



## RESEARCH ARTICLE

## Resilience among Thai Hosts in Andaman Sea Area during Covid-19: Study Community Based Tourism

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### ABSTRACT

The outbreak of COVID-19 in late December 2019 in the city of Wuhan, China, has affected many sectors of the major global economies, including travel and tourism, where prior research has studied how infections and crises in the tourism industry could be managed. This article reflects on the socioeconomic effects of the COVID-19 pandemic on community-based tourism in the Andaman Sea coastal region connecting with the main tourist attractions of Southern Thailand while revealing the situation in the area before the pandemic, the community adaptations amid the infection period and offering a plan for recovery strategies for resilience after COVID-19. The data were collected through focus group discussions and interviews from December 2021 to March 2022 in nine tourism communities in three provinces of the Andaman Sea tourism region; purposive sampling was conducted to collect data with ten representatives of each community and relevant tourism organizations. Results reveal that in normal times, tourism is a supplementary occupation that generates more income than the main occupation. The socioeconomic impacts amid the pandemic were mixed, with positive and negative effects. Communities located in adjacent cities were more severely affected. Most Community Based Tourism (CBT) members suffered from incurred liabilities and a loss of previously received income, but as the government relaxed restrictions, certain communities gained new tourist groups. This study recommends that community-based tourism be supported to recovery, including restoration, new tour program designs, online marketing, a quality focus on local products, and skills training. Improvements to infrastructure and community hygiene standards are also needed for community tourism after the pandemic.

## INTRODUCTION

World travel and tourism will take time to recover from the outbreak of COVID-19 in late December 2019 in the seafood wholesale market of the city of Wuhan, China (Wut et al., 2021). The coronavirus pandemic has caused a significant decline in travel worldwide, with international travel falling more than 70% below UNWTO expectations in 2020. In addition, sixty-two million jobs have been lost, mostly in small and medium-sized businesses, which account for 80% of all international businesses in travel and tourism (The World Tourism Organization, 2020; World Travel & Tourism Council, 2021). The tourism industry has played a significant role in increasing global GDP, and its performance has been rising continuously. According to a study by Deutschland, Austria, and Confederation Helvetica (DACH), the travel and tourism industries are expected to contribute 5.1 trillion dollars to GDP between 2018 and 2020 (Abbas et al., 2021). Tourism is a product that differs from others and cannot be delivered to customers; instead, they must come to touch and experience it for themselves. Restrictions from the pandemic affected both international and domestic tourism supply chains, including travel, airports, accommodation, restaurants, MICE events, and both indoor and outdoor activities (Gössling et al., 2020). COVID-19 has not only created an impact on the world travel and tourism economy, but it has also impacted the rights of consumers and access to hospitality and tourism both domestically and internationally (Baum and Hai, 2020). Domestic tourists may visit natural attractions such as islands, beaches, highlands, and forests following the pandemic (Wu et al., 2020), and the business model after COVID-19 may need to be redesigned and reorganized due to market conditions, including workplace reductions (Kaushal and Srivastava, 2021). Orîndaru et al. (2021) concluded that COVID-19 influenced tourists' travel patterns as they sought to avoid large groups and crowded areas in the middle term of the outbreak, so the conditions that influence travel decisions depend on hygiene and health in the host destinations. The mountain areas associated with wellness tourism attract visitors who want to be close to nature for good air quality and well-being, while seaside and countryside areas are the choices of those who want to

leave the cities for safer places (Seraphin and Dosquet, 2020). Furthermore, the COVID-19 pandemic has had a significant impact on the community economy and society, including the collapse of the local economy, business closures, job creation opportunities, a pause in social activities, and a reduction in tourism activities (Abbas et al., 2021; Soliku et al., 2021).

CBT is the part of the tourism industry that involves small-scale business organizations managed by local community members, which is different from the general tourism industry, normally controlled by large-scale companies (Noorashid and Chin, 2021). The current study revealed that there are more than fifty-seven community-based tourism villages along Thailand's Andaman coastline in six provinces: Ranong, Phang-Nga, Phuket, Krabi, Trang, and Satun. The prominent points of CBT along the Andaman coastline include being close to Andaman's main destinations, being on mainstream tourism routes, and being capable of connecting the Indian Ocean Andaman coast with the Pacific Ocean Thai Gulf coast as well. It services the basic tourism supply chains: homestays, ecolodges, local food, local transportation, cultural performances, and local guides (Chaiyakot et al., 2016). The government officially declared a lockdown to prevent the COVID-19 pandemic on March 26, 2020. The large-scale tourism industries and the world-class destinations in the area—Koh Lanta, Ao Nang, Rai Lay, Phang-Nga Bay, Phuket Island, and Khao Lak—were unavoidably affected by the pandemic situation. The coronavirus outbreak also affected the CBT, formed from small and medium-sized enterprises, village clubs, or networks of units within the community. Since CBT areas are located close to the main tourist attractions on the Andaman coast, they have lived on tourists who are the clients of those well-known destinations. Therefore, most customers were international tourists passed along by nearby hotels and local tour operators. However, the pandemic has reduced community tourism productivity; dealing with negative crises can be accomplished through crisis management, which can reduce the impact of the crisis, rehabilitate the tourism sector, and ensure the safety of tourists and the community (Novelli et al., 2018). Therefore, this paper aims to compare nine CBT enterprises located on the Andaman coast, investigating the situation one

year before the pandemic and considering the effects of the COVID-19 pandemic on CBT and the ways to improve resilience in this sector to address situations such as the COVID-19 pandemic and other crises in the future (Soliku et al., 2021).

