care of waste as it adheres to the requirements provided by the Department of Environment and Natural Resources. Waste Management would include guidelines relevant to Solid Waste Management, Air Quality Management, Water Quality Management, and Hazardous Wastes Management. It is important to maintain the quality of the sites, especially the sanitation and proper waste management (Almaden C. 2016). For the third question, the experts were asked how Balite Falls maintains the site and environment clean to encourage tourists. According to Mr. Kerwin Lumandas, in order to maintain the site both the management of Iyong and MSSSL allots a part of the entrance fees collected from the tourists for the maintenance of the Balite Falls. For the fourth question, the Experts were asked about the importance of the natural resources of Balite Falls. In order to conserve the place the tourists must also follow the rules that were set by MSSSL Resort and Iyong's Resort therefore they encourage the tourists and employ people that will guard the site and ensure that the tourists will not disobey. According to the Konsehal Emily Valenzuela:

*“cutting of trees in the area is prohibited to ensure that the natural resources are protected and will flourish.”*

Thorough cleaning by the employees of both the management is conducted every day to maintain the cleanliness of the place. All of the experts said that the animal species that can be seen in the area are wild musang (Paradoxurus Hermaphroditus), monitor lizards, birds like maya, matsing (monkey) and small fishes in the area. For the last question, how does Balite Falls affect the water supply, natural landscape, agricultural lands, and trees in the environment, all Experts said that the Balite Falls, in general, helps the environment as it is tested to be potable which can be considered a reservoir when the locals can no longer avail mineral water and a water source used for households, agricultural lands and trees if in case there's a problem in the water supply.

The quickest developing component of the travel industry is 'nature-based'. The advancement of nature-based in the travel industry will have a multi-layer of advantages such as connecting communities, lessening deforestation and corruption, social legacy rebuilding, foundation improvement, and public economy (National Trust for Nature Conservation, 2020). Also, nature-based tourism is a significant contributor to the growth of the awareness of environmental protection that will help to preserve and sustain natural attractions (Ecotourism Australia, 2016).

## MARKET

For the Market aspect, the Balite falls is considered as one of the natural wonders of Cavite that makes it a big factor to foreign and local tourists to visit Amadeo. The first and second questions examined were the effect of the demand of local products in Balite falls for this the experts were asked to comment on the reason for the high demand goods in the area. Mr. Kerwin Lumandas, Ms. Maria Fe Niviar, Ms Lorraine Perez, Ms. Mavic Lucido, Ms. Emily Valenzula, and Mr. Florencio Dulce has answered that the local products are the souvenirs and food delicacies that the locals surrounding the Balite falls offer such as glutinous rice cakes with a touch of coffee since coffee is a large part of Amadeo culture. Coffee shops offered local coffees such as arabica, robusta, liberica and more in CaKe's Coffee and Tea which is 4mins away from Balite falls. As stated by the representative from Provincial Environment and Natural Resources Office Ms. Lorraine Perez - Cavite, Local Government, and Local Residents:

*“Due to the fact that the tourist arrivals in Halang and Banay-banay increase where Balite falls is located, high demand of local products and souvenirs are indeed in the area”.*

The third question examines the accessibility of the site and asks the experts about road improvement and traffic congestion on site. Mr. Kerwin Lumandas, Ms. Maria Fe Niviar, Romeo Lumandas, Ms. Lorraine Perez, Florencio A. Dulce, Nilda Amores, Mel Aljaino P. Bayas, Alex D. Perey, Emily Valenzuela, and Ms. Mavic L. Calamba said that Local governments continuously improve the road networks such as Balite road and pasong santol road that connect the way through Balite falls. As the local residents stated that traffic congestion in the area is too minimal and can cater for a large number of tourist vehicles but, during the summer season tourist arrivals are continuously increasing that makes the entrance road of both MSSL Resort and Iyong's Resort congest to the main road. For the fourth question examined area was the quality of service for the establishment inside and outside the Balite falls As the Both managements MSSL Resorts Mr. Kerwin Lumandas and Iyongs Resort Ms. Maria Fe Niviar said that they:

