



Potential of Community Based Ecotourism of Bats Population (Megachiroptera) in Soppeng Regency , Indonesia

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Abstract

The bats population lives and reproduces on trees in the city center of Soppeng Regency. The study aims to analyze the potential of community based ecotourism development of bats population. The method of study are the objects and ecotourism attractions, community based ecotourism and ecotourism management analyzes. The :all respondents stated that the bats population can be an ecotourism attraction. It's easy to observe wild bats. Ecotourism is an environmentally friendly tourism trip and empowers local communities. Accessibility is easy because the location of ecotourism attractions is only distance of 0.5 km from the bus terminal and public transportation. Amenities, such as hotel, restaurant, post offices, telecommunication networks, banks and souvenir shop are available at tourist sites. The study concludes that the bats population is potential to be developed as a community based ecotourism object in Soppeng Regency.

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Keyword

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Introduction

The bat population lives and reproduces in city center of Soppeng Regency. There are thousands and there have been hundreds of years ago. The government of Soppeng tries to protect and preserve. As an effort to help the government of Soppeng, this bat population can be used as a tourist attraction. Ecotourism is a tour with limited participants, environment based and empowering local communities. By becoming an ecotourism object, the life of the bat population will not be disturbed. Luchman (2004), ecotourism has its own specificity, namely promoting environmental conservation, environmental education, the welfare of local residents, and respect for local culture. Hill and Gale (2009), ecotourism can be seen based on its relationship with the 5 of core elements, which are natural, ecologically sustainable, the environment is educative, benefits local communities, and creates tourist satisfaction. Philip et. al, (2009), by empowering local communities, good participation will be realized between the local community and the tourism industry. The

community involved in decision-making is expected to be a form of better cooperation between the local community and the tourism industry. Ecotourism is an environmentally friendly tour and empowers local people. In the development of ecotourism there are several factors to be considered, namely attractions, accessibility and amenities.

The bat population is a local resource in Soppeng Regency that can be used to generate local revenue (foreign exchange), including as an ecotourism destination. Satria (2009), an effort to utilize optimal local resources is to develop tourism with the concept of ecotourism. Tourism carried out in this context has an inseparable part of conservation efforts, empowerment of the local economy and mutual respect for cultural or cultural differences. Shifting the concept of world tourism to ecotourism models, due to the saturation of tourists to visit artificial tourism objects. If this opportunity can be used optimally to attract foreign tourists to visit objects based on nature and culture of the local population.

The bat population are two major groups, namely the fruit eating bat (Megachiroptera sub order) and the insect eating bat (Microchiroptera sub order). There are currently 1001 species of bats in the world. There are 167 species of megachiroptera and 834 species of microchiroptera.. The last number of published species amounted to 1117 including 1 family with 186 species of megachiroptera and 17 families with 931 species of microchiroptera (Srinivasulu et al. 2010). Bats live in various types of habitats and choose alternative hanging places. Certain types of bats such as 'kalong' bats; 'codots' bats and some species of the sub order megachiroptera choose hanging-places to sleep on large trees. Whereas some types of bats from the sub order of microchiroptera prefer shelter in caves, holes in tree trunks, bamboo gaps, dead trees, woven rattan to the ceiling of houses in residential areas (Yuliadi et al., 2014). Suyanto et.al. (2002), bats should live on large trees in the forest or cave. Palmer and Woinarski (1999), the megachiroptera bat lives in mangrove forests, bamboo forests and rainforest. While the bats population habitat in Soppeng regency is not forest but on trees in the city center. Its habitat unique in the city center so it is easy to visit The uniqueness of an animal can be a tourist attraction..

Materials and Methods

Study Area Profile

The population of Soppeng regency in 2016 is 226.305 people consisting of 106.485 men and 119.820 women. Lalabata sub district has the largest population 114.845 people. Number of working people 15 years old and over by main industry in Soppeng regency ie. manufacturing industry 4.372 people, whole sale trade, retail trade, restaurants and hotels 16.209 people, agriculture, forestry, hunting and fisheries 44.716 people and others 8.343 people (Anonymous, 2017).

