

MAPPING THE ASSETS OF THE BALANG TONJONG LAKE USER COMMUNITIES IN MAKASSAR CITY

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Abstrak: Danau Balang Tonjong di Kelurahan Antang Kota Makassar memiliki potensi yang belum dimanfaatkan dan terpetakan secara maksimal. Sementara itu aktivitas masyarakat sekitar telah berasosiasi dengan berbagai nilai manfaat dari keberadaan danau tersebut, salah satunya aktivitas perikanan dan pariwisata. Permasalahan yang akan diangkat dalam program pengabdian kepada masyarakat ini adalah pemetaan aset komunitas kelompok pemanfaat Danau Balang Tonjong Kota Makassar. Program pengabdian kepada masyarakat ini bertujuan untuk memetakan potensi kegiatan masyarakat yang berorientasi pada kegiatan ekowisata, memetakan aset yang dimiliki oleh masyarakat di sekitarnya dan meningkatkan sinergi atau keterhubungan antara 3 kelompok pemanfaat (petani, nelayan dan kelompok wisata) dalam mengelola aset *urban ecotourism* di Danau Balang Tonjong. Kegiatan ini dilaksanakan melalui pendekatan pemetaan partisipatif yang meliputi tahap inkulturasi, tahap pemetaan kawasan, pemetaan stakeholder dan tahap evaluasi. Pendekatan ini yang melibatkan kelompok dampingan di Kelurahan Antang Kecamatan Manggala Kota Makassar secara internal dan berbagai *stakeholder* sebagai komunitas eksternal. Hasil pengabdian diperoleh bahwa potensi yang ada di kawasan tersebut didukung oleh kondisi lanskap kawasan yang berasosiasi dengan Danau Balang Tonjong, sedangkan aset yang ada di wilayah tersebut meliputi aset individu, fisik, sosial, alam, dan finansial. Aset individu menjadi faktor pendukung sehingga transfer informasi dari fasilitator ke komunitas tidak mengalami kendala. Asosiasi yang terbentuk dari hasil pengabdian ini berupa pengelompokan 3 objek dampingan menjadi keterhubungan rendah, sedang dan tinggi. Kelompok tinggi menggambarkan kedekatan hubungan antara komunitas dengan stakeholder yang didampingi. Program pengabdian ini efektif dalam menggali potensi yang ada di wilayah mereka dalam mendorong implementasi pengembangan kawasan *urban ecotourism* di Kota Makassar.

Kata Kunci: pemetaan aset, komunitas, kelompok pemanfaat, Danau Balang Tonjong

Abstract: The Antang Village, Makassar City's Balang Tonjong Lake, has untapped potential that has not been mapped or utilized to its fullest capacity. Conversely, the lake's presence has been linked to many advantageous aspects of the neighboring community, including fishing and tourism-related endeavors. The following issues will be addressed through this community service program: This community service initiative cartographically represents the assets of the Lake Balang Tonjong Lake user group in Makassar City. This community service program aims to assess the viability of ecotourism-focused community activities, delineate the assets owned by the neighboring community, and strengthen the collaboration or linkage among three user groups—farmers, fishermen, and tourism organizations—in managing municipal assets. A participatory mapping approach is utilized to conduct this activity, which consists of the following phases: inculturation, area mapping, stakeholder mapping, and evaluation. This strategy engages internal stakeholders from the assisted groups in Antang Village, Manggala District, Makassar City, and external communities from diverse stakeholders. The outcomes of the service indicate that the area's financial assets comprise individual, physical, social, and natural resources. In contrast, the landscape conditions of the area bolster its potential. Individual assets serve as a facilitating element to ensure no impediments to the transmission of information from the facilitator to the community. The association established by this service categorizes the three objects it assists into three distinct levels of connectivity: low, medium, and high. The high group serves as an embodiment of the intimate bond that exists between the aided stakeholders and the community. By promoting the establishment of urban ecotourism areas in Makassar City and encouraging the implementation of regional development initiatives, this service program successfully exposes participants to their region's potential.

