



COMMUNITY PARTICIPATION AND SUSTAINABLE TOURISM DEVELOPMENT: A CASE STUDY IN THE LANG CO LAGOON AREA OF VIETNAM

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Abstract. This study aims to assess the role, perceptions, and level of community participation in the sustainable development of tourism in the Lang Co Lagoon area of Vietnam. A single-case study research design was employed, and data were collected from 66 participants, including 60 local households and 6 management officers. The results reveal that tourism has improved household income, helping local residents reduce their dependence on traditional fisheries, diversify income sources, and enhance awareness of environmental protection and resource conservation within the lagoon ecosystem. Local people participate in tourism activities at multiple levels: directly (tour services, homestays, transportation), indirectly (supplying seafood and goods), and through community-based initiatives (environmental protection, cultural promotion). However, tourism has also generated new challenges, such as plastic waste pollution, encroachment on lagoon spaces, inequality in benefit sharing, and weak coordination among stakeholders. The findings provide empirical evidence for developing a sustainable tourism model that links livelihood improvement with ecological conservation in the coastal-lagoon regions of Central Vietnam.

Keywords: community participation, lagoon ecosystem, Lang Co, sustainable tourism, Vietnam

1 Introduction

At present, tourism is recognized as one of the fastest-growing industries and plays a pivotal role in driving national economic development worldwide [1]. Beyond its economic contributions to localities, tourism also provides significant benefits to communities, which serve as key stakeholders in the tourism industry [2, 3]. Nevertheless, tourism in coastal lagoon areas represents a complex phenomenon, as it generates both positive and negative impacts on environmental, economic, and socio-cultural dimensions. Hunter [4] emphasizes that coastal tourism may lead to adverse environmental consequences such as shoreline erosion resulting from excessive beach exploitation, increased water pollution due to inadequate wastewater management and the degradation of coastal habitats. Socio-cultural activities, while constituting a distinctive component of tourism attractiveness, are particularly vulnerable to transformations induced by tourism development. The rapid growth in tourist arrivals and the

influence of market-oriented dynamics can trigger the “commercialization” of natural environments and indigenous cultures, consequently diminishing the authenticity and intrinsic value of cultural heritage [5, 6]. These challenges have drawn increasing attention from researchers and policymakers toward sustainable tourism models. In contrast to conventional tourism, sustainable tourism requires a higher level of awareness, strategic planning and community participation and control while fostering opportunities for integrated conservation and development [7, 8].

In Vietnam, coastal and lagoon tourism has rapidly developed across various regions, particularly in areas with high ecological and cultural value such as the central coastal zone [9]. Among these, Lang Co Lagoon – part of the Tam Giang – Cau Hai lagoon system – represents a typical area with great potential for developing coastal and lagoon tourism in association with ecological conservation and the promotion of local cultural values. With its unique natural landscape, abundant aquatic resources, and distinctive fishing village culture, Lang Co has become an attractive destination for experiential tourism, ecotourism, seafood-based culinary tourism and homestay services [10]. However, tourism development in the Lang Co lagoon area remains largely spontaneous and lacks a clear orientation toward sustainability. Many local households still face difficulties in engaging in tourism activities due to limited professional skills, insufficient investment capital, inadequate service infrastructure and restricted access to market information. According to the Thua Thien Hue Provincial Department of Tourism (2022), fewer than 35% of local households engaged in tourism-related activities have received formal training, and community-based tourism projects remain small-scale and fragmented. At the same time, the rapid expansion of tourism activities in recent years has led to several negative environmental consequences within the lagoon ecosystem, including plastic waste pollution, encroachment of water surfaces, overexploitation of aquatic resources to serve tourists and a decline in natural biodiversity [11]. These changes not only threaten the ecological health of the lagoon system but also directly affect the livelihoods and quality of life of local residents – who are participants and beneficiaries as well as those most impacted by the ongoing tourism development process.

Building upon the practical context of lagoon tourism development in Lang Co area, this study aims to comprehensively assess the roles, perceptions and participation of local communities in the tourism development process in Lang Co.

