e-ISSN 2581-0405
Asian Journal of Applied Research for Community Development and Empowerment
Journal home page: http://ajarcde-safe-network.org ISSN 2581-0405

Implementation of the Development of Balas Klumprik Grand Forest Park, Surabaya

Nisa Hafi Idhoh Fitriana[1], Alifia Salma Az Zahra[2], Attar Yusuf Alvero[3], and Sekar Jasmine[4].*

[1] *Department of Agribusiness, Faculty of Agriculture, National Development University "Veteran" East Java, Surabaya, Indonesia,*
[2] *Department of Agribusiness, Faculty of Agriculture, National Development University "Veteran" East Java, Surabaya, Indonesia,*
[3] *Department of Agribusiness, Faculty of Agriculture, National Development University "Veteran" East Java, Surabaya, Indonesia,*
[4] *Department of Agribusiness, Faculty of Agriculture, National Development University "Veteran" East Java, Surabaya, Indonesia.*

ARTICLE INFO

Article History:
Received: 02 June 2025
Final Revision: 21 June 2025
Accepted: 04 July 2025
Online Publication: 07 July 2025

KEYWORDS

Urban forest, conservation, ecotourism, sustainable development, community engagement

CORRESPONDING AUTHOR

nisa.hafi.agribis@upnjatim.ac.id

A B S T R A C T

Balas Klumprik Grand Forest Park (Tahura) in Surabaya plays a strategic role in environmental conservation, ecological education, and urban sustainability. Amidst the rapid urbanisation of Surabaya, this forest park is designed to function as an integrated green space that combines conservation, education, and recreation. This study aims to comprehensively analyse the implementation of development strategies in the park, identify the challenges faced during their execution, and explore the potential for future optimisation. A qualitative descriptive method was used, supported by primary and secondary data obtained through interviews, observations, and documentation. The results show that development efforts are translated into programs such as horticultural cultivation, plant propagation, and digital promotion. However, the implementation still faces challenges, including limited financial and human resources, low public participation, lack of infrastructure, and pressures from surrounding urban development. Despite these constraints, Tahura Balas Klumprik has strong ecological and social potential to become a centre of educational ecotourism and a hub for community-based environmental empowerment. This study provides several recommendations, including innovation in educational tourism programs, infrastructure improvements, and digitalisation. Strengthening multi-stakeholder collaboration and sustainable management is essential to maximise the park's role in supporting the Sustainable Development Goals (SDGs), particularly goals 11 and 15.

Contribution to Sustainable Development Goals (SDGs):
SDG 11: Sustainable Cities and Communities
SDG 15: Life on Land

1. INTRODUCTION

1.1. Research Background

The Grand Forest Park (Taman Hutan Raya or Tahura) is a conservation entity that plays a central role in maintaining ecological balance and promoting environmental sustainability, especially amid the massive wave of urbanisation. More than just a green space, Tahura serves multiple functions as a stronghold for biodiversity conservation, a natural laboratory for environmental education, and a vital oasis for urban communities. Its presence represents a strategic solution to address pressing urban environmental issues such as declining air quality, the urban heat island effect that increases microclimate temperatures, and the lack of healthy spaces for social interaction. As explained by [1], Tahura holds great potential for research, science, education, agricultural support, the development of local culture, tourism, and recreation. Therefore, its development is not only ecologically valuable but also carries significant social, educational, and even economic importance.

The unstoppable wave of urbanisation in major cities, such as Surabaya, has exerted significant pressure on the natural environment. Rapid population growth and infrastructure development often result in the sacrifice of green areas, leading to reduced water catchment zones, increased pollution, and the loss of natural habitats [2]. In this context, the Surabaya City Government's initiative to develop and revitalize green open spaces is of critical importance. One such strategic initiative is the Balas Klumprik Tahura in Surabaya, developed under the auspices of the Food Security and Agriculture Office. This Tahura is designed as an integrated green open space area that combines environmental conservation with educational tourism potential, making it a crucial asset for the city's ecological future.

Geographically, Balas Klumprik Tahura is strategically located in the western part of Surabaya. This location was chosen with purpose; the area is projected to become a vital conservation center for local flora and fauna that may be threatened by urban development, while also serving as a public education platform. Through various programs, the Tahura is expected to increase public awareness of the importance of preserving the environment and biodiversity. However, as a relatively new area in its development phase, the implementation of Balas Klumprik Tahura's programs still faces significant challenges. Factors such as effective management, human resource capacity, and the level of community participation and engagement are critical to ensuring the sustainability and success of its development.

