

Date	Submitted	Accepted	Published
	2 nd May 2025	14 th August 2025	6 th November 2025

COMMUNITY-BASED ECOTOURISM AS A DRIVER OF NUTRITIONAL WELLBEING: A CASE STUDY FROM RURAL INDONESIA

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ABSTRACT

Community-based ecotourism is increasingly recognized not only as a driver of rural economic growth and cultural preservation but also as a potential catalyst for enhancing community nutritional wellbeing. This study examined the case of Ara Village in Bulukumba, South Sulawesi, Indonesia, one of the pioneering ecotourism destinations that integrates cultural heritage, natural resources and community participation. Using a qualitative research design, this study explored how community-based ecotourism empowers local communities economically, socio-culturally, environmentally and nutritionally. Data were collected through in-depth interviews with 24 informants, including homestay owners, fishermen, government officials and local tourists. Findings revealed that beyond creating alternative livelihoods through homestays and tourism services, ecotourism has facilitated improved food access and promoted local dietary practices. Homestay operators frequently serve traditional meals using locally sourced ingredients such as fresh fish, vegetables and indigenous herbs, which help preserve local food culture while encouraging healthier eating patterns. Community engagement in ecotourism has also enabled families to diversify their income, increasing their ability to purchase nutritious food and invest in better household food practices. Moreover, interactions with tourists have introduced new insights into hygiene, food safety and balanced diets, contributing to shifts in nutritional awareness among community members. The study also highlights the role of socio-cultural empowerment, where the revival of culinary traditions and food-based storytelling becomes a tool for cultural pride and intergenerational knowledge transmission. However, the long-term sustainability of such impacts depends on inclusive planning and support mechanisms from external stakeholders to ensure that ecotourism continues to benefit both community livelihoods and health outcomes. By integrating perspectives on nutrition, empowerment and local development, this study provides new insights into how community-based ecotourism can serve as a pathway toward improving rural wellbeing. The findings offer practical implications for tourism planners, nutrition advocates, and policymakers working in similar rural contexts across the Global South.

Key words: Community-based, Ecotourism, Nutritional wellbeing, Local food systems, Rural empowerment

Citation: Awaluddin A, Ramli M, Yusriadi Y, Masriadi M and A Asrijal
Community-Based Ecotourism as a Driver of Nutritional Wellbeing: A
Case Study from Rural Indonesia. *Afr. J. Food Agric. Nutr. Dev.* 2025;
25(9): 27911-27934. <https://doi.org/10.18697/ajfand.146.25975>



INTRODUCTION

Community-based ecotourism has long been seen as a multidimensional approach to rural development, offering not only economic alternatives but also socio-cultural revitalisation, environmental conservation and improved community wellbeing. In many parts of the world, especially in developing countries, this model has grown in popularity as local communities seek ways to preserve their traditions and natural resources while gaining access to livelihood opportunities [1, 2]. In Indonesia, where cultural and ecological diversity is rich, the potential of ecotourism has been formally recognised as part of national development strategies [3].

Research has shown that community-based ecotourism generates various benefits, including job creation, skill development, business growth, cultural preservation and environmental stewardship [4]. These projects have encouraged alternative income sources, fostered community participation in governance, and inspired grassroots environmental initiatives. They have also supported language learning, cross-cultural exchange, and tourism infrastructure improvement in rural areas. However, the implementation of ecotourism has not always led to equitable or sustainable outcomes. In several contexts, it has exposed communities to new vulnerabilities such as the over-commercialisation of culture, loss of communal land, rising social inequality, and increased burdens on women in unpaid domestic and tourism-related work [1, 5]. Moreover, an influx of tourism can introduce modern influences that undermine traditional values or create tension between preservation and profit. As noted in previous studies, some communities have perceived ecotourism as a mixed blessing, with its benefits outweighed by its negative consequences when not properly managed [6, 7, 8].

These concerns highlight the need for community-centred ecotourism strategies that prioritise transparency, inclusiveness, equitable benefit-sharing, and deep respect for local culture. Such principles are essential to reduce risks and enhance the empowering potential of tourism [9]. When these conditions are met, ecotourism can become a powerful vehicle for rural transformation. Despite the challenges, ecotourism remains a relevant and widely applied development model in many Global South countries, including Indonesia. Evidence from various regions has reinforced this relevance. In Indonesia, for instance, ecotourism contributed to increasing levels of trust, cooperation, and collective action among villagers, while also transferring knowledge in economic, environmental and social domains [6, 10]. Homestay-based ecotourism programmes in Tirthan Valley, India, improved incomes, empowered women, reduced migration and enhanced infrastructure and living standards [11]. Similar gains were documented in Thailand, where local ecotourism entrepreneurs reported economic growth and increased community capacity [12].