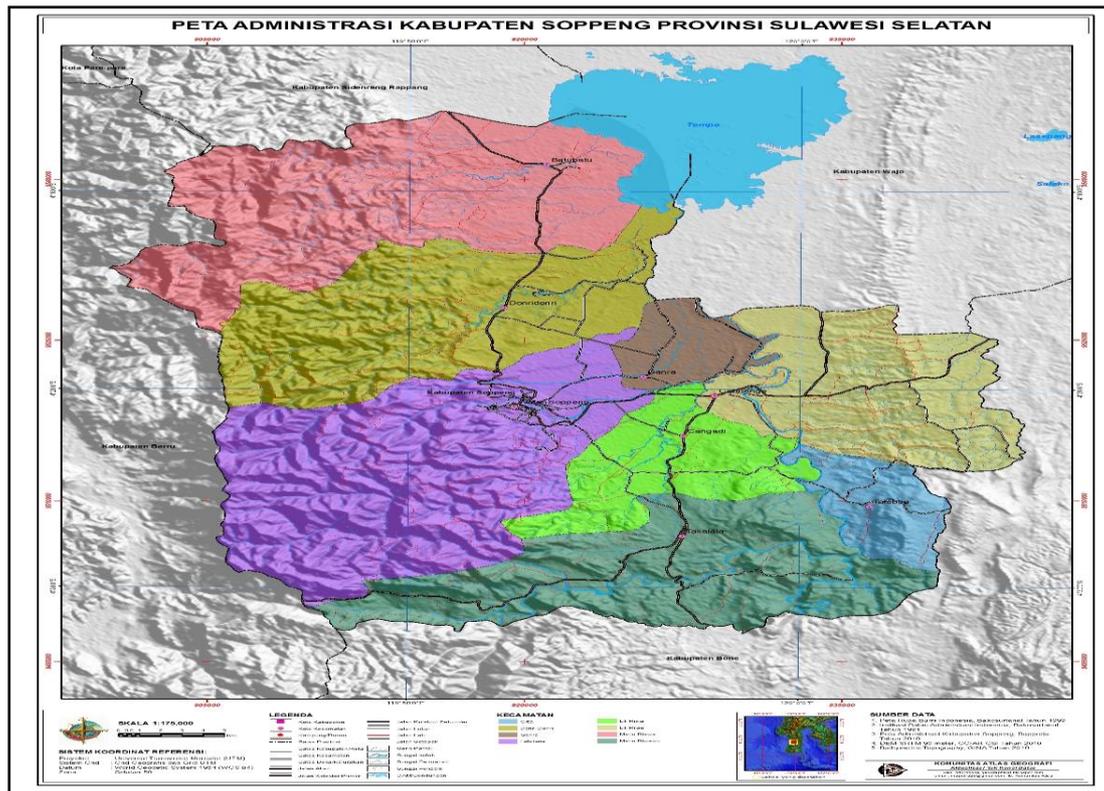


Figure1. Soppeng Regency of Study Area
Source : google map

Data Collection

The method of study uses data collection. Data collection methods consist of primary and secondary data. Primary data is collected by observation, interviews and questionnaires. Interviews were carried out with staff from the cultural and tourism offices, lalabata sub district staff, food traders at tourist sites and tourist visitors. The questionnaire respondents using random sampling method, namely 15 of respondents of culture and tourism offices staff, 15 of the lalabata sub district staff, 15 of food traders at the tourist location and 15 of tourist visitors. While secondary data is collected by reviewing documents in the cultural and tourism offices, environmental agencies and the government of Soppeng.

Data Analysis

Analysis of objects and ecotourism attractions

This analysis is to find out the potential objects and tourist attraction of the bats population in Soppeng regency. The results of the analysis is a description of the potential of bats population as objects and tourist attraction.

Analysis of community based ecotourism development

This analysis is to determine of potential of community based ecotourism development in the habitat area of bats population. Analysis of the community based ecotourism development using qualitative descriptive statistical methods, based on the results of interviews and questionnaires. The results of the analysis of community based ecotourism development is a descriptions and community participation in the Soppeng regency.

Results and Discussion

Objects and attractiveness of bats population analyzed are attractions, accessibility and amenities. Attractions, accessibility and amenities are determinants of visitors to ecotourism destination. Results of analyzed of bats population attraction are the unique habitat (Figure 2) and beautiful panoramic when the bats population flies in the air space of Soppeng regency (Figure 3). Then the results of observations showed that the bats population lived and reproduces on trees in the city center of Soppeng regency. The people of Soppeng regency often connect with events that will “occur in the community”. Therefore, the existence of the bats population is protected and preserved by the government of Soppeng regency. According to Suyanto et al. (2002), generally bats live on large trees in forests and caves. The bats in the Soppeng regency are fruit eaters, including the megachiroptera sub order. Palmer and Woinarski (1999), black flying foxes (megachiroptera) have habitat in bambo forest, mangrove forest and rainforest.



Figure 2. Bats population on trees of *Pterocarpus indicus* (A) and *Gmelina arborea* (B)



Figure 3. The beautiful panoramic of bat population flying

Widagdo, K.G. (2017)., tourist attractions are divided into natural attractions, attractive artificial tourism and culture. Tourist attraction is everything that has unique, beauty, and value in the form of diversity of natural, cultural, and man made wealth that are the target or destination of tourist visits. Young et al. (2013), there are three main characteristics who build ecotourism and have approved, namely: attraction nature-based tours, and usually focus on ecosystems that are relatively not disturbed or have an endemic still original like charismatic megafauna (for example, giant pandas, koalas, cranes whooping) inhabiting the ecosystem, charismatic megaflore (for example, trees red wood) and megaliths (for example, volcanoes, cliffs) displayed. Eugene E. Ezebilo (2014), ecotourism is responsible travel to natural areas that conserves the environment and improves the well-being of local people. It involves visits to destinations where animals, plants and cultural heritage are the main attractions.