Keywords: asset mapping, community, beneficiary group, Balang Tonjong Lake

Introduction

Eco-tourism in urban settings provides a diverse range of natural components that are extensively utilized by the local community for the purposes of sustainable urban development, ecological protection, and socio-economic endeavors (Jegdić, Oliver, & Gradinac, 2016). Currently, Makassar City is undergoing substantial expansion and exhibits indications consistent with megapolitan development (Kamaruddin & Alam, 2019). A disparity distinguishes this between population growth and the demand for green open space (Rijal, 2008). According to recent studies, while Makassar City is legally mandated to have an area of 405,641 m², the actual available space is approximately 73,000 m² (Dollah & Rasmawarni, 2019).

Determining the infiltration area, water conservation measures, and lake boundaries in Antang Village, Manggala District is carried out per the Makassar City Spatial Plan 2015-2034 (Syafri & Rahman, 2021). This geographical region is partitioned into two sections: an inlet, which is a restricted-access area governed by the Pompengan Jeneberang River Basin, and an outflow, which maintains a public-accessible utilization pattern. It is referred to by the locals as Lake Balang Tonjong. A single water inlet and discharge system connects these two water catchment areas (Indrayuni & Yusuf, 2023).

Typically, individuals visit this region to engage in tourism and recreation. The region's allure as a tourist destination lends credence to this claim (Rijal, 2008). An additional distinguishing characteristic is the development of fertile soil and a lake edge of approximately 2 meters that is utilized for urban agricultural operations. Furthermore, it is employed by the community for fisheries-related endeavors, including fishing and fish cultivation. The byproducts of diverse agricultural practices are subsequently distributed for sale near the reservoir. Tourists are the intended audience for the reservoir's prospective development at the Pampang reservoir. There is a significant spike in family-oriented activities, including cycling and exercising, near the Pampang reservoir during the holidays. This is the allure and potential of eco-tourism for the inhabitants of Makassar.

In order to utilize the Pampang reservoir for agricultural, fishing, and public purposes, the community has engaged in various activities (Selmi, Wiharto, & Patang, 2020). However, user groups encounter several challenges to exploiting this potential fully. One such obstacle is the absence of synergy among the three user groups; the fishermen group primarily concentrates on fishing activities, the farmer group mainly concerns itself with utilizing emerging land for agricultural purposes, and the tourist group generally fails to engage in various activities.

The socio-economic circumstances of the user groups in the region are generally restricted. The majority of them continue to rely on work as a supplementary occupation, while their primary pursuits are as street vendors, motorcycle taxis, or drivers. They are unable to depend on this region's potential as their primary source of income. In addition, the community's management of the area is suboptimal due to constraints imposed by environmental pollution, flooding, and the effects of climate change. Potentially, this region has the capacity to advance the notion of eco-tourism through the prioritization of user group activities. The integration of eco-tourism activities seamlessly into the primary attraction can be achieved through the

synergy that exists between tourism activities and fisheries and agricultural pursuits (Anggoro, Suryanti, Jati & Widyorini, 2021). Beneficiary groups often encounter constraints when attempting to optimize current endeavors as a result of insufficient knowledge and the absence of a platform to cultivate this potential.

The presence of user groups within an urban setting indicates the community's disposition towards natural phenomena, including tourism, agriculture, and water (Sabourjanati & Ghalandarian, 2022). In doing so, it underscores urban society's intricacy while preserving its agricultural past's distinctive attributes. This community organization possesses the capacity to emerge as the primary catalyst in achieving a sustainable city (Wondirad, 2019) because their engagement, conduct, and attitudes continue to intersect with agrarian principles (Rohmat & Prakosa, 2017). Assistance is provided to the three user groups to mobilize eco-tourism actors in the vicinity. It is anticipated that this service activity will be situated in the middle of the user group to offer guidance and resolutions concerning the administration of urban eco-tourism. In the future, the community will assume a primary role in strategically developing, managing and preserving this region's eco-tourism potential. Consequently, endeavors must be made to aid user groups in developing an appropriate management framework predicated on the eco-tourism concept. As a result, community productivity is anticipated to increase concerning the management and utilization of Lake Balang Tonjong's potential and the development of a sustainable city.

One concept that aligns with the presence and purpose of lakes as Green Open Space entities in Makassar City is urban eco-tourism (Abidin, Umar, Tabbu & Haris, 2023). User groups constitute a community within urban environments that significantly contributes to achieving a sustainable city (Rusli & Umran, 2022). Therefore, in order to enable the user group to attain greater economic benefits, it is essential to empower them. Participatory mapping is a viable approach in which facilitators prioritize investigating diverse community assets (Nurdiyana, Parmitasari, Muliyadi, Nur, & Nur, 2016). This model is applicable for identifying numerous examples that demonstrate the openness and applicability of this approach to a wide range of community problems or topics (Nihayah, 2020). Consequently, endeavors must be made to aid user organizations in developing a suitable management framework predicated on eco-tourism. As a result, community productivity is anticipated to increase with regard to the management and utilization of the Pampang reservoir potential and the realization of a sustainable city.

