

Community-based ecotourism: A case study in Thanh Phu district, Ben Tre province, Vietnam

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ARTICLE INFO

Research Paper

Received: January 07, 2024

Revised: February 14, 2024

Accepted: February 27, 2024

Keywords

Ben Tre

Community-based ecotourism

Ecotourism development

Thanh Phu

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ABSTRACT

This study explored the potential and challenges of community-based ecotourism in Thanh Phu district, Ben Tre province, Vietnam. By investigating 52 households involved in community-based ecotourism through the Participatory Rural Appraisal method and semi-structured interviews, it outlined the transformative impact of community-based ecotourism on the local community. The research underscored positive outcomes in economic growth, social equity, and cultural preservation while highlighting the imperative need for prudent management to mitigate environmental concerns and prevent unsustainable tourism growth. It advocated for a balanced approach that integrated economic development with environmental and cultural preservation strategies. The findings emphasize the importance of tailored solutions to navigate challenges and foster sustainable community-based ecotourism, ensuring long-term prosperity while safeguarding the district's natural and cultural treasures.

Cited as: Nguyen, T. V. D., Nguyen, V. T. H., Bui, N. T. C., & Phan, D. T. N. (2024). Community-based ecotourism: A case study in Thanh Phu district, Ben Tre province, Vietnam. *The Journal of Agriculture and Development* 23(6), 57-72.

1. Introduction

Technological advancements and media progress have propelled tourism into one of the globe's most prominent and fastest-growing economic sectors. In 2022, there was a robust recovery in international tourism earnings, reaching USD 1.0 trillion, marking a 50% surge

from 2021 (adjusted for inflation) (UNWTO, 2023). The expansion of tourism infrastructure like resorts, jetties, walkways, artificial lagoons, beaches, and groins has led to habitat loss, wildlife disturbances, reduced coral growth (Gladstone et al., 2013), and interference with wild animals in national parks (Buckley, 2001). Moreover, tourism has not consistently catered

to local interests, resulting in misrepresented experiences (Nguyen et al., 2019) and cultural detachment among ethnic minorities (Vu, 2020), leading to conflicts between hosts and tourists. Addressing these challenges requires a shift in tourism paradigms, focusing not just on economic and technical aspects but also on preserving the environment (Fennell, 2005) and prioritizing the needs and welfare of local communities (Scheyvens, 1999). Community-based ecotourism emerged as a viable alternative.

Unlike conventional mass tourism, community-based tourism empowers local communities by granting them control over development and management, ensuring that benefits predominantly stay within the community (Denman, 2001). Scheyvens (2002) highlights community-based tourism's goal of holistic empowerment at economic, psychological, social, and political levels. Evolving over three decades, community-based tourism integrates social, environmental, and economic aspects to meet local community needs, particularly around protected areas (Goodwin & Santilli, 2009). As a subset, community-based ecotourism serves as a tool for biodiversity conservation while economically benefiting the local community, emphasizing active community involvement and sometimes ownership of ecotourism enterprises (Wunder, 2000). Aligned with community-based natural resource management, community-based ecotourism has become crucial to conservation strategies since the 70s, recognizing the vital role of local community support in protected area conservation (Goodwin & Santilli, 2009). Sustainable community-based ecotourism development often involves private community partnerships and joint ventures, leveraging the strengths of private sector partners, community expertise, and external support for infrastructure and capacity-building (Kiss, 2004). Community-based ecotourism also fosters policy coordination,

minimizes stakeholder conflicts, and fosters synergies through knowledge exchange among community members (Kibicho, 2008).

In Vietnam, since the late 1990s, there has been an integration of community-based ecotourism programs into the country's tourism development and poverty alleviation initiatives (Nguyen et al., 2022). The introduction of terms such as "eco," "green," or "community-based" began in a 1999 workshop focused on establishing an ecotourism development strategy. This approach emphasizes tourism rooted in nature and local culture, highlighting environmental education, contribution to conservation efforts, and sustainable development, actively involving the local community (Pham, 2002). These terms have gradually surfaced in legislative documents like the 2017 Tourism Law and the most recent National Strategy for Sustainable Tourism Development up to 2020 and the vision for 2030. Given Vietnam's diverse natural resources and culturally rich heritage alongside concerns about the impact of commercialized and mass tourism activities, the Vietnamese government anticipates promising prospects for advancing community-based ecotourism (Tran, 2002).

