

# Potentials for Ecotourism Development at the Tikub Lake: The Obscure Small Lake of Tiaong, Quezon, Philippines

Nico Jayson C. Anastacio and Bing Baltazar C. Brillo\*

College of Public Affairs and Development, University of the Philippines, Los Baños, Philippines  
✉ bcbritto@up.edu.ph

*Received July 20, 2018; revised and accepted May 26, 2020*

**Abstract:** In Philippines the small lakes are hardly prioritised for ecotourism development, as many are undeveloped, arbitrarily governed and ecologically threatened. This situation is exacerbated by the lack of baseline information, the absence of basic management/development plan, and scarcity of scholarly works— little is known or written about small lakes. The study explores the potentials for ecotourism development of Tikub Lake located at the Tiaong Municipality in Quezon Province. It is locally accessible and easily reachable from the major urban population centres. As compared to other small lakes, Tikub Lake has a relatively superior water condition with impressive physical features and biodiversity. It has a promising market demand following the trajectory of nature-based tourism locally and nationally. It has rudimentary arrangements and ordinances to get set ecotourism and a committed local government, therefore, it is expected to contribute to the municipality's tourism industry and economy. Ecotourism development is a feasible alternative for encouraging countryside economic expansion and for sustainably managing a small lake.

**Key words:** Ecotourism development, lake, Quezon province, Philippines, Tikub Lake (or Tikob, Ticob, Ticub Lake).

## Introduction

The tourism industry has been continuously contributing to the Philippine economy since 2015. It has registered a rising growth from 12.2 to 12.7 percent in the gross domestic product (GDP) in 2017 and 2018, respectively (PSO, 2018, 2019). The ecotourism portfolio of the Philippines, specifically sustainable tourism of cultural heritage and natural resources, has become the lynchpin of the tourism development efforts of the national government. As a concept, ecotourism evolved into a development programme of the country in the early 1990s. It was institutionalised into a national strategy for promoting socio-economic development via Tourism Act of 2009 (see Republic Act 9593).

Recently, the Department of Tourism (DOT) and the Department of the Environment and Natural Resources (DENR) have prioritised the development and enhancement of nature-based tourism in the 2013-2022 National Ecotourism Strategy of the country (DOT 2018, NESC-ETWG 2014). This decision has to do with the ecotourism's robust outlook in the years to come, and the reality that there are still a lot of untapped potentials and challenges in its development (e.g., Brillo et al., 2017; Brillo, 2016b; Bagadion and Juan, 2015; DOT, 2011, 2012). Philippines' vast natural assets and resources remain underdeveloped or under-utilised, especially the numerous small lakes in the country of which many are an excellent prospect for ecotourism development (e.g., Brillo, 2016c, 2017a).

\*Corresponding Author

Among the estimated 200 existing lakes in the Philippines, around 90 percent are small lakes, and the majority are still to be developed for ecotourism. Except for a few, small lakes are scarcely prioritised and fully-established for ecotourism. Numerous small lakes have less baseline information or management-development plan, and some are ecologically threatened and arbitrarily governed (e.g., Aralar et al., 2013; Brillo, 2016a, 2016d; GNF, 2014; LLDA, 2014). Also, the existing literature has insufficient information on small lakes—little is known or written about them (Brillo, 2015; Downing, 2010). All these pieces of information suggest that small lakes need to be studied and evaluated for their potential in ecotourism development.

The present study dwells into the development of Tikub Lake, an underdeveloped small lake, located in the Municipality of Tiaong, Quezon. Specifically, the article explores the prospects for ecotourism development of the small lake, also marked by the Municipal Government since the early 2000s and elevated by the current administration as its flagship tourism project. Yet, the development of the small lake remains in the initial phase at present. This lake needs a basic tourism development plan to be promoted as a tourism destination. Being a potential source of tourism, this place is largely unknown beyond the municipality and scholarly literatures.