Methods

This service activity was conducted in Antang Village, Manggala District, Makassar City. The focus of assistance is carried out in areas where management is still carried out by the community, namely in the outlet section of Lake Balang. The community is given access to utilizing rising land and lake borders for agricultural and fishery activities. This service activity was carried out in December 2022, and its timeline is shown in Table 1. The stages of participatory mapping activities include:

1. In the preparation and inculturation stage, the team assisted the user group by

providing an understanding of the purpose and objectives of the activity, building a relationship of trust, and facilitating the user group as an agent of change. This activity was carried out from December 02 to December 05, 2022.

2. The implementation step starts with conducting a pre-test to determine the extent of the object's understanding of the purpose of the service activities. The following steps, several stages of participatory mapping were carried out, which included:

- Individual Asset Mapping
Methods that can be used in individual asset mapping include interviews and focus group discussions on the target-assisted objects in the lake area user group.
- Community Mapping
The lake area user group will carry out a process of visualizing their knowledge and perceptions (Neil, 2020) related to the potential of this area to be developed as urban eco-tourism. The mapping is done in digital format.
- Area Tracing (Transect)
Transect is a form of imaginary line that extends in a certain area that will capture varied information (Hasan, 2017). The user group will be allowed to map the area with the transect method so as to produce a veritable picture of the conditions of the area.
- Association and Institution Mapping
Based on the role of associations/institutions in the lake area user group, the group development program can begin by looking for collective strength in existence (Mahmudah, 2018). Then, it can create a form of change in the user group. The acceleration of the development of the lake area user group depends on the high role of the association.

3. The final stage is the evaluation stage to ensure that the objectives and targets of community service activities have been achieved. This evaluation activity is carried out through networking recommendations, filling out the post-test, and measuring the success of this community service activity.

Table 1. Timeline of community service activities

No	Stage	Time of Implementation	Stakeholder
1	Licensing Preparation	December 06, 2022	Community Service team
2	Inculturation with the government	December 07, 2022	Antang Village Government and Head of Neighborhood Unit 006
3	Inculturation with the community	December 07 2022	Fishing community
4	Inculturation with the community	December 09 2022	Farmer community
5	Inculturation with the Department	December 09, 2022	Makassar City Tourism Office
6	Area exploration	07-10 December 2022	Community
7	Finalization of the area to be mapped	December 09, 2022	Antang Village Government

No	Stage	Time of Implementation	Stakeholder
8	Preparation of participatory mapping activities	December 10, 2022	Antang Village Government
10	Focus Group Discussion - Session 1 Transect Map - Session 2 Asset mapping - Session 3 Association mapping	December 11, 2022	Community, Antang Urban Village government, Makassar City Tourism Office representatives, Makassar City ATR BPN representatives, entrepreneurs, Pamsimas and the general public.
11	Evaluation	December 11, 2022	All participants of the community service program

Results and Discussion

Inculturation

Nadiasari and Rosita (2021) state that the inculturation phase is the foundational stage of the community empowerment approach, guaranteeing the service implementation's triumph. The process encompasses endeavors to enhance partners' comprehension of the service's objectives or targets, foster public confidence or support for the program's goals, and motivate them to act as catalysts for transformation in their communities. On December 6, 2022, the first action was establishing communication with the Antang Village Government, Manggala District, Makassar City. Subsequently, an initial assessment of the area's topography was conducted.

The inculturation process involved the Head of Antang Village, Manggala Subdistrict, and the Head of RW 006 Antang Village (Figure 1). Team representatives communicated and conveyed the purpose of the service activities. From this process, the Antang Village government built trust in the service team and was willing to facilitate the Antang Village community to develop their community. In addition, some key information was also obtained, which will become a strategic issue within the framework of urban eco-tourism. Then, the local government permitted implementation following the agreement on the schedule and technical implementation of community service in the field.

