



Assessing Tourism Destination Development through The TALC Framework: A Study of TEFA Kebun Inovasi Polije

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Abstract

The development of TEFA Kebun Inovasi has the potential to serve as a model for agrotechnotropical-based tourism, providing an educational platform for visitors and the community about the application of agricultural technology and its practical benefits in daily life. However, a comprehensive analysis of the current conditions is necessary to ensure that strategic actions are aligned with the appropriate stages of development. This study aims to analyze the development phase of TEFA Kebun Inovasi Polije through the lens of the Tourism Area Life Cycle (TALC) framework, which encompasses seven phases: exploration, involvement, development, consolidation, stagnation, decline, and rejuvenation. The research employs a descriptive qualitative approach, utilizing data collection methods such as observation, interviews, and documentation. The findings indicate that TEFA Kebun Inovasi is currently in the development phase that characterize with initiating facility investments, introducing additional attractions, enhancing promotional efforts, and planning for product diversification. Nevertheless, several



characteristics of involvement phase still appear including few tourists' arrival, basic promotional activities, and a reliance on the limited primary attraction mark the involvement phase. The results of this research are intended to inform the ongoing development of TEFA Kebun Inovasi and contribute to the study of agrotourism destinations on campus.

Keywords: *TALC, Tourism Destination Development, Educational Agrotourism*

1. Introduction

Developing tourist destinations is a strategic initiative for certain regions in Indonesia aimed at enhancing economic equality (Paras Ayu et al., 2025). The development of these destinations has a multiplier effect that revitalizes other economic sectors, ultimately creating jobs and boosting community income (Asyahri et al., 2023). However, the focus of tourism destination development should extend beyond merely increasing visitor numbers. It must also prioritize environmental sustainability, effective management capacity, innovative tourism products catering to market demand, and educational initiatives for tourists and local communities (Wiweka et al., 2021). Thus, careful attention is essential in developing a tourist destination to maximize benefits and mitigate negative impacts from poor management practices.

One theoretical framework commonly used to analyze the development of tourist destinations is the Tourism Area Life Cycle (TALC), introduced by Butler in 1980 (Rodrigo et al., 2023). This model posits that tourist destinations progress through several stages: exploration, engagement, development, consolidation, stagnation, and ultimately revitalization or decline. It offers a comprehensive understanding of a destination's position within its developmental trajectory and assists in formulating management strategies tailored to the current stage (Rindrasi, 2019; Wiweka et al., 2021). While TALC has been applied in various contexts, including cultural tourism (Wiweka et al., 2021), and ecotourism (Prasadj & Singgalen, 2022; Vitrianto et al., 2021), its application remains relatively limited in educational and agrotourism destinations.

Politeknik Negeri Jember is a prominent state university in Indonesia that promotes Teaching Factory-based learning (TEFA). The university features an TEFA Kebun Inovasi, a learning facility, and an edutourism-based agrotourism destination. The TEFA Kebun Inovasi exemplifies a unique destination development model, integrating academic functions as a research and practical learning center for agriculture students while providing educational tourism experiences for visitors. Since its establishment in 2014, the unit has undergone significant transformations—from a horticultural development experiment garden to an official Teaching Factory in 2019, which



additionally operates as a campus tourism destination. This evolution reflects dynamics that can be further analyzed using the TALC framework.

Numerous studies have explored the development of tourism destinations within the Tourism Area Life Cycle (TALC) framework. Some research has focused on the evolution of established destinations (Gore et al., 2021; Rodrigo et al., 2025; Widz & Brzezińska-Wójcik, 2020). In the realm of agrotourism, TALC analysis has been applied to conventional settings such as village-based agrotourism (Jehamin et al., 2023; Wiweka et al., 2021). However, TALC analysis has not been conducted specifically for education-based agrotourism destinations. Additionally, existing research on campus tourism tends to concentrate on potential attractions and management strategies, often overlooking explicitly mapping a destination's position within the TALC cycle. Identifying the development stage of a destination is essential for determining suitable management strategies, as the approaches required during the development stage differ significantly from those applied during the consolidation or stagnation phases.

