



## GAP ANALYSIS OF SUSTAINABLE TOURISM: THE CASE OF AN LGU-MANAGED ECOTOURISM PROJECT OF RIZAL, LAGUNA

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**ABSTRACT** – Ecotourism has the potential to stimulate socio-economic development and foster environmental conservation in rural areas. By capitalizing on their natural and cultural resources, the local government unit of Rizal, Laguna initiated the development of an ecotourism project which then became a priority program. Considering the various issues and challenges associated with ecotourism, the study attempted to answer how the current state of TANAW de Rizal Park conforms with sustainable ecotourism. The study aimed to elucidate the gaps between the current state of ecotourism and the criteria for sustainable ecotourism. Key informant interviews, focus group discussions, site observations, and secondary data provided insights into historical information, current conditions, ongoing ecotourism projects, and future plans in the area. A gap analysis was utilized to evaluate the existing conditions of the park in relation to the criteria of ecotourism established in the National Ecotourism Strategy and Action Plan 2013-2022 as a benchmark. The study revealed that TANAW de Rizal Park generally aligns with the attributes of an ecotourism destination but there remain areas for improvement to fully adhere to the principles of ecotourism. Common issues emerged among the identified gaps, particularly, community involvement, capacity building, and environmental education that require earnest attention of the LGU. Results of this study are expected to provide direction to the LGU in developing the area into a sustainable ecotourism destination.

*Keywords: ecotourism, ecotourism development, gap analysis, TANAW de Rizal Park, tourism*

## INTRODUCTION

Ecotourism has been widely perceived as a model of sustainable tourism. It is defined as “responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education” (TIES, 2015). Developing countries like the Philippines have experienced economic growth and improved social conditions with ecotourism as it offers a wide range of opportunities for development and conservation: diversified employment, protection, and biodiversity conservation (Jalani 2012; Belsoy et al 2012; Manu and Kuuder 2012; Wabnitz 2019; Wondirad 2020; Kunjuraman et al 2022; Ignacio 2019; Ogoc 2021; Das and Chatterjee 2023). Accordingly, ecotourism has intensified as the national government promotes countryside tourism as part of the socio-economic agenda. Recognizing the potential of ecotourism, the local government unit (LGU) of Rizal in

the province of Laguna has identified ecotourism as a promising project to help them achieve economic development. After conducting a study of their local resources, the development of a tourism project was initiated in 2011 and became the priority program of the LGU. Prior to the LGU's decision to undertake ecotourism development, the location had already gained recognition for its religious significance, featuring a "Station of the Cross" that drew local religious pilgrims during the observance of the Holy Week. The ecotourism endeavor primarily featuring the Tayak Hill encompasses an adventure and nature and wildlife park, hence, the name Tayak Adventure, Nature, and Wildlife Park or TANAW de Rizal Park. Over time, ecotourism development progressed with varied plans and projects for expansion. According to Kapera (2018), many local authorities consider the principles of sustainable development in local tourism, however, not all of them understand the underlying concept. The current study aimed to aid the LGU in evaluating how well the current status of tourism at TANAW de Rizal aligns with sustainable tourism or ecotourism standards. Given the limited existing tourism research on Rizal, Laguna and its vicinity, this study can also serve as a basis for further studies regarding ecotourism development in the area and in other emerging rural destinations.

While ecotourism has the potential to provide substantial benefits, there are several issues and challenges associated with its implementation. One of the major issues with ecotourism is its potential negative impact on the environment such as excessive consumption, pollution, and waste generation (Neto 2003; Pāvālučet al 2020; Sari and Nazli 2021); depletion of forests due to economic growth and associated activities that result in deforestation (Brandt and Buckley, 2018; Brandt et al 2019); and disturbance of wildlife which can lead to habitat degradation, fragmentation, and biodiversity loss (Newsome and Hughes 2016; De Zoysa 2022). There is also the issue of "greenwashing" where some businesses prioritize profits over environmental conservation while claiming to be environmentally responsible (Self et al 2010; Das and Chatterjee 2023; and Antari and Connell 2021). Another important concern in ecotourism destinations is the carrying capacity as the increasing number of tourists primarily puts pressure on natural environments. Consequently, managing the influx of tourists is imperative as the environment has its own limitations (Calanog 2015; Pásková et al 2021; Adrianto et al 2021; Liabastre and Rieder 2022; Faiz and Komalasari 2020). It is therefore the primary goal of ecotourism to educate people and cultivate a deeper appreciation and understanding of nature, offering a panacea for addressing environmental degradation and mitigating the effects of climate change.

Considering the aforementioned ecotourism issues and challenges that could arise at TANAW de Rizal Park if the existing conditions do not meet ecotourism standards, the study attempted to answer the research question: How does the current state of ecotourism development at TANAW de Rizal conform with sustainable ecotourism? The primary purpose of the study is to elucidate the gaps between the current state of ecotourism and the criteria across identified key attributes necessary for attaining sustainable ecotourism. Specifically, the study aimed to determine the gaps in terms of physical attributes, ecotourism products, social preparedness, cultural features, ecotourism services, market, accessibility, and institutional aspects. The results of this study are expected to provide direction to the LGU in developing the area into a viable and sustainable ecotourism destination.

## **METHODOLOGY**

### ***Study Area***

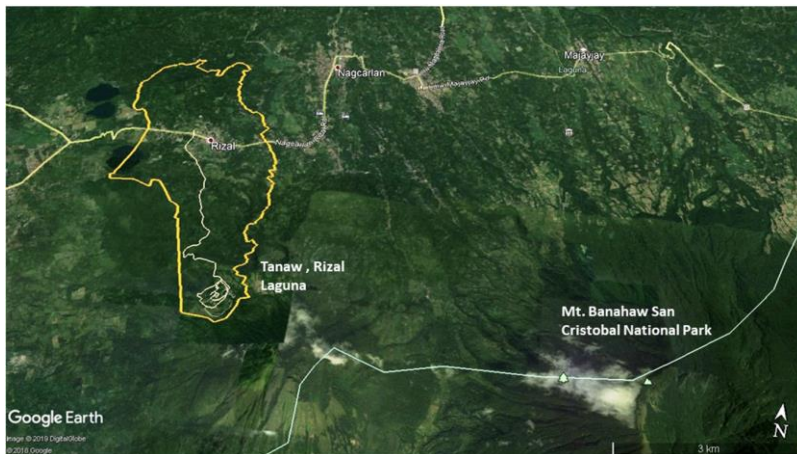
TANAW de Rizal Park, the study site is part of the forestland situated in Sitio Sto. Niño, Barangay Tala in the municipality of Rizal, Laguna province. The municipality is bounded on the north by the town

of Calauan, on the east by Nagcarlan, on the west by San Pablo City and on the south by Dolores, Quezon. It is 277 meters above sea level located at geographical coordinates of 14° 06' - 36.4" -North and 121° 23' 36.7" East (CLUP 2012-2021). The geographical location of the town of Rizal is shown in Figure 1.



