



Socio-economic Impact of Lake Maragang in Barangay Limas, Tigbao, Zamboanga del Sur

Niko O. Artizona, Jeralen Compacion, Kiara R. Lapuhapo, Liezel Mae Aranador, Bryan L. Bitantos

Environmental Science Department, College of Forestry and Environmental Studies, Mindanao State University - Buug Campus, Datu Panas, Buug, Zamboanga Sibugay, Philippines.
Email: bryan.bitantos@msubuang.edu.ph

ABSTRACT

Maragang is a lake located within Mt. Timolan Protected Landscape. The opening of the lake for tourism on year 2012 has attracted thousands of tourists from different places to visit the area. Barangay Limas in the municipality of Tigbao is the receiving barangay going to the lake. No available information exists on the socio-economic impact of the lake on the people of Brgy Limas. Through this information gap, future management and development plans on Barangay Limas could lead to unsuitable future management measures. This study was done to determine the socio-economic impact of the lake on the people of Brgy. Limas, Tigbao, Zamboanga de Sur. The result of this study would serve as reference for policy formulation in the barangay and municipal local government unit development plans and the updating of the development plan of the lake. The research design is descriptive using a case study approach employing different methods like survey, key informant interviews, focus group discussions, direct observation and secondary data gathering. The data gathering was done on January 14 to February 14, 2018. The lake has affected positively the socio-economic condition of the residents in Barangay Limas which include, availability of employment, access to health, opportunity to meet other people, condition of road networks, availability of water, sufficiency of electricity, peace and order, price of lots, price of agricultural lands, care of the environment, solid waste management, decrease of gambling activity, lessening of prostitution, and decrease on the use of illegal drugs. Attitude toward tourists visit in the lake among the residents is "very happy" from the start of the lake development to the present. Regular assessment on the impact of the lake on the socio-economic condition on the people of the area should be undertaken to determine its positive and negative impacts towards sustainable development.

Keywords : Lake Maragang, Mt. Timolan Protected Landscape, protected area, socio-economic impact, Zamboanga del Sur

INTRODUCTION

LAKE Maragang is a heart-shaped lake situated in Mt. Timolan Protected Landscape in the province of Zamboanga del Sur in Mindanao, Philippines. It has an area of 22 hectares. Around 27 birds species are found in the lake (Constantino, 2017). It is 4.8 kilometers away from Barangay Limas in the municipality of Tigbao which is the receiving area of the visitors who want to visit the lake. The Mt. Timolan Protected Landscape which includes Lake Maragang was declared a national protected area on year 2002. Since then, the lake was developed for ecotourism site. On year 2012, it was opened to the public for camping and other nature related activities [Protected Area Management Board - Mount Timolan Protected Landscape (PAMB-MTPL), 2012]. Amenities like function hall, comfort rooms, mini-hostel, swimming decks, camping sites, and the

availability of swimming equipment and gears made the lake an attractive tourist destination in the province.

The development of the lake has boost the tourism in the area particularly in Brgy Limas. It resulted to the increase of visitor influx from different places of the country and even abroad to visit and trek in the lake. The increase of tourist arrivals in the lake due to its development poses an impact to the people of the area particularly on the receiving community which is Barangay Limas. The impact could either be positive or negative. A pioneering study was done to determine the socio-economic impact of the lake to the people in Brgy Limas, Tigbao, Zamboanga del Sur. The result of this study would serve as input for updating the management plan of the protected area as well as on the development plans of the barangay and

municipal local government units.

MATERIALS AND METHODS

The study was conducted in Barangay Limas, Tigbao, Zamboanga del Sur (Figure 1). It is 4.8 kilometers away from Lake Maragang. The study was conducted on January 14-February 14, 2018. The people in barangay Limas which is the receiving community going to Lake Maragang were the respondents of the study. In determining the number of respondents, we used quota sampling of 10%. The receiving community has 650 households and only 65 respondents were interviewed. In determining the characteristics of the respondents, we used the following criteria: willing to be interviewed, 15 years of age and above, and live in the receiving community. The research design was descriptive which best describes the condition of the area using a case study approach employing different methods like survey, key informant interviews, focus group discussions, direct observation and secondary data gathering. Permission from the barangay captain was first sought and participants of the study were informed about the research purpose and objectives prior to the interview. The data gathered from the survey were tabulated, analyzed, and interpreted using the descriptive statistical tools which includes frequency, mean, and percentage distribution.