#### **The objective of the study**

- Socio-economic effects of the pandemic on community-based tourism along the Andaman shoreline.
- Improving community-based tourism in the area to remain resilient and resistant to the COVID-19 pandemic.

### **LITERATURE REVIEW**

#### **Community-based tourism**

The tourism sector has been discussed intensively in terms of sustainable development, such as development providing socio-economic profits, protecting the environment in tourist destinations, improving the quality of life of people in the tourist destinations, meeting the needs of tourists, and enhancing opportunities for the future (Lee, 2013). The CBT uses the competencies of people in the community to manage cultural and intellectual resources, and it has been used as a crucial tool to develop and manage tourism for sustainability (Jirojkul et al., 2021; Sebele, 2010). Literature indicates that CBT management depends on the interpretation of different components; it is a type of sustainable tourism development managed by the community and intended to deliver community benefits (Goodwin and Santilli, 2009; Harwood, 2010; Suansri et al., 2003). Participation of key stakeholders and refining the decision-making process for destination planning and management is essential for community-based areas because it provides better opportunities to benefit from tourism development, positive attitudes, empowerment, and local resource conservation (Jamal and Getz, 1995; Jain and Triraganon, 2000; Juma and Khademi-Vidra, 2019). It also encourages cooperation between outside organizations, public administrations, Non-Governmental Organizations (NGOs), and the private sector to facilitate the protection of natural and socio-cultural resources and improve the welfare of local people while enabling tourists to better understand the neighborhood and local ways of life and enhancing

financial gain and market access (Asker et al., 2010; Hussin and Kunjuraman, 2014; Chaiyakot et al., 2016). The CBT fundamental principles are re-introduced by Giampiccoli et al. (2017), who summarise that the CBT fundamentals comprise 8 "E" concepts: endogenous, education, empowerment, equity, evolving, enduring, and entrepreneurship. Furthermore, according to Sebele (2010), CBT has become a critical opportunity for employment and creates alternative survival for local people; thus, it means reducing poverty in rural areas by preparing employment for permanent and casual local people.

#### **Tourism crisis management**

Crisis management was created to keep organizations and stakeholders safe from harm. There are three major stages: pre-crisis, crisis, and post-crisis (Jia et al., 2012). However, crises are not only seen as dangerous since they also bring opportunity (Devlin, 2006). Tourist attractions are vulnerable to crises such as natural disasters and contagious diseases, and the impact is always negative (Zhong et al., 2021). Crises and disasters are recognized vulnerabilities for the tourism industry, especially concerning international arrivals (Ritchie and Jiang, 2019). The crises and disasters in modern tourism are inherent in natural disasters, economic recessions, political chaos, health scares, terrorism, and other phenomena that negatively affect tourism flows (Speakman and Sharpley, 2012). The complexity of the impact of crises and disasters on tourism depends on their nature, magnitude, and scale (Backer and Ritchie, 2017). It can be stated that slow or quick recoveries from the impact of crises depend on the incidents: manufactured crises such as terrorism do not require a long time for recovery, but on the other hand, natural disasters like an earthquake may take years for a region to recover. Certain crises, such as the Ebola transmission in The Gambia, make it exceedingly difficult to recover as a tourism destination, although the area might not be directly affected (Novelli et al., 2018). Personal and physical security perceptions influence the decisions and selections of tourists (Lepp and Gibson, 2003). Travel and tourism can be conducive to spreading the pandemic through close contact between people at a conversational distance as infectious particles pass through the air (The World Tourism Organization, 2021; Page et al., 2006). Kuo

et al. (2008) explained that during the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak in East Asia, 774 people died, exemplifying the connection between the tourism industry and infectious diseases (Henderson and Ng, 2004). Destinations must have proactive plans and strategies to formulate, evaluate, and control decision-making (Novelli et al., 2018). Paraskevas and Altinay (2013) concluded that crisis recovery must have been made by re-creating the destination's image through crisis communications and marketing initiatives to re-establish tourist confidence. This involves implementing specific business strategies and setting up a crisis and disaster management team, while in addition, the destinations and hospitality organizations need to plan to prepare for future crises. According to Wut et al. (2021), the tourism industry could recover its business by rebuilding the confidence of tourists and guests who suffer from health-related issues, including COVID-19.