**Figure 1.** Geographical Location of Rizal, Laguna

The municipality of Rizal, Laguna, lies at the northern portion of Mts. Banahaw-San Cristobal Protected Landscape (MBSCPL). The part of MBSCPL that falls within the municipality has a total area of 6.814 hectares (3%). The TANAW de Rizal Park is right at the foot of the MBSCPL. With the signing of the Memorandum of Agreement (MOA) between the DENR and the LGU, the municipality was given the authority to maintain the protected landscape and tourism area (Draft FLUP, 2016-2026). Figure 2 shows the study site in the municipality of Rizal, Laguna in relation to MBSCPL.



**Figure 2.** Map showing the study relative to MBSCPL.

### *Data Gathering*

Data and relevant information were gathered through 1) key informant interviews, 2) focus group discussion; and 3) site observations. Key informants included the municipal mayor, designated Municipal Environment and Natural Resources Officer (MENRO), designated Municipal Tourism Officer (MTO), barangay captain, and other barangay officials. These KIIs were tapped since they play key roles in the development and tourism operation at TANAW de Rizal park. Key informants were asked primarily about the background and historical information about TANAW de Rizal Park, current conditions, ongoing ecotourism projects, future ecotourism development plans, and their roles in ecotourism operations. Additionally, a focus group discussion (FGD) was conducted which was participated by some members of the Santo Niño Agroforestry Farmers Association. Similarly, they were asked about the existing conditions, ongoing projects, and their involvement in the development and management of the park. The farmers were selected for the FGD since they had long been living in the study area, therefore, conversant with the area and the changes that have occurred since the start of the ecotourism project. However, only those farmers who were available participated in the FGD.

Site observations were conducted to verify secondary information and to determine the extent of the study area and actual location. While secondary data pertaining to the TANAW de Rizal Park development were obtained from concerned offices of the municipal government units and other regional and provincial government agencies. Secondary data included the TANAW de Rizal Park project proposal, Comprehensive Land Use Plan (CLUP) 2012-2021, draft Forest Land Use Plan (FLUP) 2018, and other relevant documents.

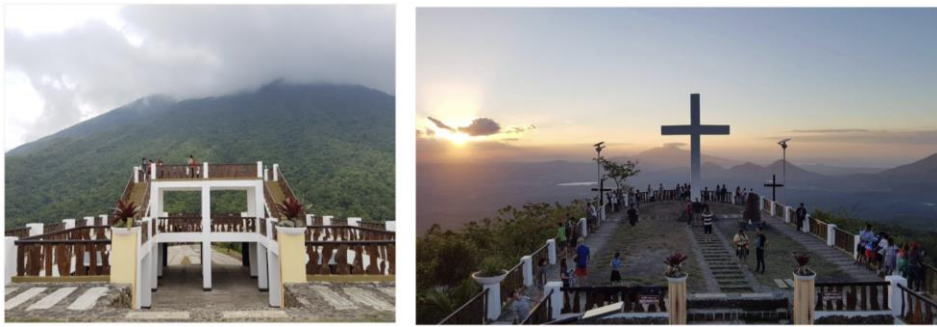
### *Gap Analysis*

This study conducted a gap analysis to evaluate the current state of tourism at TANAW de Rizal in relation to the criteria and sustainable practices for ecotourism. The criteria established in the National Ecotourism Strategy (NES) and Action Plan 2013-2022 were employed as a benchmark for this evaluation. The NES serves as a guide for the Philippines to gain a significant share of the ecotourism market, an initiative that would conserve biodiversity, as well as provide other sources of income to the local communities without the need for unsustainable extraction of natural resources. Its goals state “Environmentally and socially responsible ecotourism development that safeguards the integrity and diversity of its natural resources, provides education and enjoyment to visitors and delivers larger and more widely distributed income and employment opportunities to the local communities and their constituents, especially the women, youth, indigenous peoples, and other vulnerable groups.” The NES specifies a set of standards pertaining to specific attributes that conform with the principles of ecotourism, encompassing natural areas, community participation, quality of visitor experience, and educational value (NES and Action Plan 2013–2022).

## **RESULTS AND DISCUSSION**

Assessing whether TANAW de Rizal Park conforms with the principles of ecotourism provides crucial information that can influence further expansion and development while minimizing potential issues and challenges associated with ecotourism. In its current state, TANAW de Rizal Park offers remarkable natural attractions, activities, and services which draw visitors to the area. The park is characterized by forest and forest land contiguous to MBSCPL, which is recognized as a key biodiversity area in the country. Tayak Hill stands as the central feature of the park. A view deck was constructed at the

hill's summit that later evolved into what is now called "Noah's Ark" (Figure 3). Once at the summit, visitors will get an impressive panoramic view of the town of Rizal with neighboring towns of Nagcarlan, Liliw, and San Pablo City, including its famous seven lakes. It remains as the major attraction of TANAW de Rizal in addition to the natural eco-charms of MBSCPL that towers behind Tayak Hill. The lush vegetation, serenity, and cool mountain air are simply relaxing as one goes on the trek to the summit. In addition, Tayak Hill is also known as a historical site and a local pilgrim area. Moreover, TANAW de Rizal Park is well-suited for engaging in a range of adventure-sports and recreational activities such as biking, hiking, trekking, camping, and nature walking. Given these primary elements for ecotourism, there is a good basis that the municipality of Rizal, Laguna can certainly position itself within the realm of ecotourism.



