

INSTITUTIONAL STRENGTHENING FOR COMMUNITY-BASED AGROTOURISM DEVELOPMENT AND ENVIRONMENTAL CONSERVATION IN JAYAWIJAYA REGENCY

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Abstract

Jayawijaya Regency holds significant potential for developing agro-tourism villages based on local wisdom and environmental conservation. However, underdeveloped community institutions remain a key barrier. This community service project aimed to strengthen village institutions through agro-tourism management training, participatory planning facilitation, and digital promotion. The participatory method was implemented over three days at Yudha Hall and organized by the Department of Culture and Tourism of Jayawijaya Regency, involving approximately 45 local tourism actors. Results indicated a significant improvement in participants' understanding of agro-tourism concepts, institutional strengthening (BUMDes and Pokdarwis), and the emergence of participatory village tourism action plans. Before the training, only 27% of participants understood basic agro-tourism concepts; this increased to 81% post-training. These achievements demonstrate that thematic training integrated with field practice is effective in building institutional capacity and advancing sustainable agro-tourism development in Jayawijaya.

Keywords: Agro-tourism, Empowerment, Jayawijaya, participatory, Village Institution

INTRODUCTION

Jayawijaya Regency, located in the central highlands of Papua, holds significant potential for the development of agrotourism based on local wisdom and environmental conservation. This region is blessed with rich biodiversity, breathtaking natural landscapes, and unique, sustainable traditional farming practices of indigenous communities. In the context of sustainable development, agrotourism village development is a highly relevant strategy, as it integrates agriculture, tourism, and environmental conservation while simultaneously improving the welfare of local communities (Rahmat, 2021).

One of the main challenges in developing agrotourism in Jayawijaya Regency is the suboptimal performance of village-level institutions, in terms of managerial capacity, access to

information, and partnership networks. Strengthening these institutions is key to ensuring program sustainability, empowering local communities, and promoting professionalism in managing rural tourism potentials (Tuhuteru et al., 2023; Anwar & Hanim, 2025).

The Department of Tourism of Jayawijaya Regency plays a strategic role in directing policy, providing assistance programs, and facilitating the promotion of local agrotourism. In recent years, the department has promoted the development of nature- and culture-based destinations, as well as established the Village Tourism Communication Forum in several districts, such as Welesi and Napua. However, synergy is still needed between local government, academia, and local communities to establish a sustainable agrotourism ecosystem.

Through this community service activity, strategic efforts are made to strengthen village institutions by providing agrotourism management training, developing the capacity of local human resources, facilitating participatory village tourism planning, and promoting digital marketing of local flagship products (Mukhtaromi et al., 2013). This activity also supports the action plan of the Department of Tourism to establish Jayawijaya as a leading tourism destination based on agriculture and local culture in Highland Papua.

Active community involvement in this program is expected to enhance understanding of agrotourism potential, strengthen local institutional structures (such as tourism awareness groups, farmer groups, and village-owned enterprises), and develop digital-based marketing networks and inter-sectoral partnerships (Aliim & Darwis, 2024). Thus, agrotourism village development becomes not only a means of environmental conservation but also a pathway toward economic self-reliance for rural communities in Jayawijaya (Figure 1).



Figure 1. An overview of Agrotourism in Jayawijaya Regency

IMPLEMENTATION METHOD

This activity employed a qualitative method with a literature review approach. Data were collected through the examination of scientific journals, policy documents, research reports, and other academic articles relevant to the topic. Analysis was carried out using a descriptive-qualitative approach by identifying patterns and relationships among variables related to community empowerment, village institutional development, and agrotourism advancement.

The implementation of the program adopted a participatory and educational approach through collaboration among academics, relevant government departments, and local communities. The core activities included training sessions, focus group discussions, and workshops focusing on strengthening the institutional capacity of agrotourism villages and enhancing the capabilities of local tourism managers (Figure 2).



Figure 2. Documentation of Program Implementation

The program was conducted over three days at the Yudha Meeting Hall, 2nd Floor, and was organized by the Department of Culture and Tourism of Jayawijaya Regency. Participants included tourism village managers, representatives from tourism awareness groups (Pokdarwis), farmer groups, and village officials from various districts in Jayawijaya. The event was officially opened by the Head of the Department of Culture and Tourism and featured speakers from universities, agrotourism practitioners, and community facilitators.

The first day focused on mapping the potentials and challenges of agrotourism development in the Jayawijaya region. The second day included training on institutional management, digital marketing techniques, and the development of nature- and culture-based tourism packages. On the third day, participants engaged in the formulation of follow-up action plans at the village level and the establishment of a district-wide Agrotourism Village Communication Forum as a coordination platform.

An evaluative approach was applied using pre-test and post-test questionnaires to measure participants' improvement in understanding, along with direct observation of active participation during the training sessions. Additionally, the results of this program will serve as a foundation for drafting policy recommendations and integrated agrotourism development

plans in Jayawijaya Regency.

RESULTS AND DISCUSSION

The community service activity led to an increased understanding among participants regarding the concept of agrotourism as a development approach that integrates agriculture, culture, and ecotourism sectors. Participants showed enthusiasm in identifying the local potential in their respective villages, such as leading agricultural products, cultural sites, and natural landscapes that could be developed into community-based tourism destinations.