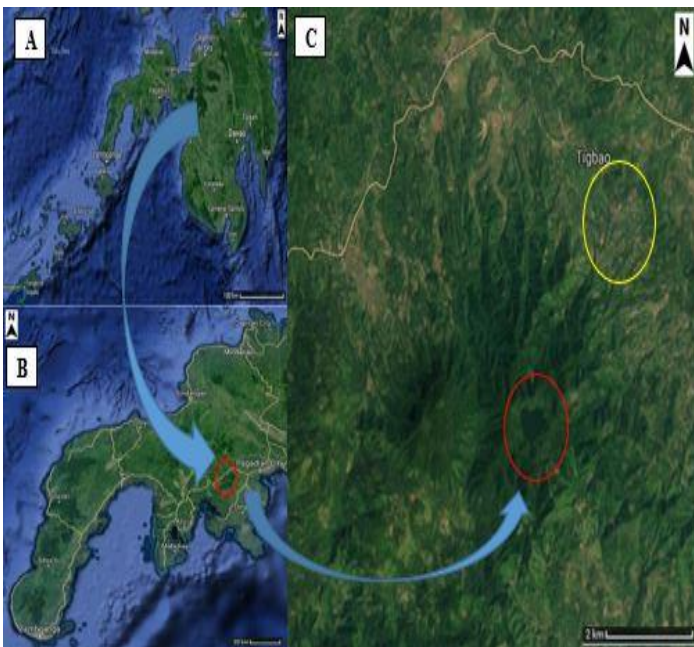


Fig. 1. Map showing the study area: A. Map of Mindanao; B. Map of Region IX; C. Map showing Lake Maragang encircled in red and Brgy. Limas encircled in yellow (<https://www.maps.google.ph>).

RESULT AND DISCUSSION

Socio-economic Condition

Socio-economic condition of the people in Barangay Limas during the lake undeveloped years (prior to year 2012) and lake de-

veloped years (2012-present) were categorized , wherein:

- 1.0 - 1.79 - Very Worse
- 1.80 - 2.59 - Worse
- 2.60 - 3.39 - Normal
- 3.40 - 4.19 - Good
- 4.20 - 5.0 - Very Good

TABLE 1
 SOCIO-ECONOMIC CONDITION OF THE PEOPLE IN BARANGAY LIMAS DURING UNDEVELOPED YEARS AND DEVELOPED YEARS

Criteria	Undeveloped Years (Prior to 2012)		Developed Years (2012-Present)	
	Mean Score	Category	Mean Score	Category
Availability of employment	2.08	Normal	3.89	Good
Access to health	1.8	Worse	4.09	Good
Opportunity to meet other people	2.69	Normal	4.28	Very Good
Condition of road networks	1.68	Worse	4.29	Very Good
Availability of water	1.95	Worse	4.48	Very Good
Sufficiency of electricity	1.92	Worse	5	Very Good
Peace and order	2.72	Normal	3.98	Good
Price of lots	3.06	Normal	4.52	Very Good
Price of agricultural lands	3.06	Normal	4.15	Good
Care of the environment	1.78	Very Worse	4.15	Good
Solid waste management	1.78	Very Worse	4.06	Good
Severity of gambling activity	2.68	Normal	4.91	Very Good
Severity of prostitution	1.91	Worse	4.52	Very Good
Use of illegal drugs	2.45	Worse	4.94	Very Good

During the lake undeveloped years (prior to 2012), two categories namely, care of the environment, and solid waste management have a very worse condition (Table 1). According to one informant, they just burn and throw their garbages anywhere. When the Department of Environment and Natural Resources - Guipos

spearheaded the opening of Lake Maragang as a tourist spot on year 2012, they were capacitated to clean their surroundings. Garbage segregation as well as cultivating flowering plants in the backyard were introduced to them. Moreover, tourist guides were hired among the local people in the community. They were trained on the proper handling of tourists and on the caring of the environment by throwing garbage in designated areas, and by not extracting plants and animals in the protected area. They were trained as a protector of the protected area.

The development of the lake by year 2012 caused eight categories to upgrade to very good status (Table 1). These categories are opportunity to meet other people, condition of road networks, availability of water, sufficiency of electricity, price of lots, severity of gambling activity, severity of prostitution, and use of illegal drugs. These categories prior to 2012 were in worse and normal status. Through the opening of the lake as a tourist spot on year 2012, many visitors from different places of Zamboanga Peninsula Region and country paid a visit in the area. The influx of many visitors created an opportunity among Limasanon to meet many people from different parts of the country. Moreover, the development paved the way to rehabilitate and cement the road from the National Highway going to Barangay Limas and extending further to adjacent barangays. It also improved the access to electricity and water among the households in the area. The value of lots soared high due to buyer's demand. Gambling activity, prostitution, and use of illegal drugs also decreased (Fig. 2).

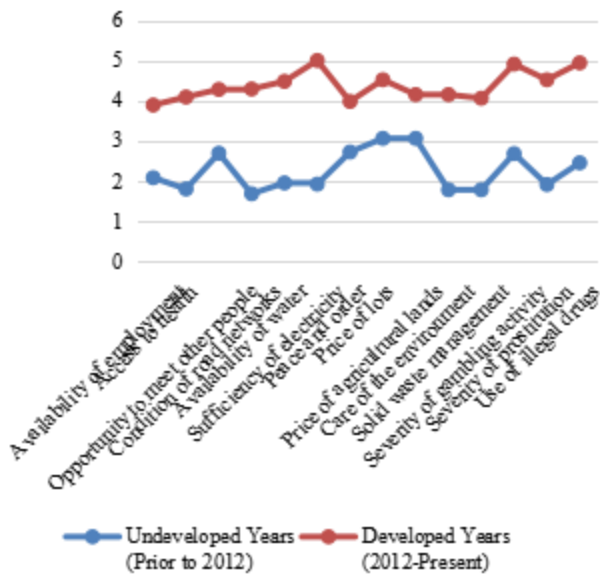


Fig. 2. Mean responses on the socio-economic condition of the people in Barangay Limas during the lake undeveloped years (prior to Year 2012) and lake developed years (2012-present)