Nonetheless, a significant gap remains in the literature: few studies have explored the connection between ecotourism and nutritional wellbeing. In many rural areas, malnutrition and limited access to diverse, healthy foods persist despite growing tourism-based incomes. This raises an important question—can ecotourism also contribute to improved nutrition and food practices in rural households? Food, after all, is central to the homestay tourism experience. In many community-based ecotourism projects, especially in Southeast Asia, local families prepare and serve traditional meals to visitors using homegrown or locally sourced ingredients. These meals often consist of fish, vegetables, herbs and staples that reflect seasonal and regional food systems. Through this interaction, tourism becomes a channel for preserving culinary heritage while also promoting food security and healthier diets. At the same time, the income generated from ecotourism allows households to purchase a greater variety of foods, improve food hygiene and access knowledge about nutrition and health through exposure to guest preferences and expectations [13, 14, 15].

This study investigated these dynamics through a case study in Ara Village, Bulukumba Regency, South Sulawesi, Indonesia. Since the early 2000s, Ara has become one of the leading examples of community-based ecotourism in Indonesia, known for its cultural heritage, especially the Pinisi boat-making tradition. The community initiated homestay services as part of its tourism programme and has since engaged in various ecotourism-related activities. The majority of residents are fishermen and boatbuilders, and ecotourism has served as an important complementary livelihood option. Drawing on the empowerment framework developed [16] and expanded [17], this study examined how participation in ecotourism empowered the Ara community not only economically, socially and environmentally, but also nutritionally. It introduces the concept of “nutritional wellbeing” into the discourse of community empowerment, recognising food access, traditional diets and nutrition knowledge as key indicators of rural development.

This study argues that when ecotourism incorporates local food systems, both in the everyday lives of residents and in the experiences of tourists, it contributes meaningfully to health outcomes and dietary diversity. By connecting the homestay economy with nutrition-sensitive development, the research adds a new layer of understanding to the transformative role of ecotourism in rural settings. In so doing, it proposes a more holistic and sustainable model of empowerment, one that nourishes not just livelihoods and landscapes, but also bodies, traditions and futures.

MATERIALS AND METHODS

There was a growing concern among researchers [18] regarding the lack of clarity in how qualitative studies in tourism justified their underlying research paradigms.



Selecting an appropriate paradigm was essential to guide the research process and align it with the study's objectives. This study adopted the constructivist paradigm, also referred to as the interpretivist paradigm, which aimed to explore the subjective realities and cultural meanings held by the participants [19]. In qualitative research, the number of in-depth interview participants is generally flexible, as even a single informant can offer valuable insights when the context is well understood [20]. However, justification of the sample size remained important. Two key considerations often cited were data saturation and population homogeneity [18]. A small sample was deemed acceptable when the participants shared similar characteristics and saturation had been reached [21]. This study involved 24 informants, with the number determined by the principle of data saturation rather than a statistical formula. Participants were chosen through purposive sampling with maximum variation to capture diverse perspectives on community-based ecotourism and its nutritional implications. Inclusion criteria included active involvement in homestay tourism in Ara Village, engagement in food-related practices, residency of at least three years, and willingness to participate in interviews. This dimension was critical in highlighting the nutritional implications of ecotourism, an aspect often overlooked in previous tourism research [20, 21].

Field research was conducted in Ara Village over a two-month period, from June to July 2024. The primary focus of this study was the local community, particularly individuals who had pioneered ecotourism development in the village since 2014. These community members were engaged in various ecotourism activities as alternative livelihoods alongside their traditional occupations as boat builders, fishermen and small-scale entrepreneurs. Informants from this group were selected based on their consistent involvement in ecotourism since its early stages and their demonstrated capacity to empower themselves economically, socially and environmentally. To ensure a broader understanding of ecotourism's impact, the study also included interviews with four local government officials and five domestic tourists. These additional perspectives provided complementary insights into how ecotourism was perceived and supported at both the institutional and visitor levels. Twenty-four informants participated in this study, including 15 local community members, 5 domestic tourists, and 4 local government officials. A summary of key informants and their categories is presented in Table 1. A particular emphasis of this research was placed on the empowerment of community members who managed privately owned homestays and eco-resorts. These venues often became central not only to the tourism experience but also to the everyday practices of food preparation, hospitality and cultural exchange.