Previously inactive local institutions, such as tourism awareness groups (Pokdarwis) and Village-Owned Enterprises (BUMDes), began to restructure their organizations and develop short-term work plans. Participatory discussions resulted in village potential maps based on local assets and a list of needs for continued capacity-building efforts, such as digital tourism management and local guide certification.

Support from the Jayawijaya District Office of Culture and Tourism served as an essential asset, particularly in terms of promotion and inter-village tourism networking. These results align with the findings of Fasa et al. (2022), who emphasized that the success of tourism villages largely depends on the strength of local institutions and multi-stakeholder collaboration. Furthermore, this supports the study by Pradana et al. (2024), which highlighted that community participation and field-based training are key factors in the successful development of sustainable agrotourism villages.

The institutional strengthening through training and discussion forums, as implemented in this activity, supports the community-based tourism (CBT) approach, which has proven effective in the context of indigenous villages and conservation areas (Aziza, 2009; Widaningsih & Rulandari, 2021; Anwar & Hanim, 2025). Additionally, the integration of simple technologies such as digital content creation and social media promotion was introduced to participants as part of a sustainable tourism promotion strategy.

1) The Role of Institutions in Agrotourism Development

Village institutions play a vital role in organizing communities and managing local potential. For example, BUMDes can become economic drivers through agrotourism business units offering local products, tour packages, and other support services (Anwar & Hanim, 2025). Pokdarwis serve as the frontline in tourism promotion and implementation, including local guide training and homestay management. Farmer groups contribute through sustainable agriculture that becomes part of tourism attractions, while customary institutions preserve local values and practices as the identity of the village.

2) Institutional Optimization Strategies

Several institutional optimization strategies expected to support agrotourism development in Jayawijaya District include:

a. Human Resource Capacity Building

Enhancing human resources among tourism entrepreneurs in Jayawijaya must begin with technical and managerial training for village institution leaders. This

includes training in sustainable tourism management, environmental conservation, creative product development, and digital marketing (La'biran et al., 2024).

b. Transparent and Participatory Governance

Village institutions should apply accountable and transparent governance systems. Community participation in planning and activity monitoring is vital to increase trust and sustainability (Nelly, 2024).

c. Strengthening Networks and Partnerships

Institutional optimization can be achieved by establishing networks and partnerships with NGOs, universities, government bodies, and private sectors. These collaborations are necessary to enhance resources, innovation, and market access. Partnerships also support advocacy and the formulation of conducive policies (Alamsyah et al., 2022).

d. Village-Based Regulations and Planning

To develop institutions in both MSMEs and tourism, cooperation with government agencies is required in drafting village-based regulations and development plans. The village government needs to prepare a master plan for agrotourism development focused on environmental conservation and local wisdom (Jaya et al., 2021), including tourism zoning, farmland preservation, and limits on environmentally damaging construction.

e. Infrastructure and Technology Support

In addition to regulations, infrastructure and technology support is essential for developing managed enterprises. Basic infrastructure such as roads, electricity, clean water, and internet connectivity must be prioritized to support accessibility and tourist comfort. Technology can also be used for promotion and online reservation systems (Panjaitan et al., 2019).

The next stage of this community service program involved evaluation. The training evaluation was conducted using pre-tests and post-tests, as well as observations during the training sessions. Among the 45 agrotourism business participants, there was a significant improvement in conceptual understanding, institutional capacity, and preparedness to develop village tourism action plans.

Table 1. Indicators of Agrotourism Training Achievement

No.	Indicator	Before Training (%)	After Training (%)	Achievement Description
1	Understanding of basic agrotourism concepts	28%	91%	Increased understanding through material sessions
2	Knowledge of tourism village institutions	33%	87%	Participants recognized Pokdarwis & BUMDes structures
3	Ability to formulate work plans	22%	79%	Achieved through village tourism action plan simulations
4	Readiness for simple digital promotion	18%	65%	Participants accessed social media & video content
5	Commitment to building inter-actor networks	31%	84%	Evident in discussion forums and WhatsApp networking

Source: Author's Processed Data, 2025.

This improvement is consistent with Tabina et al. (2024), who emphasized the importance of field-based training in building institutional capacity and digital skills for village tourism managers. Based on the above achievements, it can be concluded that the intensive three-day training method was effective in equipping Jayawijaya's agrotourism actors with the knowledge and foundational skills to sustainably develop businesses based on local potential. Therefore, this activity not only had short-term impacts in terms of capacity building but also stimulated the formation of a network of tourism villages prepared to synergize in boosting the local economy and environmental conservation in Jayawijaya District.

CONCLUSION

Community empowerment through institutional optimization has become the main strategy in realizing the sustainable development of agrotourism villages in Jayawijaya Regency. Local institutions play a crucial role in enhancing community capacity, preserving local identity, and managing environmentally friendly tourism potential. Through strategies such as capacity building, good governance, and multi-stakeholder collaboration, agrotourism can serve as a new economic pillar aligned with environmental conservation.