### **The Framework of Analysis**

A case study has been designed in assessing the ecotourism development's potentials of Tikub Lake. For this, data are generated from key informant interviews, focus group discussions, observations, and documentary sources. The results and discussion analysed from the framework is as follows: first, a background on the status of Tikub Lake; followed by an evaluation of the potentials for ecotourism development in the small lake; then, a discussion of the facilitating and impeding factors in developing ecotourism; finally, the conclusion. These features are in line with qualitative research that is rudimentary in exploring the prospective for ecotourism development of the small lake. The framework is in harmony with the relativism or constructivism perspective which intends to understand the specific context (rather than aiming a “universal law”) (e.g., Crotty, 2004; Summer and Tribe, 2008). In other words, the ecotourism development of the small lake offers a distinct experience in explaining the particular circumstances (e.g., Brillo 2010, 2014). The concept of ecotourism development is loosely defined as a tourism-oriented undertaking in the small

lake designed to bring socio-economic improvements to the locals while ensuring the sustainability of the inland water resource (e.g., UNWTO, 2013; UNEP-WTO, 2005).

## **Results and Discussions**

### **A Background on the Status of Tikub Lake**

Tikub Lake is a small freshwater lake located in Barangay Ayusan 1 and Barangay San Pedro in the Municipality of Tiaong, Quezon. About a third of the lake is located in Barangay San Pedro, and the remaining two-thirds is within Barangay Ayusan 1. It also lies along with the Laguna Volcanic Field that is situated between Mount Banahaw-San Cristobal volcano complex and Mount Malepunyo range. The lake has steep circumferential slopes and is circular-shaped with a surface area of 48.34 hectares (Labatos and Briones, 2014). Nearly two decades ago, the small lake was primarily utilised for aquaculture, specifically tilapia cage farming. Since its introduction in the 1990s, tilapia cage farming gradually expanded in the lake, reaching to its peak in the mid-2000s. However, after a major fishkill in 2008, which caused significant losses to fish farmer operators, aquaculture steadily declined thereafter.

The ecotourism initiative in Tikub Lake evolved in the early 2000s when the Municipal Government earmarked the small lake for tourism development, marking the shift in development efforts from aquaculture to ecotourism. The two succeeding local government administrations also embraced the same ecotourism plan for Tikub Lake. Ecotourism development was institutionalised when the Municipal Government adopted a vision of making it a major tourist destination in the Southern Tagalog Region. In step with this achievement, the local government in 2010 imposed a moratorium, allowing only the existing 83 fish cages to operate in the small lake. Furthermore, in 2015, the issuance of permits for the application of additional fish cages in the small lake was suspended too. In 2013, the Municipal Government formalised the ecotourism project via Municipal Ordinance 2013-02 declaring Tikub Lake a protected area and an ecotourism zone in the Municipality of Tiaong (Municipal Council of Tiaong, 2014).

### **The Potentials for Ecotourism Development of Tikub Lake**

Considering the Tiaong Municipal Hall located in Barangay Poblacion as the reference point where the

people's population is centrally located, Tikub Lake is reasonably accessible by road as it is only 4.1 kilometres to its main entry in Barangay San Pedro from the town proper. It is also accessible to tourists coming from Metro Manila, CALABARZON Region and the domestic airports since the Tiaong-Lipa Highway connects to Pan-Philippine Highway, an artery highway that directly flows to Metro Manila and South Luzon Expressway. The Municipality of Tiaong is 93 kilometres away from Ninoy Aquino International Airport, the main airport of the country.

Since the Municipal Government decided to develop the small lake into a tourism hub, the local government has ventured into building the concrete roads for the better pathway. Therefore, the quality of the access road going directly to Tikub Lake has incrementally improved over the years. The main entryway to Tikub Lake in Barangay San Pedro has also been constructed and cemented, including the steps descending to the small lake. Recently, the Municipal Government is contemplating the prospect of developing another entry to Tikub Lake in the side of Barangay Ayusan 1, as it reached an agreement with landowners who acceded in allowing a 10-metre wide right of way to the small lake (DENR-CENRO 2013b).