Interviews were carried out at various sites, including the informants' homes, local government offices, and tourist attractions. Prior to each interview, participants were



provided with a written consent form and an explanation of the study's purpose. To capture deeper insights, especially on themes related to empowerment and nutritional wellbeing, some informants, such as homestay and resort managers, were interviewed more than once. All interviews were conducted in Bahasa Indonesia and later translated into English by the researcher. The translations were reviewed by a language expert to ensure accuracy and consistency in representing the participants' perspectives. This research aimed to ensure the validity of its findings by adhering to the four main criteria in qualitative research as outlined [18]: credibility, transferability, dependability and confirmability. Table 2 illustrates how each of these criteria was addressed throughout the research process. To enhance the credibility and richness of the data, triangulation techniques were applied by incorporating multiple data sources and methods of data collection. Each interview lasted between 30 minutes and one hour and was recorded using an audio recorder after obtaining informed consent from the participants.

In addition to interviews, field observations were conducted to directly observe ecotourism activities and the physical setting in Ara Village. The researchers maintained detailed field notes and collected photographs, which served as supplementary data and helped to contextualise the narratives shared during the interviews. The data were analysed using thematic analysis, following six sequential steps: familiarising with the data, generating initial codes, identifying themes, reviewing themes, defining and naming themes and producing the final report [22]. This analytical approach enabled the researchers to extract key patterns and themes related to the indicators of empowerment experienced by informants through their participation in community-based ecotourism. The report writing process followed established principles of qualitative research. Direct quotations from informants were carefully selected not only to illustrate specific issues but also to reflect the shared perspectives of other participants. This practice, as recommended by Williams [22], was intended to provide a holistic representation of community voices and strengthen the authenticity of the findings.

Research ethics

This study received ethical approval from the Research Institute of Universitas Cahaya Prima. Participation in the research was entirely voluntary. Prior to data collection, all participants were provided with clear information about the purpose and scope of the study and were asked to sign a written informed consent form. Ethical considerations were upheld throughout the research process, ensuring the anonymity, confidentiality and autonomy of all informants.



RESULTS AND DISCUSSION

This research successfully identified four key dimensions of ecotourism—economic, socio-cultural, environmental and nutritional—and examined their impact on the local community in Ara Village. These dimensions are discussed in detail in the following sections. To provide a comprehensive understanding, the findings are presented through narrative accounts supported by direct quotes from informants and triangulated with observational data. As shown in Table 3, most of the ecotourism participants were engaged in the homestay programme, either as their primary occupation or as a secondary source of income. Several informants also operated small-scale fisheries to supplement their livelihoods. The background information of ecotourism participants is summarized in Table 3. Among the 15 main informants, who included homestay hosts, local food producers, and community leaders involved in ecotourism activities in Ara Village, there were 7 males and 8 females aged between 30 and 52 years. The majority were involved in homestay management either as their primary or secondary occupation, while others worked as boat craftsmen or fishermen. Many female informants managed homestays in addition to their domestic roles, highlighting the significant contribution of women to ecotourism activities in the community.

Interestingly, one informant managed to expand their involvement beyond accommodation services by integrating a successful ecotourism business that combined local tour experiences with homestay operations. This reflects a broader pattern in which homestay initiatives served not only as income-generating activities, but also as platforms for sharing traditional meals, preserving food culture, and promoting nutritional wellbeing through locally sourced ingredients. These intersections between livelihood diversification and food-related practices highlight how ecotourism, when rooted in community participation, can support both economic empowerment and improved household nutrition.

A total of 24 informants participated in this study, comprising local community members, homestay hosts, food producers, and village leaders involved in community-based ecotourism. Among them, 15 served as key informants due to their direct involvement in homestay operations and decision-making processes. Of these fifteen key informants, six were women who demonstrated strong capacities in managing homestay activities, including hosting guests, preparing traditional meals, and maintaining the cleanliness and comfort of the accommodations. Their roles highlighted the significant contribution of women to the success of community-based ecotourism in Ara Village. The age of informants ranged from thirty to fifty-two years old, reflecting a broad span of adult participation across generations. Notably, participation in ecotourism activities was not limited to older adults. Several younger family members, particularly those under the age of forty, were also actively



involved in supporting homestay management. They assisted their parents in tasks such as cleaning, welcoming guests and learning how to prepare local dishes for tourists. This intergenerational involvement not only strengthened the sustainability of ecotourism practices but also contributed to the transmission of local food knowledge and nutritional values, reinforcing the role of ecotourism in fostering long-term community wellbeing.