Thanh Phu district in Ben Tre province, Vietnam, boasts immense potential for tourism development. The area is endowed with the Thanh Phu Nature Reserve, aligning with the contemporary trend of fostering tourism enterprises within buffer zones and national parks/nature reserves. This strategy interweaves conservation efforts with tourism development, fostering sustainable financial support for conservation initiatives. Additionally, Thanh Phu presents a wealth of diverse cultural tourism resources, deeply rooted in the Mekong Delta's heritage, further enriching its tourism prospects. However, akin to the broader Vietnamese context, community-based ecotourism initiatives flourish primarily in specific areas with distinct natural

resources, favorable transportation, or superior communication advantages, as highlighted by Eja et al. (2017). Other areas remain limited, failing to harness the full potential of the region's tourism resources. Against this backdrop and following context, policy analysis, and field surveys conducted in Thanh Hai commune and Binh Thanh commune, this article aims to (1) Assess the potential of community-based ecotourism in Thanh Phu; (2) Evaluate community involvement and the efficacy of existing community-based ecotourism models; and (3) Analyze the challenges faced by community-based ecotourism initiatives in Thanh Phu.

2. Materials and Methods

2.1. Study site

Thanh Phu, situated in the southeastern part of Ben Tre Province, Vietnam, spans an area of approximately 411 km² and lies about 45 km from

the coastline (Nguyen et al., 2019). The district was formed over centuries through the confluence of the Ham Luong and Co Chien rivers, shaping its coastal landscape, characterized by expanses of paddy fields, sand dunes, and thriving mangrove forests. Renowned as a pivotal hub within the third economic region, notably the "salty region", Thanh Phu grapples with salinity intrusion across its terrain, fostering a suitable environment for brackish farming systems. These systems include rice-shrimp rotation, extensive-intensive shrimp cultivation, and clam harvesting along the coastal tidal mudflats (Le et al., 2013; Nguyen et al., 2019). This study focuses on two community-based ecotourism sites in Thanh Phu: the Chin Song tourist area in Binh Thanh Commune and Con Bung Beach in Thanh Hai Commune (Figure 1).

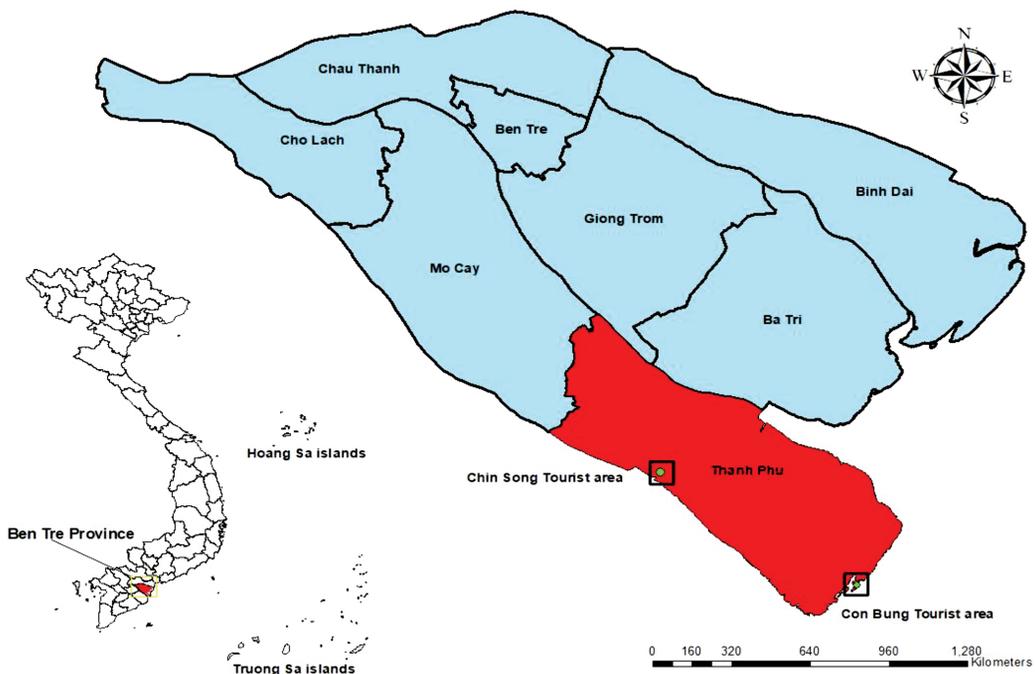


Figure 1. The map of the study site.