The Surabaya City Government's efforts to manage and develop educational areas are not limited to Balas Klumprik Tahura. The Food Security and Agriculture Office also oversees other similar destinations, such as the Mangrove Botanical Garden and Romokalisari Adventure Land. Among these facilities, the Mini Agrotourism site stands out as a representation of the City Government's commitment to promoting and maintaining the agricultural sector despite limited urban land [3]. The integration of agriculture, livestock, and fisheries in the Mini Agrotourism site showcases an innovative approach to creating a comprehensive learning and recreation space. This spirit of innovation and collaboration is highly relevant to the development needs of Balas Klumprik Tahura, which demands strong synergy among the government, academics, communities, and the private sector.

The implementation of Balas Klumprik Tahura's development involves a variety of holistic activities. These include tree planting and plant propagation using conservation techniques such as grafting, the construction of interactive educational facilities, and active involvement of local communities in all greening and maintenance activities. This multi-stakeholder collaboration is essential for ensuring sustainable and optimal management of the area [4]. The success of this development cannot be measured solely by simple metrics, such as the area of land reforested, but also by more complex indicators, including the level of active community participation, increased environmental awareness, and, most importantly, the improved ecological function of the area in maintaining urban ecological balance.

Based on this background, this study aims to comprehensively examine the implementation of the development of Balas Klumprik Tahura in Surabaya. The focus of the study will include an in-depth analysis of the strategies implemented, identification of concrete challenges encountered during implementation, and exploration of potential opportunities for future optimisation. By analyzing the development process, this research is expected to provide significant contributions in the form of evidence-based and applicable recommendations. These recommendations will not only benefit the management of Balas Klumprik Tahura itself but may also serve as a guide for the development of other urban forest parks, while more broadly strengthening the role of Tahura in supporting the achievement of the Sustainable Development Goals (SDGs), particularly in the areas of environment, education, and urban sustainability.

2. MATERIALS AND METHODS

The research method employed in this study is a qualitative descriptive approach, which aims to describe existing phenomena following actual field conditions [5]. The data sources used include both primary and secondary sources, meaning the information is gathered from a variety of sources, including interviews, journals, books, articles, internet resources, and recordings. The data collection techniques applied are observation, interviews, and documentation. Data analysis is conducted using the Miles and Huberman model 1992, a qualitative analysis approach that draws on the results of observation, interviews, documentation, and other relevant sources [6].

3. RESULT AND DISCUSSION

3.1. Translating Strategy into Development Programs for Balas Klumprik Grand Forest Park

The work plan serves as the planning document for Balas Klumprik Grand Forest Park, Surabaya, encompassing policies, programs, and development activities formulated based on the park's conditions, potentials, issues, and real needs, and oriented toward measurable outcomes. It also outlines the key implementation steps aligned with the objectives and goals of each program and activity within the park. In line with the work plan, a strategy has been formulated and translated into the following programs and activities:

Table 1. Planned Strategies and Programs

Strategy	Program
Increasing visitor interest in Balas Klumprik Grand Forest Park	1. Cultivating horticultural plants and propagating them through grafting (as souvenirs for visitors) 2. Conducting promotional campaigns via promotional videos distributed through social media

Source: Primary Data, 2025

According to Ref. [7], two main programs are recommended to boost visitor interest. The first involves cultivating and propagating horticultural plants through grafting. The second emphasises promotional efforts through video marketing on social media. These programs aim to offer a meaningful and educational tourism experience while expanding promotional outreach.

3.2. Program Implementation and Achievements

To assess the effectiveness of strategic objectives, performance indicators are required for Balas Klumprik Grand Forest Park. These indicators measure how well the goals are being achieved and determine program success:

Table 2. Strategic Targets and Indicators

Strategic Objective	Performance Indicator	Realizatioon
Achieving effective and efficient promotion	Number of tourist visits	

Source: Primary Data, 2025

The table above shows that the main strategy implemented is effective and efficient promotion, measured by the number of tourist visits. The aim is to enhance the destination's attractiveness and increase the number of visitors. This realisation is supported by documentation showing groups of tourists enjoying the park's atmosphere. Promotional and marketing programs must be carried out efficiently. Implemented initiatives include:

1. Cultivation of horticultural plants (eggplants, chili, tomatoes) to offer visitors as souvenirs;
2. Creation of promotional videos for dissemination on social media.

Digital-based marketing strategies, such as producing promotional videos and distributing them via social media, have proven effective in increasing brand awareness and expanding the market reach for horticultural products, particularly in the current digital era [8]. The performance measure for the above target is the number of tourist visits to Balas Klumprik Grand Forest Park.

