

BALANG TONJONG LAKE DEVELOPMENT IN THE PERSPECTIVE OF THE PRODUCTION OF SPACE

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ABSTRACT

Balang Tonjong Lake in Makassar City is one of the few remaining urban lakes with vital ecological, social, and economic functions. Ecologically, it serves as a water reservoir, recharge area, and flood regulator. Socio-economically, the surrounding community relies on it for fishing, aquaculture, recreation, and cultural activities. However, the lake faces serious challenges, including sedimentation, uncontrolled vegetation, domestic and agricultural pollution, household waste accumulation, and degraded tourism facilities. These problems make the lake increasingly vulnerable to flooding and ecosystem decline, although it still holds significant potential as an ecotourism site and water catchment area. This study employed a descriptive qualitative approach with a case study design. Informants included lake users (fishers, farmers, residents) and government representatives related to spatial planning and environmental management. Data were gathered through field observation, semi-structured interviews, and literature review. Analysis applied Henri Lefebvre's theory of the production of space, which divides space into three dimensions: representations of space (conceived space), spatial practices (perceived space), and spaces of representation (lived space). Findings reveal tensions among actors in interpreting the lake. The government tends to treat it as a tourism asset with economic orientation, reflected in large-scale development plans. Local communities rely on it for daily livelihoods, while residents view it as a social space and collective identity. Such divergences risk conflict if management remains technocratic, neglecting ecological sustainability and community involvement. Therefore, this study highlights the need for a participatory management model that balances economic interests, ecological conservation, and social legitimacy. The findings are expected to provide both conceptual and practical guidance for local governments in formulating development strategies for Balang Tonjong Lake.

Keywords: Balang Tonjong Lake; Production of Space; Sustainable Ecotourism; Community Participation

1. Introduction

Balang Tonjong Lake is one of the few remaining urban lakes in Makassar City, serving vital functions for ecological balance. Ecologically, the lake acts as a water reservoir, recharge area, and flood regulator (Zhu & Zhou, 2025). This function is particularly important given the rapid urbanization in Makassar, where over the past decade the population has grown at a rate of 1.2% per year (BPS, 2023). As a result, the city's green open space (GOS) now accounts for only around 9% of the total area, far below the 30% recommended by the WHO. This condition has increased the vulnerability of urban areas to flooding. The lake also serves as a central location for recreational activities such as fishing, swimming, nature tourism, and cultural events. This sector generates significant income, creates employment, and enhances community well-being (Tabak et al., 2025). However, the current condition of Balang Tonjong Lake shows serious problems, including sedimentation, uncontrolled growth of aquatic vegetation, pollution from domestic waste and agricultural activities, accumulation of household garbage, and the deterioration of tourism facilities. These issues make the lake increasingly vulnerable to flooding and ecological degradation, even though it still holds great potential as both an ecotourism destination and a water catchment area.

Community perceptions of the lake indicate strong concern, while preferences remain directed toward expectations of greater government involvement in rehabilitation and sustainable management (Askady, 2023). Previous studies have also identified declining ecosystem quality due to water pollution from domestic and agricultural waste, coupled with uncontrolled sedimentation (Ahram, 2024). This has resulted in reduced aquatic biodiversity and diminished environmental carrying capacity. Socially, local communities face limited access to proper public facilities, as the area around the lake suffers from poor infrastructure, disorganized spatial planning, and neglect in urban policy (A. Indrayuni et al., 2025).

Several academic studies have identified the lake's strategic potential for development as an ecotourism destination with floating architecture. Research by (A. , & Y. M. A. Indrayuni, 2023) shows that the area has a high level of ecotourism potential based on an analysis of natural tourism objects and attractions. Similarly, (Surur et al., 2023) emphasize the importance of mapping community assets to support participatory tourism development, highlighting that local social capital is the main foundation for sustainable development. However, current development plans remain largely technocratic, initiated by the government without involving communities as key actors. This gap creates dissonance between formal policy and the daily practices of residents who have long depended on the lake.

In this context, Henri Lefebvre's theory of the production of space becomes highly relevant. Lefebvre (1991) argues that space is not neutral but rather a product of social relations manifested through three dimensions: representations of space (conceived space), spatial practices (perceived space), and spaces of representation (lived space)(Nuraini et al., 2025). Balang Tonjong Lake can therefore be understood not only as a physical object but also as a social space imbued with multiple and often conflicting meanings. The lake has strategic value for Makassar City as an ecological buffer, potential economic tourism destination, and public social space.