## STUDY CONTEXT

Provinces in the Andaman Sea region consist of Krabi, Phang-Nga, Phuket, Ranong, Trang, and Satun, and they were hit by the giant tsunami wave, which is a terrible natural disaster that caused destruction and human tragedy, suffering the affected people, and damaging the community's way of life (Nidhiprabha, 2007). For decades, the tourism and service industry has had a positive impact and significantly contributed to the provinces' economy on the Andaman coastline, from international investors to grassroots people. It is a major pillar of the economy's GDP (Abbas et al., 2021; Bariscil et al., 2017). Before the COVID-19 pandemic, the number of international tourists in the Andaman Sea region increased steadily and to a greater extent than domestic tourists. The six provinces of the Andaman Sea received tourists and visitors in 2019, numbering 30,365,135 in total (Table 1) (Ministry of Tourism & Sport, 2020).

**Table 1: Comparison tourism statistics 2019-2020 in the Andaman Sea provinces**

Province	Total Visitor			Thai			Foreigner		
	2019	2020	%	2019	2020	%	2019	2020	%
Krabi	6,759,836	1,562,880	- 76.88	2,447,230	935,622	- 61.77	4,312,606	627,258	- 85.46
Phang-Nga	4,905,309	1,213,421	- 75.26	1,434,895	638,824	- 55.48	3,470,414	574,597	- 83.44
Phuket	14,576,466	4,003,290	- 72.54	3,977,545	1,892,436	- 52.42	10,598,921	2,110,854	- 80.08
Ranong	1,003,731	393,022	- 60.84	947,354	378,251	- 60.07	56,377	14,771	- 73.80
Trang	1,563,563	648,092	- 58.55	1,367,727	599,052	- 56.20	195,836	49,040	- 74.96
Satun	1,556,230	812,549	- 47.79	1,371,526	774,428	- 43.54	184,704	38,121	- 79.36



**Figure 1: The map of study areas**

There are 38 CBT sites in the Andaman Sea Tourism Developing Region (ASTDR), used to improve socio-economic conditions and quality of life, manage tourism for sustainability, and conserve and enhance communities' natural and cultural heritage. The similar terrain provides similar tourism activities: long-tailed boating to visit islets for snorkeling; kayaking to explore mangrove forests; painting batik; visiting agri-aqua farms; CSR activities (planting

seagrass and mangroves; collecting ocean plastic; and building fish houses); and tasting local food (Chaiyakot et al., 2016). The CBT sites are located close to five main destinations in the Andaman region: Koh Lanta, Rai Lay, Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak were used as study areas, containing the villages of Thung Yi Peng, Ban Na Teen, Nai Nang, Ban Tham Sua, Laem Sak, Khok Krai, Sam Chong Nua, Tha Din Daeng, and Thale Nok (Table 2).

**Table 2: The CBT in study areas connecting with main destinations in the Andaman Sea**

Sample	Community	Connected Tourist Attractions
N1	Thung Yi Peng	Koh Lanta
N2	Ban Na Teen	Rai Lay beach and Ao Nang
N3	Nai Nang	Rai Lay beach and Ao Nang
N4	Ban Tham Sua	Rai Lay beach, Ao Nang and Phang-Nga Bay
N5	Laem Sak	Ao Nang and Phang-Nga Bay
N6	Khok krai	Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak
N7	Sam Chong Nua	Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak
N8	Tha Din Daeng	Phuket Island, and Khao Lak
N9	Thale Nok	Khao Lak

## RESEARCH METHOD

### Selection of cases and participants (CBT in the Andaman coast)

This study selected the CBT, connected to the main tourist attractions, the well-known worldwide luxury destinations in the Andaman Sea, Thailand. Phuket is the most popular Andaman Sea destination for international tourists seeking "sea, sand, and sun," with tourism infrastructure development, including luxury and five-star hotels, western restaurants, executive clubs, golf courses, and an international airport. At the same time, Krabi and Phang-Nga have abundant natural resources, such as beautiful beaches, mangrove forests, and dozens of islands in Phang-Nga. Phuket's tourism industry has expanded, as has the number of international visitors.

*Koh lanta:* Tung Yi Peng, a Muslim fishing village located in the southeast of Krabi on Koh Lanta on the island's east coast, is surrounded by mangrove forests. Kayaking and long-tail boat rides have drawn European tourists who spend much of their leisure time on the white sand beach on the island's west coast for half-day tours.

*Rai lay and ao nang:* Nateen, Nai Nang, Ban Thum Sue, and Laemsak are Andaman Seaside villages with international hotel chains near Rai Lay Beach and

Ao Nang Beach. They are the gateway to Maya Bay and Phi Island from Krabi and are on the nomad list. The income of local people in the tourism community is earned from rubber plants, oil palms, orchards, fishing, and employment in the tourism industry. The CBT offers hotel clients half-day and one-day tour programs via hotel arrangements and local tour operators. The activities include long-tailed boat rides to explore the mangrove forest and visit the White Sand Beach archipelagos; kayaking along the canal connecting the sea and seashore; batik painting; cooking classes; and local food tasting.