Addressing this research gap, the present study aims to examine the development of the Polije Innovation Garden TEFA through the lens of the TALC model. The objective is to analyze the position of the Polije Innovation Garden TEFA within the destination development cycle according to the TALC framework. This study's findings are anticipated to contribute to the academic discourse on TALC studies related to education-based destinations and offer practical guidance for managers of the Innovation Garden TEFA and similar locations in Indonesia.

2. Literature review

2.1. Tourism Destination Development

Tourism destination development is a strategic process aimed at enhancing an area's attractiveness, quality, and sustainability as a tourist destination (Butler, 2025). This process encompasses planning, infrastructure development, management of tourist attractions, and the implementation of effective marketing strategies (Darnawan & Anwar, 2021; Stoica et al., 2022). The primary objective of tourism destination development is to create memorable experiences for visitors, increase tourist arrivals, and deliver economic, social, and cultural benefits to the local community (Lee & Jan, 2019).

Tourism destination development emphasizes physical elements such as facility construction while considering the unique characteristics that define the destination (Nyoman Trisna Kurniawan, 2022; Yulianti et al., 2024). Attractions like natural beauty, cultural richness, and distinctive local traditions should be presented attractively to



compete effectively with other destinations. Moreover, the success of destination development relies on good accessibility, adequate amenities, and active community involvement in promoting and maintaining environmental sustainability (Agustina et al., 2024).

Furthermore, the development of an ideal tourism destination must prioritize sustainability. This entails ensuring that tourism activities balance economic interests, environmental preservation, and the community's social welfare (Farhan & Wardani, 2022; Wardani et al., 2024). Such an approach allows tourism destinations to thrive without compromising the natural and cultural resources essential to their appeal. Ultimately, this fosters long-term sustainability and nurtures a harmonious relationship between tourists, local communities, and the environment.

2.2. TALC Theory

The Tourism Area Life Cycle (TALC) is a framework established by Richard Butler in 1978 to analyze the developmental stages of a tourism destination. Its enduring relevance is due to the indicators it provides, which help identify the accomplishments, challenges, and strengths of a tourism area. These insights serve as a foundation for planning, developing, addressing issues, and even mitigating conditions within the tourism sector. (Rodrigo et al., 2025).

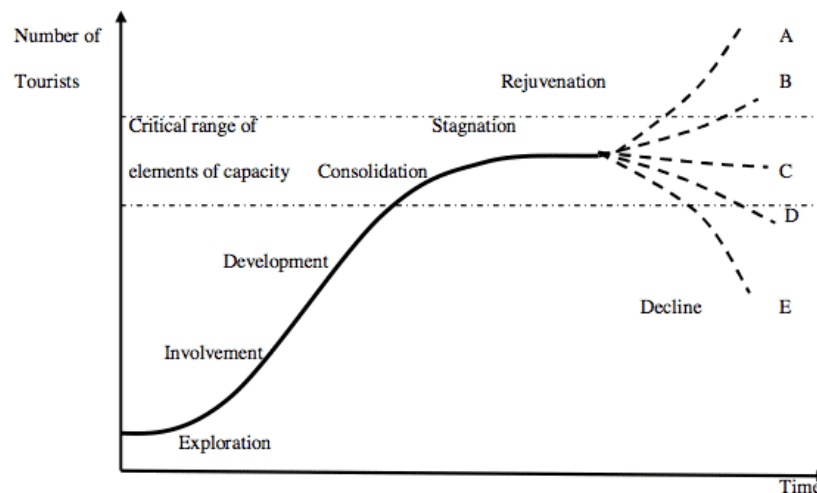


Figure 1. *Tourism Area Life Cycle Diagram*



The Tourism Area Life Cycle (TALC) encompasses seven phases of tourism area development: exploration, involvement, development, consolidation, stagnation, decline, and rejuvenation (Butler, 2025). Each phase is characterized by specific indicators, outlined in Table 1 below.