2 Literature review

Coastal tourism is defined as a form of tourism that establishes close linkages between local communities, visitors and destinations within the coastal zone—an area that concentrates

distinctive natural and cultural resources [12]. This form of tourism is characterized by its high specificity, owing to the diversity of ecosystems, the uniqueness of individual sites and their geographical distinctiveness, all of which directly influence the settlement patterns, livelihoods, and cultural practices of local residents [13]. Most coastal tourism activities occur along the shoreline and nearshore waters, encompassing outdoor recreational pursuits such as sports, leisure, sightseeing as well as indoor activities including conferences, events and business tourism [14]. However, a substantial body of research has demonstrated that coastal tourism exerts both positive and negative impacts on local communities [15, 16]. On the positive side, tourism is often regarded as a driving force for infrastructure development, labor market expansion and improvements in local living standards [17]. In addition, tourism activities can contribute to biodiversity conservation, landscape restoration and the revitalization of traditional cultural values [12]. Conversely, the rapid and resource-dependent growth of coastal tourism may lead to severe consequences such as environmental degradation, water pollution, shoreline erosion and shifts in the social and cultural structures of local communities [18]. Specifically, Unhasuta, Sasaki, and Kim [19] argue that although tourism plays a crucial role in stimulating economic growth in coastal regions, it may also increase the dependence of local livelihoods on tourists and related service sectors. Similarly, Yashna *et al.* [20] contend that coastal tourism functions as both a developmental driver and a source of pressure for communities, which must rapidly adapt to market dynamics and visitor demands. Alvarez *et al.* [21] highlight that frequent interactions between residents and tourists intensify socio-cultural impacts, sometimes resulting in transformations of traditional value systems and lifestyles. Furthermore, the geographical and environmental characteristics of coastal zones make these areas particularly vulnerable to the adverse effects of tourism. McLeod, Dodds and Butler [22] note that, alongside economic and welfare benefits, local residents face issues such as pollution, overexploitation of natural resources, infrastructure expansion beyond environmental carrying capacity and growing dependence of local economies on tourism. Uncontrolled tourism development can lead to ecological imbalance, resource depletion and increased social risks, thereby undermining the long-term sustainability of coastal destinations [23].

According to the definition provided by the World Tourism Organization (UNWTO) [24], sustainable tourism is “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.” The development of sustainable tourism requires a balanced and harmonious integration of three fundamental pillars: (1) economic sustainability – ensuring long-term benefits and equitable distribution of tourism revenues; (2) social sustainability – preserving cultural identity and improving community well-being; and (3) environmental sustainability – protecting ecosystems, natural resources and landscapes. A destination can only

be considered sustainable when it is capable of accommodating an appropriate number of visitors within its environmental carrying capacity without causing damage to its ecological, social or cultural structures.

In the context of globalization and climate change, sustainable tourism has become a strategic priority in the development agendas of many nations, particularly in coastal regions–areas that are both rich in natural resources and highly vulnerable. However, there is no universal “standard formula” for achieving sustainability at all destinations. Coastal and lagoon ecosystems typically possess limited regenerative capacities and are subject to compounded effects from both natural and human–induced factors. This interdependence makes it more complex to manage tourism’s positive and negative impacts, as even small changes in tourism activities can trigger a cascade of consequences across environmental, economic and social dimensions [25–27].

