Tourism Potential Resources Measurement: The Talaga Pancar Lake Case

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ABSTRACT

This paper is aimed to measure the potential resources of tourism based on the criteria of tourist attraction, accessibility, infrastructure and facilities, and environmental degradation. The research using a case study in Talaga Pancar Lake based on qualitative and quantitative data with a descriptive explanation. Data through depth interviews were obtained from the manager and operator, while observed and measuring the potential tourism resource by using a rating scale. Results showed that tourist attractions were a medium category, that's the existing natural tourist attractions were sufficient to be used as potential as natural tourist attractions. The available accessibility was a potential medium, that the place has sufficient infrastructure and superstructure for tourists to reach the place. The level of environmental degradation was medium, that the impact of damage to environmental assets conditions was insufficiently maintained. Infrastructure assets were a high category, which means that the availability of assets is much complete. While the availability of supporting facilities was not sufficient by the adequacy standard for tourism destination services.

KEYWORDS: Assessment Criteria; Potential Tourism Component.

INTRODUCTION

Tourism has been recognized a positive effect on the economy, helped create new job opportunities, and any other positive activities (Arrobas, 2020, Djohan et al, 2020, Martin et al, 2017). It is important to sustain and increase tourism growth for the economy in which tourism developed (Philemon, 2015). Tourism as a source of alternative foreign exchange earnings in national development, as a tourism development in Indonesia, which the government projects Tourism Industry in 2019 to be the greatest foreign exchange in Indonesia (Furida et

al, 2020., Khan et al, 2020; Purwaningsih et al, 2020; Andrianto and Sugiama, 2016).

Nature-based tourism resource is one of the fastest-growing sectors of the tourism industry (Mehmetoglu, 2007), to fill the tourist demands and needs for travel (Naidoo, Muhurrun, and Seegoolam, 2011). This can be seen from the fact that natural resources are increasing rapidly because the nature-based tourism movement has an appeal to increase awareness in protecting nature and preventing damage to its resources (Metin, 2019; Musawantoro et al, 2020). The success of nature-based tourism lies inappropriate levels of consumer services, high environmental quality, and the conservation of environmental resources (Alaeddinoglu and Can, 2011).

Lakes that developed as a tourist destination include ecological resources, supporting and cultural services that contribute directly and indirectly to human well-being through recreation, where tourists can enjoy water tourism attractions, landscapes, species, also accessibility, infrastructure, facilities, and environmental system (Bie and Xu, 2018; Dokulil, 2014; Lu and Gong 2014; Priskin, 2001; Alaeddinoglu and Can, 2011). The lake as a natural resource has potential and is attractive to be utilized and managed as a tourist attraction (Ijeomah, Abere, and Ugwu, 2018). The lakes that can be developed into tourist destinations are that meet the criteria, therefore it is necessary to measure potential resources that meet the required criteria (Alaeddinoglu and Can, 2011). Based on several studies, it is necessary to measure and evaluate tourism resources that must be done, to see how much potential tourism resources criteria which include tourist attraction, accessibility, infrastructure, and facilities, as well as the level of environmental damage (Alaeddinoglu and Can, 2011; Priskin, 2001).

Tourist attractions in the lake destination include natural resources as a unique attraction such as freshwater, bird species, topography, ecological systems, and man-made attractions that many tourists can do (Ariya et al, 2017, Dokulil, 2014). The lake is a tourist attraction in many places are important freshwater habitats providing a significant attraction for the public, and tourism activities, but the impacts of tourist activities occur directly to the lake water and shoreline or can affect the water body indirectly through various actions in the catchment (Dokulil, 2014; Ningsih, 2020). Therefore, important to measure the amount of potential and influence of tourism in the lake. The uniqueness, abundance, accessibility, and visibility are key determinants of destination attractiveness, so the tourist destination necessarily must have features that are interesting and attractive to potential tourists (Ariya et al, 2017).

The quality of accessibility and accommodation are two important tourism components that affect tourist satisfaction and further lead to the intention of visiting again (Chin et al, 2018). A well-developed transport network within the tourist destination is a great contribution and high value in achieving destination attractiveness for tourists (Ariya et al, 2017). Tourism infrastructure and facilities which include transportation, accommodation, and other support facilities as the main tourism services that must be well-provided, and it is important to develop a nature conservation infrastructure and facilities in nature-preserved tourism areas to increase tourist attractiveness (Murphy et al, 2000; Sandwith, 2000).