Table 1. *Tourism Area Life Cycle Indicators*

No	Developmental Phases	Indicators
1	Exploration	- The attraction of natural beauty and cultural elements marks this phase - Tourist visits are minimal or irregular - There are no initiatives for tourism management
2	Involvement	- Tourist visits increase - Limited tourism management, additional facilities, and attraction development are being developed - There are sees initial income from tourism activities accompanied by marketing efforts from the management
3	Development	- Significant promotional activities are implemented, with collaborations with external partners - Attractions and facilities expand rapidly, leading to increased tourist visits and substantial physical changes in the area.
4	Consolidation	- Income from tourism activities become dominant - The rate of tourist visits starts to slow down - Collaboration among institutions strengthens based on common interests
5	Stagnation	- Tourist visits exceed the area's capacity, causing environmental issues - Managers encounter difficulties in maintaining tourist facilities, and the area loses appeal
6	Decline	- There is a noticeable decrease in tourist visits, leading to a repurposing of tourist facilities for non-tourism uses - Tourist numbers continue to decline, and prices for tourism-related services fall
7	Rejuvenation	This phase involves introducing new attractions and using previously untapped natural resources.

Source: Research Data (2025)

3. Method

The research method utilized in this proceedings article is descriptive qualitative. The study was conducted at TEFA Kebun Inovasi, a teaching factory operated by the



Integrated Agricultural Development Unit Polije. Qualitative data were collected through observations, documentation, and in-depth interviews with selected informants.

The selection of informants for the in-depth interviews employed a purposive sampling technique based on specific criteria: (1) knowledge of the historical development of TEFA Kebun Inovasi Polije, (2) active participation in the planning process for the development of TEFA Kebun Inovasi to date, and (3) direct involvement in operational activities. The informants selected based on these criteria included the Head of the Integrated Agricultural Development Unit Polije and the manager of TEFA Kebun Inovasi Polije.

Qualitative data analysis was performed using a descriptive qualitative approach that emphasized understanding TEFA Kebun Inovasi's current condition. This analysis sought to identify TEFA Kebun Inovasi's position within the Tourism Area Life Cycle (TALC) model framework, enabling the research findings to provide insight into the destination's development phase and relevant future development directions.

4. Findings and discussion

4.1. The Profile of TEFA Kebun Inovasi Polije

The TEFA Kebun Inovasi is an academic support unit that has evolved into a Teaching Factory (TEFA) and an educational agrotourism destination. Its pioneering efforts commenced during the 2014–2015 period with the Seed Festival (*Gebyar Benih*), in collaboration with the East Java BPSB (Indonesian Agricultural Research and Development Agency), which aimed to establish an experimental garden for public education. Initially, the focus was on fast-growing vegetables. However, to promote sustainability, the emphasis shifted to perennial fruit, including oranges, pineapples, and seasonal crops such as sweet corn and watermelon. The official transition to Teaching Factory occurred in 2019, when Polije designated the TEFA Kebun Inovasi as a strategic unit integrating academic, research, and agrotourism functions.

As part of Polije's vision of becoming a World-Class University by 2035, the TEFA Kebun Inovasi embodies this mission through its integrated farming and semi-organic agriculture practices, highlighting a balance among innovation, education, and community empowerment. The Integrated Agricultural Development Unit oversees the organisational structure, supported by the TEFA Kebun Inovasi Manager, and PIC of Horticulture, PIC of Collectable Plants and PIC of Highland Garden. Daily operations are managed by technical staff, while students engage through practicums, research, and fieldwork. The primary attraction of the TEFA Kebun Inovasi is its diverse collection of



citrus fruits—such as *Siamese*, *Trigas*, *RGL*, *Pomelo*, and *Montaji* lemon—harvested biannually, alongside other premium crops like the pineapple, sweet corn available year-round, and seasonal watermelon.