As Butler [28] asserts, sustainable tourism development is not a static state but rather a continuous adaptive process that requires ongoing monitoring, evaluation and adjustment in response to changes in natural, social and economic systems. Therefore, sustainable tourism should not be narrowly understood as merely “greening” the tourism sector or ensuring the financial viability of tourism enterprises. Instead, it should be viewed as a comprehensive development model aimed at: (1) enhancing the quality of life of local communities; (2) providing positive and meaningful experiences for visitors; and (3) preserving and maintaining environmental quality for both residents and tourists. Within this framework, the relationship between tourism and the local community plays a central role in establishing and maintaining sustainability. According to Tosun [29], the model of sustainable tourism development can be conceptualized through the interaction of four major stakeholder groups: (i) government authorities; (ii) tourism enterprises; (iii) local communities; and (iv) tourists. Among these, local communities are considered the key actors, as they are both directly affected by and beneficiaries of tourism activities. However, for communities to participate effectively, institutional and skills support from external actors is essential – particularly through collaboration among local governments, enterprises and social organizations in the planning, implementation and monitoring of tourism initiatives. Consequently, sustainable tourism development should be regarded as a multi-dimensional collaborative process, in which success depends not solely on economic indicators or visitor numbers but also on the degree of community participation, local autonomy and conservation awareness – factors that ultimately determine the long–term resilience and sustainability of coastal and lagoon tourism destinations [30, 31].

3 Methods

3.1 Location for the study

This study was conducted in the Lang Co Lagoon area, which forms part of the Tam Giang–Cau Hai Lagoon system in Thua Thien Hue province (now Hue city), and is one of the largest and most biodiverse lagoon systems in Vietnam. It represents a dynamic ecological interface between the sea, rivers, and the mainland, while simultaneously reflecting the distinctive cultural and livelihood characteristics of local coastal communities. The lagoon not only serves as the primary source of livelihood for local residents but also offers favourable natural settings and cultural conditions for the development of various forms of tourism, including ecotourism, fishing experience tourism, seafood-based culinary tourism, and community-based tourism.

Strategically located along the East–West Economic Corridor and well connected to major destinations such as Hue, Da Nang, and Hoi An, the Lang Co Lagoon area enjoys significant advantages in attracting both domestic and international visitors. With its exceptional natural scenery, abundant resources, and rich cultural identity, the Lang Co region is widely recognized as one of the most promising and representative coastal tourism destinations in Central Vietnam. Beyond its ecological and cultural significance, this area also serves as an exemplary setting for developing a sustainable tourism model that harmoniously integrates resource conservation with the enhancement of local livelihoods.

3.2 Data Collection Methods

This study employed a qualitative single-case study design focusing on the Lang Co Lagoon area. In-depth interviews were primarily used to collect data, supplemented by document analysis and field observations. First, secondary data were gathered from official and authoritative sources, including statistical reports from the Thua Thien Hue Provincial People's Committee, tourism and socio-economic development plans for the 2015–2025 period, scientific publications, and local resolutions, projects, and policy documents related to coastal and lagoon tourism development. These data were used to describe the natural, socio-economic, and tourism development context of the Lang Co Lagoon area.

In parallel, fieldwork investigations were conducted to gather qualitative data reflecting the experiences, perceptions, and behaviours of local residents participating in tourism activities, as well as to explore the mechanisms of resource management and the interactions between tourism and the lagoon ecosystem. A total of six key informant interviews were conducted with local management representatives, including officials from commune-level People's Committees and the Department of Agriculture and Rural Development of Phu Loc

District. This approach enabled the study to capture both community-level perspectives and managerial viewpoints, thereby providing a more holistic understanding of the economic, social, and environmental dimensions of coastal and lagoon tourism development. Such triangulation strengthened the objectivity, reliability, and practical relevance of the research findings while providing a scientific foundation for policy formulation and sustainable tourism planning in the Lang Co area.

Additionally, in-depth interviews were conducted to gain deeper insights into residents' perceptions of sustainable tourism. The interviews targeted four main community groups corresponding to different levels of participation identified in the Introduction: (1) households directly engaged in tourism services (e.g., homestays, boat transport, restaurants); (2) households involved in aquaculture and fisheries whose livelihoods are indirectly affected by tourism; (3) households indirectly participating in the tourism value chain (e.g., supplying seafood, goods, or local transport); and (4) households not involved in tourism activities but residing within the lagoon system. A total of 60 households were interviewed, distributed as follows: 18 directly involved in tourism, 15 in aquaculture and fisheries, 15 indirectly related to tourism, and 12 not involved in tourism activities.