Environmental degradation in lake tourism destinations must be well-programmed and carried out because tourism activities can cause damage to natural resources and cause high economic costs for the community (Alaeddinoglu and Can, 2011). Environmental degradation also causes tourism sustainability to decline (Naradda et al, 2017). It is very important to measure the level of environmental degradation that will occur if a tourism destination is developed in the lake (Dokulil, 2014; Tyagi, Garg, and Paudel, 2014).

It is very important to study tourism potential resources measurement, which the aims of the research to assess and measure tourism's potential resources based on the criteria of tourist attraction, accessibility, infrastructure, and facilities, and environmental degradation. Talaga Pancar Lake has the potential to be developed into a tourist destination, with an area of waters that can be widened to about 2.2 hectares, and a land area of about 5.5 hectares,

but it is not yet known how much potential it has based on the four criteria of attractiveness, accessibility, infrastructure and facilities, and environmental degradation. Based on the objectives of the research and characteristics of Talaga Pancar Lake, this research chose Talaga Pancar Lake as the object that was used as a case to measure the four criteria.

LITERATURE REVIEW

The Urgency of Assessment

Nature-based tourism is one of the important sectors in the tourism industry in many countries, but there are still many natural-based tourism resources in various countries that have not been developed because they have not measured by a critical assessment and their potential has not been identified (Perkins and Grace, 2009; Alaeddinoglu and Can, 2011). It is very important to identify and assess all the natural resources to develop and promote as a tourist destination based on natural resources, where tourism and natural resources sustainability are of increasing consequence and significance, and sustainable tourism is the dominant theme in contemporary tourism discourse (Baum et al, 2016).

The assessment of the tourism potential of nature-based assets is a process of evaluating, reporting, and reviewing asset resources compared to asset management to categorize asset resources based on low, medium, and high levels (Alaeddinoglu and Can, 2011). The used assessment criteria in their research included 4 measurement criteria, namely (1) level of attractiveness, (2) infrastructure, (3) level of environmental damage, and (4) accessibility (Priskin, 2001; Alaeddinoglu and Can, 2011).

The Used Assessment Criteria

Attractiveness.

The main attraction service regarding designation at tourist destinations is stated as a center of attraction (Swarbrooke, 2002). Lake tourism is included in nature tourism which has major tourist attractions is in the form of natural resources and is consisted of man-made in the areas (Lawton, 2005, Dokulil, 2014). Furthermore, Richard (2001) also emphasized that apart from being a destination for tourism, a variety of different activities and experiences determine the main attraction. Each tourist asset can generate profits, especially from the provision of natural-based resources or attractions (Priskin, 2001), so

that the level of attraction has a major role in the assessment of a place as a resource for tourism (Alaeddinoglu and Can, 2011). The criteria for tourist attraction can be expressed by using namely floral diversity, view diversity, and recreational facilities (Alaeddinoglu and Can, 2011). They are also state, tourist attractions in a destination area can be measured and classified as areas with low, medium, and high attraction potential for tourism development.

Accessibility.

Accessibility is a contemporary tourism issue such as tourism sustainability (Michopoulou et al, 2015; Gillovic and Alison, 2020). The accessibility component is a fundamental component in the tourism industry, and this component can support the sustainability of the tourist destination (Gillovic and Alison, 2020). Accessibility means a level of difficulty and ease of moving from one place to another which can be assessed based on 2 levels, namely external and internal accessibility (Deng & Bauer, 2002). The accessibility of tourism is intended as all means that can make it easy for tourists to reach a destination or other tourist destinations (Sunaryo, 2013: 173), so that accessibility is one of the most important components in every tourism asset (Sammeng, 2000). 5 measurement indicators are expressed namely road network, proximity to the city, proximity to other natural or historical resources, the comfort level of the road, and all transport types (Lee, Huang, and Yeh, 2010; Alaeddinoglu and Can, 2011).

Infrastructure.