The water quality is a paramount consideration in developing Tikub Lake for ecotourism, particularly in determining its proper utilisations. Through the request of the Municipal Government, DENR-EMB (i.e., Environmental Management Bureau) assessed the water quality of Tikub Lake. DENR-EMB reported that the small lake is classified as Class B based on DENR's water usage and classification for fresh surface water (DA-BFAR, 2016; DENR-CENRO, 2013b). This result implies that Tikub Lake is particularly suitable for tourism and recreational purposes (DENR, 1990). It also confirms the top-tier stature of Tikub Lake in terms of water quality compared to the other small lakes in the Laguna Volcanic Field which are mostly classified as Class C (e.g., Brillo et al., 2019; LLDA, 2008).

The physical attributes and biotic ecosystem of Tikub Lake profoundly elevate its aesthetic value. For instance, Tikub Lake hosts a diverse community of species and has a relatively high diversity index for a small lake (Labatos and Briones, 2014). Also, the good condition of Tikub Lake made it a three-time awardee of the "Gawad Pangulo sa Kapitaligiran" for Inland Bodies of Water Category for Lakes (see Executive Order 113). The main drawback in Tikub Lake is the absence of essential facilities needed to set off ecotourism development fully. Consequently, the unavailability of

tourism facilities has hindered the Municipal Tourism Office efforts to promote Tikub Lake as the town's flagship tourism destination.

In the absence of a tourism development plan and infrastructures, the demand for ecotourism in Tikub Lake is expectedly weak at present. However, the market demand is anticipated to dramatically increase once the necessary conditions to fully established ecotourism in Tikub Lake is addressed. For instance, Villa Escudero Plantations and Resort (a nature-historical tourist destination in Tiaong) had around 3,500 foreign and 100,000 local tourist visitors in 2009 (Municipality of Tiaong, 2013) while Pandin Lake Sustainable Ecotourism (a small lake ecotourism destination in San Pablo City) had 246 foreign and 11,022 local tourist visitors in 2012 (LLDA, 2014). Therefore, Tikub Lake's ecotourism can be promoted by linking its development and promotion to these existing nature-based tourism destinations.

The Municipal Government of Tiaong is the main governmental institution in Tikub Lake who manages the national agencies such as the Community Environment and Natural Resources Office Region IV (CENRO), and the Bureau of Fisheries and Aquatic Resources Region IV (BFAR), and the Office of the Provincial Agriculturist and Fisheries Division (PAFD) assisted the small lake. The Municipal Government is guided primarily by the Tourism Act of 2009 for developing ecotourism in Tikub lake whereas the DOT mandates the implementation of rules and regulations and set standards for developing tourism resources.

The Municipal Government has taken initial steps to establish ecotourism in Tikub Lake. The most notable is organising the locals in 2002 paving the way for the creation of the Samahan ng Bantay Lawa ng Tikub (SBLT) which is presently in charge of enforcing regulations and maintenance activities in the small lake. A proposal is currently on the table to institute SBLT as the Municipal Fisheries and Aquatic Resources Management Council (MFARMC) of Tikub Lake (see Republic Act 8550). The local government through its Municipal Council has also enacted ecotourism-related ordinances, such as Ordinance 2012-16 – Regulating building of pathways, particularly prohibiting the construction of entry steps to Tikub Lake without the permission of the Municipal Government, and Ordinance 2013-02, declaring Tikub Lake a protected area and ecotourism zone in the Municipality of Tiaong (Municipal Council of Tiaong 2012a, Municipal Council of Tiaong 2012b).

On policy, the rudimentary step is to initiate the formulation of a Master Development Plan (MDP) that would steer the transformation of Tikub Lake into an ecotourism hub. The urgency of this was echoed in the declaration of Tikub Lake as an ecotourism zone (i.e., Municipal Ordinance 2013-02) which calls for the MDP's immediate formulation (Municipal Council of Tiaong, 2014). An MDP works to align tourism and conservation agenda as well as avoids arbitrary development in the small lake. So far, the only existing plan on Tikub Lake is a preliminary management proposal initiated by DENR-CENRO in documenting the existence of a small lake in 2011-12 (see DENR-CENRO, 2013a, 2013b).