3.3 Data Analysis

The qualitative data were analyzed using the Thematic Analysis approach, as outlined by Braun and Clarke [32]. This analytical method facilitates the systematic identification, organization and interpretation of recurrent themes emerging from participants' narratives. It thereby provides insights into the interconnections among economic, social and environmental factors influencing coastal and lagoon tourism development. The analysis followed six key phases: (1) Reviewing data; (2) Initial coding, during which phrases, statements and behaviors related to local perceptions, livelihood strategies, resource management and environmental issues were coded; (3) Collation of codes into potential themes; (4) Reviewing and refining themes to ensure internal coherence and accurate representation of the dataset; (5) Defining and naming themes; and (6) Interpreting themes in relation to the research objectives and the conceptual framework of sustainable tourism development.

4 Results

4.1 Characteristics of participants

A total of 66 individuals participated in the in-depth interviews, including 60 local residents and 6 local government officials representing the People's Committees of Lang Co, Loc Tien, Loc Vinh, and Loc Tri communes, as well as the Division of Agriculture and Rural

Development and the Division of Culture and Information of Phu Loc district. Among the local participants, 53.3% were male and 46.7% were female, with an average age of 43.8 years. The majority of respondents belonged to the working-age group (30–55 years).

Regarding education, 62% of participants had completed upper secondary school, 21% had completed lower secondary school, and the remaining participants possessed a college diploma or vocational certificate in tourism or service-related fields. In terms of livelihood, approximately 38% of households were directly involved in tourism activities, while 42% participated indirectly through supplying seafood, providing food and beverage services, or offering local transport for visitors. The remaining 20% were not involved in tourism, primarily engaging in fishing and aquaculture. Notably, households involved in tourism-related activities reported an average income 1.4 times higher than those not participating.

4.2 Community Perceptions of Tourism Impacts on livelihoods, environment, and socio-cultural issues

Our result analysis shows that tourism activities in the study region created several positive impacts on employments and income for farmers. Firstly, tourism made several farmers participating in some new jobs and these activities brought extra income for the farmers. These activities have created new employment opportunities, particularly for women and young people – groups that previously had limited chances to participate in local economic activities. Many households have made effective use of available resources such as boats, water surfaces, or home yards to open small restaurants, sell seafood, and provide sightseeing or homestay services. At the same time, the findings also reveal that tourism contributes to livelihood diversification and reduces the pressure on fishing activities – one of the main causes of lagoon ecosystem degradation in the past. Several households have shifted to aquaculture models combined with experiential tourism or have started supplying clean seafood products to visitors.

Table 1. Tourism impacts on livelihood, environment, and social issues in the study region

Description		Feedback orientation
Livelihood and employment improvement	- Local residents have more job opportunities, especially women who can run small businesses or provide food services.	Positive
	- Renting boats for tourist trips, earning a stable income while staying close to home.	
	- Many people engage in service activities, oyster farming, and ornamental fish breeding. When tourists visit, they can both	

Description		Feedback orientation
sell products and promote traditional occupations.		
Reduction of overfishing	- Reducing small-scale fishing activities, shifting toward serving tourists.	Positive
Environmental Pollution	- Tourists leave a large amount of trash, and the water is no longer as clear as before - Plastic bags and bottles are seen floating all over the water surface	Negative
Inequality in benefit-sharing	- Not everyone receives benefits equally. Households located near the lagoon with available space can engage in tourism, while those living farther away remain poor	Neutral
Socio-cultural changes	- Tourism has changed young people's lifestyles and ways of thinking. My children are now more confident, able to communicate with visitors, and more aware of the value of traditional crafts. However, I sometimes worry they may be influenced by tourists and forget their fishing village roots.	Both sides

Source: In-depth interview in 2021

The positive impacts of tourism are reflected not only in economic aspects but also in changes in environmental awareness and behavior. Local residents reported that they have become increasingly conscious of waste management, maintaining water cleanliness, and avoiding the use of destructive fishing gear. Several informal groups have been formed to collect garbage and raise visitors' awareness. Besides, clear benefits, residents also expressed concerns about environmental and social issues. Water pollution, tourism-related waste, encroachment on water surfaces for floating restaurants and marinas are frequently mentioned problems. Locals observed that the current tourism growth has not been accompanied by strict infrastructure management and environmental planning, which has led to negative impacts on the fragile lagoon ecosystem.