According to research findings (Mandic et al, 2018), there is a significant correlation between the Tourism Area Life Cycle (TALC) and the number of arrivals, overnights, the current state of the infrastructure and facilities. Mandic et al (2018) also state the suggested growing demand and expectations regarding infrastructure and facilities in the examined destination can be related to a destination position in TALC. Miloradov and Eidlina (2018) state that the development of tourism infrastructure with the development of recreation in an area is two conflicting but not mutually exclusive goals, namely, maintain maximum preservation of the ecological environment in this concerned tourism area; and creating an environment where tourism and recreation are equipped with infrastructure and other physical facilities including transportation infrastructure for tourists. Vellani (2007) also explains that infrastructure is the underlying foundation of assets needed for an organization to perform

its essential functions and mission-critical operations, and the facility itself is defined as a physical structure or group of structures in a particular location. Therefore, it can be said that infrastructure is an important support for providing tourism services and commercial facilities in meeting the needs of visitors (Hsueh and Lai, 2000). Infrastructure and facilities can be measured using 17 indicators, namely: WC facilities, picnic tables, barbecue facilities, rubbish bins, arrangement for disabled, shaded areas or shelter, first aid or telephone facilities, water supply, electrical supply, telecommunication network coverage, accommodation, seats, food and beverages establishments, information counter, parking, place of worship, and signboard (Hsueh and Lai, 2000; Alaeddinoglu and Can, 2011; Marzuki et al, 2017; Ginting and Sasmita, 2018).

Environmental degradation.

The results of the study showed that tourism has a positive significant effect on economic and social improvement, but tourism can also harm environmental conditions, namely the occurrence of environmental degradation (Belsoy et al, 2012; Dokulil, 2014). Environmental degradation can be interpreted as a change or disturbance to the environment that can damage so that this condition is undesirable (Tyagi, Garg, and Paudel, 2014). They also state environmental degradation is of many types and has many consequences including the effect of tourism development on the environment (Tyagi and Paudel, 2014). Measuring the physical criteria for tourist resources based on the level of environmental degradation can be expressed by using the existence of rubbish or litter, level of wild grass, erosion, land erosion, tracks/paths, and buildings (Alaeddinoglu and Can, 2011).

METHODOLOGY

This study applied qualitative and quantitative analysis. The application of these two methods aims to obtain elaborated data and analysis to describe the potential of tourism resources, which are based on the criteria of tourist attraction, accessibility, infrastructure and facilities, and environmental degradation. The method applied is different from what Alaeddinoglu and Can (2011) used, which they are using a quantitative approach only. This research, data through depth interviews were obtained from the manager and operator also observed the tourism assets in Talaga Pancar Lake as a case that has not been maximum developed as a tourist destination. Managers and operators as key informants provide data and opinions on tourism resources as a potential tourism component in the Talaga Pancar Lake as an object study. There are eight

key informants with direct experience in Talaga Pancar Lake design, management, and operation of tourism resource and visitor services were interviewed to elicit their opinions and on associated interpretation.

The data elaborated that assessed was measuring the potential resources of tourism assets based on the criteria of tourist attraction, accessibility, infrastructure and facilities, and environmental degradation. Research on these criteria has been conducted by previous researchers elsewhere by Priskin (2001), Alaeddinoglu and Can (2011), Clius and Patroescu (2014), Marzuki et al (2017), Ginting and Sasmitha (2018).

Observations and interviews in this study are also complemented by 5W + 1H: what, who, when, where, why, and how, by describing the potential of the latest tourism resources (Brunt et al, 2001; Alaeddinoglu and Can, 2011; Clius and Patroescu, 2014). Data is presented on a ranking scale and is carried out by scoring at low, medium, and high levels and analyzed using descriptive statistics (Alaeddinoglu and Can, 2011; Clius and Patroescu, 2014).). The qualitative data of the depth interviewed results were analyzed using verbatim transcript and data residual techniques. While data in the form of numbers regarding potential tourism resources is obtained through each observation, each criterion for tourism components is analyzed and given a score. Furthermore, each tourism resource data was scored so that the degree of potential is obtained in ranking by using a rating scale and using descriptive statistics.

Criteria for tourist attraction and accessibility are given a score using a scale of five according to Clius and Patroescu (2014) with the conditions 1 = Very Bad, 2 = Bad, 3 = Neutral, 4 = Good, 5 = Very Good, and the level of environmental degradation has provisions 1 = Very Low, 2 = Low, 3 = Neutral, 4 = High, 5 = Very High. Meanwhile, the assessment of infrastructure and facilities criteria is carried out by giving a score for each indicator number with a value of 1 = Available and 0 = Not Available (Alaeddinoglu and Can, 2011). The results of each indicator on each of these criteria are summed, then classified based on the level of potential low, medium, high with the provisions according to Alaeddinoglu and Can (2011) and Clius and Patroescu (2014). Based on the data and analysis, the level of potential tourism resource for each measured criterion can be classified at low, medium, and high levels as expressed in Table 1.

