



Community-Ecosystem Interaction in East Java: Barriers to Participation and Implications for Natural Resources Policy

Marningot Tua Natalis Situmorang^{1*}, Linda Noviana¹, Bunga Cahyaputri²

¹ Master of Environmental Management, Graduate School, Universitas Sahid, Jakarta, Indonesia.

² Industrial Engineering Study Program, Faculty of Engineering, Universitas Sahid, Jakarta, Indonesia.

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Corresponding Author:

Marningot Tua Natalis Situmorang
natalis_situmorang@usahid.ac.id

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Abstract: Despite government intervention, sustainable tourism in East Java faces the challenges of a 19.80% decline in tourist visits and low community participation. This study aims to analyze the level of involvement, identify obstacles, and formulate strategies to improve community participation for the welfare of the local community. Using a qualitative descriptive method, data were collected through in-depth interviews with tourism awareness groups, traders, and ticket officers in tourist areas, as well as through document analysis. We processed the data thematically using Qualitative Data Analysis (QDA) Miner 6.00. The results of the study show that community participation is mostly symbolic, at the level of providing information and consultation. The main contribution of the community is in the form of attendance at tourism awareness posts and basic educational activities, with limited involvement in decision-making. The main obstacles include minimal education, suboptimal cross-sector coordination, and limited access to sustainable tourism services and technology. The proposed strategies include technology-based education, sustainable cadre training, local community empowerment, and strengthening cross-sector collaboration. The key finding of this study is that community participation involves the government, local communities, the private sector, academics, and the media. This research is expected to increase the effectiveness of sustainable tourism and become the basis for community participation policies based on inclusive tourism to improve social welfare.

Keywords: Inclusive tourism policy; Penta helix participation; Sustainable tourism; Tourism awareness group

Introduction

Tourism is a complex sector that has a significant impact on economic growth, cultural interaction, and environmental sustainability. It serves as an important economic catalyst, creating employment opportunities and improving the quality of life of local communities. Local communities can reinvest the significant revenues generated by tourism, estimated at approximately US\$30 billion per year (Ragoonaden, 2016). Municipalities benefit from tourism through improved infrastructure and services, driven by increasing visitor

demand (Zhubi et al., 2024; Sidney, 2023). The emergence of green tourism illustrates the importance of using methods that preserve natural and cultural resources while improving the well-being of local populations (Pizzichini, 2024). Coastal areas, rich in biodiversity, are optimal locations for sustainable tourism ventures, including environmentally friendly recreational activities. Cultural exchange and community advancement tourism encourages cultural exchange, allowing visitors to interact with local cultures and lifestyles and thereby enhancing mutual understanding (Kirshenblatt-Gimblett & Bruner, 1992). It can also lead to the preservation of cultural heritage,

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as communities recognize the importance of their distinct identities in attracting visitors. Sustainable tourism practices are increasingly important to reduce adverse environmental impacts while enhancing local heritage and resources. Tourism accounts for over 9% of global income and supports one in eleven jobs worldwide. Sustainable tourism activities can improve economic efficiency and environmental management, avoiding issues such as greenwashing.

Sustainable tourism management particularly benefits from community participation, as it stimulates local involvement and ensures that tourism development is aligned with community needs and values. Involving local communities in various phases of tourism planning and management enhances the sustainability of tourism efforts, resulting in superior economic and environmental outcomes. Community participation can occur through ideas, physical involvement, the exchange of skills, and the contribution of assets (Tiwari et al., 2024). In coastal tourism management, the majority of communities (72%) participate in planning, implementation, and monitoring. Localities often manage resources collectively, allowing them to maintain economic sustainability and influence tourism practices. Tourism serves as a major income generator for many communities, driving employment in various sectors (Sharma & Arora, 2024). Local involvement encourages a sense of identity and ownership, thereby enriching the overall tourism experience.

Sustainable tourism is an important global issue, including in East Java, Indonesia. Previous researchers, including (Tiarantika et al., 2024), found that evaluating the sustainability of community-based ecotourism in East Java has identified its strengths and areas needing improvement. Sustainable tourism in East Java is defined by a combination of community-oriented ecotourism projects, progressive environmental management practices, and modifications to tourism strategies after the COVID-19 pandemic. The abundance of natural features and community involvement in the area are essential in encouraging sustainable practices. Local communities are involved in tourism development, which drives economic growth and cultural preservation, especially in areas such as Trenggalek (Ariyani & Fauzi, 2023). The COVID-19 pandemic has changed tourist behavior, with tourists preferring local locations, with East Java ecotourism showing potential for recovery (Asmoro & Yusrizal, 2021). Local governments are urged to improve natural attractions to maximize ecotourism travel patterns. The decline in tourist visits to East Java in 2023 is a major challenge related to environmental, social, economic, and cultural aspects. The East Java government has undertaken various things to increase visits, such as

accommodation discounts and infrastructure improvements (Vibriyanto et al., 2024).