Socio-cultural impacts and empowerment of ecotourism

Social capital

The development of social capital, both within and beyond the local community, brought significant positive changes for the residents of Ara Village. Among the informants, social capital emerged as a key driver in enabling sustainable livelihood opportunities through community-based ecotourism. Prior to the introduction of ecotourism, interactions between community members and outsiders, particularly in the context of development, were minimal. As a result, awareness of the importance of collaboration, shared planning, and external engagement remained low, leading to a general reluctance among villagers to cooperate with external actors. As one homestay owner reflected:

"Ecotourism has brought significant changes in the social interaction of local communities. Previously, the hustle and bustle of earning a living and the focus on personal lives meant that interactions between residents were limited. However, with the increase in tourist visits since the beginning of 2014, the community began to be exposed to and actively involved in tourism activities". (Inf. No. 1, homestay owner in Ara)

This quote highlighted a turning point in community dynamics. The early hesitation to engage with outsiders initially hindered efforts to diversify the local economy and improve living standards. Recognising this challenge, the Bulukumba local government, together with multiple stakeholders, introduced a conservation-based development programme. One key outcome was the homestay initiative, which was launched with strong support from interested residents. The homestay programme proved transformative. It altered the community's perception of tourism and fostered a greater appreciation for collaboration, trust-building, and shared ownership of development goals. Through regular interactions with tourists, government actors and support organisations, residents began to value partnerships as essential to realising the village's ecotourism potential. The success of Ara's community-based ecotourism clearly underscored the central role of social capital and trust networks in enabling community empowerment, intergroup cooperation, and long-term wellbeing. Without these foundational relationships, the social transformation that unfolded in Ara would not have been possible.



Bugis Makassar Local Culture as an Ecotourism Product

The growth of ecotourism in Ara Village had significantly strengthened local pride in Bugis Makassar culture. One of the most visible platforms for this cultural expression was the homestay programme, which served as a medium for introducing visitors to local traditions—most notably, the Pinisi boatbuilding craft, recognised internationally as part of Indonesia’s intangible cultural heritage. Informants expressed a strong sense of pride in being able to share their heritage with tourists, and they viewed the homestay not only as an income-generating space, but also as a stage for cultural preservation. As one homestay manager explained:

"Since its introduction in the village, the traditional craft of the Pinisi boat has been promoted as a local flagship product. After going through a process of deliberation and approval from the community, we agreed to introduce it more widely to tourists visiting the homestay". (Inf. No. 6, homestay manager in Ara)

The commercialisation of culture through ecotourism activities was not imposed from outside but was the result of community-led consultation processes involving homestay owners, village leaders, and government stakeholders. These discussions helped define the cultural boundaries and ethical guidelines to ensure that the promotion of local traditions would generate economic benefits while maintaining cultural integrity. Among the outcomes was the agreement to present traditional crafts, ceremonies, and daily life practices—regardless of the gender, age, or social status of those involved. Ecotourism also facilitated the revival of practices that had previously remained within domestic or ceremonial spaces. For example, cultural values embedded in food preparation, hospitality, and storytelling became visible through shared meals and conversations with guests. These interactions not only celebrated Bugis Makassar identity but also functioned as a cultural and nutritional bridge, allowing visitors to experience local cuisines while enabling communities to reinforce their food heritage and promote healthier, traditional diets.

Informants noted that before ecotourism was developed, the idea of “sharing” their culture with outsiders was uncommon. Still, residents remained cautious about the risks of over-commercialization. To protect the integrity of their traditions, certain activities especially those with spiritual or symbolic significance were carefully regulated and performed only in culturally appropriate settings. The local community continued to uphold traditional values and craftsmanship, ensuring that ecotourism would serve not only as a source of income, but also as a mechanism for cultural resilience and intergenerational knowledge transmission, particularly in food, language and artisanal skills.