*Phang-nga bay and phuket island:* Khok Krai and Ban Sam Chong Nua are Muslim fishing villages like Tung Yi Peng and Nateen. Still, they have the advantage over these CBT villages as they are located between Krabi (Rai Lay and Ao Nang) and Phuket Island while also being close to Phang-Nga Bay. They have received tourists from the three main destinations of the Andaman Coast-Ao Nang, Phang-Nga Bay, and Phuket Island, and tour programs have often been sold by tour operators in Khao Lak. Aside from study trips for agricultural groups in Ban Sam Chong Nua village, their tourism services remain the same as in other CBT areas.

*Khao lak:* Community topography includes villages

such as Tha Din Daeng and Ban Talay Nok, which are similar to those previously mentioned and are surrounded by mangrove forests, mud beaches, and a Muslim fishing community. Both villages were disastrously swept away by the 2004 Indian Ocean Tsunami. The tourism industry's infrastructure in Khao Lak was hit particularly hard, especially the beachfront hotels. The tourism plans, such as agriculture and aquaculture, had been created to restore villages. Kayaking, long-tail boat rides to explore the islands, homestays, painting, and cooking classes were designed as tour programs for international tourists who stay in the luxury hotels of Khao Lak.

### **Data collection**

The study is fundamentally qualitative and primarily used purposive sampling, semi-structured interviews, Focus Group Discussions (FGD), and a review of secondary sources to collect data. The two FGDs were conducted in Laemsak village for communities located in Krabi with the representatives of five Krabi CBT sites and in Sam Chong Nua village for four Phang-Nga and two Ranong CBT sites (Table 1), whose ways of life are directly connected to community-based tourism management.

The Laemsak FGD consisted of twelve individuals, eight men and four women, while Sam Chong Nua comprised ten CBT representatives, six males and four females. All the participants in both areas served as the CBT administrative team and were also rubber and oil palm plantation owners and local fishermen. A roundtable discussion was conducted with participants (Bardhan et al., 2019) as the FGD aimed to collect data about the community-based tourism situation one year before the pandemic, about how CBT members adapted amid the COVID-19 pandemic and about plans for the recovery of tourism after the COVID-19 situation eases. Selected participants were from similar backgrounds and were representatives of the CBT administrative team. They shared experiences related to the research topic. While the government and private sectors were selected due to their missions in running CBT operations in provinces. The meeting room was open, kept at a distance, and intimately designed so participants could feel at ease brainstorming (Hennink, 2014; Pathumporn et al., 2015).

Semi-structured interviews were conducted with National Tourism Organization officials (NTOs), the Provincial Tourism and Sports (PTS) Office, the Designed Area for Sustainable Tourism Administration (DASTA), the Tourism Authority of Thailand (TAT) Regional Office, and the Provincial Community Development (CD) Office, as well as local tour operators who have contracts with CBT. The interview participants were selected based on the research study as well as their knowledge and experience of the phenomenon under investigation and their ability to capture the meaning of the phenomenon under their consideration (Creswell and Clark, 2017; Bicular, 2022; Ullah et al., 2021). The asked questions were grounded by Noorashid and Chin (2021) and Soliku et al. (2021) to acquire deeper COVID-19 information to understand the current situation of CBT in the Andaman coastline from the perspective of key players (CBT representatives and relevant organizations), which focused on tourists' opinions about CBT rehabilitation after the COVID-19 pandemic, including tourist attraction restoration, tourism promotion, and freshly-designed tour activities.

### **Data analysis**

All FGDs and semi-structured reviews were recorded in the native language with the consent of all participants, and translation and transcription were then conducted into English. Content analysis was used to analyze and interpret the data, which entails making replicable and valid inferences from data to their context (Elo and Kyngäs, 2008). The phases of the process included initialization, construction, rectification, and finalization of the responses from the interviews and focused groups on reducing the similarities and variations in the content (Mazaheri et al., 2013; Vaismoradi et al., 2016). Similar responses were classified according to heading or theme after they had been coded. For example, the question about the tourism situation one year before the pandemic generated diverse answers. Responses similar or close in substance were grouped, e.g., closure of villages, lack of supplementary incomes, and online sales, and were classified or labeled as "CBT impact amid COVID-19." The quotations from the interviews and FGDs were used to reflect on the participants' voices for trustworthiness and show

connections between the data and results (Elo et al., 2014).