After building inculturation with the government, they are followed by an introduction to the lake user community and the object of urban eco-tourism development. Inculturation at the government level is very helpful for the team in building community trust in the service team. This process is carried out by mingling with the community, conducting interviews, and following community routines such as fishing or casting nets. Furthermore, an inculturation process was carried out with the Makassar City Culture and Tourism Office through the tourism destination sector on December 09, 2022. This inculturation aims to identify information related to urban eco-tourism objects and directions or policy interventions carried out by the Culture and Tourism Office in developing tourism activities around Lake Balang Tonjong.



Figure 1. Acculturation process

General Description

In alignment with the service's objectives and its relevance to the university partnership program, a comprehensive identification of information regarding the overall state of the region through the utilization of Geographic Information Systems (GIS) is required. Moreover, it serves as a blueprint for the subsequent phases, including issue mapping, asset mapping, area analysis, and spatial planning design.

a. Geographical Conditions

Antang Village is one of nine villages in the Makassar City Manggala Subdistrict (Figure 2). The Kelurahan, which is situated at -5.160441 East, 119.477431 LS, encompasses an area of 3.588 km² and is composed of 40 RT and 6 RW. The formation of Antang Village can be traced back to when this region was still a part of Gowa Regency, when Bitowa Village, Pannara Village, and Manggala Village merged. The three localities were consolidated under the name Kampung Antang, which translates to "Antang Village." From a geographical standpoint, Antang Village is bounded by the following:

- The West is directly adjacent to Batua Village and Borong Village
- The East is directly adjacent to Bitoa Village
- The north is directly adjacent to Batua Urban Village
- The south is directly adjacent to Bangkala Urban Village.

b. Topography

In general, Kelurahan Antang is located at an altitude of 0-20 m above sea level, with surfaces varying from flat, undulating to hilly. This area is low-lying, so plenty of raw water is available for community consumption. The topography in Kelurahan Antang has four elevation types: 0-2 Mdpl, 2-5 Mdpl, 5-10 Mdpl, and 10-20 Mdpl.

c. Geology

The geology of Antang Village consists of alluvium deposits and camba formations. This condition is caused by the parent material that forms it, such as the type and nature of rocks, minerals, and soil-bearing capacity. Thus, the area in Antang Village will show the morphological conditions of a large flat area, and there are undulating areas with different slope levels. These different geological conditions allow the formation of water catchment areas, such as lakes around Antang Village, Lake Balang Tonjong, or the Pampang Reservoir.

d. Soil Types

The Urban Villages of Antang comprise two distinct soil types: inceptisol and ultisol. It is predominantly composed of ultisol soil, which covers an area of 518.052666106 hectares.

e. Slope

Antang Urban Village's slope is divided into classes 0-2%, 2-5% and 5-8%. Almost 50% of the slope in Antang Village occupies a slope of 0-2% with a classification of gentle and slightly undulating.

f. Rainfall

Rainfall in the Urban Villages of Antang is between 3000 - 4000 mm/year, with November - December being the period with the highest peak rainfall days. As a catchment area with a flat topography, this area is prone to flooding.

g. Demographic Condition

Based on data from the Central Bureau of Statistics, the population in Antang Village reached 13,868 people, with 6,963 female residents and 6,905 male residents. The population density is around 6,812 people/km². The distribution of the total population by Rukun Warga in Kelurahan Antang is shown in [Table 2](#).

Table 2. Population distribution of Antang Urban Village's

RW	Amount		Total Population	Number of Family Head	Number of House
	Male	Female			
001	1903	2028	3931	1024	99
002	1606	1640	3246	1153	1404
003	241	253	494	159	179
004	978	944	1922	448	578
005	587	591	1178	372	292
006	787	813	1600	402	210
007	803	694	1497	258	191
Total	6905	6963	13868	3816	3709

Source: Data from Antang Urban Village, 2022.