Rural Community Empowerment

The development of ecotourism in Ara Village contributed to the emergence of a more equitable and inclusive tourism system. Both men and women were increasingly recognized for their contributions, reflecting a positive shift driven by collective awareness and a growing sense of empowerment. Traditionally, Bugis Makassar society was shaped by a rigid social stratification system that placed individuals from middle and upper classes in dominant roles. For the lower-middle class, this structure had long served as a barrier to social mobility and economic participation. However, the rise of community-based ecotourism, particularly through the homestay programme offered new pathways for involvement, creating opportunities for those previously marginalised to gain visibility, confidence and influence.

As one female homestay operator shared, “I now feel more confident and respected in my community because of my role in managing the homestay and interacting with guests”.

Through their active participation in the tourism economy, members of the lower-middle class began to experience social and political empowerment. Those involved in homestay services reported higher levels of self-confidence, especially in managing hospitality operations and engaging with guests. Observational data confirmed that many had acquired practical skills in business management, food preparation, Pinisi boat craftsmanship, and interpersonal communication. These capabilities not only improved their economic prospects but also enhanced their social standing within the community. This research identified several key indicators of empowerment among homestay providers from lower socioeconomic backgrounds. Informants (Inf. 8, 12, 14 and 15) described their experiences of personal growth, particularly in the areas of collaboration, technology use and marketing. One female homestay owner explained how she had learned to manage every aspect of the guest experience, from booking to departure. Another informant shared how she had developed digital marketing skills by promoting her homestay through social media platforms. These were not only signs of entrepreneurial development, but also reflections of a broader social transformation driven by ecotourism.

Importantly, the homestay model also became a platform for showcasing and preserving local food traditions, allowing participants, especially women to gain recognition for their culinary knowledge and hospitality. By preparing and serving traditional meals to guests, homestay hosts reinforced their role in promoting nutritional wellbeing while generating income and strengthening their cultural identity. For many, the ecotourism initiative represented more than a livelihood, it



became a means of reclaiming agency, dignity and aspiration within their community.

Ecotourism environmental impact and empowerment Fostering Awareness to Protect the Environment

The informants in this study agreed that environmental awareness in Ara Village had increased significantly since the rise of ecotourism in 2014. The gradual development of ecotourism was perceived as a practical response to several long-standing environmental challenges in the Bulukumba region, such as littering, illegal logging, water pollution and coral reef degradation. One homestay owner reflected on the shift:

“A few years ago, the destruction of coral reefs in this area slowly stopped after the local government declared Apparalang cliffs as a ‘conservation area’. The local community still relies on natural resources for daily survival such as fishing”. (Inf. No. 11, homestay owner in Ara)

Ara's environment had long been under pressure from both internal and external forces. While local residents depended heavily on marine and land-based resources for their daily livelihoods, the increasing popularity of Bulukumba's natural beauty as a tourism destination attracted interest from outsiders seeking to exploit its ecological assets. Since 2014, there had been noticeable growth in land conversion and residential expansion in Ara, driven by tourism-related development. This rapid transformation raised concerns among the community about long-term sustainability.

Amidst these changes, a grassroots environmental consciousness began to emerge. With support from the local government and environmentally aware tourists, the community initiated a conservation-oriented approach to tourism development. Although ecotourism was initially met with skepticism mainly due to fears of restricted access to traditional fishing areas, consistent community engagement, education and socialisation eventually reshaped public perceptions. Gradually, residents began to view environmental stewardship not as a limitation, but as a shared responsibility and a key pillar of sustainable ecotourism.

Ecotourism in Ara came to prioritise environmental protection, in line with the core principles of ecotourism. Informants noted that public awareness about nature conservation had been very low before the tourism initiative began. However, over time, the community adopted more eco-friendly behaviours and began taking pride in preserving their natural surroundings. While concerns about the long-term environmental impacts of increased tourism remained, the relatively low volume of tourist arrivals, particularly through the homestay system had so far helped prevent



significant ecological degradation. Ultimately, ecotourism served not only as a source of livelihood, but also as a catalyst for environmental education and behavioural change. The alignment between local livelihoods and conservation objectives offered hope for a model of tourism development that sustained both people and ecosystems.

Focusing on the impact of ecotourism schemes on community empowerment, this study found that involvement in homestay provision had generated positive changes across multiple dimensions of rural life: economic, socio-cultural and environmental. Homestay owners consistently expressed that ecotourism had positively influenced their livelihoods. These improvements were evident through several indicators, including the creation of new job opportunities, increased household income, strengthened social capital, the preservation of local culture, enhanced women's roles, and greater environmental awareness. These findings aligned with earlier research [12, 23], reinforcing the role of ecotourism as a source of sustainable livelihoods in rural settings and offering strong support for community-based tourism development models.