This success is highly dependent on the active participation of the community. The sustainable tourism program reaches thousands of tourists and has a positive impact on many tourist villages (with visits increasing in 65% of tourist villages) (Lemy & Kusumo, 2020). Tourism training is also provided to tourism actors and tourism awareness groups. However, community participation is still low, especially in areas with low levels of education. According to Hakim (2008), the government continues to improve tourism services through promotion, training, and infrastructure development. The sustainable tourism awareness campaign also shows an increase in community understanding. Sustainable tourism is managed through cooperation from various parties, with funds allocated accordingly (Hidayat et al., 2023). The challenges of access to remote areas and community participation are still a concern. Community participation is important to improve welfare because sustainable tourism has a broad impact. Education, empowerment, and utilization of local potential can make people more active. Investment in this program is expected to prevent poverty and improve welfare (Winarno et al., 2018).

Based on previous research, it appears that no studies have examined community participation in sustainable tourism management in East Java, particularly regarding the obstacles, strategies, and challenges related to improving local community welfare. The purpose of this study is to analyze the level of community participation, identify obstacles, and formulate strategies to increase community participation in sustainable tourism management in East Java to improve the welfare of local communities.

Method

This study uses a descriptive approach to understand the meaning attributed by individuals to social phenomena, with flexible methods and inductive data analysis. This approach emphasizes the importance of describing in depth the phenomena being studied. To increase the accuracy and credibility of the findings, this study uses data validity techniques, including triangulation techniques (Santos et al., 2020).

Data collection

Data collection was carried out through in-depth interviews with various informants involved in sustainable tourism programs, such as members of tourism awareness groups, housewives, tourism workers, community leaders, and government representatives, based on their involvement in the program and the relevance of the information they have.

Data analysis

The analytical method used is thematic analysis, which is effective in identifying patterns of meaning in data and providing structured insights. To assist this process, QDA Miner 6.0 software was used, which was used to identify data grouping patterns and key themes related to community participation.



Figure 1. Method scheme

Result and Discussion

The research on community participation in the management of sustainable tourism in East Java—including obstacles, strategies, and challenges to improving the welfare of local communities—has been completed. The research results include the level of community participation, the identification of obstacles, and the formulation of strategies to enhance community participation in sustainable tourism management in East Java, all aimed at improving the welfare of local communities. The study results on how much the community participates in managing sustainable tourism were gathered by analyzing data through word frequency analysis, frequency distribution analysis, and link analysis. Figure 2 shows the results of word frequency analysis on community participation in sustainable tourism in East Java Province.

Figure 2 provides an analysis of the main keywords and supporting words. 1) The analysis of the main keywords reveals changes in tourist behavior due to COVID-19. The words "change" and "Covid" indicate that this study focuses on the social context in East Java Province. The issue of sustainable tourism is a major concern in this province, which has a fairly significant prevalence compared to other provinces. East Java province, as a rural area, has homogeneous community

characteristics, so sustainable tourism management policies must be adjusted to the social conditions and needs of the local community. Furthermore, the effectiveness of sustainable tourism management interventions requires a community-based approach (Dangi & Jamal, 2016). Sustainable tourism is the core problem in this study. Handling sustainable tourism requires a comprehensive approach, involving aspects of economic development, natural environmental development, and socio-cultural development (Abreu et al., 2024). Government programs, such as those run by the tourism and creative economy agency and the regional government, play an important role in improving education and monitoring tourist growth in East Java Province (Bahroni et al., 2022). These interventions include educating local communities, entrepreneurs, academics, journalists, and the government about the success of sustainable tourism (Sithohang et al., 2024).