2.2. Data collection

Various methods were employed in this study, including secondary data analysis, Participatory Rural Appraisal (PRA), and interviews. Initially, secondary data collection involved reports, documents, policies, and resolutions about Thanh Phu District's economic and tourism development. Concurrently, primary data was acquired through PRA and semi-structured interviews conducted during fieldwork.

The PRA method documents local experiences and daily life, engaging local participants or key informants (Silverman, 2009). In this research, PRA was instrumental in assessing the recent ecotourism developments in Thanh Phu. The study involved observing daily activities and specialized professional endeavors from March to May 2022, aiming to comprehend local perspectives while maintaining the researcher's outsider viewpoint. Throughout the research, detailed field notes were meticulously recorded, capturing essential information, conversations, interactions, and noteworthy events (Stake, 2010).

Semi-structured interviews were conducted to gather insights from various participants in Thanh Phu. This method allowed for an in-depth understanding of their perspectives on community-based tourism development (Creswell et al., 2007; Stake, 2010). The sample size was calculated according to Yamane's formula (1967):

$$n = \frac{N}{1 + N(e)^2}$$

In this equation, N represents the number of households participating in community-based tourism (which was 110 in 2019), and e signifies the desired level of precision (set at 0.1). Consequently, a total of 52 respondents involved in community-based ecotourism were interviewed. They were encouraged to express

their perceptions and attitudes based on their experiences freely (Creswell et al., 2007). Each interview, lasting 20 - 30 min, was conducted at convenient locations such as participants' homestays, restaurants, boats, homes, or public cafes. To ensure accuracy, smartphone recordings were used during the interviews, supplemented by detailed notes taken during and after the discussions to facilitate data triangulation (Creswell et al., 2007; Denzin, 2008; Stake, 2010).

2.3. Data analysis

A Likert-type scale employing a 5-point rating system (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree) served as the evaluation tool for assessing the impact of community-based ecotourism models. Mean values were computed for each item. To stratify the impact based on this rating scale, overall mean values for respective subscales were determined and categorized into five levels. The divisions were delineated as follows: 0 - 0.8, 'no impact'; 0.81 - 1.6, 'low impact'; 1.61 - 2.4, 'moderate impact'; 2.41 - 3.2, 'significant impact'; and 3.21 - 4.0, 'very high impact' (Pham & Nguyen, 2020).

All data were statistically analyzed using one-way analysis of variance (ANOVA) and Tukey's post hoc ANOVA test for individual comparisons ($P < 0.05$, level of significance). SPSS 13.0 (SPSS Inc., Chicago, IL, USA) was used for all statistical analyses.

3. Results and Discussion

3.1. Conditions and potential for community-based ecotourism development in Thanh Phu district

Thanh Phu is a region with immense potential and notable advantages for developing community-based tourism. The strength of tourism in Ben Tre Province, particularly in

Thanh Phu District, lies in its rich and diverse natural landscape. Vast green coconut gardens and lush fruit orchards characterize the area, which benefits from year-round illuvial deposits. Notably, Thanh Phu boasts a pristine ecological environment, maintaining its rural essence with interlaced rivers and canals. It is abundant in seafood resources, embodies a simple lifestyle, and reflects the closeness and harmony of its people with nature.

Thanh Phu Nature Reserve was established on August 9, 1997, under Decision No. 1928/NNKH/QD by the Ministry of Agriculture and Rural Development. It spans a total area of 8,825 ha, comprising a buffer zone of 4,315 ha, a strictly protected area of 1,788 ha, a 949 ha endangered coastal protection area, and a 1,773 ha scientific research area. Positioned between the Co Chien and Ham Luong rivers' estuaries, the reserve serves as an ideal breeding ground for various aquatic species, including shrimp (*Penaeus* spp.), diverse fish species (Notopteridae, Toxotidae, Nandidae, and Anguillidae), and a multitude of squid species like *Loligo formosana*, *Sepioteuthis lessoniana*, and *Sepia pharaonis* (Hughes et al., 2001). These estuaries also host a diverse array of invertebrates such as crabs, clams, and mussels. Coastal mangrove forests in Thanh Phu primarily feature dominant plant species like *Rhizophora apiculata* (occupying the largest area), alongside *Avicennia marina*, *Avicennia officinalis*, *Excoecaria agallocha*, and *Sonneratia* spp. (Hughes et al., 2001). The area is also a habitat for waterbird species, including commonly found and widely distributed birds like grey plover (*Pluvialis squatarola*), common greenshank (*Tringa nebularia*), and sanderling (*Calidris alba*) (Hughes et al., 2001). The Thanh Phu Nature Reserve sustains a population of 1,470 individuals within its boundaries,