However, an economy-oriented approach without sustainable management risks worsening environmental conditions and creating new social problems. It is thus essential to understand community perceptions and preferences as direct users, while at the policy level, technocratic top-down approaches must be critically evaluated to become more participatory. By employing the production of space framework, this study seeks to fill the academic gap concerning the relationship between government planning, community practices, and the socio-economic meanings attached to the lake. The urgency of this research lies in its aim to develop strategies that not only promote tourism and economic growth but also ensure ecological sustainability and social legitimacy. This study is expected to provide both conceptual and practical references for formulating a balanced, just, and sustainable management model for Balang Tonjong Lake.

2. Literature Review

Theory of the Production of Space

In sociology and regional planning studies, space is not merely understood as a physical container but as a social product shaped by the interactions among actors and their interests. Henri Lefebvre (1991), through his theory of the production of space, argues that space is always the result of intertwined social, political, and economic constructions. This theory

provides a comprehensive analytical framework for understanding how space is perceived, used, and given meaning by different stakeholders.

According to Lefebvre (1991) in (Delaisse et al., 2021) space emerges from complex social relations and can be analyzed through three dimensions, namely:

Representations of Space (conceived space) : Space produced by planners, technocrats, and government authorities. This dimension encompasses spatial planning, development policies, and technical concepts used in formal planning. In the context of Balang Tonjong Lake, this is reflected in government tourism development plans.

Spatial Practices (perceived space) : The patterns of everyday activities through which society uses and produces space. This includes routines, movement paths, and patterns of spatial utilization shaped by social practices. At Balang Tonjong Lake, this is evident in the economic and social activities of communities, such as fishing, farming, and daily uses of the lake. **Spaces of Representation (lived space) :** The social and symbolic meanings attached to space. This dimension is linked to lived experiences, collective memory, and cultural values associated with space. In the case of Balang Tonjong Lake, this includes the social and cultural meanings that the community attaches to the lake as part of their local identity.

3. Methodology

Research Design

This study employed a descriptive qualitative approach with a case study design. This approach was chosen because it allows an in-depth understanding of the social, ecological, and cultural contexts surrounding Balang Tonjong Lake. The descriptive qualitative method is considered relevant since the aim of the study is not merely to measure phenomena quantitatively but to explore the meanings, perceptions, and experiences of the community in their daily interactions with the lake. By focusing on a single case, namely Balang Tonjong Lake, the study provides a holistic and contextual description of the phenomenon.

Research Site

The research was conducted at Balang Tonjong Lake in Makassar City, an area that functions ecologically as an environmental buffer and socio-economically as a livelihood resource for surrounding communities. The site was selected due to its current challenges—such as sedimentation, pollution, and limited infrastructure—while at the same time holding considerable potential for sustainable ecotourism development. It was also chosen because of the tension between government-led formal planning and the community's everyday spatial practices, making it highly relevant to analyze using Henri Lefebvre's theory of the production of space.

Informants

Research informants consisted of lake users (fishers, farmers, and local residents) as well as government representatives involved in spatial planning and tourism management. Informants were selected using purposive sampling, based on their knowledge of and involvement with the lake.

Data Collection

Data were collected using three techniques: Field observation to capture the physical conditions of the lake and the socio-economic activities of the community; Semi-structured interviews to explore perceptions, experiences, and expectations of both community members and government actors; Literature review drawing on previous studies, policy documents, and academic references relevant to ecotourism and Lefebvre’s theory of space.

Data Analysis and Validation

The data were analyzed using thematic analysis based on Lefebvre’s three dimensions of space: Representations of space (conceived space by government and technocrats), spatial practices (daily use of space by the community), and spaces of representation (symbolic and social meanings attached to the lake).

To ensure validity, source triangulation was conducted by comparing information from different informants (community members, fishers, farmers, and government representatives). Additionally, member checking was carried out by reconfirming interview findings with informants to ensure accuracy of interpretation.

4. Results

Table 1. Community Perceptions

Interview Theme	Dominant Response	Perception Level
Ecological Condition	Murky water, uncontrolled wild vegetation, domestic waste	High (90%)
Economic Benefit	Source of livelihood: fishing & fish farming	High (85%)
Expectations of Government	Infrastructure & improvement of tourism facilities	Very high (95%)
Conflict Concerns	Reduced access if large-scale tourism is developed	Moderate–high (70%)

Table 2. Comparison of Actor Perspectives (Conceived–Perceived–Lived Space)

Spatial Dimension (Lefebvre)	Dominant Actor	Representation / Practice	Potential Conflict
Conceived (Representations of Space)	Government & technocrats	Lake as a tourism asset, Lakeside Resort	Neglecting ecology
Perceived (Spatial Practices)	Community (fishermen, farmers)	Utilization for daily livelihood	Marginalized if access is restricted
Lived (Spaces of Representation)	Local communities	Lake as a social space & identity	Loss of sense of belonging

5. Discussion

Representations of Space (Conceived Space)

The findings indicate that the government primarily represents Balang Tonjong Lake as a tourism asset with an economic orientation, as reflected in development plans such as the proposed *Lakeside Resort*. This perspective illustrates the commodification of space, with a focus on increasing investment and attracting more visitors. However, this approach pays little

attention to ecological conservation, since issues such as water pollution, sedimentation, and uncontrolled vegetation growth have not been prioritized in policy agendas.