Figure 2. Word frequency analysis of community participation in sustainable tourism in East Java

In addition, collaboration with the private sector (entrepreneurs) and civil society organizations is also an important aspect of strengthening community-based intervention programs. This policy highlights the importance of regulations and rules related to sustainable tourism management. Evidence-based approaches are essential and must involve active participation from the community, such as integrated service post cadres, to ensure the effectiveness of policies (Laksmi et al., 2024). Therefore, the East Java Provincial government needs to design specific data-based policies and effective communication strategies to increase public awareness and participation in sustainable tourism management programs (Halik et al., 2024). Strengthening local capacity through cadre training and technical assistance is a strategic step in implementing this policy. Tourism service satisfaction is a key element in managing sustainable tourism. Good tourism services can identify sustainable tourism problems early on, provide appropriate interventions, and educate the community about the importance of welcoming and

serving tourists well (Fathoni & Lanrong, 2021). This study emphasizes the importance of strengthening access to tourism services, especially for foreign tourists (Putri & Adinia, 2018). In addition, optimizing technology-based services such as tele-tourism can improve access to the quality of tourism services, especially in tourist destinations far from the city center.

This study illustrates the importance of executing well-designed policies and programs. Sustainable tourism management programs must involve collaboration between the government, community organizations, and local communities. It is also emphasized that there must be periodic evaluation of program implementation to ensure its effectiveness and the smooth operation of the policy. In addition, the involvement of tourism awareness group cadres who understand the social conditions of the local community is critical for the success of the program (Wijaya et al., 2024). We also need to develop community-based intervention models and technology-based program innovations to enhance the program's reach and effectiveness. Analysis of supporting words, sustainable development goals (SDGs), target goals, and sustainable tourism goals are important elements in efforts to increase sustainable tourism visits. Reducing the decline in sustainable tourism figures requires effective management of resources, such as funds, tourism personnel, and community involvement. The East Java Provincial government needs to ensure that the allocation of budget and other resources is carried out efficiently to support sustainable tourism management programs, as it is one of the regions with major challenges related to sustainable tourism.

The success of increasing sustainable tourism figures is highly dependent on coordination between the tourism, education, and social sectors so that a comprehensive approach can be achieved (Wicaksono et al., 2024). In the context of sustainable tourism management, programs and counseling are critical components. Education delivered through counseling programs must include various information related to sustainable tourism, the importance of tourism, and community participation. This counseling must also use various communication media to ensure that the messages reach the wider community, especially in tourist destinations such as Batu City, Banyuwangi, and Probolinggo. The use of media such as radio, television, social media, and community-based campaigns can help expand the reach of this education so that information about the importance of sustainable tourism for the community can be disseminated effectively. The word cloud, which illustrates community participation in managing sustainable tourism in East Java Province, highlights several key dimensions that this study focuses on. East Java Province, as a case study, shows the

characteristics of rural communities that need to be considered in efforts to increase sustainable tourism visits. The main issue raised is sustainable tourism as a social problem that requires cross-sectoral handling. Evidence-based and participatory policies and programs are key to increasing the number of sustainable tourism visits in East Java Province.

In addition, increasing community participation through education, counseling, and collaboration between communities is also a key strategy that can be applied. The implementation of policies that involve various stakeholders, such as the government, non-governmental organizations, and the private sector, can strengthen the success of sustainable tourism management programs, which in turn will contribute to improving the quality of life of the community in East Java Province (Lestari et al., 2025). Several studies have shown that proper management of tourist destinations, whether in the form of infrastructure, tourism workers, or community participation, will support the success of sustainable tourism management. An approach that involves collaboration between related sectors and all elements of society is essential to comprehensively and sustainably overcome the decline in tourism visits. The findings from the analysis of how often the community participates in sustainable tourism in East Java Province show different levels of involvement in key areas of sustainable tourism management (Figure 3).

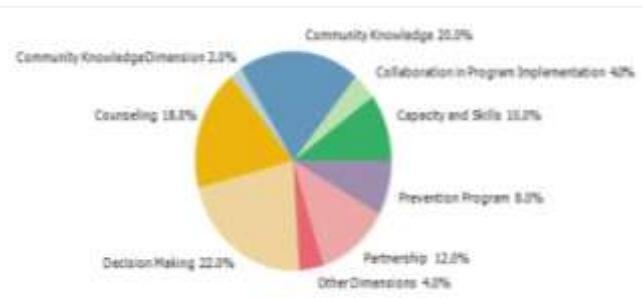


Figure 3. The distribution of the frequency analysis regarding community participation in sustainable tourism within East Java Province