Another highlighted aspect is the distribution of benefits among different groups of residents. Households located near the waterfront or along main roads tend to gain more economic advantages from tourism, while poorer families, those living in remote areas, or those lacking financial resources have limited opportunities to participate. This may increase income gap within the same community. From a socio-cultural perspective, many residents have

observed changes in the lifestyles, behaviors, and values of the younger generation as a result of frequent interactions with tourists. Although these changes have helped local people become more confident, open-minded, they have also raised concerns about the gradual erosion of traditional fishing village identity.

Above findings indicate that local community perceptions of tourism impacts in Lang Co lagoon area are clearly reflected through three key dimensions: livelihoods – economy, environment – ecology, and culture – society. In terms of livelihoods – economy, tourism has emerged as an important resource in the process of livelihood transformation. Local residents recognize that tourism generates new employment opportunities, increases household income, and reduces pressure on traditional fisheries exploitation. However, disparities in access to opportunities and participation capacity still exist, causing a potential risk of inequality in tourism benefit distribution. Regarding the environment – ecology dimension, the findings reveal a positive shift in local residents' awareness of lagoon resource conservation. The community has become increasingly conscious of the interconnections between tourism development, environmental quality, and long-term livelihood sustainability. However, environmental protection practices remain mostly spontaneous, lacking systematic coordination and technical support from local authorities. This highlights an urgent need for integrated environmental management policies and eco-education programs closely linked to tourism activities. With regard to the culture – society dimension, tourism has brought about profound transformations in the social relations and spiritual life of the community. Frequent interactions with tourists have enabled local residents, particularly younger generations, to become more confident and dynamic in communication and also enhance their awareness on local cultural values. Nevertheless, this process of integration also entails potential risks to traditional identity, as certain customs, practices, and community activities have been commercialized or modified to suitable to tourism demands.

4.3 Community participation in lagoon tourism: forms, barriers, and supports

Qualitative analysis indicates that local residents in the lagoon area occupy a central position in the tourism development process. However, the extent and forms of participation differ significantly among household groups. The community currently engages in tourism activities at three primary levels: direct participation, indirect participation, and involvement through environmental and social activities related to the protection of natural resources and the promotion of local identity. At the direct participation level, residents are the owners of small-scale tourism businesses, including boat rental services, homestays, seafood restaurants, souvenir stalls, and local guiding services. These households often represent the pioneering group within the community, holding the ability to recognize market opportunities and invest

proactively. Many of them emphasized that their participation in tourism has not only enhanced household income but also increased their awareness of lagoon landscape conservation.

- *"I take visitors on boat trips around the lagoon, introducing them to traditional net fishing practices and also earning extra income. Tourists enjoy hands-on experiences, and I feel proud and happy to share the stories of my ancestors' occupation"* (Male, 46, boat owner, Lang Co)
- *"My family runs a small homestay where guests stay with us and share meals with freshly fish caught from the lagoon. We realize that keeping the environment clean is essential for visitors to return, so everyone in the family has become more conscious about it."* (Female, 44, homestay owner, Loc Tien)

The indirect participation group mainly comprises households that supply fresh seafood, transportation services, goods, or materials for tourism-related activities. Although their economic benefits remain modest, this group plays an essential role in the local tourism value chain, contributing to increase employment opportunities for agricultural and fishing laborers in the area. In addition, the community is also engaged through social, environmental, and promotional initiatives. Several voluntary groups, particularly women and youth, have emerged to protect the environment and promote the image of the lagoon as a "green destination."

