Analysis of actors in the management of Lantebung mangrove ecotourism, Bira village, Tamalanrea district, Makassar city

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Abstract. Lantebung mangrove ecotourism area has now been designated as a conservation and protection area for coastal ecosystems. The management of the Lantebung mangrove ecotourism area is inseparable from various parties, both from the government and the community around the ecotourism area, to support the success of mangrove ecotourism management. This study aims: to determine the role and interests of each actor in the management of the Lantebung mangrove ecotourism area. The data collection method is used in three stages, namely: snowball sampling method, data triangulation and data verification is done by content analysis. The data analysis stage of this research: identification of actors and their roles, analysis of the interests of the actors and mapping of the interests and effects of each actor. The results showed that the actors involved were Jekomala, Lurah Bira, Makassar city tourism office, fishermen group, marine and fisheries service of South Sulawesi, analysis of interests contained in the Green Belt, biodiversity, education and tourism. Mapping the interests and influence of Key players: Jekomala, Makassar city tourism office, context setter: marine and fisheries service, Birah urban village, subject: Lantebung fishermen group.

1. Introduction
Indonesia is one of the countries with the highest quality and variety of mangroves in the world [1]. Around 3 million hectares of mangrove forests grow along the 95,000 kilometers of Indonesia's coastline, this number represents 23% of the total number of mangroves in the world. But in the last three decades, the total area of mangrove forests in Indonesia has decreased by 40% [2,3]. This makes Indonesia one of the countries with the greatest mangrove damage [4].

South Sulawesi Province with a coastline length of 1,937 km and a total of 299 islands, is a potential habitat for mangrove ecosystem growth and development. Based on data from the Forest Service of South Sulawesi Province in 2014, mangrove area in South Sulawesi Province reached 28,954.3 ha. Of this area only 5,238 ha are still in the good category, while the rest are in damaged and very damaged conditions.

The Makassar city mangrove ecosystem in previous years was quite alarming. In 2001, the area of mangroves was only around 50.30 ha and in 2015 an increase of 58.53 ha or increased by around 16% [5]. This happened because various mangrove conservation and planting activities in the north coastal area of Makassar City had been carried out by various parties.

The Lantebung mangrove ecotourism area is located on the north coast of Makassar city, Bira village, Tamalanrea district, with mangrove trees growing both naturally and those planted by volunteers and the government. The Lantebung Mangrove Ecotourism Area has now been designated as a conservation and...
protection area for coastal ecosystems. The management of the Lantebung mangrove ecotourism area is inseparable from various parties, both from the government and the community around the ecotourism area, to support the successful management of the mangrove ecotourism, therefore an actor analysis is needed to find out which parties are involved in the management of the Lantebung mangrove ecotourism area.

Actor analysis is conducted to find out who is involved in the management of the Lantebung mangrove ecotourism area. Actor and stakeholder itself is a phrase that is formed from two words, namely "stake" and "holder". In general, the word "stake" can be translated as "interests", while the word "holder" can be interpreted as "holder". So as stated above, stakeholders mean that they are stakeholders [6]. The presence of the actors in the management of the Lantebung mangrove ecotourism area to ascertain whether the management is in accordance with Presidential Decree No. 73 of 2012. to synergize policies and programs for managing mangrove ecosystems that cover the fields of ecology, socio-economics, institutions, and legislation to guarantee the functions and benefits of mangrove ecosystems in a sustainable manner for the welfare of the community.

Based on the above, there is a need for an actor analysis research to find out who is involved and who has more interests, and what is the role of each actor in the management of the Lantebung mangrove ecotourism area.

2. Material and method
This research was conducted in November to December 2019 in the management site of the mangrove Lantebung ecotourism, Bira village, Tamalanrea district, Makassar city.

Figure 1. Map of the study plan location.