An in-depth analysis of the research results on each frequency distribution indicator shows the following. Community participation in terms of knowledge about sustainable tourism is quite high (23.30%). This figure reflects the success of the government and related organizations in disseminating information about the causes, impacts, and methods of managing sustainable tourism. However, even though community knowledge is high, there has been no significant change in behavior. Therefore, it is necessary to strengthen education that is not only informative but also applicable to consistently change community behavior. Community participation in changing attitudes and behavior reached 16.30%, with

the adoption of behavior that supports sustainable tourism management, such as welcoming tourists and becoming tour guides. However, there is still a gap between knowledge and behavior change. Factors such as tradition, local culture, and lack of resources hinder the transformation of knowledge into a proactive attitude. Supervision programs (16.30%) show community involvement in sustainable tourism programs such as maintaining cleanliness, building homestays, and acting as tour guides. The availability of facilities and the role of the Tourism Awareness Group affect community participation, despite its significant contribution.

There is still a gap in service coverage, especially in less accessible outlying areas. Capacity and skills (13.90%) indicate that the community has started receiving training in homestay management and tour guiding, but the participation rate remains relatively low. This finding shows that not all communities have the same opportunity to increase their capacity. It is necessary to increase access to equitable and sustainable training, particularly for community groups that operate homestays and transition into tour guides. Community involvement in program implementation reached 12.10%, with direct contributions to success through collaboration with the government, NGOs, and the private sector. However, this collaboration remains restricted to specific areas and often depends on external initiatives. A more inclusive collaboration mechanism needs to be built so that the community can play a more active role. Community participation in extension activities is relatively low (7.70%), which is likely due to the limited frequency of extension activities, lack of extension workers, and the low attractiveness of the methods used. Therefore, extension methods need to be innovated, including the use of digital technology and social media, to reach a wider community. Participation in decision-making related to sustainable tourism management policies is very low (7.00%). The community is more often the object rather than the subject of policy. This study points out the need for a participatory approach that involves the community at every stage, from planning to evaluation, to increase the community's sense of ownership and responsibility for sustainable tourism programs.

Partnerships between the community and external parties (government or private) are very low (3.30%), indicating that the partnership model has not been running effectively. This study emphasizes the importance of building a strong partnership network through discussion forums, working groups, or consultation mechanisms that involve all stakeholders. Based on the description, community participation in sustainable tourism in East Java Province is still concentrated on community knowledge indicators,

while collaboration, partnerships, and decision-making are still less than optimal. Thus, a holistic approach is needed that integrates various dimensions of community participation, such as empowerment, capacity building, and active involvement in the policy-making process. With the right strategy, community participation can be maximized to support sustainable tourism more effectively and sustainably. Research demonstrates that community empowerment and active engagement are essential for sustainable tourist development; however, these components are frequently neglected. To solve this issue, a comprehensive plan encompassing education, capacity building, and inclusive policy-making is needed. This strategy improves community engagement and integrates tourist efforts with local requirements and sustainability objectives.

Community empowerment is essential for sustainable tourism, allowing local populations to actively engage in tourism development and decision-making processes. Empowerment enables communities to make informed decisions and assume responsibility for tourist initiatives, resulting in more sustainable outcomes (Cole, 2006). Empowerment via education and training is crucial for promoting community engagement. Equipping communities with essential skills and information enhances their capacity to engage in the planning, implementation, and assessment of tourism projects (Tarino & Purnomo, 2024). Government policies significantly influence the promotion of sustainable tourism by establishing a framework for community engagement and empowerment. Effective policies can promote collaboration among stakeholders and guarantee that tourist development is consistent with environmental, social, and economic objectives (Aqilah & Islam, 2024). Policies must prioritize the establishment of opportunities for local populations to engage in decision-making processes, thereby augmenting their capacity to impact tourism development in their regions (Shani & Pizam, 2012). Despite the potential advantages, community involvement in sustainable tourism encounters numerous obstacles, such as financial limitations, power disparities, and restricted access to decision-making forums (Gopal, 2023).

The limited scope of engagement, frequently confined to economic activities, hinders communities' capacity to impact wider tourist policies and management decisions (Soták-Benedeková et al., 2025). Establishing participatory frameworks that prioritize local ownership and governance can empower communities and guarantee long-term sustainability in tourism. These frameworks must have procedures for benefit-sharing, capacity building, and inclusive decision-making. Collaboration among diverse

stakeholders, such as governmental bodies, local communities, and tourism operators, can result in more efficient and sustainable tourism development plans (Zhang, 2024). Effective community empowerment in sustainable tourism is a complex process that requires the harmonious integration of numerous aspects to guarantee enduring advantages for both the community and the environment. The key parts include improving physical, social, and human resources; involving the community; building skills; and using local knowledge and leadership systems. These elements collectively enhance the sustainability of tourism by promoting economic development, cultural conservation, and environmental safeguarding.