Nugroho (2011), tourist attractions can be in the form of endemic species, animal diversity, natural beauty, animal uniqueness, natural landscape and culture. Devy, H.A. (2017), tourist attractions is one of the main capital that must be owned in an effort to increase and the development of Object and tourism attractions. The existence object and tourist attraction is the most important link in a tourist's activities. The main factor that makes visitors to visit tourist destinations is the potential and attractiveness owned by these attractions. Poupineau & Claire (2013), ecotourists choose their destination in accordance with the types of products offered, generally they are looking for specific experiences they cannot reach in other areas. Therefore, providing a high value product and services is very important. Hijriati & Rina, (2014). Ecotourism is a tour that is responsible for environmental sustainability and welfare local community. The active role in managing ecotourism potential is important because of natural knowledge and cultural potential has a selling value as an ecotourism attraction. The development of ecotourism affects society on ecological, social and economic aspects.

The results of the interview, the all respondents (100%) stated that bats population tours in Soppeng regency were easily seen and visited because they were in the city center.. The number of thousands of bats hanging on several types of trees. The shape and color of his body look clear with his distinctive voice, because these bats hanging on trees that are only 3-5 meters high. The bats population which flew together in the airspace of city center , Soppeng regency showed a beautiful panoramic. The uniqueness of the habitat and beautiful panoramic has the potential to become an attraction for the development of

ecotourism objects. Nugroho (2011), attractions in the tourism industry are the main factors for tourist interest. Attractions in tourism can take the form of natural beauty, animal diversity, unique fauna and flora and culture. The respondents are representatives of the community in Soppeng regency with a different profile (Table 1).

Table 1. Profile of Respondent

	Number	Percent (%)
Gender :		
Male	25	41.67
Female	35	58.33
Age :		
15-19	5	8.33
20-29	23	38.33
30-39	28	46.67
40-49	3	5.00
50-60	1	1.67
Education:		
Junior High School	11	18.33
Senior High School	32	53.33
University or College	17	28.34
Occupation:		
House Wife/husband	20	33.34
Student	5	8.33
Employee:		
Tourism office staff	15	25.00
Lalabta district staff	15	25.00
Unemployed	5	8.33

The location of the ecotourism object is located in the Lalabata sub district (city center). Distance of ecotourism object location with bus terminal and public transportation is only 0.5 km. The visitors can walk from the bus terminal to the location of the ecotourism object. Environmental conditions during the day are cold because Soppeng regency is surrounded by mountains. Anonymous (2017), Soppeng regency is surrounded by mountains, namely Nene Conang Mount with altitude of 1.463 m; Laposo Mount, altitude of 1000 m; Sewo Mountain, altitude of 860 m; Lapancu Mount, altitude of 850 m; Bulu Dua Mount, altitude of 800 m and Paowengeng Mount, altitude of 760 m. The results of interviews and questionnaires, 90.67% of respondents stated that the road facilities and public transportation availability were good. Access from Soppeng regency to other regency using public transport is available at the terminal. Soppeng regency does not have pioneer seaports and airports. An international airport near Soppeng regency is in the city of Makassar. Traveling from the city of Makassar to Soppeng regency using buses or other public transportation. The distance from Makassar city to Soppeng regency is 159.7 km and can be reached 3 hours travels. Hotels and restaurants already exist in Soppeng regency.

Anonymous (2017), Soppeng regency has 23 of non star hotels with 150 rooms and 406 beds. The number of 34 restaurants spread over 8 sub districts. The location for ecotourism development is in the Lalabata sub district which is the city center of the Soppeng regency government. The most hotels and restaurants in Lalabata sub district.

Hotels within 1-2 km of ecotourism objects are ada hotels, satria hotels, makmur hotels, surya hotels, kahyangan hotels and vera indah hotels. While restaurants in the city center are Padang, Ojo Lali, and Bugis Makassar. The result of observations show that on the north side of the ecotourism object there are 25 of traders who sell food and drinks. Based on the results of surveys and interviews with visitors, 95.33% of respondents stated the menu and taste of food was good and tasty.