2.1. Materials and tools

| No | Material                  | Quantity | Utility                                    |
|----|---------------------------|----------|--------------------------------------------|
| 1  | Guidelines                | 1 Unit   | Material interview                         |
| 2  | Supporting research data  | 1 Unit   | Deepening in the review of article related to previous research |

Table 2. Research tools.

| No | Material | Quantity | Utility                          |
|----|----------|----------|----------------------------------|
| 1  | Camera   | 1 Unit   | Taking pictures in the field of   |
2.2. Population and sample
This research data is primary and secondary data. Primary data is data taken directly from the field through the results of interviews with several actors [7], while secondary data is data taken from readings or documents and several sources from relevant agencies / institutions [7] as supporting data to supplement information that has been collected through field interviews.

2.3. Data analysis
Data processing and analysis are carried out in a qualitative descriptive manner, descriptive techniques are studies that describe or describe relationships that are studied systematically, factually and accurately. Initial data processing will be carried out using the results of the data obtained to obtain an analysis of the interests and roles of the actors in mangrove forest management. The data analysis stage is as follows:
1. Identification of actors and their roles, Identification of actors is carried out to determine or determine who is involved in the management of the Mangrove Lantebung Ecotourism
2. Interest Analysis of Actors, Interest analysis is carried out to find out the interests of each actor in the management of Mangrove ecotourism lantebung by looking at aspects of interests such as, Green Belt, Biodiversity, education, fuel wood, non-fuel wood and tourism
3. Staging the interests and influence of each Actor, Mapping the importance and influence of the actors is obtained based on the interests and influence (power) of the actor on the management of the Mangrove Lantebung Ecotourism, to determine the value of interest and influence using Microsoft excel software by classifying into four assessment indicators as follows:
   • Very high: 4
   • Height: 3
   • Low: 2
   • Very Low: 1

3. Result and discussions
3.1. Conditions of the Lantebung mangrove ecosystem
Lantebung mangrove ecosystem is one of the attractions in the city of Makassar precisely located in the Bira village Tamalanrea district of Makassar city. Makassar city is a land area that is affected by river, swamp and marine ecosystems. The city of Makassar is bordered by the Pangkajene regency in the North, Maros regency in the East, Gowa and Takalar regencies in the South and Makassar Strait in the West.

Tamalanrea subdistrict consists of six kelurahan with an area of 31.86 km² which is divided into coastal areas and not beaches with a height of inter-sea surface topography. The four non-coastal areas are Tamalanrea Indah, Tamalantea Jaya, Tamalanrea and Kapasa. Saddle other areas of the coast are Prangloe and Bira.

Bira Urban Village has an area of 19.28 km² with a population of 11,684 inhabitants. Bira village which administratively borders the Makassar Strait in the west as is common in coastal areas, this area has a tropical climate with a sloping and quite muddy beach character, administratively, Bira Village is bordered by the northern region bordering Untia Village, the South bordering Parangloe urban village in the East, it borders with Bulurokeng sub-district, and in the west it borders with the Makassar Strait.
3.2. Identification of the actor and his role

Actors can be interpreted as individuals or groups who have a network of power, as well as having certain interests [8]. The intended actor is an individual or group that can directly access the Lantebung mangrove ecotourism area. Actors who have interests in Mangrove management come from various walks of life, each actor has different interests and goals. Like the actors involved in managing the Lantebung mangrove ecotourism area, there are community groups and government agencies.

The Actors involved in the management of the Lantebung mangrove ecotourism there are five (5) actors, namely: the Lantebung mangrove ecotourism network network (Jekomala), the lantebung fishing group, the Bira urban village, the Makassar city tourism office, the South Sulawesi marine and fisheries office.

| Actor                                      | Explanation                                                                                                                                 |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| **Lantebung Mangrove Group Ecotourism**    | Direct role in the management of Lantebung Mangrove Ecotourism such as, conducting planting assistance to the end, socializing to the community about mangrove conservation |
| **Fishermen Group's**                      | Role in preserving mangroves                                                                                                                                                                     |
| **Headman Bira**                           | Have a role held meeting with the community about the sustainability of mangroves, gave administrative permits to visitors who wanted to plant, and liaised with related agencies or donors who wanted to help the development of Mangrove Lantebung Ecotourism |
| **Makassar City Tourism Service**          | Has issued a decree for Jekomla, giving information about tourism insight and will make one of the Makassar City icons of the                                                                          |
| **South Sulawesi Marine and Fisheries Service** | Providing guidance and supervision of Regional Regulation No. 2 of 2019 (RZWP3K).                                                                                                                     |

Lantebung Mangrove Group Ecotourism (Jaringan Ekowisata Kelompok Masyarakat Lantebung/Jekomala).