**Figure 3.** View deck (Noah's Ark)

In anticipation of future expansion and development in the study area, understanding the current state of ecotourism at TANAW de Rizal Park and identifying gaps and opportunities, are key to the area's overall sustainability. In this study, a gap analysis was undertaken to determine what are lacking or what are the gaps in the current state of TANAW de Rizal Park in accordance with the criteria and principles of ecotourism as outlined in the NES and Action Plan 2013–2022. Results are described in the following categories: physical attributes, ecotourism products, social preparedness, cultural features, ecotourism services, market, accessibility, and institutional aspects.

#### *Physical Attributes*

TANAW de Rizal Park is blessed with natural resources with important ecological and economic value. Some of the identified plant species in the area are considered endangered and vulnerable. As ecotourism often aims to promote environmental awareness, interpretation or providing interpretive signage is an opportunity to educate about the importance of biodiversity and the need for conservation. Interpretive signage transforms information into a theme engaging visitors emotionally and intellectually with objects, artifacts, landscape, and location, fostering a sense of involvement in the narrative and allows them to appreciate the importance of the site ("Tourism Development How-to Guide", 2008). The interpretive signs can include information about the local flora and fauna, Tayak Hill, MBSCPL, other scenic attractions, conservation efforts, and sustainable practices to promote environmental awareness and responsible behavior.

An actual faunal inventory is also necessary to identify the animal species present in the area that could provide information for conservation strategies to protect vulnerable or endangered species. In addition, the distribution and abundance of animal species in the area would influence decisions regarding future development and visitors' access that could lead to habitat destruction. Moreover, monitoring of biodiversity is important to ensure responsible and sustainable practices in the area and to achieve a balance of economic benefits from ecotourism and the protection of the park's natural assets. This is crucial considering that some portions of the forestland where TANAW de Rizal is situated are within the protected buffer zone of the MBSCPL which is recognized as a biodiversity hotspot. Assessment of physical attributes of TANAW de Rizal Park is summarized in Table 1.

**Table 1.** Assessment of Physical Attributes at TANAW de Rizal Park.

Criteria	Existing Conditions at TANAW de Rizal Park	Gap
1.1 Biodiversity Significance	Present in the area:	-Environmental education: protection and management of natural resources; biodiversity conservation
1.1.1 Presence of wildlife (flora and/or fauna) with ecotourism value	-Endangered: <i>Pterocarpus indicus</i> (Narra) -Vulnerable species: <i>Swietenia macrophylla</i> (Mahogany) and <i>Dillenia philippinensis</i> (Katmon) -Plant species with medicinal value: <i>Voacanga globosa</i> (Blanco) Merr. (Bayag usa) -Century-old trees: <i>Bischofia javanica</i> (Tuai) -Fauna (birds, bats, amphibians, reptiles, insects)	-Interpretation/ interpretive signage -Faunal inventory -Biodiversity monitoring -Monitoring of visitor impact of ecotourism activities on biodiversity
1.1.2 Ecosystem types with ecotourism value (forest, freshwater, marine and coastal, karst)	-Forest and forestland	-Environmental education/ environmental protection
1.2 Natural scenic attractions/ geologic formation (cave, waterfalls, limestone formation, volcano, etc.)	-Tayak Hill -MBSCPL landscape -Natural panoramic scenery -Nature trails	-Environmental education/ environmental protection
1.3 Uniqueness (region wide)	-No other tourism attraction in the region is known for ecotourism with a religious component than TANAW de Rizal Park	
1.4 Recognition/ awards/ legal protection (UNESCO World Heritage sites, Ramsar sites, ASEAN Heritage Park, NIPAS, Critical Habitat, etc.)	-Site within the forestland/ buffer zone of MBSCPL which is under the National Integrated Protected Areas System (NIPAS) Law	Environmental education/ environmental protection

### *Ecotourism Products*

At present, ecotourism activities at TANAW de Rizal Park include nature viewing, hiking/trekking, camping, and mountain biking. To enhance visitor experience, ecoguides may direct visitors along designated areas and natural trails. This is in line with the study on trekking, a favored ecotourism activity, which stated that tour guides play a crucial role by enhancing travel enjoyment and offering interpretive education for visitor awareness, thereby supporting local environmental sustainability (Poudel and Nyaupane 2016). In the context of sustainable tourism development, the roles of the tourist guides include “adopting consulting role, taking over inspection, sustainability training, raising tourists’ awareness, promotion of the local economy, and sustainable tour management” (Güzel et al 2021). The local people/ farmers living within the park may be tapped as ecoguides especially that they are familiar and knowledgeable about the area. However, they need to undergo skills training on ecotour-guiding. While ecotour guides often lack essential skills, training programs can help improve their skills and transform them with increased environmentally responsible behavior (Lackey and Pennisi 2019). Educating the host community is also important as ecotourism activities must raise awareness about environmental conservation and should not cause irreversible damage (Alvia and Libosada, Jr. 2009). Nature trail guides and maps may also be developed for self-guided tours to provide information and promote environmental awareness. During the study, quad bikes/all-terrain vehicle (ATV) units were also available as added adventure activities at the park that provide exciting and enjoyable outdoor experience for visitors. However, monitoring the use of ATVs is vital to ensure safety and environmental responsibility.

Coordination with the Department of Transportation (DOT) and the Department of Environment and Natural Resources (DENR) is key to improve the quality of existing ecotourism products that are environmentally sustainable. The DOT is mandated for product development and marketing while the DENR is responsible for resource management and visitor services (NES and Action Plan 2013–2022). Creating diversified and viable quality ecotourism products is important to attract new and returning visitors. Potential ecotourism activities at TANAW de Rizal Park may consist of special interest activities such as bird watching and nature photography. The LGU is also planning to develop other projects in the future such as a lagoon/artificial lake, terrace organic vegetable farm, vineyard, bamboo village (rental cottages), team-building area, tree houses, camping area, mini zoo, canopy walk, health and wellness center, environmental center, evacuation area, zipline, and cable car (Draft FLUP 2016-2026). Consultation with DOT and DENR regarding all these plans is significant especially with technical experts on the viability and safety of plans and projects (e.g., cable car, zipline). Particularly, the host communities must be involved in the identification and development of ecotourism products and services to foster a sense of pride and ownership, encourage participation in sustainable and responsible ecotourism practices, and ensure that community concerns are addressed. In Indonesia, the successful implementation of a community-based ecotourism is mainly due to the deep local community engagement in ecotourism, encompassing generating ideas, planning, implementing, and evaluating and enjoying the results all carried out together (Diarta and Pitana 2022). Diversified ecotourism products and services will enable TANAW de Rizal Park to keep up with visitor demands, however, carrying capacity of the destination is crucial. The carrying capacity of the site must be strictly adhered to in terms of infrastructure development and volume of visitors to ensure the sustainable quality of ecotourism products in the long term (Alvia and Libosada, Jr. 2009). Hence, visitor management and zoning are necessary by dividing the entire park into various uses such as protection, recreation, and economic zones. The summary of assessment of ecotourism products of TANAW de Rizal Park is shown in Table 2.

