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## **COASTAL FISHERY PROBLEMS AFFECTING INCOME IN THE CANAL-SIDE COMMUNITY, VILLAGE 2, KHLONG YAI SUBDISTRICT, LAEM NGOP DISTRICT, TRAT PROVINCE**

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### **Abstract**

This qualitative research aims to: 1. Study the background of the canal-side community of Village 2, Khlong Yai Subdistrict in Laem Ngop District, Trat Province. 2. Examine the coastal fishery issues affecting the income. Data was collected through in-depth interviews. The collected data from both interviews and documents were analyzed descriptively. The study found that the community in Village 2 was originally established by people who valued their quality of life and migrated to this area due to its rich natural resources. To this day, no one has relocated from the area. However, coastal fishery problems continue to significantly impact the residents. Little to no assistance has been provided to address these issues. Currently, only a few still practice fishing, and the number continues to decline due to the rapid depletion of natural resources. In addition, not only have the resources diminished, but the ecosystem has also deteriorated. This has negatively affected both the quality of life and livelihoods of the community members.

**Keywords:** Coastal fishery, Impact, Income, Community, Trat Province

### **Introduction**

In the past, coastal fishing was the most common occupation chosen by communities living along the coastlines. This practice was popular in rural areas due to the nutritional value of aquatic animals, which are a vital source of protein and essential for human sustenance. Additionally, fish and other marine products were exported to neighboring countries. As demand for aquatic animals increased, their populations began to decline rapidly over a short period of time.

In the past, seafood was abundant and easily accessible, making it inexpensive. However, today prices are higher due to reduced supply and increased demand. Modern fishing communities now face livelihood challenges as their once-abundant fishing grounds have become depleted. Even with improved fishing equipment, the yields are significantly lower than before. This decline in income, coupled with rising expenses, has led to competition over limited marine resources.

Despite efforts to restrict the capture of juvenile marine species, results have been minimal. The natural growth of aquatic populations cannot keep up with human demand. If the situation continues, it will impact household income, marine biodiversity, and even international trade. The export of marine products to neighboring countries has already decreased.

Moreover, when marine and coastal resources are degraded, it severely affects the traditional way of life of local fishing communities. The declining availability of catchable marine species threatens their basic livelihood. In response, many small-scale fishermen have started seeking solutions to financial hardship and growing debt, while also engaging in the conservation and restoration of marine resources. Recently, there has been a growing awareness among these communities, leading to a sense of stewardship over their fishing grounds and traditional lifestyle. They have begun placing more importance on conservation and restoration efforts, hoping to bring abundance and sustainable income back to their communities in the future.

### **Objectives**

1. To study the background of the canal-side community in Village 2, Khlong Yai Subdistrict, Laem Ngop District, Trat Province.
2. To investigate the coastal fishery problems that impact income in the canal-side community in the Village

### **Research Methodology**

#### **1. Informants**

The key informants in this study were representatives from the local population in the canal-side community, Village 2, Khlong Yai Subdistrict, Laem Ngop District, Trat Province. A total of 7 individuals were selected using purposive sampling.

#### **2. Research Instruments**

The main research instrument was an interview guide concerning the coastal fishery issues that affect income in the canal-side community. The guide was divided into four sections:

- 1) Community Settlement History and Resource Use
  - 1.1) The history of community settlement.
  - 1.2) Changes in natural resources in the area over time.
  - 1.3) Natural resources affecting livelihoods.
- 2) Ideas and Actions for Addressing Problems and Managing Natural Resources  
What initiatives exist to help manage and resolve the issue?
- 3) Coping Strategies When Natural Resources Can No Longer Be Used
  - 3.1) When income opportunities decline, what are the coping strategies?
- 4) Other Suggestions  
Additional comments and recommendations from the participants.