From an economic perspective, the homestay programme had created new avenues of employment for the local population in Ara, many of whom were previously dependent on marine fisheries. This livelihood diversification suggested a gradual shift away from ecological dependence toward more stable and tourism-driven income sources [24, 25]. The transformation of local residents from fishermen to homestay entrepreneurs reflected a clear trajectory of economic empowerment, in line with the assertions of [26, 27, 28] the successful transition observed in Ara supported the broader view that ecotourism could serve as a development strategy in rural and coastal communities. Similar patterns had been noted in other parts of Indonesia, where homestays played a growing role in local development [29, 30, 31].

Beyond economics, the findings revealed that the socio-cultural impact of homestay involvement was equally, if not more, transformative. The expansion of social capital, both within the village and with external actors, emerged as a significant empowerment outcome. Through regular interaction with tourists, government agencies and supporting organisations, community members developed greater confidence, openness to innovation, and willingness to engage in collaborative activities. These interactions enhanced not only their individual capacities but also the collective resilience of the village. This dimension of empowerment, particularly in terms of social transformation and cultural confidence, remained underexplored in much of the existing literature on ecotourism in developing contexts.



In addition to these socio-cultural changes, this study found that community-based ecotourism in Ara Village influenced nutritional well-being through several pathways. Increased household income from homestay services allowed families to purchase more diverse and nutritious foods. Moreover, the emphasis on preparing and sharing traditional meals with visitors revived local food knowledge and improved access to indigenous ingredients rich in micronutrients. These changes indicate that ecotourism not only provided economic empowerment but also indirectly enhanced dietary diversity and cultural nutrition practices within the community.

Importantly, this research documented a high level of community acceptance of the homestay model as an alternative livelihood. Informants expressed appreciation for the opportunity to engage in tourism while maintaining cultural integrity and domestic autonomy. This strong endorsement suggested that community-based ecotourism could function not merely as a market-driven intervention but as a participatory development mechanism that fostered local agency. Despite the growing body of literature on ecotourism in Indonesia, few studies had examined empowerment from this grassroots perspective. As such, the case of Ara contributed important empirical evidence to the field.

Furthermore, the study highlighted the integration of traditional livelihoods, such as Pinisi boatbuilding, into ecotourism activities. This fusion of tourism and heritage-based crafts not only enriched the visitor experience but also supported the long-term sustainability of local economies and cultural practices. Findings from this study were consistent with those reported by Das et al. [32] and Stone [33], affirming that traditional knowledge and cultural products could be leveraged within ecotourism frameworks to reinforce both economic viability and cultural identity. Taken together, these findings contributed to a more nuanced understanding of how ecotourism can serve as a comprehensive empowerment strategy, especially when implemented with local ownership, cultural sensitivity and environmental responsibility. In the case of Ara, homestays emerged not only as economic assets but as social platforms for growth, learning, and nutritional and cultural wellbeing, advancing a model of tourism that sustains both people and place.

This research demonstrated that ecotourism had empowered local communities across multiple dimensions: political, social, psychological and economic [1, 34, 35]. It successfully identified key indicators of empowerment through ecotourism schemes, including improvements in welfare, access, participation, awareness and local control. One of the most notable findings was the elevation of the social status of middle-class community members through their involvement in homestay provision. In parallel, members of the lower-income groups also benefited from ecotourism initiatives [14, 23, 36], participating as equal decision-makers and active contributors with improved access to income opportunities. These findings echoed



the experience of the Isecheno Conservation Group in Kenya, where lower-class communities enhanced their management skills through full participation in ecotourism [37].

This study elaborates on various forms of empowerment, reflected in indicators such as increased household income, development of new business skills, expanded roles for women, and enhanced social status among marginalized groups. This addition provides clearer evidence to support the claim [38, 39]. In contrast, the case of Ara revealed a community that had internalised the principles of ecotourism as a tool for nature conservation and sustainable development [40, 41]. Residents understood that protecting their environment was essential to the long-term viability of ecotourism.