**Table 2.** Assessment of Ecotourism Products at TANAW de Rizal Park.

Criteria	Existing Conditions at TANAW de Rizal Park	Gap
2.1 Availability of existing ecotourism activities	<ul style="list-style-type: none"> <li>-Nature viewing</li> <li>-Nature trails/ nature walks</li> <li>-Hiking/trekking</li> <li>-Camping</li> <li>-Mountain biking</li> <li>-Available quad bikes/all-terrain vehicle (ATV) units</li> </ul>	<ul style="list-style-type: none"> <li>-Ecoguides, training of local people as ecoguides</li> <li>-Interpretive Signage; Nature trail guides</li> <li>-Environmental education</li> <li>-Coordination with DOT and DENR to enhance current ecotourism products that are environmentally sustainable</li> <li>-Visitor management (carrying capacity)</li> </ul>
2.2 Potential Ecotourism activities	<ul style="list-style-type: none"> <li>-Special interest activities:                             <ul style="list-style-type: none"> <li>Birdwatching</li> <li>Nature photography</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>-Coordination with DOT and ENR to develop new ecotourism products that are environmentally sustainable</li> <li>-Involvement of the host community in the identification and development of ecotourism products/services</li> </ul>

***Social Preparedness***

Social preparation and identification of key stakeholders are crucial to avoid conflicts and delays in the ecotourism development and project implementation. In general, the local residents are supportive of ecotourism at TANAW de Rizal Park because they believe that it is greatly beneficial to the entire municipality of Rizal in terms of economic growth. A few Peoples Organizations (POs) were present in the municipality such as the Sto. Niño Agroforestry Farmers Association; Rizaleña - Samahan ng Kababaihan; New RizLag Tricycle Operators and Drivers Association (TODA); Environment and Natural Resources Guards Inc. (ENRGI); Laguna Guardians Brotherhood, Inc.; Civicom Association, Inc. and the Citizen Crime Watch Association, Inc.

The farmers belong to the Sto. Niño Agroforestry Farmers Association, Inc. are living within the area and considered as the primary stakeholders of the ecotourism at TANAW de Rizal Park. Some farmers were engaged during the initial phase of development in the area while others were hired as utility workers. However, most of the farmers would like to be actively involved in ecotourism development since they are the ones who are directly affected by it. The LGU manages the development of the area as an ecotourism destination and serves as the park manager, but the farmers would like the LGU to consider them as partners in the management of the forestland and ecotourism. Involving the farmers in the decision-making regarding ecotourism development is of utmost importance as they rely on natural resources for farming;



therefore, they are also responsible for the sustainability of these resources in the area. Addressing this matter would avoid social tension and a lack of support for ecotourism development. Other POs e.g., the Rizaleña Samahan ng Kababaihan are also tapped for ecotourism activities, while the TODA provides transportation services, and organizations such as ENRGI, Laguna Guardians Brotherhood, Inc., Kabalikat Civicom Association, Inc., and Citizen Crime Watch Association, Inc. contribute to forest conservation and maintaining peace and order in the park.

While POs are present in the municipality, they have limited participation in ecotourism and usually occur during the peak season. Other local stakeholders could also be potential partners and may be given equitable access to opportunities in ecotourism across sectors of the local community such as the women and the youth. In Bohol, Philippines, the implementation of an eco-cultural tourism economic development strategy, highlighted the participatory approach among stakeholders and the strong leadership displayed by its government leaders. Promoting ecotourism across sectors while emphasizing environmental protection helped stakeholders become more aware of sustainable tourism development (UNWTO, 2018). Involvement in ecotourism may also result in skills development (e.g. ecotour-guiding, catering/food services, conservation-related training, etc.) of community members who could offer a more authentic and personalized experiences for visitors. Table 3 shows the assessment of social preparedness in relation to TANAW de Rizal Park.

**Table 3. Assessment of Social Preparedness at TANAW de Rizal Park**

<b>Criteria</b>	<b>Existing Conditions at TANAW de Rizal Park</b>	<b>Gap</b>
3.1 Presence of registered people's organizations/ civil society organizations	-Present; some POs with livelihood; some CSOs with track record in community organizing	
3.2 Involvement of organizations in tourism/ ecotourism activities	-Limited involvement of organizations in ecotourism activities	-Empowerment of local community/ stakeholders to participate and benefit from ecotourism -Equitable access to opportunities in ecotourism across sectors of the community e.g. women, youth - Skills trainings/ capability building programs -Promote environmental awareness/ education

### ***Cultural Features***

Cultural features including historical sites, religious or cultural practices also form part of an ecotourism area. A potential natural and historical ecotourism attraction would be the proposed development of the Landing Point. Adjoining MBSCPL is a ridge known as the historic Landing Point where a small emergency runway was constructed by guerillas where Americans dropped supplies of weapons, ammunition, food, and cigarettes during World War II ("Batang Rizal" 2010). There is an existing

natural pathway to the said ridge from the park. The LGU is proposing a war memorial on this site that could enhance the ecotourism attraction at TANAW de Rizal Park. However, this should be in coordination with the neighboring LGU of Nagcarlan, Laguna since the said historical site is within their official jurisdiction. Additionally, the study area has an established image of a religious site. It has been visited by the local pilgrims especially during the Lenten season for the traditional “Stations of the Cross” long before the LGU decided to develop it as an ecotourism site. Further, the LGU has also expanded the local pilgrimage area in the park. These religious components may be enhanced through development of activities that are in some ways associated with the spiritual theme in nature-based destinations, e.g. yoga meditation (realigning body, mind, and spirit) that is slowly becoming a trend in some parts of the country such as Palawan, Cebu, Siargao, and Boracay. A study on the potential of utilizing yoga, meditation, and self-purification practices in Bali highlighted that it can be designed to foster cultural and wellness tourism for sustainable cultural tourism initiatives as well as for promotional media (Mantra et al 2023).