A similar phenomenon is observed in other countries, where critical studies on urban lake tourism (Seraj et al., 2024) demonstrate that without the calculation of Tourist Carrying Capacity (TCC), tourism development can actually exacerbate ecological degradation. Thus, the government's representation of space tends to be economically biased rather than oriented toward environmental sustainability.

Spatial Practices (Perceived Space)

In contrast to the government's perspective, the local community views the lake as a vital space for daily life. Their main activities include fishing, aquaculture using floating cages, and simple recreational practices such as bathing or gathering along the lakeshore. For many households, the lake also supports their economic livelihood, since fish catches can be consumed or sold. An interview with a fisherman highlighted the lake's crucial role in sustaining their lives:

“As the lake becomes shallower, the number of fish decreases. Yet most of our family income comes from fishing and aquaculture here.” (Dg. Kulle, Fisherman, 45 years old).

In addition, farmers around the lake reported that its water is still used to irrigate small agricultural plots in the surrounding area. These spatial practices reveal the community's direct attachment to the ecological functions of the lake, which are far more complex than merely tourism-related functions. These findings are consistent with the study by (Putri et al., 2024) which showed that community involvement in ecotourism activities—such as aquaculture and mangrove conservation—is an inseparable part of spatial practices that support sustainability. Similarly, a study in Bali (Utama et al., 2024) emphasized that the community's everyday practices are key to maintaining the sustainability of community-based ecotourism programs.

Spaces of Representation (Lived Space)

From a symbolic perspective, the lake is viewed as a space of collective interaction that carries strong social value. Local residents describe the lake as a place where they grew up, engaged in daily activities, and built shared memories with their families and communities. The introduction of floating architecture, if designed inclusively, could strengthen this social function—for instance, by providing floating public spaces for recreation, environmental education, or local cultural festivals.

However, interviews also revealed potential conflicts. Some community members expressed concern that the development of floating architecture might restrict their direct access to the lake:

“If a big tourist attraction is built here, who can guarantee that we will still be allowed to fish? We don't want to become mere spectators in our own land.” (Resident, 38 years old).

These concerns demonstrate that while there are opportunities to enrich the symbolic meaning of the lake, a non-participatory approach could erode the community's social values and sense of ownership. This finding is consistent with (Sobhani et al., 2022), who emphasized that community participation in ecotourism is crucial in determining the level of social acceptance and the sustainability of such programs.

Integration of Perspectives

An analysis using Lefebvre's theory of the production of space reveals tensions among the key actors: the government, which adopts a technocratic orientation; the market, which emphasizes economic profit; and the local community, which relies on the lake for daily livelihoods. This situation underscores the need for a participatory development model, in which the government acts not merely as a regulator but as a facilitator that actively involves the community in every stage of planning and implementation.

Comparative studies on urban ecotourism, such as (Liu & Chamaratana, 2024) highlight that the success of ecotourism development in urban areas depends heavily on the integration of government policy, market interests, and local community participation. In the context of Balang Tonjong Lake, the integration of Lefebvre's three dimensions—conceived, perceived, and lived space—illustrates that the lake functions as a negotiation arena between economic, ecological, and social interests. This finding aligns with the study by (Wahyono dkk, 2024) on Menjer Lake, which emphasized the importance of collaborative governance involving government, communities, and the private sector to prevent environmental degradation and conflicts over spatial use.

5. Conclusion

The study demonstrates that Lake Balang Tonjong holds dual strategic value for Makassar City, functioning as an ecological buffer, a source of community livelihood, and a collective social space. However, tensions arise in the production of space: the government emphasizes tourism and economic aspects, the community depends on the lake for daily sustenance, and local residents perceive it as part of their social identity. The deteriorating ecological conditions, strong community expectations toward the government, and concerns over restricted access highlight the need for a participatory approach to lake management. By integrating the conceived, perceived, and lived dimensions of space as framed by Lefebvre, the development of Lake Balang Tonjong should be directed toward a collaborative governance model that balances economic interests, ecological conservation, and social legitimacy.

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