with over 6,935 people residing in the buffer zone. The primary economic activities revolve around agriculture, fishing, and forestry. The local community heavily relies on the natural resources within the reserve for their livelihoods.

Beyond its stunning natural scenery, Thanh Phu District is home to numerous traditional craft villages. These include the My An broom-making craft village, My Hung hat-making craft village, Hoa Loi jar-molding craft village, and others producing coconut candy, rice paper, puff pastry, handicrafts from coconuts, seedlings, and ornamental flowers. The region also resonates with the folk songs typical of the Vietnamese Mekong Delta: *đờn ca tài tử* (a chamber music genre recognized as UNESCO's intangible cultural heritage in 2013), *sắc bùa* (a blend of singing, music, and dancing typically performed during Lunar New Year celebrations), *hát bội* (a form of Vietnamese theatre akin to classical opera, influenced by Chinese opera), and *bóng rỗi* (a ritual practice closely linked to the worship of goddesses in Southern Vietnam).

Some prominent tourist attractions in Thanh Phu include:

- (1). Huynh Phu Ancient House (Figure 2a): Constructed between 1890 and 1904, this 133-year-old house underwent restoration from 2013 to 2015, maintaining its original appearance. The house boasts 48 large, round ironwood pillars (*Erythrophleum fordii* and *Xylia xylocarpa*) and intricate carvings. Preserved within are unique iron window frames, ancient furniture, and even a garden lamppost from France, over a century old. Recognized as a national monument, it is a top check-in point for tourists.

(2). Ho Chi Minh Sea Trail Relic Area at Con Bung beach: This historic site served as a transfer point for weapons during the Vietnam war. Covering 635 ha, it features a monumental memorial and stunning coastal poplar rows. Recognized as a National Historic Site, it is in close proximity to hotels and beaches.

(3). Thanh Phong Wind Power Area: Located on Thanh Phong beach, this picturesque area hosts a series of wind power plants and wharves, aiding in the modernization of a previously war-affected coastal commune.

(4). Place of Departure of Battalion 307 (Figure 2b): Giong Luong base in Dai Dien Commune is historically significant, marking the departure point of Battalion 307, a renowned force during the Indochina War. Known through the famous song “Battalion 307” by musician Nguyen Huu Tri, this site bears a testament to Vietnam’s heroic historical memory during its resistance wars.

(5). Giong Luong Coconut Cake Ovens: Nearby the departure place of Battalion 307, these ovens produce the famous coconut cakes - a specialty of Thanh Phu and Ben Tre. Visitors can relish and purchase these hand-wrapped delicacies at reasonable prices, tied traditionally with rattan instead of nylon string.

(6). My An Broom Making Craft Village: Home to about 168 broom-making households, this village creates brooms using nipa palm leaf stems and coconut leaves sourced from the Mo Cay Bac and Mo Cay Nam districts. Predominantly managed by women, these broom makers craft during their leisure, supplementing their income and attracting tourists.

In addition, Thanh Phu boasts numerous high-tech shrimp farms, Sau Dau Street adorned with beautiful shade trees, and roads lined with mangrove trees along the canal, all serving as attractive check-in spots for tourists.



Figure 2. a) Huynh Phu Ancient House and b) Place of Departure of Battalion 307.

Thanh Phu has the potential to collaborate with neighboring districts, provinces, or even international destinations to develop joint ecotourism packages or itineraries. The extension of Con Bung Beach to Ba Tri and Binh Dai beaches, centrally located between Ba Ria-Vung Tau and Ba Dong tourist beaches (Tra Vinh), provides a strategic advantage for connectivity. Thanh Phu's geographical position is also conducive to tourism development, connecting the Ho Chi Minh City - Thanh Phu - Con Dao route. This connectivity allows visitors to explore a diverse range of attractions and activities, encouraging longer stays and contributing to the overall tourism economy.