*"We maintain the competition of the quality service to every tourist that visits Balite falls"*

Also, it affects small and medium enterprise businesses to cope up with the highest standard of quality service to gain tourist attention. The fifth question asked the experts about the cause of the increasing arrivals of local and foreign tourists to the site. According to Mr. Kerwin Lumandas, Ms. Maria Fe Niviar, Romeo Lumandas, Ms. Lorraine Perez, Florencio A. Dulce, Nilda Amores, Mel Aljaino P. Bayas, Alex D. Perey, Emily Valenzuela, and Ms. Mavic L. Calamba, the majestic beauty and nature tourism market of Balite falls attract both local and foreign tourists to be the guest of the hidden gem waterfalls of Amadeo.

Nature-based tourism is one of the key factors that influence tourists to travel to a particular attraction (Kobayashi, 2017). It helps to increase not only the job opportunities but also the tourist arrival within or in nature reserves area also, nature-based tourism give an opportunity that may create investment which can promote tourism products such as natural resources, activities, and facilities. (Worldbank, 2020). Having a lot of tourist arrivals in Nature-based tourism has a good impact on the tourism industry of a particular country (Mejia, 2019).

## ACCOMMODATION

Moreover, in the accommodation category, the first area that was examined was the cause of new business establishment in the area and its effect on the quality of service that they offer. For this, the experts were asked to comment on their own perspective on the cause and effect of Balite falls in terms of the accommodation. Mr. Kerwin Lumanda stated that:

*"We do not have overnight accommodation therefore hotels and accommodation establishments for tourists have flourished in the area."*

Mr. Kerwin Lumandas and Ms. Maria Fe Niviar said that their management has cottages for the tourists inside the resort. The nearby hospitals are the south prime medical & wellness center which is 9mins away from the Balite Falls, Amadeo health clinic which is 12mins away, and Jesusita M. Baybay Lying-in Clinic which is 23mins away from the Balite Falls. The nearby mall is the Paseo de Amadeo which is 4 mins away from the Balite falls and MSSL Resort convenience store inside the resort. The nearby restaurants that offer local delicacies are Ricardo's cuisine which is 10 minutes away from the Balite Falls and Serenidia's kitchen. Since Amadeo is the coffee capital of the Philippines the tourists that visit the Balite falls wants to taste the product in the area therefore cafes and restaurants that offer local delicacies as well as stores that offer fruits such as pineapples and mangoes which are also an arising product of Amadeo have increased in the area. Also, according to Mr. Kerwin Lumandas:

*"Due to the increased numbers of tourists every day the establishments are expected to give quality service to have an advantage over its competitors especially since the area of Balite falls is filled with establishments and businesses that mostly offer the same product but with a different quality of services."*

The third area that was examined is about the safety signages for the tourists that are present would include COVID-19 safety measures which are very relevant right now to help with the contagion of the virus and safety rules in swimming to prevent accidents in the area. The management of Balite Falls employs local residents that would guard the Balite Falls and ensure that the tourists follow the rules that are written in the signages that are in the area. The safety signages for the tourists include: "10ft", "18ft", "mag-ingat, madulas ang daan" and "Tumingin sa ibaba bago tumalon sa ilog". Environmental safety signages include: "wag magtapon ng basura dito", "bawal kumain sa ilog", and "Bawal umihi sa ilog at sa paligid nito". The fourth question examined how the Balite Falls cause overcrowding. According to Kerwin Lumandas and Ms. Maria Fe Niviar, due to the increasing number of tourists that want to visit the Balite falls there were numerous times where overcrowding and congestion in the area have happened especially in peak season. The most recent incident was in the summer of 2019. Creating carrying capacity in the area as sustainability can lessen overcrowding in natural sites (Buan et al., 2016). The last area that was examined for the accommodation category is the cause of the Balite