The subsequent sections elucidate these factors and their roles in fostering community empowerment within sustainable tourism. Infrastructure development is essential for facilitating tourism activities. The process encompasses transportation, lodging, and additional amenities that enrich the visitor experience and benefit the local community (Normelani et al., 2023). Education and skill development are essential for enabling community members to engage effectively in tourism activities. This process encompasses education in tourism management, hospitality, and cultural preservation. Community-based tourism (CBT) reflects the importance of local involvement in planning, decision-making, and benefit distribution, resulting in social inclusion and economic empowerment. Establishing governance frameworks that promote community engagement and address power disparities is essential for sustainable tourism development. Ongoing training and capacity building in domains such as product innovation, digital marketing, and tourism management are essential for sustainable tourism development (Ishak, 2024). These organizations are crucial in overseeing tourism activities and ensuring that community residents are informed and involved in sustainable practices.

Incorporating Indigenous knowledge and preserving cultural heritage are vital for enhancing the authenticity of the tourism experience. Utilizing local knowledge and cultural traditions can augment the authenticity of the tourism experience and bolster the economic and social welfare of the community. Preserving cultural assets is essential for sustainable tourism, safeguarding the community's cultural identity against erosion from tourism development. The link analysis results of community involvement in sustainable tourism in East Java Province show that the study on how different indicators of community participation relate to each other indicates the strength of these relationships (Figure 4).

The relationship value ranges from 0 (no relationships) to 1 (forceful relationships). Relationships

that have a value greater than 0.1 are considered significant and are a priority in sustainable tourism programs, while relationships with smaller values are considered less significant. The community knowledge-prevention program is valued at 0.10. A relationship value of 0.102 indicates that the level of community knowledge is directly proportional to their involvement in sustainable tourism programs. The better the community's knowledge of sustainable tourism, the more actively they are involved in monitoring activities such as homestay inspections, welcoming tourists, and guiding them. Capacity and skills—attitudes and behavior (0.14). A relationship value of 0.14 indicates that increasing community capacity through training or improving skills can change attitudes and behavior in handling sustainable tourism. Training on welcoming tourists, homestay cleanliness, guiding patterns, and understanding tourist destinations has a positive impact on increasing community awareness and implementing friendly lifestyles, such as smiling frequently or explaining tourist attractions in detail. Collaboration in program implementation—capacity and skills (0.08). With a relationship value of 0.08, the relationship between program implementation collaboration and community capacity shows a moderate relationship, although not as strong as other relationships. This finding indicates that collaboration between the government, private sector, and community in improving community capacity is still not optimal.

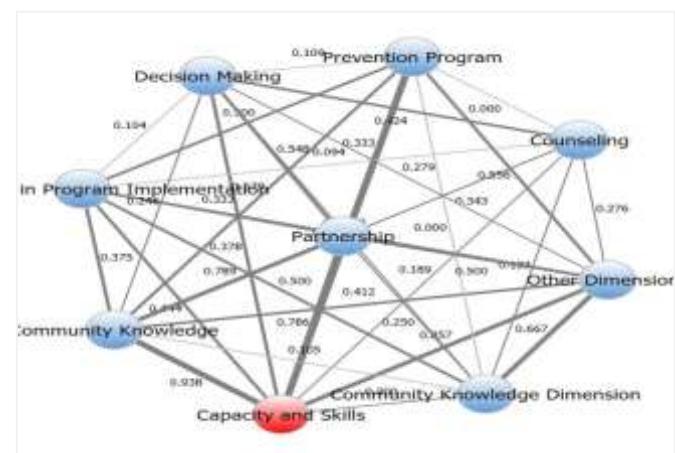


Figure 4. Link analysis of community participation in sustainable tourism in East Java province