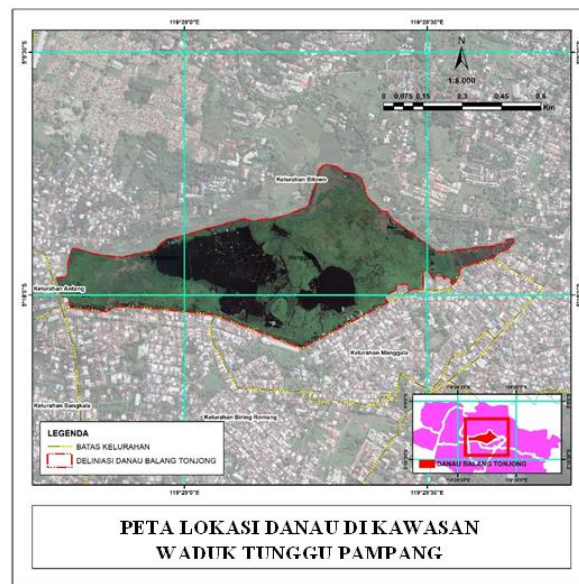


Figure 2. Delineation Map of Balang Tonjong Lake

Urban Potential for Eco-tourism

Lake Balang Tonjong is situated in Antang Village, Manggala Subdistrict, precisely east of the city center of Makassar, at a distance of 20 minutes to the East. Roads and residential zones delineate this region on the western and southern borders. Permunas Antang is situated on the eastern side. At the same time, residential areas, Antang Market, Senior High School 12 Makassar, Regional Drinking Water Company, and Makassar Health Training Center are located on the northern side. A portion of the Lake Balang Tonjong border region, particularly the area behind the Antang market, has undergone siltation and is now primarily vegetated with ferns, grass, and shrubbery. However, the majority of this region remains a lagoon encumbered with lotus plants. The lake is utilized for both caged angling and fish farming. The lake is adjacent to Perumnas Antang and in the proximity of residential areas. Trees have been planted alongside the road by the lake. The row of Trembesi trees provides visual evidence (Bisjoe, Prayudyaningsih, & Muchtar, 2019).

Following the search and observation completion, the findings were remapped via the creation of transect maps and the recognition of strategic concerns and issues. This activity was conducted during the initial FGD session on December 11, 2022 (Figure 3). The lake area's land use conditions identified five predominant land use categories: community-managed physical and natural assets. Through activities, land use databases, and identifying environmental issues and problems, the facilitator gathered information regarding the area's state. This phase employs a transect map comprised of satellite imagery, measuring 2 meters in diameter and set at a scale of 1:1000. Data detailing land use in Balang Tonjong Lake is provided in Table 3.



Figure 3. Data collection Transect map

Table 3. Land use components oriented towards eco-tourism activities

Land use	Residential	Lake	Agriculture
Soil condition	Ultisol soil and some rocky areas	Ultisol soil tends to be more moist due to waterlogging	Ultisol soil, utilized by the community for agricultural activities
Type of plant vegetation	Banana, guava, coconut	Water hyacinth, lotus	Chili, corn, rice

Land use	Residential	Lake	Agriculture
Ecological benefits	Settlements are still built with traditional settlement models. There are still shady residential neighborhoods and a rural feel.	Fishing, fish rearing, and water tourism activities	The community manages seasonal farming as another source of income.
Problems	Waste and garbage issues	The condition of the lake waters has been polluted. Tourism infrastructure is not well managed.	The condition of agricultural land is waterlogged and there is no access to farm roads.
Management efforts	Clean week activities by the Antang Village government	Cleaning the lake area from water hyacinth	Limited land management
Expectations	Shady houses and neighborhoods are maintained as supporting areas for tourism, such as rural-themed food stalls.	Re-management of tourism infrastructure and developing other potentials around the lake.	Developing agricultural activities is an important part of eco-tourism activities.
Potential	The community has a desire to develop the area. Access from the city center is easy.	Potential fish are sold to other tourist areas, namely Lake Bili-bili Tourism, which is approximately 23 km from Lake Balang Tonjong.	Agriculture can be packaged into agricultural activity tourism, such as rice planting education for children.

Source: Transcet map results, 2022

Asset Mapping

Asset mapping is conducted in accordance with the service's objectives and within the framework of the urban eco-tourism concept. This phase identifies tangible, intangible, financial, and natural assets (Nadiasari & Rosita, 2021). Each of these resources is applied toward the betterment of the community's welfare. The team and students facilitated community participation in asset mapping activities during FGD session two on December 11, 2022 (Figure 4) and the result are shown in Table 4. It is currently reliant on a satellite image map with a resolution of 1:1000 to provide an overview of the region, including:

1. Types of assets: capture the types of assets adjusted to the asset mapping table.
2. Asset location: survey and mark the location of the asset on the map and write it on the asset mapping table.
3. Asset description: describe the asset owned by the community and mark it on the map.
4. Asset tabulation: summarizes all assets and describes each asset component owned by individuals or communities in the area.