Table 1. Requirements for Classification of Potential Level All Criteria

Potential Level	Score
Low	0 – 29
Medium	30 – 58
High	59 – 87

Source: Alaeddinoglu and Can (2011); Clius and Patroescu (2014).

RESULTS

Tourist Attraction

Measurement of resource potential based on tourist attraction assessment criteria consists of floral diversity, view diversity, and recreational facilities. These measures are based on the level of availability, diversity, and conditions in the field such as Alaeddinoglu and Can (2014) studied. According to the results of interviews, floral diversity, and view of diversity in the field showed that the number and variety of plantations are rich. Likewise, the observation results there is a rich diversity of flora in the lake area. The following results of the assessment of the level of attraction can be seen in Table 2.

The scale of data and the scoring results for floral diversity, view diversity, and recreational facilities show that floral diversity and view diversity has a score of "5" which means "very good." Meanwhile, based on the analysis of the rating scale, it shows that it is in the "medium" degree. The analysis was carried out using descriptive statistical analysis such as research conduct by Alaeddinoglu and Can (2011) and Clius and Patroescu (2014) based on the measurement results of each criterion. The floral diversity can be seen from how many types of vegetation species are there as the main tourist attraction (Priskin, 2001).

Table 2. Results of the Assessment of Tourist Attraction

No.	Indicators	Score	Meaning
1.	Floral Diversity	5	Very Good
2.	Recreational Facilities	2	Bad
3.	View Diversity	5	Very Good
Total		12	
Mean		4	
Rating scale: Low= 0 – 10 Medium=11 – 20		Medium	

High= 21 – 30	
Conclusion: The Potential of Tourist Attraction is sufficient.	

In this case study area, floral diversity has a very good score with a score of 5, the diversity of plants available has varied where there are more than 5 plant species available. The view diversity is measured based on the number of landscape features that tourists can see as a tourist attraction. Based on the results of the assessment, the view diversity also has a very good score with a score of 5, many landscape features are available such as views of lakes, rice fields, rivers, and pine forests. Meanwhile, recreational facilities are measured based on the availability of facilities that can be used for activities such as walking, swimming, exploring the forest and bushes, and activities that can be done in other natural attractions. The intended value is 2 where the availability of recreational facilities is still poor, there are only 3 facilities provided to carry out recreational activities.

Based on this, the total value of the criteria for tourist attraction is 12 with an average value of 3.2, so it shows that "the potential level of tourist attraction in Talaga Pancar Lake is medium" which means the potential is available for tourist attraction. It is quite attractive and meets the criteria to be developed as a tourism destination. The results of this analysis are the same as the analysis conducted by Alaeddinoglu and Can (2011) in a study of the Lake Van Basin area, Turkey. The tourist attraction shows a medium level, meaning that this tourist attraction is one of the priorities for planning tourism development (Alaeddinoglu and Can, 2011).

Accessibility

The results of the accessibility assessment include the road network, proximity to the city, proximity to other natural or historical resources, comfort level of the road, and all transport type. This indicator refers to research conducted by Priskin, (2001), Lee, Huang, and Yeh (2010), and Alaeddinoglu and Can (2011). The data collected is in the form of an assessment score for each indicator using a rating scale from the results of observations analyzed using descriptive statistical analysis (Lee, Huang, and Yeh, 2010; and Alaeddinoglu and Can, 2011; Clius and Patroescu, 2014).

Based on observations, the road network to reach the Talaga Pancar Lake area is accessed via Sumber Nyi Ageng Serang road which is around 5.8 km from the Majalengka highway. According to the rules of transportation infrastructure in Indonesia, and refer to Lee, Huang, and Yeh (2010) accessibility to tourist areas requires the availability of a road network. So based on this, the road to Talaga Pancar Lake area has met the indicators where tourism can be accessed via the highway network. This is reinforced by the results of interviews that the available roads to Talaga Pancar have met the needs of being accessed by tourists. Based on the scoring for the five indicators as reflected in Table 3.