The tourism industry's contribution to the local economy of Tiaong is currently deemed as minimal. The Municipal Government decided to develop ecotourism in Tikub Lake in the early 2000s which has eventually become a flagship tourism project of the local government at present. Establishing ecotourism is expected to precipitate the expansion of the local tourism industry and its subsidiary businesses as well as provide employment and livelihood opportunities to the lake communities. It is also anticipated to create forward/backward linkages and bring in investments either from the private sector or national governmental agencies. For instance, financial assistance from the national agencies has already flowed into Tikub Lake: DOT has earmarked P2 million for the improvement of Tikub Lake (i.e., rehabilitate the entry steps and build a circumferential pathway); and BFAR has designated around P200,000.00 for the physical restoration and enhancement of Tikub Lake (i.e., construct brush park fish shelters).

### **The Facilitating-Impeding Factors in Developing Ecotourism of Tikub Lake**

A salient feature in developing ecotourism in Tikub Lake has a committed local government. Since the early 2000s to the present, the Municipal Government has led the slow, incremental steps to establish ecotourism in the small lake. This action reveals that, despite the high acceptance and active involvement/participation of the stakeholders, the local governance in Tikub Lake continues to be top-down where initiatives emanate from or are directed by the local government. In organising ecotourism, the Municipal Government benefits from three facilitating factors: (a) established linkages with national agencies which can assist the local government in technical matters and sourcing of finance; (b) a consensus of support for the ecotourism

agenda from the locals; and (c) the existence of SBLT, the community organisation in the small lake which functions as its direct regulator and overseer. The local government has also instigated some activities in line with its conservation and ecotourism development in Tikub Lake, such as water quality assessment and fish stocks maintenance.

The sound condition of Tikub Lake is a substantial advantage of working for its ecotourism development. Tikub Lake's water quality is much better, and its biodiversity and surrounding landscape-greenery rivals the other small lakes. The lake is facing difficulty with the regulations in the Philippines for the 10% area-limit rule for aquastructures and 20-metre shoreline easement rule (see RA 8550). On both regulations, Tikub Lake "performs" well—the small lake has never experienced exceeding the 10-percent-area-limit rule for aquastructures and has a little issue regarding the 20-meter shoreline easement (unlike the experience of the other small lakes). At present, only 50 fish cages exist in Tikub Lake, and only seven informal settlers' houses are located within its easement zone. These circumstances offer a decent groundwork for establishing ecotourism in Tikub Lake.

Finance is probably the main issue in developing ecotourism in Tikub Lake. Establishing facilities, organising tourism enterprises and promoting the small lake entails a high cost, that is why finance is a constant problem in lake development, governance, and conservation (e.g., Brillo 2017b, 2017c). In its efforts to bring ecotourism in Tikub Lake, the Municipal Government of Tiaong is in a better position since the town is currently experiencing an economic boom and has already an existing external network. This edge, however, is insufficient since building the needed infrastructures and operating the ecotourism enterprises demand a substantial and continuous flow of finance. The local government needs to infuse more capital, tap external financial support (either by encouraging the private sector to invest or seeking funding assistance from the national agencies), and institutionalise a mechanism for generating funds. To be sustainable, the ecotourism in Tikub Lake must wean itself off the discretionary financial support of the Municipal Government and must be able to operate self-sufficiently.

### **Conclusion**

The study shows the promising prospect of ecotourism development in Tikub Lake. The small lake is locally



accessible and easily reachable from the major urban population centres, particularly Metro Manila and CALABARZON. The small lake has relatively superior water conditions (i.e., Class B) with impressive physical features and biodiversity. The potential demand for ecotourism is promising, based on the overall trajectory of nature-based tourism locally and nationally. The primary institutions, arrangements and ordinances for initiating ecotourism development have already been in place on top of the presence of a committed local government. The local economy, in general, and the local tourism industry, in particular, are expected to benefit if ecotourism is established in the small lake directly. Along the way, these favourable factors are accompanied by impediments such as the access road and entryways to the small lake is still to be fully completed, the absence of tourism facilities and services, the lack of a basic plan— an MDP, the practice of top-down local governance, and the need to institutionalise a fund generation mechanism. These findings delineate the progress, the potentials and the needed undertakings/improvements to transform Tikub Lake into a full-fledged ecotourism destination— inputs intended to assist the Municipal Government of Tiaong and its stakeholders in moving forward.