Table 4. Assets of eco-tourism users

Assets	Component
Individual	<ul style="list-style-type: none"> - The community has an education level above secondary school - The community works in the government and private sectors - The mindset is advanced - The community is aware that this area has great potential - Tourism, fisheries, agriculture, and livestock activities.
Social	<ul style="list-style-type: none"> - Tradition of togetherness and mutual cooperation

Assets	Component
	<ul style="list-style-type: none"> - Social and religious institutions are still active - There are periodic activities to keep the lake clean
Nature	<ul style="list-style-type: none"> - The existence of a lake that is used as a community support activity - Land conditions have varying heights - Land conditions that support agricultural activities
Physical	<ul style="list-style-type: none"> - Antang traditional market - Fish breeding ground - Makassar Health Training Center - SMAN 2 Makassar City - Permanent residential building - Residential building with stilt house model - Manggala Sub-district Pamsimas Office - Tourist baruga - Road, electricity, and telecommunication networks - Drainage and irrigation networks
Financial	Outside of the community's main occupation, they have other businesses to manage land and fisheries.

Source: FGD result's on 2022.

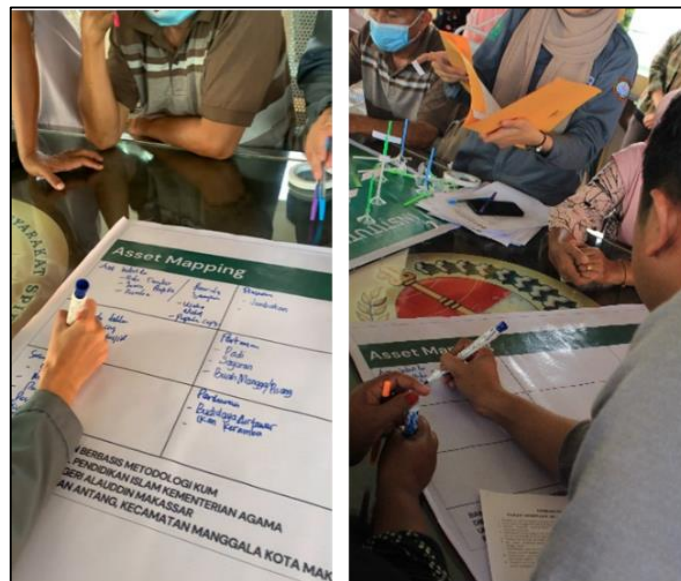


Figure 4. Asset mapping stage

Observations indicate that the community possesses distinct advantages in the domains of employment and education. Typically, their academic credentials span from a high school diploma to a master's degree. Thus, there were no impediments to the process of information transfer from the facilitator to the community. Meanwhile, their primary occupation does not consist of fishing or farming; instead, these are merely supplementary pursuits. They are employed in both the public and private sectors, including as educators, government employees, and merchants and entrepreneurs. One of the assets that emerged as a catalyst for community engagement during the process of asset mapping was an entrepreneur operating in the fisheries sector. This individual supported the growth of fishing enterprises in Lake Balang Tonjong and supplied the community with essential amenities, including fishing rods, water engines, and

more. Therefore, the will and vision to develop this area are essentially embodied in the individual assets of this community.

Manggala Subdistrict's Antang Village is situated in the peri-urban region of Makassar City. The community exhibits characteristics of both urban and rural settings, as evidenced by the persistence of traditional stilt dwellings, collaborative community activities, and social-cultural engagements. These social assets are highly pertinent to the notion of urban eco-tourism and are assets that have growth potential.

Natural assets are resources bestowed by the environment that the community may employ to fulfill its requirements. This region is home to Lake Balang Tonjong, which possesses significant potential and fishery resources. This region was originally an agricultural zone irrigated via technical irrigation. Nonetheless, the agricultural territory was flooded from 1995 to 1998. The community's agricultural land was submerged for several months before the water eventually became confined and transformed into a lake. Residents claim the former rice fields remain visible when the lake region dries up. Subsequently, community members have employed the lake for inland fishing endeavors.

This tangible resource is either a fishing community asset or a resource that is present in the vicinity. Physical assets in this assisted location consist of infrastructure and facilities that can facilitate social, economic, and cultural activities near the lake. These infrastructures and facilities include communities, educational institutions, workplaces, and fundamental infrastructure. Certain community house structures continue to employ traditional stilt house design principles (Figure 5).