Mangrove Management, the institution was formed on the basis of the initiation of the bira community for conservation and utilization, which was formed in 2016. The Jekomala Institute is a community-based institution. Then the Jekomala institution often participates in training held by related agencies, and for the institution's direct role in mangrove management, where the Jekomala institution always provides assistance to the community, groups or intents who want to conduct planting, and in particular the head of the Jekomala institution often conducts training or providing material to the endorsers and the community on how to plant and benefit mangroves, the Jekomala also plays an active role in socializing the community of how the importance of preserving and utilizing mangroves.

3.2.1 Fishermen group. The Lantebung fishermen group is a group that is outside of bira and is under the structural jekomala, fishing groups are often involved in meeting forums to discuss conservation, and utilization. The preservation in question is how fishermen can maintain and supervise in the sense that there are no communities cutting down mangrove trees, because along with the community's awareness of
the importance of mangroves and frequent planting, this increases growth (biodiversity). According to fishermen, after preservation and use is often done, this will directly affect the catch of fishermen.

3.2.2. Headman Bira. The management carried out by the bira bureaucracy in the form of holding meetings/meetings about how to preserve and use mangroves, as well as facilitate administrative access such as licensing planting and petrification of interest or groups who want to do mangrove cultivation by showing the location that must be planted. Bira urban bureaucracy is also a liaison actor with related agencies and donors who want to help increase the existing development in the Lantebung mangrove ecotourism area.

3.2.3. Makassar city tourism service. The management carried out by the tourism office is to make Lantebung mangrove ecotourism become one of the icons of Makassar city and have issued a tourism group decree and have carried out tourism socialization with the Bira community about the potential of mangroves, then in 2020 there will be an increase in HR for the management of mangrove ecotourism. The tourism office has also prepared a master plan that focuses on the preservation and construction of facilities and infrastructure.

3.2.4. South Sulawesi marine and fisheries service. The involvement of the Makassar city fisheries and fisheries office in the management of the Lantebung mangrove ecosystem is to supervise and maintain the existence of the green zone that has been established in the mangrove ecosystem by implementing Perda No. 2 of 2019, namely the zoning plan of coastal areas and small islands (RZWP3K) and provide guidance or delivery to the local community to maintain the existence of green lanes in the mangrove Lantebung ecosystem.

3.3. Interest analysis in the Lantebung mangrove ecosystem.

The interests of the actors towards the mangrove forest began with the existence of a green belt (green belt) which was maintained by each actor, accompanied by biodiversity, then the interests of the mangrove forest as a means of education for local students who wanted to know mangrove forests and students who wanted to do research. Other mangrove forest interests are also available from firewood that can be utilized by the community as well as the potential of mangrove forests in non-timber terms, as well as the importance of mangrove forests as a tourism facility.

The results of the interest analysis are summarized and clarified in tabular form, to focus the results obtained on the main areas of interest and who are the actors involved in each interest, which are presented in table 4 below.

| Table 4. Actor and interest. |
|-----------------------------|
| Actor                      | Interest                           |
| Jekomala                   | GreenBelt, Biodiversity, Education, Travel |
| Fishermen Group's          | GreenBelt, Biodiversity, Tourism, Education |
| Headman Bira               | GreenBelt, Biodiversity, Education, Travel |
| Makassar City Tourism Service | GreenBelt, Education, Travel      |
| South Sulawesi Marine and Fisheries Service | GreenBelt, Biodiversity, Education |

3.3.1. The existence of the green belt. Green belt (green belt) is forest that is dominated by mangrove vegetation and grows in coastal areas whose width is proportional to the shape and important physical conditions that are built parallel to the coast [9]. This green belt is in the interest of mangrove forests...
which has benefits in terms of ecological, economic and social aspects. These three aspects are important aspects contained in the green belt. Ecological aspects, for example with a strong root system, mangrove forest ecosystems have the ability to reduce waves, hold mud and protect beaches from abrasion, and tidal waves [10].