- *"I am not directly involved in tourism, but I supply oysters and fresh fish to restaurants along the lagoon. During the tourism season, my income increases by around 30–40%."* (Male, 49, aquaculture farmer, Loc Tri)
- *"We formed a women's volunteer group to protect the environment. Every week we collect trash around the boat dock. When visitors see the area clean, they compliment us, and that makes us happy. This keeps the environment clean and creates a positive image for tourists."* (Female, 39, member of the Women's Union, Loc Tien)

However, the level of community participation remains neither proactive nor sustainable, as many households face barriers related to investment capital, service skills, market information, and organizational capacity. Their involvement in tourism activities is often spontaneous and short-term oriented. Several of them also reported that they had not been consulted during tourism investment planning processes, which created a sense of being excluded from decision-making.

- *"We strongly want to participate in tourism planning because we know the waterways and channels better than anyone. However, at present, decisions are mainly made by businesses and authorities, and the community only learns about projects after they are completed."* (Male, 50, cage fish farmer, Loc Tri)

- *“Not everyone has the capital to participate in tourism while bank loans involve complicated procedures. If there were support for small loans, residents would be more confident to participate.” (Female, 43, female household head, Lang Co)*

From the perspective of local authorities, management officials emphasized that residents are an indispensable stakeholder in sustainable tourism development. However, they acknowledged that there is currently no clear coordination mechanism and long-term training program for community.

- *“Residents are the primary actors, but without training and capital, they cannot develop sustainable tourism. The role of local authorities is to provide guidance, facilitate connections, and support skill development.” (Officer, Department of Agriculture and Rural Development, Phu Loc District)*
- *“The commune People’s Committee is collaborating with vocational schools to organize training courses on community-based tourism, service provision, and environmental protection. We consider this a starting point for a co-managed tourism model.” (Officer, Commune People’s Committee)*

The analysis reveals that the level of local community participation in tourism development in Lang Co Lagoon area is influenced by three main groups of factors: internal capacity and resources, supporting and institutional mechanisms, and social linkages among participating actors. These factors are closely interrelated and determine whether residents engage proactively or passively in tourism and resource management activities. Firstly, internal capacity and resources serve as a foundational factor determining the extent of community participation in the tourism value chain. In-depth interviews with households engaged in tourism activities revealed that most residents face limitations in investment capital, tourism-related skills, communication skills, and product marketing knowledge. Many households expressed a desire to operate homestays or small restaurants but encounter financial constraints and complex banking procedures, which make it difficult for them to compete with private enterprises or external investors. These limitations reduce the proactivity and decision-making ability of the community in tourism development. Secondly, support mechanisms and institutional frameworks remain inadequate, directly affecting the community’s capacity to participate. Currently, there is a lack of credit incentive policies, technical assistance, vocational training, and a clear legal framework for co-managed models. Local authorities have yet established specific mechanisms enabling residents to engage in planning, monitoring, or decision-making processes related to tourism. The absence of a transparent institutional framework places the community in a position of passive participation; where involvement occurs only when formally invited or when top-down projects are implemented. Thirdly, the

social–institutional linkage among local authorities, the community, and tourism enterprises remain weak, resulting in fragmented and poorly coordinated tourism activities. Enterprises often operate independently, while residents lack formal channels to communicate, collaborate, or negotiate benefits. Relationships among stakeholders continue to rely on personal connections and informal social relationship, rather than being structured within a sustainable cooperative network.

These three groups of factors do not exist separately but interact within a complex “social–institutional – economic” system. When community capacity is weak and supportive mechanisms are lacking, social cohesion becomes fragile; conversely, multi–stakeholder collaboration can strengthen community capacity through learning, experience sharing, and co–management of resources. Therefore, establishing a three-party linkage model (government–community– enterprise) is a crucial strategy to promote actual community participation, aiming for sustainable tourism development basing on consensus and equitable benefit sharing. Although the role of the community in lagoon–based tourism development is increasingly recognized, such participation remains largely spontaneous and has not yet been institutionalized. Implementing community–based management models, combining capacity building, micro-financial support, and multi–stakeholder monitoring mechanisms, is essential to transform participation from a passive to an active role.