Falls on the development of the establishments inside the resort and near the area. According to Mr. Kerwin Lumandas, Ms. Maria Fe Niviar, Romeo Lumandas, Ms. Lorraine Perez, Florencio A. Dulce, Nilda Amores, Mel Aljaino P. Bayas, Alex D. Perey, Emily Valenzuela, and Ms. Mavic L. Calamba, as the number of tourists goes high and advertisements to promote the falls from different social media platforms go viral, products and services that the locals can offer can also be easily marketable, therefore the managements have developed the facilities of the resorts during the pandemic. For Iyong's resort, they have invested in developing an events area inside the resort. For the MSSSL, they have developed the road on their main entrance and have built a basketball court inside the resort for future tourists after the pandemic. The benefits of enhancing and developing the area are effective to provide good experiences for the tourists and, also to sustain the uniqueness of the site (Fefer et al., 2016).

## **V. CONCLUSION**

This chapter represents the conclusions, concluding statement, and implication of the study entitled Proposed Nature-based Sustainable Plan for Balite Falls in Amadeo, Cavite. The results serve as the basis for the objectives of the study which are to assess the potentiality of nature-based tourism in Balite Falls and to propose a nature-based sustainability plan.

The Balite Falls has a high potential for nature-based tourism according to the results of the online interviews of the experts. The potentiality of Balite Falls was examined through the 5 basic fundamentals of the environmental sustainability approach for nature-based tourism which are the economic, cultural, attraction, market, and accommodation resources present on the Balite Falls.

The sustainability plan was based on the areas that needed focus according to the results of the interview with the experts.

The researchers propose a sustainable plan for Balite Falls to sustain and improve the economic, cultural, attractions, market, and accommodation aspects of the place.

The researchers recommend organizing a seminar that will focus on the process of how the businesses within the area near the Balite Falls which are the Barangay Halang and Barangay Banay-banay can achieve substantive resource efficiency improvements and cost savings, through waste prevention and reductions in water consumption of every establishment.

The researchers recommend organizing a bazaar that will showcase the artworks, local products and will highlight the customs and traditions such as their official festival which is the Pahimis festival.

The researchers recommend organizing a seminar that will discuss the proper waste management, importance, and how to sustain the natural resources within the area which are the water, trees, and agricultural lands. To protect the animal specials living in the Balite Falls, the researchers recommend that the Barangay Banay-banay and Barangay Halang shall create a barangay ordinance that will protect the animals in the area. In order to contribute to our environment, the researchers recommend establishing proper waste segregation bins with color-coding. In addition to that, signage must be posted in areas where there are mass tourists in order to promote awareness in the area. To avoid noise pollution, the researchers set a plan for the management to observe curfew hours during weekdays and weekends at 10 in the evening.

The researchers recommend that the management of MSSSL Resort and Iyong's Resort plan an event for the employees to acknowledge their hard work and perseverance. The employees will be encouraged to work harder for incentives and an increase in salary to be given. Moreover, the event will give certificates and prizes to the employees. To lessen the chance of traffic congestion in the area especially during the peak season, the researchers recommend that the MSSSL Resort and Iyong's Resort plan a reservation policy for customers during the peak season which are the months of March, April, May.

To lessen the number of guests per day, the researchers come up with a plan to limit the carrying capacity of the waterfalls to avoid maltreatment to environmental resources and to avoid any destruction to the residents living near the area.

## **OUTPUT**

### **PROPOSED NATURE-BASED SUSTAINABILITY PLAN FOR BALITE FALLS, AMADEO CAVITE**

#### **Rationale**

The researchers will propose tourism sustainable practices that will be used by the management, tourists, local government, and residents for maintaining its natural settings. As sustainability is one of the concerns of preserving the attraction, the researchers will set plans for the MSSSL Resort and Iyong's Resort to take forward its most sustainable ways both now and in the future.