More effective collaboration can improve community access to training and assistance; The connection between partnership and other indicators is fragile, indicated by a relationship value ranging from 0.00 to 0.04. The connection between partnership and other indicators is weak, indicated by a relationship value ranging from 0.00 to 0.04. This data shows that the contribution of external parties, such as NGOs or the

private sector, is still limited. Better strategies, such as leveraging Corporate Social Responsibility (CSR) from private companies or funding programs from donor institutions, are necessary to strengthen partnerships; The other dimensions of decision-making range from 0.01 to 0.04. The relationship value between decision-making and other indicators is very low (0.01–0.04), indicating low community involvement in determining policies related to sustainable tourism. Planning and decision-making do not provide enough space for communities to contribute. Community involvement in special forums or discussions can increase a sense of ownership and responsibility for the policies implemented; The counseling—community knowledge dimension is valued at 0.05. The counseling indicator has a relationship value of 0.05, indicating that counseling plays an important role in increasing community knowledge about sustainable tourism. Effective counseling, both through face-to-face and digital media, can increase community awareness and encourage them to be more active in sustainable tourism prevention programs.

Based on the analysis of the relationship between the indicators above, the capacity and skills indicator occupies a central position in the success of the sustainable tourism management program in East Java Province. This indicator is the main link between other indicators, such as knowledge, attitudes, and program collaboration. However, the partnership and decision-making indicator shows a weak relationship, highlighting the necessity of developing a strategy to foster community involvement during both the planning and evaluation phases. Therefore, it is very important to strengthen education, counseling, and partnerships by actively involving the community in decision-making to increase overall participation and ensure the sustainability of the sustainable tourism program in East Java Province. The level of community participation in sustainable tourism in East Java can be understood using the eight levels of public participation that the community is only participating in a very limited way, mainly just showing up at events without being involved in important decisions. These findings can be seen in the dominant passive role of the community, such as attending tourism awareness posts without involvement in strategic decision-making.

The efficacy of sustainable tourism in East Java depends on augmenting community engagement, which is presently passive and merely symbolic. Enhancing education, outreach, and collaborations is essential to empower local populations and promote active participation in tourism development. This strategy enhances the local economy while safeguarding cultural and environmental resources. In Sumberwangi Hamlet, community engagement in ecotourism development is

predominantly passive, with residents involved in planning, development, and assessment phases but without substantial decision-making authority. Equipping communities with information and understanding of tourism processes is crucial for enabling them to make informed decisions, thereby transitioning involvement from passive to active. Favorable attitudes and perceived advantages substantially affect engagement in sustainable tourism, although social norms and knowledge exert a lesser influence, highlighting the necessity for focused educational programs. A persistent shortage of resources in rural communities hampers sustainable tourism advancement. Capacity-building efforts are essential for empowering communities with the skills necessary for effective participation in tourism. Reinforcing societal norms and delivering pertinent instruction can augment community engagement, as evidenced by the necessity for more effective strategies in East Java.

Robust governance structures and capacity-building activities are essential to address obstacles to community engagement, including budgetary limitations and power disparities. The CBT strategy prioritizes local governance and engagement in tourism development, promoting social inclusion, economic empowerment, and cultural preservation (Febriandhika & Kurniawan, 2019). Tourism generates job and income opportunities for residents, evidenced by the prevalence of local individuals in small and medium enterprises in East Java's tourism regions (Satriayudha, 2021). Engagement of the community in tourist planning and decision-making fosters equitable development and enhances resilience to tourism-related difficulties. According to data from the East Java Provincial Tourism Office in 2023, around 80% of the community attended tourism awareness posts regularly, but only 15% actively participated in discussions or provided strategic input. Some of the contributions that have been made by the community include:

Informing

The community's presence in socialization and education related to sustainable tourism is evidenced by more than 50 awareness campaigns that have successfully increased public understanding of sustainable tourism from 45% to 65%.

Consulting

Providing input to health workers by conducting surveys and interviews. However, the survey indicated that only 20% of participants were able to provide concrete input related to local needs, while most only repeated the information that had been given.

Based on this data, more efforts are needed to increase community participation to a more substantial level, such as involvement in program planning and joint decision-making. Decisions that include several strategic aspects, including:

Determining Program Priorities

Communities can be involved in determining priority areas or target groups, such as choosing areas with the highest level of sustainable tourism management or determining the types of interventions that are most needed, such as providing training in welcoming guests, cleaning homestays, and tour guiding.

Management of Tourism Awareness Activities

Communities can play a role in preparing activity schedules, managing local resources, or forming working groups to support program implementation.

Program Monitoring and Evaluation

Communities can be involved in collecting field data, providing feedback on program effectiveness, or identifying obstacles faced in implementation.