Another cultural resource potential is agritourism wherein a small-scale farming community exists within TANAW de Rizal Park. The LGU also plans for a terrace organic vegetable farm in the future. This may appeal to visitors as it would provide them the opportunity to interact with the locals. Agritourism has a substantial effect on the local farmers in terms of extra earnings to supplement their traditional agricultural income while providing an opportunity to offer a different experience to the visitors and promoting the local culture and respect for the environment (Tiraieyari 2012). But because the farmers were into conventional farming practices, the LGU may provide capacity-building and skills building on organic farming. Further, the use of chemical fertilizers and pesticides can be detrimental to the environment, thus, it is crucial that the farmers are provided with environmental education and the necessary assistance to shift to organic farming.

Moreover, local festivals are also recognized as a component of ecotourism. Social and cultural festivals and fairs serve as catalysts for boosting regional economies, extending tourism seasons, and developing the tourism industry, while also offering insights into local "way of life" through traditions and cultural events (Sharma et al 2023). The “Kalikasiyahan” festival in Rizal, Laguna which was proposed in 2013 as a yearly festival to promote TANAW de Rizal Park and the municipality may be actively observed. Information campaigns about it may be developed to increase awareness especially among the local community. Such an event could enhance visitor experiences as well as promote ecotourism in the area. Assessment of Cultural Features of TANAW de Rizal Park is summarized in Table 4.

### *Ecotourism Services*

While ecotour-guiding is lacking, enhancing the overall visitor experiences through collaborating with tour operators in the vicinity and with other neighboring LGUs with tourism destinations would be a strategic approach. Including TANAW de Rizal in other travel/tour itineraries or creating joint tourism packages could diversify visitor experiences. Nonetheless, identification of local tour operators that align with ecotourism goals and principles is essential to ensure mutual benefits.

Visitor facilities play a crucial role in enhancing ecotourism services, but they must be developed according to standards and must be managed with careful consideration for the environment. The Administration Building (briefing area for visitors) and the Information Center already exist at TANAW de Rizal Park; however, the staff complement is needed to man these buildings and attend to the needs and concerns of visitors. The NES also necessitates the creation of a permanent Tourism Officer who plays a crucial role in achieving a balance between tourism growth and integrity of the destination's natural and

**Table 4.** Assessment of Cultural Features at TANAW de Rizal Park.

Criteria	Existing Conditions at TANAW de Rizal Park	Gap
4.1 Historical, archaeological or cultural sites	-Historic landmark: Landing Point	-Coordination with the LGU of Nagcarlan, Laguna
4.2 Cultural or historical, religious events/ traditional (indigenous) knowledge and practices	-Religious pilgrim area  -Cultural resource potential: Agritourism; small-scale farming community within the ecotourism area  -Local festival	-Complementary activities associated with spiritual theme in nature-based destinations  -Training of farmers on organic farming  -Environmental education  -Information campaign

cultural resources. Informative signages are also of great help to visitors especially with the lack of personnel to guide them on how to go about the park. Currently, there are limited signages and small directional placards in the park. Moreover, there were no rules and regulations, nor safety precautions displayed inside the park. Similarly, there were limited warning signs along the access road, which are important considering its winding and narrow roads. More directional signs, warning signs, rules and regulations, as well as educational or interpretive signs are necessary for the safety and overall educational experience of visitors.

Water, electricity, and telecommunications are fundamental amenities integral to ecotourism destinations. Provision of these basic amenities is essential to ensure a comfortable, convenient, and safe experience for visitors. According to the farmer-settlers, there are natural sources of water at TANAW de Rizal Park, however, during the dry season, specifically the period from April to July, these natural springs dry up. An ongoing project is the drilling of a production well, which hopefully will be successful to ensure a reliable and ample supply of water. There had been two previous attempts in trying to locate and drill the area to find water, but to no avail. A regular water source is very crucial with the development projects that are continuously taking place at the park. At present, rainwater catchment tanks are available, but these may still be insufficient especially during the peak season. Moreover, the peak season coincides with summer months when rainwater resources may not be able to meet the demand for water use. Similarly, there is no electricity supply in the park, but a diesel-powered stand-by generator set was obtained by the LGU to provide the energy needs of the park whenever necessary. Also, solar lamps at Noah's Ark (view deck) were installed to illuminate the area when visitors extend their stay at the summit until dusk. Development of electrical facilities is included in the future LGU plans and projects, but alternative sources of energy may also be explored e.g. solar energy for street lighting or in various establishments in the park. Given the existing deficiencies in water and electricity supply within the park, this situation presents an opportunity to educate visitors about responsible usage and conservation practices. In addition, mobile phone signal and internet connectivity in the park is currently weak. These days, mobile phones have become an absolute necessity for traveling i.e. for safety, convenience, communication, and for leisure. In this age of social media, capturing travel moments and sharing of pictures and videos real time has been a new culture that requires a good mobile phone signal and good internet connection. Addressing weak mobile phone signals and internet connectivity requires implementing measures in collaboration with telecommunication providers.

In terms of accommodation, there is an existing hotel in the park, as well as available hotels and resorts in the vicinity that could provide accommodations for visitors. The park hotel and other facilities (e.g., administration building, information center, view deck, etc.) in the park were all made with concrete materials. Since ecotourism promotes the use of natural building materials, these could be considered in future projects e.g., Bamboo Village project (rental cottages). It is also important to keep the size and number of establishments small to minimize environmental impacts (Alvia and Libosada, Jr. 2009). In addition, simple facilities are desired for ecotourism, thus, ecolodges, campsites, and homestays provided by the local people may also be alternative accommodations. Further, accommodations with eco-friendly practices such as energy-efficient facilities, waste reduction measures, as well as use of green technologies are encouraged. In its current state, restrooms are inadequate at TANAW de Rizal Park, but green restrooms have been constructed and completed although these were not yet functioning at the time of the study. Summary of the assessment of Ecotourism Services at TANAW de Rizal Park is illustrated in Table 5.