The lake development positively impact the socio-economic condition of the people in the area. The result of this study is similar with the result of the studies of Shivaraju and Kumar (2015) in Kodagu District, India, and Nayomi and Gnanapala (2015) in Kandalama area, Sri Lanka of which, tourism has a substantial

contribution to the socio-economic condition of local communities especially on their livelihoods. In Figure 2, it shows clearly the big difference of the socio-economic condition of the people in Barangay Limas, Tigbao in all categories during the undeveloped years (prior to 2012) and developed years (2012-present) of Lake Maragang.

Attitude of the Residents towards Tourist Arrival

At the start of the lake opening for tourism on year 2012, most (57.76%) of the residents' attitude towards tourists visiting the area is "euphoria". On the other hand, on year 2015, more than half (50.86%) of the residents' attitude towards tourist is "apathy". Lastly, on the year 2018, it turns back that most of the residents' attitude towards tourist is "euphoria" (Figure 3). No irritation and antagonism attitude among the residents towards tourist from 2012 to 2018 had manifested. The result of this study is similar with the result of the study of Ratz (2015) about the residents perception on the tourism impact of Lake Balaton in Hungary. Most of the residents in the tourist area are very happy towards tourists' visits. It could be attributed that majority number among residents having a "euphoria" attitude toward tourists are the benefits they get from the visitors such as employment and increase in income.

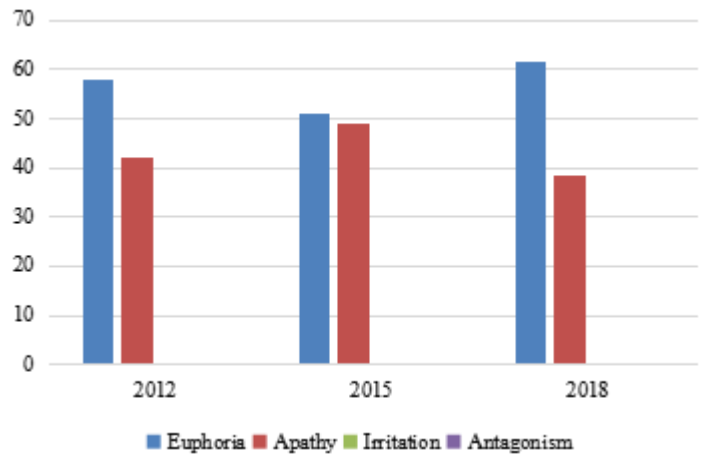


Fig. 3. Attitude of the residents towards tourist from year 2012 to 2018

CONCLUSION

The development of Lake Maragang as tourist spot has affected the socio-economic condition of the residents in Barangay Limas, Tigbao, Zamboanga del Sur in a positive way. This is evident on the increase response from very worse, worse, and normal condition to good and very good status on all set criteria which includes, availability of employment, access to health, opportunity to meet other people, condition of road networks, availability of water, sufficiency of electricity, good peace and order, increase on the price of lots, increase on price of agricultural lands, caring more on the envi-

ronment, proper solid waste management, decrease of gambling activity, decrease of prostitution, and decrease on the use of illegal drugs. Moreover, most of the residents are very happy towards tourist visit in the lake.

ACKNOWLEDGMENTS

The authors would like to thank the officials of Barangay Limas and its residents for allowing the researchers to conduct the study in their area. Moreover, the researchers were very grateful for the support of MSU-Buug administration throughout the course of the study.

REFERENCES

- Barangay Limas Development Plan, 2018. Limas, Tigbao, Zamboanga del Sur.
- Constantino, A. (2007). *Field Guide to Birds in Lake Maragang*. <https://www.lakemaragang.birds>.
- Herman-Mercer, N., Schuster, P. F., & Maracle, K.B. (2011). *Indigenous Observation of Climate Change In the Lower Yukon River Basin, Alaska*. Human Organization, 70 (3), 244.
- Nayomi, G. & Gnanapala, W.K. (2015). *Socio-economic impacts on local community through tourism development with special reference to Heritance Kandalama*. Tourism, Leisure and Global Change. 2, 57-65.
- Ratz, T. (2015). *The socio-cultural impacts of tourism: Case of Lake Balaton*. Research Support Scheme Electronic Library at <http://e-lib.rss.cz>.
- Shivaraju, H.P. & Anil Kumar, K.M. (2015). *Socio-economic and environmental impact of tourism in Kodagu District (India): A Case Study*. Universal Journal of Environmental Research and Technology. 5 (1), 41-48.
- Protected Area Management Board-Mount Timolan Protected Landscape, 2012. Annual Report 2012. <https://www.maps.google.ph>