### **Research Methodology**

In this study, the data collection process was designed based on qualitative research methodology. The data was collected through two main approaches: (1) the study and review of academic documents and information from digital media, and (2) the use of interviews discussions. The procedures are summarized as follows:

1. After developing and testing the interview form, the researcher conducted interviews with local residents in the target area using the finalized version of the form.
2. Once the interviews were completed, the researcher examined the interview forms for completeness and accuracy. The responses were then studied and analyzed qualitatively in the subsequent steps.

### **Data Analysis Method**

For this research, the collected data is categorized into two types:

- Primary data: Information gathered and recorded directly from the researcher's fieldwork.
- Secondary data: Information previously compiled by others from documents and academic sources.

The study uses both types of data for analysis through the **content analysis method**. This involves organizing, interpreting, and synthesizing the collected information in a descriptive manner. The aim is to explain the observed phenomena and analyze the data in alignment with the research objectives.

The analysis does not focus on numerical data but emphasizes in-depth, descriptive information. All sources are clearly referenced. The interview consisted of open-ended questions that were prepared in advance. A structured interview format was employed, using identical sets of questions in the same sequence for all participants.

The interviews were conducted with villagers from Village 2, Khlong Yai Subdistrict, Laem Ngop District, Trat Province, whose coastal fishing issues have affected their community income.

### **Results**

The researcher presents the findings based on qualitative data obtained from in-depth interviews with 7 key informants. These informants represent the local villagers who are affected by coastal fishing problems, which have impacted the income of the community along the canal in Village 2, Khlong Yai Subdistrict, Laem Ngop District, Trat Province. The narratives shared by the 7 villagers were analyzed using content analysis, leading to conclusions drawn from the responses given during the interviews. The results of this study are presented and discussed as follows:

#### **1. History of Settlement and Resource Use in the Area**

##### **1.1 History of Settlement**

Most of the villagers were originally from Koh Kong, having migrated due to the war. They moved to settle in the canal-side community. The majority of the residents are related by family. In the past, this area was a forest along the canal. When the settlers arrived, each family cleared the land for their own use, and at that time, the area was sparsely populated with few houses compared to the present. As more people settled here and realized that the area was safe, word spread, and the population grew. Once settled, fishing became the primary livelihood for the community, as the area was close to the sea and abundant in marine life in the past, with fewer fishermen compared to the present.

##### **1.2 Changes in Natural Resources Over Time**

Over the years, the natural resources in the coastal and marine areas have undergone several changes due to various factors, both human activities and environmental changes. The main changes identified include:

- 1) A decline in marine life due to overfishing and the use of inappropriate fishing gear.
- 2) Loss of mangrove forests and coral reefs.
- 3) Pollution from industrial activities, household waste flowing into the sea, oil spills, and plastic waste contaminating the ocean.
- 4) Climate change, resulting in rising sea levels and increased water temperatures.
- 5) Increased tourism and urban development, including the expansion of ports.

### 1.3 Natural Resources Impacting Livelihoods

The decline in marine life, including fish, shellfish, crabs, and shrimp, directly impacts the income and food security of fishermen. This may lead to economic difficulties and food shortages for coastal families. The reduction in marine life also affects the local seafood industry. Additionally, mangrove forests, which play a vital role in protecting the coastline from erosion and reducing the intensity of storm waves, are also being lost. Mangroves are a habitat for various marine species, which provide food and income for the community. Coral reefs, which serve as habitats for many marine creatures, are also in decline. The degradation of coral reefs could adversely affect tourism, as the destruction of these reefs impacts the marine ecosystem directly. Furthermore, climate changes, such as more frequent heavy rainfall, have affected the livelihoods of local residents by preventing them from going out to sea.

## 2. Ideas and Measures for Solving Problems and Managing Natural Resources

The establishment of local natural resource conservation groups is vital, focusing on the restoration and conservation of critical areas. The community participates in mangrove replanting, coral reef restoration, and the release of marine species back into the wild to increase marine life populations and restore ecosystems. Volunteer projects to clean the canal help reduce waste and marine pollution. Promoting environmentally friendly fishing practices, such as using sustainable fishing gear that minimizes environmental impact, seasonal fishing, and a ban on catching small or endangered species, is also essential. Training sessions and educational activities can help raise awareness and establish community agreements, such as prohibiting fishing in conservation zones, setting clear resource use guidelines, and collaborating with government agencies.