This study made several significant contributions to ecotourism literature. First, through critical reflection on existing research, it provided empirical evidence on the empowerment potential of ecotourism in rural contexts of developing countries, reinforcing its role as an alternative livelihood model [42, 43, 44]. Second, the study introduced local culture as an independent dimension of empowerment, highlighting its value beyond psychological benefits. While previous research often positioned lower-class groups as sole bearers of cultural preservation [13], this study showed that all segments of society regardless of class or gender played an active role in sustaining cultural heritage. The case of Bugis Makassar culture, particularly the Pinisi boatbuilding tradition and homestay hospitality, illustrated how cultural identity could be preserved and promoted through ecotourism in a way that empowered communities socially and symbolically.

A key insight was the recognition of socio-cultural empowerment as a distinct outcome in ecotourism, deserving acknowledgment alongside economic and psychological dimensions. The pride fostered by the integration of local culture into tourism offerings underscored the importance of cultural dignity as a component of community development. This study thus recommends that future ecotourism frameworks adopt socio-cultural empowerment as a formal indicator of success in participatory tourism development. In addition, this study repositioned homestays within ecotourism discourse. Often associated exclusively with underprivileged groups and framed as socially oriented rather than economically viable, homestays in this context were shown to benefit a broad range of community members. Unlike prior studies that limited analysis to lower-class participants, this research treated the entire local community as the unit of analysis. As a result, it was able to uncover a richer spectrum of empowerment indicators, making the case for the homestay model as a scalable and inclusive platform for rural transformation.



To validate the framework proposed in this study, future research should explore similar ecotourism sites in other regions and countries. Comparative case studies would help assess the generalisability of the empowerment dimensions identified in Ara Village. Furthermore, the findings of this research supported the realisation of several Sustainable Development Goals, specifically SDG 1 (No Poverty), SDG 4 (Quality Education), SDG 5 (Gender Equality), and SDG 16 (Peace, Justice, and Strong Institutions). The case of Ara illustrated that ecotourism, when locally driven and culturally grounded, could serve as an effective development tool to improve livelihoods, promote environmental stewardship, and strengthen inclusive governance in rural communities. Table 4 summarises these linkages.

Despite the empowerment outcomes observed in this study, the long-term sustainability of ecotourism in Ara Village remain uncertain, particularly in terms of its capacity to deliver consistent and widespread benefits to local communities. The limited number of tourists staying in homestays translated into modest economic returns, especially for homestay owners. This condition posed a risk of economic powerlessness, as described by Scheyvens [16], where communities participate in tourism but receive insufficient financial gain to support genuine empowerment. Although this study was qualitative and did not systematically collect quantitative income data, several informants noted that their household income increased by approximately 10–20% during high season due to tourist visits. The main activities commercialized included homestay accommodation, guided tours of the Pinisi boat workshops, traditional dance performances and handicraft demonstrations. Foods offered to tourists and sold through homestays included freshly caught fish, local vegetables, indigenous herbs, and traditional Bugis-Makassar snacks such as barongko and onde-onde. These commercialized activities and foods contributed to diversifying income sources and preserving local culture, albeit at a modest scale given the limited volume of tourism. Nevertheless, homestay hosts expressed optimism and gratitude for their involvement in ecotourism. Even with limited income, they valued the ability to contribute to household expenses and maintain a sense of purpose and cultural pride. This intrinsic motivation was seen as a critical factor that could support the sustainability of ecotourism initiatives in the long run, provided that appropriate institutional support and stakeholder collaboration were in place.

To strengthen the sustainability of ecotourism as a tool for community development, this study proposed several managerial implications. First, government bodies and development institutions involved in ecotourism should introduce structured mentoring and support programmes. These programmes could focus on enhancing community members' motivation, environmental awareness, hospitality skills, and entrepreneurial capacities. Such efforts would empower homestay operators to improve the quality of their services and better position themselves within the tourism



market. There were already examples within the region where households had successfully upgraded their homestays, offering improved amenities and better guest experiences. These success stories highlighted the potential for scaling up through targeted capacity-building interventions. In particular, access to information on tourism trends, visitor expectations, and digital marketing, were identified as key determinants of success. As emphasised by some authors [45, 46, 47], access to timely and relevant information is fundamental to supporting social and economic empowerment in tourism settings.

Ultimately, sustaining community-based ecotourism in Ara required more than just participation, it demanded strategic support, policy alignment and long-term investment in local capacities. With collaborative efforts from local governments, NGOs, and tourism networks, ecotourism could continue to evolve as a meaningful, inclusive and resilient form of rural development.