On the whole, ecotourism development is a feasible alternative for encouraging local economic expansion and for sustainably managing a small lake; a consequential development praxis in a country with abundance of small lakes of which impoverished communities orbit many. The article concludes the small lakes studies and underscores Tikub Lake's ecotourism development at the foreground of the local development debate. It continues to move for the democratisation of lake research in the Philippines by arousing scholarly curiosity (beyond the major lakes) on small lakes, in general, and Tikub Lake, in particular.

## References

- Aralar, M.L., Borja, A., Palma, A., Mendoza, M., Ocampo, P., Manalili, E. and L. Darvin (eds.) (2013). Lakecon2011: Second national congress on Philippine lakes. PCAARRD, Los Baños, Philippines.
- Bagadion, B. and N. Juan (2015). Transforming protected areas into effective and sustainable ecotourism destinations: Lessons from the ground. *BIMP-EAGA Journal for Sustainable Tourism Development*, **4(1)**: 1-9.
- Brillo, B.B. (2010). The politics of the anti-money laundering act of the Philippines: An assessment of R.A. 9160 and R.A. 9194. *Asian Social Science*, **6(8)**: 109-125.
- Brillo, B.B. (2014). Shifting economic regimes for retail in the Philippines: External impetus amidst the workings of domestic politics. *The International Review of Retail, Distribution and Consumer Research*, **24(5)**: 516-530.
- Brillo, B.B. (2015). The status of Philippine lake studies: Scholarly deficit on social science studies and on small-lake research. *Asia-Pacific Social Science Review*, **15(1)**: 78-101.
- Brillo, B.B. (2016a). An assessment of development of a transboundary small lake: Calibato lake, San Pablo City and Rizal, Laguna, Philippines. *Asian Journal of Water, Environment and Pollution*, **13(2)**: 55-67.
- Brillo, B.B. (2016b). Development of a small lake: Ecotourism enterprise for Pandin lake, San Pablo City, Philippines. *Lakes & Reservoirs: Research & Management*, **21(4)**: 284-292.
- Brillo, B.B. (2016c). The case of Yambo lake, San Pablo City, Nagcarlan and Rizal, Laguna, Philippines. *The Social Sciences*, **11(23)**: 5693-5702.
- Brillo, B.B. (2016d). Urban lake governance and development in the Philippines: The case of Sampaloc lake, San Pablo City. *Taiwan Water Conservancy Journal*, **64(3)**: 66-81.
- Brillo, B.B. (2017a). Intricacies, challenges and implications: The governance of Tadalac lake, Los Baños, Laguna, Philippines. *International Journal of Water*, **11(4)**: 376-394.
- Brillo, B.B. (2017b). The governance of the seven crater lakes, San Pablo City, Philippines. *Asian Journal of Water, Environment and Pollution*, **14(2)**: 13-25.
- Brillo, B.B. (2017c). The politics of lake governance: Sampaloc lake, Pandin lake and Tadalac lake of the Laguna de Bay Region, Philippines. *Asia-Pacific Social Science Review*, **17(1)**: 66-79.
- Brillo, B.B., Quinones, E. and A. Lapitan (2017). Restoration, development and governance of Dagatan lake, San Antonio, Quezon, Philippines. *Taiwan Water Conservancy Journal*, **65(1)**: 44-54.
- Brillo, B.B., Bello, R. and E. Serrano (2019). The administrative performance of the Laguna lake development authority on the small lakes of the Laguna de Bay region, Philippines. *Asia-Pacific Social Science Review*, **19(4)**: 29-43.
- Crotty, M. (2004). Foundations of Social Research: Meaning and Perspective in the Research Process. Sage, London, United Kingdom.
- Department of Agriculture – Bureau of Fisheries and Aquatic Resources (DA-BFAR) IV-A (2016). Water quality assessment in Tikub lake. BFAR, Tanuan City, Batangas, Philippines.
- Department of the Environment and Natural Resources (DENR) (1990). Administrative order no. 34 – Revised water usage and classification/water quality criteria. [http://www.wepa-db.net/policies/law/philippines/dao34\\_1990.htm](http://www.wepa-db.net/policies/law/philippines/dao34_1990.htm)
- Department of Environment and Natural Resources – Community Environment and Natural Resources Office