## **RESULTS AND DISCUSSION**

### **CBT in the ASTDR before the COVID-19 pandemic**

CBT was formulated from different groups in the community, i.e., local fishing boats, kayaks, community forests, batik, basketwork, processed food, agriculture, and homestays, and certain groups registered as community enterprises, which were firmly tied to tourism groups and designed their tourism routes. Foreign visitors are interested in the natural environment in developing countries (Sánchez-Prieto, Luna-González, Espinoza-Tenorio, & González-Ocampo, 2021), so ecotourism activities in the Andaman Sea community consist of the long-tailed boat "Hua tong" rides and kayaking, biking, snorkeling beside the islet, and exploring caves. The local experience tourism programs were designed around the local way of life: homestays, slitting rubber, painting batik, dying with bark, cooking classes, stirring herbal soap, beekeeping, and trawling, as well as local cultural activities like the traditional wedding ceremony (Table 5). Aquaculture floating basket learning centers and general activities are being established in some communities (N7). The wellness services, such as the early-morning sunbath or the mud spa, were provided to tourists. Other options at the same time included growing seagrass and mangroves and preparing ocean plastic collections for volunteer organizations. Foreign tourists from the western market (United Kingdom, Germany, France, the Netherlands, Russia, and Scandinavia) and China visited from major destinations in the Andaman Sea-Koh Lanta, Rai Lay, Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak; 2) domestic; and 3) study groups, which were mostly subsidized by local administrative organizations, agricultural organizations, and tourism organizations. The

services and products that generated the main income for CBT from general tourists consisted of long-tailed boats, kayaking, meals, and accommodation; however, the study group spent significantly on souvenirs, meals, and lecturer fees for each learning base.

### **The impact of COVID-19 upon CBT in the ASTDR**

The Thai Prime Minister declared an emergency in all areas of the Kingdom of Thailand due to the highly contagious disease, Coronavirus 2019, or COVID-19, coming into effect on March 26, 2020 (Office of the Council of State, 2020). Like other places, every CBT site in the ASTDR was unavoidably closed to prevent disease transmission from tourists to people in the community. Sectors of agriculture, hotels, restaurants, and transportation have continuously driven the provinces' economies in the Andaman Sea region (Bank of Thailand, 2014). Most CBT members originate from agricultural and aquacultural societies, which are not similar to the tourism industry, which focuses on service work. The locals returned to their original occupations: fishing, rubber slitting, oil palm collection, working as employees, online product sales, etc. (Table 5). However, certain communities have received loans for expanded businesses such as homestay decoration, long-tailed boats, safety equipment, etc., to welcome an increasing number of tourists before the pandemic. Additionally, COVID-19 has intensely affected the tourism business sectors in Andaman provinces because the tourism sector continuously generates the main income. In 2020, the tourism earnings of each Andaman coastline province suddenly plunged (Table 1). The negative impacts of the spread of COVID-19 are as follows: "Tourism is an additional occupation, but it generates more income than the main occupation" (N6). "We had to sell our long-tailed boat to pay the debt incurred before the spread of COVID-19" (N1). "Agriculture and fisheries products were not kept for an extended period and were inexpensive because they had not been sold to restaurants and hotels" (N2).