CONCLUSION AND RECOMMENDATIONS FOR DEVELOPMENT

In line with the research objectives, this study found that ecotourism in Ara Village had significantly contributed to the empowerment of local communities, particularly in economic, socio-cultural, and environmental dimensions. This empowerment was largely attributed to the community's sustained participation in ecotourism initiatives since their inception in 2014. However, the study was not without limitations. One key limitation was the restricted scope, which focused exclusively on the experiences of community members who actively participated in ecotourism activities. As such, the study did not explore the challenges and constraints that these individuals might have encountered during the empowerment process. In reality, maintaining ecotourism as a sustainable livelihood strategy may involve navigating various social, economic and environmental obstacles.

Moreover, this research did not examine the perspectives of non-participating residents, a critical gap considering that not all community members engage in or benefit equally from tourism.. Non-participants may hold distinct views on tourism's impacts, and their exclusion from tourism-related decisions may reflect deeper structural inequalities. Therefore, future research is encouraged to explore these unexamined dimensions, including the barriers to participation, intra-community tensions, and perceptions of ecotourism among those who remain on the margins of the tourism economy. Longitudinal or comparative case studies across similar rural destinations could further enrich our understanding of the conditions under which ecotourism serves as a truly inclusive and sustainable development tool. Such investigations would offer valuable insights for scholars, policymakers, and practitioners working in the fields of rural development, sustainable tourism, and community empowerment.



ACKNOWLEDGEMENTS

The authors would like to express their sincere gratitude to the Directorate General of Higher Education, Ministry of Education and Culture of the Republic of Indonesia, for providing funding support that made this research possible. We also extend our appreciation to Cahaya Prima University for the institutional support and research facilities that greatly facilitated the fieldwork and data analysis processes. This support has been instrumental in enabling us to contribute meaningfully to the advancement of academic knowledge and the promotion of community wellbeing through sustainable innovation.

Funding

This research was funded by the Directorate General of Higher Education, Ministry of Education and Culture of the Republic of Indonesia.



Table 1: Summary of key informants

Informant No.	Role Category	Total Interviews
1–15	Local community	15
16–20	Tourists	5
21–24	Local government	4

Table 2: Trustworthiness criteria and application

Types of Trustworthiness	Adopted by the Researcher
Credibility	Credibility in this study was built through prolonged engagement, continuous observation, and member checking techniques. The researcher built closeness and trust with informants through intensive and long-term interactions, while continuous observation allowed the researcher to gain a deep understanding of the context and dynamics that occurred. Through member checking, informants were given the opportunity to review the interview and observation data and provide feedback on the interpretations made by the researcher. This process ensures that the data collected and the resulting interpretations are accurate and in line with the informants' perspectives.
Transferability	The use of purposive sampling in this study contributes to the potential transferability of the results, although it should be borne in mind that transferability also depends on the similarity of the context with other studies.
Dependability	Dependability in this study was maintained through a detailed research plan covering the research process, a transparent audit trail, and ongoing project discussions between researchers.
Confirmability	Confirmability in this research was pursued through an audit process that ensured the accuracy of data collection, analysis, and interpretation, taking into account multiple perspectives on the phenomenon under study.



Table 3: Background information of ecotourism participants

Informant No.	Gender	Age	Main Job	Secondary Job
1	F	52	Homestay	Housewife
2	M	40	Boat craftsmen	Homestay
3	M	38	Boat craftsmen	Homestay
4	M	42	Fishing	Homestay
5	F	37	Homestay	Housewife
6	M	48	Homestay	Fishing
7	F	30	Homestay	Fishing
8	M	44	Fishing	Homestay
9	M	40	Boat craftsmen	Homestay
10	M	42	Fishing	Homestay
11	F	50	Homestay	Housewife
12	F	38	Homestay	Housewife
13	M	47	Boat craftsmen	Homestay
14	M	42	Homestay	Homestay
15	F	46	Homestay	Housewife

Table 4: Linkages between the study and the SDGs

Sustainable Development Goal (SDG)	Relevance to the Study
SDG 1 – No Poverty	Ecotourism creates new income sources for rural communities through homestays and local entrepreneurship.
SDG 4 – Quality Education	Homestay participation improves management and digital marketing skills, contributing to non-formal education.
SDG 5 – Gender Equality	Both men and women are actively involved in tourism activities, fostering equal opportunity and shared responsibilities.
SDG 16 – Peace, Justice, and Strong Institutions	Community participation in tourism decision-making strengthens local governance and inclusive development processes.

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