Program Fund Management

In a collaborative scheme, communities can be involved in the budgeting process for sustainable tourism funds at the local level, including allocating funds for socialization activities, implementing training, or improving homestay facilities.

Awareness Campaign Development

Communities can contribute to the creation of campaign materials that are more relevant to local conditions, such as messages that are culturally appropriate or media that are most effective in reaching target audiences. The results of this study identified factors inhibiting community participation in sustainable tourism management in East Java Province; the dimensions are as follows:

The Dimension of Active Involvement is Crucial

Community involvement in sustainable tourism programs still faces obstacles that include a lack of community understanding; this is indicated by the fact that many people still do not understand the dangers and causes of sustainable tourism, especially in priority areas. The obstacles arise from two main factors: limited outreach that lacks depth and insufficient socialization efforts. In media, the socialization method is still dominated by conventional approaches (banners, brochures), which are less attractive to young people. There is a need to use digital media such as podcasts and interactive videos in the future.

The Element of Collaboration and Partnership is Crucial

Collaboration between related parties in handling sustainable tourism is still not optimal, including a lack of inter-sector synergy; coordination between the government and the private sector is less effective. In addition, CSR programs are not fully connected to support sustainable tourism efforts, and poor coordination at the national level often does not match what happens locally, leading to duplicate programs and wasted resources.

Empowerment Dimension

Community empowerment efforts face several obstacles, including: limited training for cadres of tourism awareness groups—only 72.80% of cadres have received training in 2023, and this is not enough to cover the entire region; and lack of community independence—communities tend to rely on government assistance, so independent initiatives in managing sustainable tourism are still low.

The Second Dimension is Education and Awareness

The community's knowledge about sustainable tourism remains limited, primarily due to two factors: limited access to information, particularly in rural areas where infrastructure such as internet networks is limited, and a lack of a personalized approach, as educational materials often lack specificity and are not tailored to the specific needs of local communities. Based on the various factors inhibiting community participation, an integrated strategy is needed to manage sustainable tourism in East Java Province, as follows:

Enhancing Awareness of Sustainable Tourism within the Community is Crucial

The lack of community understanding is the main obstacle to active involvement, so a strategy is needed that includes improving the attractiveness of educational media, using interactive digital media such as podcasts, short videos, and social media campaigns involving influencers and community leaders, and community-based counseling involving local leaders, tourism awareness group cadres, and community institutions through activities that convey information contextually.

Enhancing the coordination between different sectors is crucial

Suboptimal coordination between sectors hinders the effectiveness of the program, so a strategy is needed including: collaboration with the private sector, using the private sector's corporate social responsibility (CSR) program with more targeted incentives and frameworks, and synergy between government

institutions, forming and strengthening a team to accelerate sustainable tourism management and coordinate program implementation efficiently.

Enhancing the Capabilities of the Cadres and Empowering the Community is Crucial

The limited training of tourism awareness group cadres and the low independence of the community require strategies, including: continuous training for tourism awareness group cadres, allocating a budget for cadre training that includes sustainable tourism modules, with the use of technology for online training, and increasing community independence by developing programs that encourage communities to manage their homes as homestays or utilize local knowledge about tourist locations to become tour guides.

Expanding Access to Information and Education

Lack of access to information and relevant educational approaches requires strategies including: Utilization of Technology, expanding the use of applications such as the jatim single window or sustainable tourism calculator to facilitate access to information; and Local-based and personalized education, adapting educational materials to local needs, such as promoting local tourist attractions and home stays through an approach based on local community habits.

Increasing Community Involvement in Decision Making

Community involvement in decision making needs to be increased through strategies: Opening wider participation space; Holding discussion forums such as sustainable tourism discussions and involving community leaders, academics, and non-governmental organizations in policy formulation; and Active Involvement in Program Implementation, encouraging the community to become implementers of local programs, such as developing home stays, culinary, souvenirs and empowering tourism awareness group cadres at the neighborhood association (RW) and sub-district levels to become tour guides. The study presents community involvement as a novel strategy for sustainable tourism, highlighting the pivotal role of the community with active backing from many stakeholders, including government entities, academia, the commercial sector, and the media. This strategy aims to improve the efficacy of sustainable tourism intervention initiatives by ensuring that the community is both a benefactor and an active participant in tourism development. The concept seeks to amalgamate economic, social, and environmental facets to achieve sustainable results. The concept prioritizes the community in sustainable tourist development by guaranteeing the active participation of local citizens in

decision-making processes. This method is essential for cultivating a sense of ownership and accountability among community people, potentially resulting in more sustainable tourist activities.