The purpose of the proposed nature-based sustainable plan is to establish a long-term vision to sustain and improve the economic, cultural, attractions, accommodation, and market aspects of the place. It will serve as a guide for the MSSL Resort and Iyong's Resort actions related to sustainable practices. This plan will set out to achieve our vision while reducing the environmental trail and to increase positive social impact. This will result for future purposes and compliance for the upcoming year.

### **Economic**

**Objective:** To organize a seminar that will focus on the process of how the businesses within the area near the Balite Falls which are the Barangay Halang and Barangay Banay-banay.

The Balite Falls have garnered attraction due to its profound beauty as a natural attraction located in the Amadeo Cavite. There has been a rapid growth in the number of tourists that visit the area. Furthermore, the income of the businesses surrounding the Balite Falls has been proven to profit stable to high income due to the natural tourism attraction. Due to that, the foreign and local investors that have invested in the area of Balite Falls have increased. In order to contain and manage the number of establishments within the area, to avoid business congestion, and to spread awareness about how to achieve substantive resource efficiency improvements and cost savings, through waste prevention and reductions in water consumption of every establishment, the researchers will propose a seminar entitled "The future of Balite Falls: Green Business" that will tackle the said topics. With the help of the local government unit of Amadeo, MSSL Resort management, and Iyong's Resort management this seminar will be possible. Food and drinks will be provided also. Moreover, guest speakers will be invited to the seminar to explain further the agenda. The Seminar will be held at the Taniman ni Jesus event center.

### **Cultural**

**Objective:** To organize a bazaar which will showcase the artworks, local products and will highlight the customs and traditions such as their official festival which is the Pahimis festival.

Amadeo is known for its coffee products for this municipality is holding the title for the Coffee Capital of the Philippines. To give a platform for the local community of Amadeo to showcase their local products, local delicacies, artworks, and festivals, the researchers will propose a bazaar event entitled "Kulturang Amadeo para sa publiko". This bazaar event will showcase the local products coffee, pineapples, and mangoes, local delicacies such as ginataang suso, pancit buko, ginataang laing, and glutinous rice cakes, artworks such as coffee painting, and on the middle of the bazaar will be a section for Pahimis Festival memorabilias. The event will be open for 30 stalls/businesses of the Amadeo local community and it will last for 1 week. There will be no registration fee for the businesses of the bazaar. The event will be held on the grounds of Farmville, Amadeo. This event will be possible with the help of the Local Government of Amadeo.

### **Attraction**

**Objective:** To organize a seminar that will discuss proper waste management and how to sustain the natural resources within the area which are the water, trees, and agricultural lands.

Proper waste management should be practiced because it is important to environmental resources within the area especially the waterfalls. There will be a seminar that will discuss the importance of solid waste management entitled: Dealing with solid waste. There should be waste segregation bins with color-coding to easily recognize and throw it properly.

**Objective:** To implement an ordinance for the Barangay Banay-banay and Barangay Halang which will protect the animals in the area.

The researchers recommended Barangay Banay-banay and Barangay Halang to implement an ordinance in their area, the purpose of this ordinance is to protect the welfare of the animal species within the Balite Falls. To avoid noise pollution, the researchers will recommend a plan for MSSL Resort and Iyong's Resort to observe curfew hours for only until 10 during the evening and also to prevent and avoid the destruction of the area.