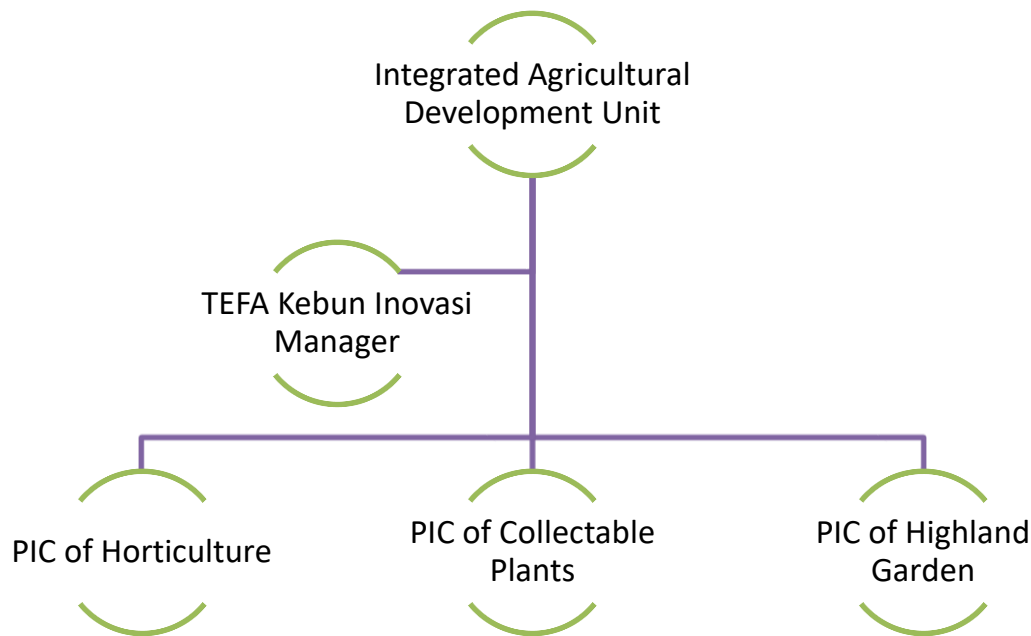


Figure 2. The Management Structure of TEFA Kebun Inovasi Polije

In addition to its production capabilities, the TEFA Kebun Inovasi functions as a dynamic living laboratory, offering educational programs tailored for various educational levels. Kindergarten and elementary school children engage in hands-on activities such as planting seeds, preparing planting media, and learning about horticultural plants. More advanced practices are introduced for junior and senior high school students, including grafting, budding, composting, and training in organic fertilizer production and livestock waste management. Polije also encourages research initiatives among students and faculty, from variety testing to organic cultivation experiments.

The TEFA Kebun Inovasi features essential facilities such as restrooms, a fruit storage area, and a practical learning space to enhance the tourism experience. Plans include the construction of an educational playground, canteen, guesthouse, and a parking area for buggy cars, all aimed at improving visitor convenience.

The TEFA Kebun Inovasi is promoted through Polije's official social media platforms, local media coverage, and organic content shared by visitors across various digital channels. The visitation system incorporates wristbands, allowing guests to pick



as much fruit as they like or take home their harvest at market prices. Service standards are upheld through garden cleanliness, provision of harvest baskets, educational support, and adherence to basic safety protocols.

However, management faces challenges such as limited human resources and suboptimal diversification of processed products. Looking ahead, embracing a zero-waste concept, developing innovative derivative products, and fostering active involvement from students and the community are essential strategies for solidifying the TEFA Kebun Inovasi's role as a hub for edutourism, vocational research, and a sustainable agricultural business model.