4.4 Challenges and directions for sustainable tourism development

The analysis indicates that, although coastal and lagoon–based tourism in Lang Co has contributed positively to community livelihoods, the development process continues to face a lot of systemic challenges that influence the achievement of sustainable development objectives. Three main groups of challenges have been identified: (1) pollution degradation of environmental resource; (2) lack of stakeholder linkages; and (3) inequalities in benefit sharing alongside limited capacity of the local community.

(1) Pollution degradation of environmental resource: The more than 40 interviewees indicated that tourism has developed too rapidly, with insufficient planning and environmental control, resulting in deteriorating water quality in the lagoons, impacts on aquatic ecosystems, and encroachment on water surfaces. Many households reported the direct discharge of plastic waste, domestic wastewater, and waste from restaurants and tourism services into the lagoons, particularly during the peak tourist season.

- *“During holiday periods, when tourist numbers increase, plastic waste floats across the water surface. Previously, mullet and rabbit fish were abundant, but now they are becoming increasingly scarce.” (Male, 48 years old, fisherman, Loc Vinh)*

- *“Some restaurants have encroached into the lagoon, not only degrading the landscape but also affecting water flow. During heavy rains, water cannot drain properly, leading to mass mortality of farmed fish.” (Official, Department of Natural Resources and Environment, Phu Loc District)*

These findings showed that environmental pressures from tourism primarily stem from two main factors: (i) insufficient infrastructure for wastewater and tourism-related waste, and (ii) the lack of coordinated mechanisms among stakeholders for environmental control in the lagoon area. Although local communities have established self-managed groups to maintain environmental hygiene, their effectiveness remains localized. Many managerial officials have suggested developing a “plastic-free destination” model and establishing ecological buffer zones to protect lagoon ecosystems; however, specific mechanisms regarding resource and community monitoring are needed.

(2) Lack of stakeholder linkages: A prominent issue is the insufficient coordination and connectivity among the community, government, and tourism enterprises. Currently, most tourism activities are spontaneous, lacking a unified strategy and formal management mechanisms. Local communities wish to participate in decision-making processes but face the lack of intermediary organizations or formal networks to connect stakeholders. This lack of linkage has resulted in unhealthy competition, overlapping tourism development areas, and reduced effectiveness in resource conservation. Many small business owners reported that they are limited in capacity to access markets or collaborate with larger enterprises. Therefore, it is essential to establish a lagoon tourism co-management model in which residents, businesses, and authorities jointly plan, implement, and monitor tourism activities. Such a model would ensure transparency, equitable benefit-sharing, and enhanced local management capacity.

(3) Inequalities in benefit sharing and limited capacity of the local community: Another frequently mentioned challenge is the disparity in benefit allocation and the capacity to participate in tourism among different population groups. These findings clearly indicate that the social sustainability of tourism depends on equitable access to opportunities. The lack of supportive policies for microcredit, skills training, and management capacity development constrains the community to engage activities proactively. Moreover, the insufficient integration of gender and youth into tourism development programs further limits the community’s intrinsic strength.

Table 5. Challenges for tourism development in Lang Co lagoon area

Thematic group	Observed issues
Environment – Natural Resources	Waste pollution, overexploitation of resources, encroachment on water surfaces
Society – Community	Unequal distribution of benefits, limited skills, weak organizational capacity
Governance – Policy	Lack of coordination among stakeholders, fragmented management structures
Economy – Linkages	Weak tourism value chains, insufficient distinctive local products

Source: In–depth interview in 2021

5 Discussion

The findings of this study demonstrate that tourism in Lang Co lagoon area has generated positive economic impacts on local community livelihoods, particularly by diversifying income sources and reducing pressure on fisheries resources. A number of households have transitioned from traditional fishing to tourism–related service, including seafood retail, transportation services, and experiential tourism services. These findings are consistent with the viewpoint of Dimanche and Andrades [26], who noted that coastal tourism can serve as a “livelihood solution,” that helps local communities to cope with the depletion of natural resources. However, the findings from Lang Co also indicate that this solution has largely been spontaneous and highly dependent on community organizational capacity, rather than being guided by formal planning. Compared to Hall’s [12] study on coastal tourism management in Europe – where institutional mechanisms are well established – the case of Lang Co represents a “bottom-up livelihood transformation,” in which local communities independently seek tourism opportunities to adapt to ecological and economic fluctuations. One of the study’s findings is that community participation in tourism development is increasing but remains largely symbolic, primarily at the implementation phase rather than extending to planning and decision–making processes. This observation aligns with Tosun’s [29] classification of three levels of community participation in tourism: (1) passive, (2) consultative, and (3) decision–making; he notes that most communities in developing countries remain at the first and second levels.