After several years of implementing Plan No. 4573/KH-UBND, dated October 9, 2017, by the People's Committee of Ben Tre Province, which aimed to execute Action Program No. 22-CTr/TU from July 20, 2017, by the Provincial Party Committee, the tourism industry in Ben Tre has undergone significant positive changes. Gradually, it has assumed a pivotal role within the Mekong Delta region and the country as a whole. Within Ben Tre Province's tourism development plan up to 2020 and the envisioned trajectory towards 2030, tourism stands out as the focal provincial economic sector. The plan anticipates a 20% annual growth in tourism revenue, and an expected annual increase of 12% in the number of tourists visiting Ben Tre Province. The 2022 resolution of the Thanh Phu District Party Committee outlines several critical determinations: (1) Emphasizing the promotion and advertising of tourism; (2) Enhancing the quality of tourism services and diversifying tourism products, linked explicitly to the exploration and promotion of local cultural, historical, and spiritual landmarks; (3) Establishing efficient connections with tours and tourist routes in neighboring districts to maximize effectiveness; (4) Persisting in inviting infrastructure investment projects geared towards serving tourism needs; (5) Prioritizing

investment in the development of community-based ecotourism interconnected with marine tourism; (6) Crafting distinctive tourism products unique to the district's offerings.

3.2. Level and type of community participation in ecotourism

In terms of age, survey participants engaged in local ecotourism predominantly fell within the 31 - 40 age bracket, constituting the highest proportion at 34.6% (Table 1). This age group typically holds stable employment, manages households, and possesses good health, primarily contributing to their families' livelihood activities. Following closely are individuals aged 18 - 30 and those above 60, comprising 23.1% and 25% of participants, respectively (Table 1). Conversely, the age group from 41 - 60 constitutes the lowest percentage at 17.3% (Table 1). Concerning gender distribution, males accounted for more than half of the total survey respondents, making up 53.8% (Table 1). All surveyed individuals belonged to the Kinh ethnic group. Regarding education, participants involved in community-based ecotourism activities generally exhibit an average educational attainment. Individuals with primary school education represented 9.6% (Table 1), typically individuals engaged in farming due to limited access to schooling. The educational spectrum of locals participating in ecotourism primarily focuses on secondary and high school groups, comprising 42.3% and 30.8%, respectively (Table 1). Despite the relatively modest educational levels, the training, coaching, and skill enhancement policies in Thanh Phu District have facilitated more accessible participation in local ecotourism activities for these individuals. A majority of respondents have resided in the locality for over 20 years, accounting for 65.4% (Table 1). Following this, 17.3% have lived in the area for 6 - 10 years, while 9.6% and 5.8% have lived there for 1 - 5 years and 11 - 15 years, respectively (Table 1).

Table 1. Demographic features of respondents

Variables	Number	Percentage (%)
Age		
18 - 30	12	23.1
31 - 40	18	34.6
41-50	9	17.3
> 50	13	25.0
Gender		
Male	28	53.8
Female	24	46.2
Education		
Primary School	5	9.6
Secondary School	22	42.3
High School	16	30.8
Intermediate college	4	7.7
University	5	9.6
Commune		
Thanh Hai	32	61.5
Binh Thanh	20	38.5
Local living duration		
1 - 5 years	5	9.6
6 - 10 years	9	17.3
11 - 15 years	3	5.8
16 - 20 years	1	1.9
> 20 years	34	65.4

With favorable traffic conditions (approximately 150 km from Ho Chi Minh City, Vietnam's biggest city), Thanh Phu's tourism sector has experienced significant growth, transforming this rural area into a thriving destination. Formerly reliant on agricultural production, most farmers have diversified into the tourism industry. Our fieldwork, aimed at exploring the extent of local community involvement in various tourism services, reveals diverse sectors and forms of participation.

Community engagement in tourism is pivotal to the success or failure of a sustainable community-based tourism model (Pearce et al., 1996; Pham, 2012). The findings show that the Thanh Phu community has progressively provided tourism services like catering, sightseeing, souvenir sales, artistic performances, and homestay businesses (Table 2). They partake in the tourism value chain, actively contributing as both 'tourism resources' and 'developers' in their homeland. Table 2 outlines the primary tourism service activities in which locals participate.