Table 3. shows the results of the assessment of the accessibility criteria. The road network is measured based on conditions, distance, and level of comfort to tourist sites. The road network to the tourist area is in good condition and the distance from the highway to the tourist area is quite close. The assessment is carried out for the road network indicator given a score of 4. Meanwhile, the distance to the city center is relatively standard, so the value for the distance to the city center is 3.

Table 3. Result of the Assessment of Accessibility

No.	Indicators	Score	Meaning
1.	Road Network	4	Good
2.	Proximity To the City	3	Neutral
3.	Proximity To other Natural or Historical Resources	5	Very Good
4.	Comfort Level of The Road	2	Bad
5.	All Transport Type	3	Neutral
Total		16	
Mean		3,6	
Rating Scale: Low = 0 – 8 Medium = 9 – 16 High = 17 – 25		Medium	
Conclusion: The Potential of Accessibility is sufficient.			

The proximity of natural tourism to other natural resources is an important indicator in assessing accessibility. This closeness will be part of an alternative tourist tour (Priskin, 2001). Thus, the value for the distance indicator to other natural resources is 5. Furthermore, the value for the level of road comfort is 2, because the road access in the area does not yet have suitable accessibility, as well as the condition of road functions that are simultaneously used for pedestrians and vehicle traffic, as well as road conditions that are good enough so that the level of road comfort in the tourist area is still low. Meanwhile, the types of transportation measured are based on alternatives

and transportation services that can be used to get to tourist destinations. The value for the type of transportation indicator is 3 because there are choices of vehicles that can be used to go to tourist areas, both private and public vehicles. However, there are not many public transportation alternatives that can be accessed to reach the area.

Based on the results of the assessment, it can be concluded that the classification of the potential level of accessibility assets is 16 with an average value of 3.6, thus indicating that "the potential level of the accessibility assets can be stated as a medium". The results showed that differences in the results of research conducted by Alaeddinoglu and Can (2011), the potential for accessibility in this study were in the high category. Meanwhile, Clius and Patroescu (2014) study show that accessibility can be measured from the results of the evaluation carried out.

Infrastructure and Facilities

17 indicators indicate the condition of infrastructure and facilities that measured in the Talaga Pancar Lake area as shown in Table 4. Infrastructure and facilities are analyzed based on availability and conditions in the field. The indicators used are the same as research conducted by Alaeddinoglu and Can (2011), Marzuki et al (2017), and Ginting and Sasmitha (2018).

The results of interviews and observations in the field, there indicated the condition of infrastructure and facilities studied have 14 available infrastructure and facilities, while 3 facilities do not yet exist. The three types of facilities are barbecue facilities, arrangements for disabled facilities, and first aid/telephone facilities.

Table 4. Result of the assessment of Infrastructure and Facilities

No.	Indicators	Score	Meaning
1.	WC Facilities	1	Available
2.	Picnic Tables	1	Available
3.	Barbecue Facilities	0	Not Available
4.	Rubbish Bins	1	Available
5.	Arrangement for disabled	0	Not Available
6.	Shelter	1	Available
7.	First Aid/Telephone Facilities	0	Not Available
8.	Water Supply	1	Available
9.	Electrical Supply	1	Available
10.	Telecommunication Network Coverage	1	Available
11.	Accommodation	1	Available
12.	Seats	1	Available
13.	Food and Beverages Establishments	1	Available
14.	Information Counter	1	Available
15.	Parking	1	Available
16.	Place of Worship	1	Available
17.	Sign Board	1	Available
Total		14	
Mean		0,82	
Rating Scale: Low = 0 – 5 Medium = 6 – 10 High = 11 – 17		High	

Data collection and analysis were carried out through observation by previous research conducted by Alaeddinoglu and Can (2011). The results of the research can be seen in Table 4. Based on the results of the assessment, it can be concluded that the classification of the potential availability of infrastructure and tourist facilities is 14 points so that "the potential level of the criteria for infrastructure and facilities can be stated as high". This result is different from the research of Alaeddinoglu and Can (2011) which shows that the level of potential for infrastructure and facilities is low. This means that the infrastructure and facilities in the tourist area of Talaga Pancar Lake are complete and very adequate but based on the results of observations and interviews conducted several facilities are in poor condition, namely a lot of damage and not suitable for use for some of the available facilities and equipment is still lacking no grilling facilities, first aid facilities, and facilities for persons with disabilities are available. Facilities that are not yet available need to be considered to support easy access for tourist visitors (Alaeddinoglu and Can, 2011).