**Table 3: The CBT in the ASTDR before the COVID-19 pandemic**

Community Groups	Related to Tourism in the Community	Tourism Activities	Tourists	Main Income
N1	<ul style="list-style-type: none"> <li>- Agricultural Housewife</li> <li>- Local community fisheries organization</li> <li>- Community forest organization</li> <li>- Local administrative organization</li> </ul>	<ul style="list-style-type: none"> <li>- Morning sunbath</li> <li>- Paddling boat</li> <li>- Kayaking in mangrove forest</li> <li>- Fishing</li> <li>- Snorkeling</li> <li>- Bird watching</li> <li>- Building fish houses</li> <li>- growing seagrass</li> <li>- cooking class</li> <li>- Biking</li> <li>- Rubber slitting</li> <li>- Batik painting</li> <li>- Dying</li> <li>- Homestay</li> <li>- Study tour (CBT management)</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists in Koh Lanta</li> <li>- Domestic</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat</li> <li>- Kayak</li> <li>- Paddling boat</li> <li>- Community Guide</li> </ul>
N2	<ul style="list-style-type: none"> <li>- Coconut shell - Model boat</li> <li>- Processed seafood</li> <li>- Homestay</li> <li>- Grazing Group</li> <li>- Bio-fertilizer</li> <li>- Hand-baked rice</li> <li>- Herbal garden</li> <li>- Batik</li> <li>- Local community fisheries organization - Goat farm</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Eating local food</li> <li>- Beekeeping</li> <li>- Team building</li> <li>- Folk culture show</li> <li>- Wedding ceremony arrangement</li> <li>- Mud spa</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists from Rai Lay and Ao Nang</li> <li>- Domestic</li> <li>- Study group</li> </ul>	<ul style="list-style-type: none"> <li>- Meal and beverage</li> <li>- Homestay</li> <li>- Souvenirs (processed products)</li> <li>- Lecturer fee</li> </ul>
N3	<ul style="list-style-type: none"> <li>- Beekeeping</li> <li>- Mixed farm fields</li> <li>- Processed products</li> <li>- Mangrove conservation</li> <li>- Carp bank</li> <li>- OTOP (one tambon (subdistrict) one product)</li> <li>- Dying</li> <li>- Batik</li> <li>- Local food</li> <li>- Wicker from palm leaves</li> <li>- Scallop</li> <li>- Orchid conservation</li> <li>- Shrimp paste</li> <li>- Batik</li> <li>- Seaweed</li> <li>- Long-tailed boat</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Eating local food</li> <li>- Beekeeping</li> <li>- Team building</li> <li>- Folk culture show</li> <li>- Wedding ceremony arrangement</li> <li>- Mud spa</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists from Rai Lay and Ao Nang</li> <li>- Domestic</li> <li>- Study groups</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat</li> <li>- Kayak</li> <li>- Meal</li> <li>- Homestay</li> <li>- Souvenirs (processed products)</li> <li>- Meal</li> <li>- Accommodation</li> <li>- Lecturer fee</li> <li>- Long-tailed boat</li> <li>- Souvenirs (processed products)</li> </ul>
N4	<ul style="list-style-type: none"> <li>- Local food</li> <li>- Wicker from palm leaves</li> <li>- Scallop</li> <li>- Orchid conservation</li> <li>- Shrimp paste</li> <li>- Batik</li> <li>- Seaweed</li> <li>- Long-tailed boat</li> </ul>	<ul style="list-style-type: none"> <li>- Team building</li> <li>- Folk culture show</li> <li>- Wedding ceremony arrangement</li> <li>- Mud spa</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists from Ao Nang and Phang-Nga Bay v - Domestic: Study groups and MICE</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat</li> <li>- Kayak</li> <li>- Meal</li> <li>- Homestay</li> <li>- Souvenirs (processed products)</li> <li>- Meal</li> <li>- Accommodation</li> <li>- Lecturer fee</li> <li>- Long-tailed boat</li> <li>- Souvenirs (processed products)</li> </ul>
N5	<ul style="list-style-type: none"> <li>- Local food</li> <li>- Wicker from palm leaves</li> <li>- Scallop</li> <li>- Orchid conservation</li> <li>- Shrimp paste</li> <li>- Batik</li> <li>- Seaweed</li> <li>- Long-tailed boat</li> </ul>	<ul style="list-style-type: none"> <li>- Team building</li> <li>- Folk culture show</li> <li>- Wedding ceremony arrangement</li> <li>- Mud spa</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists from Ao Nang, Phang-Nga Bay, and Phuket Island</li> <li>- Domestic</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat</li> <li>- Kayak</li> <li>- Meal</li> <li>- Accommodation</li> </ul>