The concept aims to empower communities via education and training by engaging them in tourism planning and implementation. This strategy encompasses the cultivation of tourism competencies and environmental awareness, which are vital for sustainable tourism (Rahman et al., 2024). The approach shows how important government programs and corporate social responsibility (CSR) funding are for providing the necessary money and support for tourism activities led by the community. Non-governmental organizations (NGOs) and academic institutions play a key role in sharing resources and knowledge, which helps ensure that community projects get the support they need and align with sustainable tourism goals. Community-driven sustainable tourism can provide employment and stimulate economic development, enhancing local communities by offering a primary income source and elevating living conditions. The concept seeks to empower marginalized populations by engaging them in tourism activities, therefore fostering social change and financial autonomy.

Community engagement in environmental protection is a fundamental aspect of the concept, tackling challenges such as land conversion, pollution, and waste management. This guarantees that tourism development preserves environmental integrity. By involving local populations, the model aids in the preservation of cultural heritage and authenticity, essential for attracting tourists and sustaining the region's cultural identity. The community participation model markedly increases residents' engagement in sustainable tourism development by cultivating a sense of ownership, enhancing perceptions of tourism, and ensuring that tourism efforts correspond with community values and ambitions. This model highlights the essential involvement of local communities in decision-making processes, which is vital for the success and sustainability of tourism initiatives. Engaging residents enhances their views on tourism while fostering economic, social, and environmental sustainability. Research has demonstrated that community involvement enhances people's perceptions of tourism development. A strong positive link was found in the Riomai National Reserve, Kenya, showing that when the community gets involved, they tend to have better feelings about tourism, indicating that being active in tourism projects leads to more support and favorable opinions about them.

In Indonesia, attitudes and beliefs regarding advantages greatly influence active participation in sustainable tourism development, underscoring the

necessity of fostering positive attitudes to promote community engagement. Community-based tourism (CBT) strengthens local communities by engaging them in decision-making processes, thereby aligning tourism development with community values and ambitions. This empowerment reduces adverse effects while enhancing economic advantages (Sapkota, 2024). The standard idea of community participation suggests that giving power to local communities helps them take part in every stage of tourism development, leading to natural and effective involvement. Community involvement in tourist development can result in enhanced local revenue and economic empowerment. In the Kapoposang Marine Nature Tourism Park, participatory methods improved economic sustainability by augmenting local income through efficient management of marine ecosystems (Kuba et al., 2024). In Kazakhstan's Mangystau region, strong community involvement enhances the authenticity of the tourism experience and promotes equitable economic distribution, despite persistent constraints such as insufficient infrastructure.

Conclusion

Despite government intervention, sustainable tourism in East Java faces the challenges of a 19.8% decline in tourist visits and low community participation. This study aims to analyze the level of involvement, identify obstacles, and formulate strategies to improve community participation for the welfare of the local community. Using a qualitative descriptive method, data were collected through in-depth interviews with tourism awareness groups, traders, and ticket officers in tourist areas, as well as through document analysis. The results of the study show that community participation is mostly symbolic, at the level of providing information and consultation. The main contribution of the community is in the form of attendance at tourism awareness posts and basic educational activities, with limited involvement in decision-making. The main obstacles include minimal education, suboptimal cross-sector coordination, and limited access to sustainable tourism services and technology. The proposed strategies include technology-based education, sustainable cadre training, local community empowerment, and strengthening cross-sector collaboration. The key finding of this study is that community participation involves the government, local communities, the private sector, academics, and the media. This research is expected to increase the effectiveness of sustainable tourism and become the basis for community participation policies based on inclusive tourism to improve social welfare. These limitations point to the need for a more inclusive, well-

funded, and strategically planned approach that moves beyond symbolic participation to active, empowering engagement by community members. Future research should aim to develop practical, inclusive strategies that inform and empower communities, ensuring that their active participation has a substantial impact on sustainable tourism development.

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Author Contributions

Conceptualization, M. T. N. S. and L. N.; methodology, L. N.; software, B. C.; validation, B. C. and L. N.; formal analysis, M. T. N. S.; investigation, M. T. N. S; resources, L. N.; data curation, B. C; writing—original draft preparation, B. C; writing—review and editing, L. N; visualization, L. N; supervision, B. C.; project administration, B. C.

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Conflicts of Interest

The authors declare no conflict of interest.

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