Table 2. Descriptions of participation type in ecotourism in Thanh Phu

No.	Type of participation	Households	Share
1	Providing catering services	26	50.0%
2	Tour guiding	16	30.8%
3	Transporting tourists	10	19.2%
4	Producing and selling souvenir	8	15.4%
5	Tourism management	8	15.4%
6	Supplying agricultural and aquatic products	7	13.5%
7	Participating in community meetings, contributing opinions on issues related to local ecotourism development	7	13.5%
8	Participating in art performances	7	13.5%
9	Homestay business	6	11.5%
10	Participating in community cultural exchanges	6	11.5%
11	Participating in improving the local landscape	6	11.5%
12	Participating in the analysis, planning, and decision-making process related to local ecotourism development	6	11.5%
13	Portering and transporting goods	3	5.8%

Furthermore, this research reveals that: (1) Most households are involved in food and beverage businesses, ranging from small eateries to catering services; (2) Some families engage in transporting tourists and serve as tour guides; (3) Many households produce, supply, and sell handicrafts, agricultural, and aquatic products not only for tourists but also for restaurants and travel agencies; (4) Some locals participate in local tourism management activities; (5) Other activities include homestay operations, artistic and cultural performances, or landscape enhancement, albeit with fewer participants.

However, despite these findings, it is evident that the Thanh Phu community's involvement in decision-making and formulating implementation plans for community-based tourism remains limited. Moreover, tourism activities and services lack an essential element:

a learning component, integral to community-based tourism (Suansri, 2003). There are few initiatives aimed at fostering a shared learning process between hosts and guests, or raising awareness about natural and cultural conservation among tourists and the local community. Consequently, the core values of community-based tourism have yet to be fully realized.

3.3. Community-based ecotourism effectiveness

During the period spanning 2017 to 2022, the community-based ecotourism models of Con Bung Beach and Chin Song collectively hosted over 2 million tourists (Table 3). From 2017 to 2019, there was a consistent rise in visitor numbers, culminating in 515,200 visitors in 2019. However, the emergence of the COVID-19 pandemic significantly disrupted tourism development in Thanh Phu district, causing a

near-halt in activities for two consecutive years (2020 - 2021). During this period, the district could not organize the Culture-Tourism and Sea Cuisine Week. Tourism experienced a severe decline in visitor numbers and revenue, leading to temporary suspensions of tourism operations due to necessary social distancing measures. In 2020, the district only welcomed 241,820 visitors, marking a more than 50% reduction compared to the previous year. By 2021, the number of visitors further declined to approximately 138,500. The

district's tourism sector encountered substantial setbacks due to the COVID-19 pandemic, similar to other regions in Vietnam (Huynh et al., 2021). By 2022, a gradual recovery was observed in the community-based ecotourism models within Thanh Phu District, with an influx of 356,000 visitors. This recovery signifies a positive trajectory toward rejuvenating the tourism industry within the district after the challenging period caused by the pandemic.

Table 3. Number of visitors to community-based ecotourism models in Thanh Phu district

Year	Con Bung beach, Thanh Hai commune	Chin Song ecotourism area, Binh Thanh commune	Total
2017	390,600	10,950	401,550
2018	405,900	11,275	417,175
2019	501,900	13,300	515,200
2020	234,520	7,300	241,820
2021	135,000	3,500	138,500
2022	346,000	10,000	356,000
Total	2,013,920	56,325	2,070,245

The impact assessment of community-based ecotourism, derived from Likert scale ratings, illuminates its diverse effects on various aspects of community life (Table 4). The data underscores the considerable consensus regarding the positive implications of ecotourism initiatives. Specifically, the notably high ratings for job creation and income generation (4.33 - very high impact) emphasize ecotourism's pivotal role in fortifying the community's employment opportunities and economic prosperity. It is notable that 90.4% of individuals engaged in community-based ecotourism report an income exceeding 2 million VND/month from tourism, with 36.5% stating that this income aids in covering daily expenses, and an impressive 44.2%

able to accumulate surplus. Research by Karta et al. (2016) aligns with these findings, highlighting that the involvement of local communities in tourism activities in Kintamani (Bali, Indonesia) generates income, creates employment, amplifies production volumes, expands marketing networks, and elevates the destination's visibility globally. Additionally, the ratings indicating stimulated growth across various business sectors (3.92 - significant impact) underscore ecotourism's capacity to foster local economic diversification. These outcomes collectively underscore the substantial contribution of community-based ecotourism to the economic upliftment of local communities.