### **Market**

**Objective:** To plan an event for the employees of the MSSL Resort and Iyong's Resort to acknowledge their hard work and perseverance

**Objective:** To lessen the chance of traffic congestion in the area especially during the peak season.

The large number of tourists is continuously increasing in Balite falls, the MSSSL Resort and Iyong’s Resort generate income from the guests who visit the place. In line with this, the researchers found out that they maintain the good quality service in both management as an act of competition. To sustain the competitiveness of both management the researcher will propose an event that will be beneficial to the employees. The event will be entitled “The Balite falls: Appreciation Night” Every year the MSSSL Resort and Iyong’s Resort will have this event to appreciate and give credits to all the employees of both management. Prizes and certificates will be given to all the employees who perform well. For the raffle contest, appliances and gadgets will be given away. This is to encourage the employees to work harder and maintain the quality of service that the management offers, the event will be held in their respective Resort.

On the other hand, during the peak season a lot of tourists visit to unwind in Balite falls, which causes traffic congestion in the area, to address this problem the researchers propose a reservation plan policy during peak season for the month of March, April, and May. The plan is to announce on social media platforms that all guests that will visit in the months of March, April, and May should book and reserve their rooms and cottages. Limit the reservation to the maximum number of 250 people, this is to prevent the traffic congestion in the main road of Amadeo and other connecting roads going to Balite falls also, it helps to prevent overcrowding in both resorts in the peak season.

**Accommodation**

**Objective:** To create a plan to limit the carrying capacity of the MSSSL Resort and Iyong’s Resort to avoid maltreatment to environmental resources and to avoid any destruction to the residents living near the area.

Overcrowding is one of the issues of management especially during peak season, the aftermath, if the crowd is uncontrolled, is the garbage pollution within the area and the destruction of waterfalls and other local artwork that is present inside the establishment. To lessen the number of guests per day or to maintain the crowd control in the area, the researcher proposed that MSSSL Resort and Iyong’s Resort will limit the tourist arrival for the maximum of 250 guests, also through this, it helps the establishment to accommodate each guest and focus on them easily. Through this, it will help both resorts to manage the waste disposal easily and maintain the cleanliness of the surrounding environment as well.

Objectives	Activities	Time Frame	Implementing Body	Results	Estimated Budget (PHP)
To manage the number of establishments within the area, to avoid business congestion, and to spread awareness about green business.	To organize a seminar for the businesses within the area near the Balite Falls which are the Barangay Halang and Barangay Banay-banay.	10 months	Local Government of Amadeo	The businesses within the area of Balite Falls will be aware of green business and implement it.	30,000
To create a platform where the local community of Amadeo can showcase their local products, local delicacies, artworks, and festivals.	To organize a bazaar which will showcase the artworks, local products and will highlight the customs and traditions such as their official festival which is the Pahimis festival.	10 months	Local Government of Amadeo	The foreign and local visitors of Amadeo will be aware of the local products, local delicacies, artworks and festivals that Amadeo has to offer.	60,000
To segregate the waste properly	To have color trash bins to easily recognize and throw it properly.	1 month	MSSSL Resort and Iyong’s Resort	It will reduce the amount of waste in the area.	20,000

To organize a seminar that will discuss proper waste management.	To inform the management of the importance of solid waste management.	6 months	MSSL Resort & Iyong's Resort	It will give awareness the importance of solid waste management	60,000
To limit the number of guest visits in peak season.	Inform the guest about the reservation process. To lessen the chance of traffic congestion in the area especially during the peak season.	3 months	MSSL Resort & Iyong's Resort	Preventing traffic congestion in the main road and connecting road going to Balite Falls.	10,000
To encourage employees to Maintain quality of service	To plan an event for the employees of the MSSL Resort and Iyong's Resort to acknowledge their hard work and perseverance	8 months	MSSL Resort & Iyong's Resort	Maintain the competitiveness of the resort and increase the incentive	50,000
To create a carrying capacity that will help to maintain the natural beauty of Balite falls.	To create a plan to limit the carrying capacity of the MSSL resort and Iyong's Resort to avoid maltreatment to environmental resources and to avoid any destruction to the residents living near the area.	6 months	MSSL Resort and Iyong's Resort	Limit the carrying capacity of MSSL Resort and Iyong's Resort.	50,000

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