Figure 5. Traditional stilt house building

The Makassar Health Training Center serves as a comprehensive training facility that encompasses the following ten Partnership Provinces: Papua and West Papua, South Sulawesi, North Sulawesi, Southeast Sulawesi, Gorontalo, Maluku, and North Maluku. Its proximity to the assisted community constitutes a tangible asset frequently employed by the community,

including for athletic endeavors. Market segmentation in the tourism industry necessitates distinct strategies and requirements for each segment, accessibility being one such requirement (Herdiana & Widharetno, 2022). The terms refer to the extent to which the segment can be effectively reached and served. In the future, users of this center from various regions of Indonesia may represent a market share for readily accessible eco-tourism activities. They may not appreciate natural panoramas, agricultural activities, fisheries, or the community's traditional cuisine.

Mapping Institutions and Associations

The functioning of a community is facilitated by internal and external organizational components (Priyanto, Syarifuddin, & Martina, 2018). The presence of social institutions that assist with community activities is predicated on an interaction process (Nurdiyana, Parmitasari, Mulyadi, Nur, & Nur, 2016). This stage was completed during the third session on December 11, 2022 (Figure 6). The facilitator provided support to the community in the process of creating a map of nearby institutions. The media utilized were exact replicas of every government and private association and institution. The center circle represents the community, while the periphery comprises institutions or associations (Rinawati & Arifah, 2022). The institution's relationship with the community is strengthened in direct proportion to its proximity to the community. The degree of proximity is assessed according to the community's comprehension and firsthand encounters with the relationship's duration, abundance, and quality.

Subsequently, a Venn diagram depicting the participation of every stakeholder in the community of urban eco-tourism development actors must be assembled. To accomplish the filtration process, institutions and stakeholders unrelated to the concept of urban eco-tourism at Balang Tonjong Lake are eliminated. A table of interested stakeholders in the assisted community is provided in Table 5 below.

Table 5. Associations and institutions in the framework of urban eco-tourism

Stakeholder	Activites	Duration
Manggala Sub-district Government	- Facilitate the agency to implement its programs.	Continuous
Regional Environment Agency	- Monitor water pollution levels	Continuous
Trade Agency	- Provide assistance in managing Antang market	Periodic
Regional Disaster Management Agency	- Disaster rescue services in flood disasters	Continuous
Regional Development Planning Agency	- Preparation of planning documents - Optimizing water catchment function	Periodic
Tourism Agency	- Planning and developing Lorong Wisata - Open a discussion room with the community - Provide training on the management of Lorong Wisata	Continuous
Fisheries and Agriculture Agency	- Facilitate the addition of freshwater fish seeds - Providing fishing gear assistance	Periodic
Antang Village Government	- Facilitate lake maintenance activities - Conduct socialization activities	Continuous
LPM Antang Village	- Establishing youth farmer groups	Continuous

Stakeholder	Activites	Duration
	<ul style="list-style-type: none"> - Facilitating fisheries and agriculture socialization activities - Facilitating residents in environmental cleanliness activities 	
Housing and Settlement Area Agency	<ul style="list-style-type: none"> - Road and alley repair - Drainage revitalization 	Periodic
Office of Spatial Planning	<ul style="list-style-type: none"> - Facilitate Balang Tonjong lake revitalization program 	Periodic
Satpol PP	<ul style="list-style-type: none"> - Provide security services - Facilitate environmental cleanliness programs 	Periodic
Culture Office	<ul style="list-style-type: none"> - Engage residents for cultural festival activities 	Periodic
ATR BPN	<ul style="list-style-type: none"> - Validate land boundaries around the lake 	
University	<ul style="list-style-type: none"> - Implementation of thematic KKN - Research and practicum activities - Assistance in community social activities 	Continuous
Communication and Information Agency	Facilitate digital business training for MSMEs around Lorong Wisata.	Periodic
Youth Organization	<ul style="list-style-type: none"> - Facilitate and engage in environmental hygiene activities 	Continuous
PDAM	<ul style="list-style-type: none"> - Build a Pamsimas center that becomes a tourist destination 	Continuous
Entrepreneurs	<ul style="list-style-type: none"> - Facilitate community activities 	Continuous



Figure 6. FGD mapping of institutions and associations

Based on the mapping of community-relating institutions, associations, and stakeholders, three intensity-based groups were identified: low (pink), medium (orange), and high (gray) as shown in [Figure 7](#). The high-intensity group comprises various stakeholders, including

representatives from the community, including the Manggala District Government, Antang Village Government, and LPM. The Makassar City Tourism Office is anticipated to exhibit a greater degree of presence by the community due to its highly strategic nature. However, preliminary information suggests that the Tourism Office has not had a program devoted to developing eco-tourism at Lake Balang Tonjong for the past five to seven years.