This community service activity successfully strengthened the institutional capacity of rural communities in developing agrotourism through participatory approaches, thematic training, and facilitation of action plans based on local potential. The active role of the Jayawijaya Regency Office of Culture and Tourism served as a key factor in bridging community needs with sustainable tourism development programs. The enthusiasm of the participants and the results of collaborative discussions indicated a strong readiness to establish a self-reliant and competitive network of tourism villages.

REFERENCES

- Alamsyah, Maziyah, S. & Indrahti, S. (2022). Advokasi Pembangunan Jejaring dan Kemitraan Pada Perpustakaan di Jawa Tengah. *Jurnal "HARMONI"*, 6(2): 205-210.
- Aliim, T. F., & Darwis, R.S. (2024). Peran Kelembagaan Lokal Dalam Pendayagunaan Sumber Daya Desa Wisata. *Share: Social Work Journal*, 13(2): 248-258. <https://doi.org/10.45814/share.v13i1>
- Anwar, C., & Hanim, Z. (2025). Pengembangan Kapasitas Lembaga (Strategi dan Kebijakan untuk Peningkatan Kualitas Sistem Layanan dan Kelembagaan). *Journal on Education*, 7(2): 12374-12384.
- Aziza, T. N. (2009). Upaya Penguatan Kelembagaan Pangan. *Jurnal Ekonomi Pertanian dan Agribisnis (JEPA)*, 3(1): 204-217. <https://doi.org/10.21776/ub.jepa.2019.003.01.20>
- Fasa, A. W. H., Berliandaldo, M., & Prasetyo, A. (2022). Strategi Pengembangan Desa Wisata Berkelanjutan di Indonesia: Pendekatan Analisis Pestel. *Kajian: Menjembatani Teori dan Persoalan Masyarakat dalam Perumusan Kebijakan*, 27(1). <http://dx.doi.org/10.22212/kajian.v27i1.3612>
- Jaya, B., Muhtar, E. A. & Darto. (2021). Perencanaan Strategis Pembangunan Desa Dalam Rangka Pengembangan Potensi Ekonomi Lokal di Desa Sungai Landai. *Kolaborasi : Jurnal Administrasi Publik*, 7(3): 298-322. <https://doi.org/10.26618/kjap.v7i3.6343>
- La'biran, R., Kabanga', T., Situru', R. S., Dewi, R. & Basongan, W. (2024). Pengembangan Ekowisata Marimbunna Melalui Pelatihan Berbasis Kreativitas. *Jurnal Inovasi Pengabdian Masyarakat Pendidikan*, 4(2): 352-366.
- Mukhtaromi, A., Soeaidy, M. S., & Hayat, A. (2013). Sinergi Pemerintah Daerah dan Lembaga Adat Dalam Melaksanakan Pelestarian Kebudayaan. *Jurnal Administrasi Publik (JAP)*, 1(2): 155-163
- Nelly, S. (2024). Partisipasi Masyarakat dalam Proses Pembuatan Kebijakan Publik. *Jurnal Sociopolitico*, 6(1), 86-94. <https://doi.org/10.54683/sociopolitico.v6i1.119>
- Panjaitan, H. A. M., Mulatsih, L., & Rindayati, W. (2019). Analisis Dampak Pembangunan Infrastruktur Terhadap Pertumbuhan Ekonomi Inklusif Provinsi Sumatera Utara. *Jurnal Ekonomi dan Kebijakan Pembangunan*, 8(1): 43-61. DOI: <https://doi.org/10.2944/jekp.8.1.43-61>
- Pradana, B., Ariani, M. N., & Susanti R. (2024). Partisipasi Masyarakat dalam Program Pelatihan dan Pemberdayaan Melalui Urban Farming dengan Sistem Aquaponik Pada Desa Tanjungkulon Kecamatan Kaje Kabupaten Pekalongan. *Jurnal Pasopati, Pengabdian Masyarakat dan Inovasi Pengembangan Teknologi*, 6(1): 12-17.
- Rahmat, K. D. (2021). Konsep Pariwisata Berkelanjutan dalam Pelestarian Cagar Budaya. *Jurnal Pariwisata Terapan*, 5(1): 26-37.
- Tabina, A., Sudiantini, D., Lestari, I. B., Ummah, N. F., Syakira, P. N., & Hanida, R. G. (2024). Peran Pelatihan dan Pengembangan dalam Meningkatkan Kinerja Karyawan (Kajian Literature Review Manajemen Sumber Daya Manusia). *Jurnal Ekonomi & Bisnis*, 2(6): 822-837.
- Tuhuteru, S., Mahanani, A. U., & Rumbiak, R. E. Y. (2023). Empowerment Pattern of Farmer In Husoak Village, Hubikiak Districk, Through Strengthening of Farmer Group Resouces. *Amalee: Indonesian Journal of Community Research and Engagement*, 4(2):

645-660.

Widaningsih, M., & Rulandari, N. (2021). Penguatan Kelembagaan Dalam Meningkatkan Sektor Ekonomi Melalui Investasi. *Jurnal Reformasi Administrasi : Jurnal Ilmiah untuk Mewujudkan Masyarakat Madani*, 8(1): 58-65.