Table 3. The Number of Tourist Visits to Tahura Balas Klumprik

Month	Number of Visitors
April	1,056
May	1,169

Source: Primary Data, 2025

3.3. Challenges in the Implement of Development

The development of Balas Klumprik Grand Forest Park faces several significant challenges, as outlined below:

Table 4. Challenges in Developing the Tahura Balas Klumprik

Description and Empirical Evidence	Implications for Implementation
Resource Availability	
Challenge Description: Tahura Balas Klumprik struggles with limited operational and maintenance budgets, as well as a lack of specialised human resources. **Empirical Evidence:** The total budget allocation for all Tahura areas in Surabaya was approximately IDR 10 billion per year in 2022. According to field managers, this only covers about 40–50% of the ideal need for routine maintenance, facility development, and seed procurement. The core management staff at the park consists of only 10 people, which is inadequate for managing an area of approximately 21.5 hectares.	➢ Delays in facility construction ➢ Postponed maintenance ➢ Suboptimal plant and infrastructure management ➢ High workload on existing staff
Public Participation and Education	
Challenge Description: Local community involvement in park programs is inconsistent and unsustainable. The public's understanding of Tahura's role as a conservation and education hub remains limited, often being perceived as merely a recreational space. **Empirical Evidence:** Community-based green initiatives or clean-up events occur only 1–2 times per year, often initiated by external actors. A short survey of 50 park visitors revealed that 65% visited mainly for leisure or photography, while only 20% came for educational purposes.	➢ Weak community support ➢ Potential for minor vandalism ➢ Tahura's educational function not fully realized ➢ Conservation messages not well communicated
Coordination and Governance	
Challenge Description: There is no strong formal coordination mechanism between the Food and Agriculture Security Agency and external partners. Additionally, the master plan has not been executed due to lack of funding. **Empirical Evidence:** There is no clear indication of how Tahura Balas Klumprik's programs are integrated with city spatial planning or other environmental programs, which may potentially lead to overlaps or development gaps.	➢ Program overlap or development gaps ➢ Lack of synergy leads to inefficient use of resources and slow achievement of targets

https://doi.org/10.29165/ajarcde.v9i2.695

External Environmental Pressures	
Challenge Description: Located in western Surabaya, a rapidly developing area, Tahura Balas Klumprik faces urbanisation pressures that threaten its ecological integrity. **Empirical Evidence:** Nearby housing and commercial developments have been encroaching on the park over the past 2–3 years, potentially increasing local temperatures and air pollution. Domestic waste and small construction debris have been found near the park's perimeter.	➢ Environmental degradation risks ➢ Potential land use conflicts ➢ Threats to air and water quality near the park
Infrastucture and Innovation	
Challenge Description: Some of the park's educational and supporting facilities still require improvement or modernization to enhance functionality and appeal. **Empirical Evidence:** Several informational signboards are faded or damaged. Toilets and trash bins are unevenly distributed. No advanced or interactive educational facilities exist yet, such as interpretive centers, educational greenhouses, or digital elements like QR codes or mobile apps. Content upload frequency is sporadic	➢ Less-than-optimal visitor experience ➢ Reduced educational appeal ➢ Missed opportunities to position Tahura as a modern and interactive urban green space

Source: Primary Data, 2025

The development of Balas Klumprik Grand Forest Park encounters multifaceted challenges: budget constraints and insufficient human resources (covering only 40–50% of ideal needs with just 10 staff for 21.5 hectares); low public participation and limited awareness, with most visitors seeing the park as recreational rather than educational; the absence of formal coordination and unimplemented master plans due to funding gaps; and growing urbanization pressure in West Surabaya. Additionally, underdeveloped educational infrastructure and the lack of interactive technology reduce the park's appeal as a modern and informative green space.

3.4. Potential and Recommendations for Future Development

Located in a densely populated urban area, Balas Klumprik Grand Forest Park serves as the city's green lung and a vital space for social interaction. The park spans approximately 21.5 hectares and features a diverse array of local plant species and collections, offering significant development potential (Surabaya City Environmental Agency, 2023). As an urban conservation area, the park holds strategic potential for managing green open spaces, conserving biodiversity, and providing ecological education and recreational opportunities.

Its ecological potential includes serving as a water catchment area, an urban air filter, and a habitat for East Java's endemic flora. The park features conservation trees, such as Samanea saman (rain tree) and Ficus benjamina (weeping fig), as well as various medicinal plants (TOGA), all managed through agroforestry systems. Conservation practices, such as tree grafting and seedling nurseries, support the preservation of local species and provide ready-to-plant green seedlings.

From a social and economic perspective, the park can be developed into an educational ecotourism destination that attracts students, researchers, and domestic tourists. Community engagement programs, such as waste banks, tree adoption, and urban farming training, can foster active citizen participation and create green job opportunities.