Qualitative data from Lang Co area indicate that the majority of local residents wish to participate in tourism planning and resource management; however, they lack skills, capital, and representative rights within existing institutional frameworks. This reflects the “structural barrier” phenomenon described by Tosun [29] – whereby government authorities and businesses hold decision-making power while communities only play implementation roles. However, the findings from Lang Co indicate a distinctive feature: several small community groups (women, fishers, and tourism boat owners) have established self-organized models, such as waste collection teams or visitor-guiding groups for fishing experiential services.

Another finding of this study is the paradoxical relationship between tourism development and the conservation of the lagoon environment. Local residents reported that plastic waste pollution, domestic effluents, and encroachment on water surfaces have contributed to the degradation of the ecosystem [13–15]. This finding aligns with the warning of Scott and Gössling [18, 23], who argue that in sensitive environments, tourism development without comprehensive planning can lead to the “tourism paradox,” whereby tourism simultaneously serves as a driver for conservation and a cause of resource degradation.

In addition to environmental concerns, the lack of coordination among government authorities, businesses, and local communities represents a major obstacle. Interview data indicate that there is currently no mechanism for “co-management” or “public-private-people partnerships.” Compared to successful models in Spain [25, 33] and Thailand [34], the case of Lang Co illustrates institutional fragmentation and low levels of trust among stakeholders. At the same time, it reveals the potential for developing community-based collaborative mechanisms if adequate support is provided.

From a theoretical perspective, the findings clarify the coordination mechanism between tourism and community conservation, affirming that in socio-ecological systems such as lagoon environments, tourism and traditional livelihoods can co-develop when appropriately regulated. From a practical standpoint, the study proposes a strategic framework for sustainable tourism development in the lagoon area, emphasizing three key directions: (1) strengthening community capacity through vocational training, microcredit support, and improved market access for vulnerable groups; (2) establishing a lagoon tourism co-management model among local authorities, communities, and businesses to ensure equitable benefit-sharing and linkages between conservation and development; and (3) developing distinctive tourism products rooted in local ecology and culture such as fishing experience tours, seafood gastronomy, and plastic-free tourism initiatives to simultaneously conserve resources and enhance the “green destination” branding of the Lang Co lagoon.

6 Conclusion

This study examines the roles, perceptions, and levels of participation of local communities in tourism development in the Lang Co lagoon area, based on an analysis of the economic, social, and environmental impacts of tourism growth. The findings indicate that tourism has increasingly become a key driver of livelihood transformation, income improvement, and the enhancement of living standards. A number of households have shifted from traditional fishing to tourism and service activities, thereby reducing pressure on natural resource exploitation while simultaneously fostering greater awareness of environmental protection and the preservation of local culture.

However, besides these positive impacts, the study also identifies three major challenges that hinder progress toward sustainable tourism: (1) pollution and degradation of environmental resources resulting from uncontrolled tourism development; (2) a lack of linkages and coordination among stakeholders; and (3) inequalities in benefit-sharing and the limited capacity of local communities. These issues reflect the reality of spontaneous development, the lack of comprehensive planning and the absence of an integrated management mechanism, which has prevented the lagoon area's tourism potential from being exploited in a balanced and sustainable manner.

In the future, further studies should expand the analysis through quantitative approaches to measure the sustainability level of lagoon-based tourism and to assess the effectiveness of co-management model. Such research would contribute to refining policies on ecology and community-based tourism development in the context of climate change and global integration.

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