Table 2. *Attributes of TEFA Kebun Inovasi Polije*

No	Atributes	Description
1	Initiation	The project began in 2014-2015 with the Seed Festival and was officially designated as TEFA in 2029.
2	Vision and Mission	The initiative aligns with Polije's overall Vision and Mission
3	Philosophy	The project embraces the principles of integrated farming and semi-organic agriculture as its key icons
4	Management Structure	It operates under the Integrated Agricultural Development Unit supervision and is overseen by the Deputy Director 2 for Finance and Human Resources. Management includes manager, persons in charge, and staff members.
5	Main Attractions	Key attractions include Perinium Plants (such as Oranges and Pineapples) and seasonal plants (like Watermelon and Sweet Corn)
6	Types of Tourism	Offered experiences include fruit picking and training sessions
7	Facilities	Amenities include toilets, showers, fruit storage areas, practice spaces, and handwashing facilities
8	Promotion	Promotion is carried out through the official Polije Instagram accounts, along with support from local media outlets like RRI, K-Radio, and local journalists
9	Visitor Management	A wristband system monitors visitors, and guest book registration is also used.
10	Challenges	Ongoing challenges include human resources managing tourism and implementing zero-waste management practices.

Source: Research Data (2025)



4.2. TALC Analysis of TEFA Kebun Inovasi Polije as Agrotourism Destination

Based on the TALC analysis, the development phases of the TEFA Kebun Inovasi as a tourist destination are outlined as follows:

Table 3. *The Description of TEFA Kebun Inovasi Polije in TALC*

No	Fase	Temuan	Keterangan
1	Exploration	The initial pilot project was conducted from 2014 to 2015 through the Seed Festival in collaboration with the East Java BPSB (East Java Biodiversity Supervisory Agency)	This phase has been completed
2	Involvement	In 2018, the site was designated as a Teaching Factory, managed by the Integrated Agricultural Development Unit (UPA) of the Polytechnic Institute of Agriculture. It serves as a venue for student practicums, and community tourism and training initiatives have begun. Visitor numbers are steadily rising, complemented by a simplified ticketing system (entrance wristbands and guest books)	This phase has been passed through however certain characteristics remain unrefined
3	Development	Oranges have been established as the primary icon, with regular harvests occurring twice a year (April and October–November). Additional agricultural products include pineapples, sweet corn, and watermelons. Essential facilities such as restrooms, showers, a fruit warehouse, a parking area, and handwashing stations are now available. Plans for further facility enhancements, including a playground, guesthouse, and buggy car services, are in place. Educational offerings include orange picking tours and training in planting and composting. Marketing efforts are underway through social media platforms (Instagram, TikTok) and local radio, leading to increased tourist arrivals from Jember and surrounding areas and heightened revenue from tourism activities.	The current position
4	Consolidation	A partnership with the Tourism Office and other stakeholders has been established, featuring processed orange and pineapple products. While	Future Plannings



		improvements in tourism human resources are ongoing, they are still in development	
5	Stagnation	-	-
6	Decline	-	-
7	Rejuvenation	-	-

Source: Research Data (2025)

As depicted in the TALC graph, the current position of the TEFA Kebun Inovasi is noted:

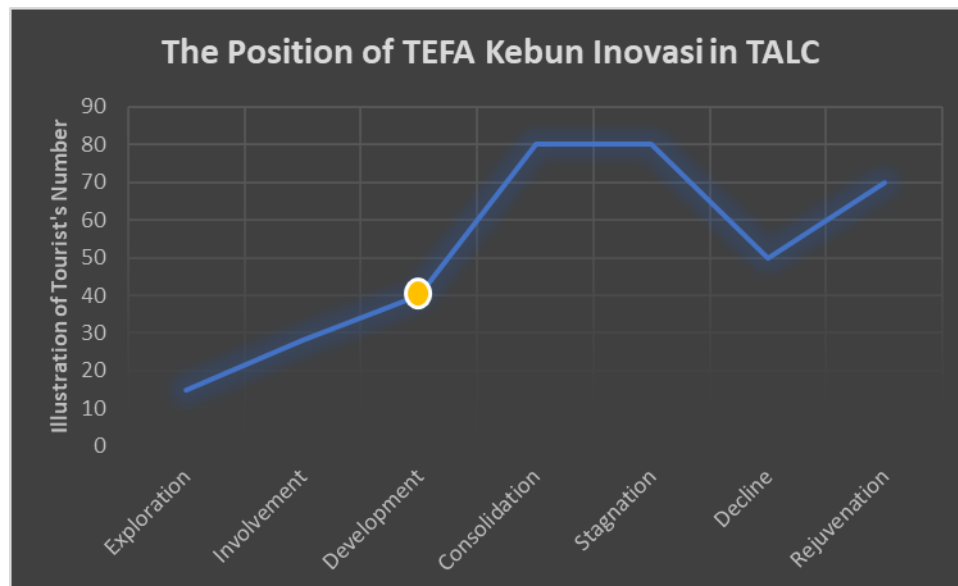


Figure 3. *The Position of TEFA Kebun Inovasi Polije in TALC Graph*

4.3. Discussion

According to the results of the TALC analysis, the TEFA Kebun Inovasi is currently in the development phase, although some characteristics of the involvement phase persist. Consequently, it is transitioning from involvement to development. As a multifunctional facility, the TEFA Kebun Inovasi is progressively refining its role as a support unit for student learning and a tourist destination. In its capacity as an academic support unit, lecturers and students have engaged in various agricultural research projects, contributing to the introduction of beneficial plant species and enhancing the facility's appeal. Additionally, a range of amenities has been established for visitors, including restrooms, handwashing stations, an information centre, and rest areas.



The TEFA Kebun Inovasi must strengthen its governance and professionalize the destination to ensure sustainable growth and enter the consolidation phase. This stage involves fostering collaboration among the management institution, strategic partners, and the surrounding community in a more structured manner. A crucial step in this process is establishing a partnership-based institutional model (public-academic-community partnership) that integrates the roles of Polije as an educational institution, the local government as a regulator and facilitator, and the community as key stakeholders.

An integrated training program should be developed to enhance human resource capacity, focusing on service excellence, digital marketing, tourist attraction management, and post-harvest product processing. Offering tourism competency certification through the Polije Professional Certification Institute (LSP) can bolster the credibility of the workforce in this sector. Additionally, implementing a monitoring and evaluation system grounded in destination performance indicators such as visitation rates, tourist satisfaction, and environmental impact will enable more data-driven decision-making.

TEFA must establish a consistent brand identity through the "Edu-Agrotourism Polije" concept, highlighting the exceptional blend of education, innovation, and community empowerment to strengthen its market position. In the long term, the strategy for this phase should focus on creating added value by developing derivative products, diversifying attractions, and establishing cross-regional promotional networks. This approach will position the TEFA Kebun Inovasi as a national reference destination for sustainable educational agrotourism development.

5. Conclusion

This study assessed the development phase of TEFA Kebun Inovasi Polije through Butler's Tourism Area Life Cycle (TALC) framework. The findings indicate that TEFA Kebun Inovasi is currently positioned in the development stage, although several characteristics of the involvement phase remain. This stage is characterized by increasing tourist visits, facility improvement, basic marketing initiatives, and ongoing diversification of attractions and educational activities.

The application of the TALC framework provided a structured understanding of the destination's progress and strategic direction. To advance toward the consolidation phase, TEFA Kebun Inovasi must strengthen governance mechanisms, enhance human resource competencies, diversify tourism products, and establish a consistent destination branding under the **"Edu-Agrotourism Polije"** concept. Furthermore, the implementation of a



public–academic–community partnership model is recommended to ensure inclusive and sustainable management.

Theoretically, this study contributes to the limited literature on the application of the TALC model in education-based agrotourism contexts. Practically, the findings serve as a reference for policymakers and tourism managers in developing similar campus-based tourism destinations. Future research may focus on evaluating the socio-economic and environmental impacts of TEFA's development to ensure its readiness for the consolidation and rejuvenation stages within the TALC framework.

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