Level of Environmental Degradation

The level of environmental degradation is measured based on the same research by Alaeddinoglu and Can (2011), which used to measure the level of environmental damage in tourist attractions. The results of interviews and observations show that only the existence of rubbish or litter has been provided to meet the needs of both quality and quantity to handle the waste. Meanwhile, the level of wild grass, erosion, land erosion, tracks/paths, and illegal

buildings have not met the needs. The data collected is data in the form of an assessment score for each indicator which is replicated based on research by Alaeddinoglu and Can (2011) and Clius and Patreoscu (2014) using a rating scale.

Table 5. Result of assessment of Environmental Degradation

No.	Indicators	Score	Meaning
1	Existence of Rubbish or Litter	4	High
2	Level of Wild Grass	2	Low
3	Erosion	3	Neutral
4	Land Erosion	3	Neutral
5	Tracks/Paths	1	Very Low
6	Illegal Buildings	1	Very Low
Total		14	
Mean		2	
Rating Scale: Low = 0 – 10 Medium = 11 – 20 High = 21 – 30		Medium	
Conclusion: The potential level of environmental degradation is not very high			

There was a problem with piles of garbage and garbage scattered around and the smell of garbage which causes environmental pollution so that the potential level of environmental degradation due to the presence of the waste is high. Meanwhile, the results of the assessment of the level indicator of the level of environmental degradation due to the presence of waste are 4. Table 5 expressed, the value given for the indicator of the level of availability of weeds is 2 because there is plant supervision and management efforts to maintain it routinely to prevent the existence of these weeds so that the potential for environmental degradation due to grass wild low. Furthermore, the value of the level of environmental degradation caused by river flow erosion and soil erosion is 3, this can be seen from the potential for soil erosion and river flow, however, there are efforts from managers to prevent this so that the opportunity for environmental degradation exists but can prevent. Meanwhile, the value for illegal trails and illegal structures is 1 because the potential for building or illegal trails is very low, seeing the management's supervision efforts towards this so that the level of environmental degradation that occurs is also very low.

The results of this study can be concluded that the total classification value of the level of potential environmental damage is 14 points so that "the level of potential environmental damage can be declared moderate". This level of potential is different from the research result by Alaeddinoglu and Can (2011) which states that the potential for environmental damage shows a low level, this has an impact on a higher and attractive tourist attraction to be developed.

Potential Asset Tourism Resources

Based on the results of evaluations and measurements carried out on potential asset resources in the form of tourist attraction, accessibility, infrastructure and facilities, and the level of environmental degradation in the tourist area of Talaga Pancar Lake, it can be classified according to calculations according to Alaeddinoglu and Can (2011) in Table 6.

Table 6. Recapitulation of the Classification Potential Asset Tourism Resources Level in Talaga Pancar Lake

No.	Criteria	Score	Classification
1.	Level of Tourist Attraction	10	Medium
2.	Level of Accessibility	16	Medium
3.	Level of Infrastructure and Facilities	14	High
4.	Level of	14	Medium
Total		55	
Mean		13,75	
Rating Scale: Low = 0 – 29 Medium = 30 – 58 High = 59 – 87			Medium

Based on the results of the recapitulation of the total value of asset resources consisting of service assets of tourist attractions, accessibility, infrastructure and facilities, and the level of environmental degradation in the tourism area of Talaga Pancar Lake, it is 55 so it can be said that "the level of potential asset resources in the area Talaga Pancar Lake tourism is in a medium level (medium)", meaning that the level of potential asset resources has met the service needs of tourism assets, but the main infrastructure and supporting facilities have not met standards, so this potential needs to be optimally improved.

DISCUSSIONS

This study shows that nature-based tourism has the potential for a variety of tourist attractions, namely floral

diversity and view diversity. This tourist attraction service has a major role in measuring the potential of natural tourism resources a same as Alaeddinoglu and Can result (2011). However, the available recreational facilities are not yet varied and there are relatively few tourist activities. This shows that the potential of Talaga Pancar Lake tourism attraction service is in the medium category and has the same potential as other natural areas.