**Table 5.** Assessment of Ecotourism Services at TANAW de Rizal Park.

Criteria	Existing Conditions at TANAW de Rizal Park	Gap
5.1 Availability of ecoguides	-None	-Skills training of local people as ecoguides -Environmental education
5.2 Presence of tour operators	-Presence of tour operators in the vicinity (e.g., hotel accommodations; resorts)	-Collaboration with tour operators (inclusion of TANAW de Rizal in tour itineraries) -Connectivity with other LGUs with ecotourism destinations
5.3 Visitor facilities	-Available: Information Center; Administration Building	-Staff complement -Permanent Tourism Officer
5.3.1 Information Center		
5.3.2 Signage (interpretive, directional, restrictive, etc.)	-Limited signages	-Improved/additional signages
5.4 Amenities	-Natural water sources dry up from April to July	-Reliable source of water -Alternative/ renewable source of energy
5.4.1 Basic utilities/ facilities (e.g. electricity, water, telecommunications)	-Available: rainwater harvester/ catchment -Ongoing project (water source - production well) -No electricity; solar lamps available at the View Deck -Weak mobile phone signal and internet connectivity	-Collaboration with telecommunication providers
5.5 Accommodation	-Available hotel in the park and in the vicinity	-Ecolodges; simple facilities and homestays
5.5.1 Availability of rooms, hotels, in-stay programs in the vicinity		

### *Market*

As part of Laguna de Bay, the municipality of Rizal, Laguna is within the identified and approved tourist destination area (TDA) in CALABARZON. TANAW de Rizal is slowly gaining popularity with many visitors from nearby municipalities and provinces coming to visit and enjoy, primarily the panoramic and breathtaking view from the summit and the relaxing experience associated with it. It became a popular place for biking, trekking, camping, and a local pilgrimage. The number of visitors increased since 2014 but dramatically improved in 2016. Increasing trend of visitor arrivals is expected with the envisioned development projects at the park, some of which are underway. Management and monitoring of data information is essential for decision-making on quality visitor experiences. The increase in visitor arrivals can be primarily attributed to word of mouth and promotion in social media, e.g. Facebook and blogs. But the municipality has not been very active in marketing and promotion in terms of publication materials such as brochures and flyers. Further, there is no official website for TANAW de Rizal although there is an existing Facebook page managed by the Office of the Mayor. Promotion is largely through individual Facebook accounts but is still insufficient since any posts about TANAW de Rizal are not distinct from other personal posts and messages. Thus, an effective marketing plan/ strategy in coordination with DOT is exceptionally important. Promotion can be done through an official website with engaging content to educate and attract potential visitors highlighting the natural attractions, local culture, and exciting/delightful experiences. Collaborating with tour operators as previously discussed is also an effective form of promoting the park.

Revenue generated from ecotourism activities come from various sources such as entrance fees, accommodation, facility rental fees, transportation, and sale of local products and services. Presently, revenue from ecotourism at TANAW de Rizal Park mainly comes from payment of entrance fees and parking fees. Other potential revenue can be generated from rental of facilities e.g., hotel, pavilion, gazebo, etc. It is crucial that a portion of the entrance fees and related charges collected from ecotourism contribute to conservation funds to support environmental protection and sustainable resource management practices e.g., waste management. Equally important is the benefit-sharing from collection of fees from ecotourism. Revenue generated must be distributed in an equitable manner among the stakeholders of TANAW de Rizal Park including the LGU, those involved in the development and management of the area, as well as the local community. According to the farmers, during the time when the management of the forestland was under the Protected Area Management Board (PAMB), there was a co-management agreement among the PAMB, LGU, barangay, and the farmers' association. The entrance fee collection for visiting the forestland was divided among the collaborators. However, this arrangement was discontinued when the LGU decided to assume the responsibility to manage the forestland within its jurisdiction as provided in the Local Government Code of 1991. The LGU wanted to manage the area for the development of the Tayak Hill and surrounding area into a tourist destination and later on took over as the park manager. Further, revenue-sharing with the barangay that has the jurisdiction over TANAW de Rizal Park was not in place during the study period, but barangay officials were optimistic that this matter would be explored in the future. A key informant also highlighted the importance of prioritizing employment opportunities for the local residents of the barangay with jurisdiction over the park. Recognizing the rights of the local people in decision-making and promoting transparency in revenue-generation and benefits-sharing are key factors in effective governance for sustainable tourism development (Qian et al 2016). Implementing a benefit-sharing strategy can aid in conservation, community development, and sustainable economic growth.

Engaging all relevant stakeholders including the local community in ecotourism enterprises could result in increased revenue generation from ecotourism. Currently, two eateries, locally owned by farmer-settlers, not only offered meals but also had a variety of items for sale. These establishments were

strategically positioned within the park, making them popular spots for visitors. With the increasing number of visitors, certain farmer-settlers also grabbed the chance to get into small-scale enterprises in front of their houses to offer food and beverages for visitors. A potential enterprise opportunity involves the ongoing development of a coffee shop beside the current hotel situated within the park. This establishment is intended to operate as a concession and could potentially be managed through a Public-Private Partnership (PPP). In the province of Batangas, PPP projects include hospitality ventures such as entertainment, food and beverage, lodging/ hotel, and adventure activities resulting in a favorable impact on tourism (Calinao 2020). Through the involvement of the local community, ecotourism enterprises can create job opportunities and improve overall socio-economic conditions. In Sabang, Palawan, the Subterranean River's ecotourism has significantly contributed to the income of numerous households, especially those directly engaged in tourism activities. This positive impact can be attributed to the deliberate efforts of the LGU, which aimed to ensure that local residents benefit from job creation and economic opportunities within (Jalani 2012). Likewise, community enterprises ensure authentic visitor experiences and positive community relations. Consequently, this would require capability building programs for ecotourism enterprises and services. For instance, the women's group is being considered for engagement in the proposed health and wellness project at TANAW de Rizal Park given that some members of the group have undergone a 15-day training organized by the Technical Education and Skills Development Authority (TESDA) in massage, hilot, cosmetology, and foot spa. With the skills gained from such training, the women's group could become potential partners in ecotourism operations especially that health and wellness services are often in demand in tourism settings.

In ecotourism, the local communities take on the role of primary hosts, directly offering goods and services that visitors typically purchase and consume (NES and Action Plan 2013–2022). Involving the local community in the operation and management can be the key to successfully offering ecotourism services at TANAW de Rizal Park and ensure equitable revenue and benefit sharing from ecotourism. This is related to the study of Ponna and Prasiasa (2011) wherein it is highlighted that the local community should benefit from economic, social, and cultural advantages from various forms of tourism. Furthermore, ensuring cultural and biodiversity conservation through ecosystem protection can be achieved by involving the local community in ecotourism management and sharing socio-economic benefits with them (Alvia and Libosada, Jr. 2009). Table 6 summarizes the assessment of the market of TANAW de Rizal Park.