## 3. Plans for the Case of Inability to Utilize Natural Resources

### 3.1 Solutions when Income Channels Are Reduced

If income opportunities decrease, the community seeks alternative legal and appropriate livelihoods that provide additional income and support their families. Some people don't rely solely on fishing but also engage in other businesses that can be expanded, such as agriculture. People in this area with financial resources may buy land to grow rubber, durian, or other profitable crops, as Trat Province has fertile soil that allows for abundant crop production, which can be sold both domestically and internationally. If they don't have enough money, people may resort to small-scale trading or opening restaurants to earn a daily income and expand their business further. Those in very poor circumstances may take up regular jobs or migrate to other provinces for work, sending money back to their families.

## 4. Additional Suggestions

Support for fishermen should include providing alternative income sources. Promoting aquaculture and seafood product processing can reduce dependency on fishing as the sole livelihood. Establishing fishermen's groups or associations can help create networks for knowledge and experience exchange. Strengthening enforcement against illegal fishing practices is also necessary to ensure sustainable fishing practices.

## **Discussion**

### **1. Study of the History of the Community in Klong Village, Klong Yai Subdistrict, Laem Ngob District, Trat Province**

From the researcher's study, it is clear that the community's issues and way of life are similar across most of the findings. The settlement of this community was not in personal land but in state-owned land. The use of coastal fisheries resources for livelihood has changed over time, leading to degradation of coastal fisheries resources and a rapid decrease in marine life.

### **2. Study of the Issues of Coastal Fisheries Impacting Income in the Community**

The study reveals that the problems of coastal fisheries affecting the community's income have both positive and negative aspects that need careful consideration. If managed well, these issues can lead to sustainable benefits for both the community and the environment. At present, the community faces difficulties due to diminishing marine resources that were once abundant. Even with improved fishing tools and extended fishing hours, the abundance of marine life is declining. Government support is necessary to implement policies that address fishing laws and assist communities in improving the sustainability of fishing practices. Careful planning will help ensure the long-term sustainability of fisheries resources.

## **Recommendations**

### **1. Policy Recommendations**

1.1 From the study on solutions to the coastal fisheries problems affecting the income in Klong Village, Trat Province, it is recommended that environmentally friendly fishing practices be promoted. It is also essential to support supplementary income generation for the community, set fishing restrictions during crucial times, and seek government assistance to ensure long-term results. This will help coastal fisheries develop sustainably, protect marine resources, and maintain stable incomes for the community. It is important to raise awareness among current fishermen about the proper use of natural resources.

1.2 Based on the study of the community's history in Klong Village, Trat Province, it was found that overfishing, using various fishing tools that also damage coral reefs, has contributed to environmental degradation. To address this, relevant government agencies should intervene to monitor and provide education to local residents, promoting sustainable fishing practices.

#### **Sustainable Fisheries Policy**

##### **1. Policy for Releasing Aquatic Animals to Restore Fishery Resources**

The aim is to increase the population of aquatic animals in the wild to replace those depleted by overfishing, restore ecological balance, and promote the sustainability of the fishing profession. This will also provide additional sources of income for local fishing communities.

##### **2. Policy for Organizing Fisheries Management**

The aim is to support communities in creating sustainable fishing practices, reduce the impact on marine resources, and enhance the quality of life for fishermen. It also focuses on organizing and regulating fishing activities in accordance with the law.

## **Suggestions for Future Research**

1. Investigating the establishment of community fisheries management groups focused on conservation and resource restoration.

2. Developing sustainable fishing practices that do not damage ecosystems, and promoting fishing methods that minimize environmental impact.
3. Raising awareness about responsible fishing practices, considering the importance of preserving the environment and natural resources.

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