Furthermore, the results of measuring the potential for accessibility show medium results, in contrast to previous studies which stated accessibility in the high category. This is because access in tourist areas has not met the needs of tourist services, so it needs to be the attention of the manager to facilitate access for tourists.

Meanwhile, the availability of infrastructure and facilities is in the high category. However, this condition does not guarantee that tourism services are provided optimally because some of the available supporting facilities are damaged. Barbecue facilities, first aid facilities, and facilities for persons with disabilities are not yet available so it must be ensured for easy access to these facilities. This is the same as the results of Alaeddinoglu and Can (2011) which categorize the potential for infrastructure and facilities into high levels, but the quality and quantity they have are different, so it needs to be a concern for the managers of Talaga Pancar Lake.

Nature-based tourism is also related to environmental conditions so that the level of environmental damage can affect other tourism resource services (Alaeddinoglu and Can, 2011). This study shows the potential for environmental damage in Talaga Pancar Lake is in the medium category, in contrast to other natural areas which have low potential. The risks that may occur need to be considered to minimize tourist acceptance.

Based on this, the potential resources of tourism assets in this study can be classified in the medium category, meaning that the potential asset resources have met the service needs of tourism assets. This is the same as the results of research by Alaeddinoglu and Can (2011), but services for tourist attractions, accessibility, main infrastructure, and supporting facilities have not met standards, so this potential needs to be optimally increased and the risk of environmental damage needs to be prevented.

LIMITATIONS, FUTURE RESEARCH, AND MANAGERIAL IMPLICATION

Although this research contributing to our understanding of the measurement of potential tourism resources, as in other studies, this study does have limitations. This studied measures one lake as an object in Indonesia, even though there are many similar lakes in Indonesia. Therefore, other researchers should be better elaborate more lakes in a study, so that it can be generalized more broadly. Especially to managerial implication, the measurement of potential tourism resources needs to be based on the dimensions of the availability of local tourism assets and based on the potential of the tourism market concerned. In addition, this research only examines based on the dimensions of the provider, it did not study based on the market dimension so that further researchers can examine using the market and provider dimensions.

The end of the result of this study, and according to the aim of this research, Figure 1 expressed Mapping and Area Design of Talaga Pancar Lake Development which to measure the potential resources of tourism based on the criteria of tourist attraction, accessibility, infrastructure, and facilities, and environmental degradation.

Figure 1. Mapping and Area Design of Talaga Pancar Lake Development

The mapping and area design of Talaga Pancar Lake Development potential resources of tourism is based on the criteria of natural attraction, man-made attraction, accessibility which include transport and transfer in the area of destination, building infrastructures such as accommodation, tourism support facilities, and environmental degradation handling.

CONCLUSION

The potential level of tourist attraction is medium, that is means the existing natural tourist attractions were sufficient to be used as potential assets as natural tourist attractions. The tourist attractions include floral diversity, view diversity, and the attraction of recreation facilities. The level of potential accessibility is medium, meaning that the access service is easy to reach and has met the need for access both to tourist areas and in the tourist area of Talaga Pancar Lake. The accessibility assets include road network, proximity to the city, proximity to other natural or historical resources, the comfort level of the road, and all transport types. The level of potential for environmental degradation is medium, meaning that the impact of damage to environmental assets has a large enough risk. The potential level of infrastructure and facilities is in the high category, meaning that the availability of assets is complete, but some facilities are not up to standard. The level of environmental degradation includes the existence of rubbish or litter and waste, level of wild grass, erosion, land erosion, tracks/paths, no usable built structure, abandoned buildings or being no useable buildings, and illegal buildings. Based on this, this study shows that the potential level of tourism resources in Talaga Pancar Lake is the same as other natural areas, which are included in the medium category, meaning that the potential asset resources have met the service needs of tourist assets, but services for tourist attractions, accessibility, and main infrastructure and supporting facilities have not met the standards, so this potential needs to be increased optimally and the risk of environmental damage needs to be prevented.

Major findings from the study of tourism potential measurement based on tourism resources in and according to the field in Talaga Pancar Lake showed that the lake tourist destination is: (a) lack of infrastructure (b) lack of financial funds for park management (c) wildlife impacts management due to park tourism (d) integrated policy among the ministry and/or government to government.

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