Social equity within community-based ecotourism embodies the principle of providing all participating user groups with equitable access to resources, fair revenue sharing, and the right to partake in decision-making and administrative processes related to tourism activities (Masud et al., 2017). Ensuring that every member of the community involved in community-based ecotourism benefits from the project is imperative. The consensus on improved entertainment opportunities (3.98 - significant impact), facilitated equal opportunities (3.81 - significant impact), and investments in essential infrastructure (3.79 - significant impact) (Table 4) highlights ecotourism's role in enhancing leisure activities, positively influencing residents' well-being, and fostering fairness and inclusivity among community members in Thanh Phu. In tourism development, local authorities display keen interest in investing in infrastructure to attract more tourists. Through the capital from the national target program on culture, the district has seen substantial investments sanctioned by the Provincial People's Committee. Projects such as the renovation and enhancement of Huynh Phu Ancient House Relics and grave sites in Dai Dien and Phu Khanh communes, with an approximate budget of nearly 26 billion VND, stand as prime examples. Additionally, efforts to preserve, enhance, and promote the historical value of the Ho Chi Minh Sea Trail Historical Relic in Thanh Hai and Thanh Phong communes, with an initial investment exceeding 80 billion VND (from 2013 to 2017), illustrate these commitments. The district has also undertaken endeavors such as the construction of memorials and upgrades to numerous relics like Dong Khoi Battle Memorial House, Military Event Relics on October 30, An

Linh Pagoda, and Lang Ong through socialization sources. Transport infrastructure developments, including the upgrade and paving of Highway 57 from Van Bridge to Con Chim intersection and the introduction of roads connecting various communes, especially the Van Bridge linking upper communes with coastal areas, manifest these efforts to provide favorable conditions for locals and tourists, notably when visiting Con Bung Beach. These collective initiatives substantiate the comprehensive impact of community-based ecotourism on various social facets in Thanh Phu.

Moreover, the consensus on heightened awareness and knowledge about ecotourism (3.67 - significant impact), promoted conservation efforts (3.65 - significant impact), and cultural promotion and preservation (3.56 - significant impact) underscores community-based ecotourism's pivotal educational role (Table 4). It actively fosters environmental consciousness, safeguards biodiversity, and fosters the preservation of cultural heritage within communities. Research by Tuyen et al. (2023) corroborates these findings, emphasizing the commitment of the Nhon Ly coastal community in Binh Dinh, Vietnam, including local business households, in safeguarding natural resources and the environment for sustained local ecotourism development. Moreover, community-based tourism effectively facilitates the preservation of cultural heritage, creating a cohesive link between conservation, livelihoods, and cultural integrity (Tran & Walter, 2014). Additionally, Eshun & Tonto (2014) contend that ecotourism plays a significant role in safeguarding and promoting the survival of

unique cultures within local communities. It assists communities in preserving their distinct cultural identity and historical heritage while fostering respect for their traditions.

Ecotourism, while generating positive impacts, can also negatively affect the natural environment and local socio-cultural values (Butarbutar & Soemarno, 2013). The findings reveal perceived negative consequences linked to community-based ecotourism. Heightened environmental pollution (3.90 - significant impact) in Thanh Phu (Table 4) raises concerns about potential ecological repercussions. Previous research acknowledges that any permanent environmental alterations (e.g., construction of lodges or viewing platforms) unavoidably involve site modification and ongoing waste production (Weaver & Lawton, 2002). Ecotourism might involve indirect environmental costs tied to induced restructuring, like constructing new residences by migrating individuals lured by ecotourism-generated job opportunities. This phenomenon is evident in locales such as the Monteverde Cloud Forest Preserve, where tourism-induced economic growth led to one-sixth of the residents migrating from other parts of Costa Rica by 1992 (Honey, 1999). Another indirect cost lies in exposing a destination to less sustainable tourism forms. Ecotourists' discovery of a destination can spur local involvement in servicing these visitors, making the area more accessible and prone to increased visitation, aligning with the Butler (1980) resort cycle model. However, without remedial