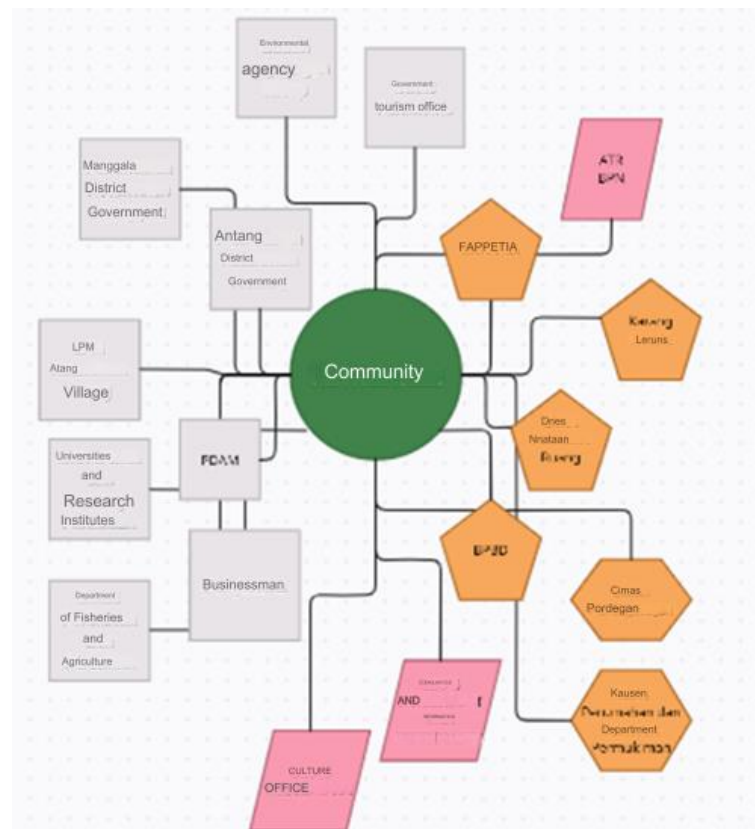


Figure 7. Association Mapping Results

Activity Evaluation

This service activity is assessed using two methodologies: evaluating the results obtained from the service activities and comparing pre-and post-test scores. This study aims to map the assets and potential that the lake reservoir user group possesses in the context of urban eco-tourism. The result of the participatory mapping process is the generation of asset attributes and transect maps in the lake region, which the participants entirely complete. The maps utilized have a scale of 1:1000. The pre-test and post-test results recapitulated the 85% increase in participants' comprehension of the asset mapping concept due to the participatory mapping. This community service aims to strengthen the connection or synergy between three user groups—tourism groups, fisheries, and farmers—within the context of urban eco-tourism. The result is a map depicting the interconnections among associations or institutions in the lake region. This map was entirely created by the participants utilizing media reproductions of each institution. 85% of all participants in participatory mapping were able to replicate the increase

in comprehension of mapping institutions/associations, as indicated by the results of the pre-test and post-test.

Conclusion

The community service project was executed proficiently and in adherence to the pre-established timetable. The potential for developing urban eco-tourism near Lake Balang Tonjong is substantial. The community's substantial individual, natural, financial, social, and physical assets will bolster the concept. The community that received assistance has come together and understood each stakeholder's internal and external responsibilities in this eco-tourism development area as a result of this service activity. The purpose of this mapping initiative is to facilitate the establishment of connections among stakeholders who directly or indirectly impact the growth and progress of urban eco-tourism. This activity remains restricted as further investigation into the potential, assets, and stakeholder engagement is conducted. Consequently, pertinent service activities will be required in the future to identify design patterns for community-based urban eco-tourism through the construction of mock-ups and support in the development of business plans for urban eco-tourism.

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