N6	<ul style="list-style-type: none"> <li>- Local community fisheries organization</li> <li>- Agricultural housewife</li> <li>- Processed products</li> <li>- Kayak</li> <li>- Resources crisis</li> <li>- Food processing</li> <li>- Dying</li> <li>- Decoration</li> <li>- Clothes</li> <li>- Homestay</li> <li>- Tour boat</li> <li>- Long-tailed boat</li> <li>- Kayaking</li> <li>- Hydroponic vegetables</li> <li>- Homestay</li> <li>- Seafood processing</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Fishing</li> <li>- Village walk</li> <li>- Long-tailed boat rides</li> <li>- Shopping for local products</li> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Homestay</li> <li>- Painting batik</li> <li>- Stirring herbal soap</li> <li>- Sewing</li> <li>- Making dessert</li> <li>- Trawling</li> <li>- Eating local food</li> <li>- Long-tailed boat rides</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists from Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak</li> <li>- Domestic</li> <li>- Study groups</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat</li> <li>- Meal</li> <li>- Souvenirs (processed products)</li> <li>- Souvenirs (processed products, clothes)</li> <li>- Tour boat</li> <li>- Kayaking activities</li> <li>- Meal</li> <li>- Homestay</li> <li>- Long-tailed boat</li> <li>- Kayaking</li> <li>- Meal</li> <li>- Homestay</li> <li>- Long-tailed boat</li> </ul>
N7	<ul style="list-style-type: none"> <li>- Local community fisheries organization</li> <li>- Agricultural housewife</li> <li>- Processed products</li> <li>- Kayak</li> <li>- Resources crisis</li> <li>- Food processing</li> <li>- Dying</li> <li>- Decoration</li> <li>- Clothes</li> <li>- Homestay</li> <li>- Tour boat</li> <li>- Long-tailed boat</li> <li>- Kayaking</li> <li>- Hydroponic vegetables</li> <li>- Homestay</li> <li>- Seafood processing</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Fishing</li> <li>- Village walk</li> <li>- Long-tailed boat rides</li> <li>- Shopping for local products</li> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Homestay</li> <li>- Painting batik</li> <li>- Stirring herbal soap</li> <li>- Sewing</li> <li>- Making dessert</li> <li>- Trawling</li> <li>- Eating local food</li> <li>- Long-tailed boat rides</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists from Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak</li> <li>- Domestic</li> <li>- Study groups</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat</li> <li>- Meal</li> <li>- Souvenirs (processed products)</li> <li>- Souvenirs (processed products, clothes)</li> <li>- Tour boat</li> <li>- Kayaking activities</li> <li>- Meal</li> <li>- Homestay</li> <li>- Long-tailed boat</li> <li>- Kayaking</li> <li>- Meal</li> <li>- Homestay</li> <li>- Long-tailed boat</li> </ul>
N8	<ul style="list-style-type: none"> <li>- Local community fisheries organization</li> <li>- Agricultural housewife</li> <li>- Processed products</li> <li>- Kayak</li> <li>- Resources crisis</li> <li>- Food processing</li> <li>- Dying</li> <li>- Decoration</li> <li>- Clothes</li> <li>- Homestay</li> <li>- Tour boat</li> <li>- Long-tailed boat</li> <li>- Kayaking</li> <li>- Hydroponic vegetables</li> <li>- Homestay</li> <li>- Seafood processing</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Fishing</li> <li>- Village walk</li> <li>- Long-tailed boat rides</li> <li>- Shopping for local products</li> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Homestay</li> <li>- Painting batik</li> <li>- Stirring herbal soap</li> <li>- Sewing</li> <li>- Making dessert</li> <li>- Trawling</li> <li>- Eating local food</li> <li>- Long-tailed boat rides</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists from Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak</li> <li>- Domestic</li> <li>- Study groups</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat</li> <li>- Meal</li> <li>- Souvenirs (processed products)</li> <li>- Souvenirs (processed products, clothes)</li> <li>- Tour boat</li> <li>- Kayaking activities</li> <li>- Meal</li> <li>- Homestay</li> <li>- Long-tailed boat</li> <li>- Kayaking</li> <li>- Meal</li> <li>- Homestay</li> <li>- Long-tailed boat</li> </ul>
N9	<ul style="list-style-type: none"> <li>- Local community fisheries organization</li> <li>- Agricultural housewife</li> <li>- Processed products</li> <li>- Kayak</li> <li>- Resources crisis</li> <li>- Food processing</li> <li>- Dying</li> <li>- Decoration</li> <li>- Clothes</li> <li>- Homestay</li> <li>- Tour boat</li> <li>- Long-tailed boat</li> <li>- Kayaking</li> <li>- Hydroponic vegetables</li> <li>- Homestay</li> <li>- Seafood processing</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Fishing</li> <li>- Village walk</li> <li>- Long-tailed boat rides</li> <li>- Shopping for local products</li> <li>- Long-tailed boat rides</li> <li>- Kayaking</li> <li>- Homestay</li> <li>- Painting batik</li> <li>- Stirring herbal soap</li> <li>- Sewing</li> <li>- Making dessert</li> <li>- Trawling</li> <li>- Eating local food</li> <li>- Long-tailed boat rides</li> </ul>	<ul style="list-style-type: none"> <li>- Foreign tourists from Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak</li> <li>- Domestic</li> <li>- Study groups</li> </ul>	<ul style="list-style-type: none"> <li>- Long-tailed boat</li> <li>- Meal</li> <li>- Souvenirs (processed products)</li> <li>- Souvenirs (processed products, clothes)</li> <li>- Tour boat</li> <li>- Kayaking activities</li> <li>- Meal</li> <li>- Homestay</li> <li>- Long-tailed boat</li> <li>- Kayaking</li> <li>- Meal</li> <li>- Homestay</li> <li>- Long-tailed boat</li> </ul>