### *Accessibility*

Transportation is an important aspect of any tourism destination. When it is easily accessible, it increases the likelihood of attracting more visitors. TANAW de Rizal Park is easily accessible to all kinds of land transportation and can be reached within 15 to 20 minutes from the town proper via private vehicles. The concrete access road makes travel relatively convenient for visitors. It is also close enough to the town proper and neighboring towns/city to have access to all of the conveniences, but it still has a small-town, laid-back charm. Public transportation is available but only 18 units are officially allowed to transport visitors which are bigger than the ordinary type of tricycles that can accommodate three to five passengers. However, a maximum of only three passengers are allowed to ensure safety because of the narrow and winding access road. Increasing available tricycles would entail a significant amount of investment but budget allocation is crucial to address the limited public transportation going to and from the park. Collaboration with public and private transportation providers thru PPP may be key to improving the existing transportation services. Additionally, introducing alternative transportation that is non-motorized or non-polluting e.g., electric or hybrid vehicles may also be explored. Educating the local community and visitors regarding environmentally friendly transportation is vital to reduce the carbon footprint of ecotourism. Table 7 summarizes the Assessment of Accessibility at TANAW de Rizal Park.

**Table 6.** Assessment of Market of TANAW de Rizal Park.

<b>Criteria</b>	<b>Existing Conditions at TANAW de Rizal Park</b>	<b>Gap</b>
6.1 Current market demand based on number of recorded visitors	-Increasing visitor arrivals -Promotion/ marketing not very active in terms of publication materials -No official website for TANAW de Rizal; promotion is largely through municipal and individual Facebook accounts	-Management of data information; Monitoring of visitors -Promotion; marketing plan in Coordination with DOT -Official website; Multimedia -Collaboration with tour operators; partners, local community
6.2 Revenue generated from ecotourism activities (rental fees, etc.)	-Entrance fees; parking fees	-Conservation funds -Benefit-sharing scheme -Enterprise development; community-based ecotourism enterprises -Capability building programs for ecotourism services -Environmental Education: biodiversity conservation/ environmental protection

**Table 7.** Assessment of Accessibility at TANAW de Rizal Park.

<b>Criteria/Requirements for Ecotourism</b>	<b>Existing Conditions at TANAW de Rizal Park</b>	<b>Gap</b>
7.1 Means of transportation	-Land transport	
7.2 Travel time (from major gateway)	-15-to-20-minute drive from the town proper; easily accessible to all kinds of land transportation	
7.3 Distance to major gateways	-Close enough to the town proper and neighboring towns/city	
7.4 Availability of transport	-Availability of public transportation (jeepney, tricycle)	-Non-motorized and/or non-polluting transport -Promote environmental education

### *Institutional Aspect*

Institutional aspect in ecotourism refers to the various organizational structures, policies, regulations, and frameworks that govern and guide the development and operation of ecotourism activities. With the implementation of the Local Government Code (RA 7160), the regulatory powers of the DOT were transferred to the local government units (NES and Action Plan 2013-2022). Since the establishment

of the ecotourism project until the present, the development and management of TANAW de Rizal is predominantly a top-down approach. The local community has a very limited participation especially in the planning of ecotourism development. This is in line with the study of Gumede and Nzama (2022) stating that the centralization of power in government agencies and authorities limits the involvement of community-level groups in ecotourism planning and implementation.

As ecotourism aims for environmental conservation, community development, and sustainable economic growth, issuance of relevant and related ecotourism policies is of utmost importance. Limited ordinances have been issued pertaining to ecotourism at TANAW de Rizal Park. It is essential that policies guide the planning, development, and management of the park.

The existence of ecotourism policies positively affects economic income, utilization of natural resources and good human resources, and reinforcing nature conservation efforts (Eski et al 2023). In addition, the motivation of contemporary tourists is becoming more closely linked to destinations that align with sustainable development principles, underscoring the importance for decision-makers and the local community to pay more attention to the regulations related to environmental protection and its effective implementation (Mirčetić and Radosavac 2021). Moreover, the monitoring and evaluation system is crucial for the effective implementation of the ecotourism policies and programs to ensure that intended goals of ecotourism are fulfilled.

A remarkable ecotourism-related initiative of the LGU is the continuing reforestation of the designated area at TANAW de Rizal Park. The LGU has been very active in its reforestation project and tree-planting activities, which enhance environmental conservation in the area. In relation to this, the LGU has proposed a Greenhouse project, setting up of a nursery for tree species that may be used for reforestation/tree-planting purposes in the park. Several environmental groups, civic organizations, and private companies have actively participated in the tree-planting activities as a form of corporate social responsibility. Networking with these sectors can greatly help in the promotion of TANAW de Rizal and may even provide opportunities for possible funding and resource generation for ecotourism development. Reforestation and tree-planting activities provide opportunities to enhance understanding about the environment, increase awareness on environmental conservation, and encourage responsible behavior towards the environment. The LGU may also take advantage of information, education, and communication (IEC) campaigns to educate the visitors about the environment that could result in a more enriching visitor experience, fostering a deeper connection to the environment and promoting responsible travel practices. Community involvement in tree-planting and its maintenance is also vital in promoting ownership and stewardship of the natural environment.

Waste management was observed in TANAW de Rizal Park although it remains a challenge for the LGU primarily because of manpower constraints and largely due to undisciplined visitors. Garbage bins were placed strategically throughout the park, accompanied by posted reminders for proper disposal. However, most waste bins and containers were not intended for segregation and had no covers. A few receptacles for recycled waste were available where plastic bottles were placed but diapers, candy wrappers and plastic packaging were also found in them. Unsightly litter was also found anywhere in the park, thus highlighting the need to remind visitors to clean as they leave the park. Meanwhile, an IEC campaign can help in promoting waste management and advocating 3Rs (reduce, reuse, and recycle). Future LGU projects include an Environmental Center that would be used for composting and waste processing to help address the large volumes of waste that are generated from ecotourism activities.