To optimize the park's strategic role, sustainable and integrated development strategies are needed (Ministry of Environment and Forestry, 2021). The following are key development recommendations:

Table 5. Recommendations for the Development of Tahura Balas Klumprik

No.	Development Recommendation	Details
1.	Innovative Educational Ecotourism Programs	Recreational and educational activities, such as grafting workshops, tree-planting events, and annual green festivals, are used to attract public participation.
2.	Strengthening Environmental Education Infrastructure	Construction of facilities like open-air halls, field classrooms, interpretive trails, and thematic gardens (e.g., medicinal plants).
3.	Digitalization and Park Promotion	Use of digital platforms including official websites, virtual tours, and interactive educational content to broaden public access and educational outreach.
4.	Regular Sustainability Evaluation	Implementation of monitoring systems for community participation, plant conditions, and the park's impact on the local economy.

Source: Primary Data, 2025

Balas Klumprik Grand Forest Park supports Sustainable Development Goals (SDGs), particularly goals 11 (sustainable cities and communities) and 15 (life on land) (Bappenas, 2022).

With its strategic location and accessibility, it has the potential to become a model of educational ecotourism, especially for students and environmental communities. The park also has great potential for community empowerment through participatory conservation programs, green skills training, and environmentally-based micro-enterprises.

4. CONCLUSION

The implementation of the development of Balas Klumprik Grand Forest Park demonstrates a strategic approach through digital promotion, plant cultivation, and the strengthening of the area's educational role. However, this development still faces various challenges, particularly in terms of human resources and budget constraints, suboptimal community involvement, and limited educational infrastructure. Despite these challenges, the Tahura holds great potential to become a center for environmental education and conservation-based ecotourism in urban areas. Therefore, further development steps are needed that are both innovative and collaborative, such as enhancing digitalisation, constructing interactive educational facilities, and conducting regular evaluations. With proper management and multi-stakeholder participation, Balas Klumprik Grand Forest Park can serve as a model for sustainable urban forest park development, contributing to the achievement of the Sustainable Development Goals (SDGs) and promoting the creation of sustainable cities, as well as the preservation of terrestrial ecosystems.

REFERENCE

[1] Rafiuddin, Abdur Rauf, and Stanislaus Hadu, "Studi Kebijakan Taman Hutan Raya (Tahura) Palu Sulawesi Tengah," *J. Kolaboratif Sains*, vol. 6, no. 1, pp. 1–9, 2023, doi: 10.56338/jks.v6i1.3232.

[2] Setiyono and A. Sidiq, "Konsep Infrastruktur Hijau pada Area Khatulistiwa Park Kota Pontianak," *J. Ketahanan Pangan*, vol. 2, no. 2, pp. 159–164, 2018.

[3] A. Armansyah *et al.*, "Urban Farming sebagai Alternatif Mewujudkan Pembangunan Kota Berkelanjutan di Indonesia," *J. Kawistara*, vol. 14, no. 1, p. 38, 2024, doi: 10.22146/kawistara.84324.

[4] S. B. Utami and R. Pancasilawan, "Kolaborasi dalam Pengelolaan Kawasan Konservasi Taman Buru Gunung Masigit Kareumbi Provinsi Jawa Barat," *J. Manaj. Pelayanan Publik*, vol. 1, no. 1, p. 59, 2017, doi: 10.24198/jmpp.v1i1.13550.

[5] A. J. Winarto and N. M. El Madja, "Analisis Implementasi Sistem Manajemen Mutu Dalam Meningkatkan Pemasaran Produk Di UD Mas Achiad Gresik," *Manaj. IKM J. Manaj. Pengemb. Ind. Kecil Menengah*, vol. 16, no. 1, pp. 62–69, 2022, doi: 10.29244/mikm.16.1.62-69.

[6] A. Tanjung, H. Hermiyetti, and Z. Paliyang, "Analisa Faktor Yang Mempengaruhi Minat Beli," *J. Dimens.*, vol. 11, no. 2, pp. 260–269, 2022, doi: 10.33373/dms.v11i2.4060.

[7] A. Prasetyo and S. Wulandari, "Capital Intensity, Leverage, Return on Asset, dan Ukuran Perusahaan Terhadap Agresivitas Pajak," *J. Akunt.*, vol. 13, pp. 134–147, 2021, doi: 10.28932/jam.v13i1.3519.

[8] D. Masa, P. Covid, A. Hamzah, and I. S. Rianse, "Promosi Dan Pemasaran Hasil Pertanian Skala Rumah Tangga," *Pengabdi. Masy. Ilmu Terap.*, vol. 4, no. 1, pp. 33–42, 2021.

 https://doi.org/10.29165/ajarcde.v9i2.695