- (DENR-CENRO) (2013a). Memorandum – March 17, 2013.
- Department of Environment and Natural Resources-Community Environment and Natural Resources Office (DENR-CENRO) (2013b). Tikub lake management plan. DENR, Lucena City, Quezon, Philippines.
- Department of Tourism (DOT) (2011). The national tourism development plan: Strengthening the Philippines strategic planning process. 6th UNWTO Executive Training Program, Bhutan.
- Department of Tourism (DOT) (2012). Ecotourism toward inclusive growth. 6th UNWTO Executive Training Program, Australia.
- Department of Tourism (DOT) (2018). National tourism development plan, 2016-2022. [https://itsmorefunincentralluzon.com/wp-content/uploads/2018/11/NTDP-2016-2022\\_Executive-Summary.pdf](https://itsmorefunincentralluzon.com/wp-content/uploads/2018/11/NTDP-2016-2022_Executive-Summary.pdf)
- Downing, J.A. (2010). Emerging global role of small lakes and ponds: Little things mean a lot. *Limnetica*, **29(1)**: 9-24.
- Executive Order 113 (1999). Establishing the annual gawad sa Pangulo sa kapaligiran. <http://www.gov.ph/1999/06/18/executive-order-no-113-s-1999/>
- Global Nature Fund (GNF) (2014). Threatened lake of the year 2014: Lake Sampaloc in the Philippines. <https://www.globalnature.org/36351/Living-Lakes/Threatened-Lake-2015/Threatened-Lake-2014/resindex.aspx>
- Labatos, B. and N. Briones (2014). Freshwater fishes of Tikub lake, Tiaong, Quezon, Philippines. *Asian Journal of Biodiversity*, **5(1)**: 41-53.
- Laguna Lake Development Authority (LLDA) (2008). Water quality report of the seven crater lakes 2006-2008. LLDA-EQRD, Rizal, Philippines.
- Laguna Lake Development Authority (LLDA) (2014). Pandin lake development and management plan volume 1 and 2. LLDA, Quezon City, Philippines.
- Municipal Council of Tiaong (2012a). Pambayang kautusan bilang 2012-16. Sangguniang Bayan, Tiaong, Quezon, Philippines.
- Municipal Council of Tiaong (2012b). Pambayang kautusan bilang 2012-17. Sangguniang Bayan, Tiaong, Quezon, Philippines.
- Municipality of Tiaong (2013). Social, economic, and physical profile. Tiaong, Quezon, Philippines.
- Municipal Council of Tiaong (2014). Municipal ordinance 2013-02. Sangguniang Bayan, Tiaong, Quezon, Philippines.
- National Ecotourism Steering Committee & Ecotourism Technical Working Group (NESC-ETWG) (2014). National ecotourism strategy and action plan 2013-2022. DOT, Makati City, Philippines.
- Philippine Association of Water Districts – Community Environment and Natural Resources Office (PAWD-CENRO) (2013). Inland wetland conservation for region 4a. DENR, Quezon, Philippines.
- Philippine Statistics Office (PSO) (2018). Contribution of tourism to the economy is 12.2 percent in 2017. PSO, Quezon City, Philippines.
- Philippine Statistics Office (PSO) (2019). Contribution of tourism to the Philippine economy is 12.7 percent in 2018. PSO, Quezon City, Philippines.
- Republic Act 8550 (1998). The Philippine fisheries code.
- Republic Act 9593 (2009). Tourism act.
- Summer, A. and M. Tribe (2008). International development studies: Theories and methods in research and practice. Sage, London, United Kingdom.
- United Nations Environment Programme-World Tourism Organisation (UNEP-WTO) (2005). Making tourism more sustainable: A guide for policy makers. UNEP-WTO, Paris, France.
- United Nations-World Tourism Organisation (UNWTO) (2013). Sustainable tourism for development: Guidebook. UNWTO, Madrid, Spain.