In terms of peace and order, the presence of the Philippine Army ensures environmental protection of the MBSCPL and the forestlands, and TANAW de Rizal Park. In addition, reservists from the nearby



military base camp have been mobilized by the LGU to guard the collection area, and to also keep watch over the entire park during weekends. In addition, barangay tanods are also responsible for overseeing peace and order in the barangay including TANAW de Rizal Park especially during peak season.

Barangay Tala, especially the portion closer to MBSCPL where TANAW de Rizal is located, has been identified as within the various geographical and environmental hazard areas as specified in the CLUP 2012-2021 - susceptible to landslides; included in danger areas prone to pyroclastic flows and surges, and most vulnerable to earthquake-induced landslide hazard with potential ground shaking. Because of these potential environmental hazards, careful planning of the tourism development at TANAW de Rizal is imperative. Examining the environmental conditions and the suitability or bearing capacities of specific locations especially for future tourism development projects is critical to ensure the safety and security of both humans and various proposed infrastructures and facilities in the area. As part of the LGU's DRRM, extensive tree planting activities have been undertaken in the forestlands to reduce exposure to hazards and lessen potential negative impacts (Draft FLUP 2016 - 2026). In ecotourism development, accounting for disaster risk is crucial due to its immediate effects on both human well-being and the environment, and integrating disaster mitigation and adaptation measures into ecotourism management plans can help minimize these risks (Nugraha et al 2022). Moreover, a medical emergency response system including emergency preparedness and equipment is also vital. One of the future LGU projects includes a health center that could address this concern; however, trained personnel are key in handling emergency situations. Table 8 summarized the Assessment of Institutional Aspect at TANAW de Rizal Park.

While TANAW de Rizal Park in its current state largely aligns with the attributes of an ecotourism destination based on the criteria specified in the NES, certain modifications may be carried out to make it a better ecotourism destination. By identifying the existing gaps, action plans can be made by the LGU to achieve ecotourism sustainability.

**Table 8.** Assessment of Institutional Aspect at TANAW de Rizal Park.

<b>Criteria</b>	<b>Existing Conditions at TANAW de Rizal Park</b>	<b>Gap</b>
Institutional approach	-Top-down	-Participatory and collaborative
8.1 Issuance of relevant and related ecotourism policies (ordinances, resolutions)	-Limited resolutions and ordinances	-Policies that guides the planning, development, and management of ecotourism activities -Monitoring and evaluation system for ecotourism policies and programs
8.2 Initiates relevant and related ecotourism programs/ plans	-Reforestation projects/ tree-planting -Networking with environmental organizations -Community involvement in tree-planting activities	-Information Education and Communication Campaign; - Promote environmental awareness among the host communities and visitors -Monitoring and Evaluation - Community involvement in the maintenance of reforested area

**Table 8 (Continued).** Assessment of Institutional Aspect at TANAW de Rizal Park.

Criteria	Existing Conditions at TANAW de Rizal Park	Gap
8.3 Waste management implementation (RA 9003, Clean Water Act)	-Available garbage bins but not intended for segregation --Limited receptacles for recycled waste --Limited signages on waste disposal	-Manpower -Information, Education and Communication (IEC) campaign e.g. reduce, reuse, recycle -Rules and regulations -Promote environmental awareness among the host communities and visitors
8.4 Peace and order  8.4.1 LGU security measures/ programs, e.g., presence of law enforcers, paralegal personnel, “tanod” in the area	-Presence of military/tanod in the area	
8.5 Safety measures (on natural disasters, etc.) for tourists and communities (e.g., communication equipment i.e. Satellite phone, two-way radio, CCTV)	-Limited to none	-Careful planning of the tourism development -Environmental education -Emergency preparedness and equipment -Mitigating measures and disaster risk reduction and management action plan -Properly trained personnel to respond to emergency needs -Promote environmental awareness/ education

## CONCLUSION AND RECOMMENDATIONS

Overall, TANAW de Rizal Park aligns with the ecotourism attributes outlined in the NES, yet there remain areas for improvement to completely adhere to the principles of ecotourism. As a result of the study, common issues emerged among the identified gaps, namely, community involvement, capacity building, and environmental education. Community involvement is a major gap that requires significant attention and considerable efforts from the LGU. The active participation of the local community and other relevant stakeholders is important to the development and enhancement of ecotourism products and services, fostering local culture, marketing and promotion, creation of ecotourism-related enterprises, and revenue generation. Active community involvement is the driving factor influencing ecotourism viability and support for conservation including cleanliness and facility management highlighting environmental protection, nature-based activities, and collaborative governance in ecotourism development (Tseng et al 2019). Consequently, capacity building is another major concern since involving the local community would demand empowerment through skills development and training. When the local people have the

skills and knowledge required for ecotourism-related services, they become better equipped to actively participate and contribute to the enhancement of visitor experiences. Lastly, environmental education is a recurring issue that nearly addresses all of the gaps that require attention for TANAW de Rizal Park to reach its full potential as an authentic ecotourism destination. Lack of adequate knowledge and education regarding the environment and sustainable practices among the stakeholders can result in unintentional damage to the natural environment within the park.

While specific recommendations for possible action plans are not within the scope of this study, it is expected that the findings may be able to guide the LGU in their decision-making and direct their plans towards a promising future for ecotourism in the area. Monitoring and evaluation of the ecotourism development at TANAW de Rizal Park is vital with the aim of ultimately attaining sustainability. Moreso, it is crucial to examine carefully the other proposed projects within the forestlands namely, 1) establishment of the Laguna Educators Academy, training arm of the Department of Education (DepEd), that would be adjacent to the circumferential road of the park, and 2) expansion of the existing military camp of the 2<sup>nd</sup> Infantry Division, Philippine Army also near the circumferential road. These projects should also adhere to conservation standards, e.g., in terms of design, building materials, efficient use of energy and water, and proper waste management system. Most of all, it is important to assess the proposed theme park project that was going to be called “Land of the Titans” in collaboration with a private operator. This project does not fit under the ecotourism characteristics since a theme park is often associated with huge energy consumption, air pollution, and waste generation.

Further studies are recommended to explore more profoundly on the findings of the current study alongside the formulation of strategic action plans and directions for ecotourism development at TANAW de Rizal Park.

## **STATEMENT OF AUTHORSHIP**

The first author conducted the review of literature, gathered the primary and secondary data, conducted and transcribed the interviews and FGD, and the writing of the manuscript. The second and third authors provided the guidance and reviewed the draft paper.

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