The results of observation of amenity aspects are the availability of post offices, telecommunication network, exchange of money (bank) and shop of souvenirs. The aspect of amenity in the tourism industry is a factor supporting tourists. Anonymous (2017), there are 4 of post offices and 8 of supporting post offices in 4 of sub districts in Soppeng regency. There is 1 of post office in lalabata sub district. There are 3 of banks, namely BRI, BNI and Sulsebar Bank. In the location of tourism there are 2 of automatic teller machines (ATMs), owned by BRI and BNI banks. The communication network has been provided by 'PT. Telkom' and several cellular providers. The souvenirs in the form of T-shirts, hats and handicrafts illustrated by bats have been sold by traders at the location of ecotourism objects

Community-based ecotourism needs to be developed to support community welfare and protection, preservation of bat populations. Whereas the location of the bat population is in the lalabata sub-district, the most populated in Soppeng regency. Anonymous (2017), the population of soppeng regency in 2016 is 226.305 people consisting of 106.485 men and 119.820 women. Lalabata sub district has the largest population 114.845 people. Number of working people 15 years old and over by main industry in soppeng regency ie. manufacturing industry 4.372 people, whole sale trade, retail trade, restaurants and hotels 16.209 people, agriculture, forestry , hunting and fisheries 44.716 people and others 8.343 people. Based on these data, the opportunity to empower people to get income from tourism through service providers, souvenirs and tour guides is very large. The local community have been given permission to open a food and beverage business on the north side by the Soppeng regency government. The community empowerment aims to increase the economy and at the same time keep the bats population not disturbed by tourists. Then making souvenirs with the characteristics of bats has been taught to the community as part of the tourism element .Nugroho (2011), ecotourism activities must involve empowering the local economy. Food stalls and souvenirs are economic parts that can be developed by the local community. However, the souvenir industry must get supervision because there is a lot of evidence of raw materials for souvenirs exploiting from protected areas

Tanaya dan Iwan (2014), analysis of community aspects is carried out on 4 variables, namely the character of the community, the form of community participation, business opportunities, as well as the quality of tourism and community readiness. The character of the community is assessed by 7 dictators, namely livelihood, education level, behavior, customs, traditions, habits, and awareness of tourism potential. The quality of tourism is assessed by indicators of continuous visits in the region, and the readiness of the community is assessed by analyzing how prepared the community is if the area is made into an ecotourism area. Lovelock dan Wright (2007), there are eight components in a service management which can have implications in increasing market share. These elements are divided into the following categories: product element, place, process, productivity and quality, people, promotion and education , physical evidence, price and other user outlays. Sondakh dan Tumbel (2016), tourist managers must pay attention to aspects of service and security to tourists. This is so that tourists can feel comfortable, safe, and care about the

natural environment. Olivia, et al (2015), concluded that the external environment in the form of cultural factors, social class, references, and family will influence tourists..

Cristina Bittar Rodrigues & Bruce Prideaux (2018), the community based tourism implementation model is able to provide a roadmap of the actions that need to be undertaken and the sequences that need to be followed, if local communities are to firstly become involved in community based tourism projects and secondly be empowered to the extent that they are able to be treated as an equal by other firms operating in the tourism industry. Hijriati and Rina (2014), community based ecotourism is an ecotourism business that focuses on the active role of the community. This is based on the fact that the community has knowledge about nature and culture which is a potential and selling value as a tourist attraction, so that community involvement is absolute. Community-based ecotourism patterns recognize the rights of local communities in managing tourism activities in areas that they have traditionally owned or as managers. The existence of a community-based ecotourism pattern does not mean that the community will run.

While the analysis of tourism management aspects is carried out in 3 variables, namely community participation, transparency, and government policies and programs. As many as 70.67% of respondents stated that they had participated in tourism activities, namely in the form of environmental care and culinary providers, and as many as 95.00% had participated more than 4 years. The reasons for participating are divided into 2 dominant reasons, namely as a form of responsibility, and to make a living. However, as many as 85.67% of respondents stated that there was a micro-economic effort as a form of business opportunity to support community activities, most of which were in the form of culinary gifts, and the rest in the form of traditional food and crafts. Management transparency is assessed by 3 indicators, namely the benefits gained by the community, distribution of benefits, and community complaints about tourism activities in the region.

Based on the results of the questionnaire, 75,65% of respondents stated that the benefits obtained were in the form of efforts to promote regional economies. Nonetheless, there are still 30.33% who say they have not felt the benefits of tourism activities. In addition, 15.33% of respondents stated that there was no profit distribution system from the tourism activities manager. Wood (2002), ecotourism management does require the participation of local people because they know the condition and situation of tourism. Local people who must maintain and maintain tourism objects from damage. The policies and government programs related to the development of the bat population are already regulated of the master plan for regional tourism development in Soppeng regency. But the implementation of these government programs have not been fully realized, because they require full involvement of the community. The main obstacles to community based ecotourism development are people who tend to be lazy and do not care about their environment.

Conclusions

The population of bats has number in the thousands, living in large trees in the city center of Soppeng. The potential bat population is used as an object of ecotourism which also serves to protect and conserve.

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