For this reason, all actors agree that the existence of the green belt in the Lantebung Mangrove Ecosystem is very important for the existence of the green belt. It must be maintained. and the green belt protects the village of Bira from sea water erosion.

3.3.2. The Importance of diversity (Biodiversity). Type of diversity (biodiversity) is seen from the composition, diversity and density. In diversity (biodiversity), actors who consider it important as a group of fishermen, because the existence of diversity greatly affects the results of fishermen's acceleration. Actors such as the Chairperson of Jekomala, the South Sulawesi maritime and fisheries office and the Bira village chief consider the presence of biodiversity as important because it affects the presence of organisms under and over mangroves, the Makassar city tourism agency is underestimated because the tourism department's focus is more on developing tourist attractions in the Lantebung mangrove forest area.

3.3.3. The importance of educational facilities. Educational facilities for the mangrove forest area are considered important by all actors, but the mangrove forest area has not been popular so far as a means of education for all people, this is evidenced by only students and certain groups that often carry out mangrove planting in the mangrove Lantebung ecotourism area. This might be due to the lack of available facilities and the failure to fulfill the four conditions. The aspect of mangrove forest education is said to be suitable as an educational tourism if [11]:
   a. Having an institution, in order to run well, a research, training, information, ecotourism and environmental education section is needed.
   b. The existence of roads as a means to surround the mangrove.
   c. Mangrove layout without changing the zoning of the mangrove itself.
   d. The absence of illegal traders in the tourist area.

3.3.4. Tourism interests. The importance of tourism facilities is considered very important by actors such as the tourism office, Jekomala and Lurah Bira. The actors of the Lantebung fishermen group and the South Sulawesi marine and fisheries service consider it to be less important because, fishermen groups have an interest in preserving that has a direct influence on fishermen's catches while for the South Sulawesi Marine and Fisheries Service has an interest in how to preserve the environment around the sea coast. Interests as a means of tourism should have a community-based key aspect viz.
   a. Communities form committees or institutions for the management of ecotourism activities in their area, with support from the government and community organizations.
   b. The principle of local ownership (management and ownership by the local community) is applied wherever possible to ecotourism facilities and infrastructure, ecotourism areas.
   c. Homestay is the first choice for accommodation facilities at tourist sites.
   d. Guides are local people (the value of community participation).
   e. Pioneering, managing and maintaining tourism objects is the responsibility of the local community (Directorate General of Tourism Destination Development, 2009).

3.4. Mapping actors in the management of Lantebung mangrove ecotourism
The mapping of these actors explains how the roles (influence and interests) of each actor on the mangrove Lantebung ecotourism. The results of this mapping were obtained from the results of the
scoring of each actor against other actors conducted during the interview how the level of importance and how much influence each actor assessed on the existence of mangrove ecotourism. The scoring results obtained include the level of importance and influence of the actor on the existence of mangrove ecotourism which is presented in table 5 and table 6.

| Table 5. Interest value, in the management of Lantebung mangrove ecotourism. |
|-----------------------------|-------------------------------|
| Aktor                      | Interest value | Score |
|                            | I   | II  | III | IV  | V  |     |
| Jekomala                   | 4   | 4   | 3   | 4   | 18 |
| Fishermen Group's          | 2   | 4   | 1   | 4   | 11 |
| Headman Bira               | 3   | 2   | 3   | 4   | 9  |
| Makassar City Tourism Service | 3   | 3   | 4   | 3   | 16 |
| South Sulawesi Marine and Fisheries Service | 4   | 2   | 2   | 3   | 9  |

Description: I = Involvement, II = benefits, III = work program percentage, dependency level, and role.

| Table 6. Influence value, in the management of Lantebung mangrove ecotourism. |
|-----------------------------|-------------------------------|
| Aktor                      | Influence value | Score |
|                            | I   | II  | III | IV  | V  |     |
| Jekomala                   | 4   | 4   | 3   | 3   | 4   | 17  |
| Fishermen Group's          | 2   | 1   | 2   | 2   | 3   | 9   |
| Headman Bira               | 2   | 2   | 1   | 1   | 3   | 15  |
| Makassar City Tourism Service | 2   | 3   | 4   | 4   | 3   | 18  |
| South Sulawesi Marine and Fisheries Service | 3   | 2   | 3   | 3   | 3   | 16  |

Description: I = Condition, II = Eligibility, III = Compensation, IV = Personality and V = Organization.