Certain tourism villages grew vegetables, processed the raw material from agriculture and fisheries, and sold it online through social media. Certain communities objected to the formation of a new tourism management group proposed by the local government. However, COVID-19 created opportunities for community tourism: "During the time the government eased restrictions, government agencies were improving the destination, adding

knowledge for finance and services, designing new packaging, and promoting villages through influencers," said N6, while N7 said that "tourists use government-sponsored travel vouchers to travel in the community." The COVID-19 pandemic brought family members back home after working in the main tourist cities, and the communities returned to rehabilitate tourism resources.

**Table 4: The CBT members' earnings amid the COVID-19 spread**

Income from	Community
Rubber plantations	N1, N3, N4, N8
Oil palm plantations	N3, N4, N5, N8
Coastal fishing	N1, N2, N3, N4, N5, N6, N7, N8, N9
Aquaculture	N6
Orchards	N9
Work as an employee	N2, N4, N5, N6, N7, N8, N9
Online sales of processed products	N1, N2, N5, N7
Online sales of virtual tourism programs	N3

#### **CBT recovery plan after the COVID-19 pandemic**

The management plan can be divided into six aspects (Table 6) for the recovery of CBT sites in the ASTDR after the disease. New destination development and rehabilitation include new tourism routes, marketing activities, low-carbon tourism activities, quality and standard community products, and up-skilling of CBT members. The new tourism routes and activities should be designed for the new normal tourists targeting the domestic group: agricultural tourism, cultural tours, and activities related to health care. Alternative energy, such as wind turbines, is sustainable for communities adjacent to the seashore to supply power for accommodation and restaurants (Pongwan et al., 2022) and can save energy for long-tailed boats and shuttle bus services in villages to respond to the concept of low-carbon tourism. The new public relations and marketing activities can merge to revive existing markets, promote digital marketing, and build a brand of community products to become more widely known. "The impact was due to the COVID-19 pandemic; it's the lesson learned that the community can survive if they have products made from the raw materials and local wisdom of people in the community; they could be sold online while the tourists are unable to walk around the community" (said N1). Community products that are processed, such as crops and seafood, should be standardized in terms of taste, cleanliness, and

packaging. The potential development of CBT area members can be achieved through a curriculum for community development, building youth skills for tourism work, and establishing a new committee structure for CBT management. However, government organizations involved in CBT have divided recovery into three stages. The first phase is creating awareness among tourists by presenting and selling community products through online channels. The Designated Areas for Sustainable Tourism Administration (DASTA) posts images of products and services on the pages and websites of branch offices to assist entrepreneurs and communities. The second phase, which involves rebuilding client confidence in the safety, security, and hygiene standards of CBT (Wu et al., 2021), applies the standards for epidemic prevention from the Safety and Health Administration (SHA) to CBT as well. The final stage involves gathering data from marketing and tourist travel behaviors to develop new marketing strategies and collaborate with related partners. It can be used to estimate the recovery time of the tourism industry after COVID-19 ends (Wachyuni and Kusumaningrum, 2020). Thus, countries and businesses should have crisis management plans, including communication and marketing campaigns to promote tourism in existing and new markets (Novelli et al., 2018; Ritchie and Jiang, 2019).

**Table 5: Recovery plan after COVID-19 for CBT sites in the ASTDR**

Recovery plan after COVID-19	Community
Developing and rehabilitating new destinations	N1, N2, N3, N4, N7, N8, N9
Designing new tourism routes and activities	N2, N5, N6, N8
Developing activities for low-carbon tourism	N1, N2, N4, N5, N6
Adding new public relations and marketing activities	N1, N3, N4, N6
Developing quality and standard of community products	N1, N5, N6, N7, N8, N9
Developing the potential and skills of CBT members	N7, N8, N9

## CONCLUSION

Community-based tourism in three provinces of the Andaman Sea Tourism Developing Region was formulated by different groups in the community. Before the COVID-19 pandemic, they received their tourists from major attractions along the Andaman Sea: Koh Lanta, Rai Lay, Ao Nang, Phang-Nga Bay, Phuket Island, and Khao Lak. The CBT clients were foreigners, domestic tourists, and study groups, respectively. The services of long-tailed boats, kayaks, meals, souvenirs, and accommodations continuously generated significant income for the tourism community, while certain communities earned more from tourism than from their main occupations. All the CBT sites were closed amid the COVID-19 pandemic, so their members returned to their original occupations: fishing, rubber slitting, oil palm collection, and working as employees or in orchards. All the community members made the same comment: "CBT is just a supplementary occupation." The impacts, however, of COVID-19 were different among the communities. The communities located near cities were more severely affected than those outside.

Most CBT members suffered from incurred liabilities and a loss of previously received income, but the pandemic only partially eliminated opportunities because certain communities gained new tourist groups as the government relaxed restrictions. The recovery plans after COVID-19 for community-based tourism comprised the restoration of destinations and new destinations, improving tour programs to promote domestic tourism (Soliku et al., 2021; Saravanan et al., 2022), increasing low-carbon tourism activities, promoting online marketing, raising the quality and standard of community products, and conducting skill training for CBT members. Findings from this study imply that the consequences of the COVID-19 pandemic include

negative and positive impacts on CBT members in the ASTDR during a crisis, which will require the related organizations, governments, and non-governmental bodies to provide financial support to improve infrastructure and community hygiene standards. In addition, future studies are recommended to examine the adaptation of CBT to accommodate domestic tourists.

The results of this study show that the COVID-19 pandemic's effects on CBT members in the ASTDR during the crisis negatively impacted those effects. Although one community had a slight advantage, it was only temporary. This will require the related organizations, governments, and non-governmental bodies to provide financial support to improve infrastructure, and community hygiene standards, promote domestic tourism, improve staff quality, and transfer to digital technology. To resolve crises, the community also requires collaboration at multiple levels. During COVID-19, there are limited resources for CBT operations.

Still, this study has provided new perspectives in reviewing community-based tourism more holistically, highlighting community-based tourism management and local nature and cultural resources along the Andaman coastline. This report also discussed the COVID-19 impacts on CBT management and the recovery plan in the post-COVID-19 period. Thus, future studies are recommended to examine the adaptation of CBT to accommodate domestic tourists.

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