measures, ecotourism may overload the local capacity and transition into unsustainable mass tourism. At Con Bung Beach, an excessive influx of tourists during national holidays, like April 30 - May 1, resulted in adverse impacts on the marine environment, particularly notable with plastic waste accumulation due to the influx of tourists. Additionally, there is a noted rise in social issues (3.52 - significant impact) (Table 4), including imitative behavior within the local community, materialistic attitudes, unregulated peddling, moral disorders, and a declining interest in the agricultural sector, as supported by Butarbutar & Soemarno (2013). According to Nguyen et al. (2022), social security and safety is also an important factor affecting ecotourism development. Moreover, the data indicates a moderate impact on the escalation of commodity prices (3.13 - moderate impact), while there is no impact observed regarding difficulties in finding peaceful living spaces, negative impacts on local cultural values, degradation of community moral standards, and disruption of local daily life (2.42 to 2.21 - no impact).

In conclusion, while community-based ecotourism showcases significant positive impacts in economic, educational, and cultural aspects, concerns regarding environmental sustainability, social harmony, and community well-being emerge. Efficient management strategies and sustainable practices are imperative to maximize positive outcomes while mitigating the negative impacts of ecotourism within communities.

Table 4. Impact of community-based ecotourism

Impact	Mean	Level of impact
Positive		
Job creation and income generation	4.33	Very high impact
Improved entertainment opportunities lead to enhanced quality of life	3.98	Significant impact
Stimulated growth across various business sectors	3.92	Significant impact
Facilitated equal opportunities within the community	3.81	Significant impact
Fostered investments in transportation, electricity, and water infrastructure	3.79	Significant impact
Raised awareness and knowledge about ecotourism	3.67	Significant impact
Promoted conservation efforts for landscapes, flora, and fauna	3.65	Significant impact
Access to incentives provided by local authorities	3.56	Significant impact
Local culture promotion	3.56	Significant impact
Encouraged localities to preserve their culture	3.46	Significant impact
Negative		
Heightened environmental pollution	3.90	Significant impact
Rise in social issues	3.52	Significant impact
Escalation of commodity prices	3.13	Moderate impact
Difficulty in finding peaceful living spaces	2.42	Low impact
Negative impact on local cultural values	2.40	Low impact
Degradation of community moral standards	2.29	Low impact
Disruption of local daily life	2.21	Low impact

3.4. Challenges to the development of sustainable community-based ecotourism

In the realm of managing community-based ecotourism, specific pressing issues arise, notably revolving around the concept of carrying capacity and the local advantages derived from ecotourism sites. While ecotourism ideally caters to a limited number of visitors, monitoring and controlling the capacities of these targeted areas often present challenges. Striking a balance in managing tourists in Thanh Phu necessitates considering environmental and cultural preservation, political interests, and ensuring equitable benefits for the local community.

The environmental impact of tourism encompasses the depletion of natural resources, pollution, soil erosion, loss of natural habitats, increased strain on endangered species, and heightened susceptibility to forest fires. Adverse effects arise when visitor levels exceed the environment's capacity to withstand this influx within acceptable change limits. Discussions around tourist surges, economic gains, and infrastructure development suggest that improper management could transform ecotourism into conventional mass tourism. Presently, minor negative effects exist, but these might escalate over time if left unmanaged. All stakeholders, including the local populace, have limited experience in handling ecotourism and its multifaceted objectives.

4. Conclusions

The study illuminates community-based ecotourism's immense potential and challenges in Thanh Phu district. It emphasizes the district's rich natural reserves and cultural heritage, pointing to the transformative impact on the local community. While emphasizing the positive economic impact, particularly in job creation and income generation (rated at 4.33), social equity, and cultural preservation, it also emphasizes the importance of careful management to address environmental concerns (notably heightened environmental pollution, rated at 3.90) and prevent the transition of ecotourism into unsustainable mass tourism. The findings call for balanced strategies harmonizing economic growth with environmental and cultural preservation. By navigating these challenges with tailored approaches, Thanh Phu can foster a sustainable community-based ecotourism model, ensuring long-term prosperity while safeguarding its natural and cultural treasures. To tackle the challenge of Thanh Phu tourism resources facing either overload or underutilization, future research needs to employ a suitable method for assessing the tourism resource carrying capacity.

Conflict on interest

The authors declare no conflict of interest.

Acknowledgements

This research was financially supported by the Nong Lam University Ho Chi Minh City research funding (the research code: CS-CB23-MTTN-01). We are grateful to Pham Chi Biet who created the study site map.

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