The score of influence and importance that has been obtained is then mapped into the form of mapping the actors. In the results of this mapping will explain how the position of the actor for his role in the Lantebung Mangrove Ecotourism which is divided into four quadrants include: subject, keyplayers, crowd, and context setter which can be seen in figure 2.
Figure 2. Mapping influence of the interests of each actor in the management of the Lantebung mangrove ecotourism.

The role of the actors in terms of interests and influence in the management of the Lantebung mangrove ecotourism can be seen in figure 2 above. In figure 2, the results of the mapping of the roles of the actors are obtained and it can be seen that each actor is in their respective quadrants, namely, keyplayers, subject and context setter, while Crowd is not found in the actors involved in the management of Ekowisita Mangrove Lantebung.

**Keyplayers** are actors who have high importance and influence on the management of the mangrove Lantebung ecotourism. In the Keyplayers there is a network of ecotourism of the mangrove Lantebung group (Jekomala) and the Makassar city tourism office, this is because both actors are directly involved in management and have an important role in issuing regulation or implement work programs for the benefit of the mangrove Lantebung ecotourism.

**Context Setter** has a high influence but has low importance so that it can be a significant risk to be monitored. This position is filled by the Office of Maritime Affairs and Fisheries of South Sulawesi and Lurah Bira, because these two actors only focus on regulation and supervision. The regulation in question is the process administration to carry out planting or activities in the Lantebung Mangrove Ecotourism Area must be approved by the Lurah Bira so that the activity is illegal and for oversight matters is the South Sulawesi Marine and Fisheries Service ensuring Regulation No. 2 of 2019 concerning RZW3PK running or implemented as it should.

**Subject** are stakeholders who have high interests but have low influence, but these stakeholders can increase their influence if they form an alliance and enable cooperation with other stakeholders, in managing the Mangrove Lantebung Ecotourism which is the Subject, namely the fishing group, because it has no influence strong, because the structure of the Lantebung Fishermen Group does not have the authority to issue regulations or have a strong power to determine the direction of the program to be implemented in the Lantebung Mangrove Ecotourism Area.

**Crowd** is an actor who has a low interest and influence in the management of Lantebung Mangrove Ecotourism, but from the results obtained, there are no actors who act as Crowd. Because every actor involved in management in the Lantebung Mangrove Ecotourism area has their own duties and functions in accordance with applicable regulations.
4. Conclusion

The conclusions obtained in this study are the actors in the management of the mangrove Lantebung ecotourism area, there are five (5) actors, namely the Lantebung mangrove group ecotourism network (Jekomala), Lantebung fishermen group, Makassar city tourism office, Bira urban village and South Sulawesi marine and fisheries office.

Actors involved in the management of the Lantebung mangrove ecotourism have their respective roles, Jekomala has the role of directly managing the Lantebung mangrove ecotourism area, the Lantebung fishermen group maintains the preservation of mangroves who want to contribute to the development of the Lantebung mangrove ecotourism, the department of tourism is active in conducting socialization on the proper management of tourist attractions and the office of maritime affairs and fisheries has a role in maintaining the preservation of the coastal sea area.

There are four interests in the Lantebung mangrove ecotourism area, namely the existence of the green belt, biodiversity, education and tourism, for the green belt all actors consider important, Biodiversity interests, are considered important by Jekomala actors, Lurah Bira, fishermen group, South Sulawesi Maritime and fisheries service. Tourism interests are considered important by the Makassar city tourism office actors, Jekomala, the Lantebung fishermen group and Lurah Bira, and the importance of education is considered important by all Actors.

Mapping the interests and influence of stakeholders in the management of the Lantebung mangrove ecotourism is divided into 3 quadrants, namely 1. Keyplayers filled by Jekomala and Makassar city tourism office, 2. Context Setter namely South Sulawesi marine and fisheries service, 3. Subjests is Lurah Bira and fishermen groups.

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